

**A SPECIES CATALOG OF THE MILLIPEDE FAMILY**  
**XYSTODESMIDAE**  
**(DIPLOPODA: POLYDESMIDA)**



**A SPECIES CATALOG OF THE MILLIPEDE FAMILY**  
**XYSTODESMIDAE**  
**(DIPLOPODA: POLYDESMIDA)**

Paul Marek  
Tsutomu Tanabe  
Petra Sierwald



*Virginia Museum of*  
**NATURAL HISTORY**

———— PUBLICATIONS ————

Special Publication 17  
Martinsville, Virginia  
2014

© 2014 Virginia Museum of Natural History, Martinsville, Virginia 24112.

ISBN 1-884549-36-5 (electronic)

Layout and production by Jessica Davenport.

*All rights reserved. No part of this work covered by the copyrights herein may be reproduced or used in any form or by any means—graphic, electronic, or mechanical—without the prior permission of the publisher. Any request for photocopying, recording, taping, or reproducing in information storage and retrieval of any part of this book should be directed in writing to the Publications Department, Virginia Museum of Natural History, 21 Starling Avenue, Martinsville, VA 24112*

The Virginia Museum of Natural History (VMNH) is located in Martinsville, Virginia and is an affiliate of the Smithsonian Institution. VMNH, an agency of the Secretary of Natural Resources of the Commonwealth of Virginia, is accredited by the American Association of Museums, and is a member of the Association of Science-Technology Centers and the Virginia Association of Museums. For more information, please call 276-634-4141 or visit our Web site at [www.vmnh.net](http://www.vmnh.net).



## CONTENTS

|                                                                                                                                                                                      |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| <b>Abstract</b> .....                                                                                                                                                                | <b>1</b> |
| <b>Keywords</b> .....                                                                                                                                                                | <b>1</b> |
| <b>Introduction</b> .....                                                                                                                                                            | <b>1</b> |
| Purpose.....                                                                                                                                                                         | 2        |
| Taxonomic history.....                                                                                                                                                               | 2        |
| The genus <i>Fontaria</i> Gray 1832.....                                                                                                                                             | 3        |
| <b>Materials and methods</b> .....                                                                                                                                                   | <b>3</b> |
| Conventions and acronyms.....                                                                                                                                                        | 4        |
| <b>Acknowledgements</b> .....                                                                                                                                                        | <b>5</b> |
| <b>Results</b> .....                                                                                                                                                                 | <b>5</b> |
| Taxonomy.....                                                                                                                                                                        | 5        |
| <b>Species-level classification of the millipede family Xystodesmidae</b> .....                                                                                                      | <b>6</b> |
| <b>Family Xystodesmidae Cook, 1895</b>                                                                                                                                               |          |
| <b>3 subfamilies: 1 North America, eastern Asia, eastern Russia, Mediterranean rim (Xystodesminae); 1 Japan (Parafontariinae); 1 Mediterranean rim, Ethiopia (Melaphinae).</b> ..... | <b>6</b> |
| <b>Subfamily Xystodesminae Hoffman, 1978</b>                                                                                                                                         |          |
| <b>10 tribes: 7 North and Central America; 1 China and northwestern U.S.; 1 eastern Asia, western U.S. and eastern Russia; and 1 Mediterranean rim.</b> .....                        | <b>6</b> |
| <b>Tribe Apheloriini Hoffman, 1980</b>                                                                                                                                               |          |
| <b>(17 genera, 116 species: eastern North America)</b> .....                                                                                                                         | <b>6</b> |
| <b>Genus <i>Apheloria</i> Chamberlin, 1921</b>                                                                                                                                       |          |
| <b>4 species</b> .....                                                                                                                                                               | <b>6</b> |
| <i>Apheloria luminosa</i> (Kenyon, 1893).....                                                                                                                                        | 7        |
| <i>Apheloria montana</i> (Bollman, 1887).....                                                                                                                                        | 7        |
| <i>Apheloria tigana</i> Chamberlin, 1939.....                                                                                                                                        | 7        |
| <i>Apheloria virginiensis virginiensis</i> (Drury, 1770).....                                                                                                                        | 8        |
| <i>Apheloria virginiensis corrugata</i> (Wood, 1864).....                                                                                                                            | 8        |
| <i>Apheloria virginiensis butleriana</i> (Bollman, 1889).....                                                                                                                        | 8        |
| <i>Apheloria virginiensis iowa</i> Chamberlin, 1939.....                                                                                                                             | 9        |

|                                                                  |           |
|------------------------------------------------------------------|-----------|
| <i>Apheloria virginiensis reducta</i> Chamberlin, 1939.....      | 9         |
| <b>Genus <i>Appalachioria</i> Marek and Bond, 2006</b>           |           |
| <b>4 species.....</b>                                            | <b>9</b>  |
| <i>Appalachioria eutypa eutypa</i> (Chamberlin, 1939).....       | 9         |
| <i>Appalachioria eutypa ethotela</i> (Chamberlin, 1942).....     | 9         |
| <i>Appalachioria falcifera</i> (Keeton, 1959).....               | 9         |
| <i>Appalachioria separanda separanda</i> (Chamberlin, 1947)..... | 10        |
| <i>Appalachioria separanda calcaria</i> (Keeton, 1959).....      | 10        |
| <i>Appalachioria separanda hamata</i> (Keeton, 1959).....        | 10        |
| <i>Appalachioria separanda versicolor</i> (Hoffman, 1963).....   | 10        |
| <i>Appalachioria turneri</i> (Keeton, 1959).....                 | 10        |
| <b>Genus <i>Brachoria</i> Chamberlin, 1939</b>                   |           |
| <b>34 species.....</b>                                           | <b>10</b> |
| <i>Brachoria badbranchensis</i> Marek, 2010.....                 | 11        |
| <i>Brachoria blackmountainensis</i> Marek, 2010.....             | 11        |
| <i>Brachoria calceata</i> (Causey, 1955).....                    | 11        |
| <i>Brachoria campcreekensis</i> Marek, 2010.....                 | 11        |
| <i>Brachoria cedra</i> Keeton, 1959.....                         | 11        |
| <i>Brachoria conta</i> Keeton, 1965.....                         | 11        |
| <i>Brachoria cumberlandmountainensis</i> Marek, 2010.....        | 11        |
| <i>Brachoria dentata</i> Keeton, 1959.....                       | 11        |
| <i>Brachoria divicuma</i> Keeton, 1965.....                      | 11        |
| <i>Brachoria electa</i> Causey, 1955.....                        | 12        |
| <i>Brachoria enodicuma</i> Keeton, 1965.....                     | 12        |
| <i>Brachoria evides</i> (Bollman, 1887).....                     | 12        |
| <i>Brachoria flammipes</i> Marek, 2010.....                      | 12        |
| <i>Brachoria glendalea</i> (Chamberlin, 1918).....               | 12        |
| <i>Brachoria gracilipes</i> (Chamberlin, 1947).....              | 12        |
| <i>Brachoria grapevinensis</i> Marek, 2010.....                  | 12        |
| <i>Brachoria guntermountainensis</i> Marek, 2010.....            | 13        |
| <i>Brachoria hansonia</i> Causey, 1950.....                      | 13        |
| <i>Brachoria hendrixsoni</i> Marek, 2010.....                    | 13        |
| <i>Brachoria hoffmani</i> Keeton, 1959.....                      | 13        |
| <i>Brachoria hubrichti</i> Keeton, 1959.....                     | 13        |
| <i>Brachoria indianae</i> (Bollman, 1888).....                   | 13        |
| <i>Brachoria initialis</i> Chamberlin, 1939.....                 | 13        |
| <i>Brachoria insolita</i> Keeton, 1959.....                      | 14        |

|                                                           |    |
|-----------------------------------------------------------|----|
| <i>Brachoria kentuckiana</i> (Causey, 1942).....          | 14 |
| <i>Brachoria laminata</i> Keeton, 1959.....               | 14 |
| <i>Brachoria ligula</i> Keeton, 1959.....                 | 14 |
| <i>Brachoria mendota</i> Keeton, 1959.....                | 14 |
| <i>Brachoria ochra</i> (Chamberlin, 1918).....            | 14 |
| <i>Brachoria plecta</i> Keeton, 1959.....                 | 14 |
| <i>Brachoria sheari</i> Marek, 2010.....                  | 15 |
| <i>Brachoria splendida</i> (Causey, 1942).....            | 15 |
| <i>Brachoria virginia</i> Marek, 2010.....                | 15 |
| <i>Brachoria viridicolens</i> (Hoffman, 1948).....        | 15 |
| <b>Genus <i>Brevigonus</i> Shelley, 1980</b>              |    |
| <b>2 species</b> .....                                    | 15 |
| <i>Brevigonus arcuatus</i> Shelley, 1981.....             | 15 |
| <i>Brevigonus shelfordi</i> (Loomis, 1944).....           | 16 |
| <b>Genus <i>Cheiropus</i> Loomis, 1944</b>                |    |
| <b>1 species</b> .....                                    | 16 |
| <i>Cheiropus plancus</i> Loomis, 1944.....                | 16 |
| <b>Genus <i>Cleptoria</i> Chamberlin, 1939</b>            |    |
| <b>5 species</b> .....                                    | 16 |
| <i>Cleptoria abbotti</i> Hoffman, 1967.....               | 16 |
| <i>Cleptoria bipraesidens</i> Hoffman, 1967.....          | 16 |
| <i>Cleptoria macra</i> Chamberlin, 1939.....              | 16 |
| <i>Cleptoria rileyi</i> (Bollman, 1889).....              | 17 |
| <i>Cleptoria robusta</i> Shelley, 1986.....               | 17 |
| <b>Genus <i>Croatania</i> Shelley, 1977</b>               |    |
| <b>4 species</b> .....                                    | 17 |
| <i>Croatania catawba</i> Shelley, 1977.....               | 17 |
| <i>Croatania saluda</i> Shelley, 1977.....                | 17 |
| <i>Croatania simplex</i> Shelley, 1977.....               | 17 |
| <i>Croatania yemassee</i> Shelley, 1977.....              | 18 |
| <b>Genus <i>Deltotaria</i> Causey, 1942</b>               |    |
| <b>2 species</b> .....                                    | 18 |
| <i>Deltotaria brimleii brimleii</i> Causey, 1942.....     | 18 |
| <i>Deltotaria brimleii philia</i> (Chamberlin, 1949)..... | 18 |
| <i>Deltotaria lea</i> Hoffman, 1961.....                  | 19 |
| <b>Genus <i>Dixioria</i> Chamberlin, 1947</b>             |    |
| <b>8 species</b> .....                                    | 19 |
| <i>Dixioria acuminata</i> Hoffman, 1956.....              | 19 |

|                                                   |           |
|---------------------------------------------------|-----------|
| <i>Dixioria brooksi</i> Hoffman, 1956.....        | 19        |
| <i>Dixioria coronata</i> (Hoffman, 1949).....     | 19        |
| <i>Dixioria dactylifera</i> Hoffman, 1956.....    | 19        |
| <i>Dixioria fowleri</i> Hoffman, 1956.....        | 20        |
| <i>Dixioria pela</i> (Chamberlin, 1918).....      | 20        |
| <i>Dixioria watauga</i> Shelley, 1986.....        | 20        |
| <i>Dixioria wrighti</i> Hoffman, 1956.....        | 20        |
| <b>Genus <i>Dynoria</i> Chamberlin, 1939</b>      |           |
| <b>2 species</b> .....                            | <b>20</b> |
| <i>Dynoria icana</i> Chamberlin, 1939.....        | 20        |
| <i>Dynoria medialis</i> Chamberlin, 1949.....     | 21        |
| <b>Genus <i>Falloria</i> Hoffman, 1948</b>        |           |
| <b>17 species</b> .....                           | <b>21</b> |
| <i>Falloria abbreviata</i> Shelley, 1986.....     | 21        |
| <i>Falloria ainsliei</i> (Chamberlin, 1921).....  | 21        |
| <i>Falloria aphelorioides</i> Shelley, 1986.....  | 21        |
| <i>Falloria bidens</i> (Causey, 1942).....        | 21        |
| <i>Falloria crassicurvosa</i> Shelley, 1986.....  | 21        |
| <i>Falloria forficata</i> Shelley, 1986.....      | 22        |
| <i>Falloria fumimontis</i> (Shelley, 1981).....   | 22        |
| <i>Falloria houstoni</i> (Chamberlin, 1943).....  | 22        |
| <i>Falloria leucostriata</i> (Shelley, 1981)..... | 22        |
| <i>Falloria lyrea</i> (Shelley, 1981).....        | 22        |
| <i>Falloria mimetica</i> (Chamberlin, 1918).....  | 22        |
| <i>Falloria pendula</i> Shelley, 1986.....        | 22        |
| <i>Falloria picapa</i> (Keeton, 1960).....        | 22        |
| <i>Falloria prolata</i> Shelley, 1986.....        | 22        |
| <i>Falloria translineata</i> (Shelley, 1981)..... | 23        |
| <i>Falloria tuberosa</i> (Shelley, 1981).....     | 23        |
| <i>Falloria xerophylla</i> (Shelley, 1981).....   | 23        |
| <b>Genus <i>Furcillaria</i> Shelley, 1981</b>     |           |
| <b>4 species</b> .....                            | <b>23</b> |
| <i>Furcillaria aequalis</i> Shelley, 1981.....    | 23        |
| <i>Furcillaria convoluta</i> Shelley, 1981.....   | 23        |
| <i>Furcillaria laminata</i> Shelley, 1981.....    | 23        |
| <i>Furcillaria thrinax</i> (Shelley, 1982).....   | 23        |
| <b>Genus <i>Lyrranea</i> Hoffman, 1963</b>        |           |
| <b>1 species</b> .....                            | <b>24</b> |

|                                                                 |    |
|-----------------------------------------------------------------|----|
| <i>Lyrranea persica</i> Hoffman, 1963.....                      | 24 |
| <b>Genus <i>Prionogonus</i> Shelley, 1982</b>                   |    |
| <b>4 species</b> .....                                          | 24 |
| <i>Prionogonus divaricatus</i> Shelley, 1982.....               | 24 |
| <i>Prionogonus divergens</i> (Chamberlin, 1939).....            | 24 |
| <i>Prionogonus haerens</i> Shelley, 1982.....                   | 24 |
| <i>Prionogonus stibarophallus</i> (Shelley, 1981).....          | 25 |
| <b>Genus <i>Rudiloria</i> Causey, 1955</b>                      |    |
| <b>5 species</b> .....                                          | 25 |
| <i>Rudiloria guyandotta</i> (Shear, 1972).....                  | 25 |
| <i>Rudiloria kleinpeteri</i> (Hoffman, 1949).....               | 25 |
| <i>Rudiloria mohicana</i> Causey, 1955.....                     | 25 |
| <i>Rudiloria rigida</i> Shelley, 1986.....                      | 25 |
| <i>Rudiloria trimaculata tortua</i> (Chamberlin, 1949).....     | 25 |
| <i>Rudiloria trimaculata trimaculata</i> (Wood, 1864).....      | 26 |
| <b>Genus <i>Sigmoria</i> Chamberlin, 1939</b>                   |    |
| <b>17 species</b> .....                                         | 26 |
| <i>Sigmoria areolata</i> Shelley, 1981.....                     | 27 |
| <i>Sigmoria australis</i> Shelley, 1986.....                    | 27 |
| <i>Sigmoria austrimontis</i> Shelley, 1981.....                 | 27 |
| <i>Sigmoria disjuncta</i> Shelley, 1981.....                    | 27 |
| <i>Sigmoria laticurvosa</i> Shelley, 1981.....                  | 27 |
| <i>Sigmoria latior latior</i> (Brölemann, 1900).....            | 27 |
| <i>Sigmoria latior hoffmani</i> Shelley, 1976.....              | 28 |
| <i>Sigmoria latior munda</i> Chamberlin, 1939.....              | 28 |
| <i>Sigmoria nantahalae</i> Hoffman, 1958.....                   | 28 |
| <i>Sigmoria nigrimontis nigrimontis</i> (Chamberlin, 1947)..... | 28 |
| <i>Sigmoria nigrimontis angulosa</i> Shelley, 1981.....         | 29 |
| <i>Sigmoria nigrimontis intermedia</i> (Hoffman, 1948).....     | 29 |
| <i>Sigmoria nigrimontis unicoi</i> Shelley, 1981.....           | 29 |
| <i>Sigmoria quadrata</i> Shelley, 1981.....                     | 29 |
| <i>Sigmoria rubromarginata</i> (Bollman, 1887).....             | 29 |
| <i>Sigmoria sigirioides</i> Shelley, 1981.....                  | 30 |
| <i>Sigmoria simplex</i> Shelley, 1981.....                      | 30 |
| <i>Sigmoria stenogon</i> Chamberlin, 1942.....                  | 30 |
| <i>Sigmoria stenoloba</i> Shelley, 1981.....                    | 30 |
| <i>Sigmoria triangulata</i> Shelley, 1981.....                  | 30 |
| <i>Sigmoria truncata</i> Shelley, 1981.....                     | 30 |

|                                                                                                          |           |
|----------------------------------------------------------------------------------------------------------|-----------|
| <i>Sigmoria whiteheadi</i> Shelley, 1986.....                                                            | 30        |
| <b>Genus <i>Stelgipus</i> Loomis, 1944</b>                                                               |           |
| <b>2 species.....</b>                                                                                    | <b>31</b> |
| <i>Stelgipus agrestis</i> Loomis, 1944.....                                                              | 31        |
| <i>Stelgipus serratus</i> (Shelley, 1984).....                                                           | 31        |
| <b>Tribe Chonaphini Verhoeff, 1941</b>                                                                   |           |
| <b>(6 genera, 12 species: western U.S., except <i>Semionellus placidus</i> in the eastern U.S.).....</b> | <b>31</b> |
| <b>Genus <i>Chonaphe</i> Cook, 1904</b>                                                                  |           |
| <b>4 species.....</b>                                                                                    | <b>31</b> |
| <i>Chonaphe armata</i> (Harger, 1872).....                                                               | 31        |
| <i>Chonaphe evexa</i> Shelley, 1994.....                                                                 | 32        |
| <i>Chonaphe remissa</i> Chamberlin, 1949.....                                                            | 32        |
| <i>Chonaphe schizoterminalis</i> Shelley, 1994.....                                                      | 32        |
| <b>Genus <i>Metaxycheir</i> Buckett &amp; Gardner, 1969</b>                                              |           |
| <b>1 species.....</b>                                                                                    | <b>32</b> |
| <i>Metaxycheir prolata</i> Buckett & Gardner, 1969.....                                                  | 32        |
| <b>Genus <i>Montaphe</i> Chamberlin, 1949</b>                                                            |           |
| <b>2 species.....</b>                                                                                    | <b>32</b> |
| <i>Montaphe elrodi</i> (Chamberlin, 1913).....                                                           | 32        |
| <i>Montaphe paraphoena</i> Shelley, 1994.....                                                            | 33        |
| <b>Genus <i>Selenocheir</i> Shelley, 1994</b>                                                            |           |
| <b>3 species.....</b>                                                                                    | <b>33</b> |
| <i>Selenocheir arcuata</i> Shelley, 1994.....                                                            | 33        |
| <i>Selenocheir directa</i> Shelley, 1994.....                                                            | 33        |
| <i>Selenocheir sinuata</i> Shelley, 1994.....                                                            | 33        |
| <b>Genus <i>Semionellus</i> Chamberlin, 1920</b>                                                         |           |
| <b>1 species.....</b>                                                                                    | <b>33</b> |
| <i>Semionellus placidus</i> (Wood, 1864).....                                                            | 33        |
| <b>Genus <i>Tubaphe</i> Causey, 1954</b>                                                                 |           |
| <b>1 species.....</b>                                                                                    | <b>34</b> |
| <i>Tubaphe levii</i> Causey, 1954.....                                                                   | 34        |
| <b>Tribe Devilleini Brölemann, 1916</b>                                                                  |           |
| <b>(1 genus, 5 species: southern France in the Maritime Alps, Sardinia, Capri).....</b>                  | <b>34</b> |
| <b>Genus <i>Devillea</i> Brölemann 1902</b>                                                              |           |
| <b>5 species.....</b>                                                                                    | <b>34</b> |
| <i>Devillea cerrutii</i> Manfredi, 1956.....                                                             | 34        |
| <i>Devillea doderoi doderoi</i> Silvestri, 1903.....                                                     | 35        |
| <i>Devillea doderoi sanctijohannis</i> Strasser, 1974.....                                               | 35        |

|                                                                                                     |           |
|-----------------------------------------------------------------------------------------------------|-----------|
|                                                                                                     | xi        |
| <i>Devillea patrizii</i> Manfredi, 1956.....                                                        | 35        |
| <i>Devillea subterranea</i> Verhoeff, 1943.....                                                     | 35        |
| <i>Devillea tuberculata</i> Brölemann, 1902.....                                                    | 35        |
| <b>Tribe Nannariini Hoffman, 1964</b>                                                               |           |
| <b>(2 genera, 23 species: eastern and central U.S.).....</b>                                        | <b>35</b> |
| <b>Genus <i>Nannaria</i> Chamberlin, 1918</b>                                                       |           |
| <b>22 species.....</b>                                                                              | <b>36</b> |
| <i>Nannaria austriicola</i> Hoffman, 1950.....                                                      | 36        |
| <i>Nannaria castanea</i> (McNeill, 1887).....                                                       | 36        |
| <i>Nannaria conservata</i> Chamberlin, 1940.....                                                    | 36        |
| <i>Nannaria davidcauseyi</i> Causey, 1950.....                                                      | 36        |
| <i>Nannaria depalmai</i> (Causey, 1950).....                                                        | 36        |
| <i>Nannaria domestica</i> Shelley, 1975.....                                                        | 36        |
| <i>Nannaria equalis</i> Chamberlin, 1949.....                                                       | 37        |
| <i>Nannaria ericacea</i> Hoffman, 1949.....                                                         | 37        |
| <i>Nannaria fowleri</i> Chamberlin, 1947.....                                                       | 37        |
| <i>Nannaria laminata</i> Hoffman, 1949.....                                                         | 37        |
| <i>Nannaria minor</i> Chamberlin, 1918.....                                                         | 37        |
| <i>Nannaria missouriensis</i> Chamberlin, 1928.....                                                 | 37        |
| <i>Nannaria morrisoni</i> Hoffman, 1948.....                                                        | 37        |
| <i>Nannaria oblonga</i> (Koch, 1847).....                                                           | 37        |
| <i>Nannaria ohionis</i> Loomis & Hoffman, 1948.....                                                 | 37        |
| <i>Nannaria rutherfordensis</i> Shelley, 1975.....                                                  | 38        |
| <i>Nannaria scutellaria</i> Causey, 1942.....                                                       | 38        |
| <i>Nannaria shenandoa</i> Hoffman, 1949.....                                                        | 38        |
| <i>Nannaria simplex</i> Hoffman, 1949.....                                                          | 38        |
| <i>Nannaria tennesseensis</i> (Bollman, 1888).....                                                  | 38        |
| <i>Nannaria terricola</i> (Williams & Hefner, 1928).....                                            | 38        |
| <i>Nannaria wilsoni</i> Hoffman, 1949.....                                                          | 38        |
| <b>Genus <i>Oenomaea</i> Hoffman, 1964</b>                                                          |           |
| <b>1 species.....</b>                                                                               | <b>38</b> |
| <i>Oenomaea pulchella</i> (Bollman, 1889).....                                                      | 38        |
| <b>Tribe Orophini Hoffman, 1964</b>                                                                 |           |
| <b>(3 genera, 5 species: 1 northwestern U.S., 2 China - <i>Kiulinga</i>, <i>Pamelaphe</i>).....</b> | <b>39</b> |
| <b>Genus <i>Kiulinga</i> Hoffman, 1956</b>                                                          |           |
| <b>2 species.....</b>                                                                               | <b>39</b> |
| <i>Kiulinga jeekeli</i> Hoffman, 1956.....                                                          | 39        |
| <i>Kiulinga lobosa</i> Zhang & Mao, 1984.....                                                       | 39        |



|                                                                                                       |           |
|-------------------------------------------------------------------------------------------------------|-----------|
| <b>Genus <i>Pamelaphe</i> Hoffman, 1964</b>                                                           |           |
| 1 species.....                                                                                        | 39        |
| <i>Pamelaphe lacustris</i> (Pocock, 1895).....                                                        | 39        |
| <b>Genus <i>Orophe</i> Chamberlin, 1951</b>                                                           |           |
| 2 species.....                                                                                        | 39        |
| <i>Orophe cabinetus</i> Chamberlin, 1951.....                                                         | 39        |
| <i>Orophe unicus</i> Loomis, 1953.....                                                                | 40        |
| <b>Tribe Pachydesmini Hoffman, 1980</b>                                                               |           |
| <b>(3 genera, 10 species: eastern, central U.S.).....</b>                                             | <b>40</b> |
| <b>Genus <i>Dicellarius</i> Chamberlin, 1920</b>                                                      |           |
| 5 species.....                                                                                        | 40        |
| <i>Dicellarius atlanta</i> (Chamberlin, 1946).....                                                    | 40        |
| <i>Dicellarius bimaculatus bimaculatus</i> (McNeill, 1887).....                                       | 40        |
| <i>Dicellarius bimaculatus fictus</i> (Chamberlin, 1943).....                                         | 41        |
| <i>Dicellarius bimaculatus lamellidens</i> (Chamberlin, 1931).....                                    | 41        |
| <i>Dicellarius okefenokensis</i> (Chamberlin, 1918).....                                              | 41        |
| <i>Dicellarius sternolobus</i> Loomis, 1969.....                                                      | 41        |
| <i>Dicellarius talapoosa talapoosa</i> (Chamberlin, 1939).....                                        | 41        |
| <i>Dicellarius talapoosa separandus</i> Shelley, 1984.....                                            | 41        |
| <b>Genus <i>Pachydesmus</i> Cook, 1895</b>                                                            |           |
| 2 species.....                                                                                        | 42        |
| <i>Pachydesmus clarus</i> (Chamberlin, 1918).....                                                     | 42        |
| <i>Pachydesmus crassicutis crassicutis</i> (Wood, 1864).....                                          | 42        |
| <i>Pachydesmus crassicutis denticulatus</i> Chamberlin, 1946.....                                     | 42        |
| <i>Pachydesmus crassicutis duplex</i> Chamberlin, 1939.....                                           | 43        |
| <i>Pachydesmus crassicutis incurus</i> Chamberlin, 1939.....                                          | 43        |
| <i>Pachydesmus crassicutis laticollis</i> (Attems, 1899).....                                         | 43        |
| <i>Pachydesmus crassicutis hubrichti</i> Hoffman, 1958.....                                           | 43        |
| <i>Pachydesmus crassicutis retrorsus</i> Chamberlin, 1921.....                                        | 43        |
| <i>Pachydesmus crassicutis adsinicolus</i> Hoffman, 1958.....                                         | 43        |
| <b>Genus <i>Thrinaxoria</i> Chamberlin &amp; Hoffman, 1950</b>                                        |           |
| 3 species.....                                                                                        | 43        |
| <i>Thrinaxoria bifida</i> (Wood, 1864).....                                                           | 44        |
| <i>Thrinaxoria lampra</i> (Chamberlin, 1918).....                                                     | 44        |
| <i>Thrinaxoria paynei</i> Shelley, 2002.....                                                          | 44        |
| <b>Tribe Rhysodesmini Brölemann, 1916</b>                                                             |           |
| <b>(11 genera, 102 species: eastern, central, southwestern U.S., México and Central America).....</b> | <b>44</b> |



|                                                           |           |
|-----------------------------------------------------------|-----------|
| <b>Genus <i>Boraria</i> Chamberlin, 1943</b>              |           |
| <b>4 species</b> .....                                    | <b>44</b> |
| <i>Boraria deturkiana</i> (Causey, 1942).....             | 44        |
| <i>Boraria infesta</i> (Chamberlin, 1918).....            | 45        |
| <i>Boraria profuga</i> Causey, 1955.....                  | 45        |
| <i>Boraria stricta</i> (Brölemann, 1896).....             | 45        |
| <b>Genus <i>Caralinda</i> Hoffman, 1978</b>               |           |
| <b>5 species</b> .....                                    | <b>46</b> |
| <i>Caralinda beatrix</i> Hoffman, 1978.....               | 46        |
| <i>Caralinda causeyi</i> Shelley, 1983.....               | 46        |
| <i>Caralinda dactylifera</i> Shelley, 1983.....           | 46        |
| <i>Caralinda fabalecta</i> Shelley, 2000.....             | 46        |
| <i>Caralinda pulchritecta</i> Shelley, 1979.....          | 46        |
| <b>Genus <i>Cherokia</i> Chamberlin, 1949</b>             |           |
| <b>1 species</b> .....                                    | <b>46</b> |
| <i>Cherokia georgiana georgiana</i> (Bollman, 1889).....  | 46        |
| <i>Cherokia georgiana ducilla</i> (Chamberlin, 1939)..... | 47        |
| <i>Cherokia georgiana latassa</i> Hoffman, 1960.....      | 47        |
| <b>Genus <i>Erdelyia</i> Hoffman, 1962</b>                |           |
| <b>1 species</b> .....                                    | <b>47</b> |
| <i>Erdelyia saucra</i> Hoffman, 1962.....                 | 47        |
| <b>Genus <i>Gonoessa</i> Shelley, 1984</b>                |           |
| <b>5 species</b> .....                                    | <b>48</b> |
| <i>Gonoessa aciculata</i> Shelley, 1984.....              | 48        |
| <i>Gonoessa cingulata</i> Shelley, 1984.....              | 48        |
| <i>Gonoessa clavata</i> Shelley, 1984.....                | 48        |
| <i>Gonoessa dentata</i> Shelley, 1984.....                | 48        |
| <i>Gonoessa furcata</i> Shelley, 1984.....                | 48        |
| <b>Genus <i>Gyalostethus</i> Hoffman, 1965</b>            |           |
| <b>1 species</b> .....                                    | <b>48</b> |
| <i>Gyalostethus monticolens</i> (Chamberlin, 1951).....   | 48        |
| <b>Genus <i>Lourdesia</i> Shelley, 1991</b>               |           |
| <b>1 species</b> .....                                    | <b>48</b> |
| <i>Lourdesia minuscula</i> Shelley, 1991.....             | 48        |
| <b>Genus <i>Parvulodesmus</i> Shelley, 1983</b>           |           |
| <b>2 species</b> .....                                    | <b>49</b> |
| <i>Parvulodesmus prolixogonus</i> Shelley, 1983.....      | 49        |
| <i>Parvulodesmus stephani</i> Shelley, 2001.....          | 49        |

**Genus *Pleuroloma* Rafinesque, 1820**

|                                                  |           |
|--------------------------------------------------|-----------|
| <b>4 species</b> .....                           | <b>49</b> |
| <i>Pleuroloma cala</i> (Chamberlin, 1939).....   | 49        |
| <i>Pleuroloma flavipes</i> Rafinesque, 1820..... | 49        |
| <i>Pleuroloma pinicola</i> Shelley, 1980.....    | 51        |
| <i>Pleuroloma plana</i> Shelley, 1980.....       | 51        |

**Genus *Rhysodesmus* Cook, 1895**

|                                                               |           |
|---------------------------------------------------------------|-----------|
| <b>73 species</b> .....                                       | <b>51</b> |
| <i>Rhysodesmus acolhuus</i> (Humbert & DeSaussure, 1869)..... | 52        |
| <i>Rhysodesmus agrestis</i> Shelley, 1999.....                | 52        |
| <i>Rhysodesmus alpuyecus</i> Chamberlin, 194.....             | 52        |
| <i>Rhysodesmus angelus</i> (Karsch, 1881).....                | 52        |
| <i>Rhysodesmus angustus</i> Loomis, 1966.....                 | 52        |
| <i>Rhysodesmus arcuatus</i> Pocock, 1910.....                 | 52        |
| <i>Rhysodesmus attemsi</i> Pocock, 1910.....                  | 52        |
| <i>Rhysodesmus bolivari</i> Chamberlin, 1943.....             | 52        |
| <i>Rhysodesmus bonus</i> Chamberlin, 1943.....                | 53        |
| <i>Rhysodesmus byersi</i> Loomis, 1966.....                   | 53        |
| <i>Rhysodesmus championi</i> Pocock, 1909.....                | 53        |
| <i>Rhysodesmus chisosi</i> Shelley, 1989.....                 | 53        |
| <i>Rhysodesmus consobrinus</i> (DeSaussure, 1859).....        | 53        |
| <i>Rhysodesmus constrictus</i> Loomis, 1966.....              | 53        |
| <i>Rhysodesmus coriaceus</i> Loomis, 1968.....                | 53        |
| <i>Rhysodesmus cuernavacae</i> Chamberlin, 1942.....          | 53        |
| <i>Rhysodesmus cumbres</i> Chamberlin, 1943.....              | 53        |
| <i>Rhysodesmus dampfi</i> (Verhoeff, 1932).....               | 53        |
| <i>Rhysodesmus dasypus</i> (Gervais, 1847).....               | 53        |
| <i>Rhysodesmus depressus</i> Loomis, 1966.....                | 54        |
| <i>Rhysodesmus elestribus</i> Chamberlin, 1943.....           | 54        |
| <i>Rhysodesmus esperanzae</i> Chamberlin, 1943.....           | 54        |
| <i>Rhysodesmus eunis</i> Chamberlin, 1943.....                | 54        |
| <i>Rhysodesmus eusculptus</i> Chamberlin, 1941.....           | 54        |
| <i>Rhysodesmus flavocinctus</i> Pocock, 1909.....             | 54        |
| <i>Rhysodesmus fraternus</i> (DeSaussure, 1859).....          | 54        |
| <i>Rhysodesmus frionus</i> Chamberlin, 1943.....              | 54        |
| <i>Rhysodesmus garcianus</i> Chamberlin, 1943.....            | 54        |
| <i>Rhysodesmus godmani</i> Pocock, 1909.....                  | 54        |

|                                                               |    |
|---------------------------------------------------------------|----|
| <i>Rhysodesmus guardanus</i> Chamberlin, 1943.....            | 55 |
| <i>Rhysodesmus hamatilis</i> Loomis, 1966.....                | 55 |
| <i>Rhysodesmus intermedius</i> Chamberlin, 1943.....          | 55 |
| <i>Rhysodesmus inustus</i> Pocock, 1910.....                  | 55 |
| <i>Rhysodesmus jugosus</i> Loomis, 1966.....                  | 55 |
| <i>Rhysodesmus knighti</i> Chamberlin, 1941.....              | 55 |
| <i>Rhysodesmus latus</i> Loomis, 1968.....                    | 55 |
| <i>Rhysodesmus leonensis</i> Chamberlin, 1941.....            | 55 |
| <i>Rhysodesmus malinche</i> Chamberlin, 1943.....             | 55 |
| <i>Rhysodesmus marcosus</i> Chamberlin, 1952.....             | 55 |
| <i>Rhysodesmus mayanus</i> Chamberlin, 1925.....              | 55 |
| <i>Rhysodesmus minor</i> (Chamberlin, 1943).....              | 55 |
| <i>Rhysodesmus montezumae</i> (DeSaussure, 1859).....         | 56 |
| <i>Rhysodesmus morelus</i> Chamberlin, 1943.....              | 56 |
| <i>Rhysodesmus murallensis</i> Loomis, 1966.....              | 56 |
| <i>Rhysodesmus mystecus</i> (Humbert & DeSaussure, 1869)..... | 56 |
| <i>Rhysodesmus nahuus</i> (Humbert & DeSaussure, 1869).....   | 56 |
| <i>Rhysodesmus notostictus</i> Pocock, 1910.....              | 56 |
| <i>Rhysodesmus obliquus</i> Loomis, 1966.....                 | 56 |
| <i>Rhysodesmus otomitus</i> (DeSaussure, 1859).....           | 56 |
| <i>Rhysodesmus perotenus</i> Chamberlin, 1943.....            | 57 |
| <i>Rhysodesmus potosianus</i> Chamberlin, 1942.....           | 57 |
| <i>Rhysodesmus punctatus</i> Loomis, 1966.....                | 57 |
| <i>Rhysodesmus pusillus</i> Pocock, 1909.....                 | 57 |
| <i>Rhysodesmus restans</i> Hoffman, 1998.....                 | 57 |
| <i>Rhysodesmus rubrimarginis</i> Chamberlin, 1943.....        | 57 |
| <i>Rhysodesmus salvini</i> (Pocock, 1910).....                | 57 |
| <i>Rhysodesmus sandersi</i> Causey, 1954.....                 | 57 |
| <i>Rhysodesmus semiovatus</i> Loomis, 1966.....               | 57 |
| <i>Rhysodesmus seriatus</i> Chamberlin, 1947.....             | 57 |
| <i>Rhysodesmus simplex</i> Loomis, 1966.....                  | 57 |
| <i>Rhysodesmus smithi</i> Pocock, 1910.....                   | 57 |
| <i>Rhysodesmus stollii</i> Pocock, 1909.....                  | 57 |
| <i>Rhysodesmus tabascensis</i> Pocock, 1909.....              | 57 |
| <i>Rhysodesmus tacubayae</i> Chamberlin, 1943.....            | 58 |
| <i>Rhysodesmus tepanecus</i> (DeSaussure, 1859).....          | 58 |
| <i>Rhysodesmus tepoztlanus</i> Chamberlin, 1943.....          | 58 |

|                                                                 |    |
|-----------------------------------------------------------------|----|
| <i>Rhysodesmus texicolens</i> (Chamberlin, 1938).....           | 58 |
| <i>Rhysodesmus toltecus</i> (DeSaussure, 1859).....             | 58 |
| <i>Rhysodesmus totonacus</i> (DeSaussure, 1859).....            | 59 |
| <i>Rhysodesmus vicinus</i> (DeSaussure, 1859).....              | 59 |
| <i>Rhysodesmus violaceus</i> (Brolemann, 1900).....             | 59 |
| <i>Rhysodesmus zapotecus</i> (DeSaussure, 1860).....            | 59 |
| <i>Rhysodesmus zendalus</i> (Humbert & DeSaussure, 1869).....   | 59 |
| <b>Genus <i>Stenodesmus</i> De Saussure, 1859</b>               |    |
| <b>5 species</b> .....                                          | 59 |
| <i>Stenodesmus acuarius</i> (Attems, 1931).....                 | 60 |
| <i>Stenodesmus mexicanus</i> DeSaussure, 1859.....              | 60 |
| <i>Stenodesmus serratus</i> (Loomis, 1959).....                 | 60 |
| <i>Stenodesmus simillimus</i> (Humbert & DeSaussure, 1869)..... | 60 |
| <i>Stenodesmus tuobitus</i> (Chamberlin, 1910).....             | 60 |
| <b>Tribe Sigmocheirini Causey, 1955</b>                         |    |
| <b>(2 genera, 4 species: California)</b> .....                  | 61 |
| <b>Genus <i>Ochthocelata</i> Shelley, 1995</b>                  |    |
| <b>1 species</b> .....                                          | 61 |
| <i>Ochthocelata adynata</i> Shelley, 1995.....                  | 61 |
| <b>Genus <i>Sigmocheir</i> Chamberlin, 1951</b>                 |    |
| <b>3 species</b> .....                                          | 61 |
| <i>Sigmocheir calaveras</i> Chamberlin, 1951.....               | 61 |
| <i>Sigmocheir furcata</i> Shelley, 1995.....                    | 62 |
| <i>Sigmocheir maculifer</i> (Chamberlin, 1941).....             | 62 |
| <b>Tribe Xystocheirini Hoffman, 1980</b>                        |    |
| <b>(5 genera, 29 species: California)</b> .....                 | 62 |
| <b>Genus <i>Anombrocheir</i> Buckett &amp; Gardner, 1969</b>    |    |
| <b>2 species</b> .....                                          | 62 |
| <i>Anombrocheir bifurcata</i> Gardner & Buckett, 1969.....      | 62 |
| <i>Anombrocheir spinosa</i> Buckett & Gardner, 1969.....        | 62 |
| <b>Genus <i>Motyxia</i> Chamberlin, 1941</b>                    |    |
| <b>8 species</b> .....                                          | 62 |
| <i>Motyxia kerna</i> Chamberlin, 1941.....                      | 63 |
| <i>Motyxia monica</i> Chamberlin, 1944.....                     | 63 |
| <i>Motyxia pior</i> Chamberlin, 1941.....                       | 63 |
| <i>Motyxia porrecta</i> Causey & Tiemann, 1969.....             | 63 |
| <i>Motyxia sequoia sequoia</i> (Chamberlin, 1941).....          | 63 |
| <i>Motyxia sequoia alia</i> Causey & Tiemann, 1969.....         | 64 |

|                                                                                          |    |
|------------------------------------------------------------------------------------------|----|
| <i>Motyxia sequoiae</i> (Loomis & Davenport, 1951).....                                  | 64 |
| <i>Motyxia tiemanni</i> Causey, 1960.....                                                | 64 |
| <i>Motyxia tularea tularea</i> (Chamberlin, 1949).....                                   | 64 |
| <i>Motyxia tularea ollae</i> Causey & Tiemann, 1969.....                                 | 64 |
| <b>Genus <i>Parcipromus</i> Shelley, 1995</b>                                            |    |
| <b>3 species</b> .....                                                                   | 65 |
| <i>Parcipromus cooki</i> (Causey, 1995).....                                             | 65 |
| <i>Parcipromus gigantoarboricolus</i> Shelley, 1995.....                                 | 65 |
| <i>Parcipromus tiemanni</i> Shelley, 1995.....                                           | 65 |
| <b>Genus <i>Wamokia</i> Chamberlin, 1941</b>                                             |    |
| <b>7 species</b> .....                                                                   | 65 |
| <i>Wamokia dentata</i> Buckett & Gardner, 1968.....                                      | 65 |
| <i>Wamokia discordis</i> Buckett & Gardner, 1968.....                                    | 65 |
| <i>Wamokia falcata</i> Buckett & Gardner, 1968.....                                      | 65 |
| <i>Wamokia hoffmani</i> Buckett & Gardner, 1968.....                                     | 65 |
| <i>Wamokia placera</i> Chamberlin, 1941.....                                             | 66 |
| <i>Wamokia remota</i> Buckett & Gardner, 1968.....                                       | 66 |
| <i>Wamokia sierrae</i> Buckett & Gardner, 1968.....                                      | 66 |
| <b>Genus <i>Xystocheir</i> Cook, 1904</b>                                                |    |
| <b>9 species</b> .....                                                                   | 66 |
| <i>Xystocheir bistipita</i> Shelley, 1996.....                                           | 66 |
| <i>Xystocheir brachymacris</i> Shelley, 1996.....                                        | 66 |
| <i>Xystocheir dissecta dissecta</i> (Wood, 1867).....                                    | 66 |
| <i>Xystocheir dissecta microrama</i> Shelley, 1996.....                                  | 67 |
| <i>Xystocheir dissecta taibona</i> Chamberlin, 1912.....                                 | 67 |
| <i>Xystocheir modestior modestior</i> (Chamberlin, 1941).....                            | 67 |
| <i>Xystocheir modestior haerens</i> Shelley, 1996.....                                   | 68 |
| <i>Xystocheir prolixorama</i> Shelley, 1996.....                                         | 68 |
| <i>Xystocheir reducta</i> (Causey, 1955).....                                            | 68 |
| <i>Xystocheir solenofurcata</i> Shelley, 1996.....                                       | 68 |
| <i>Xystocheir stenomacris</i> Shelley, 1996.....                                         | 68 |
| <i>Xystocheir stolonifera stolonifera</i> Shelley, 1996.....                             | 68 |
| <i>Xystocheir stolonifera uncinata</i> Shelley, 1996.....                                | 68 |
| <b>Tribe <i>Xystodesmini</i> Hoffman, 1980</b>                                           |    |
| <b>(8 genera, 62 species: western North America, eastern Asia, eastern Russia)</b> ..... | 68 |
| <b>Genus <i>Harpaphe</i> Cook, 1904</b>                                                  |    |
| <b>3 species</b> .....                                                                   | 68 |
| <i>Harpaphe haydeniana haydeniana</i> (Wood, 1864).....                                  | 69 |

|                                                                    |    |
|--------------------------------------------------------------------|----|
| <i>Harpaphe haydeniana cummingsiensis</i> (Verhoeff, 1944).....    | 69 |
| <i>Harpaphe haydeniana inlignea</i> Chamberlin, 1949.....          | 69 |
| <i>Harpaphe haydeniana maurogona</i> Buckett & Gardner, 1968.....  | 70 |
| <i>Harpaphe haydeniana lanceolata</i> Buckett & Gardner, 1968..... | 70 |
| <i>Harpaphe haydeniana scotia</i> (Chamberlin, 1941).....          | 70 |
| <i>Harpaphe pottera</i> Chamberlin, 1949.....                      | 70 |
| <i>Harpaphe telodonta</i> (Chamberlin, 1943).....                  | 70 |
| <b>Genus <i>Isaphe</i> Cook, 1904</b>                              |    |
| <b>2 species</b> .....                                             | 70 |
| <i>Isaphe convexa</i> Cook, 1904.....                              | 71 |
| <i>Isaphe tersa</i> (Cook, 1904).....                              | 71 |
| <b>Genus <i>Koreoaria</i> Verhoeff, 1937</b>                       |    |
| <b>2 species</b> .....                                             | 71 |
| <i>Koreoaria amoeba</i> Takakuwa, 1942.....                        | 71 |
| <i>Koreoaria pallida</i> Verhoeff, 1937.....                       | 71 |
| <b>Genus <i>Levizonus</i> Attems, 1898</b>                         |    |
| <b>8 species</b> .....                                             | 71 |
| <i>Levizonus circularis</i> Takakuwa, 1942.....                    | 72 |
| <i>Levizonus distinctus</i> Mikhaljova, 1990.....                  | 72 |
| <i>Levizonus laqueatus</i> Mikhaljova, 1981.....                   | 72 |
| <i>Levizonus malewitschi</i> Lokšina & Golovatch, 1977.....        | 72 |
| <i>Levizonus montanus</i> (Takakuwa, 1941).....                    | 72 |
| <i>Levizonus takakuwai</i> (Verhoeff, 1941).....                   | 72 |
| <i>Levizonus thaumasius</i> Attems, 1898.....                      | 73 |
| <i>Levizonus variabilis</i> Lokšina & Golovatch, 1977.....         | 73 |
| <b>Genus <i>Riukiarina</i> Attems, 1938</b>                        |    |
| <b>36 species</b> .....                                            | 73 |
| <i>Riukiarina anachoreta</i> Tanabe, 1988.....                     | 73 |
| <i>Riukiarina belousovi</i> Golovatch, 2014.....                   | 74 |
| <i>Riukiarina bifida</i> (Takakuwa, 1942).....                     | 74 |
| <i>Riukiarina capaca</i> Wang & Zhang, 1993.....                   | 74 |
| <i>Riukiarina chelifera</i> (Takakuwa, 1941).....                  | 74 |
| <i>Riukiarina chinensis</i> Tanabe, Ishii & Yin, 1996.....         | 74 |
| <i>Riukiarina cohaesiva</i> (Wang, 1957).....                      | 74 |
| <i>Riukiarina contigua</i> (Wang, 1957).....                       | 74 |
| <i>Riukiarina cornuta</i> (Haga, 1968).....                        | 74 |
| <i>Riukiarina datei</i> (Miyosi, 1957).....                        | 74 |
| <i>Riukiarina davidiani</i> Golovatch, 2014.....                   | 74 |

|                                                                       |    |
|-----------------------------------------------------------------------|----|
| <i>Riukiarina diacantha</i> (Miyosi, 1952).....                       | 75 |
| <i>Riukiarina falcifera</i> Verhoeff, 1936.....                       | 75 |
| <i>Riukiarina geniculata</i> (Takakuwa, 1941).....                    | 75 |
| <i>Riukiarina holstii</i> (Pocock, 1895).....                         | 75 |
| <i>Riukiarina jamila</i> Tanabe, 1990.....                            | 75 |
| <i>Riukiarina kabaki</i> Golovatch, 2014.....                         | 75 |
| <i>Riukiarina korolevi</i> Golovatch, 2014.....                       | 75 |
| <i>Riukiarina maculata</i> Korsós, Nakamura & Tanabe, 2011.....       | 75 |
| <i>Riukiarina marinae</i> (Golovatch, 1978).....                      | 75 |
| <i>Riukiarina martensi</i> Golovatch, 2014.....                       | 76 |
| <i>Riukiarina montana</i> Haga, 1968.....                             | 76 |
| <i>Riukiarina mundyi</i> Korsós, Nakamura & Tanabe, 2011.....         | 76 |
| <i>Riukiarina ochracea</i> (Gressitt, 1941).....                      | 76 |
| <i>Riukiarina puella</i> Tanabe, 1988.....                            | 76 |
| <i>Riukiarina pugionifera</i> Verhoeff, 1936.....                     | 76 |
| <i>Riukiarina rosulans</i> (Tömösváry, 1885).....                     | 76 |
| <i>Riukiarina scutata</i> (Takakuwa, 1942).....                       | 76 |
| <i>Riukiarina semicircularis semicircularis</i> (Takakuwa, 1941)..... | 76 |
| <i>Riukiarina semicircularis hosidei</i> (Miyosi, 1952).....          | 77 |
| <i>Riukiarina spiralipes</i> (Takakuwa, 1942).....                    | 77 |
| <i>Riukiarina taiwana</i> (Takakuwa, 1942).....                       | 77 |
| <i>Riukiarina tianmu</i> (Tanabe, Ishii & Yin, 1996).....             | 77 |
| <i>Riukiarina uncata</i> (Haga, 1968).....                            | 77 |
| <i>Riukiarina uraensis</i> (Wang, 1956).....                          | 77 |
| <i>Riukiarina variata</i> (Pocock 1895).....                          | 78 |
| <b>Species of uncertain status in <i>Riukiarina</i></b> .....         | 78 |
| <i>Pachydesmus attemsi</i> (Wang, 1960).....                          | 78 |
| <b>Genus <i>Thrinaphe</i> Shelley, 1993a</b>                          |    |
| <b>1 species</b> .....                                                | 78 |
| <i>Thrinaphe hargerii</i> Shelley, 1993a.....                         | 78 |
| <b>Genus <i>Xystodesmus</i> Cook, 1895</b>                            |    |
| <b>9 species</b> .....                                                | 78 |
| <i>Xystodesmus gracilipes</i> (Takakuwa, 1943).....                   | 80 |
| <i>Xystodesmus martensii</i> (Peters, 1864).....                      | 80 |
| <i>Xystodesmus nikkoensis</i> (Chamberlin & Wang, 1953).....          | 81 |
| <i>Xystodesmus serrulatus</i> (Miyosi, 1952).....                     | 81 |
| <i>Xystodesmus shirozui</i> (Takakuwa, 1942).....                     | 81 |



|                                                                                                                                                    |    |
|----------------------------------------------------------------------------------------------------------------------------------------------------|----|
| <i>Xystodesmus tokaiensis</i> Tanabe & Shinohara, 1996.....                                                                                        | 81 |
| <i>Xystodesmus yamamiensis</i> Masuda, 2001.....                                                                                                   | 81 |
| <b>Species of uncertain status in <i>Xystodesmus</i></b> .....                                                                                     | 81 |
| <i>Nikkonus bazaensis</i> (Takakuwa, 1942).....                                                                                                    | 81 |
| <i>Rhysodesmus spinosissimus</i> (Miyosi, 1952).....                                                                                               | 82 |
| <b>Genus <i>Yaetakaria</i> Hoffman, 1949</b>                                                                                                       |    |
| <b>1 species</b> .....                                                                                                                             | 82 |
| <i>Yaetakaria neptuna</i> (Pocock, 1895).....                                                                                                      | 82 |
| <b>Species of uncertain status in <i>Xystodesminae</i></b> .....                                                                                   | 82 |
| <i>Fontaria virginiensis</i> Gray, 1832.....                                                                                                       | 82 |
| <i>Fontaria coriacea</i> Koch, 1847.....                                                                                                           | 82 |
| <b>Subfamily Melaphinae Hoffman, 1980</b>                                                                                                          |    |
| <b>(2 tribes; Mediterranean rim: Greece, Turkey, Cyprus, Syria, Croatia, Serbia, Montenegro, Albania, Spain, Morocco, Ethiopia, Algeria)</b> ..... | 82 |
| <b>Tribe Macellolophini Hoffman, 1980</b>                                                                                                          |    |
| <b>(2 species: southern Spain, northern Morocco, and northern Algeria)</b> .....                                                                   | 82 |
| <b>Genus <i>Macellolophus</i> Attems, 1940</b>                                                                                                     |    |
| <b>2 species</b> .....                                                                                                                             | 83 |
| <i>Macellolophus rubromarginatus</i> (Lucas, 1846).....                                                                                            | 83 |
| <b>Species of uncertain status in <i>Macellolophus</i></b> .....                                                                                   | 83 |
| <i>Polydesmus diadema</i> Gervais, 1836.....                                                                                                       | 83 |
| <b>Tribe Melaphini Brölemann, 1916</b>                                                                                                             |    |
| <b>(2 genera, 8 species: Greece, Turkey, Cyprus, Syria, Croatia, Serbia, Montenegro, Albania, Morocco, Ethiopia, Algeria)</b> .....                | 83 |
| <b>Genus <i>Melaphe</i> Cook, 1904</b>                                                                                                             |    |
| <b>7 species</b> .....                                                                                                                             | 83 |
| <i>Melaphe apamea</i> Hoffman & Lohmander, 1968.....                                                                                               | 84 |
| <i>Melaphe castianeira</i> Hoffman & Lohmander, 1968.....                                                                                          | 84 |
| <i>Melaphe corrupta</i> Attems, 1944.....                                                                                                          | 84 |
| <i>Melaphe cypria</i> (Humbert & Saussure, 1869).....                                                                                              | 84 |
| <i>Melaphe mauritanica</i> (Lucas, 1844).....                                                                                                      | 84 |
| <i>Melaphe vestita vestita</i> (Koch, 1847).....                                                                                                   | 85 |
| <i>Melaphe vestita thracica</i> (Verhoeff, 1926).....                                                                                              | 85 |
| <b>Species of uncertain status in <i>Melaphe</i></b> .....                                                                                         | 85 |
| <i>Polydesmus blainvillei</i> (Eydoux & Gervais, 1836).....                                                                                        | 85 |
| <b>Genus <i>Ochridaphe</i> Hoffman, 1962</b>                                                                                                       |    |
| <b>1 species</b> .....                                                                                                                             | 86 |
| <i>Ochridaphe albanica</i> (Verhoeff, 1932).....                                                                                                   | 86 |



|                                                                                                                                        |            |
|----------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>Subfamily Parafontariinae Hoffman, 1978</b>                                                                                         |            |
| <b>(1 genus; Japan)</b> .....                                                                                                          | <b>86</b>  |
| <b>Genus <i>Parafontaria</i> Verhoeff, 1936</b>                                                                                        |            |
| <b>13 species</b> .....                                                                                                                | <b>86</b>  |
| <i>Parafontaria crenata</i> Shinohara, 1986.....                                                                                       | <b>86</b>  |
| <i>Parafontaria doenitzi</i> (Karsch, 1880).....                                                                                       | <b>86</b>  |
| <i>Parafontaria erythrosoma</i> (Takakuwa, 1942).....                                                                                  | <b>87</b>  |
| <i>Parafontaria falcifera</i> (Verhoeff, 1936).....                                                                                    | <b>87</b>  |
| <i>Parafontaria ishiii</i> Shinohara, 1986.....                                                                                        | <b>87</b>  |
| <i>Parafontaria laminata</i> (Attems, 1909).....                                                                                       | <b>87</b>  |
| <i>Parafontaria longa</i> Shinohara, 1986.....                                                                                         | <b>88</b>  |
| <i>Parafontaria shiraiwaensis</i> Shinohara, 1986.....                                                                                 | <b>88</b>  |
| <i>Parafontaria spathulata</i> (Miyosi, 1951).....                                                                                     | <b>88</b>  |
| <i>Parafontaria takakuwai</i> (Shinohara, 1957).....                                                                                   | <b>89</b>  |
| <i>Parafontaria tokaiensis</i> Tanabe, 2002.....                                                                                       | <b>89</b>  |
| <i>Parafontaria tonominea</i> (Attems, 1899).....                                                                                      | <b>89</b>  |
| <b>Species of uncertain status in <i>Parafontaria</i></b> .....                                                                        | <b>90</b>  |
| <i>Parafontaria terminalis</i> (Takakuwa, 1942).....                                                                                   | <b>90</b>  |
| <b>Table 1: Valid genera of Xystodesmidae, subfamily Xystodesminae</b> .....                                                           | <b>79</b>  |
| <b>Table 2: Valid genera of Xystodesmidae, subfamilies Melaphinae and Parafontariinae</b> .....                                        | <b>84</b>  |
| <b>Table 3: Generic synonyms in the family Xystodesmidae, organized in tribes,<br/>in alphabetical order by valid genus name</b> ..... | <b>91</b>  |
| <b>Table 4: Generic synonyms in Xystodesmidae, in alphabetical order of<br/>valid genus name</b> .....                                 | <b>92</b>  |
| <b>Table 5: Generic synonyms in Xystodesmidae, in alphabetical order of synonym</b> .....                                              | <b>92</b>  |
| <b>Table 6: Species synonyms in the family Xystodesdmidae,<br/>in alphabetical order by valid genus-species combination</b> .....      | <b>93</b>  |
| <b>Table 7: Species synonyms in the family Xystodesdmidae,<br/>in alphabetical order by synonymous species name</b> .....              | <b>99</b>  |
| <b>Literature Cited</b> .....                                                                                                          | <b>104</b> |



# A species catalog of the millipede family Xystodesmidae (Diplopoda: Polydesmida)

Paul Marek<sup>1,2\*</sup>, Tsutomu Tanabe<sup>3</sup>, Petra Sierwald<sup>4</sup>

## ABSTRACT

The Holarctic millipede family Xystodesmidae is composed of 62 genera and 393 species subdivided into three subfamilies and 12 tribes. While the center of known species diversity is in the U.S. Appalachians, the mountains of the western U.S. and East Asia contain the second largest share of known species diversity, and Central America and China hold the greatest undiscovered species diversity. Nonetheless, the Appalachian Mountains and East Asia remain as repositories of numerous undescribed species, and possess a number of poorly known genera awaiting a first revision. Here, we provide the first global species catalog of the Xystodesmidae. The primary goal of this checklist is to synthesize the current alpha-taxonomic information of Xystodesmidae as a foundation for future species discovery, description, and molecular systematics. Xystodesmid millipedes are some of the largest (some reaching 80 mm in length) and most inadequately known macrofauna in North America. With their significance as decomposers in forested ecosystems (particularly in regions with extirpated natural assemblages of earthworms) we know surprisingly little about this fascinating lineage of blind soil-dwelling animals.

## KEYWORDS

taxonomy, Myriapoda, biodiversity, detritivore, Merocheta, Leptodesmidea, Xystodesmoidea, *Xystodesmus*, *Apheloria*

## INTRODUCTION

The millipede family Xystodesmidae (Polydesmida) is composed of 393 species in 62 genera distributed in East Asia, the Mediterranean Basin, and North and Central America. Members of the family predominantly inhabit temperate deciduous forests co-distributed across the Holarctic Region. However, a few taxa occur in dry pinyon-juniper forests of the Mexican Highlands, Red cedar glades in the U.S. Appalachians, and Japanese cedar forests of East Asia.

Members of the Xystodesmidae possess a fascinating diversity of biological traits; some species with aposematic colors assemble into multi-species Müllerian mimicry rings (Fig. 1) and others are bioluminescent (Marek et al., 2011). The body length of xystodesmid millipedes ranges from medium to large for polydesmidan millipedes, varying from 12.1 mm long in *Lourdesia minuscula* to 80 mm in *Rhysodesmus dasyypus* (Shelley, 1991; Hoffman, 1970). The eighth leg pair of male xystodesmids are modified into gonopods that function as copulatory devices for transferring sperm to the female (Fig. 2). These gonopods are

characteristically unbranched in the Xystodesmidae and are basally affixed to a membranous sternal region surrounded by a wide elliptical aperture. The left and right gonopods are separated by a flexible membrane, and are free to articulate independently. However, a few taxa possess a rigid sternum between the leg pair that prevents independent movement. The female cyphopods, albeit not actually modified legs, are the rigid end-caps of the paired common oviducts. The location of the cyphopods are posterior (or posterolateral in some taxa) to the second pair of legs and situated in a pouch between the second leg pair and sternum of the 3rd ring. The apex of the cyphopod is hard and round, and possesses a grooved channel subtended basally by the opening of the oviduct called the operculum. The channel, particularly in the Apheloriini, appears to correspond in size and shape to the telopodites of the male. The hardened cyphopodal apex is composed of two halves, often referred to as genital valves, which sit atop the more membranous neck of the cyphopod (modified into long retractable bellows in the East Asian genera *Parafontaria* and *Levizonus*). Some North American taxa (e.g., the tribe Apheloriini) possess a receptacle, which is a plate-like sclerite at the base of the cyphopod that partially or completely covers the genital

1. Department of Entomology, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, USA;

2. Research Associate, Virginia Museum of Natural History, Martinsville, Virginia, USA;

\*email: pmarek@vt.edu

3. Faculty of Education, Kumamoto University, Kurokami, Kumamoto, Japan;

4. Department of Zoology, Field Museum of Natural History, Chicago, Illinois, USA.

valves. While there is evidence that during copulation the male deposits sperm from the gonopod to the opening of the oviduct in the female, the mechanisms of sperm storage and internal fertilization in xystodesmid millipedes are uncertain. The action of the gonopods and cyphopods in the Japanese species *Parafontaria tonominea* and implications for mechanical reproductive isolation between species have been thoroughly detailed by Tanabe & Sota (2008; 2014).

The taxonomy of Xystodesmidae is based primarily on features of the gonopods. Species have been described using a morphological species concept, where forms have been grouped based on morphological gaps between populations. As geographical representation for species in museum collections increased over the years, millipede taxonomists grasped that morphologically unique species blended together in areas of overlap. To describe this observed continuum of morphological variation, formal subspecies as well as informal “intergrades” were used (Shelley, 1976). Species were assigned to populations that were presumed to be reproductively isolated from each other, and subspecies to a geographical continuum of anatomical forms between populations. The informal term “intergrade” was applied to presumed (sub)species hybrids. Millipede taxonomists mainly examined gonopodal morphology between populations to understand species morpho-space. However, color was also historically used and is the basis for a number of subspecies in particular. Bond, et al. (2004) and Marek & Bond (2006) provide a brief discussion of the promise and pitfalls of exclusively using gonopodal morphology for taxonomy. A better understanding of the link between gonopodal morphology and species identity is desired, and recent detailed analyses of genitalic shape in millipedes, with respect to reproductive isolation at the species level, have been conducted in Spirobolida (Bond et al., 2004); Polydesmida (Rowe, 2010; Wojciech & Simmons, 2012; Tanabe & Sota 2008; 2014); Chordeumatida (Tadler, 1993), and Spirostreptida (Mwabvu et al., 2013).

## Purpose

The primary goal of this checklist is to synthesize the current alpha-taxonomic information of Xystodesmidae as a foundation for future species discovery, description, and molecular systematics. Importantly, a comprehensive species list of the Xystodesmidae has never been published before, and this current revised list will assist in the compilation of online species catalogs and faunal lists that currently rely on an amalgam of outdated classifications assembled piece-meal from disparate sources. The species-level classifications are posted on the Tree of Life and Encyclopedia of Life web projects (online at [www.tolweb.org/Xystodesmidae](http://www.tolweb.org/Xystodesmidae) and [www.eol.org/pages/6503](http://www.eol.org/pages/6503)).

This project began as a hand-written list of xystodesmid

genera created out of necessity to comprehend the classification of the family. Subsequently, the genus list was merged with the North American millipede species checklists by Chamberlin & Hoffman (1958) and Hoffman (1999). The list was substantially enhanced by research in the library of Richard Hoffman at the Virginia Museum of Natural History. The Biodiversity Heritage Library provided several additional titles and sources of information, particularly of U.S. government articles and copyright-free literature predating 1923 ([www.biodiversitylibrary.org](http://www.biodiversitylibrary.org)). Several additions were made by consultation of the SysMyr online database of Jörg Spelda, Munich, Germany ([www.gbif2.mwn.de/GloMyrIS/searchh\\_myrr.htm](http://www.gbif2.mwn.de/GloMyrIS/searchh_myrr.htm)); the myriapod bibliography by Hans Reip, Görlitz, Germany ([www.myriapoden-info.de/MyriaLit/](http://www.myriapoden-info.de/MyriaLit/)); and Fauna Europaea ([www.faunaeur.org](http://www.faunaeur.org)).

## Taxonomic history

In 1895, Cook established the family Xystodesmidae for the genera *Fontaria* Gray, *Eurydesmus* Saussure, *Rhysodesmus* Cook, *Pachydesmus* Cook, *Stenodesmus* Saussure, and *Xystodesmus* Cook. Nine years later, Cook (1904) ultimately provided a diagnosis of the family distinguishing it from the Chelodesmidae based on the presence of a spine on the prefemur, bisinuate curved claws on the pregonopodal legs, and general appearance of the body. In 1910, Pocock reduced the taxon to a subfamily of Chelodesmidae stating that “no more than subfamily rank should be accorded to this character” (*i.e.*, the possession of prefemoral spines, which he determined was a minor differentiating feature). Later, Brölemann in his “Essai sur les Polydesmiens” (1916) lumped the family into Leptodesmidae. This conservative and yet influential classification of Polydesmida was later followed for several decades by many authors. In 1926, and referring to the family as Fontariidae, Attems provided a different yet more detailed diagnosis, differentiating the taxon by coalescence of the distal articles of the gonopod, presence of a cannula, shape of the metatergites, body size, and ozopore formula. The only commonality between the diagnoses of Attems and Cook was a broad body form as a differentiating feature. Attems (1926) did not accept prefemoral spines as a diagnostic feature, which along with body size, are now known to be extremely variable in the family (Hoffman, 1962b). Attems did, however, include several chelodesmid, dalodesmid, and vaalgonopodid genera in his construct of Fontariidae which undoubtedly confused the boundaries of the diagnosis. Attems re-established familial rank of the Fontariidae (=Xystodesmidae), which has been followed since 1926 along with the accompanying Attemsonian classification scheme of the order Polydesmida. In 1990, using morphological phylogenetics, Simonsen estimated

a phylogeny of Polydesmida and revised the higher-level classification of the order. Simonsen focused on relationships within the suborder Polydesmidea and primarily investigated phylogeny above the family level. Although detailed and (importantly) reproducible in its methodology, Simonsen's phylogeny and classification lacked widespread support among millipede taxonomists (save a few changes in the infraorder Oniscodesmoids), and the Attemsian classification system of Polydesmida in large part still stands to this day. Since then, the family has been revised on a genus-by-genus basis and the present supra-generic classification of the taxon remains according to Hoffman (1980) with some tribal level alterations by Marek & Bond, Tanabe, Shelley, and Hoffman. With the collection of new material and nearly comprehensive description of Nearctic taxa by Chamberlin, Loomis, Hoffman, Causey, Buckett, Gardner, and Shelley, the familial diagnosis has been continuously refined and improved. Simultaneous descriptions of Palaearctic taxa, and refinement of the family's morphological boundaries occurred with the detailed studies of Shinohara, Takakuwa, Wang, Miyosi, Mikhaljova, and Tanabe. Although Xystodesmidae has a Holarctic distribution, and apparently Nearctic species are not monophyletic without the inclusion of Palearctic taxa, just a handful of studies have considered the family from a global perspective. Below, we present a family diagnosis synthesized from several recent studies (Hoffman, 1962b, 1978c; Mikhaljova, 1998), and a global catalog of the species of Xystodesmidae.

### The genus *Fontaria* Gray 1832

The species *Julus virginiensis* Drury, 1770 is the oldest name for the family Xystodesmidae, and was established by the entomologist Dru Drury based on specimens sent to him from the botanist James Greenway, a resident of Dinwiddie County in southeastern Virginia, U.S.A. Greenway probably sent multiple specimens based on a thank you note from Drury indicating that he "never saw any Juli (for such they were) so large" (*Juli* is the antiquated word for millipedes or other myriapod). While the specimens are presumed to have originated from the Greenway plantation near Bolsters Store (Virginia), the type material is lost, and nothing else is known about the species apart from a short description and color illustration (Drury, 1770). Then in 1805, Palisot de Beauvois transferred the name to the genus *Polydesmus*, probably based solely on examination of literature and Drury's original description and illustration. In 1832, Gray established the genus *Fontaria* based on a specimen he identified as *Julus virginiensis* (apparently unaware of Palisot de Beauvois's transfer of the species into *Polydesmus*). However, this specimen is unlikely to have been from Drury's original type material or even from Virginia, and subsequent taxonomic confusion (including here with *Fontaria virginiensis*)

stemmed from the continuous misapplication of Drury's name *Julus virginiensis* to at least three different genera in the eastern U.S. (*Apheloria*, *Pleuroloma* and *Pachydesmus*). Based on publication of the myriapod type material in the Natural History Museum in London by Gray (1844) and Newport (1844), types of *Fontaria virginiensis* were deposited; however, Gray indicates (1844: 10) the locality as Georgia. This suggests Gray's *Fontaria virginiensis* is a different specimen and probably not the form examined by Drury or a species of *Apheloria*, which is restricted to the northernmost border of state (Shelley & McAllister, 2007). In addition, Gray's 1832 illustration of the gonopods of *Fontaria virginiensis* and the redescription of the type by Pocock (1910) does not accord with the anatomy of *Apheloria*, especially the genus-characteristic circular gonopods that are acuminate at the tip and not expanded (Gray, 1832: pl. 135, fig. 1b; Pocock, 1910: 188). Chamberlin & Hoffman (1958) later considered *Fontaria* a valid genus, typified on *Julus virginiensis* Drury, 1770 by Brölemann, 1916. However, Jeekel (1971: 264) declared the typification invalid, because the cited illustration for the type specimen features a specimen named *Fontaria virginiensis* attributed to Gray as author, not to Drury. The most probable scenario is that Drury's *Julus virginiensis* type material is lost (if still in existence it probably represents the dominant *Apheloria* species in southeastern Virginia, suggested by Shelley, 1980), and Gray's *Fontaria virginiensis* type material represents a species from Georgia of the genus *Stelgipus*, *Cheiropus* or *Cleptoria*. Hoffman (1980: 144) recommended a case be made to the ICZN for a ruling. Nonetheless, the issue of *Fontaria* requires a detailed analysis and will be taken up later. For this catalog, we follow previous workers and provide a classification reflecting preexisting taxonomy without amendments. Further details regarding the taxonomic history of *Julus virginiensis* and *Fontaria virginiensis* can be read in summaries by Shelley (1980) and Hoffman (1952; 1957).

### MATERIALS AND METHODS

The foundation for this species list emerged from the "Checklist of North American millipedes," hereafter "Checklist" (Hoffman, 1999). Afterwards, primary literature from modern taxonomic syntheses of U.S. millipede taxa (primarily Hoffman and Shelley) was reviewed to gather synonyms, chresonyms (*i.e.* name use instances), omitted taxa, and new species described after the Checklist's publication in 1999. Next, taxonomic work on East Asian xystodesmids by Tanabe, Shinohara, Korsós, and Mikhaljova were compiled and referenced to complement the North American species list. Several visits to the library of Richard Hoffman, conserved at the Virginia Museum of Natural History (Martinsville, Virginia,





**Figure 1.** Representatives of the millipede family Xystodesmidae. **A.** *Stenodesmus tuobitus*, one of the smallest US xystodesmid species. **B.** *Pachydesmus crassicutis laticollis*, male top, female bottom. (The typical sexual size dimorphism of invertebrates in which the female is larger, is reversed in this species.) **C.** *Stenodesmus tuobitus* in situ on piñon pine and juniper leaves. **D.** Undescribed species of *Apheloria*, Müllerian co-mimic of *Brachoria mendota* in “H.” **E.** *Pachydesmus crassicutis laticollis*, the largest xystodesmid species in the US. **F.** *Sigocheir furcata*, male bottom, female top. **G.** Undescribed species of *Xystocheir* in situ on dead oak leaf. **H.** *Brachoria mendota*, Müllerian co-mimic of *Apheloria* in “D.” **I.** *Selenocheir arcuata*. **J.** *Motyxia sequoiae* bioluminescence. **K.** *Parcipromus cooki* – this diminutive species can be found at night crawling on the bark of giant sequoia trees in California. **L.** Undescribed species of *Apheloria*, Müllerian co-mimic of *Appalachioria* in “P.” **M.** *Falloria aphelorioides*. **N.** *Isaphe convexa*. **O.** *Ochthocelata adynata*. **P.** Undescribed species of *Appalachioria*, Müllerian co-mimic of *Apheloria* in “L.” (At 22 mm in length, though diminutive for the family Xystodesmidae, *S. tuobitus* is not the smallest species. *Lourdesia minuscula* from Coffee County, Alabama, at about half *S. tuobitus* size is the tiniest at 12.1 mm in length and 2.1 mm in width.)

U.S.A.), provided additional references, details regarding museum repositories, and further chresonyms. The online resources of (1) the Biodiversity Heritage Library ([www.biodiversitylibrary.org](http://www.biodiversitylibrary.org)), (2) SysMyr database of Jörg Spelda ([www.gbifev2.mwn.de/GloMyrIS/searchh\\_my.htm](http://www.gbifev2.mwn.de/GloMyrIS/searchh_my.htm)), and (3) the myriapod bibliography by Hans Reip ([www.myriapoden-info.de/MyriaLit/](http://www.myriapoden-info.de/MyriaLit/)) were consulted to provide remaining literature, taxonomy of Mediterranean species, and accurate bibliographic citations. Finally, all genera referenced in the nomenclators of Jeekel (1971) and Shelley et al. (2000), and higher-level taxa in Hoffman (1980) were scrutinized and analyzed. Google Translate ([translate.google.com](http://translate.google.com)) assisted with French, Latin and German translations.

## Conventions and acronyms

The checklist is arranged hierarchically by taxon starting with Xystodesminae followed by Melaphinae and Parafontariinae, and then alphabetically by tribe, genus, and species. Complete references, including full journal names, are given with each taxon. For each subfamily, tribe, and genus—and in some cases species—supplemental notes are given. Distributions are provided for subfamilies, tribes, and genera. Type status, gender, and locality are provided for each name. Ambiguous localities are enclosed in quotes (e.g., *Fontaria coriacea* was labeled solely “Virginien”). Each species account is preceded by the full species name with author and date. Species entries contain the original species combination followed by synonyms and new combinations in chronological order. The original species combination is immediately followed by the author and date. In contrast,



new combinations are followed by an em-dash and the author who established the new combination. Subsequent usages of the name follow in chronological order. Synonyms are followed by the author who synonymized the name, date, and full reference. We attempted to list all published instances of the name; however, some instances were doubtlessly omitted. Museum acronyms are according to Sierwald & Reft (2004), with the following additions: IEAS = Shanghai Institute of Entomology, Academia Sinica, Shanghai, China; MZSF = Muséum Zoologique, Université de Strasbourg, France, Strasbourg; NMW = Naturhistorisches Museum, Wien, Austria; NTUT = National Taiwan University, Taipei, Taiwan; OMNH = Osaka Museum of Natural History, Osaka, Japan; RBCM = Royal British Columbia Museum, Victoria, Canada; UWBM = University of Washington Biological Museum, Seattle, Washington, U.S.A.; YM = Private collection of Y. Miyosi, Matsuyama, Japan; ZMA = Zoological Museum Amsterdam, Amsterdam, The Netherlands. Supplemental acronyms are as follows: HT = holotype; PT = paratype; LT = lectotype; ST = syntype; nec = but not; and sic = misspelling.

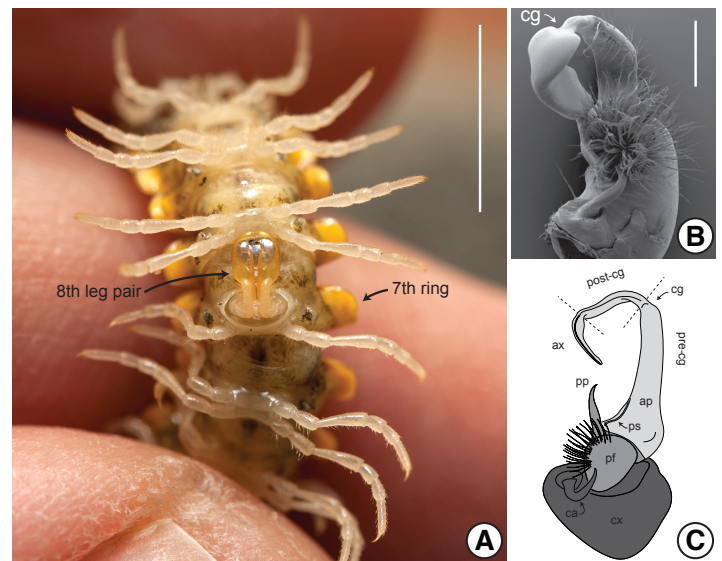
## ACKNOWLEDGEMENTS

We thank Avery Lane, undergraduate student at the University of Arizona, for primary assembly of North American species into the catalog. We are grateful for assistance from Mary Catherine Santoro in the Research Library at the Virginia Museum of Natural History. Special thanks to Joe Keiper, Jim Beard, Haley Cartmell, and Nancy Moncrief (VMNH) for providing kind assistance during the visits of PEM. Zoltan Korsós (Hungarian Natural History Museum, Hungary) and Nobuo Tsurusaki (Tottori University, Japan) assisted with investigating the type repositories of several species in the genus *Xystodesmus*. Igor Sharakhov provided helpful translations of Russian text. Tim McCoy and Charity Hall read earlier drafts of the manuscript and provided useful recommendations for improvement. We also thank two anonymous reviewers who provided helpful suggestions for improving prior versions of the manuscript. We thank the National Science Foundation for generous support of the research through a Phylogenetic Systematics award to P. Marek (#DEB1410911)

## RESULTS

### Taxonomy

*Diagnostic characters as presented in the literature:* Adults of Xystodesmidae are distinct from other members of the suborder Leptodesmidea based on the combination of the following—Exoskeleton: Colorful conspicuous millipedes, few drab cryptic species. Dorsum glossy, smooth—often coriaceous. Body broad, compact in



**Figure 2.** Morphology of xystodesmid millipede gonopods. **A.** Venter of male *Sigmocheir furcata*. The gonopods are the first pair of legs on the seventh segment (8<sup>th</sup> leg pair) that have been modified to function as copulatory devices (scale bar = 6 mm). **B.** Scanning electron micrograph of left gonopod of male *Brachoria splendida*, medial view (scale bar = 1 mm). **C.** Diagram of *Brachoria initialis* gonopod, color-coded by region (dark gray = coxa, light gray = acropodite, medium gray = prefemur). ax = acropodite apex; ca = cannula; cg = cingulum; cx = coxa; post-cg = postcingular region of acropodite; pre-cg = precingular region of acropodite; pf = prefemur; pp = prefemoral process; ps = prostatic groove. The gonopod is composed of the acropodite, prefemur, and coxa.

general appearance, capsule-like. Lateral carinae of paranota continuous, reducing segmented appearance—not moniliform as in as in the Rhacodesmidae, Chelodesmidae, Oxydesmidae. Body length  $\approx$  40 mm, rarely less than 20 mm as in the Euryuridae, Eurymerodesmidae. Tergites arched, with paranota oriented downwards—not flat as in the Rhacodesmidae, Chelodesmidae, Oxydesmidae. Seventh antennomere unmodified, sensory cones in a simple circular ring, not separated by inward projections of the distal rim of the antennomere as in the Chelodesmidae. Legs with prefemoral spines, sharper on pregonopodal legs. Gonopod cannula present on coxa, separated from distal rim of coxa, forming a cannular socket. Gonopods composed of coxa, with prefemur and acropodite fused into a telopodite. Apical acropodite simple, usually  $\leq$  2 branches. Gonopod aperture transverse elliptical in shape, large, thus reducing the 7<sup>th</sup> trunk ring prozonite anteriorly to a narrow bar. Odor pleasant, vanilla (benzaldehyde byproduct of cyanogenesis).

Note: The higher level classification of Leptodesmidea primarily reflects the early 19<sup>th</sup> century system of Attems (1926) with modifications by Hoffman (1980). The group has never been addressed using phylogenetic methods, and most families are vaguely delineated and lack explicit taxon definitions. Hypotheses regarding family level relationships are limited and primarily reflect superfamilial designations of Hoffman (1980). Because the familial boundaries are

unclear and phylogenetic affiliation with closely related families unknown, the informativeness of the diagnosis is limited.

## SPECIES-LEVEL CLASSIFICATION OF THE MILLIPEDE FAMILY XYSTODESMIDAE

Class **Diplopoda** de Blainville in Gervais, 1844  
Subclass **Chilognatha** Latreille, 1802/1803  
Infraclass **Helminthomorpha** Pocock, 1887  
Subterclass **Eugnatha** Attems, 1898  
Superorder **Merocheta** Cook, 1895  
Order **Polydesmida** Pocock, 1887  
Suborder **Leptodesmidea** Brölemann, 1916  
Superfamily **Xystodesmoidea** Cook, 1895

### Family Xystodesmidae Cook, 1895

3 subfamilies: 1 North America, eastern Asia, eastern Russia, Mediterranean rim (Xystodesminae); 1 Japan (Parafontariinae); 1 Mediterranean rim, Ethiopia (Melaphinae).

Xystodesmidae Cook, 1895, *Annals of the New York Academy of Sciences*, 9: 4. Attems, 1898, *Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien*, 67: 225. Cook, 1904, *Harriman Alaska Expedition*, 8: 52. Hoffman, 1962b, *Opuscula Zoologica*, 59: 2. Hoffman & Lohmander, 1968, *Mitteilungen aus dem Hamburgischen zoologischen Museum und Institut*, 65: 97. Kevan, 1983, *Canadian Journal of Zoology*, 61(12): 2968. Hoffman, 1999, Checklist: 304 (292 pdf).

Polydesmidae (in part) Pocock, 1895, *The Annals and Magazine of Natural History*, {6} 15(88): 353.

Leptodesminae (in part) Attems, 1899, *Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien*, 68: 639.

Xystodesminae Pocock, 1909, *Biologia Centrali-Americana, Diplopoda*, p. 186.

Leptodesmidae (in part) Brölemann, 1916, *Annales de Société entomologique de France*, 84: 584. Attems, 1938, *Das Tierreich*, 69: 1. Attems, 1914, *Archiv für Naturgeschichte*, 80A: 280.

Fontariidae Attems, 1926, *Handbuch der Zoologie*, 4: 153. Synonymized Hoffman, 1980, *Classification of the Diplopoda*, p. 156. Verhoeff, 1936a, *Transactions of the Sapporo Natural History Society*, 14(3): 151. Verhoeff, 1936b, *Zoologischer Anzeiger*, 115(11-12): 297. Verhoeff, 1937, *Zoologischer Anzeiger*, 117: 309.

Eurydesmidae Chamberlin, 1950, *Zoologica*, 35: 142. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 16. Synonymized by Hoffman &

Lohmander, 1968, *Mitteilungen aus dem Hamburgischen zoologischen Museum und Institut*, 65: 97.

### Subfamily Xystodesminae Hoffman, 1978

10 tribes: 7 North and Central America; 1 China and northwestern U.S.; 1 eastern Asia, western U.S. and eastern Russia; and 1 Mediterranean rim.

Xystodesminae Hoffman, 1978c, *Spixiana*, 1(3): 219. Hoffman, 1980, *Classification of the Diplopoda*, p. 156. Kevan, 1983, *Canadian Journal of Zoology*, 61(12): 2968. Hoffman, 1999, Checklist: 304 (292 pdf). Shelley, 2002b, *Monographs of the Western North American Naturalist*, 1(1), 90: 109. Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41(3): 724.

### Tribe Apheloriini Hoffman, 1980

(17 genera, 116 species: eastern North America)

Apheloriini Hoffman, 1980, *Classification of the Diplopoda*, p. 158. Hoffman, 1999, Checklist: 304 (292 pdf).

Apheloriini – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 205. Shelley et al., 2000, *Nomenclator Generum et Familiarum Diplopodorum II*: 85. Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41(3): 724. Marek & Bond, 2007, *Zootaxa*, 1610: 36. Marek & Bond, 2009, *Proceedings of the National Academy of Sciences, USA*, 106(24): 9755. Marek, 2010, *Zoological Journal of the Linnean Society*, 159(4): 823, fig. 3.

### Genus *Apheloria* Chamberlin, 1921

4 species

*Apheloria* Chamberlin, 1921, *Canadian Entomologist*, 53: 232. Type species: *Fontaria montana* Bollman, 1887, by original designation. Attems, 1931, *Zoologica*, 30(79): 6. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 17. Jeekel, 1971, *Monografieën van de Nederlandse Entomologische Vereniging*, 5: 248. Hoffman, 1978b, *Myriapodologica*, 1: 2. Hoffman, 1980, *Classification of the Diplopoda*, p. 158. Shelley, 1986, in: Shelley & Whitehead, *Transactions of the American Entomological Society*, 37: 207. Shelley, 1997, *Insecta Mundi*, 11: 334. Shelley et al., 2000, *Nomenclator Generum et Familiarum Diplopodorum II*: 85. McAllister et al., 2002b, *Journal of the Arkansas Academy of Science*, 56: 96. Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41(3): 724. Shelley & McAllister, 2007, *Western North American Naturalist*, 67: 258. Marek & Bond, 2007, *Zootaxa*, 1610: 36.

*Leptocircus* Attems, 1931, *Zoologica*, 30(79): 67. Type



species: *L. inexpectatus* Attems, 1931, by original designation. Preoccupied by *Leptocircus* Swainson, 1833 (Lepidoptera).

Distribution: United States, east of the Great Plains to the Atlantic Ocean and north of the Gulf coastal states, in western New England and north to southern Québec.

Note: As a result of widespread Müllerian color mimicry in Appalachia, in which *Apheloria* participates, dorsal coloration is extremely variable with some species comprising up to 6-7 unique color morphs that vary in hue and pattern of dorsal markings. This variation is matched by unrelated species of *Brachoria* and *Appalachioria* (Marek & Bond, 2009: fig. 1).

### ***Apheloria luminosa* (Kenyon, 1893)**

*Fontaria luminosa* Kenyon, 1893, Publications of the Nebraska Academy of Sciences, 3: 16. Type material lost. MALE HT (USNM). United States: Nebraska, Douglas County. Cook, 1900, Science, 12(301): 519. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 55. Causey & Tiemann, 1970, Bulletin du Muséum national d'histoire naturelle. Supplément, 2, 41: 37. The 'phosphorescent' myriapod from Nebraska described by Bruner (1891, Insect Life, 3: 319) most likely refers to *Apheloria luminosa*.

*Apheloria luminosa* – Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 37: 209. Hoffman, 1999, Checklist: 308 (296 pdf). Shelley & McAllister, 2007, Western North American Naturalist, 67: 261.

Note: In 1877, Bruner discovered “something that looked like a double series of small beads of fire...crawling about among the dead leaves” on his farm 3 miles (4.8 km) west of Omaha, Nebraska, U.S.A. (Bruner, 1891). Nearly two decades later, several specimens were sent to Kenyon, which he described as *Fontaria luminosa*. It is however unconfirmed whether the species is indeed bioluminescent or just brightly colored, since specimens have not been recollected since the original type collection at the turn of the century (Shelley, 1986; Hoffman, 1999; Shelley & McAllister, 2007). Overall, Bruner's description [see at: <http://biodiversitylibrary.org/page/42243406>] seems to indicate true bioluminescence. “In color they were yellowish brown, and had the edges of each segment margined with a narrow yellow line above. There were also two small round yellow marks upon each segment dorsally, one near each lateral edge. These latter were about 1 millimetre in diameter, and were the source of the phosphorescence when the animal was placed in the dark. The light that was emitted was whitish and, if it is remembered correctly, more marked or intense at one time than another” (Bruner, 1891: 320).

### ***Apheloria montana* (Bollman, 1887)**

*Fontaria montana* Bollman, 1887, Proceedings of the United States National Museum, 10: 622. MALE HT (USNM). United States: Tennessee, Cocke County. Bollman, 1893, Bulletin of the United States National Museum, 46: 39. Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 263.

*Apheloria montana* – Chamberlin, 1921, Canadian Entomologist, 53: 232, pl. 9, fig. 2. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 19. Hoffman, 1999, Checklist: 305 (293 pdf). Attems, 1938, Das Tierreich 69: 171. Shelley, 2000b, Journal of the Elisha Mitchell Scientific Society, 116(3): 193.

*Apheloria unaka* Chamberlin, 1939, Bulletin of the University of Utah, 30(2): 11, fig. 33. MALE HT (USNM). United States: Tennessee, Unicoi County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 21. Wray, 1967, Insects of North Carolina, 151. Synonymized by Hoffman, 1999, Checklist: 305 (293 pdf).

*Apheloria pinicola* Chamberlin, 1947, Proceedings of the Academy of Natural Sciences of Philadelphia, 99: 26, figs. 6, 7. MALE HT (ANSP). United States: Kentucky, Bell County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 19. Synonymized by Hoffman, 1999, Checklist: 305 (293 pdf).

*Apheloria roanea* Chamberlin, 1947, Proceedings of the Academy of Natural Sciences of Philadelphia, 99: 26, fig. 8. MALE HT (ANSP). United States: Tennessee, Roane County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 20. Synonymized by Hoffman, 1999, Checklist: 306 (294 pdf).

### ***Apheloria tigana* Chamberlin, 1939**

*Apheloria tigana* Chamberlin, 1939, Bulletin of the University of Utah, 30(2): 11, fig. 29. MALE HT (USNM). United States: North Carolina, Wake County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 20. Wray, 1967, Insects of North Carolina, 151. Shelley, 1978, Journal of Natural History, 12: 63. Hoffman, 1999, Checklist: 306 (294 pdf). Shelley, 2000b, Journal of the Elisha Mitchell Scientific Society, 116(3): 193.

*Apheloria waccamana* Chamberlin, 1940a, Entomological News, 51: 284, fig. 3. MALE HT (USNM). United States: North Carolina, Columbus County. Brimley, 1938, The Insects of North Carolina, 498. Chamberlin

& Hoffman, 1958, Bulletin of the United States National Museum, 212: 21. Wray, 1967, Insects of North Carolina, 151. Synonymized by Shelley, 1978, Journal of Natural History, 12: 63.

*Apheloria aspila* Chamberlin, 1939, Bulletin of the University of Utah, 30(2): 10, fig. 28. MALE HT (USNM). United States: North Carolina, Jackson County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 18. Wray, 1967, Insects of North Carolina, 151. Synonymized by Hoffman, 1999, Checklist: 306 (294 pdf).

### *Apheloria virginienensis virginienensis* (Drury, 1770)

*Julus virginienensis* Drury, 1770, Illustrations of natural History, 1: pl. 43, fig. 8. Type material lost. MALE? HT? (BMNH?). United States: "Virginia."

*Polydesmus (Fontaria) virginienensis* (nec Gray, 1832; nec C.L. Koch, 1847; nec Wood, 1865; nec Bollman, 1888d) – Drury & Westwood, 1837, Illustrations of exotic entomology: containing upwards of six hundred and fifty figures and descriptions of foreign insects, interspersed with remarks and reflections on their nature and properties, 1: 96, pl. 43, fig. 8.

*Apheloria virginia* Chamberlin, 1939, Bulletin of the University of Utah, 30(2): 12, fig. 30. MALE HT (USNM). United States: Virginia, Pittsylvania County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 21. Wray, 1967, Insects of North Carolina, 151. Synonymized by Hoffman, 1999, Checklist: 306 (294 pdf).

*Apheloria virginienensis* – Shelley, 1980b, Canadian Journal of Zoology, 58: 131, footnote 6. Shelley, 1988, Canadian Journal of Zoology, 66(7): 1653. Kevan & Scudder, 1989, Biological Survey of Canada Taxonomic Series, 1: 75.

*Apheloria virginienensis virginienensis* – Hoffman, 1999, Checklist: 306 (294 pdf).

Note: Named five years before the American Revolutionary War, *Julus virginienensis* Drury 1770 is the oldest name in the family Xystodesmidae. Drury based the name on specimens sent to him by physician/botanist James Greenway of Dinwiddie County, Virginia, U.S.A. (Cockerell, 1922). The type material probably consisted of two or more specimens (illustrated in pl. 43, fig. 8), however their whereabouts are currently unknown. The specimens likely originated from the Greenway plantation (called "The Grove"), near Bolsters Store in the southern part of Dinwiddie County. Two centuries later, Shelley (1980) collected a small series of *Apheloria* specimens from Dinwiddie County that are consistent with Drury's description and illustration.

### *Apheloria virginienensis corrugata* (Wood, 1864)

*Fontaria virginienensis* (nec Gray, 1832; nec Drury & Westwood 1837; nec Wood, 1865; nec Bollman, 1888d) C.L. Koch, 1847, in: Kritische Revision der Insectenfauna Deutschlands, 141. MALE? HT? (ZMB?). "North America." C. L. Koch, 1863, Die Myriapoden, 1: 71, pl. 32, fig. 62. Attems, 1938, Das Tierreich, 69: 167.

*Polydesmus (Fontaria) corrugatus* Wood, 1864, Proceedings of the Academy of Natural Sciences of Philadelphia, 16: 6. MALE ST (USNM). United States: New York, Oneida County. Wood, 1865, Transactions of the American Philosophical Society, 13: 222, figs. 50, 51.

*Fontaria coriacea* (nec C.L. Koch, 1847) – sensu Bollman, 1889a, Proceedings of the United States National Museum, 11: 406.

*Apheloria coriacea* – Hoffman, 1949c, American Museum Novitates 1405: 3, figs. 1-4. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 18. Misidentification of the name *Fontaria coriacea* Koch, 1847.

*Apheloria corrugata* – Attems, 1938, Das Tierreich, 69: 170.

*Apheloria adela* Chamberlin, 1939, Bulletin of the University of Utah, 30(2): 10, fig. 34. MALE HT (USNM). United States: New York, Tompkins County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 17. Synonymized by Hoffman, 1957, Proceedings of the Biological Society of Washington, 70: 186, under *A. corrugata corrugata*.

*Apheloria corrugata corrugata* – Hoffman, 1957, Proceedings of the Biological Society of Washington, 70: 183.

*Apheloria (Apheloria) corrugata corrugata* – Kevan, 1983, Canadian Journal of Zoology, 61(12): 2968.

*Apheloria virginienensis corrugata* – Hoffman, 1999, Checklist: 307 (294 pdf). Shelley, 2002c, Canadian Journal of Zoology, 80(11): 1871.

### *Apheloria virginienensis butleriana* (Bollman, 1889)

*Fontaria butleriana* Bollman, 1889a, Proceedings of the United States National Museum, 11: 407. FEMALE HT (USNM). United States: Indiana, Franklin County. Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 263. Bollman, 1893, Bulletin of the United States National Museum, 46: 108. Attems, 1938, Das Tierreich 69: 167.

*Apheloria butleriana* – Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 18.

*Apheloria corrugata butleriana* – Hoffman, 1957, Proceedings of the Biological Society of Washington, 70: 186, footnote.

*Apheloria asburna* Chamberlin, 1949b, Journal of the Washington Academy of Sciences, 39: 101. MALE HT (USNM). United States: Tennessee, Davidson County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 18. Synonymized by Hoffman, 1999, Checklist: 307 (295 pdf).

*Leptocircus inexpectatus* Attems, 1931, Zoologica, 30(79): 67, figs. 102- 104. MALE HT (NMW). “North America.” Synonymized by Hoffman, 1999, Checklist: 307 (295 pdf).

*Apheloria inexpectata* – Attems, 1938, Das Tierreich, 69: 169, fig. 186. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 19.

*Apheloria virginensis butleriana* – Hoffman, 1999, Checklist: 307 (295 pdf).

### ***Apheloria virginensis iowa* Chamberlin, 1939**

*Apheloria iowa* Chamberlin, 1939, Bulletin of the University of Utah, 30(2): 10, fig. 28. MALE HT (USNM). United States: Iowa, Henry County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 19.

*Apheloria virginensis iowa* – Hoffman, 1999, Checklist: 307 (295 pdf).

### ***Apheloria virginensis reducta* Chamberlin, 1939**

*Apheloria reducta* Chamberlin, 1939, Bulletin of the University of Utah, 30(2): 11, fig. 35. MALE HT (USNM). United States: Arkansas, Lawrence County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 20.

*Apheloria virginensis reducta* – Hoffman, 1999, Checklist: 307 (295 pdf). McAllister et al., 2002b, Journal of the Arkansas Academy of Science, 56: 96. Shelley & McAllister, 2007, Western North American Naturalist, 67: 259.

### **Genus *Appalachioria* Marek and Bond, 2006**

4 species

*Appalachioria* Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41(3): 725. Type species: *Brachoria falcifera* Keeton, 1959, by original designation. Marek & Bond, 2007, Zootaxa, 1610: 37.

Distribution: United States, Appalachian Mountains, in the Valley and Ridge and Appalachian Plateau provinces

from Virginia, West Virginia, Tennessee, northward to Maryland, Pennsylvania, and Ohio.

Note: *Appalachioria* is not monophyletic in a recent molecular phylogeny of the tribe Apheloriini, with *Appalachioria separanda separanda* (Chamberlin, 1947) appearing more closely related to *Rudiloria* and *Apheloria* (Marek & Bond, 2007).

### ***Appalachioria eutypa eutypa* (Chamberlin, 1939)**

*Brachoria eutypa* Chamberlin, 1939, Bulletin of the University of Utah, 30(2): 4, fig. 4. MALE HT (USNM). United States: Tennessee, Hamblen County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 24.

*Brachoria eutypa eutypa* – Keeton, 1959, Proceedings of the United States National Museum, 109: 21, figs. 3a-g. Keeton, 1965, Proceedings of the Biological Society of Washington, 78: 232. Hoffman, 1999, Checklist: 309 (297 pdf). Shelley, 2000b, Journal of the Elisha Mitchell Scientific Society, 116(3): 194.

*Appalachioria eutypa eutypa* – Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 725, fig. 8c. Marek & Bond, 2007, Zootaxa, 1610: 37.

### ***Appalachioria eutypa ethotela* (Chamberlin, 1942)**

*Brachoria ethotela* Chamberlin, 1942a, Bulletin of the University of Utah, 32(8): 5, fig. 13. MALE HT (USNM). United States: Virginia, Smyth County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 24. Hoffman, 1971, Radford Review, 25: 95.

*Brachoria eutypa ethotela* – Keeton, 1959, Proceedings of the United States National Museum, 109: 23, figs. 3h-j. Hoffman, 1999, Checklist: 310 (297 pdf).

*Appalachioria eutypa ethotela* – Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 725. Marek & Bond, 2007, Zootaxa, 1610: 37. Swafford & Bond, 2010, Biological Journal of the Linnean Society, 101(2): 283, fig. 3.

### ***Appalachioria falcifera* (Keeton, 1959)**

*Brachoria falcifera* Keeton, 1959, Proceedings of the United States National Museum, 109: 27, figs. 4a-c. MALE HT (USNM). United States: Virginia, Buchanan County. Hoffman, 1999, Checklist: 310 (297 pdf).

*Appalachioria falcifera* – Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 725. Marek & Bond, 2007, Zootaxa, 1610: 37. Swafford & Bond, 2010, Biological Journal of the Linnean Society, 101(2): 283, fig. 3.



***Appalachioria separanda separanda* (Chamberlin, 1947)**

*Brachoria separanda* Chamberlin, 1947, Proceedings of the Academy of Natural Sciences of Philadelphia, 99: 28, fig. 10. MALE HT (ANSP). United States: Maryland, Garrett County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 25. Keeton, 1959, Proceedings of the United States National Museum 109: 44, figs. 8g-i.

*Brachoria separanda separanda* – Hoffman, 1971, Radford Review, 25: 89, fig. 4.

*Appalachioria separanda separanda* – Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 725. Marek & Bond, 2007, Zootaxa, 1610: 37.

***Appalachioria separanda calcaria* (Keeton, 1959)**

*Brachoria calcaria* Keeton, 1959, Proceedings of the United States National Museum, 109: 15, figs. 1d-g. MALE HT (USNM). United States: Virginia, Montgomery County.

*Brachoria separanda calcaria* – Hoffman, 1971, Radford Review, 25: 96, fig. 5.

*Appalachioria separanda calcaria* – Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 725. Marek & Bond, 2007, Zootaxa, 1610: 37. Swafford & Bond, 2010, Biological Journal of the Linnean Society, 101(2): 283, fig. 3.

***Appalachioria separanda hamata* (Keeton, 1959)**

*Brachoria hamata* Keeton, 1959, Proceedings of the United States National Museum 109: 30, figs. 4g-i. MALE HT (USNM). United States: Virginia, Tazewell County.

*Brachoria separanda hamata* – Hoffman, 1971, Radford Review, 25: 94, figs. 9, 10.

*Appalachioria separanda hamata* – Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 725. Marek & Bond, 2007, Zootaxa, 1610: 37. Swafford & Bond, 2010, Biological Journal of the Linnean Society, 101(2): 283, fig. 3.

***Appalachioria separanda versicolor* (Hoffman, 1963)**

*Brachoria versicolor* Hoffman, 1963b, Proceedings of the Biological Society of Washington, 76: 223, figs. 1, 2. MALE HT (USNM). United States: Virginia, Wythe County.

*Brachoria separanda versicolor* – Hoffman, 1971, Radford Review, 25: 93, fig. 8.

*Appalachioria separanda versicolor* – Marek & Bond, 2006,

Molecular Phylogenetics and Evolution, 41: 725. Marek & Bond, 2007, Zootaxa, 1610: 37. Swafford & Bond, 2010, Biological Journal of the Linnean Society, 101(2): 283, fig. 3.

***Appalachioria turneri* (Keeton, 1959)**

*Brachoria turneri* Keeton, 1959, Proceedings of the United States National Museum 109: 49, figs. 9e-g. MALE HT (USNM). United States: Virginia, Washington County.

*Appalachioria turneri* – Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 725. Marek & Bond, 2007, Zootaxa, 1610: 37. Swafford & Bond, 2010, Biological Journal of the Linnean Society, 101(2): 283, fig. 3.

**Genus *Brachoria* Chamberlin, 1939**

34 species

*Brachoria* Chamberlin, 1939, Bulletin of the University of Utah, 30(2): 3. Type species: *Brachoria initialis* Chamberlin, 1939, by original designation. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 23. Keeton, 1959, Proceedings of the United States National Museum, 109: 3. Keeton, 1965, Proceedings of the Biological Society of Washington, 78: 225. Jeekel, 1971, Monografieen van de Nederlandse Entomologische Vereniging, 5: 251. Hoffman, 1980, Classification of the Diplopoda, p. 158. Shelley, 1986, in: Shelley & Whitehead, Transactions of the American Entomological Society, 37: 210. Hoffman, 1999, Checklist: 308 (296 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 726. Marek & Bond, 2007, Zootaxa, 1610: 37. Marek, 2010, Zoological Journal of the Linnean Society, 159.

*Tucoria* Chamberlin, 1943b, Bulletin of the University of Utah, 8(2): 17. Type species: *Fontaria kentuckiana* Causey, 1942, by original designation. Synonymized by Keeton, 1959.

*Anfractogon* Hoffman, 1948b, Proceedings of the Biological Society of Washington, 61: 94. Type species: *A. tenebrans* Hoffman, 1948b, by original designation. Synonymized by Chamberlin & Hoffman, 1958.

Distribution: United States, primarily east of the Mississippi River, with a center of species diversity in the Cumberland Mountain Thrust Block Region between Virginia, Kentucky, and Tennessee.

Note: Based on molecular and morphological phylogenetics, *Brachoria* was reevaluated and split into two genera, *Appalachioria* and *Brachoria* (Marek & Bond, 2006). Marek (2010) subsequently revised the genus and described 10 new species. Identification of its species based

solely on color is not recommended due to widespread Müllerian mimicry (Marek & Bond 2009).

### ***Brachoria badbranchensis* Marek, 2010**

*Brachoria badbranchensis* Marek, 2010. Zoological Journal of the Linnean Society, 159(4): 826, figs. 4a-d, 39a-c. MALE HT (FMNH). United States: Kentucky, Letcher County.

Note: Species referred to as “*Brachoria* n. sp. Bad” in Marek & Bond (2007: 30).

### ***Brachoria blackmountainensis* Marek, 2010**

*Brachoria blackmountainensis* Marek, 2010. Zoological Journal of the Linnean Society, 159(4): 831, figs. 5a-d, 39d-f. MALE HT (FMNH). United States: Kentucky, Harlan County.

Note: Species referred to as “*Brachoria* n. sp. Black” in Marek & Bond (2007: 30).

### ***Brachoria calceata* (Causey, 1955)**

*Tucoria calceata* Causey, 1955a, Proceedings of the Biological Society of Washington, 68: 28, figs. 4, 5. MALE HT (AMNH). United States: Kentucky, Anderson County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 52.

*Brachoria calceata* – Keeton, 1959, Proceedings of the United States National Museum, 109: 16, figs. 1h-j. Hoffman, 1999, Checklist: 308 (296 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 726. Marek & Bond, 2007, Zootaxa, 1610: 37. Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 833, figs. 6a-d, 39g-h.

### ***Brachoria campcreekensis* Marek, 2010**

*Brachoria campcreekensis* Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 834, figs. 7a-d, 39i-j. MALE HT (FMNH). United States: West Virginia, Mercer County.

Note: Species referred to as “*Brachoria* n. sp. Farley” in Marek & Bond (2007: 30).

### ***Brachoria cedra* Keeton, 1959**

*Brachoria cedra* Keeton, 1959, Proceedings of the United States National Museum, 109: 17, figs. 2a-c. MALE HT (USNM). United States: Virginia, Lee County. Keeton, 1965, Proceedings of the Biological Society of Washington, 78: 233 (synonymized with *Brachoria initialis*). Hoffman, 1971, Radford Review, 25: 85, fig.

2 (removed from synonymy with *Brachoria initialis*). Hoffman, 1999, Checklist: 309 (296 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 726. Marek & Bond, 2007, Zootaxa, 1610: 37. Marek & Bond, 2009, Proceedings of the National Academy of Sciences, USA, 106(24): 9756, fig. 1. Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 836, figs. 8a-d, 39k-m; video S1.

### ***Brachoria conta* Keeton, 1965**

*Brachoria conta* Keeton, 1965, Proceedings of the Biological Society of Washington, 78: 225, figs. 1-3. MALE HT (USNM). United States: Kentucky, Carter County. Hoffman, 1999, Checklist: 309 (297 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 726. Marek & Bond, 2007, Zootaxa, 1610: 37. Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 837, figs. 9a-d, 39n.

### ***Brachoria cumberlandmountainensis* Marek, 2010**

*Brachoria cumberlandmountainensis* Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 838, figs. 10a-d, 39o-q. MALE HT (FMNH). United States: Kentucky, Harlan County.

Note: Species referred to as “*Brachoria* n. sp. Wagon” in Marek & Bond (2007: 30).

### ***Brachoria dentata* Keeton, 1959**

*Brachoria dentata* Keeton, 1959, Proceedings of the United States National Museum, 109: 18, figs. 2d-f. MALE HT (USNM). United States: Virginia, Lee County. Hoffman, 1999, Checklist: 309 (297 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 726. Marek & Bond, 2007, Zootaxa, 1610: 37. Marek & Bond, 2009, Proceedings of the National Academy of Sciences, USA, 106(24): 9756, fig. 1. Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 840, figs. 11a-d, 39r-w, video S2.

Note: A widespread taxon that may be composed of 2 or more cryptic species, *Brachoria dentata* is highly variable in color pattern with 6 distinct morphs that vary in hue and pattern of dorsal markings due to Müllerian mimicry. This variation is matched by unrelated species of *Apheloria* (Marek & Bond, 2009: fig. 1). [[http://tolweb.org/Brachoria\\_dentata](http://tolweb.org/Brachoria_dentata)]

### ***Brachoria divicuma* Keeton, 1965**

*Brachoria divicuma* Keeton, 1965, Proceedings of the Biological Society of Washington, 78: 229, figs. 6-8.

MALE HT (USNM). United States: Tennessee, Fentress County. Hoffman, 1999, Checklist: 309 (297 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 726. Marek & Bond, 2007, Zootaxa, 1610: 37. Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 841, figs. 12a-d, 39x.

### ***Brachoria electa* Causey, 1955**

*Brachoria electa* Causey, 1955a, Proceedings of the Biological Society of Washington, 68: 25, fig. 3. MALE HT (AMNH). United States: Kentucky, Anderson County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 23. Keeton, 1959, Proceedings of the United States National Museum, 109: 20. Hoffman, 1999, Checklist: 309 (297 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 726. Marek & Bond, 2007, Zootaxa, 1610: 37. Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 843, figs. 13a-d, 40a.

### ***Brachoria enodicuma* Keeton, 1965**

*Brachoria enodicuma* Keeton, 1965, Proceedings of the Biological Society of Washington, 78: 228, figs. 4-5. MALE HT (USNM). United States: Alabama, Jackson County. Hoffman, 1999, Checklist: 309 (297 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 726. Marek & Bond, 2007, Zootaxa, 1610: 37. Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 844, figs. 14a-d, 40b-c.

### ***Brachoria evides* (Bollman, 1887)**

*Fontaria evides* Bollman, 1887, Proceedings of the United States National Museum, 10: 621. MALE HT (USNM). United States: Tennessee, Jefferson County. (Holotype specimen is missing from the USNM collection.) Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 263. Bollman, 1893, Bulletin of the United States National Museum, 46: 38. Attems, 1938, Das Tierreich, 69: 166. Keeton, 1965, Proceedings of the Biological Society of Washington, 78: 240.

*Sigmoria evides* – Chamberlin, 1939, Bulletin of the University of Utah, 30: 7. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 50.

*Brachoria evides* – Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 726. Marek & Bond, 2007, Zootaxa, 1610: 37. Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 845, figs. 15a-d, 40d,e.

Note: Keeton (1965) suggested *F. evides* should be in *Brachoria*, despite a lost holotype specimen. Marek (2010) collected material from near the type locality that is consistent with Bollman's original 1887 description.

### ***Brachoria flammipes* Marek, 2010**

*Brachoria flammipes* Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 846, figs. 16a-d, 40f-g.

Note: Species referred to as “*Brachoria* n. sp. Leslie” in Marek & Bond (2007: 30).

### ***Brachoria glendalea* (Chamberlin, 1918)**

*Fontaria glendalea* Chamberlin, 1918, Psyche, 25: 123. MALE HT (MCZ). United States: Tennessee, Davidson County. Attems, 1938, Das Tierreich, 69: 166.

*Brachoria glendalea* – Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 24. Keeton, 1959, Proceedings of the United States National Museum 109: 28, figs. 4d-f. Keeton, 1965, Proceedings of the Biological Society of Washington, 78: 232, figs. 9, 10. Hoffman, 1999, Checklist: 310 (298 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 726. Marek & Bond, 2007, Zootaxa, 1610: 37. Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 848, figs. 17a-d, 40h.

### ***Brachoria gracilipes* (Chamberlin, 1947)**

*Sigmoria gracilipes* Chamberlin, 1947, Proceedings of the Academy of Natural Sciences of Philadelphia, 99: 29, fig. 15. MALE HT (ANSP). United States: Kentucky Harlan County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 50.

*Brachoria gracilipes* – Shelley, 1979, The Florida Entomologist, 62: 220, figs. 1-3. Hoffman, 1999, Checklist: 310 (298 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 726. Marek & Bond, 2007, Zootaxa, 1610: 37. Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 849, figs. 18a-d, 40i-j.

### ***Brachoria grapevinensis* Marek, 2010**

*Brachoria grapevinensis* Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 851, figs. 19a-d, 40k-m. MALE HT (FMNH). United States: Kentucky, Pike County.

Note: Species referred to as “*Brachoria* n. sp. Grape” in Marek & Bond (2007: 30).



***Brachoria guntermountainensis* Marek, 2010**

*Brachoria guntermountainensis* Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 853, figs. 20a-c. MALE HT (FMNH). United States: Alabama, Jackson County.

Note: Species referred to as “*Brachoria* n. sp. Scottsboro” in Marek & Bond (2006: 720; 2007: 30).

***Brachoria hansonii* Causey, 1950**

*Brachoria hansonii* Causey, 1950a, Entomological News, 61(1): 6, fig.1. MALE HT (ANSP). United States: Kentucky, Bell County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 24. Hoffman, 1999, Checklist: 310 (298 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 726. Marek & Bond, 2007, Zootaxa, 1610: 37. Marek, 2010, Zoological Journal of the Linnean Society, 159: 854, figs. 21a-d, 40n-o.

***Brachoria hendrixsoni* Marek, 2010**

*Brachoria hendrixsoni* Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 856, figs. 22a-d, 40p. MALE HT (FMNH). United States: Tennessee, Greene County.

Note: Species referred to as “*Brachoria* n. sp. Paint” in Marek & Bond (2006: 720; 2007: 30).

***Brachoria hoffmani* Keeton, 1959**

*Brachoria hoffmani* Keeton, 1959, Proceedings of the United States National Museum 109: 32, figs. 5d-f. MALE HT (USNM). United States: Virginia, Buchanan County. Keeton, 1965, Proceedings of the Biological Society of Washington, 78: 233, figs. 11, 12. Hoffman, 1971, Radford Review, 25: 37, fig. 3. Hoffman, 1999, Checklist: 310 (298 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 726. Marek & Bond, 2007, Zootaxa, 1610: 37. Marek & Bond, 2009, Proceedings of the National Academy of Sciences, USA, 106(24): 9759. Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 858, figs. 23a-d, 40q-s.

***Brachoria hubrichti* Keeton, 1959**

*Brachoria hubrichti* Keeton, 1959, Proceedings of the United States National Museum, 109: 33, figs. 5g-i. MALE HT (USNM). United States: Tennessee, Warren County. Keeton, 1965, Proceedings of the Biological Society of Washington, 78: 233, figs. 13, 14. Hoffman, 1999, Checklist: 311 (298 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 726.

Marek & Bond, 2007, Zootaxa, 1610: 37. Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 859, figs. 24a-d, 40t.

***Brachoria indianae* (Bollman, 1888)**

*Fontaria indianae* Bollman, 1888c, Proceedings of the United States National Museum 11: 406. MALE LT (USNM). United States: Indiana, Franklin County. Bollman, 1893, Bulletin of the United States National Museum, 46: 107. Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 263. Attems, 1938, Das Tierreich, 69: 166.

*Brachoria indianae* – Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 24. Keeton, 1959, Proceedings of the United States National Museum, 109: 34, figs. 6a-c. Hoffman, 1999, Checklist: 311 (298 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 726. Marek & Bond, 2007, Zootaxa, 1610: 37. Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 860, figs. 25a-d, 40u.

***Brachoria initialis* Chamberlin, 1939**

*Brachoria initialis* Chamberlin, 1939, Bulletin of the University of Utah, 30(2): 3, fig. 3. MALE HT (USNM). United States: Alabama, Chilton County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 24. Keeton, 1965, Proceedings of the Biological Society of Washington, 78: 233, figs. 17, 19, 20, 22, 23. Hoffman, 1999, Checklist: 311 (298 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 726. Marek & Bond, 2007, Zootaxa, 1610: 37. Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 862, figs. 26a-d, 40v.

*Brachoria brachypus* Chamberlin, 1947, Proceedings of the Academy of Natural Sciences of Philadelphia, 99: 26, fig. 9. MALE HT (ANSP). United States: Tennessee, Roane County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 23. Synonymized by Keeton, 1959, Proceedings of the United States National Museum, 109: 11.

*Brachoria benderi* Causey, 1950c, Entomological News, 61(7): 193, figs. 1, 2. MALE HT (ANSP). United States: Mississippi, Rankin County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 23. Synonymized by Keeton, 1959, Proceedings of the United States National Museum, 109: 11.

*Brachoria ochra initialis* – Keeton, 1959, Proceedings of the United States National Museum, 109: 11, figs. 1a-c.

***Brachoria insolita* Keeton, 1959**

*Brachoria insolita* Keeton, 1959, Proceedings of the United States National Museum 109: 36, figs. 6d-f. MALE HT (USNM). United States: Virginia, Wise County. Hoffman, 1999, Checklist: 311 (299 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 726. Marek & Bond, 2007, Zootaxa, 1610: 37. Marek & Bond, 2009, Proceedings of the National Academy of Sciences, USA, 106(24): 9756, fig. 1. Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 864, figs. 27a-d, 40w-x.

***Brachoria kentuckiana* (Causey, 1942)**

*Fontaria kentuckiana* Causey, 1942, Entomological News, 53: 167, figs. 3, 4. MALE HT (ANSP). United States: Kentucky, Cumberland County.

*Cleptoria kentuckiana* – Causey, 1943, Entomological News, 54: 264.

*Tucoria kentuckiana* – Chamberlin, 1943b, Bulletin of the University of Utah, 8(2): 17. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 52.

*Brachoria kentuckiana* – Keeton, 1959, Proceedings of the United States National Museum, 109: 38, figs. 6g-i. Hoffman, 1999, Checklist: 311 (299 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 726. Marek & Bond, 2007, Zootaxa, 1610: 37. Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 865, figs. 28a-d, 41a-b.

***Brachoria laminata* Keeton, 1959**

*Brachoria laminata* Keeton, 1959, Proceedings of the United States National Museum, 109: 39, figs. 7a-c. MALE HT (USNM). United States: Virginia, Buchanan County. Hoffman, 1999, Checklist: 312 (299 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 726. Marek & Bond, 2007, Zootaxa, 1610: 37. Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 866, figs. 29a-d, 41c.

***Brachoria ligula* Keeton, 1959**

*Brachoria ligula* Keeton, 1959, Proceedings of the United States National Museum, 109: 40, figs. 7d-f. MALE HT (USNM). United States: West Virginia, McDowell County. Hoffman, 1999, Checklist: 312 (299 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 726. Marek & Bond, 2007, Zootaxa, 1610: 37. Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 868, figs. 30a-d, 41d.

***Brachoria mendota* Keeton, 1959**

*Brachoria mendota* Keeton, 1959, Proceedings of the United States National Museum, 109: 42, figs. 7, g, h. MALE HT (USNM). United States: Virginia, Russell County. Hoffman, 1971, Radford Review, 25: 84. Hoffman, 1999, Checklist: 312 (299 pdf). Marek & Bond, 2007, Zootaxa, 1610: 37. Marek & Bond, 2009, Proceedings of the National Academy of Sciences, USA, 106(24): 9756, fig. 1. Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 869, figs. 31a-d, 41e-i.

*Appalachioria mendota* – Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 726.

***Brachoria ochra* (Chamberlin, 1918)**

*Fontaria ochra* Chamberlin, 1918, Psyche, 25: 123. MALE HT (USNM). United States: Mississippi, Oktibbeha County. Attems, 1938, Das Tierreich, 69: 167.

*Brachoria sequens* Chamberlin, 1939, Bulletin of the University of Utah, 30(2): 4, fig. 2. MALE HT (USNM). United States: Mississippi, Oktibbeha County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 25. Synonymized by Keeton, 1959, Proceedings of the United States National Museum, 109: 10.

*Anfractogon tenebrans* Hoffman, 1948b, Proceedings of the Biological Society of Washington, 61: 94, figs. 1-3. MALE HT (USNM). United States: Alabama, Winston County.

*Brachoria tenebrans* – Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 25. Keeton, 1959, Proceedings of the United States National Museum 109: 48. Synonymized by Keeton, 1965, Proceedings of the Biological Society of Washington, 78: 237.

*Brachoria ochra* – Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 25. Keeton, 1965, Proceedings of the Biological Society of Washington, 78: 237, figs. 15, 16. Hoffman, 1999, Checklist: 312 (300 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 726. Marek & Bond, 2007, Zootaxa, 1610: 37. Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 871, figs. 32a-d, 41j-k.

*Brachoria ochra ochra* – Keeton, 1959, Proceedings of the United States National Museum 109: 10.

***Brachoria plecta* Keeton, 1959**

*Brachoria plecta* Keeton, 1959, Proceedings of the United States National Museum 109: 43, figs. 8a-e. MALE



HT (AMNH). United States: Kentucky, Powell County. Hoffman, 1999, Checklist: 312 (300 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 726. Marek & Bond, 2007, Zootaxa, 1610: 37. Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 872, figs. 33a-d, 41l.

### ***Brachoria sheari* Marek, 2010**

*Brachoria sheari* Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 874, figs. 34a-d, 41m-p. MALE HT (FMNH). United States: Virginia, Lee County.

Note: Species referred to as “*Brachoria* n. sp. Cumberland” and “*Brachoria* n” in Marek & Bond (2007: 30; 2009: 9756).

### ***Brachoria splendida* (Causey, 1942)**

*Cleptoria splendida* Causey, 1942, Entomological News, 53: 167, fig. 5. MALE HT (ANSP). United States: Kentucky, Bell County.

*Tucoria splendida* – Chamberlin, 1943b, Bulletin of the University of Utah Biological Series, 8(2): 17. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 53.

*Tucoria dynama* Chamberlin, 1947, Proceedings of the Academy of Natural Sciences of Philadelphia, 99: 29, fig. 16. MALE HT (ANSP). United States: Kentucky, Bell County. Synonymized by Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 53.

*Brachoria splendida* – Keeton, 1959, Proceedings of the United States National Museum 109: 47, figs. 8d-f. Hoffman, 1999, Checklist: 313 (301 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 726. Marek & Bond, 2007, Zootaxa, 1610: 37. Marek, 2010, Zoological Journal of the Linnean Society, 159: 875, figs. 35a-d, 41q-r.

### ***Brachoria virginia* Marek, 2010**

*Brachoria virginia* Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 877, figs. 36a-d, 41s-u. MALE HT (FMNH). United States: Virginia, Scott County.

### ***Brachoria viridicolens* (Hoffman, 1948)**

*Tucoria viridicolens* Hoffman, 1948a, Journal of the Washington Academy of Sciences, 38: 349, figs. 5, 6. MALE HT (USNM). United States: Kentucky, Green County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 53.

*Brachoria viridicolens* – Keeton, 1959, Proceedings of the United States National Museum 109: 50, figs. 9h-j. Hoffman, 1999, Checklist: 314 (301 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 726. Marek & Bond, 2007, Zootaxa, 1610: 37. Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 879, figs. 37a-d, 41v-x.

### **Genus *Brevigonus* Shelley, 1980**

2 species

*Brevigonus* Shelley, 1980a, Brimleyana, 3: 32. Type species: *Cleptoria shelfordi* Loomis, 1944, by original designation. Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 76. Hoffman, 1999, Checklist: 314 (301 pdf). Shelley et al., 2000, Nomenclator Generum et Familiarum Diplopodorum II: 89. Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 724. Marek & Bond, 2007, Zootaxa, 1610: 37.

Distribution: piedmont of South Carolina, just east of the Savannah River.

Note: The evolutionary relationships between the genera *Brevigonus*, *Cheiropus*, *Cleptoria*, *Croatania*, *Dixioria*, *Dynoria*, *Falloria*, *Furcillaria*, *Lyrranea*, *Prionogonus*, *Sigmoria*, and *Stelgipus* deserve a more detailed analysis. These genera (excluding *Dynoria* and *Furcillaria* and including *Rudiloria* and *Dixioria*) are referred to as subgenera under the single genus *Sigmoria* by Shelley (1981, 1986, 2000c). In contrast, these taxa (spare *Rudiloria* and *Dixioria*) are members of the monophyletic “southern clade” by Marek & Bond (2006, 2007). A classification system more akin to the latter, which includes these genera in a geographically widespread *Sigmoria* including *Dynoria* and *Furcillaria* (albeit excluding *Rudiloria* and certain species of *Dixioria*) most accurately reflects current molecular phylogenetic hypothesis. Nonetheless, we follow previous workers and provide the preexisting classification scheme of Hoffman (1999) and Marek & Bond (2006; 2007) without further amendments. Shelley (1986) treated this taxon as a synonym of *Cleptoria*, a subgenus of *Sigmoria*.

### ***Brevigonus arcuatus* Shelley, 1981**

*Brevigonus arcuatus* Shelley, 1981c, Brimleyana, 6: 56, figs. 1-5. MALE HT (USNM). United States: South Carolina, Pickens County. Hoffman, 1999, Checklist: 314 (301 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 720. Marek & Bond, 2007, Zootaxa, 1610: 37.

*Sigmoria* (*Cleptoria*) *arcuata* – Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 94.

***Brevigonus shelfordi* (Loomis, 1944)**

*Cleptoria shelfordi* Loomis, 1944, *Psyche*, 51: 172, fig. 4. MALE HT (MCZ). United States: South Carolina, McCormick County. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 28.

*Brevigonus shelfordi* – Shelley, 1980a, *Brimleyana*, 3: 35, figs. 1-13. Hoffman, 1999, Checklist: 314 (301 pdf). Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41: 720. Marek & Bond, 2007, *Zootaxa*, 1610: 37.

*Sigmoria (Cleptoria) shelfordi* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 92.

**Genus *Cheiopus* Loomis, 1944**

1 species

*Cheiopus* Loomis, 1944, *Psyche*, 51: 171. Type species: *C. plancus* Loomis, 1944, by original designation. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 25. Jeekel, 1971, *Monografieën van de Nederlandse Entomologische Vereniging*, 5: 253. Hoffman, 1980, *Classification of the Diplopoda*, p. 159. Shelley, 1984b, *Proceedings of the Biological Society of Washington*, 97: 267. Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 94. Hoffman, 1999, Checklist: 314 (302 pdf). Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41: 724. Marek & Bond, 2007, *Zootaxa*, 1610: 37.

Distribution: southern Georgia, southward to the Gulf Coast of central Florida (Shelley, 1984b: 270).

Note: See note associated with the genus *Brevigonus*. Shelley (1986) treated this taxon as a subgenus of *Sigmoria*.

***Cheiopus plancus* Loomis, 1944**

*Cheiopus plancus* Loomis, 1944, *Psyche*, 51: 171, figs. 3a-b. MALE HT (MCZ). United States: Georgia, Thomas County. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 26. Hoffman, 1999, Checklist: 314 (302 pdf). Marek & Bond, 2007, *Zootaxa*, 1610: 37.

*Sigmoria (Cheiopus) planca* – Shelley, 1984b, *Proceedings of the Biological Society of Washington*, 97: 267, figs. 1-7. Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 101. Shelley, 2000c, *Insecta Mundi*, 14(4): 248.

**Genus *Cleptoria* Chamberlin, 1939**

5 species

*Cleptoria* Chamberlin, 1939, *Bulletin of the University of Utah*, 30(2): 9. Type species, *C. macra* Chamberlin, 1939, by original designation. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 28. Hoffman, 1967, *Proceedings of the United States National Museum*, 124(3630): 1. Jeekel, 1971, *Monografieën van de Nederlandse Entomologische Vereniging*, 5: 254. Hoffman, 1980, *Classification of the Diplopoda*, p. 158. Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 76. Hoffman, 1999, Checklist: 315 (302 pdf). Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41: 724. Marek & Bond, 2007, *Zootaxa*, 1610: 37.

Distribution: South Carolina and Georgia highlands. The species *Cleptoria rileyi*, primarily found in central Georgia, also extends into Alabama, in Jefferson and Lee counties.

Note: Monophyly of this genus is uncertain. See note associated with the genus *Brevigonus*. Shelley (1986) treated this taxon as a subgenus of *Sigmoria*.

***Cleptoria abbotti* Hoffman, 1967**

*Cleptoria abbotti* Hoffman, 1967, *Proceedings of the United States National Museum*, 124(3630): 18, figs. 13-16. MALE HT (USNM). United States: Georgia, Burke County. Hoffman, 1999, Checklist: 315 (302 pdf). Marek & Bond, 2007, *Zootaxa*, 1610: 37.

*Sigmoria (Cleptoria) abbotti* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 81, figs. 53-55.

***Cleptoria bipraesidens* Hoffman, 1967**

*Cleptoria bipraesidens* Hoffman, 1967, *Proceedings of the United States National Museum*, 124(3630): 16, fig. 11. MALE HT (USNM). United States: Georgia, Jackson County. Hoffman, 1999, Checklist: 315 (302 pdf). Marek & Bond, 2007, *Zootaxa*, 1610: 37.

*Sigmoria (Cleptoria) bipraesidens* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 84, figs. 56-59.

***Cleptoria macra* Chamberlin, 1939**

*Cleptoria macra* Chamberlin, 1939, *Bulletin of the University of Utah*, 30(2): 9, figs. 36, 37. MALE HT (USNM). United States: South Carolina, Greenville County. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 28. Hoffman, 1967, *Proceedings of the*

United States National Museum, 124(3630): 7, figs. 3, 5, 6, 12. Hoffman, 1999, Checklist: 315 (303 pdf). Marek & Bond, 2007, Zootaxa, 1610: 37.

*Sigmoria (Cleptoria) macra* – Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 89, figs. 64-67.

### ***Cleptoria rileyi* (Bollman, 1889)**

*Fontaria rileyi* Bollman, 1889a, Proceedings of the United States National Museum, 10: 345. MALE HT (USNM). United States: Georgia, Bibb County. Bollman, 1893, Bulletin of the United States National Museum, 46: 97. Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 263. Attems, 1938, Das Tierreich 69: 167.

*Cleptoria rileyi* – Chamberlin, 1939, Bulletin of the University of Utah, 30(2): 9. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 298. Hoffman, 1999, Checklist: 315 (303 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 724. Marek & Bond, 2007, Zootaxa, 1610: 37.

*Cleptoria rileyi rileyi* – Hoffman, 1967, Proceedings of the United States National Museum, 124(3630): 12, figs. 2, 7, 8, 12.

*Cleptoria rileyi alabama* Hoffman, 1967, Proceedings of the United States National Museum, 124(3630): 16, figs. 9, 10, 12. MALE HT (USNM). United States: Alabama, Lee County. Synonymized by Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 79.

*Sigmoria (Cleptoria) rileyi* – Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 79, figs. 50-52.

### ***Cleptoria robusta* Shelley, 1986**

*Sigmoria (Cleptoria) robusta* Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 86, figs. 60-63. MALE HT (USNM). United States: South Carolina, Oconee County.

*Cleptoria robusta* – Hoffman, 1999, Checklist: 316 (303 pdf). Marek & Bond, 2007, Zootaxa, 1610: 37.

### **Genus *Croatania* Shelley, 1977**

4 species

*Croatania* Shelley, 1977, Proceedings of the Biological Society of Washington, 90: 305. Type species: *C. catawba* Shelley, by original designation. Hoffman,

1980, Classification of the Diplopoda, p. 159. Shelley et al., 2000, Nomenclator Generum et Familiarum Diplopodorum II: 94. Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 68. Hoffman, 1999, Checklist: 316 (303 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 724. Marek & Bond, 2007, Zootaxa, 1610: 37.

Distribution: piedmont of South Carolina. The species *Croatania catawba*, primarily found in northcentral South Carolina, also extends into North Carolina, in Cleveland, Gaston and Lincoln counties.

Note: Monophyly of this genus is uncertain. See note associated with the genus *Brevigonus*. Shelley (1986) treated this taxon as a subgenus of *Sigmoria*.

### ***Croatania catawba* Shelley, 1977**

*Croatania catawba* Shelley, 1977, Proceedings of the Biological Society of Washington, 90: 306, figs. 1, 2, 7, 11, 12, 16. MALE HT (USNM). United States: North Carolina, Cleveland County. Filka & Shelley, 1980, Brimleyana, 4: 28, fig. 54. Hoffman, 1999, Checklist: 316 (303 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 720. Marek & Bond, 2007, Zootaxa, 1610: 37.

*Sigmoria (Croatania) catawba* – Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 71. Shelley, 2000b, Journal of the Elisha Mitchell Scientific Society, 116(3): 198.

### ***Croatania saluda* Shelley, 1977**

*Croatania saluda* Shelley, 1977, Proceedings of the Biological Society of Washington, 90: 312, figs. 3, 8, 13. MALE HT (USNM). United States: South Carolina, Greenwood County. Hoffman, 1999, Checklist: 316 (304 pdf). Marek & Bond, 2007, Zootaxa, 1610: 37.

*Sigmoria (Croatania) saluda* – Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 70.

### ***Croatania simplex* Shelley, 1977**

*Croatania simplex* Shelley, 1977, Proceedings of the Biological Society of Washington, 90: 316, figs. 4, 5, 9, 14. MALE HT (USNM). South Carolina, Chester County. Hoffman, 1999, Checklist: 317 (304 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 720. Marek & Bond, 2007, Zootaxa, 1610: 37.

*Sigmoria (Croatania) simplex* – Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological



Society, 35: 72, figs. 46-48.

### ***Croatania yemassee* Shelley, 1977**

*Croatania yemassee* Shelley, 1977, Proceedings of the Biological Society of Washington, 90: 319, figs. 6, 10, 15. MALE HT (VMNH). United States: South Carolina, Jasper County. Hoffman, 1999, Checklist: 317 (304 pdf). Marek & Bond, 2007, Zootaxa, 1610: 37.

*Sigmoria (Croatania) yemassee* – Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 75.

### **Genus *Deltotaria* Causey, 1942**

2 species

*Deltotaria* Causey, 1942, Entomological News, 53: 165. Type species: *D. brimleii* Causey, by original designation. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 29. Hoffman, 1961, Proceedings of the United States National Museum 113: 22. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 258. Hoffman, 1980, Classification of the Diplopoda, p. 158. Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 147. Hoffman, 1999, Checklist: 317 (304 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 724. Marek & Bond, 2007, Zootaxa, 1610: 37.

*Phanoria* Chamberlin, 1949b, Journal of the Washington Academy of Sciences, 39: 101. Type species: *P. philia* Chamberlin, 1949b, by original designation. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 279. Synonymized by Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 29.

Distribution: southern Appalachian Mountains in Tennessee, North Carolina, and Georgia.

Note: Although *Deltotaria* is likely a monophyletic genus (Marek & Bond, 2006; 2007), the boundaries of the species within the taxon are uncertain. The genus was revised by Hoffman (1961) and Shelley (1986) and resulted in different subgeneric classifications. Below, we follow the most recent revision of the genus by Shelley (1986).

### ***Deltotaria brimleii brimleii* Causey, 1942**

*Deltotaria brimleii* Causey, 1942, Entomological News, 53: 165, figs. 1, 2. MALE HT (ANSP). United States: North Carolina, Buncombe County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 30. Hoffman, 1961, Proceedings of the United

States National Museum, 113: 25, fig. 2c. Wray, 1967, Insects of North Carolina, 151.

*Deltotaria brimleardia* Causey, 1950a, Entomological News, 61(1): 7, figs. 2, 3. MALE HT (ANSP). United States: Tennessee, Sevier County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 29. Hoffman, 1961, Proceedings of the United States National Museum, 113: 30, fig. 2b. Synonymized by Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 151.

*Deltotaria tela* Causey, 1950b, Entomological News 61(2): 38, figs. 3-5. MALE HT (ANSP). United States: North Carolina, Buncombe County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 30. Wray, 1967, Insects of North Carolina, 151. Synonymized by Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 151.

*Deltotaria mariana* Hoffman, 1961, Proceedings of the United States National Museum, 113(3451): 28, figs. 1a, 1e-h, 2d. MALE HT (USNM). United States: North Carolina, Transylvania County. Wray, 1967, Insects of North Carolina, 152. Synonymized by Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 151.

*Deltotaria brimleii tela* – Hoffman, 1999, Checklist: 317 (305 pdf).

*Deltotaria brimleii brimleardia* – Hoffman, 1999, Checklist: 318 (305 pdf).

*Deltotaria brimleii mariana* – Hoffman, 1999, Checklist: 318 (305 pdf).

*Deltotaria brimleii brimleii* – Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 151, figs. 127-136. Hoffman, 1999, Checklist: 317 (305 pdf). Shelley, 2000b, Journal of the Elisha Mitchell Scientific Society, 116(3): 195. Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 721. Marek & Bond, 2007, Zootaxa, 1610: 37.

### ***Deltotaria brimleii philia* (Chamberlin, 1949)**

*Phanoria philia* Chamberlin, 1949b, Journal of the Washington Academy of Sciences, 39: 101, fig. 25. MALE HT (USNM). United States: Georgia, Habersham County.

*Deltotaria philia* – Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 30. Hoffman, 1961, Proceedings of the United States National

Museum, 113: 34, fig. 3b. Hoffman, 1999, Checklist: 318 (305 pdf). incorporate a few taxonomic changes by Hoffman (1999).

*Deltotaria brimleyi philia* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 155, figs. 137-140. Shelley, 2000b, *Journal of the Elisha Mitchell Scientific Society*, 116(3): 195. Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41: 721. Marek & Bond, 2007, *Zootaxa*, 1610: 37.

### ***Deltotaria lea* Hoffman, 1961**

*Deltotaria lea* Hoffman, 1961, *Proceedings of the United States National Museum*, 113: 33, figs. 1c, 3a. MALE HT (USNM). United States: North Carolina, Lincoln County. Wray, 1967, *Insects of North Carolina*, 152. Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 157, figs. 141-144. Filka & Shelley, 1980, *Brimleyana*, 4: 29, figs. 55, 56. Hoffman, 1999, Checklist: 318 (305 pdf). Shelley, 2000b, *Journal of the Elisha Mitchell Scientific Society*, 116(3): 195. Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41: 721. Marek & Bond, 2007, *Zootaxa*, 1610: 37.

### **Genus *Dixioria* Chamberlin, 1947**

8 species

*Dixioria* Chamberlin, 1947, *Proceedings of the Academy of Natural Sciences of Philadelphia*, 99: 28. Type species: *D. dentifer* Chamberlin, by original designation. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 31. Hoffman, 1956b, *Proceedings of the United States National Museum*, 106(3362): 1. Jeekel, 1971, *Monografieën van de Nederlandse Entomologische Vereniging*, 5: 259. Hoffman, 1980, *Classification of the Diplopoda*, p. 158. Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 45. Hoffman, 1999, Checklist: 318 (306 pdf). Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41: 724. Marek & Bond, 2007, *Zootaxa*, 1610: 37. Marek, 2010, *Zoological Journal of the Linnean Society*, 159: 823, fig. 3.

Distribution: southern Appalachian Mountains, spanning the mountainous borderlands between North Carolina, Tennessee, and Virginia with Burke's Garden, Virginia as the northern limit and the Nolichucky River, North Carolina and Tennessee as the southern limit (Shelley, 1986).

Note: Monophyly of this genus is uncertain. See note associated with the genus *Brevigonus*. Shelley (1986) treated this taxon as a subgenus of *Sigmoria*. Below, we follow the most recent revision of the genus by Shelley (1986), and

### ***Dixioria acuminata* Hoffman, 1956**

*Dixioria pela acuminata* Hoffman, 1956b, *Proceedings of the United States National Museum*, 106(3362): 11, fig. 1b. MALE HT (USNM). United States: Tennessee, Johnson County. Hoffman, 1999, Checklist: 319 (306 pdf).

*Dixioria acuminata* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 50, figs. 25-27. Marek & Bond, 2007, *Zootaxa*, 1610: 37.

### ***Dixioria brooksi* Hoffman, 1956**

*Dixioria pela brooksi* Hoffman, 1956b, *Proceedings of the United States National Museum*, 106(3362): 12, fig. 1d. MALE HT (USNM). United States: Virginia, Washington County.

*Dixioria brooksi* – Hoffman, 1969, *Virginia Polytechnic Institute, Research Division Monograph 1*: 227. Hoffman, 1999, Checklist: 319 (306 pdf). Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 59, figs. 37-40. Marek & Bond, 2007, *Zootaxa*, 1610: 37.

### ***Dixioria coronata* (Hoffman, 1949)**

*Deltotaria coronata* Hoffman, 1949b, *Proceedings of the United States National Museum*, 99: 380, pl. 26, figs. 7, 8. MALE HT (USNM). United States: Virginia, Grayson County.

*Dixioria pela coronata* – Hoffman, 1956b, *Proceedings of the United States National Museum*, 106(3362): 12, fig. 1c. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 31. Hoffman, 1999, Checklist: 319 (306 pdf).

*Sigmoria (Dixioria) coronata* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 52, figs. 28-30. Shelley, 2000b, *Journal of the Elisha Mitchell Scientific Society*, 116(3): 199.

*Dixioria coronata* – Marek & Bond, 2007, *Zootaxa*, 1610: 37. Marek, 2010, *Zoological Journal of the Linnean Society*, 159: 823, fig. 3.

### ***Dixioria dactylifera* Hoffman, 1956**

*Dixioria dactylifera* Hoffman, 1956b, *Proceedings of the United States National Museum* 106(3362): 15, fig. 2. MALE PT (AMNH). United States: North Carolina, Ashe County. Hoffman, 1999, Checklist: 319 (306 pdf).



Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41: 721. Marek & Bond, 2007, *Zootaxa*, 1610: 37. Marek, 2010, *Zoological Journal of the Linnean Society*, 159: 823, fig. 3.

*Sigmoria (Dixioria) dactylifera* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 63, figs. 41-44; presumed the male holotype to be lost. Shelley, 2000b, *Journal of the Elisha Mitchell Scientific Society*, 116(3): 199.

Note: Male holotype specimen deposited and located in the American Museum of Natural History.

### ***Dixioria fowleri* Hoffman, 1956**

*Dixioria pela fowleri* Hoffman, 1956b, *Proceedings of the United States National Museum*, 106(3362): 13, fig. 1e. MALE HT (USNM). United States: Virginia, Bland County.

*Dixioria fowleri* – Hoffman, 1999, *Checklist*: 319 (306 pdf). Marek & Bond, 2007, *Zootaxa*, 1610: 37.

### ***Dixioria pela* (Chamberlin, 1918)**

*Fontaria pela* Chamberlin, 1918, *Psyche*, 25: 122. MALE HT (VMNH). United States: Tennessee, Carter County. Attems, 1938, *Das Tierreich* 69: 167.

*Dixioria dentifer* Chamberlin, 1947, *Proceedings of the Academy of Natural Sciences of Philadelphia*, 99: 28, fig. 13. MALE HT (ANSP). North Carolina, Avery County. Synonymized by Hoffman, 1956b, *Proceedings of the United States National Museum*, 106(3362): 8.

*Apheloria pela* – Wray, 1950, *Insects of North Carolina*, 44. Wray, 1967, *Insects of North Carolina*, 151.

*Dixioria pela pela* – Hoffman, 1956b, *Proceedings of the United States National Museum*, 106(3362): 8, fig. 1a. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 31. Hoffman, 1999, *Checklist*: 320 (307 pdf).

*Sigmoria (Dixioria) pela* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 46, figs. 18-24. Shelley, 2000b, *Journal of the Elisha Mitchell Scientific Society*, 116(3): 199.

*Dixioria pela* – Marek & Bond, 2007, *Zootaxa*, 1610: 37.

### ***Dixioria watauga* Shelley, 1986**

*Sigmoria (Dixioria) watauga* Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 58, figs. 35, 36. MALE HT (USNM). United States: North Carolina, Watauga County. Shelley, 2000b, *Journal of the Elisha Mitchell Scientific Society*,

116(3): 199.

*Dixioria watauga* – Hoffman, 1999, *Checklist*: 320 (307 pdf). Marek & Bond, 2007, *Zootaxa*, 1610: 37.

### ***Dixioria wrighti* Hoffman, 1956**

*Dixioria pela wrighti* Hoffman, 1956b, *Proceedings of the United States National Museum*, 106(3362): 15, fig. 1f. MALE HT (USNM). United States: North Carolina, Avery County. Hoffman, 1999, *Checklist*: 320 (307 pdf).

*Sigmoria (Dixioria) wrighti* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 55, figs. 32-34.

*Dixioria wrighti* – Marek & Bond, 2007, *Zootaxa*, 1610: 37.

### **Genus *Dynoria* Chamberlin, 1939**

2 species

*Dynoria* Chamberlin, 1939, *Bulletin of the University of Utah*, 30(2): 7. Type species: *D. icana* Chamberlin, 1939, by original designation. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 31. Jeekel, 1971, *Monografieën van de Nederlandse Entomologische Vereniging*, 5: 260. Shelley, 1984a, *Proceedings of the Biological Society of Washington*, 97: 92. Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 210. Hoffman, 1999, *Checklist*: 320 (307 pdf). Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41: 724. Marek & Bond, 2007, *Zootaxa*, 1610: 37.

Distribution: two species, one (*Dynoria medialis*) in the western Piedmont of Georgia and a second (*Dynoria icana*) in the southern Blue Ridge Mountains of northeastern Georgia, western South Carolina, and southwest North Carolina.

Note: Hoffman (1999) suggests monophyly of this genus is questionable.

### ***Dynoria icana* Chamberlin, 1939**

*Dynoria icana* Chamberlin, 1939, *Bulletin of the University of Utah*, 30(2): 7, figs. 13, 14. MALE HT (USNM). United States: Georgia, Habersham County. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 32. Shelley, 1984a, *Proceedings of the Biological Society of Washington*, 97: 93, figs. 1-5. Hoffman, 1999, *Checklist*: 321 (308 pdf). Shelley, 2000b, *Journal of the Elisha Mitchell Scientific Society*, 116(3): 195. Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41: 721. Marek & Bond, 2007, *Zootaxa*, 1610: 37.

Note: Based on its observed rarity and narrow endemism, Shelley (1984) suggests *D. icana* deserves to be federally

listed as threatened or endangered. The species has been collected in six localities in the past 50 years in the southern Blue Ridge Mountains.

### ***Dynoria medialis* Chamberlin, 1949**

*Dynoria medialis* Chamberlin, 1949a, Proceedings of the Biological Society of Washington, 62: 3, figs. 5, 6. MALE HT (USNM). United States: Georgia, Fulton County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 32. Shelley, 1984a, Proceedings of the Biological Society of Washington, 97: 97, figs. 6-9. Hoffman, 1999, Checklist: 321 (308 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 721. Marek & Bond, 2007, Zootaxa, 1610: 37.

### **Genus *Falloria* Hoffman, 1948**

17 species

*Falloria* Hoffman, 1948b, Proceedings of the Biological Society of Washington, 61: 93. Type species: *Apheloria bidens* Causey, 1942, by original designation. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 264. Hoffman, 1980, Classification of the Diplopoda, p. 159. Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 106. Hoffman, 1999, Checklist: 321 (308 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 724. Marek & Bond, 2007, Zootaxa, 1610: 37.

*Hubroria* Keeton, 1960, Journal of the Brooklyn Entomological Society, 55: 42. Type species: *H. picapa* Keeton, 1960, by original designation. Hoffman, 1980, Classification of the Diplopoda, p. 159. Synonymized by Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 106.

Distribution: southern Appalachian Mountains, Cumberland Plateau, Valley and Ridge, and Nashville Basin.

Note: Monophyly of this genus is uncertain. See note associated with the genus *Brevigonus*. Shelley (1986) treated this taxon as a subgenus of *Sigmoria*.

### ***Falloria abbreviata* Shelley, 1986**

*Sigmoria (Falloria) abbreviata* Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 123, figs. 97- 100. MALE HT (USNM). United States: Tennessee, Van Buren County.

*Falloria abbreviata* – Hoffman, 1999, Checklist: 324 (311 pdf). Marek & Bond, 2007, Zootaxa, 1610: 37.

### ***Falloria ainsliei* (Chamberlin, 1921)**

*Apheloria ainsliei* Chamberlin, 1921, Canadian Entomologist, 53: 232, fig. 1. MALE HT (MCZ). United States: Tennessee, Knox County. Attems, 1938, Das Tierreich, 69: 168, fig. 184. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 18.

*Sigmoria (Falloria) ainsliei* – Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 117, figs. 88-91.

*Falloria ainsliei* – Hoffman, 1999, Checklist: 324 (311 pdf). Marek & Bond, 2007, Zootaxa, 1610: 37.

### ***Falloria aphelorioides* Shelley, 1986**

*Sigmoria (Falloria) aphelorioides* Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 111, figs. 84-87. MALE HT (USNM). United States: Tennessee, Monroe County. Shelley, 2000b, Journal of the Elisha Mitchell Scientific Society, 116(3): 199.

*Falloria aphelorioides* – Hoffman, 1999, Checklist: 322 (309 pdf). Marek & Bond, 2007, Zootaxa, 1610: 37.

### ***Falloria bidens* (Causey, 1942)**

*Apheloria bidens* Causey, 1942, Entomological News, 53: 169, fig. 9. MALE HT (ANSP). United States: Tennessee, Sevier County.

*Falloria bidens* – Hoffman, 1948b, Proceedings of the Biological Society of Washington, 61: 93. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 33. Hoffman, 1999, Checklist: 322 (309 pdf). Marek & Bond, 2007, Zootaxa, 1610: 37.

*Dixioria bidens* – Causey, 1950a, Entomological News, 61(1): 6. Wray, 1967, Insects of North Carolina, 152.

*Sigmoria bidens* – Shelley, 1981a, Memoirs of the American Entomological Society, 33: 82, figs. 78-81.

*Sigmoria (Falloria) bidens* – Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 107.

### ***Falloria crassicurvosa* Shelley, 1986**

*Sigmoria (Falloria) crassicurvosa* Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 138, figs. 115-120. MALE HT (USNM). United States: Tennessee, Smith County.

*Falloria crassicurvosa* – Hoffman, 1999, Checklist: 323 (310 pdf). Marek & Bond, 2007, Zootaxa, 1610: 37.

***Falloria forficata* Shelley, 1986**

*Sigmoria (Falloria) forficata* Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 119, figs. 92-96. MALE HT (USNM). United States: Tennessee, Cumberland County.

*Falloria forficata* – Hoffman, 1999, Checklist: 324 (311 pdf). Marek & Bond, 2007, Zootaxa, 1610: 37.

***Falloria fumimontis* (Shelley, 1981)**

*Sigmoria fumimontis* Shelley, 1981a, Memoirs of the American Entomological Society, 33: 79, figs. 74-77. MALE HT (USNM). United States: Tennessee, Blount County.

*Sigmoria (Falloria) fumimontis* – Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 116.

*Falloria fumimontis* – Hoffman, 1999, Checklist: 324 (311 pdf). Marek & Bond, 2007, Zootaxa, 1610: 37.

***Falloria houstoni* (Chamberlin, 1943)**

*Sigmoria houstoni* Chamberlin, 1943d, Proceedings of the Biological Society of Washington, 56: 144, fig. 1. MALE HT (USNM). Erroneously recorded from Texas. The species is only known from eastern Tennessee. Hoffman, 1950a, American Museum Novitates, 1462: 5. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 50.

*Sigmoria (Falloria) houstoni* – Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 126, figs. 101-104.

*Falloria houstoni* – Hoffman, 1999, Checklist: 325 (311 pdf). Marek & Bond, 2007, Zootaxa, 1610: 37.

***Falloria leucostriata* (Shelley, 1981)**

*Sigmoria leucostriata* Shelley, 1981a, Memoirs of the American Entomological Society, 33: 87, figs. 82-85. MALE HT (USNM). United States: Tennessee, Cocke County.

*Sigmoria (Falloria) leucostriata* Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 107.

*Falloria leucostriata* – Hoffman, 1999, Checklist: 322 (309 pdf). Marek & Bond, 2007, Zootaxa, 1610: 37.

***Falloria lyrea* (Shelley, 1981)**

*Sigmoria lyrea* Shelley, 1981a, Memoirs of the American Entomological Society, 33: 76, figs. 70-73, 132, 133,

136. MALE HT (USNM). United States: Tennessee, Blount County.

*Sigmoria (Falloria) lyrea* – Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 116. Shelley, 2000b, Journal of the Elisha Mitchell Scientific Society, 116(3): 199.

*Falloria lyrea* – Hoffman, 1999, Checklist: 325 (311 pdf). Marek & Bond, 2007, Zootaxa, 1610: 37.

***Falloria mimetica* (Chamberlin, 1918)**

*Fontaria mimetica* Chamberlin, 1918, Psyche, 25: 29. MALE HT (MCZ). United States: Tennessee, Davidson County. Attems, 1938, Das Tierreich, 69: 167.

*Sigmoria mimetica* – Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 51. Hoffman, 1950a, American Museum Novitates, 1462: 6.

*Sigmoria (Falloria) mimetica* – Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 133, figs. 109-114.

*Falloria mimetica* – Hoffman, 1999, Checklist: 323 (310 pdf). Marek & Bond, 2007, Zootaxa, 1610: 37. Marek, 2010, Zoological Journal of the Linnean Society, 159: 849.

***Falloria pendula* Shelley, 1986**

*Sigmoria (Falloria) pendula* Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 142, figs. 121-124. MALE HT (USNM). United States: Tennessee, DeKalb County.

*Falloria pendula* – Hoffman, 1999, Checklist: 323 (311 pdf).

*Falloria pendulata* [sic!] – Marek & Bond, 2007, Zootaxa, 1610: 37.

***Falloria picapa* (Keeton, 1960)**

*Hubroria picapa* Keeton, 1960, Bulletin of the Brooklyn Entomological Society, 55: 2, figs. 1-4. MALE PT (FMNH). United States: Tennessee, Morgan County.

*Sigmoria (Falloria) picapa* – Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 130, figs. 105-108.

*Falloria picapa* – Hoffman, 1999, Checklist: 324 (310 pdf). Marek & Bond, 2007, Zootaxa, 1610: 37.

***Falloria prolata* Shelley, 1986**

*Sigmoria (Falloria) prolata* Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 107, figs. 77-83. MALE HT (USNM).



United States: Tennessee, Sevier County.

*Falloria prolata* - Hoffman, 1999, Checklist: 322 (309 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 721. Marek & Bond, 2007, Zootaxa, 1610: 37.

### ***Falloria translineata* (Shelley, 1981)**

*Sigmoria translineata* Shelley, 1981a, Memoirs of the American Entomological Society, 33: 73, figs. 66-69, 132, 133, 136. MALE HT (USNM). United States: Tennessee, Blount County.

*Sigmoria (Falloria) translineata* – Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 116. Shelley, 2000b, Journal of the Elisha Mitchell Scientific Society, 116(3): 200.

*Falloria translineata* – Hoffman, 1999, Checklist: 325 (312 pdf). Marek & Bond, 2007, Zootaxa, 1610: 37.

### ***Falloria tuberosa* (Shelley, 1981)**

*Sigmoria tuberosa* Shelley, 1981a, Memoirs of the American Entomological Society, 33: 93, figs. 90-93, 132, 133, 136. MALE HT (USNM). United States: North Carolina, Swain County.

*Sigmoria (Falloria) tuberosa* – Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 111. Shelley, 2000b, Journal of the Elisha Mitchell Scientific Society, 116(3): 200.

*Falloria tuberosa* – Hoffman, 1999, Checklist: 325 (312 pdf). Marek & Bond, 2007, Zootaxa, 1610: 37.

### ***Falloria xerophylla* (Shelley, 1981)**

*Sigmoria xerophylla* Shelley, 1981a, Memoirs of the American Entomological Society, 33: 89, figs. 86-89, 132, 133, 138. MALE HT (USNM). United States: Tennessee: McMinn County.

*Sigmoria (Falloria) xerophylla* – Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 107.

*Falloria xerophylla* – Hoffman, 1999, Checklist: 323 (309 pdf). Marek & Bond, 2007, Zootaxa, 1610: 37.

## **Genus *Furcillaria* Shelley, 1981**

4 species

*Furcillaria* Shelley, 1981b, Proceedings of the Biological Society of Washington, 94(4): 953. Type species: *F. aequalis* Shelley, by original designation. Shelley, 1982, Proceedings of the Biological Society of Washington, 95: 473. Shelley, 1986, in: Shelley & Whitehead,

Memoirs of the American Entomological Society, 35: 211. Hoffman, 1999, Checklist: 326 (312 pdf). Shelley, 2000b, Journal of the Elisha Mitchell Scientific Society, 116(3): 198. Shelley et al., 2000, Nomenclator Generum et Familiarum Diplopodorum II: 102. Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 724, fig. 3. Marek & Bond, 2007, Zootaxa, 1610: 38.

Distribution: piedmont of South Carolina and southern Blue Ridge Mountains in North Carolina.

Note: See those associated with *Brevigonus*, regarding the phylogeny of the Southern clade, which includes representatives of *Furcillaria*.

### ***Furcillaria aequalis* Shelley, 1981**

*Furcillaria aequalis* Shelley, 1981b, Proceedings of the Biological Society of Washington, 94(4): 956, figs. 1-5. MALE HT (USNM). United States: South Carolina, Edgefield County. Hoffman, 1999, Checklist: 326 (313 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 721. Marek & Bond, 2007, Zootaxa, 1610: 38.

### ***Furcillaria convoluta* Shelley, 1981**

*Furcillaria convoluta* Shelley, 1981b, Proceedings of the Biological Society of Washington, 94(4): 959, figs. 6-10. MALE HT (USNM). United States: South Carolina, Newberry County. Hoffman, 1999, Checklist: 326 (313 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 721. Marek & Bond, 2007, Zootaxa, 1610: 38.

### ***Furcillaria laminata* Shelley, 1981**

*Furcillaria laminata* Shelley, 1981b, Proceedings of the Biological Society of Washington, 94(4): 961, figs. 11-16. MALE HT (USNM). United States: South Carolina, Pickens County. Hoffman, 1999, Checklist: 326 (313 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 721. Marek & Bond, 2007, Zootaxa, 1610: 38.

### ***Furcillaria thrinax* (Shelley, 1982)**

*Prionogonus thrinax* Shelley, 1982, Proceedings of the Biological Society of Washington, 95: 471, figs. 9-12. MALE HT (USNM). United States: North Carolina, Henderson County.

*Sigmoria (Cheiropus) thrinax* – Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 101. Shelley, 2000b, Journal of the Elisha Mitchell Scientific Society, 116(3): 198.

*Furcillaria thrinax* – Hoffman, 1999, Checklist: 326 (313 pdf). Marek & Bond, 2007, Zootaxa, 1610: 38.

### Genus *Lyrranea* Hoffman, 1963

1 species

*Lyrranea* Hoffman, 1963a, Proceedings of the Biological Society of Washington, 76: 114. Type species: *L. persica* Hoffman, 1963a, by original designation. Hoffman, 1980, Classification of the Diplopoda, p. 159. Hoffman, 1999, Checklist: 327 (314 pdf). Shelley et al., 2000, Nomenclator Generum et Familiarum Diplopodorum II: 110. Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 724. Marek & Bond, 2007, Zootaxa, 1610: 38.

Distribution: central Georgia in Peach, Houston, Crawford, and Taylor counties.

Note: Shelley (1986) treated this taxon as a synonym of *Cheiropus*, a subgenus of *Sigmoria*.

### *Lyrranea persica* Hoffman, 1963

*Lyrranea persica* Hoffman, 1963a, Proceedings of the Biological Society of Washington, 76: 115, figs. 1-4. MALE HT (USNM). United States: Georgia, Peach County. Hoffman, 1999, Checklist: 327 (313 pdf). Marek & Bond, 2007, Zootaxa, 1610: 38.

*Cheiropus persicus* – Shelley, 1984b, Proceedings of the Biological Society of Washington, 97: 271.

*Sigmoria (Cheiropus) persica* – Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 101.

### Genus *Prionogonus* Shelley, 1982

4 species

*Prionogonus* Shelley, 1982, Proceedings of the Biological Society of Washington, 95: 460. Type species: *P. haerens* Shelley, by original designation. Hoffman, 1999, Checklist: 327 (314 pdf). Shelley et al., 2000, Nomenclator Generum et Familiarum Diplopodorum II: 125. Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 724. Marek & Bond, 2007, Zootaxa, 1610: 38.

Distribution: piedmont of South Carolina and southern Blue Ridge Mountains in North Carolina.

Note: Shelley (1986) treated this taxon as a synonym of *Cheiropus*, a subgenus of *Sigmoria*.

### *Prionogonus divaricatus* Shelley, 1982

*Prionogonus divaricatus* Shelley, 1982, Proceedings of the

Biological Society of Washington, 95: 467, figs. 5-8. MALE HT (USNM). United States: North Carolina, Polk County. Hoffman, 1999, Checklist: 327 (314 pdf). Marek & Bond, 2007, Zootaxa, 1610: 38.

*Sigmoria (Cheiropus) divaricata* – Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 101. Shelley, 2000b, Journal of the Elisha Mitchell Scientific Society, 116(3): 198.

### *Prionogonus divergens* (Chamberlin, 1939)

*Sigmoria divergens* Chamberlin, 1939, Bulletin of the University of Utah, 30(2): 8, figs. 19-21. MALE HT (USNM). United States: North Carolina, Polk County. Hoffman, 1950a, American Museum Novitates, 1462: 4. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 51. Shelley, 1983c, Myriapodologica, 1: 83, figs. 1-5.

*Sigmoria nigrescens* Hoffman, 1950b, Journal of the Elisha Mitchell Scientific Society, 66: 28, pl. 8, figs. 28-32. MALE HT (USNM). United States: South Carolina, Pickens County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 51. Synonymized by Shelley, 1983c, Myriapodologica, 1: 83.

*Cleptoria divergens divergens* – Hoffman, 1967, Proceedings of the United States National Museum, 124(3630): 21, figs. 1, 17-19.

*Cleptoria divergens nigrescens* – Hoffman, 1967, Proceedings of the United States National Museum, 124(3630): 23, fig. 20.

*Sigmoria (Cheiropus) divergens* – Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 100. Shelley, 2000b, Journal of the Elisha Mitchell Scientific Society, 116(3): 198.

*Prionogonus divergens* – Hoffman, 1999, Checklist: 327 (314 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 725. Marek & Bond, 2007, Zootaxa, 1610: 38. Swafford & Bond, 2010, Biological Journal of the Linnean Society, 101(2): 283, fig. 3.

### *Prionogonus haerens* Shelley, 1982

*Prionogonus haerens* Shelley, 1982, Proceedings of the Biological Society of Washington, 95: 463, figs. 1-4. MALE HT (USNM). United States: North Carolina, Buncombe County. Hoffman, 1999, Checklist: 328 (314 pdf). Marek & Bond, 2007, Zootaxa, 1610: 38.

*Sigmoria (Cheiropus) haerens* – Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 101. Shelley, 2000b, Journal of the Elisha



Mitchell Scientific Society, 116(3): 198.

### ***Prionogonus stibarophallus* (Shelley, 1981)**

*Sigmoria stibarophalla* Shelley, 1981a, *Memoirs of the American Entomological Society*, 33: 41, figs. 23-28, 132, 133. MALE HT (USNM). United States: North Carolina, Buncombe County. Shelley, 2000b, *Journal of the Elisha Mitchell Scientific Society*, 116(3): 198.

*Sigmoria (Cheiropus) stibarophalla* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 100.

*Prionogonus stibarophallus* – Hoffman, 1999, *Checklist*: 328 (314 pdf). Marek & Bond, 2007, *Zootaxa*, 1610: 38.

### **Genus *Rudiloria* Causey, 1955**

5 species

*Rudiloria* Causey, 1955a, *Proceedings of the Biological Society of Washington*, 68: 28. Type species: *R. mohicana* Causey, by original designation. Jeekel, 1971, *Monografieën van de Nederlandse Entomologische Vereniging*, 5: 285. Hoffman, 1978b, *Myriapodologica*, 1: 6. Hoffman, 1999, *Checklist*: 328 (315 pdf). Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41: 724. Marek & Bond, 2007, *Zootaxa*, 1610: 38. Marek, 2010, *Zoological Journal of the Linnean Society*, 159: 823, fig. 3.

Distribution: western Virginia, north to Canada and New England.

Note: *Rudiloria* is a probable sister-group of *Apheloria* based on molecular phylogenetic evidence (Marek & Bond, 2006; 2007) and similarity in gonopods (Shear, 1972). Shelley (1986) treated this taxon as a subgenus of *Sigmoria*.

### ***Rudiloria guyandotta* (Shear, 1972)**

*Apheloria guyandotta* Shear, 1972, *Proceedings of the Biological Society of Washington*, 85: 494, figs. 1, 2. MALE HT (MCZ). United States: West Virginia, Wyoming County.

*Rudiloria guyandotta* – Hoffman, 1978b, *Myriapodologica*, 1: 6. Hoffman, 1999, *Checklist*: 328 (315 pdf). Marek & Bond, 2007, *Zootaxa*, 1610: 38. Marek, 2010, *Zoological Journal of the Linnean Society*, 159: 834.

*Sigmoria (Rudiloria) guyandotta* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 35, figs. 8, 9.

### ***Rudiloria kleinpeteri* (Hoffman, 1949)**

*Apheloria kleinpeteri* Hoffman, 1949b, *Proceedings of the*

United States National Museum, 99: 375, figs. 3, 4. MALE HT (USNM). United States: Virginia, Tazewell County. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 19.

*Rudiloria kleinpeteri* – Hoffman, 1978b, *Myriapodologica*, 1: 6. Hoffman, 1999, *Checklist*: 329 (315 pdf). Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41: 721. Marek & Bond, 2007, *Zootaxa*, 1610: 38. Marek, 2010, *Zoological Journal of the Linnean Society*, 159: 870.

*Sigmoria (Rudiloria) trimaculata kleinpeteri* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 34, figs. 4-7.

### ***Rudiloria mohicana* Causey, 1955**

*Rudiloria mohicana* Causey, 1955a, *Proceedings of the Biological Society of Washington*, 68: 28, fig. 6. MALE HT (AMNH). United States: Ohio, Ashland County. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 47. Hoffman, 1978b, *Myriapodologica*, 1: 6, fig. 4. Hoffman, 1999, *Checklist*: 329 (315 pdf). Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41: 721. Marek & Bond, 2007, *Zootaxa*, 1610: 38.

*Apheloria mohicana* – Shear, 1972, *Proceedings of the Biological Society of Washington*, 85: 496, fig. 3.

*Sigmoria (Rudiloria) mohicana* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 38, figs. 10-12.

### ***Rudiloria rigida* Shelley, 1986**

*Sigmoria (Rudiloria) rigida* Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 41, figs. 13-16. MALE HT (VMNH). United States: West Virginia, Clay County.

*Rudiloria rigida* – Hoffman, 1999, *Checklist*: 329 (316 pdf). Marek & Bond, 2007, *Zootaxa*, 1610: 38. Marek, 2010, *Zoological Journal of the Linnean Society*, 159: 836.

### ***Rudiloria trimaculata tortua* (Chamberlin, 1949)**

*Apheloria tortua* Chamberlin, 1949b, *Journal of the Washington Academy of Sciences*, 39: 101, fig. 23. MALE HT (USNM). United States: Virginia, Giles County. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 21.

*Apheloria picta* Hoffman, 1949b, *Proceedings of the United States National Museum*, 99: 376, figs. 5, 6. MALE HT (USNM). United States: Virginia, Giles County. Synonymized by Hoffman, 1951, *Natural History*

Miscellanea 81: 5.

*Apheloria trimaculata tortua* – Hoffman, 1951, Natural History miscellanea 81: 5. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 21. Synonymized with *Sigmoria (Rudiloria) trimaculata trimaculata* by Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 31.

*Rudiloria trimaculata tortua* – Hoffman, 1999, Checklist: 329 (316 pdf). Marek & Bond, 2007, Zootaxa, 1610: 38.

### ***Rudiloria trimaculata trimaculata* (Wood, 1864)**

*Polydesmus (Fontaria) trimaculatus* Wood, 1864, Proceedings of the Academy of Natural Sciences of Philadelphia, 16: 6. Type material lost. United States: Pennsylvania, Susquehanna County. Wood, 1865, Transactions of the American Philosophical Society, 13: 223, figs. 53, 54.

*Fontaria trimaculata* – Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 263.

*Apheloria trimaculata* – Attems, 1938, Das Tierreich, 69: 170. Loomis, 1944, Psyche, 51 (3-4): 173. Hoffman, 1949b, Proceedings of the United States National Museum, 99 (3244): 378.

*Fontaria lutzi* Jacot, 1938, American Midland Naturalist, 20: 571, fig. 1. Type material lost. MALE HT (PMNH). United States: New Hampshire, Cheshire County. Synonymized by Hoffman, 1951, Natural History Miscellanea 81: 2.

*Apheloria keuka* Chamberlin, 1939, Bulletin of the University of Utah, 30(2): 10, pl. 4, fig. 32. MALE HT (USNM). United States: New York, Tompkins County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 19. Synonymized by Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 31.

*Apheloria coriacea* (nec C.L. Koch, 1847) – Chamberlin, 1947, Proceedings of the Academy of Natural Sciences of Philadelphia, 99: 25, fig. 5.

*Apheloria antrostromicola* Hoffman, 1949b, Proceedings of the United States National Museum, 99: 372, figs. 1, 2. MALE HT (USNM). United States: Virginia, Alleghany County, Virginia. Synonymized by Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 31.

*Apheloria trimaculata trimaculata* – Hoffman, 1951, Chicago Academy of Sciences Natural History Miscellanea, 81: 2, fig. 1b. Chamberlin & Hoffman, 1958, Bulletin of the

United States National Museum, 212: 20.

*Apheloria trimaculata antrostromicola* – Hoffman, 1951, Chicago Academy of Sciences Natural History Miscellanea, 81: 3, fig. 1c. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 20.

*Apheloria trimaculata incarnata* Hoffman, 1951, Chicago Academy of Sciences Natural History Miscellanea, 81: 4, fig. 1a. MALE HT (USNM). Canada: Ontario, Frontenac County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 21. Synonymized by Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 31.

*Rudiloria trimaculata* – Hoffman, 1978b, Myriapodologica, 1: 5, figs. 2, 5.

*Apheloria (Rudiloria) trimaculata trimaculata* – Kevan, 1983, Canadian Journal of Zoology, 61(12): 2968.

*Apheloria (Rudiloria) trimaculata incarnata* – Kevan, 1983, Canadian Journal of Zoology, 61(12): 2968.

*Sigmoria (Rudiloria) trimaculata trimaculata* – Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 31, figs. 1-3. Shelley, 1988, Canadian Journal of Zoology, 66(7): 1654, figs. 37, 38. Kevan & Scudder, 1989, Biological Survey of Canada Taxonomic Series, 1: 75. Shelley, 2002c, Canadian Journal of Zoology, 80(11): 1871.

*Rudiloria trimaculata trimaculata* – Hoffman, 1999, Checklist: 330 (316 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 721, fig. 8d. Marek & Bond, 2007, Zootaxa, 1610: 38.

### **Genus *Sigmoria* Chamberlin, 1939**

17 species

*Sigmoria* Chamberlin, 1939, Bulletin of the University of Utah, 30(2): 7. Type species: *S. munda* Chamberlin, by original designation. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 49. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 287. Hoffman, 1980, Classification of the Diplopoda, p. 158. Shelley, 1981a, Memoirs of the American Entomological Society, 33: 16. Hoffman, 1999, Checklist: 330 (317 pdf). Shelley, 2000b, Journal of the Elisha Mitchell Scientific Society, 116(3): 178. Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41: 724. Marek & Bond, 2007, Zootaxa, 1610: 38. Marek, 2010, Zoological Journal of the Linnean Society, 159: 823, fig. 3.

*Sigiria* Chamberlin, 1939, Bulletin of the University of Utah, 30(2): 9. Type species: *S. scorpio* Chamberlin, by original designation. Synonymized by Hoffman, 1980,

Classification of the Diplopoda, p. 158.

Distribution: southeastern U.S. with most species in the Blue Ridge Mountains.

Note: See notes associated with *Brevigonus*, regarding the phylogeny of the Southern clade, which includes representatives of *Sigmoria*.

### ***Sigmoria areolata* Shelley, 1981**

*Sigmoria areolata* Shelley, 1981a, *Memoirs of the American Entomological Society*, 33: 38, figs. 19-22, 132, 133. MALE HT (USNM). United States: North Carolina, Buncombe County. Hoffman, 1999, Checklist: 331 (317 pdf). Marek & Bond, 2007, *Zootaxa*, 1610: 38.

*Sigmoria (Sigiria) areolata* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 105. Shelley, 2000b, *Journal of the Elisha Mitchell Scientific Society*, 116(3): 200.

### ***Sigmoria australis* Shelley, 1986**

*Sigmoria (Cheiropus) australis* Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 95, figs. 69-72. MALE HT (USNM). United States: Florida, Liberty County. Shelley, 2000c, *Insecta Mundi*, 14(4): 248.

*Sigmoria australis* – Hoffman, 1999, Checklist: 331 (317 pdf). Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41: 720. Marek & Bond, 2007, *Zootaxa*, 1610: 38.

### ***Sigmoria austrimontis* Shelley, 1981**

*Sigmoria rubromarginata austrimontis* Shelley, 1981a, *Memoirs of the American Entomological Society*, 33: 102, figs. 102, 103, 134. MALE HT (USNM). United States: North Carolina, Burke County.

*Sigmoria (Sigiria) austrimontis* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 102. Shelley, 2000b, *Journal of the Elisha Mitchell Scientific Society*, 116(3): 200.

*Sigmoria austrimontis* – Hoffman, 1999, Checklist: 334 (320 pdf). Marek & Bond, 2007, *Zootaxa*, 1610: 38.

### ***Sigmoria disjuncta* Shelley, 1981**

*Sigmoria disjuncta* Shelley, 1981a, *Memoirs of the American Entomological Society*, 33: 121, figs. 128-130, 137, 138. MALE HT (USNM). United States: South Carolina, Oconee County. Hoffman, 1999, Checklist: 333 (320 pdf). Marek & Bond, 2007, *Zootaxa*, 1610: 38.

*Sigmoria (Sigiria) disjuncta* – Shelley, 1986, in: Shelley &

Whitehead, *Memoirs of the American Entomological Society*, 35: 105.

### ***Sigmoria laticurvosa* Shelley, 1981**

*Sigmoria laticurvosa* Shelley, 1981a, *Memoirs of the American Entomological Society*, 33: 59, figs. 49-54. MALE HT (USNM). United States: South Carolina, Aiken County. Hoffman, 1999, Checklist: 331 (318 pdf). Marek & Bond, 2007, *Zootaxa*, 1610: 38.

*Sigmoria (Sigmoria) laticurvosa* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 68.

### ***Sigmoria latior latior* (Brölemann, 1900)**

*Fontaria latior* Brölemann, 1900, *Mémoires de la Société zoologique de France*, 13: 123, pl. 6, figs. 37-42. MALE HT (MHNP). United States: “North Carolina.”

*Apheloria latior* – Attems, 1938, *Das Tierreich*, 69: 169, fig. 185.

*Sigmoria latior* – Hoffman, 1950a, *American Museum Novitates*, 1462: 5. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 50. Wray, 1967, *Insects of North Carolina*, 152.

*Sigmoria aberrans* Chamberlin, 1939, *Bulletin of the University of Utah*, 30(2): 8, pl. 8, pl. 3, figs. 24, 25. MALE HT (USNM). United States: North Carolina, Avery County. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 49. Wray, 1967, *Insects of North Carolina*, 152. Synonymized by Shelley, 1976, *Proceedings of the Biological Society of Washington*, 88: 22.

*Sigmoria conclusa* Chamberlin, 1939, *Bulletin of the University of Utah*, 30(2): 8, pl. 3, figs. 22, 23. MALE HT (USNM). United States: North Carolina, Mitchell County. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 49. Wray, 1967, *Insects of North Carolina*, 152. Synonymized by Shelley, 1976, *Proceedings of the Biological Society of Washington*, 88: 22.

*Sigmoria furcifera* Hoffman, 1949b, *Proceedings of the United States National Museum*, 99: 387, pl. 27, figs. 17, 18. MALE HT (USNM). United States: West Virginia, Wyoming County. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 50. Synonymized by Shelley, 1976, *Proceedings of the Biological Society of Washington*, 88: 22.

*Sigmoria latior latior* – Shelley, 1976, *Proceedings of the Biological Society of Washington*, 89: 21, figs. 3, 6-14; Shelley, 1978, *Journal of Natural History*, 12(1): 67,



figs. 71, 72. Shelley, 1981a, *Memoirs of the American Entomological Society*, 33: 24, figs. 1-7, 132-133, 139. Hoffman, 1999, Checklist: 332 (318 pdf). Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41: 721. Marek & Bond, 2007, *Zootaxa*, 1610: 38. Marek, 2010, *Zoological Journal of the Linnean Society*, 159: 868.

*Sigmoria (Sigmoria) latior latior* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 67. Shelley, 2000b, *Journal of the Elisha Mitchell Scientific Society*, 116(3): 202.

### ***Sigmoria latior hoffmani* Shelley, 1976**

*Sigmoria latior hoffmani* Shelley, 1976, *Proceedings of the Biological Society of Washington*, 89: 29, fig. 5. MALE HT (VMNH). United States: South Carolina, Orangeburg County. Shelley, 1981a, *Memoirs of the American Entomological Society*, 33: 30, fig. 9, 137, 139. Hoffman, 1999, Checklist: 331 (318 pdf). Marek & Bond, 2007, *Zootaxa*, 1610: 38.

*Sigmoria (Sigmoria) latior hoffmani* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 67.

### ***Sigmoria latior munda* Chamberlin, 1939**

*Apheloria brachygon* Brimley, 1938, *The Insects of North Carolina*, 498. (See note below).

*Sigmoria munda* Chamberlin, 1939, *Bulletin of the University of Utah*, 30(2): 8, pl. 2, figs. 15, 16. MALE HT (USNM). United States: North Carolina, Madison County. Hoffman, 1950a, *American Museum Novitates*, 1462: 6. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 51. Wray, 1967, *Insects of North Carolina*, 152.

*Sigmoria mariona* Chamberlin, 1939, *Bulletin of the University of Utah*, 30(2): 9, pl. 2, figs. 17, 18. MALE HT (USNM). United States: North Carolina, McDowell County. Hoffman, 1950a, *American Museum Novitates*, 1462: 6. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 50. Wray, 1967, *Insects of North Carolina*, 152. Synonymized by Shelley, 1981a, *Memoirs of the American Entomological Society* 33: 28.

*Sigmoria brachygon* Chamberlin, 1940a, *Entomological News*, 51: 283, fig. 2. MALE HT (VMNH). United States: North Carolina, Buncombe County. Brimley, 1942, *Supplement to Insects of North Carolina*, 39. Hoffman, 1950a, *American Museum Novitates*, 1462: 3. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 49. Wray, 1967, *Insects*

of North Carolina, 152. Synonymized by Shelley, 1981a, *Memoirs of the American Entomological Society* 33: 28.

*Sigmoria latior mariona* – Shelley, 1976, *Proceedings of the Biological Society of Washington*, 89: 28, fig. 4.

*Sigmoria latior munda* – Shelley, 1981a, *Memoirs of the American Entomological Society* 33: 28, figs. 8, 132-133, 137, 139. Hoffman, 1999, Checklist: 332 (318 pdf). Marek & Bond, 2007, *Zootaxa*, 1610: 38.

*Sigmoria (Sigmoria) latior munda* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 67. Shelley, 2000b, *Journal of the Elisha Mitchell Scientific Society*, 116(3): 202.

Note: Chamberlin identified myriapods for Brimley and provided the manuscript names *Apheloria brachygon*, *Apheloria acrophor*, *Apheloria scholastica*, and *Mimularia (=Mimuloria) pelior*. Brimley (1938) and later Wray (1967) subsequently published several names without description, definition, or bibliographic reference. *Apheloria brachygon* Brimley, 1938; *Apheloria acrophor* Brimley, 1938; *Apheloria acrophor* Wray, 1967; *Apheloria scholastica* Brimley, 1938; and *Mimularia pelior* Brimley, 1938 are therefore unavailable because the names do not satisfy the requirements of ICZN Code Chapter 4, Article 13.1 for names published after 1930 (ICZN, 2012). However, *Sigmoria brachygon* Chamberlin, 1940 is available, and a synonym of *Sigmoria latior munda* Chamberlin, 1939. Apparently Chamberlin provided the name *Apheloria brachygon* to Brimley before splitting *Apheloria* into a number of separate genera, including *Sigmoria* (Chamberlin, 1939). See Shelley (1981: 28) for a detailed discussion.

### ***Sigmoria nantahalae* Hoffman, 1958**

*Sigmoria nantahalae* Hoffman, 1958a, *Proceedings of the Entomological Society of Washington*, 60: 281, figs. 1-4. MALE HT (USNM). United States: North Carolina, Swain County. Shelley, 1981a, *Memoirs of the American Entomological Society*, 33: 67, figs. 61-65, 132, 133, 136, 138. Wray, 1967, *Insects of North Carolina*, 152. Hoffman, 1999, Checklist: 333 (319 pdf). Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41: 721. Marek & Bond, 2007, *Zootaxa*, 1610: 30, 38.

*Sigmoria (Falloria) nantahalae* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 106. Shelley, 2000b, *Journal of the Elisha Mitchell Scientific Society*, 116(3): 200.

### ***Sigmoria nigrimontis nigrimontis* (Chamberlin, 1947)**

*Deltotaria nigrimontis* Chamberlin, 1947, *Proceedings of the Academy of Natural Sciences of Philadelphia*, 99:

28, figs. 11, 12. HT (AMNH). United States: North Carolina, Buncombe County. Wray, 1967, *Insects of North Carolina*, 151.

*Sigiria nigrimontis* – Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 48.

*Sigmoria nigrimontis nigrimontis* – Shelley, 1981a, *Memoirs of the American Entomological Society*, 33: 109, figs. 107-112. Hoffman, 1999, Checklist: 334 (320 pdf). Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41: 721. Marek & Bond, 2007, *Zootaxa*, 1610: 38.

*Sigmoria (Sigiria) nigrimontis nigrimontis* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 85: 102. Shelley, 2000b, *Journal of the Elisha Mitchell Scientific Society*, 116(3): 201.

### ***Sigmoria nigrimontis angulosa* Shelley, 1981**

*Sigmoria nigrimontis angulosa* Shelley, 1981a, *Memoirs of the American Entomological Society*, 33: 118, figs. 122-124, 134-135. MALE HT (USNM). United States: North Carolina, Yancey County. Hoffman, 1999, Checklist: 334 (320 pdf). Marek & Bond, 2007, *Zootaxa*, 1610: 38.

*Sigmoria (Sigiria) nigrimontis angulosa* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 85: 102. Shelley, 2000b, *Journal of the Elisha Mitchell Scientific Society*, 116(3): 201.

### ***Sigmoria nigrimontis intermedia* (Hoffman, 1948)**

*Apheloria intermedia* Hoffman, 1948a, *Journal of the Washington Academy of Sciences*, 38: 346, figs. 1, 2. MALE HT (USNM). United States: North Carolina, Buncombe County. Wray, 1967, *Insects of North Carolina*, 151.

*Sigiria intermedia* – Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 48.

*Sigmoria nigrimontis intermedia* – Shelley, 1981a, *Memoirs of the American Entomological Society*, 33: 113, figs. 113-121, 134, 135. Hoffman, 1999, Checklist: 334 (320 pdf). Marek & Bond, 2007, *Zootaxa*, 1610: 38.

*Sigmoria (Sigiria) nigrimontis intermedia* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 85: 102. Shelley, 2000b, *Journal of the Elisha Mitchell Scientific Society*, 116(3): 201.

### ***Sigmoria nigrimontis unicoi* Shelley, 1981**

*Sigmoria nigrimontis unicoi* Shelley, 1981a, *Memoirs of the American Entomological Society*, 33: 119, figs. 125-127, 134, 135. MALE HT (USNM). United States:

Tennessee, Unicoi County. Hoffman, 1999, Checklist: 335 (321 pdf). Marek & Bond, 2007, *Zootaxa*, 1610: 38.

*Sigmoria (Sigiria) nigrimontis unicoi* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 85: 102.

### ***Sigmoria quadrata* Shelley, 1981**

*Sigmoria quadrata* Shelley, 1981a, *Memoirs of the American Entomological Society*, 33: 57, figs. 43-48, 137. MALE HT (USNM). United States: South Carolina, Lexington County.

*Sigmoria (Sigmoria) quadrata* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 68. Hoffman, 1999, Checklist: 332 (319 pdf). Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41: 721. Marek & Bond, 2007, *Zootaxa*, 1610: 38.

### ***Sigmoria rubromarginata* (Bollman, 1887)**

*Fontaria rubromarginata* Bollman, 1887, *Proceedings of the United States National Museum*, 10: 622. MALE HT (USNM). United States: North Carolina, Jackson County. Bollman, 1893, *Bulletin of the United States National Museum*, 46: 39. Attems, 1898, *Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe*, 68: 263. Attems, 1938, *Das Tierreich*, 69: 167. Brimley, 1938, *The Insects of North Carolina*, 498.

*Sigiria scorpio* Chamberlin, 1939, *Bulletin of the University of Utah*, 30(2): 9, figs. 26, 27. MALE HT (USNM). United States: North Carolina, Madison County. Chamberlin, 1940b, *Canadian Entomologist*, 72: 56. Brimley, 1942, *Supplement to Insects of North Carolina*, 39. Wray, 1967, *Insects of North Carolina*, 152. Synonymized by Hoffman, 1950a, *American Museum Novitates*, 1462: 7.

*Sigmoria zyga* Chamberlin, 1949a, *Proceedings of the Biological Society of Washington*, 62: 3, fig. 2. MALE HT (USNM). United States: North Carolina, Madison County. Hoffman, 1950a, *American Museum Novitates*, 1462: 7. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 51. Wray, 1967, *Insects of North Carolina*, 152. Synonymized by Shelley, 1981a, *Memoirs of the American Entomological Society*, 33: 98.

*Sigiria rubromarginata* – Hoffman, 1950b, *Journal of the Elisha Mitchell Scientific Society*, 66: 25. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 48. Wray, 1967, *Insects of North Carolina*, 152.



*Sigmoria rubromarginata rubromarginata* – Shelley, 1981a, *Memoirs of the American Entomological Society*, 33: 98, figs. 94-99, 134-136.

*Sigmoria rubromarginata* – Hoffman, 1999, Checklist: 335 (321 pdf). Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41: 721. Marek & Bond, 2007, *Zootaxa*, 1610: 38.

*Sigmoria (Sigiria) rubromarginata* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 85: 102. Shelley, 2000b, *Journal of the Elisha Mitchell Scientific Society*, 116(3): 201.

### ***Sigmoria sigirioides* Shelley, 1981**

*Sigmoria sigirioides* Shelley, 1981a, *Memoirs of the American Entomological Society* 33: 53, figs. 39-42, 132, 133. MALE HT (USNM). United States: North Carolina, Yancey County. Marek & Bond, 2007, *Zootaxa*, 1610: 38.

*Sigmoria (Sigiria) sigirioides* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 85: 102. Shelley, 2000b, *Journal of the Elisha Mitchell Scientific Society*, 116(3): 201.

### ***Sigmoria simplex* Shelley, 1981**

*Sigmoria simplex* Shelley, 1981a, *Memoirs of the American Entomological Society*, 33: 45, figs. 29-34, 132, 133. MALE HT (USNM). United States: North Carolina, Mitchell County. Hoffman, 1999, Checklist: 335 (321 pdf). Marek & Bond, 2007, *Zootaxa*, 1610: 38.

*Sigmoria (Sigiria) inornata* Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 85: 105. Shelley, 2000b, *Journal of the Elisha Mitchell Scientific Society*, 116(3): 200.

Note: Shelley (1986) transferred *Croatania simplex* Shelley, 1977 into *Sigmoria* and provided a new name for *Sigmoria simplex* Shelley, 1981a to avoid homonymy. Hoffman (1999) and Marek & Bond (2007) then recognized *Croatania* as a distinct genus and re-established *Sigmoria simplex* Shelley, 1981.

### ***Sigmoria stenogon* Chamberlin, 1942**

*Sigmoria stenogon* Chamberlin, 1942a, *Bulletin of the University of Utah*, 32(8): 5, pl. 2, fig. 12. MALE HT (USNM). United States: North Carolina, Transylvania County. Hoffman, 1950a, *American Museum Novitates*, 1462: 6, 7. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 51. Wray, 1967, *Insects of North Carolina*, 152. Shelley, 1981a, *Memoirs of the American Entomological Society*, 33: 63, figs.

55-60. Hoffman, 1999, Checklist: 333 (319 pdf). Marek & Bond, 2007, *Zootaxa*, 1610: 38.

*Sigmoria (Sigiria) stenogon* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 85: 105. Shelley, 2000b, *Journal of the Elisha Mitchell Scientific Society*, 116(3): 201.

### ***Sigmoria stenoloba* Shelley, 1981**

*Sigmoria stenoloba* Shelley, 1981a, *Memoirs of the American Entomological Society*, 33: 33, figs. 10-18, 132, 133. MALE HT (USNM). United States: North Carolina, Wilkes County. Hoffman, 1999, Checklist: 333 (319 pdf). Marek & Bond, 2007, *Zootaxa*, 1610: 38.

*Sigmoria (Sigmoria) stenoloba* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 85: 67. Shelley, 2000b, *Journal of the Elisha Mitchell Scientific Society*, 116(3): 202.

### ***Sigmoria triangulata* Shelley, 1981**

*Sigmoria triangulata* Shelley, 1981a, *Memoirs of the American Entomological Society*, 33: 104, figs. 104-106, 134, 135. MALE HT (USNM). United States: North Carolina, Madison County. Hoffman, 1999, Checklist: 336 (322 pdf). Marek & Bond, 2007, *Zootaxa*, 1610: 38.

*Sigmoria (Sigiria) triangulata* – Shelley, 2000b, *Journal of the Elisha Mitchell Scientific Society*, 116(3): 201.

### ***Sigmoria truncata* Shelley, 1981**

*Sigmoria truncata* Shelley, 1981a, *Memoirs of the American Entomological Society* 33: 49, figs. 35-38, 132, 133. MALE HT (USNM). United States: North Carolina, Mitchell County. Marek & Bond, 2007, *Zootaxa*, 1610: 38.

*Sigmoria (Sigiria) truncata* – Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 85: 102. Shelley, 2000b, *Journal of the Elisha Mitchell Scientific Society*, 116(3): 202.

### ***Sigmoria whiteheadi* Shelley, 1986**

*Sigmoria (Sigiria) whiteheadi* Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 102, figs. 73-76. MALE HT (USNM). United States, Virginia, Patrick County.

*Sigmoria whiteheadi* – Hoffman, 1999, Checklist: 336 (322 pdf). Marek & Bond, 2007, *Zootaxa*, 1610: 38.

**Genus *Stelgipus* Loomis, 1944**

2 species

*Stelgipus* Loomis, 1944, *Psyche*, 51: 173. Type species: *S. agrestis* Loomis, by original designation. Hoffman, 1952, *Entomological News*, 63: 74. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 33. Jeekel, 1971, *Monografieën van de Nederlandse Entomologische Vereniging*, 5: 288. Hoffman, 1980, *Classification of the Diplopoda*, p. 159. Hoffman, 1999, *Checklist*: 336 (322 pdf). Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41: 724. Marek & Bond, 2007, *Zootaxa*, 1610: 38.

Distribution: piedmont to the coasts of Georgia and South Carolina, and northeastern Florida.

Note: Shelley (1986) treated this taxon as a synonym of *Cheiropus*, a subgenus of *Sigmoria*.

***Stelgipus agrestis* Loomis, 1944**

*Stelgipus agrestis* Loomis, 1944, *Psyche*, 51: 173, fig. 5. MALE HT (MCZ). United States: Georgia, Burke County. Hoffman, 1999, *Checklist*: 336 (322 pdf). Marek & Bond, 2007, *Zootaxa*, 1610: 38.

*Fontaria agrestis* - Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 33.

*Cheiropus agrestis* - Shelley, 1984b, *Proceedings of the Biological Society of Washington*, 97: 273, figs. 12-16.

*Sigmoria (Cheiropus) agrestis* - Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 101.

***Stelgipus serratus* (Shelley, 1984)**

*Cheiropus serratus* Shelley, 1984b, *Proceedings of the Biological Society of Washington*, 97: 276, figs. 17-22. MALE HT (USNM). United States: Georgia, Camden County.

*Sigmoria (Cheiropus) serrata* - Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 101.

*Stelgipus serratus* - Hoffman, 1999, *Checklist*: 336 (322 pdf). Marek & Bond, 2007, *Zootaxa*, 1610: 38.

**Tribe Chonaphini Verhoeff, 1941**

(6 genera, 12 species: western U.S., except *Semionellus placidus* in the eastern U.S.)

Chonaphinae Verhoeff, 1941a, *Archiv Für Naturgeschichte*, 10: 403.

Chonaphini - Hoffman, 1980, *Classification of the Diplopoda*,

p. 157. Shelley, 1990, *Shelley, Canadian Journal of Zoology*, 68 (11): 2313. Shelley, 1993e, *Insecta Mundi*, 7: 195. Shelley, 1994, *Brimleyana*, 20: 111. Shelley, 1997, *Insecta Mundi*, 11: 334. Hoffman, 1999, *Checklist*: 357 (342 pdf). Shelley et al., 2000, *Nomenclator Generum et Familiarum Diplopodorum II*: 92.

**Genus *Chonaphe* Cook, 1904**

4 species

*Chonaphe* Cook, 1904, *Harriman Alaska Expedition*, 8: 56. Type species: *Polydesmus armatus* Harger, 1872, by original designation. Attems, 1931, *Zoologica*, 30(79): 65. Attems, 1938, *Das Tierreich*, 69: 155. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 27. Jeekel, 1971, *Monografieën van de Nederlandse Entomologische Vereniging*, 5: 253. Hoffman, 1980, *Classification of the Diplopoda*, p. 157. Kevan, 1983, *Canadian Journal of Zoology*, 61(12): 2968. Shelley, 1994, *Brimleyana*, 20: 128. Hoffman, 1999, *Checklist*: 357 (342 pdf). Shelley et al., 2000, *Nomenclator Generum et Familiarum Diplopodorum II*: 92.

Distribution: northwestern U.S. in Idaho, Montana, Oregon, and Washington.

***Chonaphe armata* (Harger, 1872)**

*Polydesmus armatus* Harger, 1872, *American Journal of Science and Arts*, 4: 119, pl. 2, fig. 8. MALE ST (PMNH). United States: Oregon, Grant County.

*Leptodesmus armatus* - Bollman, 1893, *Bulletin of the United States National Museum*, 46: 122. Chamberlin, 1911, *The Canadian Entomologist*, 43(08): 264.

*Chonaphe armata* - Cook, 1904, *Harriman Alaska Expedition*, 8: 56, pl. 3, figs. 2a-c. Attems, 1931, *Zoologica*, 30(79): 65, figs. 100, 101. Attems, 1938, *Das Tierreich*, 69: 156, fig. 177. Chamberlin, 1949c, *Proceedings of the Biological Society of Washington*, 62: 125. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 27. Kevan, 1983, *Canadian Journal of Zoology*, 61(12): 2968. Shelley, 1990, *Canadian Journal of Zoology*, 68 (11): 2314. Shelley, 1993a, *Myriapodologica*, 2 (13): 91. Shelley, 1993c, *Brimleyana*, 18: 9, figs. 4, 5. Shelley, 1994, *Brimleyana*, 20: 131, figs. 2-8. Hoffman, 1999, *Checklist*: 358 (342 pdf). Marek et al., 2011, *Current Biology*, 21(18), Supplemental Information: 7, fig. S1.

*Chonaphe cygneia* Chamberlin, 1949c, *Proceedings of the Biological Society of Washington*, 62: 125, fig. 1. MALE HT (USNM). United States: Oregon, Yakima County. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 27. Kevan,

1983, Canadian Journal of Zoology, 61(12): 2968. Synonymized by Shelley, 1994, Brimleyana, 20: 131.

*Chonaphe patriotica* Chamberlin, 1949c, Proceedings of the Biological Society of Washington, 62: 127, figs. 2, 3. MALE HT (USNM). United States: Idaho, Kootenai County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 27. Kevan, 1983, Canadian Journal of Zoology, 61(12): 2968. Synonymized by Shelley, 1994, Brimleyana, 20: 131.

*Chonaphe serratus* Loomis & Schmitt, 1971, Northwest Science, 45: 111, figs. 1-2. MALE HT (USNM). United States: Montana, Sanders County. Synonymized by Shelley, 1994, Brimleyana, 20: 131.

*Chonaphe serrata* – Kevan, 1983, Canadian Journal of Zoology, 61(12): 2968.

### ***Chonaphe evexa* Shelley, 1994**

*Chonaphe evexa* Shelley, 1994, Brimleyana, 20: 341, figs. 15-20. MALE HT (UCD). United States: Oregon, Coos County. Hoffman, 1999, Checklist: 358 (343 pdf).

### ***Chonaphe remissa* Chamberlin, 1949**

*Chonaphe armata* (nec Harger, 1872) – sensu Attems, 1931, Zoologica, 30(79): 65. Verhoeff, 1941a, Archiv für Naturgeschichte, 10: fig. 5.

*Chonaphe remissa* Chamberlin, 1949c, Proceedings of the Biological Society of Washington, 62: 127, figs. 4, 5. MALE HT (USNM). United States: Washington, Pierce County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 27. Kevan, 1983, Canadian Journal of Zoology, 61(12): 2968. Shelley, 1994, Brimleyana, 20: 139, figs. 9-14. Hoffman, 1999, Checklist: 358 (343 pdf).

### ***Chonaphe schizoterminalis* Shelley, 1994**

*Chonaphe schizoterminalis* Shelley, 1994, Brimleyana, 20: 144, figs. 21-26. MALE HT (MCZ). United States: Washington, Stevens County. Hoffman, 1999, Checklist: 358 (343 pdf).

### **Genus *Metaxycheir* Buckett & Gardner, 1969**

1 species

*Metaxycheir* Buckett & Gardner, 1969b, Proceedings of the Entomological Society of Washington, 81: 67. Type species: *M. prolata* Buckett & Gardner, by original designation. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 253. Hoffman, 1980, Classification of the Diplopoda, p. 157. Kevan, 1983, Canadian Journal of Zoology, 61(12):

2968. Shelley, 1994, Brimleyana, 20: 171. Hoffman, 1999, Checklist: 358 (343 pdf). Shelley et al., 2000, Nomenclator Generum et Familiarum Diplopodorum II: 112.

Distribution: Latah and Benewah counties in Idaho, just west to Whitman County, Washington.

### ***Metaxycheir prolata* Buckett & Gardner, 1969**

*Metaxycheir prolata* Buckett & Gardner, 1969b, Proceedings of the Entomological Society of Washington, 81: 67, figs. 1-6. MALE HT (UCD). United States: Idaho, Latah County. Kevan, 1983, Canadian Journal of Zoology, 61(12): 2968. Shelley, 1994, Brimleyana, 20: 171, figs. 50-53a. Hoffman, 1999, Checklist: 359 (343 pdf).

### **Genus *Montaphe* Chamberlin, 1949**

2 species

*Montaphe* Chamberlin, 1949c, Proceedings of the Biological Society of Washington, 62: 127. Type species: *Leptodesmus (Chonaphe) elrodi* Chamberlin, 1913, by original designation. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 38. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 273. Hoffman, 1980, Classification of the Diplopoda, p. 157. Kevan, 1983, Canadian Journal of Zoology, 61(12): 2968. Shelley, 1994, Brimleyana, 20: 156. Hoffman, 1999, Checklist: 359 (344 pdf).

Distribution: *Montaphe elrodi* in western Montana, northern Idaho, and eastern Washington. *Montaphe paraphoena* in central Washington (Shelley, 1994: 191).

### ***Montaphe elrodi* (Chamberlin, 1913)**

*Leptodesmus (Chonaphe) elrodi* Chamberlin, 1913, Canadian Entomologist, 45: 424, fig. 17. MALE LT (MCZ). United States: Montana, Flathead County.

*Amphelictogon elrodi* – Attems, 1938, Das Tierreich, 69: 159, fig. 179.

*Montaphe elrodi* – Chamberlin, 1949c, Proceedings of the Biological Society of Washington, 62: 127. Causey, 1954a, Annals of the Entomological Society of America, 47(1): 82. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 38. Loomis & Schmit, 1971, Northwest Science, 45: 113. Kevan, 1983, Canadian Journal of Zoology, 61(12): 2968. Shelley, 1994, Brimleyana, 20: 160, figs. 33-39. Hoffman, 1999, Checklist: 359 (344 pdf). Shelley, 2002c, Canadian Journal of Zoology, 80(11): 1872.



***Montaphe paraphoena* Shelley, 1994**

*Montaphe paraphoena* Shelley, 1994, Brimleyana, 20: 165, figs. 40-44. MALE HT (UWBM). United States: Washington, Douglas County. Hoffman, 1999, Checklist: 359 (344 pdf).

**Genus *Selenocheir* Shelley, 1994**

3 species

*Selenocheir* Shelley, 1994, Brimleyana, 20: 175. Type species: *S. sinuata* Shelley, 1994, by original designation. Shelley, 1995, Entomologica Scandinavica, 26: 340. Hoffman, 1999, Checklist: 359 (344 pdf). Shelley et al., 2000, Nomenclator Generum et Familiarum Diplopodorum II: 128.

Distribution: northern California and southwestern Oregon.

***Selenocheir arcuata* Shelley, 1994**

*Selenocheir arcuata* Shelley, 1994, Brimleyana, 20: 183, figs. 59-63. MALE HT (UCD). United States: California, Tehama County. Hoffman, 1999, Checklist: 359 (344 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 109.

***Selenocheir directa* Shelley, 1994**

*Selenocheir directa* Shelley, 1994, Brimleyana, 20: 186, figs. 64-67. MALE HT (USNM). United States: California, Del Norte County. Hoffman, 1999, Checklist: 360 (344 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 109.

***Selenocheir sinuata* Shelley, 1994**

*Hybaphe tersa* (nec Cook, 1904) – sensu Causey, 1954c, Pan-Pacific Entomologist, 30: 222, fig. 1. Causey, 1955b, Proceedings of the Biological Society of Washington, 68: 91. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 36. Buckett, 1964, Annotated List of the Diplopoda of California, 8.

*Selenocheir sinuata* Shelley, 1994, Brimleyana, 20: 179, figs. 53b-58. MALE HT (UCD). United States: California, Tehama County. Hoffman, 1999, Checklist: 360 (344 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 109.

**Genus *Semionellus* Chamberlin, 1920**

1 species

*Semionellus* Chamberlin, 1920, Proceedings of the Biological Society of Washington, 33: 97. Type species:

*Polydesmus (Leptodesmus) placidus* Wood, 1864, by original designation. Attems, 1931, Zoologica, 30(79): 6. Attems, 1938, Das Tierreich, 69: 200. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 47. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 287. Hoffman, 1980, Classification of the Diplopoda, p. 157. Kevan, 1983, Canadian Journal of Zoology, 61(12): 2968. Shelley, 1994, Brimleyana, 20: 147. Hoffman, 1999, Checklist: 360 (345 pdf).

Distribution: scattered geographically separate areas in Minnesota, Wisconsin, Michigan, Ohio, Indiana, Maryland, West Virginia, and Virginia.

***Semionellus placidus* (Wood, 1864)**

*Polydesmus (Leptodesmus) placidus* Wood, 1864, Proceedings of the Academy of Natural Sciences of Philadelphia, 16: 9. Type material lost. United States: "Michigan." Wood, 1865, Transactions of the American Philosophical Society, 13: 225, fig. 56.

*Polydesmus (Leptodesmus) floridus* Wood, 1864, Proceedings of the Academy of Natural Sciences of Philadelphia, (16): 9. Type material lost. United States: "Michigan." Wood, 1865, Transactions of the American Philosophical Society, 13: 226. Synonymized by Bollman, 1893, Bulletin of the United States National Museum 46: 122.

*Leptodesmus placidus* – Bollman, 1888c, Bulletin of the United States National Museum 11: 406. Bollman, 1893, Bulletin of the United States National Museum 46: 122. Carl, 1903, Revue Suisse de Zoologie, 11: 549, pl. 17, fig. 18. Williams & Hefner, 1928, Bulletin of the Ohio Biological Survey, 18: 110, fig. 11b.

*Leptodesmus borealis* Bollman, 1893, Bulletin of the United States National Museum 46: 183. immature ST (USNM). United States: Minnesota, Winona County. Synonymized by Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 47.

*Trichomorpha placida* – Attems, 1938, Das Tierreich, 69: 119, fig. 139. Causey, 1952, Chicago Academy of Sciences Natural History Miscellanea, 106: 9.

*Semionellus placidus* – Chamberlin, 1920, Proceedings of the Biological Society of Washington, 33: 97. Chamberlin, 1947, Proceedings of the Academy of Natural Sciences of Philadelphia, 99: 24, fig. 3. Johnson, 1954, Papers of the Michigan Academy of Science, Arts, and Letters, 39: 248, pl. 3, fig. 19. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 47. Kevan, 1983, Canadian Journal of Zoology, 61(12): 2968. Shelley, 1988, Canadian Journal of Zoology,

66(7): 1656. Shelley, 1994, *Brimleyana*, 20: 149, figs. 27-32. Hoffman, 1999, Checklist: 360 (345 pdf). Shelley, 2002c, *Canadian Journal of Zoology*, 80(11): 1872.

*Chonaphe michigana* Chamberlin, 1946, *Proceedings of the Biological Society of Washington*, 59: 31, fig. 1, 2. MALE HT (USNM). United States: Michigan, Midland County. Synonymized by Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 47.

*Semionellus michiganus* – Chamberlin, 1948, *Entomological News*, 59: 258.

### **Genus *Tubaphe* Causey, 1954**

1 species

*Tubaphe* Causey, 1954c, *Pan-Pacific Entomologist*, 30: 222. Type species: *T. levii* Causey, 1954, by original designation. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 52. Jeekel, 1971, *Monografieën van de Nederlandse Entomologische Vereniging*, 5: 291. Hoffman, 1980, *Classification of the Diplopoda*, p. 159. Kevan, 1983, *Canadian Journal of Zoology*, 61(12): 2968. Shelley, 1993d, *Canadian Journal of Zoology*, 71: 1163. Shelley, 1994, *Brimleyana*, 20: 167. Tanabe & Shinohara, 1996, *Journal of Natural History*, 30: 1470. Hoffman, 1999, Checklist: 361 (345 pdf). Korsós et al., 2011, *Zootaxa*, 2877: 55.

Distribution: southern Vancouver Island in British Columbia and the northern half of the Olympic Peninsula in Washington.

### ***Tubaphe levii* Causey, 1954**

*Tubaphe levii* Causey, 1954c, *Pan-Pacific Entomologist*, 30: 223, figs. 2-4. MALE HT (AMNH). United States: Washington, Jefferson County. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 52. Kevan, 1983, *Canadian Journal of Zoology*, 61(12): 2968. Kevan & Scudder, 1989, *Biological Survey of Canada Taxonomic Series*: 68. Shelley, 1993b, *Canadian Journal of Zoology* 71: 168. Shelley, 1994, *Brimleyana*, 20: 169, figs. 45-49. Hoffman, 1999, Checklist: 361 (345 pdf). Shelley, 1995, *Entomologica Scandinavica*, 26: 340.

*Metaxycheir pacifica* Shelley, 1990, *Canadian Journal of Zoology*, 68: 2311, figs. 1-5. MALE HT (RBCM). Canada: British Columbia, Vancouver Island. Synonymized by Shelley, 1993b, *Canadian Journal of Zoology* 71: 168.

Note: *Tubaphe levii* is a cylindrical juliform xystodesmid, hence the name, with highly reduced paranota. The species appears similar to many Southeast Asian and Australian

species of Paradoxosomatidae with similarly reduced paranota.

### **Tribe Devilleini Brölemann, 1916**

(1 genus, 5 species: southern France in the Maritime Alps, Sardinia, Capri)

Devilleidae Silvestri, 1903, in: *Acari Myriopoda et Scorpiones hucusque in Italiae reperta*, fasc. 100, no. 1/2.

Devilleinae Brölemann, 1916, *Annales de Société entomologique de France*, 84: 585.

Devilleini Brölemann, 1916, *Annales de Société entomologique de France*, 84: 555.

### **Genus *Devillea* Brölemann 1902**

5 species

*Devillea* Brölemann, 1902, *Annales de la Société entomologique de France*, 71: 452. Type species: *Devillea tuberculata* Brölemann, 1902, by monotypy and original designation. Silvestri, 1903, in: *Acari Myriopoda et Scorpiones hucusque in Italiae reperta*, fasc. 100, no. 1/2. Attems, 1931, *Zoologica*, 30(79): 52. Attems, 1938, *Das Tierreich*, 69: 192. Strasser, 1960, *Fragmenta entomologica*, 3 (6): 104. Cerruti, 1968, *Fragmenta entomologica*, 5 (3): 207-257: 229. Hoffman & Lohmander, 1968, *Mitteilungen aus dem Hamburgischen zoologischen Museum und Institut*, 65: 101. Jeekel, 1971, *Monografieën van de Nederlandse Entomologische Vereniging*, 5: 259. Hoffman, 1980, *Classification of the Diplopoda*, p. 158. Strasser, 1980, *Fragmenta entomologica*, 15(2): 274. Foddai et al., 1995, in: *Checklist delle Specie della Fauna Italiana*, 32/33: 20.

Distribution: same as tribe (above).

Note: Strasser (1974a) mentioned an unidentified female specimen, *Devillea* sp., from Grotta Su Mannau in the Carbonia-Iglesias Province of Sardinia (Italy).

### ***Devillea cerrutii* Manfredi, 1956**

*Devillea Cerrutii* Manfredi, 1956b, *Atti della Società italiana di scienze naturali, e del Museo civile di storia naturale*, 95: 216, fig. 13. FEMALE HT (MSNM). Italy: Sardinia, Nuoro. Strasser, 1960, *Fragmenta entomologica*, 3 (6): 104. Cerruti, 1968, *Fragmenta entomologica*, 5 (3): 228. Hoffman & Lohmander, 1968, *Mitteilungen aus dem Hamburgischen zoologischen Museum und Institut*, 65: 102. Strasser, 1974a, *Fragmenta entomologica*, 10 (3): 234. Minelli, 1985, *Memoire del Museo Civico di Storia Naturale de Verona*, {2}4: 22. Enghoff, et al., 1993,



Zoological Journal of the Linnean Society, 109(2): 148. Foddai et al., 1995, in: Checklist delle Specie della Fauna Italiana, 32/33: 20. Kime & Enghoff, 2011, Atlas of European millipedes, 1: 73.

Society, 109(2): 148. Foddai et al., 1995, in: Checklist delle Specie della Fauna Italiana, 32/33: 20. Kime & Enghoff, 2011, Atlas of European millipedes, 1: 73.

### ***Devillea doderoi doderoi* Silvestri, 1903**

*Devillea doderoi* Silvestri, 1903, in: Acari Myriopoda et Scorpiones hucusque in Italiae reperta, fasc. 100, no. 1/2, fig. 1-7. MALE HT (MFS?). Italy: Sardinia, Oristano. Attems, 1931, Zoologica, 30(79): 1. Attems, 1938, Das Tierreich, 69: 193, figs. 214, 215. Manfredi, 1956b, Atti della Società italiana di scienze naturali, e del Museo civile di storia naturale, 95: 217. Strasser, 1960, Fragmenta entomologica, 3 (6): 104. Cerruti, 1968, Fragmenta entomologica, 5(3): 229. Manfredi, 1956a, Premier Congrès International de Spéléologie. Communications, 3: 285. Hoffman & Lohmander, 1968, Mitteilungen aus dem Hamburgischen zoologischen Museum und Institut, 65: 102. Minelli, 1985, Memoire del Museo Civico di Storia Naturale de Verona, {2}4: 22. Enghoff, et al., 1993, Zoological Journal of the Linnean Society, 109(2): 148. Foddai et al., 1995, in: Checklist delle Specie della Fauna Italiana, 32/33: 20. Kime & Enghoff, 2011, Atlas of European millipedes, 1: 73.

*Devillea doderoi doderoi* – Strasser, 1974a, Fragmenta entomologica, 10(3): 249, figs. 25-30.

### ***Devillea doderoi sanctijohannis* Strasser, 1974**

*Devillea doderoi sanctijohannis* Strasser, 1974a, Fragmenta entomologica, 10(3): 252. MALE HT (ZMA). Italy: Sardinia, Carbonia-Iglesias. Minelli, 1985, Memoire del Museo Civico di Storia Naturale de Verona, {2}4: 22. Enghoff, et al., 1993, Zoological Journal of the Linnean Society, 109(2): 148. Kime & Enghoff, 2011, Atlas of European millipedes, 1: 73.

### ***Devillea patrizii* Manfredi, 1956**

*Devillea Patrizii* Manfredi, 1956b, Atti della Società italiana di scienze naturali, e del Museo civile di storia naturale, 95: 215, figs. 11-13. FEMALE HT (MSNM). Italy: Sardinia, Nuoro. Strasser, 1960, Fragmenta entomologica, 3(6): 102. Cerruti, 1968, Fragmenta entomologica, 5 (3): 229. Cerruti, 1968, Fragmenta entomologica, 5(3): 228. Hoffman & Lohmander, 1968, Mitteilungen aus dem Hamburgischen zoologischen Museum und Institut, 65: 102. Strasser, 1974, Fragmenta entomologica, 10(3): 234. Minelli, 1985, Memoire del Museo Civico di Storia Naturale de Verona, {2}4: 22. Enghoff, et al., 1993, Zoological Journal of the Linnean

### ***Devillea subterranea* Verhoeff, 1943**

*Devillea subterranea* Verhoeff, 1943, Zeitschrift für Karst- und Höhlenkunde, 1942/43: 156. MALE HT (ZSM). Italy: Naples, Capri. Manfredi, 1956b, Atti della Società italiana di scienze naturali, e del Museo civile di storia naturale, 95: 217. Strasser, 1960, Fragmenta entomologica, 3(6): 104. Cerruti, 1968, Fragmenta entomologica, 5(3): 229. Hoffman & Lohmander, 1968, Mitteilungen aus dem Hamburgischen zoologischen Museum und Institut, 65: 102. Minelli, 1985, Memoire del Museo Civico di Storia Naturale de Verona, {2}4: 22. Enghoff, et al., 1993, Zoological Journal of the Linnean Society, 109(2): 148. Foddai et al., 1995, in: Checklist delle Specie della Fauna Italiana, 32/33: 20. Kime & Enghoff, 2011, Atlas of European millipedes, 1: 73.

### ***Devillea tuberculata* Brölemann, 1902**

*Devillea tuberculata* Brölemann, 1902, Annales de la Société entomologique de France, 1, 71: 452, figs. 5-11. MALE HT (MNHP). France: Provence-Alpes-Côte d'Azur, Alpes-Maritimes. Brölemann, 1916, Annales de Société entomologique de France, 84: 555. Attems, 1938, Das Tierreich, 69: 192, fig. 213. Jeekel, 1971, Monografieen van de Nederlandse Entomologische Vereniging, 5: 259. Manfredi, 1956b, Atti della Società italiana di scienze naturali, e del Museo civile di storia naturale, 95: 217. Strasser, 1960, Fragmenta entomologica, 3 (6): 104. Cerruti, 1968, Fragmenta entomologica, 5(3): 229. Hoffman & Lohmander, 1968, Mitteilungen aus dem Hamburgischen zoologischen Museum und Institut, 65: 102. Enghoff, et al., 1993, Zoological Journal of the Linnean Society, 109(2): 148. Kime & Enghoff, 2011, Atlas of European millipedes, 1: 73.

### **Tribe Nannariini Hoffman, 1964**

(2 genera, 23 species: eastern and central U.S.)

Nannarini Hoffman, 1964b, Proceedings of the Biological Society of Washington, 77: 26. Hoffman, 1980, Classification of the Diplopoda, p. 159. Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 214, fig. 161. Hoffman, 1999, Checklist: 365 (349 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41(3): 721.

**Genus *Nannaria* Chamberlin, 1918**

22 species

*Nannaria* Chamberlin, 1918, *Psyche*, 25: 124. Type species: *N. minor* Chamberlin, by original designation. Attems, 1931, *Zoologica*, 30(79): 6. Attems, 1938, *Das Tierreich*, 69: 199. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 52. Hoffman, 1964b, *Proceedings of the Biological Society of Washington*, 77: 33. Jeekel, 1971, *Monografieën van de Nederlandse Entomologische Vereniging*, 5: 274. Hoffman, 1980, *Classification of the Diplopoda*, p. 159. Hoffman, 1999, *Checklist*: 365 (349 pdf). Shelley et al., 2000, *Nomenclator Generum et Familiarum Diplopodorum II*: 113.

*Mimuloria* Chamberlin, 1928, *Entomological News*, 39: 155. Type species: *M. missouriensis* Chamberlin, by original designation. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 37. Synonymized by Hoffman, 1964b, *Proceedings of the Biological Society of Washington*, 77: 33.

*Castanaria* Causey, 1950d, *Natural History Miscellanea*, 73: 1. Type species: *C. depalmai* Causey, by original designation. Synonymized by Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 37.

Distribution: eastern and central U.S.

Note: There are currently 22 species known, and material conserved in natural history museums indicate three times this many undescribed species in the Appalachian Mountains alone.

***Nannaria austriicola* Hoffman, 1950**

*Nannaria austriicola* Hoffman, 1950b, *Journal of the Elisha Mitchell Scientific Society*, 66: 26, pl. 8, figs. 26, 27. FEMALE HT (USNM). United States: North Carolina, Macon County. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 40. Wray, 1967, *Insects of North Carolina*, 152. Hoffman, 1999, *Checklist*: 365 (350 pdf). Shelley, 2000b, *Journal of the Elisha Mitchell Scientific Society*, 116(3): 196. Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41(3): 721.

***Nannaria castanea* (McNeill, 1887)**

*Polydesmus castaneus* McNeill, 1887, *Proceedings of the United States National Museum*, 10: 329, pl. 12, fig. 8. MALE HT (USNM). United States: Indiana, Monroe County, Indiana.

*Mimuloria castanea* – Causey, 1952, *Chicago Academy of*

*Sciences Natural History Miscellanea*, 106: 8, fig. 6. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 37.

*Nannaria castanea* – Hoffman, 1964b, *Proceedings of the Biological Society of Washington*, 77: 33. Hoffman, 1999, *Checklist*: 365 (350 pdf).

***Nannaria conservata* Chamberlin, 1940**

*Nannaria conservata* Chamberlin, 1940b, *Canadian Entomologist*, 72: 56. MALE HT (USNM). United States: North Carolina, Durham County. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 40. Wray, 1967, *Insects of North Carolina*, 152. Shelley, 1974, *Journal of the Elisha Mitchell Scientific Society*, 90: 111. Shelley, 1975, *Proceedings of the Biological Society of Washington*, 88: 180, figs. 1-6. Shelley, 1978, *Journal of Natural History*, 12(1): 66, figs. 67-69. Hoffman, 1999, *Checklist*: 366 (350 pdf). Shelley, 2000b, *Journal of the Elisha Mitchell Scientific Society*, 116(3): 196.

***Nannaria davidcauseyi* Causey, 1950**

*Nannaria davidcauseyi* Causey, 1950c, *Entomological News*, 61(7): 194, figs. 3, 4. MALE HT (ANSP). United States: Arkansas, Newton County. Hoffman, 1999, *Checklist*: 366 (350 pdf).

*Mimuloria davidcauseyi* – Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 37.

***Nannaria depalmai* (Causey, 1950)**

*Castanaria depalmai* Causey, 1950d, *Natural History Miscellanea*, 73: 1, fig. 1. MALE HT (ANSP). United States: Arkansas, Carroll County.

*Mimuloria depalmai* – Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 37.

*Nannaria depalmai* – Hoffman, 1964b, *Proceedings of the Biological Society of Washington*, 77: 33. Hoffman, 1999, *Checklist*: 366 (350 pdf).

***Nannaria domestica* Shelley, 1975**

*Nannaria domestica* Shelley, 1975, *Proceedings of the Biological Society of Washington*, 88: 186, figs. 10-12. MALE HT (USNM). North Carolina, Watauga County. Hoffman, 1999, *Checklist*: 366 (350 pdf). Shelley, 2000b, *Journal of the Elisha Mitchell Scientific Society*, 116(3): 196.

***Nannaria equalis* Chamberlin, 1949**

*Nannaria equalis* Chamberlin, 1949a, Proceedings of the Biological Society of Washington, 62: 4, fig. 4. MALE HT (USNM). United States: Tennessee, Knox County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 40. Hoffman, 1999, Checklist: 366 (350 pdf).

***Nannaria ericacea* Hoffman, 1949**

*Nannaria ericacea* Hoffman, 1949b, Proceedings of the United States National Museum, 99: 381, figs. 9, 10. MALE HT (USNM). United States: Virginia, Alleghany County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 40. Hoffman, 1999, Checklist: 366 (351 pdf).

***Nannaria fowleri* Chamberlin, 1947**

*Nannaria fowleri* Chamberlin, 1947, Proceedings of the Academy of Natural Sciences of Philadelphia, 99: 29, fig. 14. MALE HT (ANSP). United States: Maryland, Garrett County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 40. Shelley, 1988, Canadian Journal of Zoology, 66(7): 1656. Hoffman, 1999, Checklist: 366 (351 pdf). Shelley, 2002c, Canadian Journal of Zoology, 80(11): 1872.

*Nannaria cayugae* Chamberlin, 1949a, Proceedings of the Biological Society of Washington, 62: 4, fig. 3. MALE HT (USNM). United States: New York, Tompkins County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 40. Synonymized by Shelley, 1988, Canadian Journal of Zoology, 66(7): 1656.

***Nannaria laminata* Hoffman, 1949**

*Nannaria laminata* Hoffman, 1949b, Proceedings of the United States National Museum, 99: 383, figs. 11, 12. MALE HT (USNM). United States: West Virginia, Mercer County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 41. Hoffman, 1999, Checklist: 367 (351 pdf).

***Nannaria minor* Chamberlin, 1918**

*Nannaria minor* Chamberlin, 1918, Psyche, 25: 124. MALE HT (MCZ). United States: Tennessee, Carter County. Attems, 1938, Das Tierreich, 69: 199. Brimley, 1938, The Insects of North Carolina, 499. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 41. Hoffman, 1964b, Proceedings of the Biological Society of Washington, 77: 33, figs. 5-7, 11.

Wray, 1967, Insects of North Carolina, 152. Hoffman, 1999, Checklist: 367 (351 pdf). Shelley, 2000b, Journal of the Elisha Mitchell Scientific Society, 116(3): 196.

***Nannaria missouriensis* Chamberlin, 1928**

*Mimuloria missouriensis* Chamberlin, 1928, Entomological News, 39: 155. MALE HT (USNM). United States: Missouri, Charles County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 37.

*Nannaria missouriensis* – Hoffman, 1964b, Proceedings of the Biological Society of Washington, 77: 33. Hoffman, 1999, Checklist: 367 (351 pdf).

***Nannaria morrisoni* Hoffman, 1948**

*Nannaria morrisoni* Hoffman, 1948a, Journal of the Washington Academy of Sciences, 38: 348, figs. 3, 4. MALE HT (USNM). United States: Virginia, Albemarle County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 41. Hoffman, 1999, Checklist: 367 (351 pdf).

***Nannaria oblonga* (Koch, 1847)**

*Fontaria oblonga* C.L. Koch, 1847, in: Kritische Revision der Insectenfauna Deutschlands, 175. MALE HT (ZMB). United States: “Pennsylvania.” C.L. Koch, 1863, Die Myriapoden, 1: 73, pl. 32, fig. 64. Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 263. Attems, 1938, Das Tierreich, 69: 167. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 55.

*Nannaria oblonga* – Hoffman, 1999, Checklist: 367 (351 pdf).

***Nannaria ohionis* Loomis & Hoffman, 1948**

*Fontaria castanea* (nec McNeill, 1887) – sensu Williams & Hefner, 1928, Bulletin of the Ohio Biological Survey, 18: 106, fig. 9b. Preoccupied by *Polydesmus castaneus* McNeill, 1887, Proceedings of the United States National Museum, 10: 329, pl. 12, fig. 8.

*Nannaria ohionis* Loomis & Hoffman, 1948, Proceedings of the Biological Society of Washington, 61: 53. New name for *Fontaria castanea* Williams & Hefner, 1928. Hoffman, 1999, Checklist: 367 (351 pdf).

*Mimuloria ohionis* – Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 38.



***Nannaria rutherfordensis* Shelley, 1975**

*Nannaria rutherfordensis* Shelley, 1975, Proceedings of the Biological Society of Washington, 88: 184, figs. 7-9. MALE HT (USNM). United States: North Carolina, Rutherford County. Hoffman, 1999, Checklist: 367 (352 pdf). Shelley, 2000b, Journal of the Elisha Mitchell Scientific Society, 116(3): 197.

***Nannaria scutellaria* Causey, 1942**

*Nannaria scutellaria* Causey, 1942, Entomological News, 53: 168, figs. 6, 7. MALE HT (ANSP). United States: Tennessee, Sevier County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 41. Wray, 1967, Insects of North Carolina, 152. Hoffman, 1999, Checklist: 367 (352 pdf). Shelley, 2000b, Journal of the Elisha Mitchell Scientific Society, 116(3): 197.

***Nannaria shenandoa* Hoffman, 1949**

*Nannaria shenandoa* Hoffman, 1949d, Proceedings of the Biological Society of Washington, 62: 82, figs. 1-4. MALE HT (USNM). United States: Virginia, Rockingham County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 41. Hoffman, 1999, Checklist: 368 (352 pdf).

***Nannaria simplex* Hoffman, 1949**

*Nannaria simplex* Hoffman, 1949b, Proceedings of the United States National Museum, 99: 384, figs. 13, 14. MALE HT (USNM). United States: Virginia, Alleghany County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 42. Hoffman, 1999, Checklist: 368 (352 pdf).

***Nannaria tennesseensis* (Bollman, 1888)**

*Fontaria tennesseensis* Bollman, 1888a, Proceedings of the United States National Museum, 11: 340. HT (USNM). United States: Tennessee, Jefferson County. Bollman, 1893, Bulletin of the United States National Museum, 46: 91. Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 263. Attems, 1938, Das Tierreich, 69: 199.

*Nannaria tennesseensis* – Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 42. Hoffman, 1999, Checklist: 368 (352 pdf).

***Nannaria terricola* (Williams & Hefner, 1928)**

*Fontaria terricola* Williams & Hefner, 1928, Bulletin of the Ohio Biological Survey, 18: 106, fig. 9c. MALE HT (USNM). United States: “Ohio.”

*Nannaria terricola* – Loomis & Hoffman, 1948, Proceedings of the Biological Society of Washington, 61: 53. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 42. Hoffman, 1999, Checklist: 368 (352 pdf).

***Nannaria wilsoni* Hoffman, 1949**

*Nannaria wilsoni* Hoffman, 1949b, Proceedings of the United States National Museum, 99: 386, figs. 15, 16. MALE HT (USNM). United States: Virginia, Giles County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 42. Hoffman, 1999, Checklist: 368 (352 pdf).

**Genus *Oenomaea* Hoffman, 1964**

1 species

*Oenomaea* Hoffman, 1964b, Proceedings of the Biological Society of Washington, 77: 27. Type species: *Fontaria pulchella* Bollman, 1887, by original designation. Hoffman, 1980, Classification of the Diplopoda, p. 159. Hoffman, 1999, Checklist: 368 (352 pdf). Shelley et al., 2000, Nomenclator Generum et Familiarum Diplopodorum II: 115.

Distribution: Endemic to two geographically separated localities in Jefferson County, Tennessee and Gordon County, Georgia.

***Oenomaea pulchella* (Bollman, 1889)**

*Fontaria pulchella* Bollman, 1889b, Proceedings of the United States National Museum 11: 316. FEMALE LT (USNM). United States: Tennessee, Jefferson County. Bollman, 1893, Bulletin of the United States National Museum, 46: 152. Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 263. Attems, 1938, Das Tierreich, 69: 167.

*Nannaria pulchella* – Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 41.

*Oenomaea pulchella* – Hoffman, 1964b, Proceedings of the Biological Society of Washington, 77: 29, figs. 1-4, 8-10. Hoffman, 1999, Checklist: 368 (353 pdf).



**Tribe Orophini Hoffman, 1964**

(3 genera, 5 species: 1 northwestern U.S., 2 China -  
*Kiulinga*, *Pamelaphe*)

Orophinae Hoffman, 1964a, Transactions of the American Entomological Society, 90: 301.

Orophini – Hoffman, 1980, Classification of the Diplopoda, p. 157. Shelley, 1993e, Insecta Mundi, 7: 195. Shelley, 1995, Entomologica Scandinavica, 26: 340. Hoffman, 1999, Checklist: 364 (349 pdf). Shelley et al., 2000, Nomenclator Generum et Familiarum Diplopodorum II: 115.

**Genus *Kiulinga* Hoffman, 1956**

2 species

*Kiulinga* Hoffman, 1956a, Proceedings of the Entomological Society of Washington, 58(2): 101. Type species: *Kiulinga jeekeli* Hoffman, 1956a, by original designation. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 268. Hoffman, 1980, Classification of the Diplopoda, p. 157. Shelley, 1993e, Insecta Mundi, 7: 195. Shelley, 1995, Entomologica Scandinavica, 26: 343.

Distribution: eastern China in Jiangxi and Zhejiang provinces.

***Kiulinga jeekeli* Hoffman, 1956**

*Kiulinga jeekeli* Hoffman, 1956a, Proceedings of the Entomological Society of Washington, 58(2): 102. MALE HT (USNM). China: Jiangxi Province, Jiujiang Prefecture. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 268. Wang & Mauriès, 1996, Mémoires du Muséum national d'histoire naturelle, 16: 88.

***Kiulinga lobosa* Zhang & Mao, 1984**

*Kiulinga lobosa* Zhang & Mao, 1984, Acta Zootaxonomica Sinica, 9(2): 135. MALE HT (IZCAS). China: Zhejiang, Daishan County. Wang & Mauriès, 1996, Mémoires du Muséum national d'histoire naturelle, 16: 88.

**Genus *Pamelaphe* Hoffman, 1964**

1 species

*Pamelaphe* Hoffman, 1964a, Transactions of the American Entomological Society, 90: 308. Type species: *Fontaria lacustris* Pocock, 1895, by original designation. Hoffman, 1980, Classification of the Diplopoda, p. 157. Shelley, 1993e, Insecta Mundi, 7: 195. Shelley, 1995, Entomologica Scandinavica, 26: 343. Shelley et al., 2000, Nomenclator Generum et Familiarum

Diplopodorum II: 119.

Distribution: Zhejiang Province in Eastern China.

***Pamelaphe lacustris* (Pocock, 1895)**

*Fontaria lacustris* Pocock, 1895, The Annals and Magazine of Natural History, {6} 15(88): 359, pl. 11, figs. 8, 8b. MALE HT (BMNH). China: Zhejiang, Ningbo Prefecture. Attems, 1938, Das Tierreich, 69: 167. Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 263. Attems, 1938, Das Tierreich, 69: 167.

*Kiulinga lacustris* – Hoffman, 1956a, Proceedings of the Entomological Society of Washington, 58(2): 103. Zhang & Mao, 1984, Acta Zootaxonomica Sinica, 9(2): 135.

*Pamelaphe lacustris* – Hoffman, 1964a, Transactions of the American Entomological Society, 90: 308, fig. 10. Wang & Mauriès, 1996, Mémoires du Muséum national d'histoire naturelle, 16: 88.

**Genus *Orophe* Chamberlin, 1951**

2 species

*Orophe* Chamberlin, 1951, Chicago Academy of Sciences Natural History Miscellanea, 87: 2. Type species: *O. cabinetus* Chamberlin, by original designation. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 42. Hoffman, 1964a, Transactions of the American Entomological Society, 90: 303. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 276. Hoffman, 1980, Classification of the Diplopoda, p. 157. Kevan, 1983, Canadian Journal of Zoology, 61(12): 2968. Shelley, 1993e, Insecta Mundi, 7: 175- 182, figs. 1-9. Shelley, 1997, Insecta Mundi, 11: 334. Hoffman, 1999, Checklist: 364 (349 pdf).

*Chipus* Loomis, 1953, Journal of the Washington Academy of Sciences, 43: 421. Type species: *C. unicus* Loomis, 1953, by original designation. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 26. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 253. Synonymized by Hoffman, 1964a, Transactions of the American Entomological Society, 90, 303.

Distribution: northern Idaho and northwestern Montana.

***Orophe cabinetus* Chamberlin, 1951**

*Orophe cabinetus* Chamberlin, 1951, Chicago Academy of Sciences Natural History Miscellanea, 87: 4, figs. 8, 9.

MALE HT (USNM). United States: Montana, Sanders County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 42. Loomis & Schmitt, 1971, Northwest Science, 45: 114. Kevan, 1983, Canadian Journal of Zoology, 61(12): 2968. Shelley, 1993e, Insecta Mundi, 7: 178, figs. 1-3. Hoffman, 1999, Checklist: 364 (349 pdf). Marek et al., 2011, Current Biology, 21(18), Supplemental Information: 7, fig. S1

### ***Orophe unicus* Loomis, 1953**

*Chipus unicus* Loomis, 1953, Journal of the Washington Academy of Sciences, 43: 421, fig. 18. MALE HT (USNM). United States: Idaho, Shoshone County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 26.

*Orophe unicus* – Hoffman, 1964a, Transactions of the American Entomological Society, 90: 307, figs. 3-9. Shelley, 1993e, Insecta Mundi, 7: 180, figs. 4-8. Hoffman, 1999, Checklist: 365 (349 pdf). Marek et al., 2011, Current Biology, 21(18), Supplemental Information: 7, fig. S1.

*Orophe cabinetus* (nec Chamberlin, 1951) – sensu Loomis & Schmitt, 1971, Northwest Science, 45: 114.

### **Tribe Pachydesmini Hoffman, 1980**

(3 genera, 10 species: eastern, central U.S.)

Pachydesmini Hoffman, 1980, Classification of the Diplopoda, pp. 158, 187. Shelley, 1984c, Proceedings of the Biological Society of Washington, 97: 479. Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 214, fig. 161. Hoffman, 1999, Checklist: 369 (353 pdf). Shelley et al., 2000, Nomenclator Generum et Familiarum Diplopodorum II: 118. Shelley & McAllister, 2006, Western North American Naturalist, 66(1): 46. Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41(3): 721. Marek & Bond, 2007, Zootaxa, 1610: 31. Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 823.

### **Genus *Dicellarius* Chamberlin, 1920**

5 species

*Dicellarius* Chamberlin, 1920, Proceedings of the Biological Society of Washington, 33: 97. Type species: *Leptodesmus okefenokensis* Chamberlin, by original designation. Attems, 1931, Zoologica, 30(79): 6. Attems, 1938, Das Tierreich, 69: 198. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 30. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 259.

Hoffman, 1980, Classification of the Diplopoda, p. 158. Shelley, 1984c, Proceedings of the Biological Society of Washington, 97: 473. Hoffman, 1999, Checklist: 369 (353 pdf). Shelley, 2001, Insecta Mundi, 15(4): 220. Marek & Bond, 2007, Zootaxa, 1610: 34.

*Spathoria* Chamberlin, 1939, Bulletin of the University of Utah, 30 (2): 6. Type species: *Fontaria lamellidens* Chamberlin, 1931, by original designation. Synonymized by Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 30.

*Epeloria* Chamberlin, 1939, Bulletin of the University of Utah, 30 (2): 3. Type species: *E. talapoosa* Chamberlin, by original designation. Synonymized by Hoffman, 1980, Classification of the Diplopoda, p. 158.

Distribution: southeastern U.S. in Georgia, Alabama, eastern Mississippi, northern Florida, southeastern Tennessee, and southwestern North Carolina. Not extending east of the Tennessee and Savannah rivers.

### ***Dicellarius atlanta* (Chamberlin, 1946)**

*Epeloria atlanta* Chamberlin, 1946, Entomological News, 57: 151, fig. 6. MALE HT (USNM). United States: Georgia, “Atlanta” (probably Fulton County). Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 32.

*Dicellarius atlanta* – Shelley, 1984c, Proceedings of the Biological Society of Washington, 97: 497, figs. 17-18. Hoffman, 1999, Checklist: 369 (353 pdf). Shelley, 2000b, Journal of the Elisha Mitchell Scientific Society, 116(3): 195. Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41(3): 721. Marek & Bond, 2007, Zootaxa, 1610: 31.

### ***Dicellarius bimaculatus bimaculatus* (McNeill, 1887)**

*Polydesmus bimaculatus* McNeill, 1887, Proceedings of the United States National Museum, 10: 323, pl. 11, figs. 3-5. MALE HT (USNM). United States: Florida, Escambia County.

*Fontaria bimaculata* – Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 263. Attems, 1938, Das Tierreich, 69: 166.

*Spathoria bimaculata* – Causey, 1955a, Proceedings of the Biological Society of Washington, 68: 24.

*Dicellarius bimaculatus* – Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 30.

*Dicellarius bimaculatus bimaculatus* – Shelley, 1984c, Proceedings of the Biological Society of Washington, 97: 482. Hoffman, 1999, Checklist: 369 (353 pdf). Shelley,

2000c, *Insecta Mundi*, 14(4): 247. Shelley, 2001, *Insecta Mundi*, 15(4): 220.

***Dicellarius bimaculatus fictus* (Chamberlin, 1943)**

*Epeloria ficta* Chamberlin, 1943a, Proceedings of the Biological Society of Washington, 56: 37, fig. 11. MALE HT (FMNH). United States: Georgia, Thomas County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 32.

*Epeloria fictus* – Causey, 1955a, Proceedings of the Biological Society of Washington, 68: 24.

*Epeloria dela* Chamberlin, 1946, Proceedings of the Biological Society of Washington, 59: 139, figs. 1, 2. MALE HT (USNM). United States: Georgia, Calhoun County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 32. Synonymized by Shelley, 1984c, Proceedings of the Biological Society of Washington, 97: 485.

*Epeloria leiacantha* Chamberlin, 1946, Proceedings of the Biological Society of Washington, 59: 139, fig. 3. MALE HT (USNM). United States: Georgia, Decatur County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 33. Synonymized by Shelley, 1984c, Proceedings of the Biological Society of Washington, 97: 485.

*Dicellarius bimaculatus fictus* – Shelley, 1984c, Proceedings of the Biological Society of Washington, 97: 485, figs. 5-6. Hoffman, 1999, Checklist: 370 (354 pdf). Shelley, 2000c, *Insecta Mundi*, 14(4): 247. Shelley, 2001, *Insecta Mundi*, 15(4): 220. Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41(3): 721. Marek & Bond, 2007, *Zootaxa*, 1610: 31. Marek, 2010, *Zoological Journal of the Linnean Society*, 159(4): 872.

***Dicellarius bimaculatus lamellidens* (Chamberlin, 1931)**

*Fontaria lamellidens* Chamberlin, 1931, *Entomological News*, 42: 78. MALE HT (VMNH). United States: Mississippi, Harrison County. Attems, 1938, *Das Tierreich*, 69: 167.

*Spathoria lamellidens* – Chamberlin, 1939, Bulletin of the University of Utah, 30(2): 6, fig. 9.

*Dicellarius lamellidens* – Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 30.

*Dicellarius bimaculatus lamellidens* – Shelley, 1984c, Proceedings of the Biological Society of Washington, 97: 485, figs. 5-6. Hoffman, 1999, Checklist: 370 (354 pdf).

***Dicellarius okefenokensis* (Chamberlin, 1918)**

*Leptodesmus okefenokensis* Chamberlin, 1918, *Annals of the Entomological Society of America*, 11: 370. MALE HT (MCZ). United States: Georgia, Charlton County. Attems, 1938, *Das Tierreich*, 69: 50.

*Dicellarius okefenokensis* – Chamberlin, 1920, Proceedings of the Biological Society of Washington, 33: 97. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 31. Shelley, 1984c, Proceedings of the Biological Society of Washington, 97: 490, figs. 9-12. Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 212. Hoffman, 1999, Checklist: 370 (354 pdf). Shelley, 2000c, *Insecta Mundi*, 14(4): 247. Shelley, 2001, *Insecta Mundi*, 15(4): 220.

*Epeloria nannoides* Chamberlin, 1949b, *Journal of the Washington Academy of Sciences*, 39: 101, fig. 4. MALE HT (USNM). United States: Florida, Alachua County. Synonymized by Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 31.

***Dicellarius sternolobus* Loomis, 1969**

*Dicellarius sternolobus* Loomis, 1969, *Florida Entomologist*, 52: 247, figs. 5-7. MALE HT (USNM). United States: Alabama, Tallapoosa County. Shelley, 1984c, Proceedings of the Biological Society of Washington, 97: 500, figs. 19-23. Hoffman, 1999, Checklist: 370 (355 pdf).

***Dicellarius talapoosa talapoosa* (Chamberlin, 1939)**

*Epeloria talapoosa* Chamberlin, 1939, Bulletin of the University of Utah, 30(2): 3, fig. 1. MALE HT (USNM). United States: Georgia, Haralson County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 33.

*Dicellarius talapoosa talapoosa* – Shelley, 1984c, Proceedings of the Biological Society of Washington, 97: 493, figs. 13-14. Hoffman, 1999, Checklist: 371 (355 pdf). Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41(3): 721.

***Dicellarius talapoosa separandus* Shelley, 1984**

*Dicellarius talapoosa separandus* Shelley, 1984c, Proceedings of the Biological Society of Washington, 97: 497, figs. 15-16. MALE HT (USNM). United States: Alabama, Blount County. Hoffman, 1999, Checklist: 371 (355 pdf).



**Genus *Pachydesmus* Cook, 1895**

2 species

*Pachydesmus* Cook, 1895, Annals of the New York Academy of Sciences, 9: 5. Type species: *Polydesmus crassicutis* Wood, 1864, Proceedings of the Academy of Natural Sciences of Philadelphia, 16: 7; 1865, Transactions of the American Philosophical Society, 13: 224, fig. 55. Attems, 1931, Zoologica, 30(79): 64. Verhoeff, 1936a, Transactions of the Sapporo Natural History Society, 14(3): 152. Verhoeff, 1936b, Zoologischer Anzeiger, 115(11-12): 298. Attems, 1938, Das Tierreich, 69: 153. Verhoeff, 1944, Bulletin of the Southern California Academy of Sciences, 43: 65. Hoffman, 1958b, Proceedings of the United States National Museum, 108(3399): 181. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 42. Jeekel, 1971, Monografieen van de Nederlandse Entomologische Vereniging, 5: 277. Shinohara, 1977, Acta Arachnologica, 27: 115. Hoffman, 1980, Classification of the Diplopoda, p. 158. Hoffman, 1999, Checklist: 371 (355 pdf). Shelley et al., 2000, Nomenclator Generum et Familiarum Diplopodorum II: 118. Shelley, 2001, Insecta Mundi, 15(4): 220. McAllister et al., 2002a, Journal of the Arkansas Academy of Science, 56: 92. Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41(3): 722.

Distribution: southeastern U.S. from southern North Carolina to northern Florida, west to eastern Texas, and north to southern Arkansas and central Tennessee.

Note: Several East Asian species (*e.g.*, *Riukiaria attemsi* and *Xystodesmus bazaensis*) were incorrectly classified in *Pachydesmus* based on homoplasy in gonopodal features.

***Pachydesmus clarus* (Chamberlin, 1918)**

*Fontaria clara* Chamberlin, 1918, Annals of the Entomological Society of America, 11: 372. MALE HT (MCZ). United States: Louisiana, Natchitoches Parish. Attems, 1938, Das Tierreich, 69: 167.

*Pachydesmus kisatchinsis* Chamberlin, 1942a, Bulletin of the University of Utah, 32(8): 4, fig. 8. MALE HT (USNM). United States: Louisiana, Natchitoches Parish. Synonymized by Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 43.

*Pachydesmus clarus* – Loomis & Hoffman, 1948, Proceedings of the Biological Society of Washington, 61: 53. Causey, 1955a, Proceedings of the Biological Society of Washington, 68: 25. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 43. Hoffman, 1958b, Proceedings of the United States National Museum, 108: 190, figs. 1b, 6. Causey,

1963, Proceedings of the Louisiana Academy of Science, 26: 76. Stewart, 1969, Texas Journal of Science, 20: 383. Hoffman, 1999, Checklist: 371 (355 pdf). Shelley & McAllister, 2006, Western North American Naturalist, 66(1): 48, figs. 2-4. Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41(3): 721.

***Pachydesmus crassicutis crassicutis* (Wood, 1864)**

*Polydesmus crassicutis* Wood, 1864, Proceedings of the Academy of Natural Sciences of Philadelphia, 16: 7. Wood, 1865, Transactions of the American Philosophical Society 13: 224, fig. 55. Type material lost. United States: “Mississippi.”

*Pachydesmus crassicutis* – Cook, 1895, Annals of the New York Academy of Sciences, 9: 5. Attems, 1931, Zoologica, 30(79): 65, fig. 99. Attems, 1938, Das Tierreich, 69: 153, fig. 174. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 43.

*Fontaria crassicutis* – Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 263. Brölemann, 1900, Mémoires de la Société Zoologique de France, 13: 101, pl. 6, figs. 28, 29.

*Fontaria louisiana* Chamberlin, 1918, Canadian Entomologist, 50: 363. Type material lost. MALE HT. United States: Louisiana, St. Tammany Parish. Synonymized by Hoffman, 1958b, Proceedings of the United States National Museum, 108: 199.

*Fontaria louisianae* – Attems, 1938, Das Tierreich, 69: 166.

*Pachydesmus simulans* Chamberlin, 1942a, Bulletin of the University of Utah, 32(8): 4, figs. 9, 10. MALE HT (USNM). United States: Louisiana, Ascension Parish. Synonymized by Hoffman, 1958b, Proceedings of the United States National Museum, 108: 199.

*Pachydesmus crassicutis crassicutis* – Hoffman, 1958b, Proceedings of the United States National Museum, 108: 199, figs. 1a, 7a, 8a, 9. Causey, 1963, Proceedings of the Louisiana Academy of Science, 26: 76. Hoffman, 1999, Checklist: 371 (355 pdf). Shelley & McAllister, 2006, Western North American Naturalist, 66(1): 50, figs. 5, 6.

***Pachydesmus crassicutis denticulatus* Chamberlin, 1946**

*Pachydesmus denticulatus* Chamberlin, 1946, Entomological News, 57: 152, figs. 8, 9. MALE HT (USNM). United States: Georgia, Fulton County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 43.



*Pachydesmus crassicutis denticulatus* – Hoffman, 1958b, Proceedings of the United States National Museum, 108: 205, figs. 7d, 8d. Hoffman, 1999, Checklist: 372 (356 pdf).

***Pachydesmus crassicutis duplex* Chamberlin, 1939**

*Pachydesmus duplex* Chamberlin, 1939, Bulletin of the University of Utah, 30(2): 5, fig. 8. MALE HT (USNM). United States: Mississippi, Grenada County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 43.

*Pachydesmus crassicutis crassicutis* – Hoffman, 1958b, Proceedings of the United States National Museum, 108: 206, figs. 1d, 5e-f, 7b, 8b. Hoffman, 1999, Checklist: 372 (356 pdf).

***Pachydesmus crassicutis incursus* Chamberlin, 1939**

*Pachydesmus incursus* Chamberlin, 1939, Bulletin of the University of Utah, 30(2): 5, fig. 7. MALE HT (USNM). United States: South Carolina, South Carolina, Greenville County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 43.

*Pachydesmus crassicutis incursus* – Hoffman, 1958b, Proceedings of the United States National Museum, 108: 207, figs. 7c, 8c. Shelley & Filka, 1979, Brimleyana, 1: 147, figs. 1-10. Filka & Shelley, 1980, Brimleyana, 4: 29. Hoffman, 1999, Checklist: 372 (356 pdf). Shelley, 2000b, Journal of the Elisha Mitchell Scientific Society, 116(3): 197. Marek & Bond, 2007, Zootaxa, 1610: 31.

***Pachydesmus crassicutis laticollis* (Attems, 1899)**

*Fontaria laticollis* Attems, 1899, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, 68: 258, fig. 312. MALE HT (ZMB). United States: “Illinois.”

*Pachydesmus laticollis* – Pocock, 1909, Biologia Centrali-Americana, Diplopoda, p. 189. Attems, 1938, Das Tierreich, 69: 154, fig. 176. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 44.

*Pachydesmus crassicutis laticollis* – Hoffman, 1958b, Proceedings of the United States National Museum, 108: 208, figs. 5a-b, 10d, 11d. Hoffman, 1999, Checklist: 372 (356 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41(3): 721. Marek & Bond, 2007, Zootaxa, 1610: 31.

Note: Designation of the holotype from Illinois is likely an error as known *P. crassicutis laticollis* records are restricted to southcentral Tennessee and northeastern Alabama.

***Pachydesmus crassicutis hubrichti* Hoffman, 1958**

*Pachydesmus crassicutis hubrichti* Hoffman, 1958b, Proceedings of the United States National Museum, 108: 210, figs. 5c-d, 10a, 11a. MALE HT (USNM). United States: Alabama, Tuscaloosa County. Hoffman, 1999, Checklist: 373 (357 pdf).

***Pachydesmus crassicutis retrorsus* Chamberlin, 1921**

*Pachydesmus retrorsus* Chamberlin, 1921, Canadian Entomologist, 53: 231, figs. 3, 4. MALE HT (MCZ). United States: Tennessee, Knox County. Attems, 1938, Das Tierreich, 69: 155. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 44. Wray, 1967, Insects of North Carolina, 152.

*Pachydesmus crassicutis retrorsus* – Hoffman, 1958b, Proceedings of the United States National Museum, 108: 213, figs. 1c, 10b, 11b. Hoffman, 1999, Checklist: 373 (357 pdf).

***Pachydesmus crassicutis adsinicolus* Hoffman, 1958**

*Pachydesmus crassicutis adsinicolus* Hoffman, 1958b, Proceedings of the United States National Museum, 108: 215, figs. 10c, 11c. MALE HT (USNM). United States: Alabama, Mobile County. Shelley, 2001, Insecta Mundi, 15(4): 220. Hoffman, 1999, Checklist: 373 (357 pdf).

**Genus *Thrinaxoria* Chamberlin & Hoffman, 1950**

3 species

*Thrinaxoria* Chamberlin & Hoffman, 1950, Chicago Academy of Sciences, Natural History Miscellanea, 71: 4. Type species: *Fontaria lampra* Chamberlin, 1918, by original designation. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 51. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 290. Shelley, 1984c, Proceedings of the Biological Society of Washington, 97: 503. Hoffman, 1999, Checklist: 373 (357 pdf). Shelley, 2001, Insecta Mundi, 15(4): 220. Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41(3): 708.

Distribution: southeastern U.S. from eastern Texas, western Louisiana, and southwestern Arkansas to northern Georgia, southeastern Tennessee, and southwestern North Carolina.

Note: There are several scattered and geographically separated populations of *Thrinaxoria* species in northeastern Mississippi, western Alabama, western Tennessee, and central Georgia (Shelley, 1984c: 509; Shelley & McAllister, 2006: 53).

***Thrinaxoria bifida* (Wood, 1864)**

*Polydesmus bifidus* Wood, 1864, Proceedings of the Academy of Natural Sciences of Philadelphia, 16: 7. Wood, 1865, Transactions of the American Philosophical Society, 13: 223, fig. 52. Type material lost. NT MALE (USNM). United States: Tennessee, Polk County. Attems, 1938, Das Tierreich, 69: 166. Neotype designated by Shelley, 1984c, Proceedings of the Biological Society of Washington, 97: 506.

*Fontaria bifida* – Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 263.

*Epeloria bifida* – Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 32.

*Thrinaxoria bifida* – Shelley, 1984c, Proceedings of the Biological Society of Washington, 97: 506, figs. 27-28. Hoffman, 1999, Checklist: 373 (357 pdf). Shelley, 2000b, Journal of the Elisha Mitchell Scientific Society, 116(3): 203. Shelley, 2001, Insecta Mundi, 15(4): 220. Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41(3): 721.

***Thrinaxoria lampra* (Chamberlin, 1918)**

*Fontaria lampra* Chamberlin, 1918, Annals of the Entomological Society of America, 11: 371. MALE PT (MCZ). United States: Louisiana, Natchitoches Parish. Attems, 1938, Das Tierreich, 69: 167.

*Zinaria aberrans* Chamberlin, 1942a, Bulletin of the University of Utah, 32(8): 4, pl. 1, fig. 7. MALE HT (USNM). United States: Louisiana, Caddo Parish. Synonymized by Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 52.

*Thrinaxoria lampra* – Chamberlin & Hoffman, 1950, Chicago Academy of Sciences, Natural History Miscellanea, 71: 4. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 52. Shelley, 1984c, Proceedings of the Biological Society of Washington, 97: 504, figs. 24-26. Hoffman, 1999, Checklist: 374 (358 pdf). McAllister et al., 2002a, Journal of the Arkansas Academy of Science, 56: 92. Shelley & McAllister, 2006, Western North American Naturalist, 66(1): 51, figs. 7-9. Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41(3): 721.

***Thrinaxoria paynei* Shelley, 2002**

*Thrinaxoria paynei* Shelley, 2002a, Entomological News, 113(2): 144, fig. 1. MALE HT (VMNH). United States: Georgia, Houston County. Shelley & McAllister, 2006, Western North American Naturalist, 66(1): 45.

**Tribe Rhysodesmini Brölemann, 1916**

(11 genera, 102 species: eastern, central, southwestern U.S., México and Central America)

Rhysodesmini Brolemann, 1916, Annales de la Société Entomologique de France, 84: 553. Hoffman, 1960, Proceedings of the United States National Museum 112: 260. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 285. Hoffman, 1980, Classification of the Diplopoda, p. 158. Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 214, fig. 161. Hoffman, 1999, Checklist: 337 (323 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41(3): 721. Marek & Bond, 2007, Zootaxa, 1610: 31. Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 823.

**Genus *Boraria* Chamberlin, 1943**

4 species

*Boraria* Chamberlin, 1943d, Proceedings of the Biological Society of Washington, 56: 143. Type species: *Aporiaria carolina* Chamberlin, 1939, by original designation. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 22. Hoffman, 1965, Proceedings of the United States National Museum, 117: 315. Hoffman & Shear, 1969, Radford Review, 23: 93. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 251. Hoffman, 1980, Classification of the Diplopoda, p. 158. Hoffman, 1999, Checklist: 337 (323 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41(3): 716. Marek & Bond, 2007, Zootaxa, 1610: 34. Shelley et al., 2011, Insecta Mundi, 0194: 2.

*Howellaria* Hoffman, 1950b, Journal of the Elisha Mitchell Scientific Society, 66: 26. Type species: *H. deturkiana* Causey, 1942, by original designation. Synonymized by Hoffman, 1965.

Distribution: eastern and central U.S. in the southern Blue Ridge, western Piedmont Plateau, and Ouachita Physiographic Provinces (Shelley et al., 2011: 2).

Note: The species *Boraria stricta* and *Boraria infesta* have been found in New York and Connecticut, and represent probable introductions from native ranges through ornamental and nursery plants (Shelley et al., 2011).

***Boraria deturkiana* (Causey, 1942)**

*Aporiaria deturkiana* Causey, 1942, Entomological News, 53: 169, fig. 8. MALE HT (ANSP). United States: North Carolina, Macon County.

*Howellaria deturkiana* – Hoffman, 1950b, Journal of the Elisha Mitchell Scientific Society, 66: 26, figs. 7, 8, 13.

Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 37. Wray, 1967, Insects of North Carolina, 152.

*Boraria deturkiana* – Hoffman, 1965, Proceedings of the United States National Museum, 117: 333, figs. 14-19. Hoffman, 1999, Checklist: 337 (323 pdf). Shelley, 2000b, Journal of the Elisha Mitchell Scientific Society, 116(3): 193. Shelley, et al., 2011, Insecta Mundi, 0194: 5, figs. 8, 9.

### ***Boraria infesta* (Chamberlin, 1918)**

*Nannaria infesta* Chamberlin, 1918, Psyche, 25: 126. MALE HT (MCZ). United States: North Carolina, Avery County. Attems, 1938, Das Tierreich, 69: 199. Brimley, 1938, The Insects of North Carolina, 499. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 41. Wray, 1967, Insects of North Carolina, 152.

*Aporiaria geniculata* Chamberlin, 1939, Bulletin of the University of Utah, 30(2): 6, fig. 11. MALE HT (USNM). United States: North Carolina, Jackson County. Brimley, 1942, Supplement to Insects of North Carolina, 39. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 22. Wray, 1967, Insects of North Carolina, 151. Synonymized by Hoffman & Shear, 1969, Radford Review, 23: 95.

*Boraria geniculata* – Wray, 1967, Insects of North Carolina, 151.

*Aporiaria brunnior* Chamberlin, 1943a, Proceedings of the Biological Society of Washington, 56: 37, fig. 10. MALE HT (FMNH). United States: Tennessee, Sevier County. Synonymized by Hoffman, 1965, Proceedings of the United States National Museum, 117: 317.

*Boraria brunnior* – Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 22.

*Boraria media* (nec Chamberlin, 1918) – sensu Wray, 1950, Insects of North Carolina, 44. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 22. Hoffman, 1965, Proceedings of the United States National Museum, 117: 326, figs. 8-11. Wray, 1967, Insects of North Carolina, 151.

*Boraria infesta* – Hoffman & Shear, 1969, Radford Review, 23: 95. Hoffman, 1999, Checklist: 337 (323 pdf). Shelley, 2000b, Journal of the Elisha Mitchell Scientific Society, 116(3): 194. Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41(3): 721. Shelley, et al., 2011, Insecta Mundi, 0194: 4, figs. 4, 6-7.

Note: Hoffman (1965: 317) implied synonymy of *Aporiaria brunnior* (Chamberlin, 1943a) with *Boraria infesta*; however, withheld “judgement until the holotype,

or fresh topotypes, [could] be studied.” The synonymy was not listed in Hoffman & Shear (1969), but was included in Hoffman (1999: 323) and Shelley (2000: 194).

### ***Boraria profuga* Causey, 1955**

*Cibularia profuga* Causey, 1955a, Proceedings of the Biological Society of Washington, 68: 29, fig. 7. MALE HT (AMNH). United States: Arkansas, Montgomery County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 28. Hoffman, 1965, Proceedings of the United States National Museum, 117: 345. Hoffman, 1966, Transactions of the American Entomological Society, 92: 11.

*Boraria profuga* – Hoffman & Shear, 1969, Radford Review, 23: 95, figs. 1-3. Shelley, et al., 2011, Insecta Mundi, 0194: 6, figs. 10, 11.

### ***Boraria stricta* (Brölemann, 1896)**

*Fontaria tennesseensis* var. *stricta* Brolemann, 1896, Annales de Société Entomologique de France, 65: 63, figs. 17, 18. ST (MNHP). United States: “North Carolina.” Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 263.

*Fontaria stricta* – Brölemann, 1900, Mémoires de la Société Zoologique de France, 13: 101, pl. 6, figs. 31.

*Nannaria media* Chamberlin, 1918, Psyche, 25: 125. MALE HT (MCZ). United States: Tennessee, Carter County. Attems, 1938, Das Tierreich, 69: 199. Synonymized by Hoffman & Shear, 1969, Radford Review, 23: 94.

*Rhysodesmus strictus* – Attems, 1931, Zoologica, 30(79): 63. Attems, 1938, Das Tierreich, 69: 144, fig. 167.

*Aporiaria carolina* Chamberlin, 1939, Bulletin of the University of Utah, 30(2): 6, fig. 10. MALE HT (USNM). United States: North Carolina, Jackson County. Brimley, 1942, Supplement to Insects of North Carolina, 39. Wray, 1967, Insects of North Carolina, 151. Synonymized by Hoffman, 1965, Hoffman, 1965, Proceedings of the United States National Museum, 117: 318.

*Boraria carolina* – Chamberlin, 1943d, Proceedings of the Biological Society of Washington, 56: 144. Hoffman, 1949b, Proceedings of the United States National Museum, 99: 379. Hoffman, 1950b, Journal of the Elisha Mitchell Scientific Society, 66: 23. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 22. Wray, 1967, Insects of North Carolina, 151.

*Aporiaria fumans* Chamberlin, 1943a, Proceedings of the Biological Society of Washington, 56: 37, fig. 9. MALE



HT (FMNH). United States: Tennessee, Sevier County. Synonymized by Hoffman, 1965, Proceedings of the United States National Museum, 117: 318.

*Boraria fumans* – Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 22.

*Boraria stricta* – Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 23. Hoffman, 1965, Proceedings of the United States National Museum 117: 317, figs. 1-7. Wray, 1967, Insects of North Carolina, 151. Hoffman & Shear, 1969, Radford Review, 23: 94. Filka & Shelley, 1980, Brimleyana, 4: 27. Shelley, 2000b, Journal of the Elisha Mitchell Scientific Society, 116(3): 194. Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41(3): 721. Shelley, et al., 2011, Insecta Mundi, 0194: 2, figs. 1-2, 5. Shelley et al., 2011, Insecta Mundi, 0194: 2, figs. 1, 2, 5.

### Genus *Caralinda* Hoffman, 1978

5 species

*Caralinda* Hoffman, 1978a, Proceedings of the Biological Society of Washington, 91: 365. Type species: *C. beatrix* Hoffman, 1978a, by original designation. Hoffman, 1980, Classification of the Diplopoda, p. 158. Shelley, 1983a, Florida Entomologist, 66: 407-415, figs. 1-11. Shelley, 2000a, Myriapodologica, 6(15): 147. Shelley et al., 2000, Nomenclator Generum et Familiarum Diplopodorum II: 90. Shelley, 2001, Myriapodologica, 7(9): 79.

Distribution: southeastern United States Coastal Plain, from the northern Florida panhandle to southeastern Alabama, southern Georgia, and southern South Carolina.

### *Caralinda beatrix* Hoffman, 1978

*Caralinda beatrix* Hoffman, 1978a, Proceedings of the Biological Society of Washington, 91: 366, figs. 1-10. MALE HT (USNM). United States: Georgia, Tift County. Shelley, 1979, Florida Entomologist, 62: 187. Shelley, 1983a, Florida Entomologist, 66: 407. Shelley, 2000a, Myriapodologica, 6(15): 147.

### *Caralinda causeyi* Shelley, 1983

*Caralinda causeyi* Shelley, 1983a, Florida Entomologist, 66: 410, figs. 1-5. MALE HT (FSCA). United States: Florida, Leon County. Hoffman, 1999, Checklist: 355 (340 pdf).

*Caralinda causeyae* – Shelley, 2000c, Insecta Mundi, 14(4): 247. Shelley, 2000a, Myriapodologica, 6(15): 147.

Note: The synonymy proposed by Shelley (2000c: 247) as a correction to *Caralinda causeyi* does not have standing

in the ICZN, Article 32.5.1 (ICZN, 2012) because as an incorrect latinization it is not considered an inadvertent error.

### *Caralinda dactylifera* Shelley, 1983

*Caralinda dactylifera* Shelley, 1983a, Florida Entomologist, 66: 412, figs. 6-10. MALE HT (FSCA). United States: Florida, Bay County. Hoffman, 1999, Checklist: 355 (340 pdf). Shelley, 2000a, Myriapodologica, 6(15): 147. Shelley, 2000c, Insecta Mundi, 14(4): 247.

### *Caralinda fabalecta* Shelley, 2000

*Caralinda fabalecta* Shelley, 2000a, Myriapodologica, 6(15): 147, figs. 1, 2. MALE HT (NCSM). United States: South Carolina, Hampton County.

### *Caralinda pulchritecta* Shelley, 1979

*Caralinda pulchritecta* Shelley, 1979, Florida Entomologist, 62: 184, figs. 1-6. MALE HT (USNM). United States: Florida, Jackson County. Shelley, 1983a, Florida Entomologist, 66: 415. Hoffman, 1999, Checklist: 355 (340 pdf). Shelley, 2000a, Myriapodologica, 6(15): 147. Shelley, 2000c, Insecta Mundi, 14(4): 247.

### Genus *Cherokia* Chamberlin, 1949

1 species

*Cherokia* Chamberlin, 1949a, Proceedings of the Biological Society of Washington, 62: 3. Type species: *C. georgiana* Bollman, by original designation. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 26. Hoffman, 1960, Proceedings of the United States National Museum, 112: 227. Jeekel, 1971, Monografieen van de Nederlandse Entomologische Vereniging, 5: 253. Hoffman, 1980, Classification of the Diplopoda, p. 158. Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 214. Hoffman, 1999, Checklist: 339 (324 pdf). Shelley, 2000b, Journal of the Elisha Mitchell Scientific Society, 116(3): 195. Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41(3): 712. Marek & Bond, 2007, Zootaxa, 1610: 34.

Distribution: southeastern U.S. with the most diversity in the southern Blue Ridge Mountains in North Carolina, Tennessee, and northern Georgia.

### *Cherokia georgiana georgiana* (Bollman, 1889)

*Fontaria georgiana* Bollman, 1889a, Proceedings of the United States National Museum, 11: 344. MALE HT (USNM). United States: Georgia, Bibb County. Bollman, 1893, Bulletin of the United States National Museum,



46: 96. Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 263. Attems, 1938, Das Tierreich, 69: 166.

*Fontaria tallulah* Bollman, 1889a, Proceedings of the United States National Museum, 11: 344. FEMALE HT (USNM). United States: Georgia, Habersham County. Bollman, 1893, Bulletin of the United States National Museum, 46: 97. Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 263. Attems, 1938, Das Tierreich, 69: 167. Synonymized by Hoffman, 1950b, Journal of the Elisha Mitchell Scientific Society, 66: 23.

*Fontaria furcifer* (nec Bollman, 1893) – sensu Brimley, 1938, The Insects of North Carolina, 498. (See note regarding Brimley names under *Sigmoria*).

*Mimuloria furcifer* Chamberlin, 1940a, Entomological News, 51: 282, fig. 1. MALE HT (USNM). United States: North Carolina, Buncombe County. Brimley, 1942, Supplement to Insects of North Carolina, 39. Wray, 1967, Insects of North Carolina, 151. Synonymized by Hoffman, 1950b, Journal of the Elisha Mitchell Scientific Society, 66: 23.

*Mimuloria georgiana* – Loomis, 1943, Bulletin of the Museum of Comparative Zoology, 92: 402. Loomis, 1944, Psyche, 51: 173. Chamberlin, 1946, Entomological News, 57: 151. Loomis & Hoffman, 1948, Proceedings of the Biological Society of Washington, 61: 52.

*Dynoria parvior* Chamberlin, 1947, Proc. Biol. Soc. Washington, 60: 10, fig. 4. MALE HT (USNM). United States: Georgia, Union County. Synonymized by Hoffman, 1950b, Journal of the Elisha Mitchell Scientific Society, 66: 23.

*Cherokia georgiana* – Chamberlin, 1949a, Proceedings of the Biological Society of Washington, 62: 3. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 26. Wray, 1967, Insects of North Carolina, 151.

*Cherokia georgiana georgiana* – Hoffman, 1960, Proceedings of the United States National Museum, 112: 240, figs. 3d, 4e, 5a, 6, 7. Hoffman, 1999, Checklist: 339 (325 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41(3): 721. Marek & Bond, 2007, Zootaxa, 1610: 30.

### ***Cherokia georgiana ducilla* (Chamberlin, 1939)**

*Mimuloria ducilla* Chamberlin, 1939, Bulletin of the University of Utah, 30(2): 7, fig. 12. MALE HT (USNM). United States: North Carolina, Jackson County.

*Mimuloria georgiana* (nec Bollman, 1889a) – sensu Loomis, 1943, Bulletin of the Museum of Comparative Zoology, 92: 402. Causey, 1950a, Entomological News, 61(1): 6.

*Cherokia georgiana ducilla* – Hoffman, 1960, Proceedings of the United States National Museum, 112: 255, figs. 3b-e, 4f, 5b, 6, 7. Hoffman, 1999, Checklist: 339 (325 pdf). Shelley, 2000b, Journal of the Elisha Mitchell Scientific Society, 116(3): 194.

### ***Cherokia georgiana latassa* Hoffman, 1960**

*Mimuloria georgiana* (nec Bollman, 1889a) – sensu Loomis, 1943, Bulletin of the Museum of Comparative Zoology, 92: 412. Loomis, 1944, Psyche, 51: 173. Loomis & Hoffman, 1948, Proceedings of the Biological Society of Washington, 61: 52.

*Cherokia georgiana* (nec Bollman, 1889a) – sensu Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 26.

*Cherokia georgiana latassa* Hoffman, 1960, Proceedings of the United States National Museum, 112: 257, figs. 3a,c, 4a-e, 5c,d, 7. MALE HT (USNM). United States: Tennessee, Warren County. Hoffman, 1999, Checklist: 339 (325 pdf). Marek & Bond, 2006, Molecular Phylogenetics and Evolution, 41(3): 721. Marek & Bond, 2007, Zootaxa, 1610: 30. Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 833.

Note: *Cherokia georgiana latassa* converges in coloration with several species of *Apheloria* and *Brachoria* as a result of Müllerian mimicry (Marek, 2010: 833).

### **Genus *Erdelyia* Hoffman, 1962**

1 species

*Erdelyia* Hoffman, 1962a, Proceedings of the Biological Society of Washington, 75: 181. Type species: *E. saucra* Hoffman, by original designation. Hoffman, 1980, Classification of the Diplopoda, p. 158. Hoffman, 1999, Checklist: 338 (324 pdf). Shelley et al., 2000, Nomenclator Generum et Familiarum Diplopodorum II: 100.

Distribution: southern Blue Ridge Mountains in southwestern North Carolina and northeastern Georgia.

### ***Erdelyia saucra* Hoffman, 1962**

*Erdelyia saucra* Hoffman, 1962a, Proceedings of the Biological Society of Washington, 75: 184, figs. 1-6. MALE HT (USNM). United States: Georgia, Union County. Hoffman, 1999, Checklist: 338 (324 pdf). Shelley, 2000b, Journal of the Elisha Mitchell Scientific Society, 116(3): 196.

**Genus *Gonoessa* Shelley, 1984**

5 species

*Gonoessa* Shelley, 1984d, Florida Entomologist, 67: 455.

Type species: *G. clavata* Shelley, 1984d, by original designation. Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 217. Hoffman, 1999, Checklist: 356 (341 pdf). Shelley et al., 2000, *Nomenclator Generum et Familiarum Diplopodorum II*: 103. Shelley, 2001, *Myriapodologica*, 7(9): 79. Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41(3): 717.

Distribution: southern Alabama, south of the Fall Line (Shelley, 1984d, fig. 10).

***Gonoessa aciculata* Shelley, 1984**

*Gonoessa aciculata* Shelley, 1984d, Florida Entomologist, 67: 458, figs. 4, 5. MALE HT (USNM). United States: Alabama, Lowdnes County. Hoffman, 1999, Checklist: 356 (341 pdf).

***Gonoessa cingulata* Shelley, 1984**

*Gonoessa cingulata* Shelley, 1984d, Florida Entomologist, 67: 460, figs. 6, 7. MALE HT (VMNH). United States: Alabama, Montgomery County. Hoffman, 1999, Checklist: 356 (341 pdf).

***Gonoessa clavata* Shelley, 1984**

*Gonoessa clavata* Shelley, 1984d, Florida Entomologist, 67: 456, figs. 1-3. MALE HT (USNM). United States: Alabama, Wilcox County. Hoffman, 1999, Checklist: 356 (341 pdf).

***Gonoessa dentata* Shelley, 1984**

*Gonoessa dentata* Shelley, 1984d, Florida Entomologist, 67: 461, fig. 8. MALE HT (USNM). United States: Alabama, Barbour County. Hoffman, 1999, Checklist: 356 (341 pdf).

***Gonoessa furcata* Shelley, 1984**

*Gonoessa furcata* Shelley, 1984d, Florida Entomologist, 67: 461, fig. 9. MALE HT (USNM). United States: Alabama, Montgomery County. Hoffman, 1999, Checklist: 356 (341 pdf).

**Genus *Gyalostethus* Hoffman, 1965**

1 species

*Gyalostethus* Hoffman, 1965, Proceedings of the United

States National Museum, 117: 338. Type species: *Boraria monticolens* Chamberlin, 1951, by monotypy and original designation. Hoffman, 1980, Classification of the Diplopoda, p. 158. Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 217. Hoffman, 1999, Checklist: 340 (325 pdf). Shelley et al., 2000, *Nomenclator Generum et Familiarum Diplopodorum II*: 104. Marek & Bond, 2007, *Zootaxa*, 1610: 28.

Distribution: southern Appalachian Mountains, predominately in the Valley and Ridge Physiographic Province in western Virginia, eastern Tennessee, western North Carolina, and Alabama.

Note: Scattered populations also occur in northeastern Georgia and southeastern Kentucky.

***Gyalostethus monticolens* (Chamberlin, 1951)**

*Boraria monticolens* Chamberlin, 1951, Great Basin Naturalist, 11: 26, fig. 16. MALE HT (USNM). United States: Tennessee, Sevier County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 23.

*Gyalostethus monticolens* – Hoffman, 1965, Proceedings of the United States National Museum, 117: 339, figs. 20-26. Hoffman, 1999, Checklist: 340 (326 pdf). Shelley, 2000b, Journal of the Elisha Mitchell Scientific Society, 116(3): 196. Marek & Bond, 2007, *Zootaxa*, 1610: 30. Marek, 2010, *Zoological Journal of the Linnean Society*, 159(4): 840.

**Genus *Lourdesia* Shelley, 1991**

1 species

*Lourdesia* Shelley, 1991, Proceedings of the Entomological Society of Washington, 93: 245. Type species: *L. minuscula* Shelley, by monotypy and original designation. Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 217. Shelley, 1991, Proceedings of the Entomological Society of Washington, 93: 245. Hoffman, 1999, Checklist: 356 (341 pdf). Shelley et al., 2000, *Nomenclator Generum et Familiarum Diplopodorum II*: 110. Shelley, 2001, *Myriapodologica*, 7(9): 79. Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41(3): 717.

Distribution: only known from Coffee and Baldwin counties in southern Alabama (Shelley, 1991: 247).

***Lourdesia minuscula* Shelley, 1991**

*Lourdesia minuscula* Shelley, 1991, Proceedings of the Entomological Society of Washington, 93: 246, figs.

1-4. MALE HT (FSCA). United States: Alabama, Coffee County. Hoffman, 1999, Checklist: 357 (341 pdf). Shelley, 2001, *Myriapodologica*, 7(9): 80.

Note: *Lourdesia minuscula* is the smallest known species of Xystodesmidae. The male holotype is only 12.2 mm long and 2.1 mm wide, and a female paratype is 15.9 mm by 2.8 mm (Shelley, 1991).

### Genus *Parvulodesmus* Shelley, 1983

2 species

*Parvulodesmus* Shelley, 1983b, Proceedings of the Biological Society of Washington, 96: 121. Type species: *P. prolixogonus* Shelley, by monotypy and original designation. Hoffman, 1999, Checklist: 357 (342 pdf). Shelley et al., 2000, Nomenclator Generum et Familiarum Diplopodorum II: 120. Shelley, 2001, *Myriapodologica*, 7(9): 79. Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41(3): 717.

Distribution: known from Abbeville County, South Carolina, and Onslow County, North Carolina (Shelley, 2001: 79).

### *Parvulodesmus prolixogonus* Shelley, 1983

*Parvulodesmus prolixogonus* Shelley, 1983b, Proceedings of the Biological Society of Washington, 96: 122, figs. 1-4. MALE HT (VMNH). United States: South Carolina, Abbeville County. Hoffman, 1999, Checklist: 357 (342 pdf). Shelley, 2001, *Myriapodologica*, 7(9): 79.

### *Parvulodesmus stephani* Shelley, 2001

*Parvulodesmus stephani* Shelley, 2001, *Myriapodologica*, 7(9): 80, figs 2, 3. MALE HT (NCSM). United States: North Carolina, Onslow County.

### Genus *Pleuroloma* Rafinesque, 1820

4 species

*Pleuroloma* Rafinesque, 1820, *Annals of Nature*, p. 8. Type species: *P. flavipes* Rafinesque, by monotypy. Hoffman & Crabill, 1953, *Florida Entomologist*, 36: 79. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 44. Hoffman, 1961, *Proceedings of the United States National Museum*, 113(3451): 17. Jeekel, 1971, *Monografieen van de Nederlandse Entomologische Vereniging*, 5: 281. Hoffman, 1980, *Classification of the Diplopoda*, p. 158. Shelley, 1980b, *Canadian Journal of Zoology*, 58: 129. Kevan, 1983, *Canadian Journal of Zoology*, 61(12): 2968. Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 212. Hoffman, 1999, Checklist: 340 (326

pdf). Shelley, 2000b, *Journal of the Elisha Mitchell Scientific Society*, 116(3): 197. Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41(3): 712. Marek & Bond, 2007, *Zootaxa*, 1610: 34. Shelley & McAllister, 2007, *Western North American Naturalist*, 67: 258. Shelley & Snyder, 2012, *Insecta Mundi*, 0239: 1.

*Zinaria* Chamberlin, 1939, *Bulletin of the University of Utah*, 30(2): 4. Type species: *Zinaria cala* Chamberlin, 1939, by original designation. Chamberlin, 1943b, *Bulletin of the University of Utah*, 8(2): 16. Chamberlin, 1949b, *Journal of the Washington Academy of Sciences*, 39: 101. Loomis & Hoffman, 1948, *Proceedings of the Biological Society of Washington*, 61: 53. Hoffman, 1949b, *Proceedings of the United States National Museum*, 99 (3244): 389. Causey, 1951, *Proceedings of the Arkansas Academy of Science*, 4: 77. Synonymized by Hoffman & Crabill, 1953, *Florida Entomologist*, 36: 80.

Distribution: eastern half of the United States, from southeastern North Dakota eastward to Connecticut, and southward to Brownsville, Texas, and the Florida Keys (Shelley, 1980).

### *Pleuroloma cala* (Chamberlin, 1939)

*Zinaria cala* Chamberlin, 1939, *Bulletin of the University of Utah*, 30(2): 4, pl. 1, fig. 6. MALE HT (USNM). United States: Florida, Osceola County, Florida. Loomis, 1944, *Psyche*, 51: 170. Causey, 1951, *Proceedings of the Arkansas Academy of Science*, 4: 82, pl. 1, figs. 1h, 3a; pl. 2, figs. 8a, 9.

*Pleuroloma cala* – Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 45. Shelley, 1980b, *Canadian Journal of Zoology*, 58: 151, figs. 3, 5, 9, 15, 19, 27, 29, 31. Hoffman, 1999, Checklist: 340 (326 pdf). Shelley, 2000c, *Insecta Mundi*, 14(4): 248.

### *Pleuroloma flavipes* Rafinesque, 1820

*Pleuroloma flavipes* Rafinesque, 1820, *Annals of Nature*, p. 8. Hoffman & Crabill, 1953, *Florida Entomologist*, 36: 79. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 45. Shelley, 1980b, *Canadian Journal of Zoology*, 58: 139, figs. 1, 6-7, 11-13, 17, 25, 29, 30. Kevan, 1983, *Canadian Journal of Zoology*, 61(12): 2968. Shelley, 1988, *Canadian Journal of Zoology*, 66(7): 1654. Kevan & Scudder, 1989, *Biological Survey of Canada Taxonomic Series*, 1: 75. Hoffman, 1999, Checklist: 340 (326 pdf). Shelley, 2000b, *Journal of the Elisha Mitchell Scientific Society*, 116(3): 197. Shelley, 2002c, *Canadian Journal of Zoology*, 80(11): 1871. Shelley et al., 2003, *Entomological News*, 114(1): 2. Marek & Bond, 2006,



- Molecular Phylogenetics and Evolution, 41(3): 717, fig. 8a. Marek & Bond, 2007, Zootaxa, 1610: 31. Marek, 2010, Zoological Journal of the Linnean Society, 159(4): 831. Swafford & Bond, 2010, Biological Journal of the Linnean Society, 101(2): 283, fig. 3. Shelley & Snyder, 2012, Insecta Mundi, 0239: 5.
- Polydesmus (Fontaria) virginiensis* (nec Gray, 1832; nec Drury & Westwood, 1837; nec C.L. Koch, 1847; nec Bollman, 1888d) – sensu Wood, 1865, Transactions of the American Philosophical Society, 13: 221, fig. 49, pl. 3, fig. 8. Wheeler, 1890, Psyche, 5, 442.
- Fontaria virginiensis* – (nec Drury & Westwood, 1837; nec Gray, 1832; nec C.L. Koch, 1847; nec Wood, 1865) – sensu Bollman, 1888d, Entomologica Americana, 4: 3. Bollman, 1888c, Proceedings of the United States National Museum, 11: 406. Kenyon, 1893, Publications of the Nebraska Academy of Science, 3: 15. Mauck, 1901, American Naturalist, 35: 477. Gunthorp, 1913, Annotated list of the Diplopoda and Chilopoda of Kansas, with a key to the Myriapoda of Kansas, 7: 162. Williams & Hefner, 1928, The millipedes and centipedes of Ohio, 107, fig. 10a. Attems, 1938, Das Tierreich, 69: 167. Brimley, 1938, The Insects of North Carolina, 498.
- Fontaria virginiensis brunnea* Bollman, 1887, American Naturalist, 21: 82. MALE HT (USNM). United States: Minnesota, Hennepin County, Minnesota. Synonymized by Shelley, 1980b, Canadian Journal of Zoology, 58: 139.
- Polydesmus butlerii* McNeill, 1888, Bulletin of the Brookville Society of Natural History, 3: 6, figs. 1-3. Type material lost. United States: Indiana, Franklin County. Synonymized by Shelley, 1980b, Canadian Journal of Zoology, 58: 139.
- Fontaria virginiensis castanea* Bollman, 1893, Bulletin of the United States National Museum, 46: 132.
- Fontaria brunnea* – Barber, 1915, Proceedings of the Entomological Society of Washington, 17: 122. Loomis, 1943, Bulletin of the Museum of Comparative Zoology, 92: 402.
- Zinaria virginiensis* – Chamberlin, 1939, Bulletin of the University of Utah, 30(2): 4. Causey, 1951, Proceedings of the Arkansas Academy of Science, 4: 80.
- Zinaria urbana* Chamberlin, 1939, Bulletin of the University of Utah, 30(2): 5, pl. 1, fig. 5. MALE HT (USNM). United States: Illinois, Champaign County. Chamberlin, 1943b, Bulletin of the University of Utah, 8(2): 16. Causey, 1951, Proceedings of the Arkansas Academy of Science, 4: 82, pl. 1, fig. 1a; pl. 2, fig. 8b. Synonymized by Shelley, 1980b, Canadian Journal of Zoology, 58: 139.
- Zinaria iowa* Chamberlin, 1942b, Canadian Entomologist, 74: 16, fig. 3. MALE HT (USNM). United States: Iowa, Story County. Chamberlin, 1943b, Bulletin of the University of Utah, 8(2): 16. Causey, 1951, Proceedings of the Arkansas Academy of Science, 4: 83. Synonymized by Shelley, 1980b, Canadian Journal of Zoology, 58: 139.
- Zinaria brunnea* – Chamberlin, 1943b, Bulletin of the University of Utah, 8(2): 16. Loomis & Hoffman, 1948, Proceedings of the Biological Society of Washington, 61:53. Causey, 1951, Proceedings of the Arkansas Academy of Science, 4: 80, pl. 1, figs. 1b, 3d; pl. 2, fig. 8d. Wray, 1967, Insects of North Carolina, 152.
- Zinariabutleri*–Chamberlin, 1943b, Bulletin of the University of Utah, 8(2): 16. Chamberlin, 1947, Proceedings of the Academy of Natural Sciences of Philadelphia, 99: 31. Williams & Ward, 1950, Proceedings of the Indiana Academy of Science, 60: 329.
- Zinaria mima* Chamberlin, 1949b, Journal of the Washington Academy of Sciences, 39: 101, fig. 26. MALE HT (USNM). United States: Pennsylvania, Greene County. Causey, 1951, Proceedings of the Arkansas Academy of Science, 4: 83, pl. 1, fig. 5; pl. 2, fig. 8i. Synonymized by Shelley, 1980b, Canadian Journal of Zoology, 58: 140.
- Zinaria rubrilata* Hoffman, 1949d, Proceedings of the Biological Society of Washington, 62: 84. Causey, 1951, Proceedings of the Arkansas Academy of Science, 4: 83, pl. 1, fig. 8h. MALE HT (USNM). United States: Virginia, Lancaster County. Synonymized by Shelley, 1980b, Canadian Journal of Zoology, 58: 140.
- Zinnaria butlerii* – Causey, 1951, Proceedings of the Arkansas Academy of Science, 4: 81, pl. 1, figs. 1e, 2b; pl. 2, figs. 8g, 11. Johnson, 1954, Papers of the Michigan Academy of Science, Arts, and Letters, 39: 246, fig. 20.
- Zinaria warreni* Causey, 1951, Proceedings of the Arkansas Academy of Science, 4: 83, pl. 1, figs. 1c, 3b, 6; pl. 2, 8c, 10. MALE HT (ANSP). United States: Arkansas, Carroll County. Synonymized by Shelley, 1980b, Canadian Journal of Zoology, 58: 140.
- Zinaria busheyi* Causey, 1951, Proceedings of the Arkansas Academy of Science, 4: 84, pl. 1, figs. 1f, 4, 7; pl. 2, 8j. MALE HT (ANSP). United States: Indiana, Grant County. Synonymized by Shelley, 1980b, Canadian Journal of Zoology, 58: 140.
- Zinaria miribilia* Causey, 1951, Proceedings of the Arkansas Academy of Science, 4: 85, pl. 1, figs. 1d; pl. 2, fig. 8f. HT MALE (ANSP). United States: Arkansas, Clay County. Synonymized by Shelley, 1980b, Canadian Journal of Zoology, 58: 140.
- Zinaria proxima* Causey, 1951, Proceedings of the Arkansas



Academy of Science, 4: 86, pl. 1, figs. 1g, 2a, 3c; pl. 2, figs. 8e, 12. MALE HT (ANSP). United States: Michigan, Washtenaw County. Synonymized by Shelley, 1980b, *Canadian Journal of Zoology*, 58: 140.

*Pleurolooma brunnea* – Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 44.

*Pleurolooma busheyi* – Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 45.

*Pleurolooma butleri* – Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 45.

*Pleurolooma iowa* – Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 45.

*Pleurolooma mima* – Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 45.

*Pleurolooma miribilia* – Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 45.

*Pleurolooma proxima* – Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 46.

*Pleurolooma rubrilata* – Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 46.

*Pleurolooma urbana* – Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 46.

*Pleurolooma warreni* – Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 46.

Note: *Pleurolooma flavipes* converges in coloration with several species of *Apheloria* and *Brachoria* as a result of Müllerian mimicry (Marek, 2010: 831, 850, 858, 859). The species has the most extensive distribution of any known xystodesmid (Shelley, 1980: 129).

### ***Pleurolooma pinicola* Shelley, 1980**

*Pleurolooma pinicola* Shelley, 1980b, *Canadian Journal of Zoology*, 58: 148, figs. 2, 8, 14, 18, 26, 29, 30. MALE HT (USNM). United States: North Carolina, Columbus County. Hoffman, 1999, Checklist: 342 (327 pdf). Shelley, 2000b, *Journal of the Elisha Mitchell Scientific Society*, 116(3): 197.

Note: The male holotype was originally published as conserved at the NCSM; however, it is currently at the USNM.

### ***Pleurolooma plana* Shelley, 1980**

*Pleurolooma plana* Shelley, 1980b, *Canadian Journal of Zoology*, 58: 154, figs. 4, 10, 16, 20-24, 28-31. MALE HT (USNM). United States: Florida, Wakulla County. Shelley, 1995, *Entomologica Scandinavica*, 26: 340. Hoffman, 1999, Checklist: 342 (327 pdf). Shelley,

2000c, *Insecta Mundi*, 14(4): 248. Marek & Bond, 2007, *Zootaxa*, 1610: 31.

Note: The male holotype was originally published as conserved at the NCSM; however, it is currently at the USNM.

## **Genus *Rhysodesmus* Cook, 1895**

73 species

*Rhysodesmus* Cook, 1895, *Annals of the New York Academy of Science*, 9: 5. Type species: *Polydesmus (Fontaria) limax* DeSaussure, 1860, by original designation. Attems, 1898, *Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien*, 67: 256. Pocock, 1909, *Biologia Centrali-Americana, Diplopoda*, p. 188. Attems, 1926, in: *Handbuch der Zoologie*, 220. Attems, 1931, *Zoologica*, 30(79): 62. Verhoeff, 1936a, *Transactions of the Sapporo Natural History Society*, 14(3): 152. Verhoeff, 1936b, *Zoologischer Anzeiger*, 115(11-12): 298. Attems, 1938, *Das Tierreich*, 69: 138. Gressitt, 1941, *The Annals & Magazine of Natural History*, 8(43): 60. Verhoeff, 1944, *Bulletin of the Southern California Academy of Sciences*, 43: 65. *American Museum Novitates*, 1621: 8. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 46. Hoffman, 1965, *Proceedings of the United States National Museum*, 117: 305. Hoffman, 1966, *Transactions of the American Entomological Society*, 92: 7. Loomis, 1968a, *Bulletin of the United States National Museum*, 266: 57. Hoffman, 1970, *Radford Review*, 24(4): 143. Jeekel, 1971, *Monografieën van de Nederlandse Entomologische Vereniging*, 5: 285. Shinohara, 1977, *Acta Arachnologica*, 27: 115. Hoffman, 1980, *Classification of the Diplopoda*, p. 158. Shelley, 1986, in: Shelley & Whitehead, *Memoirs of the American Entomological Society*, 35: 217. Hoffman, 1998, *Myriapodologica*, 5: 77. Hoffman, 1999, Checklist: 342 (328 pdf). Shelley, 1999, *Myriapodologica*, 6(3): 19. Korsós et al., 2011, *Zootaxa*, 2877: 55.

*Dampfaria* Verhoeff, 1932, *Zoologische Jahrbücher, Abteilung für Systematik, Ökologie und Geographie der Tiere*, 62(5-6): 519. Type species: *D. dampfi* Verhoeff, 1932, by monotypy. Attems, 1938, *Das Tierreich*, 69: 138. Verhoeff, 1944, *Bulletin of the Southern California Academy of Sciences*, 43: 65. Jeekel, 1971, *Monografieën van de Nederlandse Entomologische Vereniging*, 5: 258. Synonymized by Hoffman, 1966, *Transactions of the American Entomological Society*, 92: 7.

*Aporiaria* Chamberlin, 1938, *Proceedings of the Biological Society of Washington*, 51: 207. Type species: *A. texicolens* Chamberlin, by original designation. Hoffman, 1965, *Proceedings of the United States National Museum*, 117: 307. Jeekel, 1971, *Monografieën van de Nederlandse*

Entomologische Vereniging, 5: 249. Synonymized by Chamberlin, 1943d, Proceedings of the Biological Society of Washington, 56: 143.

*Acentronus* Chamberlin, 1943c, Bulletin of the University of Utah, 8(3): 50. Type species: *A. minor* Chamberlin, by original designation. Hoffman, 1965, *Proceedings of the United States National Museum*, 117: 306. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 245. Synonymized by Hoffman, 1966, Transactions of the American Entomological Society, 92: 7.

Distribution: Guatemala and El Salvador, north to Mexico and southern Texas. There are two species widely separated from the rest of the genus, *Rhysodesmus agrestis* and *Rhysodesmus restans*, from Clinch Mountain in Mendota, Virginia, and Knoxville, Tennessee.

### ***Rhysodesmus acolhuus* (Humbert & DeSaussure, 1869)**

*Polydesmus (Fontaria) acolhuus* Humbert & DeSaussure, 1869, *Revue & Magasin de Zoologie* (2) 21: 150. DeSaussure & Humbert, 1872, in: *Mission scientifique au Mexique et dans l'amérique Centrale, recherches zoologiques*, 6: 33, pl. 2, figs. 2a-m. MALE LT (MHNG). México: Veracruz, Orizaba. Lectotype designated by Hoffman, 1970, *Radford Review*, 24(4): 158.

*Fontaria acolhuus* – Attems, 1898, *Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe*, 68: 263.

*Rhysodesmus acolhuus* – Pocock, 1909, *Biologia Centrali-Americana*, p. 203. Attems, 1938, *Das Tierreich*, 69: 144. Hoffman, 1970, *Radford Review*, 24(4): 158, fig. 8. Loomis, 1968, *Bulletin of the United States National Museum*, 266: 58. Hoffman, 1999, Checklist: 342 (328 pdf).

Note: DeSaussure & Humbert (1872) includes an exquisite color lithograph of *Rhysodesmus acolhuus*, pl. 2, figs 2a-m.

### ***Rhysodesmus agrestis* Shelley, 1999**

*Rhysodesmus agrestis* Shelley, 1999, *Myriapodologica*, 6(3): 21, figs. 1-3. MALE HT (NCSM). United States: Tennessee, Knox County. Marek & Bond, 2006, *Molecular Phylogenetics and Evolution*, 41: 721.

### ***Rhysodesmus alpuyecus* Chamberlin, 194**

*Rhysodesmus alpuyecus* Chamberlin, 1943c, *Bulletin of the University of Utah*, 8(3): 37, pl. 8, fig. 76, 77. MALE HT (USNM). México: Morelos, Alpuyec. Loomis,

1968, *Bulletin of the United States National Museum*, 266: 58. Hoffman, 1999, Checklist: 343 (328 pdf).

### ***Rhysodesmus angelus* (Karsch, 1881)**

*Polydesmus (Fontaria) angelus* Karsch, 1881, *Archiv für Naturgeschichte*, 48: 39, fig. 13. MALE HT (ZMB). México: “Puebla.”

*Rhysodesmus angelus* – Pocock, 1910, *Biologia Centrali-Americana, Diplopoda*, p. 203, pl. 15, fig. 14. Attems, 1899, *Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe*, 68: 259. Attems, 1938, *Das Tierreich*, 69: 149, fig. 171. Loomis, 1968, *Bulletin of the United States National Museum*, 266: 58. Hoffman, 1999, Checklist: 343 (328 pdf).

### ***Rhysodesmus angustus* Loomis, 1966**

*Rhysodesmus angustus* Loomis, 1966, *Annals of the Entomological Society of America*, 59: 14, figs. 10-12. MALE HT (SMUK). México: Michoacán, Ciudad Hidalgo. Hoffman, 1999, Checklist: 343 (328 pdf).

### ***Rhysodesmus arcuatus* Pocock, 1910**

*Rhysodesmus arcuatus* Pocock, 1910, *Biologia Centrali-Americana, Diplopoda*, p. 201, pl. 15, figs. 13-13e. Type material lost. (BMNH). México: Guerrero, Chilpancingo. Attems, 1931, *Zoologica*, 30(79): 63. Attems, 1938, *Das Tierreich*, 69: 148. Loomis, 1968, *Bulletin of the United States National Museum*, 266: 58. Hoffman, 1999, Checklist: 343 (329 pdf).

### ***Rhysodesmus attemsi* Pocock, 1910**

*Rhysodesmus attemsi* Pocock, 1910, *Biologia Centrali-Americana, Diplopoda*, p. 200. Type material lost. (BMNH). México: Guerrero, Chilpancingo. Attems, 1931, *Zoologica*, 30(79): 63. Attems, 1938, *Das Tierreich*, 69: 148. Hoffman, 1966, *Transactions of the American Entomological Society*, 92: 9. Loomis, 1968, *Bulletin of the United States National Museum*, 266: 58. Hoffman, 1999, Checklist: 343 (329 pdf).

### ***Rhysodesmus bolivari* Chamberlin, 1943**

*Rhysodesmus bolivari* Chamberlin, 1943c, *Bulletin of the University of Utah*, 8(3): 38, pl. 8, fig. 78. MALE HT (USNM). México: Nuevo León, García. Loomis, 1968, *Bulletin of the United States National Museum*, 266: 58. Hoffman, 1999, Checklist: 343 (329 pdf).

***Rhysodesmus bonus* Chamberlin, 1943**

*Rhysodesmus bonus* Chamberlin, 1943c, Bulletin of the University of Utah, 8(3): 38. MALE HT (USNM). México: Vera Cruz, Fortín. Loomis, 1968, Bulletin of the United States National Museum, 266: 58.

***Rhysodesmus byersi* Loomis, 1966**

*Rhysodesmus byersi* Loomis, 1966, Annals of the Entomological Society of America, 57: 14, figs. 13, 14. MALE HT (SMUK). México: Hidalgo, Jacala de Ledezma. Hoffman, 1999, Checklist: 343 (329 pdf).

***Rhysodesmus championi* Pocock, 1909**

*Rhysodesmus championi* Pocock, 1909, Biologia Centrali-Americana, Diplopoda, p. 198. FEMALE HT (BMNH). Guatemala: Petén, Zapote. Attems, 1938, Das Tierreich, 69: 146. Loomis, 1968, Bulletin of the United States National Museum, 266: 59. Hoffman, 1999, Checklist: 343 (329 pdf).

***Rhysodesmus chisosi* Shelley, 1989**

*Rhysodesmus chisosi* Shelley, 1989, Southwestern Naturalist, 34: 221, figs. 2a-b. MALE ST (USNM). United States: Texas, Brewster County. Shelley, 1997, Insecta Mundi, 11: 334. Shelley et al., 2003, Entomological News, 114(1): 2. Hoffman, 1999, Checklist: 343 (329 pdf).

***Rhysodesmus consobrinus* (DeSaussure, 1859)**

*Polydesmus (Fontaria) consobrinus* DeSaussure, 1859, Linnaea Entomologica, 13: 322. Type material lost. (MHNG). México: Nuevo León, Anáhuac. DeSaussure, 1860, Mémoires de la Société de Physique et d'Histoire Naturelle de Genève, 15: 317, pl. 2, figs. 13a-d. Lectotype designated by Loomis, 1968, Bulletin of the United States National Museum, 266: 59.

*Fontaria consobrinus* – Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 263.

*Rhysodesmus consobrinus* – Pocock, 1910, Biologia Centrali-Americana, Diplopoda, p. 204. Attems, 1938, Das Tierreich, 69: 150. Loomis, 1968, Bulletin of the United States National Museum, 266: 59. Hoffman, 1999, Checklist: 344 (329 pdf).

***Rhysodesmus constrictus* Loomis, 1966**

*Rhysodesmus constrictus* Loomis, 1966, Annals of the Entomological Society of America, 57: 16, figs. 15, 16. MALE HT (SMUK). México: Hidalgo, Pachuca de

Soto. Hoffman, 1999, Checklist: 344 (329 pdf).

***Rhysodesmus coriaceus* Loomis, 1968**

*Rhysodesmus coriaceus* Loomis, 1968, Journal of the Kansas Entomological Society, 41: 386. MALE HT (USNM). México: Nuevo León, Santiago. Hoffman, 1999, Checklist: 344 (329 pdf).

***Rhysodesmus cuernavacae* Chamberlin, 1942**

*Rhysodesmus cuernavacae* Chamberlin, 1942c, Canadian Entomologist, 74: 92, fig. 1. MALE HT (USNM). México: Morelos, Cuernavaca. Chamberlin, 1943c, Bulletin of the University of Utah, 8(3): 39. Loomis, 1968, Bulletin of the United States National Museum, 266: 59. Hoffman, 1999, Checklist: 344 (329 pdf).

***Rhysodesmus cumbres* Chamberlin, 1943**

*Rhysodesmus cumbres* Chamberlin, 1943c, Bulletin of the University of Utah, 8(3): 39, figs. 79, 80. MALE HT (USNM). México: Veracruz, Cumbres. Loomis, 1968, Bulletin of the United States National Museum, 266: 59. Hoffman, 1999, Checklist: 344 (329 pdf).

***Rhysodesmus dampfi* (Verhoeff, 1932)**

*Dampfaria dampfi* Verhoeff, 1932, Zoologische Jahrbücher, Abteilung für Systematik, Ökologie und Geographie der Tiere, 62(5-6): 521, figs. 48-50. MALE HT (ZSM). México: Distrito Federal, Desierto de los Leones.

*Rhysodesmus eutypus* Chamberlin, 1943c, Bulletin of the University of Utah, 8(3): 41, figs. 81, 82. MALE HT (USNM). México: Veracruz, Xalapa. Synonymized by Hoffman, 1970, Radford Review, 24(4): 148.

*Rhysodesmus dampfi* – Hoffman, 1966, Transactions of the American Entomological Society, 92: 9. Hoffman, 1970, Radford Review, 24(4): 147, figs. 1, 9. Hoffman, 1999, Checklist: 344 (330 pdf).

***Rhysodesmus dasypus* (Gervais, 1847)**

*Polydesmus dasypus* Gervais, 1847, in: Walckenaer & Gervais, Histoire Naturelle des Insectes Aptères, 4: 115. MALE HT (MHNP). Type locality unknown (Gervais, 1847: 115). Attems, 1940, Das Tierreich, 70: 492.

*Polydesmus (Fontaria) limax* DeSaussure, 1859, Linnaea Entomologica, 13: 312. MALE LT (MHNG). México: Veracruz, San Andrés Tuxtla. DeSaussure, 1860, Mémoires de la Société de Physique et d'Histoire Naturelle de Genève, 15: 312, pl. 2, figs. 10a. Chamberlin & Hoffman, 1958, Bulletin of the United States National



Museum, 212: 46. Synonymized by Hoffman, 1970, Radford Review, 24(4): 144.

*Fontaria limax* – Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 263.

*Rhysodesmus limax* – Cook, 1895, Annals of the New York Academy of Science, 9: 5. Pocock, 1910, Biologia Centrali-Americana, Diplopoda, p. 205, pl. 15, figs. 1, 1a. Attems, 1931, Zoologica, 30(79): 63. Attems, 1938, Das Tierreich, 69: 140. Hoffman, 1966, Transactions of the American Entomological Society, 92: 10, fig. 4.

*Rhysodesmus dasypus* – Hoffman, 1970, Radford Review, 24(4): 144. Shelley, 1986, in: Shelley & Whitehead, Memoirs of the American Entomological Society, 35: 217. Hoffman, 1999, Checklist: 344 (330 pdf).

Note: “An enormous xystodesmid (largest known species in the family) ranging up to 80 mm in length and 25 mm in greatest width” (Hoffman, 1970: 144).

### ***Rhysodesmus depressus* Loomis, 1966**

*Rhysodesmus depressus* Loomis, 1966, Annals of the Entomological Society of America, 57: 17, figs. 17-19. MALE HT (SMUK). México: exact type locality unknown. Hoffman, 1999, Checklist: 345 (330 pdf).

### ***Rhysodesmus elestribus* Chamberlin, 1943**

*Rhysodesmus elestribus* Chamberlin, 1943c, Bulletin of the University of Utah, 8(3): 39, figs. 87, 88. MALE HT (USNM). México: Michoacán, Pátzcuaro. Loomis, 1968, Bulletin of the United States National Museum, 266: 59. Hoffman, 1999, Checklist: 345 (330 pdf).

### ***Rhysodesmus esperanzae* Chamberlin, 1943**

*Rhysodesmus esperanzae* Chamberlin, 1943c, Bulletin of the University of Utah, 8(3): 40, pl. 11, figs. 111, 112. MALE HT (USNM). México: Guanajuato, Esperanza. Loomis, 1968, Bulletin of the United States National Museum, 266: 59. Hoffman, 1999, Checklist: 345 (330 pdf).

### ***Rhysodesmus eunis* Chamberlin, 1943**

*Rhysodesmus eunis* Chamberlin, 1943c, Bulletin of the University of Utah, 8(3): 41. FEMALE HT (USNM). México: Veracruz, Orizaba. Loomis, 1968, Bulletin of the United States National Museum, 266: 59. Hoffman, 1999, Checklist: 345 (330 pdf).

### ***Rhysodesmus eusculptus* Chamberlin, 1941**

*Rhysodesmus eusculptus* Chamberlin, 1941, Proceedings

of the Biological Society of Washington, 54: 64, fig. 4. MALE HT (USNM). México: Michoacán, Tancítaro. Chamberlin, 1943c, Bulletin of the University of Utah, 8(3): 40. Loomis, 1968, Bulletin of the United States National Museum, 266: 59. Hoffman, 1999, Checklist: 345 (331 pdf).

### ***Rhysodesmus flavocinctus* Pocock, 1909**

*Rhysodesmus flavocinctus* Pocock, 1909, Biologia Centrali-Americana, Diplopoda, p. 199, pl. 15, figs. 6, 6a. Type material lost. (BMNH). México: Guerrero, Almolongo. Attems, 1938, Das Tierreich, 69: 145. Loomis, 1968, Bulletin of the United States National Museum, 266: 59. Hoffman, 1999, Checklist: 345 (331 pdf).

### ***Rhysodesmus fraternus* (DeSaussure, 1859)**

*Polydesmus (Fontaria) fraternus* DeSaussure, 1859, Linnaea Entomologica, 13: 322. MALE ST (MHNG). México: Veracruz, Córdoba. DeSaussure, 1860, Mémoires de la Société de Physique et d’Histoire Naturelle de Genève, pt. 2, 15: 310, pl. 3, figs. 16a-c.

*Fontaria fraternus* – Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 263.

*Rhysodesmus fraternus* – Pocock, 1910, Biologia Centrali-Americana, Diplopoda, p. 205. Attems, 1938, Das Tierreich, 69: 150. Loomis, 1968, Bulletin of the United States National Museum, 266: 60. Lectotype designated by Hoffman, 1970, Radford Review, 24(4): 155, fig. 6. Hoffman, 1999, Checklist: 346 (331 pdf).

### ***Rhysodesmus frionus* Chamberlin, 1943**

*Rhysodesmus frionus* Chamberlin, 1943c, Bulletin of the University of Utah, 8(3): 42, figs. 107, 108. MALE HT (USNM). México: Distrito Federal, Ixtapaluca, Río Frio de Juárez. Loomis, 1968, Bulletin of the United States National Museum, 266: 60. Hoffman, 1999, Checklist: 346 (331 pdf).

### ***Rhysodesmus garcianus* Chamberlin, 1943**

*Rhysodesmus garcianus* Chamberlin, 1943c, Bulletin of the University of Utah, 8(3): 42, figs. 91, 92. MALE HT (USNM). México: Nuevo León, García. Loomis, 1968, Bulletin of the United States National Museum, 266: 60. Hoffman, 1999, Checklist: 346 (331 pdf).

### ***Rhysodesmus godmani* Pocock, 1909**

*Rhysodesmus godmani* Pocock, 1909, Biologia Centrali-



Americana, Diplopoda, p. 199, pl. 15, figs. 4- 4d. (BMNH). México: Guerrero, Chilpancingo. Attems, 1938, *Das Tierreich*, 69: 146, fig. 168. Loomis, 1968, *Bulletin of the United States National Museum*, 266: 60. Hoffman, 1999, Checklist: 346 (331 pdf).

### ***Rhysodesmus guardanus* Chamberlin, 1943**

*Rhysodesmus guardanus* Chamberlin, 1943c, *Bulletin of the University of Utah*, 8(3): 43, figs. 83, 84. MALE HT (USNM). México: Distrito Federal, Tlalpan, Parres el Guarda. Loomis, 1968, *Bulletin of the United States National Museum*, 266: 60. Hoffman, 1999, Checklist: 346 (331 pdf).

### ***Rhysodesmus hamatilis* Loomis, 1966**

*Rhysodesmus hamatilis* Loomis, 1966, *Annals of the Entomological Society of America*, 57: 17, fig. 20. MALE HT (SMUK). México: Oaxaca, Santiago Matatlan. Hoffman, 1999, Checklist: 346 (332 pdf).

### ***Rhysodesmus intermedius* Chamberlin, 1943**

*Rhysodesmus intermedius* Chamberlin, 1943c, *Bulletin of the University of Utah*, 8(3): 43, figs. 89, 90. MALE HT (USNM). México: Guerrero, Chilpancingo de los Bravo Mexico. Loomis, 1968, *Bulletin of the United States National Museum*, 266: 60. Hoffman, 1999, Checklist: 346 (332 pdf).

### ***Rhysodesmus inustus* Pocock, 1910**

*Rhysodesmus inustus* Pocock, 1910, *Biologia Centrali-Americana, Diplopoda*, p. 202, pl. 15, figs. 11, 11a. (BMNH). México: Guerrero, Chilpancingo. Attems, 1938, *Das Tierreich*, 69: 145. Loomis, 1968, *Bulletin of the United States National Museum*, 266: 60. Hoffman, 1999, Checklist: 346 (332 pdf).

### ***Rhysodesmus jugosus* Loomis, 1966**

*Rhysodesmus jugosus* Loomis, 1966, *Annals of the Entomological Society of America*, 57: 18, figs. 21, 22. MALE HT (SMUK). México: Morelos, Yautepec. Hoffman, 1999, Checklist: 346 (332 pdf).

### ***Rhysodesmus knighti* Chamberlin, 1941**

*Rhysodesmus knighti* Chamberlin, 1941, *Proceedings of the Biological Society of Washington*, 54: 65, fig. 5. MALE HT (USNM). México: Nuevo León, Santiago. Loomis, 1968, *Bulletin of the United States National Museum*, 266: 60. Hoffman, 1999, Checklist: 347 (332 pdf).

### ***Rhysodesmus latus* Loomis, 1968**

*Rhysodesmus latus* Loomis, 1968, *Journal of the Kansas Entomological Society*, 41: 387, figs. 4-6. FEMALE HT (USNM). México: unknown locality between Nuevo León (General Bravo) and Tamaulipas (Reynosa). Hoffman, 1999, Checklist: 347 (332 pdf).

### ***Rhysodesmus leonensis* Chamberlin, 1941**

*Rhysodesmus leonensis* Chamberlin, 1941, *Proceedings of the Biological Society of Washington*, 54: 65, fig. 6. MALE HT (USNM). México: Nuevo León, Sabinas Hidalgo. Miyosi, 1957, *Zoological Magazine*, 66(10): 28, fig. 1j. Loomis, 1968, *Bulletin of the United States National Museum*, 266: 60. Hoffman, 1999, Checklist: 347 (332 pdf).

### ***Rhysodesmus malinche* Chamberlin, 1943**

*Rhysodesmus malinche* Chamberlin, 1943c, *Bulletin of the University of Utah*, 8(3): 44, figs. 93, 94. MALE HT (USNM). México: Tlaxcala, Tlaxcala de Xicohténcatl. Loomis, 1968, *Bulletin of the United States National Museum*, 266: 60. Hoffman, 1999, Checklist: 347 (332 pdf).

### ***Rhysodesmus marcosus* Chamberlin, 1952**

*Rhysodesmus marcosus* Chamberlin, 1952, *Annals of the Entomological Society of America*, 45: 572. MALE HT (FMNH). México: San Marcos, El Porvenir. Loomis, 1968, *Bulletin of the United States National Museum*, 266: 61. Hoffman, 1999, Checklist: 347 (332 pdf).

### ***Rhysodesmus mayanus* Chamberlin, 1925**

*Rhysodesmus mayanus* Chamberlin, 1925, *Proceedings of the Biological Society of Washington*, 38: 44. MALE HT (MCZ). México: "Yucatan." Attems, 1938, *Das Tierreich*, 69: 151. Loomis, 1968, *Bulletin of the United States National Museum*, 266: 61. Hoffman, 1999, Checklist: 347 (332 pdf).

### ***Rhysodesmus minor* (Chamberlin, 1943)**

*Acentronus minor* Chamberlin, 1943c, *Bulletin of the University of Utah*, 8(3): 50, figs. 115-116. MALE LT (USNM). México: Guerrero, Chilpancingo de los Bravo Mexico.

*Rhysodesmus minor* – Hoffman, 1966, *Transactions of the American Entomological Society*, 92: 10, fig. 5. Lectotype designated by Hoffman (1966: 10). Loomis, 1968, *Bulletin of the United States National Museum*, 266: 61. Hoffman, 1999, Checklist: 347 (332 pdf).

***Rhysodesmus montezumae* (DeSaussure, 1859)**

*Polydesmus* (*Fontaria*) *montezumae* DeSaussure, 1859, Linnaea Entomologica, 13: 323. MALE, FEMALE ST (MHNG). México: Nuevo León, Anáhuac. DeSaussure, 1860, Mémoires de la Société de Physique et d'Histoire Naturelle de Genève, 15: 308, pl. 2, figs. 9a-c.

*Fontaria Montezumae* – Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 263.

*Rhysodesmus montezumae* – Pocock, 1909, Biologia Centrali-Americana, Diplopoda, p. 195. Attems, 1931, Zoologica, 30(79): 63. Attems, 1938, Das Tierreich, 69: 148. Loomis, 1968, Bulletin of the United States National Museum, 266: 61. Hoffman, 1999, Checklist: 347 (333 pdf). Lectotype designated by Hoffman (1999: 348 (333 pdf)).

***Rhysodesmus morelus* Chamberlin, 1943**

*Rhysodesmus morelus* Chamberlin, 1943c, Bulletin of the University of Utah, 8(3): 44, figs. 85, 86. MALE HT (USNM). México: Morelos, Tepoztlán. Loomis, 1968, Bulletin of the United States National Museum, 266: 61. Hoffman, 1999, Checklist: 347 (333 pdf).

***Rhysodesmus murallensis* Loomis, 1966**

*Rhysodesmus murallensis* Loomis, 1966, Annals of the Entomological Society of America, 59: 18, figs. 23, 24. MALE HT (SMUK). México: Coahuila de Zaragoza, Castaños. Hoffman, 1999, Checklist: 348 (333 pdf).

***Rhysodesmus mystecus* (Humbert & DeSaussure, 1869)**

*Polydesmus* (*Fontaria*) *mystecus* Humbert & DeSaussure, 1869, Revue et Magasin Zoologie (2): 21: 150. MALE ST (MHNG). México: “Middle of Eastern Cordillera.” DeSaussure & Humbert, 1872, Mission Scientifique au Mexique et dans l'Amérique Centrale, recherches zoologiques, 6(2): 32, pl. 2, figs. 3, 3a-c.

*Fontaria mysteca* – Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 263.

*Rhysodesmus mystecus* – Pocock, 1910, Biologia Centrali-Americana, Diplopoda, p. 206. Attems, 1938, Das Tierreich, 69: 144. Loomis, 1968, Bulletin of the United States National Museum, 266: 61. Hoffman, 1999, Checklist: 348 (333 pdf).

***Rhysodesmus nahuus* (Humbert & DeSaussure, 1869)**

*Polydesmus* (*Fontaria*) *nahuus* Humbert & DeSaussure, 1869, Revue et Magasin Zoologie (2) 21: 151. MALE, FEMALE ST (MHNG). México: “Middle of Eastern Cordillera.” DeSaussure & Humbert, 1872, Scientifique au Mexique et dans l'Amérique Centrale, recherches zoologiques 6(2): 36, pl. 1, figs. 6, 6a-b.

*Fontaria nahuus* – Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 263.

*Rhysodesmus nahuus* – Pocock, 1910, Biologia Centrali-Americana, Diplopoda, p. 206. Attems, 1931, Zoologica, 30(79): 63. Attems, 1938, Das Tierreich, 69: 141. Loomis, 1968, Bulletin of the United States National Museum, 266: 61. Hoffman, 1999, Checklist: 348 (333 pdf).

***Rhysodesmus notostictus* Pocock, 1910**

*Rhysodesmus notostictus* Pocock, 1910, Biologia Centrali-Americana, p. 202, pl. 15, figs. 10, 10a. Type material lost. México: Guerrero, Chilpancingo. Attems, 1931, Zoologica, 30(79): 63. Attems, 1938, Das Tierreich, 69: 149, fig. 170. Loomis, 1968, Bulletin of the United States National Museum, 266: 61. Hoffman, 1999, Checklist: 348 (334 pdf).

***Rhysodesmus obliquus* Loomis, 1966**

*Rhysodesmus obliquus* Loomis, 1966, Annals of the Entomological Society of America, 59: 19, figs. 25, 26. MALE HT (SMUK). México: State of México, Amecameca. Hoffman, 1999, Checklist: 348 (334 pdf).

***Rhysodesmus otomitus* (DeSaussure, 1859)**

*Polydesmus* (*Fontaria*) *otomitus* DeSaussure, 1859, Mémoires de la Société de Physique et d'Histoire Naturelle de Genève, 15: 57. MALE, FEMALE ST (MHNG). México: Veracruz, Córdoba. DeSaussure, 1860, Mémoires de la Société de Physique et d'Histoire Naturelle de Genève, pt. 2, 15: 315, pl. 2, figs. 12a-c, 13a-d.

*Fontaria otomitus* – Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 263.

*Rhysodesmus otomitus* – Pocock, 1910, Biologia Centrali-Americana, Diplopoda, p. 207. Attems, 1938, Das Tierreich, 69: 151. Loomis, 1968, Bulletin of the United States National Museum, 266: 61. Hoffman, 1999, Checklist: 349 (334 pdf).

***Rhysodesmus perotenus* Chamberlin, 1943**

*Rhysodesmus perotenus* Chamberlin, 1943c, Bulletin of the University of Utah, 8(3): 45, figs. 95, 96. MALE HT (USNM). México: Veracruz, Perote. Loomis, 1968, Bulletin of the United States National Museum, 266: 62. Hoffman, 1999, Checklist: 349 (334 pdf).

***Rhysodesmus potosianus* Chamberlin, 1942**

*Rhysodesmus potosianus* Chamberlin, 1942c, Canadian Entomologist, 74: 91, fig. 2. MALE HT (USNM). México: San Luis Potosí, Tamazunchale. Loomis, 1968, Bulletin of the United States National Museum, 266: 62. Hoffman, 1999, Checklist: 349 (334 pdf).

***Rhysodesmus punctatus* Loomis, 1966**

*Rhysodesmus punctatus* Loomis, 1966, Annals of the Entomological Society of America, 59: 19, figs. 27-29. MALE HT (SMUK). México: San Luis Potosí, Xilitla. Hoffman, 1999, Checklist: 349 (334 pdf).

***Rhysodesmus pusillus* Pocock, 1909**

*Rhysodesmus pusillus* Pocock, 1909, Biologia Centrali-Americana, Diplopoda, p. 197, pl. XIV, figs. 7, 7a; pl. XV, fig. 9. MALE HT (BMNH). "México." Attems, 1938, Das Tierreich, 69: 141, fig. 163. Loomis, 1968, Bulletin of the United States National Museum, 266: 62. Hoffman, 1999, Checklist: 349 (334 pdf).

***Rhysodesmus restans* Hoffman, 1998**

*Rhysodesmus restans* Hoffman, 1998, Myriapodologica, 5: 78, figs. 1-4. MALE HT (VMNH). United States: Virginia, Washington County. Shelley, 1999, Myriapodologica, 6(3): 19. Hoffman, 1999, Checklist: 349 (334 pdf).

***Rhysodesmus rubrimarginis* Chamberlin, 1943**

*Rhysodesmus rubrimarginis* Chamberlin, 1943c, Bulletin of the University of Utah, 8(3): 46, figs. 99, 100. MALE HT (USNM). México: Distrito Federal, Tacubaya. Loomis, 1968, Bulletin of the United States National Museum, 266: 62. Hoffman, 1999, Checklist: 349 (334 pdf).

***Rhysodesmus salvini* (Pocock, 1910)**

*Rhysodesmus salvini* Pocock, 1910, Biologia Centrali-Americana, Diplopoda, p. 200, pl. 15, figs. 5, 5a. Type material lost. México: Guerrero, Chilpancingo. Loomis, 1968, Bulletin of the United States National Museum, 266: 62.

***Rhysodesmus sandersi* Causey, 1954**

*Rhysodesmus sandersi* Causey, 1954b, Proceedings of the Biological Society of Washington, 67: 64, figs. 19-20. MALE HT (INHS). México: San Luis Potosí, Tamazunchale. Loomis, 1968, Bulletin of the United States National Museum, 266: 62. Hoffman, 1999, Checklist: 349 (335 pdf).

***Rhysodesmus semiovatus* Loomis, 1966**

*Rhysodesmus semiovatus* Loomis, 1966, Annals of the Entomological Society of America, 59: 22, figs. 32, 33. MALE HT (SMUK). México: Michoacán, Ciudad Hidalgo. Hoffman, 1999, Checklist: 350 (335 pdf).

***Rhysodesmus seriatus* Chamberlin, 1947**

*Rhysodesmus seriatus* Chamberlin, 1947, Proceedings of the Academy of Natural Sciences of Philadelphia, 99: 31, fig. 17. MALE HT (ANSP). México: Nuevo León, Galeana. Loomis, 1968, Bulletin of the United States National Museum, 266: 62. Hoffman, 1999, Checklist: 350 (335 pdf).

***Rhysodesmus simplex* Loomis, 1966**

*Rhysodesmus simplex* Loomis, 1966, Annals of the Entomological Society of America, 59: 22, figs. 34, 35. MALE HT (SMUK). "México." Hoffman, 1999, Checklist: 350 (335 pdf).

***Rhysodesmus smithi* Pocock, 1910**

*Rhysodesmus smithi* Pocock, 1910, Biologia Centrali-Americana, Diplopoda, p. 201, pl. XV, figs. 12, 12a. Type material lost. México: Guerrero, Chilpancingo. Attems, 1931, Zoologica, 30(79): 63. Attems, 1938, Das Tierreich, 69: 149. Loomis, 1968, Bulletin of the United States National Museum, 266: 62. Hoffman, 1999, Checklist: 350 (335 pdf).

***Rhysodesmus stollii* Pocock, 1909**

*Rhysodesmus stollii* Pocock, 1909, Biologia Centrali-Americana, Diplopoda, p. 198, pl. XV, figs. 3, 3b. Type material lost. Guatemala: Retalhuleu, Retalhuleu. Attems, 1938, Das Tierreich, 69: 146. Loomis, 1968, Bulletin of the United States National Museum, 266: 62. Hoffman, 1999, Checklist: 350 (335 pdf).

***Rhysodesmus tabascensis* Pocock, 1909**

*Rhysodesmus tabascensis* Pocock, 1909, Biologia Centrali-Americana, Diplopoda, p. 198, pl. XV, figs. 2, 2a. Type



material lost. México: Tabasco, Teapa. Attems, 1931, *Zoologica*, 30(79): 63. Attems, 1938, *Das Tierreich*, 69: 142. Hoffman, 1971, *Radford Review*, 24:159, figs. 12, 13. Loomis, 1968, *Bulletin of the United States National Museum*, 266: 62. Hoffman, 1999, *Checklist*: 350 (335 pdf).

### ***Rhysodesmus tacubayae* Chamberlin, 1943**

*Rhysodesmus tacubayae* Chamberlin, 1943c, *Bulletin of the University of Utah*, 8(3): 46, figs. 101, 102. MALE HT (USNM). México: Distrito Federal, Tacubaya. Loomis, 1968, *Bulletin of the United States National Museum*, 266: 63. Hoffman, 1999, *Checklist*: 350 (335 pdf).

### ***Rhysodesmus tepanecus* (DeSaussure, 1859)**

*Polydesmus (Fontaria) tepanecus* DeSaussure, 1859, *Linnaea Entomologica*, 13: 321. MALE, FEMALE ST (MHNG). México: Veracruz, Córdoba. DeSaussure, 1860, *Mémoires de la Société de Physique et d'Histoire Naturelle de Genève*, 15: 319, pl. 3, figs. 17a-c.

*Fontaria tepanecus* – Attems, 1898, *Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe*, 68: 263.

*Rhysodesmus tepanecus* – Pocock, 1910, *Biologia Centrali-Americana, Diplopoda*, p. 207. Lectotype designated by Hoffman, 1970, *Radford Review*, 24: 153, figs. 5, 7. Loomis, 1968, *Bulletin of the United States National Museum*, 266: 63. Hoffman, 1999, *Checklist*: 350 (335 pdf).

*Rhysodesmus pater* Chamberlin, 1943c, *Bulletin of the University of Utah*, 8(3): 45, figs. 97, 98. MALE HT (USNM). México: Veracruz, Fortín. Synonymized by Hoffman, 1970, *Radford Review*, 24(4): 153.

### ***Rhysodesmus tepoztlanus* Chamberlin, 1943**

*Rhysodesmus tepoztlanus* Chamberlin, 1943c, *Bulletin of the University of Utah*, 8(3): 47, figs. 103, 104. MALE HT (USNM). México: Morelos, Tepoztlán. Loomis, 1968, *Bulletin of the United States National Museum*, 266: 63. Hoffman, 1999, *Checklist*: 351 (336 pdf).

### ***Rhysodesmus texicolens* (Chamberlin, 1938)**

*Aporiaria texicolens* Chamberlin, 1938, *Proceedings of the Biological Society of Washington*, 51: 207. MALE HT (USNM). United States: Texas, Hidalgo County.

*Rhysodesmus texicolens* – Chamberlin, 1943d, *Proceedings of the Biological Society of Washington*, 56: 143. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 47. Shelley, 1989, *Southwestern Naturalist*, 34: 219. Shelley, 1992, *Insecta*

*Mundi*, 450: 19. Shelley, 1999, *Myriapodologica*, 6(3): 19. Hoffman, 1999, *Checklist*: 351 (336 pdf). Shelley et al., 2003, *Entomological News*, 114(1): 3.

*Rhysodesmus brachus* Chamberlin, 1941, *Proceedings of the Biological Society of Washington*, 54: 63, fig. 3. MALE HT (USNM). México: Nuevo León, Sabinas Hidalgo. Chamberlin, 1943c, *Bulletin of the University of Utah*, 8(3): 39. Loomis, 1968, *Bulletin of the United States National Museum*, 266: 58. Synonymized by Hoffman, 1970, *Radford Review*, 24: 149.

*Rhysodesmus viabilis* Chamberlin, 1943c, *Bulletin of the University of Utah*, 8(3): 47, Figs. 105, 106. MALE HT (USNM). México: Tamaulipas, Victoria. Synonymized by Hoffman, 1970, *Radford Review*, 24: 149.

*Rhysodesmus quadruplus* Loomis, 1966, *Annals of the Entomological Society of America*, 59: 20, figs. 30, 31. MALE HT (SMUK). México: Tamaulipas, Victoria. Synonymized by Hoffman, 1970, *Radford Review*, 24: 149.

### ***Rhysodesmus toltecus* (DeSaussure, 1859)**

*Polydesmus (Fontaria) toltecus* DeSaussure, 1859, *Linnaea Entomologica*, 13: 322. MALE HT (MNHG). México: “eastern slope of the Cordillera.” DeSaussure, 1860, *Mémoires de la Société de Physique et d'Histoire Naturelle de Genève*, 15: 323, pl. 4, figs. 22, 23.

*Fontaria tolteca* – Attems, 1898, *Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe*, 68: 263.

*Rhysodesmus toltecus* – Pocock, 1910, *Biologia Centrali-Americana, Diplopoda*, p. 208. Attems, 1931, *Zoologica*, 30(79): 63. Attems, 1938, *Das Tierreich*, 69: 141. Hoffman, 1970, *Radford Review*, 24(4): 155. Hoffman, 1965, *Proceedings of the United States National Museum*, 117: 312. Loomis, 1968, *Bulletin of the United States National Museum*, 266: 63. Hoffman, 1999, *Checklist*: 351 (336 pdf).

*Polydesmus (Fontaria) mayus* DeSaussure, 1859, *Linnaea Entomologica*, 13: 322. Type material lost. MALE HT (MHNG). México: “Cordillera.” Synonymized by DeSaussure, 1860, *Mémoires de la Société de Physique et d'Histoire Naturelle de Genève*, 15: 323.

*Polydesmus (Leptodesmus) granulatus* DeSaussure, 1859, *Linnaea Entomologica*, 13: 323. HT (MHNG) México: Veracruz, Cordoba. Synonymized by DeSaussure, 1860, *Mémoires de la Société de Physique et d'Histoire Naturelle de Genève*, 15: 323. [Homonym of *Polydesmus granulatus* Palisot de Beauvois, 1805, *Insectes recueillis en Afrique et en Amérique*, pl. 4, fig. 5a, 5b.]

*Rhysodesmus amplinus* Chamberlin, 1952, *Annals of the Entomological Society of America*, 45: 571. MALE HT



(FMNH). México: Veracruz, Fortín. Synonymized by Hoffman, 1970, Radford Review, 24(4): 156.

### ***Rhysodesmus totonacus* (DeSaussure, 1859)**

*Polydesmus* (*Fontaria*) *tononacus* DeSaussure, 1859, *Linnaea Entomologica*, 13: 321. Type material (MHNG). México: Nuevo León, Anáhuac. DeSaussure, 1860, *Mémoires de la Société de Physique et d'Histoire Naturelle de Genève*, 15: 22, pl. 2, fig. 14a-c.

*Fontaria totonaca* – Attems, 1898, *Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe*, 68: 263.

*Rhysodesmus totonacus* – Pocock, 1909, *Biologia Centrali-Americana, Diplopoda*, p. 196, pl. 14, figs. 8, 8a. Attems, 1931, *Zoologica*, 30(79): 63. Attems, 1938, *Das Tierreich*, 69: 147. Loomis, 1968, *Bulletin of the United States National Museum*, 266: 63. Hoffman, 1999, Checklist: 352 (337 pdf). Lectotype designated by Hoffman (1999: 337).

### ***Rhysodesmus vicinus* (DeSaussure, 1859)**

*Polydesmus* (*Fontaria*) *vicinus* DeSaussure, 1859, *Linnaea Entomologica*, 13: 322. Type material lost. (MHNG). México: Nuevo León, Anáhuac. DeSaussure, 1860, *Mémoires de la Société de Physique et d'Histoire Naturelle de Genève*, 15: 318.

*Fontaria vicina* – Attems, 1898, *Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe*, 68: 263.

*Rhysodesmus vicinus* – Pocock, 1910, *Biologia Centrali-Americana, Diplopoda*, p. 209. Attems, 1938, *Das Tierreich*, 69: 141. Loomis, 1966, *Annals of the Entomological Society of America*, 59: 23. Loomis, 1968, *Bulletin of the United States National Museum*, 266: 63. Hoffman, 1999, Checklist: 352 (337 pdf).

### ***Rhysodesmus violaceus* (Brolemann, 1900)**

*Fontaria violacea* Brölemann, 1900, *Mémoires de la Société Zoologique de France*, 13: 101, pl. 6, figs. 33-36. MALE HT (MHNP). “Guatemala.”

*Rhysodesmus violaceus* – Pocock, 1910, *Biologia Centrali-Americana, Diplopoda*, p. 208, pl. 15, fig. 15. Attems, 1938, *Das Tierreich*, 69: 147, fig. 169. Loomis, 1968, *Bulletin of the United States National Museum*, 266: 63. Hoffman, 1999, Checklist: 353 (338 pdf).

### ***Rhysodesmus zapotecus* (DeSaussure, 1860)**

*Polydesmus* (*Fontaria*) *zapotecus* DeSaussure, 1860,

*Mémoires de la Société de Physique et d'Histoire Naturelle de Genève*, 15: 314, pl. 2, fig. 11a-f. Type material lost. (MHNG). México: Veracruz, San Andrés Tuxtla.

*Fontaria zapoteca* – Attems, 1898, *Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe*, 68: 263.

*Rhysodesmus zapotecus* – Pocock, 1910, *Biologia Centrali-Americana, Diplopoda*, p. 209. Attems, 1938, *Das Tierreich*, 69: 151. Loomis, 1968, *Bulletin of the United States National Museum*, 266: 64. Hoffman, 1999, Checklist: 353 (338 pdf).

### ***Rhysodesmus zendalus* (Humbert & DeSaussure, 1869)**

*Polydesmus Zendalus* Humbert & DeSaussure, 1869, *Revue et Magasin de Zoologie*, (2) 21: 150. MALE, FEMALE ST (MHNG). México: Veracruz, Orizaba.

*Fontaria zendala* – Attems, 1898, *Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe*, 68: 263.

*Polydesmus* (*Fontaria*) *Zendalus* – DeSaussure & Humbert, 1872, *Mission Scientifique au Mexique et dans l'Amérique Centrale, recherches Zoologiques*, 6(2): 34, pl. 2, figs. 1, 1a.

*Rhysodesmus zendalus* – Pocock, 1910, *Biologia Centrali-Americana, Diplopoda*, p. 209. Attems, 1938, *Das Tierreich*, 69: 145. Loomis, 1968, *Bulletin of the United States National Museum*, 266: 64. Hoffman, 1999, Checklist: 353 (338 pdf).

### **Genus *Stenodesmus* De Saussure, 1859**

5 species

*Stenodesmus* DeSaussure, 1859, *Linnaea Entomologica*, 13: 327. Type species: *S. mexicanus* DeSaussure, 1859, by monotypy. Carl, 1903, *Revue Suisse de Zoologie*, 11: 561. Attems, 1931, *Zoologica*, 30(79): 42. Hoffman, 1966, *Transactions of the American Entomological Society*, 92: 4. Jeekel, 1971, *Monografieën van de Nederlandse Entomologische Vereniging*, 5: 288. Hoffman, 1980, *Classification of the Diplopoda*, p. 158.

*Cruzodesmus* Chamberlin, 1943c, *Bulletin of the University of Utah*, 8(3): 48. Type species: *C. ergus* Chamberlin, by original designation. Synonymized by Hoffman, 1966, *Transactions of the American Entomological Society*, 92: 4.

*Cibularia* Chamberlin & Hoffman, 1950, *Chicago Academy of Sciences Natural History Miscellanea*, 71: 4. Type species: *Fontaria tuobita* Chamberlin, 1910.

Synonymized by Hoffman, 1980, Classification of the Diplopoda, p. 158.

Distribution: from the U.S. state of New Mexico to the state of Veracruz in México.

### ***Stenodesmus acuarius* (Attems, 1931)**

*Rhysodesmus acuarius* Attems, 1931, Zoologica, 30(79): 63, fig. 98. MALE HT (NMW). México: Veracruz, Orizaba. Attems, 1938, Das Tierreich, 69: 142.

*Cruzodesmus browni* Chamberlin, 1943c, Bulletin of the University of Utah, 8(3): 49, fig. 119. MALE HT (USNM). México: Veracruz, Fortín. Loomis, 1968, Bulletin of the United States National Museum, 266: 57. Synonymized by Hoffman, 1966, Transactions of the American Entomological Society, 92: 15.

*Cibularia acuaria* – Hoffman, 1966, Transactions of the American Entomological Society, 92: 15, figs. 8, 9.

*Stenodesmus acuarius* – Hoffman, 1999, Checklist: 353 (338 pdf).

### ***Stenodesmus mexicanus* DeSaussure, 1859**

*Stenodesmus mexicanus* DeSaussure, 1859, Linnaea Entomologica, 13: 327. MALE HT (MHNG). México: Veracruz, Cordoba. Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, 67: 411. Carl, 1903, Revue Suisse de Zoologie, 11: 561, fig. 20. Pocock, 1909, Biologia Centrali-Americana, Diplopoda, p. 187. Attems, 1938, Das Tierreich, 69: 65, fig. 74. Hoffman, 1966, Transactions of the American Entomological Society, 92: 5, figs. 1-3. Loomis, 1968, Bulletin of the United States National Museum, 266: 64. Hoffman, 1999, Checklist: 354 (339 pdf).

*Cruzodesmus ergus* Chamberlin, 1943c, Bulletin of the University of Utah, 8(3): 48, figs. 117, 118. MALE HT (USNM). Loomis, 1968, Bulletin of the United States National Museum, 266: 57. Mexico: Veracruz, Fortín. Synonymized by Hoffman, 1966, Transactions of the American Entomological Society, 92: 6.

### ***Stenodesmus serratus* (Loomis, 1959)**

*Cruzodesmus serratus* Loomis, 1959, Annals of the Entomological Society of America, 59: 13, fig. 9. MALE HT (SMUK). México: San Luis Potosí, Xilitla.

*Stenodesmus serratus* – Hoffman 1966, Transactions of the American Entomological Society, 92: 4. Hoffman, 1980, Classification of the Diplopoda, p. 158. Hoffman, 1999, Checklist: 354 (339 pdf).

### ***Stenodesmus simillimus* (Humbert & DeSaussure, 1869)**

*Polydesmus simillimus* Humbert & DeSaussure, 1869, Revue et Magasin de Zoologie, (2) 21: 150.

*Polydesmus (Fontaria) simillimus* – DeSaussure & Humbert, 1872, Mission Scientifique au Mexique et dans l'amérique Centrale, recherches zoologiques, 6(2): 31, pl. 1, figs. 5a, 5b. MALE, FEMALE ST (MHNG). México: Veracruz, Orizaba.

*Fontaria simillima* – Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 263.

*Rhysodesmus simillimus* – Pocock, 1910, Biologia Centrali-Americana, Diplopoda, p. 207. Attems, 1938, Das Tierreich, 69: 150. Loomis, 1968, Bulletin of the United States National Museum, 266: 62.

*Cruzodesmus purojenus* Chamberlin, 1943c, Bulletin of the University of Utah, 8(3): 49, figs. 120-122. MALE HT (USNM). México: Veracruz, Cordoba. Loomis, 1968, Bulletin of the United States National Museum, 266: 57. Synonymized by Hoffman, 1966, Transactions of the American Entomological Society, 92: 16.

*Cibularia simillima* – Hoffman, 1966, Transactions of the American Entomological Society, 92: 16, figs. 10, 11.

*Stenodesmus simillimus* – Hoffman, 1980, Classification of the Diplopoda, p. 158. Hoffman, 1999, Checklist: 354 (339 pdf).

### ***Stenodesmus tuobitus* (Chamberlin, 1910)**

*Fontaria tuobita* Chamberlin, 1910, Annals of the Entomological Society of America, 3: 243, pl. 35, figs. 7, 8. Type material lost. MALE HT. United States: New Mexico, Otero County.

*Rhysodesmus tuobita* – Attems, 1938, Das Tierreich, 69: 151.

*Nannaria ursa* Chamberlin, 1938, Proceedings of the Biological Society of Washington, 51: 207. MALE HT (USNM). United States: New Mexico, Otero County. Chamberlin & Mulaik, 1941, Journal of the New York Entomological Society, 49: 57. Chamberlin, 1943, Proceedings of the Biological Society of Washington, 56: 144. Synonymized by Chamberlin & Hoffman, 1950, Chicago Academy of Sciences, Natural History Miscellanea, 71: 5.

*Aporiaria anamesa* Chamberlin & Mulaik, 1941, Journal of the New York Entomological Society, 49: 57. FEMALE ST (USNM). United States: New Mexico, Otero County. Synonymized by Hoffman, 1966, Transactions of the

American Entomological Society, 92: 13.

*Cibularia tuobita* – Chamberlin & Hoffman, 1950, Chicago Academy of Sciences, Natural History Miscellanea, 71: 5. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 28. Hoffman, 1966, Transactions of the American Entomological Society, 92: 13, figs. 6, 7. Hoffman, 1966, Transactions of the American Entomological Society, 92: 13, figs. 6, 7.

*Rhysodesmus anamesus* – Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 46.

*Stenodesmus tuobitus* – Hoffman, 1980, Classification of the Diplopoda, p. 158. Shelley, 1987, National Geographic Research, 3: 336. Shelley, 1997, Insecta Mundi, 11: 334. Hoffman, 1999, Checklist: 354 (340 pdf). Shelley et al., 2003, Entomological News, 114(1): 2.

### Tribe Sigmocheirini Causey, 1955

(2 genera, 4 species: California)

Sigmocheiridae Causey, 1955b, Proceedings of the Biological Society of Washington, 68: 93. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 287.

Sigmocheirini Hoffman, 1980, Classification of the Diplopoda, p. 157. Shelley, 1990, Canadian Journal of Zoology, 68(11): 2313. Shelley, 1995, Entomologica Scandinavica, 26: 343. Shelley, 1997, Insecta Mundi, 11: 334. Hoffman, 1999, Checklist: 374 (358 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 109.

### Genus *Ochthocelata* Shelley, 1995

1 species

*Ochthocelata* Shelley, 1995, Entomologica Scandinavica, 26: 355. Type species: *O. adynata* Shelley, by original designation. Hoffman, 1999, Checklist: 374 (358 pdf). Shelley et al., 2000, Nomenclator Generum et Familiarum Diplopodorum II: 115. Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 109.

Distribution: known from the type locality of its single species in northcentral Kern County, California.

### *Ochthocelata adynata* Shelley, 1995

*Ochthocelata adynata* Shelley, 1995, Entomologica Scandinavica, 26: 357, figs. 22-27. MALE HT (USNM). United States: California, Kern County. Hoffman, 1999, Checklist: 374 (358 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 109.

### Genus *Sigmocheir* Chamberlin, 1951

3 species

*Sigmocheir* Chamberlin, 1951, Chicago Academy of Sciences, Natural History Miscellanea, 87: 4. Type species: *S. calaveras* Chamberlin, by original designation. Hoffman, 1964a, Transactions of the American Entomological Society, 90: 302. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 287. Hoffman, 1980, Classification of the Diplopoda, p. 157. Shelley, 1995, Entomologica Scandinavica, 26: 343. Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 109.

*Tuolumnia* Chamberlin, 1953b, Proceedings of the Biological Society of Washington, 66: 67. Type species: *Sigmocheir dohenyi* Chamberlin, 1953a, by monotypy. Synonymized Buckett, 1964, Annotated List of the Diplopoda of California, 9.

Distribution: foothills of the Sierra Nevada Mountains in California, from central Placer County south to northern Tulare County.

### *Sigmocheir calaveras* Chamberlin, 1951

*Sigmocheir calaveras* Chamberlin, 1951, Chicago Academy of Sciences, Natural History Miscellanea, 87: 5, figs. 10-11. MALE HT (USNM). United States: California, Calaveras County. Causey, 1955b, Proceedings of the Biological Society of Washington, 68: 93. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 49. Buckett, 1964, Annotated List of the Diplopoda of California, 9. Shelley, 1995, Entomologica Scandinavica, 26: 345, figs. 1-10. Hoffman, 1999, Checklist: 375 (358 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 109.

*Sigmocheir dohenyi* [sic!] Chamberlin, 1953a, Entomological News, 64: 93. Type material lost. Synonymized by Shelley, 1995, Entomologica Scandinavica, 26: 345.

*Tuolumnia danehyi* – Chamberlin, 1953b, Proceedings of the Biological Society of Washington, 66: 67, fig. 1.

*Sigmocheir (Tuolumnia) danehyi* – Buckett, 1964, Annotated List of the Diplopoda of California, 10.

Note: Chamberlin (1953a) named the species *Sigmocheir dohenyi* as a patronym for its collector Edward Danehy, and misspelled the specific epithet. Chamberlin (1953b), recognizing the error, published the name *Tuolumnia danehyi*, while simultaneously establishing a new genus. The proposed correction to *dohenyi* by Chamberlin (1953b) does not have standing in the ICZN, Article 32.5.1 (ICZN, 2012) because as an incorrect latinization it is not considered an inadvertent error. See the revision by Shelley (1995) for more details about the nomenclature of *Sigmocheir calaveras*



and the tribe Sigmocheirini.

### ***Sigmocheir furcata* Shelley, 1995**

*Sigmocheir furcata* Shelley, 1995, Entomologica Scandinavica, 26: 352, figs. 17-21. MALE HT (FSCA). United States: California, Calaveras County. Hoffman, 1999, Checklist: 375 (359 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 109.

### ***Sigmocheir maculifer* (Chamberlin, 1941)**

*Paimokia maculifer* Chamberlin, 1941, Bulletin of the University of Utah, 31(12): 14. FEMALE HT (USNM). United States: California, Tulare County.

*Harpaphe maculifer* – Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 35. Buckett, 1964, Annotated List of the Diplopoda of California, 8.

*Sigmocheir maculifer* – Shelley, 1995, Entomologica Scandinavica, 26: 351, figs. 11-16. Hoffman, 1999, Checklist: 375 (359 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 109.

### **Tribe Xystocheirini Hoffman, 1980**

(5 genera, 29 species: California)

Xystocheirini Hoffman, 1980, Classification of the Diplopoda, p. 156, 187.

### **Genus *Anombrocheir* Buckett & Gardner, 1969**

2 species

*Anombrocheir* Buckett & Gardner, 1969a, Entomological News, 80: 69. Type species: *A. spinosa* Buckett & Gardner, by original designation. Hoffman, 1980, Classification of the Diplopoda, p. 157. Shelley et al., 2000, Nomenclator Generum et Familiarum Diplopodorum II: 84.

Distribution: foothills of the California Coast Ranges, from northcentral Colusa County south to northwestern Yolo County.

### ***Anombrocheir bifurcata* Gardner & Buckett, 1969**

*Anombrocheir bifurcata* Gardner & Buckett, 1969, Entomological News, 80: 295. MALE HT (UCD). United States: California, Colusa County. Hoffman, 1999, Checklist: 376 (359 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 109. Marek et al., 2011, Current Biology, 21(18), Supplemental Information: 7, fig. S1.

### ***Anombrocheir spinosa* Buckett & Gardner, 1969**

*Anombrocheir spinosa* Buckett & Gardner, 1969a, Entomological News, 80: 70, figs. 1-4. MALE HT (UCD). United States: California, Colusa County. Hoffman, 1999, Checklist: 376 (360 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 109. Marek et al., 2011, Current Biology, 21(18), Supplemental Information: 7, fig. S1.

### **Genus *Motyxia* Chamberlin, 1941**

8 species

*Motyxia* Chamberlin, 1941, Bulletin of the University of Utah, 31(12): 15. Type species: *M. kerna* Chamberlin, by original designation. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 38. Causey & Tiemann, 1969, Proceedings of the American Philosophical Society, 113: 14. Causey & Tiemann, 1970, Bulletin du Muséum national d'histoire naturelle. Supplément, 2, 41: 35. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 274. Hoffman, 1980, Classification of the Diplopoda, p. 157. Shelley, 1995, Entomologica Scandinavica, 26: 340. Shelley, 1997, Insecta Mundi, 11: 335. Shelley et al., 2000, Nomenclator Generum et Familiarum Diplopodorum II: 139. Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 109. Marek et al., 2011, Current Biology, 21(18): R680.

*Amplacheir* Chamberlin, 1949b, Journal of the Washington Academy of Sciences, 39: 97. Type species: *Xystocheir sequoia* Chamberlin, 1941, by original designation. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 17. Synonymized by Causey & Tiemann, 1969, Proceedings of the American Philosophical Society, 113: 14.

*Luminodesmus* Loomis & Davenport, 1951, Journal of the Washington Academy of Sciences, 41: 270. Type species: *L. sequoiae* Loomis & Davenport, by original designation. Causey & Tiemann, 1969, Proceedings of the American Philosophical Society, 113: 14.

Distribution: California, in the Santa Monica and Tehachapi mountains, northward through the Sierra Nevada foothills to northern Tulare County in Sequoia National Park.

Note: All adult *Motyxia* species are bioluminescent except a few populations of *M. pior* where the light is not visible to the human eye. Davenport et al. (1952) observed light emissions from all immature stadia of the species *Motyxia sequoiae*, except in the “split-stage” immediately after hatching from the egg.



***Motyxia kerna* Chamberlin, 1941**

*Motyxia kerna* Chamberlin, 1941, Bulletin of the University of Utah, 31(12): 15, fig. 29. MALE HT (USNM). United States: California, Kern County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 39. Causey & Tiemann, 1969, Proceedings of the American Philosophical Society, 113: 25, figs. 4, 19, 20. Shelley, 1997, Insecta Mundi, 11: 338, figs. 9-12. Hoffman, 1999, Checklist: 376 (360 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 109. Marek et al., 2011, Current Biology, 21(18), Supplemental Information: 7, fig. S1.

***Motyxia monica* Chamberlin, 1944**

*Motyxia monica* Chamberlin, 1944, Proceedings of the Biological Society of Washington, 57: 113, figs. 1-3. MALE HT (USNM). United States: California, Los Angeles County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 39. Buckett, 1964, Annotated List of the Diplopoda of California, 9. Shelley, 1997, Insecta Mundi, 11: 337, figs. 3-8. Hoffman, 1999, Checklist: 377 (360 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 110. Marek et al., 2011, Current Biology, 21(18), Supplemental Information: 7, fig. S1.

*Motyxia tejona* Chamberlin, 1947, Proceedings of the Academy of the Natural Sciences of Philadelphia, 99: 25, fig. 4. MALE HT (ANSP). United States: California, Kern County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 39. Buckett, 1964, Annotated List of the Diplopoda of California, 9. Synonymized by Shelley, 1997, Insecta Mundi, 11: 337.

*Motyxia expansa* Loomis, 1953, Journal of the Washington Academy of Sciences, 43: 422, fig. 19. MALE HT (USNM). United States: California, Kern County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 39. Buckett, 1964, Annotated List of the Diplopoda of California, 9. Synonymized by Shelley, 1997, Insecta Mundi, 11: 337.

*Motyxia exilis* Loomis, 1953, Journal of the Washington Academy of Sciences, 43: 422, fig. 20. MALE HT (USNM). United States: California, Kern County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 39. Buckett, 1964, Annotated List of the Diplopoda of California, 9. Synonymized by Shelley, 1997. Synonymized by Shelley, 1997, Insecta Mundi, 11: 337.

*Motyxia dissecta* (nec *Polydesmus dissectus* Wood, 1867) – sensu Causey & Tiemann, 1969, Proceedings of the American Philosophical Society, 113: 21, figs. 2-3, 8,

10-12. Causey & Tiemann, 1970, Bulletin du Muséum national d'histoire naturelle. Supplément, 2, 41: 38, fig. 4.

***Motyxia pior* Chamberlin, 1941**

*Motyxia pior* Chamberlin, 1941, Bulletin of the University of Utah, 31(12): 16. FEMALE HT (USNM). United States: California, Tulare County. Chamberlin, 1941, *Bulletin of the University of Utah*, 31: 16. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 39. Buckett, 1964, Annotated List of the Diplopoda of California, 9. Causey & Tiemann, 1969, Proceedings of the American Philosophical Society, 113: 25-27, figs. 13-16. Causey & Tiemann, 1970, Bulletin du Muséum national d'histoire naturelle. Supplément, 2, 41: 38. Shelley, 1997, Insecta Mundi, 11: 346, figs. 32-35. Hoffman, 1999, Checklist: 377 (361 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 110. Marek et al., 2011, Current Biology, 21(18), Supplemental Information: 7, fig. S1.

*Motyxia pior*, form *secca* Causey & Tiemann, 1969, Proceedings of the American Philosophical Society, 113: 27, figs. 15-16. Shelley, 1997, Insecta Mundi, 11: 346.

Note: *Secca* is the name Causey & Tiemann (1969) applied to a set of male individuals (24 out of 71) collected from “a site on Dry Creek, 12.9 miles south of Badger, alt. 1,090 ft.” These 24 males exhibit an additional spine on the anterior (cephalic) surface of the prefemur. Causey & Tiemann (1969) referred to the spine as a “second prefemoral branch” while Shelley (1997) identified it as a “macroseta.” *Motyxia pior secca* is invalid in the species' nomenclature because names published after 1960 with the term “variety” or “form” have no status in the ICZN, Article 15.2 (ICZN, 2012).

***Motyxia porrecta* Causey & Tiemann, 1969**

*Motyxia porrecta* Causey & Tiemann, 1969, Proceedings of the American Philosophical Society, 113: 27, figs. 7, 21- 22. MALE HT (FSCA). United States: California, Kern County. Shelley, 1997, Insecta Mundi, 11: 347, figs. 40-42. Hoffman, 1999, Checklist: 377 (361 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 110. Marek et al., 2011, Current Biology, 21(18), Supplemental Information: 7, fig. S1.

***Motyxia sequoia sequoia* (Chamberlin, 1941)**

*Xystocheir sequoia* Chamberlin, 1941, Bulletin of the University of Utah, 31(12): 15, pl. 3, fig. 28. MALE HT (USNM). United States: California, Tulare County.

*Amplacheir sequoia* – Chamberlin, 1949b, Journal of the

Washington Academy of Sciences, 39: 97, figs. 12-13. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 17. Buckett, 1964, Annotated List of the Diplopoda of California, 7.

*Motyxia sequoia sequoia* – Causey & Tiemann, 1969, Proceedings of the American Philosophical Society, 113: 30, figs. 31-32. Shelley, 1997, Insecta Mundi, 11: 342, figs. 25-27. Hoffman, 1999, Checklist: 377 (361 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 110.

*Motyxia sequoia* – Causey & Tiemann, 1970, Bulletin du Muséum national d'histoire naturelle. Supplément, 41: 38, fig. 2.

### ***Motyxia sequoia alia* Causey & Tiemann, 1969**

*Motyxia sequoia alia* Causey & Tiemann, 1969, Proceedings of the American Philosophical Society, 113: 29, figs. 5, 29-30. MALE HT (FSCA). United States: California, Tulare County. Shelley, 1997, Insecta Mundi, 11: 344, figs. 28-29. Hoffman, 1999, Checklist: 378 (361 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 110.

### ***Motyxia sequoiae* (Loomis & Davenport, 1951)**

*Luminodesmus sequoiae* Loomis & Davenport, 1951, Journal of the Washington Academy of Sciences, 41: 271, fig. 1 MALE HT (USNM). United States: California, Tulare County. Davenport et al., 1952, The Biological Bulletin, 102(2): 100. Hastings & Davenport, 1957, The Biological Bulletin, 113(1): 120. Korsós et al., 2011, Zootaxa, 2877: 67.

*Xystocheir sequoiae* – Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 54. Buckett, 1964, Annotated List of the Diplopoda of California, 10.

*Motyxia sequoiae* – Causey & Tiemann, 1969, Proceedings of the American Philosophical Society, 113: 31, figs. 17-18. Causey & Tiemann, 1970, Bulletin du Muséum national d'histoire naturelle. Supplément, 2, 41: 38, fig. 3. Shelley, 1997, Insecta Mundi, 11: 338, figs. 13-16. Hoffman, 1999, Checklist: 378 (362 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 110. Marek et al., 2011, Current Biology, 21(18), Supplemental Information: 7, fig. S1. Oba et al. 2011, Zoological Science, 28(11): 780.

Note: The bioluminescence of *Motyxia* was first documented in the winter of 1932 by naturalist W.B. Murbarger who sent specimens of *M. sequoiae* to O.F. Cook at the Smithsonian (Loomis & Davenport, 1951). However, the specimens were immature individuals and females, and were

unidentifiable without the species-characteristic gonopodal features useful for taxonomy. Later in 1949, a group of plant biologists found additional specimens of *M. sequoiae* and sent them to Davenport who, with Loomis, described the species as *Luminodesmus sequoiae*. Biochemists and photobiologists have studied the bioluminescence of *Motyxia sequoiae* for several decades beginning with detailed study of the species' natural history by Davenport et al. (1952), shortly after the species and its light was discovered in 1949. Subsequently Hastings & Davenport (1957) and Shimomura (1981; 1984) focused on the biochemistry by which the emitted light was produced. Marek et al. (2011) showed that bioluminescence in *Motyxia sequoiae* functions as a nocturnal warning signal to deter mammalian predators. Although *Luminodesmus* was synonymized under *Motyxia* by Causey & Tiemann in 1969, the binomial *Luminodesmus sequoiae* persists in scientific publications.

### ***Motyxia tiemanni* Causey, 1960**

*Motyxia tiemanni* Causey, 1960, *Wasmann Journal of Biology*, 18: 132-135, figs. 1, 2. Causey & Tiemann, 1969, Proceedings of the American Philosophical Society, 113: 31, figs. 9, 23, 24. Causey & Tiemann, 1970, Bulletin du Muséum national d'histoire naturelle. Supplément, 2, 41: 38, fig. 1. Shelley, 1997, Insecta Mundi, 11: 347, figs. 40-42. Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 110. Marek et al., 2011, Current Biology, 21(18), Supplemental Information: 7, fig. S1.

### ***Motyxia tularea tularea* (Chamberlin, 1949)**

*Xystocheir tularea* Chamberlin, 1949b, Journal of the Washington Academy of Sciences, 39: 101, fig. 27. MALE HT (USNM). United States: California, Tulare County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 55. Buckett, 1964, Annotated List of the Diplopoda of California, 11.

*Motyxia tularea* – Causey & Tiemann, 1969, Proceedings of the American Philosophical Society, 113: 32, figs. 25, 26.

*Motyxia tularea tularea* – Shelley, 1997, Insecta Mundi, 11: 340, figs. 17-20. Hoffman, 1999, Checklist: 378 (362 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 110. Marek et al., 2011, Current Biology, 21(18), Supplemental Information: 7, fig. S1.

### ***Motyxia tularea ollae* Causey & Tiemann, 1969**

*Motyxia sequoia ollae* Causey & Tiemann, 1969, Proceedings of the American Philosophical Society, 113: 29, figs. 6, 27, 28. MALE HT (FSCA). United States: California,

Tulare County.

*Motyxia tularea ollae* – Shelley, 1997, *Insecta Mundi*, 11: 341, figs. 21-24. Hoffman, 1999, Checklist: 378 (362 pdf). Shelley, 2002b, *Monographs of the Western North American Naturalist*, 1(1): 110.

### **Genus *Parcipromus* Shelley, 1995**

3 species

*Parcipromus* Shelley, 1995, *Myriapodologica*, 3: 55. Type species: *P. tiemanni* Shelley, by original designation. Shelley, 1997, *Insecta Mundi*, 11: 334. Shelley et al., 2000, *Nomenclator Generum et Familiarum Diplopodorum II*: 120. Shelley, 2002b, *Monographs of the Western North American Naturalist*, 1(1): 110.

Distribution: western slope of the Sierra Nevada Mountains in California, from southeastern Fresno County south to southcentral Tulare County.

### ***Parcipromus cooki* (Causey, 1995)**

*Xystocheir cooki* Causey, 1955b, *Proceedings of the Biological Society of Washington*, 68: 91, fig. 3. Type material lost. MALE NT (CASC). United States: California, Fresno County. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 54. Buckett, 1964, *Annotated List of the Diplopoda of California*, 10.

*Parcipromus cooki* – Shelley, 1995, *Myriapodologica*, 3: 65, figs. 19-27. Hoffman, 1999, Checklist: 379 (362 pdf). Shelley, 2002b, *Monographs of the Western North American Naturalist*, 1(1): 110. Neotype designated by Shelley, 1995, *Myriapodologica*, 3: 65.

### ***Parcipromus gigantoarboricolus* Shelley, 1995**

*Parcipromus gigantoarboricolus* Shelley, 1995, *Myriapodologica*, 3: 63. Figs. 15-18. MALE HT (FSCA). United States: California, Tulare County. Hoffman, 1999, Checklist: 379 (363 pdf). Shelley, 2002b, *Monographs of the Western North American Naturalist*, 1(1): 110. Marek et al., 2011, *Current Biology*, 21(18), Supplemental Information: 7, fig. S1.

### ***Parcipromus tiemanni* Shelley, 1995**

*Parcipromus tiemanni* Shelley, 1995, *Myriapodologica*, 3: 59, figs. 3-14. MALE HT (FSCA). United States: California, Tulare County. Hoffman, 1999, Checklist: 379 (363 pdf). Shelley, 2002b, *Monographs of the Western North American Naturalist*, 1(1): 110. Marek et al., 2011, *Current Biology*, 21(18), Supplemental Information: 7, fig. S1.

### **Genus *Wamokia* Chamberlin, 1941**

7 species

*Wamokia* Chamberlin, 1941, *Bulletin of the University of Utah*, 31(12): 14. Type species: *W. placera* Chamberlin, by original designation. Chamberlin & Hoffman, 1958, *Bulletin of the United States National Museum*, 212: 53. Buckett & Gardner, 1968c, *Proceedings of the Biological Society of Washington*, 81: 511. Jeekel, 1971, *Monografieën van de Nederlandse Entomologische Vereniging*, 5: 293. Hoffman, 1980, *Classification of the Diplopoda*, p. 157. Shelley, 1995, *Entomologica Scandinavica*, 26: 340. Shelley et al., 2000, *Nomenclator Generum et Familiarum Diplopodorum II*: 139. Shelley, 2002b, *Monographs of the Western North American Naturalist*, 1(1): 110.

Distribution: foothills of the Sierra Nevada Mountains in California, from southwestern Nevada County southward to northwestern Amador County.

### ***Wamokia dentata* Buckett & Gardner, 1968**

*Wamokia dentata* Buckett & Gardner, 1968c, *Proceedings of the Biological Society of Washington*, 81: 533, figs. 13, 14, 23. MALE HT (UCD). United States: California, El Dorado County. Hoffman, 1999, Checklist: 379 (363 pdf). Shelley, 2002b, *Monographs of the Western North American Naturalist*, 1(1): 110.

### ***Wamokia discordis* Buckett & Gardner, 1968**

*Wamokia discordis* Buckett & Gardner, 1968c, *Proceedings of the Biological Society of Washington*, 81: 522, figs. 11, 12, 18, 28. MALE HT (UCD). United States: California, Placer County. Hoffman, 1999, Checklist: 380 (363 pdf). Shelley, 2002b, *Monographs of the Western North American Naturalist*, 1(1): 111.

### ***Wamokia falcata* Buckett & Gardner, 1968**

*Wamokia falcata* Buckett & Gardner, 1968c, *Proceedings of the Biological Society of Washington*, 81: 534, figs. 7, 8, 30. MALE HT (UCD). United States: California, El Dorado County. Hoffman, 1999, Checklist: 380 (363 pdf). Shelley, 2002b, *Monographs of the Western North American Naturalist*, 1(1): 111.

### ***Wamokia hoffmani* Buckett & Gardner, 1968**

*Wamokia hoffmani* Buckett & Gardner, 1968c, *Proceedings of the Biological Society of Washington*, 81: 528, figs. 21, 22, 27. MALE HT (UCD). United States: California, El Dorado County. Shelley, 1995, *Entomologica Scandinavica*, 26: 354. Hoffman, 1999, Checklist: 380



(363 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 111. Marek et al., 2011, Current Biology, 21(18), Supplemental Information: 7, fig. S1.

### ***Wamokia placera* Chamberlin, 1941**

*Wamokia placera* Chamberlin, 1941, Bulletin of the University of Utah, 31(12): 14, fig. 27. MALE HT (USNM). United States: California, El Dorado County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 53. Buckett & Gardner, 1968c, Proceedings of the Biological Society of Washington, 81: 530, figs. 3, 4, 9, 10, 24, 26. Hoffman, 1999, Checklist: 380 (364 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 111.

### ***Wamokia remota* Buckett & Gardner, 1968**

*Wamokia remota* Buckett & Gardner, 1968c, Proceedings of the Biological Society of Washington, 81: 535, figs. 15-17, 25. MALE HT (UCD). United States: California, Placer County. Hoffman, 1999, Checklist: 380 (364 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 111.

### ***Wamokia sierrae* Buckett & Gardner, 1968**

*Wamokia sierrae* Buckett & Gardner, 1968c, Proceedings of the Biological Society of Washington, 81: 537, figs. 19, 20, 29. MALE HT (UCD). United States: California, Nevada County. Hoffman, 1999, Checklist: 380 (364 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 111.

## **Genus *Xystocheir* Cook, 1904**

9 species

*Xystocheir* Cook, 1904, In: Harriman Alaska Expedition (Insects, pt. 1), 8: 53. Type species: *X. obtusa* Cook, by original designation. Attems, 1931, Zoologica, 30(79): 5. Attems, 1938, Das Tierreich, 69: 200. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 53. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 293. Shelley, 1995, Entomologica Scandinavica, 26: 340. Shelley, 1996, Canadian Journal of Zoology, 74: 1336 (revision). Hoffman, 1980, Classification of the Diplopoda, p. 157. Shelley, 1997, Insecta Mundi, 11: 331. Hoffman, 1999, Checklist: 380 (364 pdf). Shelley et al., 2000, Nomenclator Generum et Familiarum Diplopodorum II: 138.

*Paimokia* Chamberlin, 1941, Bulletin of the University of

Utah, 31(12): 13. Type species: *P. modestior* Chamberlin, 1941, by original designation. Synonymized by Shelley, 1996, Canadian Journal of Zoology, 74: 1339.

*Cheirauxus* Chamberlin, 1949b, Journal of the Washington Academy of Sciences, 39: 97. Type species: *C. sapiens* Chamberlin, by original designation. Synonymized by Hoffman, 1980, Classification of the Diplopoda, p. 157.

*Delocheir* Chamberlin, 1949b, Journal of the Washington Academy of Sciences, 39: 99. Type species: *Xystocheir taibona* Chamberlin, 1912, by original designation. Synonymized by Hoffman, 1980, Classification of the Diplopoda, p. 157.

Distribution: California Coast Ranges from northern Mendocino County south to central San Luis Obispo County, and in the Sierra Nevada Mountains from northern El Dorado County south to central Tulare County.

### ***Xystocheir bistipita* Shelley, 1996**

*Xystocheir bistipita* Shelley, 1996, Canadian Journal of Zoology, 74: 1354, figs. 49, 50. MALE HT (UCD). United States: California, San Luis Obispo County. Hoffman, 1999, Checklist: 381 (364 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 111.

### ***Xystocheir brachymacris* Shelley, 1996**

*Xystocheir brachymacris* Shelley, 1996, Canadian Journal of Zoology, 74: 1353, figs. 39-41. MALE HT (USNM). United States: California, El Dorado County. Hoffman, 1999, Checklist: 381 (364 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 111. Marek et al., 2011, Current Biology, 21(18), Supplemental Information: 7, fig. S1.

### ***Xystocheir dissecta dissecta* (Wood, 1867)**

*Polydesmus dissectus* Wood, 1867, Proceedings of the Academy of Natural Sciences Philadelphia, 19: 129. MALE LT (ANSP). United States: California, Kern County. The original description of Wood (1867) and the lectotype and paralectotype vial labels give Fort Tejon (Kern County, California) as the type locality. However, Shelley (1996: 1342) persuasively argues that Fort Tejon is an error and should be either San Francisco or San Jose, California.

*Polydesmus (Fontaria) furcifer* Karsch, 1881, Archiv für Naturgeschichte 47: 39, pl. 3, fig. 12. MALE HT (ZMB). United States: "California." Synonymized by Attems, 1938, Das Tierreich, 69: 201.

*Fontaria furcifer* – Attems, 1898, Denkschriften der



Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 263. Bollman, 1893, Bulletin of the United States National Museum, 46: 123.

*Fontaria dissecta* – Bollman, 1893, Bulletin of the United States National Museum, 46: 123.

*Xystocheir dissecta* – Cook, 1904, Harriman Alaska Expedition, 8: 55. Attems, 1938, Das Tierreich, 69: 201.

*Xystocheir furcifer* – Cook, 1904, Harriman Alaska Expedition, 8: 54. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 54.

*Xystocheir obtusa* Cook, 1904, Harriman Alaska Expedition, 8: 53, pl. 3, figs. 1a-c. MALE HT (USNM). United States: “California.” Synonymized by Attems, 1938, Das Tierreich, 69: 201.

*Xystocheir acuta* Cook, 1904, Harriman Alaska Expedition, 8: 54. MALE HT (USNM). United States: “California.” Attems, 1938, Das Tierreich, 69: 201. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 53. Buckett, 1964, Annotated List of the Diplopoda of California, 10. Synonymized by Shelley, 1996, Canadian Journal of Zoology, 74: 1341.

*Cheirauxus sapiens* Chamberlin, 1949b, Journal of the Washington Academy of Sciences, 39: 97, figs. 14, 15. MALE HT (USNM). United States: California, Santa Clara County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 25. Buckett, 1964, Annotated List of the Diplopoda of California, 7. Synonymized by Shelley, 1996, Canadian Journal of Zoology, 74: 1341.

*Xystocheir francisca* Chamberlin, 1949b, Journal of the Washington Academy of Sciences, 39: 99, fig. 20. MALE HT (USNM). United States: California, San Francisco County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 54. Buckett, 1964, Annotated List of the Diplopoda of California, 10. Synonymized by Shelley, 1996, Canadian Journal of Zoology, 74: 1341.

*Xystocheir milpitas* Chamberlin, 1949b, Journal of the Washington Academy of Sciences, 39: 99, figs. 21, 22. MALE HT (USNM). United States: California, Santa Clara County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 54. Buckett, 1964, Annotated List of the Diplopoda of California, 10. Synonymized by Shelley, 1996, Canadian Journal of Zoology, 74: 1341.

*Xystocheir milpetas* [sic!] – Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 54.

*Xystocheir dissecta dissecta* – Shelley, 1996, Canadian Journal of Zoology, 74: 1341, figs. 2-12. Hoffman, 1999,

Checklist: 381 (365 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 111.

### ***Xystocheir dissecta microrama* Shelley, 1996**

*Xystocheir dissecta microrama* Shelley, 1996, Canadian Journal of Zoology, 74: 1345, figs. 18-20. MALE HT (UCD). United States: California, Solano County. Hoffman, 1999, Checklist: 382 (365 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 111.

### ***Xystocheir dissecta taibona* Chamberlin, 1912**

*Xystocheir taibona* Chamberlin, 1912, Annals of the Entomological Society of America, 5: 170, pl. 10, figs. 1, 2. MALE HT (USNM). United States: California, Monterey County. Attems, 1938, Das Tierreich, 69: 201.

*Delocheir taibona* – Chamberlin, 1949b, Journal of the Washington Academy of Sciences, 39: 99, figs. 16, 17. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 29. Buckett, 1964, Annotated List of the Diplopoda of California, 8.

*Delocheir conservata* Chamberlin, 1949b, Journal of the Washington Academy of Sciences, 39: 99, fig. 18. MALE HT (USNM). United States: California, California, Monterey County. Causey, 1955b, Proceedings of the Biological Society of Washington, 68: 93. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 29. Buckett, 1964, Annotated List of the Diplopoda of California, 7. Synonymized by Shelley, 1996, Canadian Journal of Zoology, 74: 1345.

*Delocheir dalea* Chamberlin, 1949b, Journal of the Washington Academy of Sciences, 39: 99, fig. 19. MALE HT (USNM). United States: California, Santa Clara County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 29. Buckett, 1964, Annotated List of the Diplopoda of California, 8. Synonymized by Shelley, 1996, Canadian Journal of Zoology, 74: 1345.

*Xystocheir dissecta taibona* – Shelley, 1996, Canadian Journal of Zoology, 74: 1345, figs. 13-17. Hoffman, 1999, Checklist: 382 (365 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 111.

### ***Xystocheir modestior modestior* (Chamberlin, 1941)**

*Paimokia modestior* Chamberlin, 1941, Bulletin of the University of Utah, 31(12): 13, fig. 25. MALE HT lost, FEMALE PT (USNM). United States: California, Fresno-Tulare counties.

*Harpaphe modestior* – Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 35. Buckett, 1964, Annotated List of the Diplopoda of California, 8.

*Xystocheir modestior modestior* – Shelley, 1996, Canadian Journal of Zoology, 74: 1357, figs. 51-56. Hoffman, 1999, Checklist: 382 (366 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 112.

### ***Xystocheir modestior haerens* Shelley, 1996**

*Xystocheir modestior haerens* Shelley, 1996, Canadian Journal of Zoology, 74: 1358, figs. 57-61. MALE HT (USNM). United States: California, Fresno County. Hoffman, 1999, Checklist: 382 (366 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 111.

### ***Xystocheir prolixorama* Shelley, 1996**

*Xystocheir prolixorama* Shelley, 1996, Canadian Journal of Zoology, 74: 1348, figs. 24-27. MALE HT (UCD). United States: California, Mendocino County. Hoffman, 1999, Checklist: 383 (366 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 112.

### ***Xystocheir reducta* (Causey, 1955)**

*Amplocheir reducta* Causey, 1955b, Proceedings of the Biological Society of Washington, 68: 92, fig. 4. Type material lost. MALE NT (UCD). United States: California, Mariposa County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 17. Buckett, 1964, Annotated List of the Diplopoda of California, 7.

*Xystocheir reducta* – Shelley, 1996, Canadian Journal of Zoology, 74: 1351, figs. 32-38. Hoffman, 1999, Checklist: 383 (366 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 112. Neotype designated by Shelley, 1996, Canadian Journal of Zoology, 74: 1351.

### ***Xystocheir solenofurcata* Shelley, 1996**

*Xystocheir solenofurcata* Shelley, 1996, Canadian Journal of Zoology 74: 1348, figs. 28-31. MALE HT (UCD). United States: California, Amador County. Hoffman, 1999, Checklist: 383 (366 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 112.

### ***Xystocheir stenomacris* Shelley, 1996**

*Xystocheir stenomacris* Shelley, 1996, Canadian Journal of

Zoology, 74: 1354, 42-48. MALE HT (UCD). United States: California, Mariposa County. Hoffman, 1999, Checklist: 383 (367 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 112.

### ***Xystocheir stolonifera stolonifera* Shelley, 1996**

*Xystocheir stolonifera stolonifera* Shelley, 1996, Canadian Journal of Zoology, 74: 1358, figs. 62-66. MALE HT (FSCA). United States: California, Fresno County. Hoffman, 1999, Checklist: 383 (367 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 112.

### ***Xystocheir stolonifera uncinata* Shelley, 1996**

*Xystocheir stolonifera uncinata* Shelley, 1996, Canadian Journal of Zoology, 74: 1369, figs. 67-69. MALE HT (UCD). United States: California, Madera County. Hoffman, 1999, Checklist: 384 (367 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 112.

### **Tribe Xystodesmini Hoffman, 1980**

(8 genera, 62 species: western North America, eastern Asia, eastern Russia)

Xystodesmini, Hoffman, 1978c, Spixiana, 1(3): 219. Tanabe & Shinohara, 1996, Journal of Natural History, 30: 1470. Shelley et al., 2000, Nomenclator Generum et Familiarum Diplopodorum II: 139. Tanabe & Shinohara, 1996, Journal of Natural History, 30: 1470. Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 112.

Harpaphini Hoffman, 1980, Classification of the Diplopoda, pp. 157. Shelley, 1993e, Insecta Mundi, 7: 194. Hoffman, 1999, Checklist: 361 (346 pdf). Synonymized by Tanabe & Shinohara, 1996, Journal of Natural History, 30: 1470.

Distribution: western North America in San Francisco north to Washington, Idaho, Montana, and Alaska—also in the Far East from Taiwan north through Zhejiang and Fujian provinces, China, Japan, Korea, and the Russian Far East.

### **Genus *Harpaphe* Cook, 1904**

3 species

*Harpaphe* Cook, 1904, Harriman Alaska Expedition, 8: 59. Type species: *Polydesmus haydenianus* Wood, 1864, by original designation. Attems, 1931, Zoologica, 30(79): 5. Buckett & Gardner, 1968b, Occasional Papers, California Department of Agriculture, Bureau of Entomology, 11: 1-51. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 266.

Hoffman, 1980, Classification of the Diplopoda, p. 157. Shelley, 1993d, Canadian Journal of Zoology, 71: 1163. Shelley, 1995, Entomologica Scandinavica, 26: 339. Tanabe & Shinohara, 1996, Journal of Natural History, 30: 1470. Shelley et al., 2000, Nomenclator Generum et Familiarum Diplopodorum II: 104. Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 112. Korsós et al., 2011, Zootaxa, 2877: 55.

Distribution: Sierra Nevada Mountains and California Coast Ranges in California, north to British Columbia and Alaska. Alaska and British Columbia, south to the California Coast Ranges in Monterey County and the Sierra Nevada Mountains in Yosemite National Park.

### ***Harpaphe haydeniana haydeniana* (Wood, 1864)**

*Polydesmus (Leptodesmus) haydenianus* Wood, 1864, Proceedings of the Academy of Natural Sciences of Philadelphia, 16: 10. Wood, 1865, Transactions of the American Philosophical Society, 13: 226, fig. 57. Type material lost. MALE NT (UCD). United States: Oregon, Coos County. Neotype designated by Buckett & Gardner, 1968b, Occasional Papers of the Bureau of Entomology, California Department of Agriculture, 11: 18.

*Polydesmus (Oxyurus) intaminatus* Karsch, 1881, Archiv für Naturgeschichte, 47: 41. MALE HT (ZMB). United States: "California." Synonymized by Buckett & Gardner, 1968b, Occasional Papers of the Bureau of Entomology, California Department of Agriculture, 11: 18.

*Leptodesmus haydenianus* – Bollman, 1893, Bulletin of the United States National Museum, 46: 122.

*Fontaria Simoni* Brölemann, 1896, Annales de Société entomologique de France, 65: 65, figs. 19, 20. MALE HT (MHN). United States: "Washington." Brölemann, 1900, Mémoires de la Société Zoologique de France, 13: 101, pl. 6, figs. 30. Synonymized with *intaminata* by Attems, 1938, Das Tierreich, 69: 153.

*Leptodesmus intaminatus* – Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, 67: 387, pl. 6, fig. 135.

*Harpaphe haydeniana* – Cook, 1904, Harriman Alaska Expedition, 8: 59, pl. 4, figs. 4a-c. Attems, 1938, Das Tierreich, 69: 198. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 34.

*Harpaphe intaminata* – Cook, 1904, Harriman Alaska Expedition, 8: 60. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 35.

*Leptodesmus (Isaphe) simplex* Chamberlin, 1918, Pomona College Journal of Entomology and Zoology, 10: 9. MALE HT (MCZ). United States: "California."

Synonymized by Shelley, 1993d, Canadian Journal of Zoology, 71: 1161.

*Isaphe simplex* – Attems, 1938, Das Tierreich, 69: 51. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 36. Buckett, 1964, Annotated List of the Diplopoda of California, 8.

*Pachydesmus intaminatus* – Attems, 1938, Das Tierreich, 69: 153, fig. 175.

*Harpaphe penulta* Chamberlin, 1949c, Proceedings of the Biological Society of Washington, 63: 128, fig. 9. MALE HT (USNM). United States: Oregon, Lane County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 36. Synonymized by Buckett & Gardner, 1968b, Occasional Papers of the Bureau of Entomology, California Department of Agriculture, 11: 18.

*Harpaphe haydeniana haydeniana* – Buckett & Gardner, 1968b, Occasional Papers of the Bureau of Entomology, California Department of Agriculture, 11: 17, pls. 4, 8, figs. 4, 5, 13-15. Kevan, 1983, Canadian Journal of Zoology, 61(12): 2968. Shelley, 1990, Canadian Journal of Zoology, 68(11): 2312. Hoffman, 1999, Checklist: 331 (346 pdf). Shelley, 2002c, Canadian Journal of Zoology, 80(11): 1871. Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 112. Marek et al., 2011, Current Biology, 21(18), Supplemental Information: 7, fig. S1.

### ***Harpaphe haydeniana cummingsiensis* (Verhoeff, 1944)**

*Pachydesmus cummingsiensis* Verhoeff, 1944, Bulletin of the Southern California Academy of Sciences, 43: 64, fig. 14. MALE HT (ZSBS). United States: California, California, Mendocino County.

*Harpaphe haydeniana cummingsiensis* – Buckett & Gardner, 1968b, Occasional Papers of the Bureau of Entomology, California Department of Agriculture, 11: 24, pls. 5, 12, figs. 9, 22-24. Hoffman, 1999, Checklist: 362 (347 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 112.

### ***Harpaphe haydeniana inlignea* Chamberlin, 1949**

*Harpaphe inlignea* Chamberlin, 1949c, Proceedings of the Biological Society of Washington, 62: 128, fig. 8. MALE HT (USNM). United States: California, Shasta County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 34. Buckett, 1964, Annotated List of the Diplopoda of California, 8.

*Harpaphe haydeniana inlignea* – Buckett & Gardner,



1968b, Occasional Papers of the Bureau of Entomology, California Department of Agriculture, 11: 15, pl. 11, fig. 12. Hoffman, 1999, Checklist: 362 (347 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 112.

***Harpaphe haydeniana maurogona* Buckett & Gardner, 1968**

*Harpaphe haydeniana maurogona* Buckett & Gardner, 1968b, Occasional Papers of the Bureau of Entomology, California Department of Agriculture, 11: 23, pl. 11, fig. 20. MALE HT (UCD). United States: California, Nevada County. Hoffman, 1999, Checklist: 363 (347 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 112.

***Harpaphe haydeniana lanceolata* Buckett & Gardner, 1968**

*Harpaphe haydeniana lanceolata* Buckett & Gardner, 1968b, Occasional Papers of the Bureau of Entomology, California Department of Agriculture, 11: 22, pl. 10, fig. 19. MALE HT (UCD). United States: California, Napa County. Hoffman, 1999, Checklist: 363 (347 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 112.

***Harpaphe haydeniana scotia* (Chamberlin, 1941)**

*Paimokia scotia* Chamberlin, 1941, Bulletin of the University of Utah, 31(12): 13, fig. 26. MALE HT (USNM). United States: California, Santa Cruz County. Synonymized with *intaminata* by Chamberlin, 1947, Proceedings of the Academy of the Natural Sciences of Philadelphia, 99: 24.

*Harpaphe clara* Chamberlin, 1949c, Proceedings of the Biological Society of Washington, 62: 128, figs. 6, 7. MALE HT (USNM). United States: California, Santa Clara County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 34. Buckett, 1964, Annotated List of the Diplopoda of California, 8. Synonymized by Buckett & Gardner, 1968b, Occasional Papers of the Bureau of Entomology, California Department of Agriculture, 11: 21.

*Harpaphe haydeniana scotia* – Buckett & Gardner, 1968b, Occasional Papers of the Bureau of Entomology, California Department of Agriculture, 11: 21, pls. 5, 9, 10, figs. 7, 16-18, frontispiece. Hoffman, 1999, Checklist: 363 (347 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 112.

***Harpaphe pottera* Chamberlin, 1949**

*Harpaphe pottera* Chamberlin, 1949c, Proceedings of the Biological Society of Washington, 62: 129, fig. 11. MALE HT (USNM). United States: California, Mendocino County. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 35. Buckett, 1964, Annotated List of the Diplopoda of California, 8. Buckett & Gardner, 1968b, Occasional Papers of the Bureau of Entomology, California Department of Agriculture, 11: 15, pl. 7, fig. 12. Hoffman, 1999, Checklist: 363 (348 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 113.

***Harpaphe telodonta* (Chamberlin, 1943)**

*Paimokia telodonta* Chamberlin, 1943b, Bulletin of the University of Utah, 8(2): 17, fig. 33. MALE HT (USNM). United States: California, Humboldt County.

*Harpaphe telodonta* – Chamberlin, 1949c, Proceedings of the Biological Society of Washington, 62: 129, fig. 11. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 35. Buckett, 1964, Annotated List of the Diplopoda of California, 8. Buckett & Gardner, 1968a, Journal of the New York Entomological Society, 76: 60, figs. 1-3; Buckett & Gardner, 1968b, Occasional Papers of the Bureau of Entomology, California Department of Agriculture, 11: 13, pls. 4-6, figs. 6, 8, 10, 11. Hoffman, 1999, Checklist: 363 (348 pdf). Shelley, 2002b, Monographs of the Western North American Naturalist, 1(1): 113.

**Genus *Isaphe* Cook, 1904**

2 species

*Isaphe* Cook, 1904, Harriman Alaska Expedition, 8: 57. Type species: *I. convexa* Cook, by original designation. Attems, 1931, Zoologica, 30(79): 50. Attems, 1938, Das Tierreich, 69: 93. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 36. Jeekel, 1971, Monografieen van de Nederlandse Entomologische Vereniging, 5: 268. Hoffman, 1979, Classification of the Diplopoda, p. 157. Kevan, 1983, Canadian Journal of Zoology, 61(12): 2968. Shelley, 1993d, Canadian Journal of Zoology, 71: 1162. Tanabe & Shinohara, 1996, Journal of Natural History, 30: 1470. Shelley, 1997, Insecta Mundi, 11: 334. Hoffman, 1999, Checklist: 363 (348 pdf). Korsós et al., 2011, Zootaxa, 2877: 55.

*Hybaphe* Cook, 1904, Harriman Alaska Expedition, 8: 58. Type species: *H. tersa* Cook, by original designation. Attems, 1931, Zoologica, 30(79): 5. Attems, 1938, Das Tierreich, 69: 198. Chamberlin & Hoffman, 1958,

Bulletin of the United States National Museum, 212: 36. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 267. Hoffman, 1979, Classification of the Diplopoda, p. 157. Kevan, 1983, Canadian Journal of Zoology, 61(12): 2968. Synonymized by Shelley, 1993d, Canadian Journal of Zoology, 71: 1162.

Distribution: western United States, from southeastern Washington eastward through northern Idaho and western Montana.

### ***Isaphe convexa* Cook, 1904**

*Isaphe convexa* Cook, 1904, Harriman Alaska Expedition, 8: 58, pl. 3, figs. 1a, b. MALE HT (USNM). United States: Idaho, Kootenai County. Attems, 1938, Das Tierreich, 69: 94, fig. 108. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 36. Loomis & Schmitt, 1971, Northwest Science, 45: 113. Kevan, 1983, Canadian Journal of Zoology, 61(12): 2968. Shelley, 1993d, Canadian Journal of Zoology, 71: 1163, figs. 1-6. Shelley, 1995, Entomologica Scandinavica, 26: 340. Marek et al., 2011, Current Biology, 21(18), Supplemental Information: 7, fig. S1.

### ***Isaphe tersa* (Cook, 1904)**

*Hybaphe tersa* Cook, 1904, Harriman Alaska Expedition, 8: 58, pl. 3, fig. 3a. MALE HT (USNM). United States: Washington, Whitman County. Attems, 1938, Das Tierreich, 69: 199. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 36. Kevan, 1983, Canadian Journal of Zoology, 61(12): 2968.

*Hybaphe curtipes* Cook, 1904, Harriman Alaska Expedition, 8: 59. HT (USNM). United States: Washington, Whitman County. Attems, 1938, Das Tierreich, 69: 199. Chamberlin & Hoffman, 1958, Bulletin of the United States National Museum, 212: 36. Kevan, 1983, Canadian Journal of Zoology, 61(12): 2968. Synonymized by Shelley, 1993d, Canadian Journal of Zoology, 71: 1166.

*Isaphe tersa* – Shelley, 1993d, Canadian Journal of Zoology, 71: 1166, figs. 7-11.

### **Genus *Koreoaria* Verhoeff, 1937**

2 species

*Koreoaria* Verhoeff, 1937, Zoologischer Anzeiger, 117: 319. Type species: *Koreoaria pallida* Verhoeff, 1937, by monotypy. Attems, 1938, Das Tierreich, 69: 155. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 269. Hoffman, 1980,

Classification of the Diplopoda, p. 157. Shelley, 1993d, Canadian Journal of Zoology, 71: 1163. Tanabe & Shinohara, 1996, Journal of Natural History, 30: 1470. Korsós et al., 2011, Zootaxa, 2877: 55.

Distribution: South Korea.

### ***Koreoaria amoeba* Takakuwa, 1942**

*Koreoaria amoeba* Takakuwa, 1942c, Transactions of Natural History Society of Formosa, 32: 362-363, 366, fig. 5, MALE? HT? (YM). Type material destroyed in fire from air raid on Matsuyama-shi in 1945. South Korea: Daegu-Gyeongbuk, Yeongnam.

### ***Koreoaria pallida* Verhoeff, 1937**

*Koreoaria pallida* Verhoeff, 1937, Zoologischer Anzeiger, 117: 319, fig. 8. MALE HT (ZSM). “South Korea.” Attems, 1938, Das Tierreich, 69: 155.

### **Genus *Levizonus* Attems, 1898**

8 species

*Levizonus* Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, 67: 351. Type species: *Levizonus thaumasius* Attems, 1898, by monotypy. Attems, 1931, Zoologica, 30(79): 69. Attems, 1938, Das Tierreich, 69: 173. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 270. Hoffman, 1980, Classification of the Diplopoda, p. 157. Shelley, 1993d, Canadian Journal of Zoology, 71: 1163. Tanabe, 1994, Japanese Journal of Entomology, 62(1): 102. Tanabe & Shinohara, 1996, Journal of Natural History, 30: 1470. Mikhaljova, 2004, The millipedes (Diplopoda) of the Asian part of Russia, 243. Korsós et al., 2011, Zootaxa, 2877: 55. Tanabe & Sota, 2014, Evolution, 68: 442.

*Ezaria* Takakuwa, 1941b, Transactions of the Sapporo Natural History Society, 17: 8. Type species: *Ezaria montana* Takakuwa, 1941b, by monotypy. Takakuwa, 1954, A Monograph of Diplopoda of Japan, 87. Miyosi, 1959, Über japanische Diplopoden, 82. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 264. Synonymized by Hoffman, 1980, Classification of the Diplopoda, p. 157.

*Profontaria* Verhoeff, 1941, Archiv für Naturgeschichte, 10: 411. Type species: *Profontaria takakuwai* Verhoeff, 1941, by monotypy. Hoffman, 1956a, Proceedings of the Entomological Society of Washington, 58(2): 99. Miyosi, 1959, Über japanische Diplopoden, 82. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 282. Synonymized by Tanabe, 1994 Japanese Journal of Entomology, 62(1): 102.

*Hokkaidaria* Verhoeff, 1941, Archiv für Naturgeschichte, 10: 351 (invalidly proposed with a type species). Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 266.

*Ezodesmus* Takakuwa, 1942b, Annotationes Zoologicae Japonenses, 21: 43. Type species: *Ezodesmus lunatus*, Takakuwa, 1942, by monotypy. Takakuwa, 1954, A Monograph of Diplopoda of Japan, 85. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 264. Synonymized by Hoffman, 1956a, Proceedings of the Entomological Society of Washington, 58(2): 99.

Distribution: Russian Far East, Korea, and Japan.

### ***Levizonus circularis* Takakuwa, 1942**

*Levizonus circularis* Takakuwa, 1942b, Annotationes Zoologicae Japonenses, 21: 43, fig. 8. MALE? HT? (YM). Type material destroyed in fire from air raid on Matsuyama-shi in 1945. Korea: “Zyônanri.”

### ***Levizonus distinctus* Mikhaljova, 1990**

*Levizonus distinctus* Mikhaljova, 1990, Zoologiceskij zurnal, 69 (5): 134, fig. 1. MALE? HT? (IBSV). Russia: Primorsky Krai, Sikhote-Alin. Mikhaljova, 1993, Arthropoda Selecta, 2(2): 33. Mikhaljova, 1998, Arthropoda Selecta, 7(1): 53, figs. 200-204. Mikhaljova, 2004, The millipedes (Diplopoda) of the Asian part of Russia, 245, figs. 612-616. Mikhaljova, 2009, Far Eastern Entomologist, 197: 5.

### ***Levizonus laqueatus* Mikhaljova, 1981**

*Levizonus laqueatus* Mikhaljova, 1981, Bulletin Moskovskiy obshestva ispitatel priroda, 86(3): 62, figs. 1a-f. MALE HT (ZMMU). Russia: Primorsky Krai, Sikhote-Alin. Mikhaljova, 1983, Fauna i ekologiya chlenistonogikh Dalnego Vostoka, 87. Mikhaljova & Petukhova, 1983, Teoretiko-grafovye metody v biogeograficheskikh issledovaniyakh, 53. Mikhaljova, 1990, Zoologiceskij zurnal, 69 (5): 136. Mikhaljova, 1993, Arthropoda Selecta, 2(2): 33. Mikhaljova, 1998, Arthropoda Selecta, 7(1): 54, figs. 205-209. Mikhaljova, 2004, The millipedes (Diplopoda) of the Asian part of Russia, 247, figs. 612-616. Mikhaljova, 2009, Far Eastern Entomologist, 197: 5.

### ***Levizonus malewitschi* Lokšina & Golovatch, 1977**

*Levizonus malewitschi* Lokšina & Golovatch 1977, Biulleten Moskovskogo obshestva ispytatelei prirody. Otdel biologicheskii, 82(1): 73, figs. 1, 2i-iii. MALE HT (ZIN). Russia, Primorsky Krai, Kavalerovskiy District. Lokšina

& Golovatch 1979, Pedobiologia, 19(6): 385. Kurcheva & Mikhaljova, 1980, Kompleksnye issledovaniya lesnykh biogeotsenozov, 120. Mikhaljova, 1981, Bulletin Moskovskiy obshestva ispitatel priroda, 86(3): 64. Mikhaljova, 1983, Fauna i ekologiya chlenistonogikh Dalnego Vostoka, 81. Mikhaljova & Petukhova, 1983, Teoretiko-grafovye metody v biogeograficheskikh issledovaniyakh, 53. Mikhaljova, 1990, Zoologiceskij zurnal, 69 (5): 136. Mikhaljova, 1993, Arthropoda Selecta, 2(2): 33. Ganin, 1997, Soil animals of the Ussuri region, 124. Mikhaljova, 1998, Arthropoda Selecta, 7(1): 52, figs. 196-199. Tanabe, 2002, Journal of Natural History, 36(18): 2178. Mikhaljova, 2004, The millipedes (Diplopoda) of the Asian part of Russia, 249, figs. 608-611. Mikhaljova, 2009, Far Eastern Entomologist, 197: 5.

### ***Levizonus montanus* (Takakuwa, 1941)**

*Ezaria montana* Takakuwa, 1941b, Transactions of the Sapporo Natural History Society, 17: 8, fig. 10. MALE? ST? (YM). Type material destroyed in fire from air raid on Matsuyama-shi in 1945. Japan: Hokkaido. Takakuwa, 1954, A Monograph of Diplopoda of Japan, 87. Miyosi, 1959, Über japanische Diplopoden, 217, pl. 6, fig. 101. Tanabe, 2002, Journal of Natural History, 36(18): 2178.

*Japonaria (Japonaria) hamuligera* Kraus, 1960, Opuscula zoologica, 49: 2, figs. 1-3. MALE ST (ZSMC). Japan: Hokkaido, Hokkaido Prefecture. Synonymized by Tanabe, 1994, Japanese journal of entomology, 62(1): 104.

*Levizonus montanus* – Hoffman, 1980, Classification of the Diplopoda, p. 157. Tanabe, 1994, Japanese Journal of Entomology, 62(1): 103, figs. 1-3. Tanabe & Sota, 2014, Evolution, 68: Supporting Information.

### ***Levizonus takakuwai* (Verhoeff, 1941)**

*Profontaria takakuwai* Verhoeff, 1941b, Zoologischer Anzeiger, 136: 412, figs. 2-4. MALE HT (ZMB). Japan: Hokkaido. Hoffman, 1956a, Proceedings of the Entomological Society of Washington, 58(2): 99. Miyosi, 1959, Über japanische Diplopoden, 217, pl. 6, figs. 99, 99'. Tanabe, 2002, Journal of Natural History, 36(18): 2178.

*Ezodesmus lunatus* Takakuwa, 1942b, Annotationes Zoologicae Japonenses, 21: 43, fig. 7. MALE? HT? (YM). Type material destroyed in fire from air raid on Matsuyama-shi in 1945. Japan: Hokkaido, Hokkaido Prefecture. Takakuwa, 1954, A Monograph of Diplopoda of Japan, 86, figs. 95, 96. Chamberlin & Wang, 1953, American Museum Novitates, 1621: 7. Synonymized by Miyosi, 1959, Über japanische Diplopoden, 82.



*Levizonus takakuwai* – Tanabe, 1994, Japanese Journal of Entomology, 62(1): 109, figs. 3-5. Tanabe & Sota, 2014, Evolution, 68: Supporting Information.

### ***Levizonus thaumasius* Attems, 1898**

*Sulciferus (Levizonus) thaumasius* Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, 67: 352, pl. 5, fig. 112. MALE HT (ZMUH). Russia: Primorsky Krai, Vladivostok. Attems, 1914, Archiv für Naturgeschichte, 80A: 244.

*Levizonus thaumasius* – Attems, 1931, Zoologica, 30(79): 69, fig. 105. Verhoeff, 1936a, Transactions of the Sapporo Natural History Society, 14(3): 152. Attems, 1938, Das Tierreich, 69: 174, figs. 190, 191. Takakuwa, 1942b, Annotationes Zoologicae Japonenses, 21: 43. Jeekel, 1971, Monografieen van de Nederlandse Entomologische Vereniging, 5: 270. Golovatch, 1979, in: Ekologiya i biologiya chlenistonogikh yuga Dalnego Vostoka, 17. Lokšina & Golovatch, 1979, Pedobiologia, 19(6): 385. Mikhaljova, 1981, Bulletin Moskovskiy obshestva ispitatel priroda, 86(3): 65, figs. 3a-c. Mikhaljova, 1983, Fauna i ekologiya chlenistonogikh Dalnego Vostoka, 81. Mikhaljova & Petukhova, 1983, Teoretiko-grafovye metody v biogeograficheskikh issledovaniyakh, 53. Mikhaljova, 1984, Problemy pochvennoy zoologii, 2: 14. Mikhaljova, 1988, Rol nasekomykh v biotsenozakh Dalnego Vostoka, 70. Mikhaljova & Bakurov, 1989, Pochvennye bespozvonochnye yuga Dalnego Vostoka, 40. Mikhaljova, 1990, Zoologicheskij zurnal, 69 (5): 136. Mikhaljova, 1993, Arthropoda Selecta, 2 (2): 33. Mikhaljova, 1997, Arthropoda Selecta, 5(3/4): 143. Ganin, 1997, Soil animals of the Ussuri region, 121. Mikhaljova, 1998, Arthropoda Selecta, 7(1): 55, figs. 210-217. Mikhaljova, 2002, Arthropoda Selecta, 10(2): 150. Tanabe, 2002, Journal of Natural History, 36(18): 2178. Mikhaljova & Korsós, 2003, Acta Zoologica Hungarica, 49(3): 234. Mikhaljova, 2004, The millipedes (Diplopoda) of the Asian part of Russia, 249, figs. 623-637. Mikhaljova & Korsós, 2009, Acta Zoologica Academiae Scientiarum Hungaricae, 49(3): 234. Mikhaljova, 2009a, Far Eastern Entomologist, 197: 5. Mikhaljova, 2009b, Soil Organisms, 81(3): 606.

*Levizonus orientalis* Lokšina & Golovatch, 1977, Bulletin Moskovskogo obshchestva ispytatelei prirody. Otdel biologicheskii, 82(1): 77, figs. 4i-iii, 5i, 5ii. MALE HT (ZIN). Russia: Primorsky Krai, Yakovlevsky District. Synonymized by Mikhaljova, 1998, Arthropoda Selecta, 2(2): 33.

### ***Levizonus variabilis* Lokšina & Golovatch, 1977**

*Levizonus variabilis* Lokšina & Golovatch 1977, Bulletin

Moskovskogo obshchestva ispytatelei prirody. Otdel biologicheskii, 82(1): 76, figs. 3i-iii. MALE HT (ZIN). Russia, Primorsky Krai, Kavalerovskiy District. Lokšina & Golovatch, 1979, Pedobiologia, 19(6): 385. Kurcheva & Mikhaljova, 1980, Kompleksnye issledovaniya lesnykh biogeotsenozov, 120. Mikhaljova, 1981, Bulletin Moskovskiy obshchestva ispytatel priroda, 86(3): 64, figs. 2a-c, 4a, 4b. Mikhaljova, 1983, Fauna i ekologiya chlenistonogikh Dalnego Vostoka, 81. Mikhaljova & Petukhova, 1983, Teoretiko-grafovye metody v biogeograficheskikh issledovaniyakh, 53. Mikhaljova, 1990, Zoologicheskij zurnal, 69 (5): 136. Mikhaljova, 1993, Arthropoda Selecta, 2 (2): 34. Ganin, 1997, Soil animals of the Ussuri region, 124. Mikhaljova, 1998, Arthropoda Selecta, 7(1): 55, figs. 218-223. Tanabe, 2002, Journal of Natural History, 36(18): 2178. Mikhaljova, 2004, The millipedes (Diplopoda) of the Asian part of Russia, 251, figs. 638-650. Mikhaljova, 2009, Far Eastern Entomologist, 197: 5.

### **Genus *Riukiaria* Attems, 1938**

36 species

*Riukiaria* Attems, 1938, Das Tierreich, 69: 151. Type species: *R. pugionifera* Verhoeff, 1936b, by original designation. (*Riukiaria* Verhoeff, 1936b, was invalidly proposed without a type species.) Verhoeff, 1936b, Zoologischer Anzeiger, 115(11-12): 298. Hoffman, 1949a, Natural History Miscellanea, 45(1): 4. Jeekel, 1971, Monografieen van de Nederlandse Entomologische Vereniging, 5: 284. Shinohara, 1977, Acta Arachnologica, 27: 115. Hoffman, 1980, Classification of the Diplopoda, p. 156. Shelley, 1993d, Canadian Journal of Zoology, 71: 1163. Tanabe & Shinohara, 1996, Journal of Natural History, 30: 1470. Korsós et al., 2011, Zootaxa, 2877: 55. Tanabe & Sota, 2014, Evolution, 68: 442.

*Rhysolus* Chamberlin & Wang, 1953, American Museum Novitates, 1621: 8. Type species: *Rhysodesmus semicircularis* Takakuwa, 1941a. Miyosi, 1957, Zoological Magazine, 66(10): 27. Shinohara, 1977, Acta Arachnologica, 27: 115. Synonymized by Hoffman, 1980, Classification of the Diplopoda, p. 157.

*Sinoria* Tanabe, Ishii & Yin, 1996, Edaphologia, 57: 13, fig. 1a-h. Type species: *Sinoria tianmu* Tanabe, Ishii & Yin, 1996. Synonymized by Golovatch, 2014, Zootaxa, 3793: 189.

Distribution: Japan, Taiwan, and China.

### ***Riukiaria anachoreta* Tanabe, 1988**

*Riukiaria anachoreta* Tanabe, 1988, Acta Arachnologica, 37: 37, figs. 1-10. MALE HT (NSMT). Japan: Kyushu, Kagoshima Prefecture. Tanabe, 2002, Journal of Natural

History, 36(18): 2178. Korsós et al., 2011, Zootaxa, 2877: 56.

***Riukiaria belousovi* Golovatch, 2014**

*Riukiaria belousovi* Golovatch, 2014, Zootaxa, 3793: 192, figs. 12-16. MALE HT (ZMUM). China: Sichuan Province, Muli County.

***Riukiaria bifida* (Takakuwa, 1942)**

*Rhysodesmus bifidus* Takakuwa, 1942a, Transactions of the Natural History Society of Formosa, 32(224): 199, fig. 4. MALE? HT? (YM). Type material destroyed in fire from air raid on Matsuyama-shi in 1945. Japan: Kagoshima Prefecture, Amami-ōshima Island. Takakuwa, 1954, A Monograph of Diplopoda of Japan, 65.

*Rhysolus bifidus* – Chamberlin & Wang, 1953, American Museum Novitates, 1621: 8. Miyosi, 1959, Über japanische Diplopoden, 216, pl. 4, fig. 50.

*Riukiaria bifida* – Shinohara, 1977, Acta Arachnologica, 27: 118. Nakamura & Korsós, 2010, Acta Arachnologica, 59(2): 75, 81. Korsós et al., 2011, Zootaxa, 2877: 56.

***Riukiaria capaca* Wang & Zhang, 1993**

*Riukiaria capaca* Wang & Zhang, 1993, *Animals of Longqi Mountain. Institute of Zoology, Academia Sinica Beijing*, 8: 847. MALE HT (IZCAS). China: Fujian, Changle County. Wang & Mauriès, 1996, Mémoires du Muséum national d'histoire naturelle, 16: 88.

***Riukiaria chelifera* (Takakuwa, 1941)**

*Rhysodesmus chelifera* Takakuwa, 1941a, Transactions of the Natural History Society of Formosa, 31: 414, fig. 2. MALE? HT? (YM). Type material destroyed in fire from air raid on Matsuyama-shi in 1945. Japan: Okinawa Prefecture, Ishigaki-jima Island. Takakuwa, 1942a, Transactions of the Natural History Society of Formosa, 32(224): 202.

*Riukiaria chelifera* – Shinohara, 1977, Acta Arachnologica, 27: 117. Tanabe, 2002, Journal of Natural History, 36(18): 2179. Nakamura & Korsós, 2010, Acta Arachnologica, 59(2): 79, 81. Tanabe & Sota, 2014, Evolution, 68: Supporting Information.

***Riukiaria chinensis* Tanabe, Ishii & Yin, 1996**

*Riukiaria chinensis* Tanabe, Ishii & Yin, 1996, Edaphologia, 57: 16, fig. 2a-i. MALE HT (IEAS). China: Zhejiang, Hangzhou Prefecture. Korsós et al., 2011, Zootaxa, 2877: 56.

***Riukiaria cohaesiva* (Wang, 1957)**

*Rhysodesmus cohaesivus* Wang, 1957, Quarterly Journal of the Taiwan Museum, 10: 109, fig. 5. MALE HT (NTUT). Taiwan: New Taipei, Wulai. Wang, 1958b, Quarterly Journal of the Taiwan Museum, 11(3-4): 341. Wang & Mauriès, 1996, Mémoires du Muséum national d'histoire naturelle, 16: 88. Korsós, 2004, Collection and Research, 17: 20.

*Riukiaria cohaesiva* – Korsós et al., 2011, Zootaxa, 2877: 56.

Note: Korsós (2004: 20) remarked that *Riukiaria cohaesiva* and *Riukiaria contigua* deserve comparison.

***Riukiaria contigua* (Wang, 1957)**

*Rhysodesmus contiguus* Wang, 1957, Quarterly Journal of the Taiwan Museum, 10: 110, fig. 6. MALE HT (NTUT). Taiwan: New Taipei, Wulai. Wang, 1958b, Quarterly Journal of the Taiwan Museum, 11(3-4): 341. Wang & Mauriès, 1996, Mémoires du Muséum national d'histoire naturelle, 16: 88. Korsós, 2004, Collection and Research, 17: 20.

*Riukiaria contigua* – Korsós et al., 2011, Zootaxa, 2877: 56, 65.

Note: See note above regarding *Riukiaria cohaesiva*.

***Riukiaria cornuta* (Haga, 1968)**

*Rhysodesmus cornutus* Haga, 1968, Japanese Millipedes, 7, 11, pl. 3. MALE HT (NSMT). Japan: Kyushu, Kumamoto Prefecture.

*Riukiaria cornuta* – Shinohara, 1977, Acta Arachnologica, 27: 117. Tanabe, 1988, Acta Arachnologica, 37: 40. Tanabe & Sota, 2014, Evolution, 68: Supporting Information.

***Riukiaria datei* (Miyosi, 1957)**

*Rhysolus datei* Miyosi, 1957, Zoological Magazine, 66(10): 27, figs. 1a-i, 2. MALE HT (YM). Japan: Shikoku, Ehime Prefecture. Miyosi, 1959, Über japanische Diplopoden, 216, pl. 4, fig. 56.

*Riukiaria datei* – Shinohara, 1977, Acta Arachnologica, 27: 117. Tanabe, 2002, Journal of Natural History, 36(18): 2178.

***Riukiaria davidiani* Golovatch, 2014**

*Riukiaria davidiani* Golovatch, 2014, Zootaxa, 3793: 198, figs. 30-36. MALE HT (ZMUM). China: Sichuan Province, Lixian County.

***Riukiaria diacantha* (Miyosi, 1952)**

*Rhysodesmus diacanthus* Miyosi, 1952b, Zoological Magazine, 61(10): 315, fig. 2. MALE? HT? (NSMT). Japan: Shikoku, Ehime Prefecture. Miyosi, 1959, Über japanische Diplopoden, 216, pl. 3, fig. 47.

*Riukiaria diacantha* – Shinohara, 1977, Acta Arachnologica, 27: 117. Tanabe, 1988, Acta Arachnologica, 37: 40.

***Riukiaria falcifera* Verhoeff, 1936**

*Riukiaria falcifera* Verhoeff, 1936b, Zoologischer Anzeiger, 115(11-12): 300, fig. 3. MALE HT (ZSM). Japan: Okinawa Prefecture, Okinawa-jima Island. Attems, 1938, Das Tierreich, 69: 151. Takakuwa, 1954, A Monograph of Diplopoda of Japan, 79. Tanabe, 2002, Journal of Natural History, 36(18): 2179. Nakamura & Korsós, 2010, Acta Arachnologica, 59(2): 76, 79, 81. Tanabe & Sota, 2014, Evolution, 68: Supporting Information.

***Riukiaria geniculata* (Takakuwa, 1941)**

*Rhysodesmus geniculatus* Takakuwa, 1941a, Transactions of the Natural History Society of Formosa, 31: 414, fig. 3. MALE? HT? (YM). Type material destroyed in fire from air raid on Matsuyama-shi in 1945. Japan: Kyushu, Nagasaki Prefecture. Takakuwa, 1942a, Transactions of the Natural History Society of Formosa, 32(224): 203. Wang, 1957, Quarterly Journal of the Taiwan Museum, 10: 110.

*Rhysolus geniculatus* – Miyosi, 1959, Über japanische Diplopoden, 216, pl. 4, fig. 51.

*Riukiaria geniculata* – Shinohara, 1977, Acta Arachnologica, 27: 118. Tanabe & Shinohara, 1996, Journal of Natural History, 30: 1486. Korsós et al., 2011, Zootaxa, 2877: 56.

Note: Tanabe & Shinohara (1996) indicated that *Riukiaria geniculata* possessed a number of features diagnostic of the genus *Xystodesmus*. Collection of new topotypic material may provide evidence that *R. geniculata* instead belongs to *Xystodesmus*.

***Riukiaria holstii* (Pocock, 1895)**

*Fontaria Holstii* Pocock, 1895, The Annals and Magazine of Natural History, {6} 15(88): 360, pl. 11, figs. 9, 9a. MALE HT (BMNH). Japan: Okinawa Prefecture, Okinawajima Island. Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 263. Verhoeff, 1937, Zoologischer Anzeiger, 117: 318. Hoffman, 1949a, Natural History Miscellanea, 45(1): 4.

*Rhysodesmus holstii* – Attems, 1931, Zoologica, 30(79): 63. Attems, 1938, Das Tierreich 69: 143, fig. 166. Takakuwa, 1941a, Transactions of the Natural History Society of Formosa, 31: 413. Takakuwa, 1942a, Transactions of the Natural History Society of Formosa, 32(224): 202. Takakuwa, 1954, A Monograph of Diplopoda of Japan, 62-63, fig. 63.

*Rhysolus holstii* – Wang, 1963, Quarterly Journal of the Taiwan Museum, 16: 91.

*Riukiaria holstii* – Shinohara, 1977, Acta Arachnologica, 27: 118. Tanabe, 1988, Acta Arachnologica, 37: 41. Wang & Mauriès, 1996, Mémoires du Muséum national d'histoire naturelle, 16: 88. Tanabe, 2002, Journal of Natural History, 36(18): 2178. Yahata, 2005, Zoological Science, 22: 1515. Korsós, 2004, Collection and Research, 17: 20. Nakamura & Korsós, 2010, Acta Arachnologica, 59(2): 77. Korsós et al., 2011, Zootaxa, 2877: 56. Tanabe & Sota, 2014, Evolution, 68: Supporting Information.

***Riukiaria jamila* Tanabe, 1990**

*Riukiaria jamila* Tanabe, 1990, Zoological Science, 7: 443-447, figs. 1-16. MALE HT (NSMT). Japan: Kagoshima Prefecture, Yaku-shima Island. Tanabe, 2002, Journal of Natural History, 36(18): 2178. Nakamura & Korsós, 2010, Acta Arachnologica, 59(2): 75.

***Riukiaria kabaki* Golovatch, 2014**

*Riukiaria kabaki* Golovatch, 2014, Zootaxa, 3793: 196, figs. 23-29. MALE HT (ZMUM). China: Sichuan Province, Kangding County.

***Riukiaria korolevi* Golovatch, 2014**

*Riukiaria korolevi* Golovatch, 2014, Zootaxa, 3793: 193, figs. 17-22. MALE HT (ZMUM). China: Sichuan Province, Jiuzhaigou County.

***Riukiaria maculata* Korsós, Nakamura & Tanabe, 2011**

*Riukiaria maculata* Korsós et al., 2011, Zootaxa, 2877: 62, figs. 2, 3, 7-13. MALE HT (NSMT). Japan: Kagoshima Prefecture, Tanega-shima Island.

***Riukiaria marinae* (Golovatch, 1978)**

*Rhysolus marinae* Golovatch, 1978, Entomologicheskoe Obozrenie, 57(3): 677, pl. 1, figs. 1, 2. MALE HT (ZIN). Japan: Kyushu, Nagasaki Prefecture.

*Riukiaria marinae* – Korsós et al., 2011, Zootaxa, 2877: 56.



***Riukiaria martensi* Golovatch, 2014**

*Riukiaria martensi* Golovatch, 2014, Zootaxa, 3793: 189, figs. 1-11. MALE HT (SMF). China: Shaanxi Province, Zhouzhi County.

***Riukiaria montana* Haga, 1968**

*Riukiaria montana* Haga, 1968, Japanese Millipedes, 8, pl. 2. MALE HT (NSMT). Japan: Kyushu, Fukuoka Prefecture. Shinohara, 1977, Acta Arachnologica, 27: 118.

***Riukiaria mundyi* Korsós, Nakamura & Tanabe, 2011**

*Riukiaria mundyi* Korsós et al., 2011, Zootaxa, 2877: 62, figs. 4-6, 14-19. MALE HT (NSMT). Japan: Okinawa Prefecture, Yonaguni-jima Island. Tanabe & Sota, 2014, Evolution, 68: Supporting Information.

Note: This species is listed as *Riukiaria* sp. n. from Yonaguni-jima Island, Japan in Nakamura & Korsós (2010: 81; also referred to in Tanabe, 2005).

***Riukiaria ochracea* (Gressitt, 1941)**

*Rhysodesmus ochraceus* Gressitt, 1941, The Annals & Magazine of Natural History, 8(43): 60. MALE HT (CASC). Taiwan: Taihoku, "Sozan."

*Riukiaria ochraceus* – Wang & Mauriès, 1996, Mémoires du Muséum national d'histoire naturelle, 16: 88.

*Riukiaria ochracea* – Korsós, 2004, Collection and Research, 17: 20. Korsós et al., 2011, Zootaxa, 2877: 56.

***Riukiaria puella* Tanabe, 1988**

*Riukiaria puella* Tanabe, 1988, Acta Arachnologica, 37: 40, figs. 11-12. MALE HT (NSMT). Japan: Kagoshima Prefecture, Yaku-shima Island. Tanabe, 2002, Journal of Natural History, 36(18): 2179. Nakamura & Korsós, 2010, Acta Arachnologica, 59(2): 75.

***Riukiaria pugionifera* Verhoeff, 1936**

*Riukiaria pugionifera* Verhoeff, 1936b, Zoologischer Anzeiger, 115(11-12): 299, figs. 1, 2. MALE HT (ZSM). Japan: Okinawa Prefecture, Okinawajima Island. Verhoeff, 1937, Zoologischer Anzeiger, 117: 318. Attems, 1938, Das Tierreich, 69: 151. Hoffman, 1949a, Natural History Miscellanea, 45(1): 5. Shinohara, 1977, Acta Arachnologica, 27: 118. Kikunaga et al., 1993, Bulletin of the College of Science, University of the Ryukyus, 56: 91. Nakamura & Korsós, 2010, Acta Arachnologica, 59(2): 75, 77, 81.

***Riukiaria rosulans* (Tömösváry, 1885)**

*Oxyurus rosulans* Tömösváry, 1885, Természettudományi Füzetek, 9: 69, pl. 4, fig. 18. MALE LT (lectotype) (HNHM). Japan: Kyushu, Nangasaki Prefecture. Pocock, 1895, Annals and Magazine of Natural History {6} 15: 362. Karsch, 1885, Zoologischer Jahresbericht: 120. Bertkau, 1888, Archiv für Naturgeschichte Vol?: 60.

*Fontaria rosulans* – Pocock, 1895, The Annals and Magazine of Natural History, {6} 15(88): 362.

*Leptodesmus rosulans* – Attems, 1938, Das Tierreich, 69: 51.

*Riukiaria rosulans* – Korsós et al., 2011, Zootaxa, 2877: 56. Korsós, 2003, Bulletin of the British Myriapod and Isopod Group, 19: 82. Korsós, 2012, in: The Natural Europe Project, 1.

***Riukiaria scutata* (Takakuwa, 1942)**

*Rhysodesmus scutata* Takakuwa, 1942a, Transactions of the Natural History Society of Formosa, 32(224): 198, fig. 3. MALE? HT? (YM). Type material destroyed in fire from air raid on Matsuyama-shi in 1945. Japan: Kagoshima Prefecture, Amami-ôshima Island. Takakuwa, 1954, A Monograph of Diplopoda of Japan, 63.

*Riukiaria hoffmani* Jeekel, 1952, Entomologische Berichten, 14(323): 71, figs. 1-4. MALE HT (MZSF). Japan: Kyushu, Kagoshima Prefecture. Synonymized by Miyosi, 1959, Über japanische Diplopoden, 79.

*Rhysolus scutatus* – Miyosi, 1959, Über japanische Diplopoden, 216, pl. 4, fig. 54.

*Riukiaria scutata* – Shinohara, 1977, Acta Arachnologica, 27: 118. Tanabe, 2002, Journal of Natural History, 36(18): 2179. Nakamura & Korsós, 2010, Acta Arachnologica, 59(2): 75, 81. Tanabe & Sota, 2014, Evolution, 68: Supporting Information.

***Riukiaria semicircularis semicircularis* (Takakuwa, 1941)**

*Rhysodesmus semicircularis* Takakuwa, 1941a, Transactions of the Natural History Society of Formosa, 31: 413, fig. 1. MALE? HT? (YM). Type material destroyed in fire from air raid on Matsuyama-shi in 1945. Japan: type locality was not designated. Takakuwa, 1942a, Transactions of the Natural History Society of Formosa, 32(224): 203. Miyosi, 1952b, Zoological Magazine, 61(10): 315. Miyosi, 1957, Zoological Magazine, 66(10): 27.

*Rhysolus semicircularatus* – Chamberlin & Wang, 1953, American Museum Novitates, 1621: 8.

*Rhysolus semicircularis semicircularis* – Miyosi, 1959, Über japanische Diplopoden, 216, pl. 4, fig. 52.

*Rhysodesmus semicirculatus* – Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 285.

*Rhysolus semicircularis* – Omine, 1977, in: Ecological Studies of Nature Conservation of the Ryukyu Islands, 160.

*Riukiaria semicircularis semicircularis* – Shinohara, 1977, Acta Arachnologica, 27: 118. Tanabe, 1988, Acta Arachnologica, 37: 40. Tanabe, 2002, Journal of Natural History, 36(18): 2179. Nakamura & Korsós, 2010, Acta Arachnologica, 59(2): 77, 79, 81. Tanabe & Sota, 2014, Evolution, 68: Supporting Information.

### ***Riukiaria semicircularis hosidei* (Miyosi, 1952)**

*Rhysodesmus semicircularis hosidei* Miyosi, 1952a, Zoological Magazine, 61(9): 281. MALE? HT? (NSMT). Japan: Honshu, Yamaguchi Prefecture.

*Rhysolus semicircularis hosidei* – Miyosi, 1959, Über japanische Diplopoden, 216, pl. 4, fig. 53. Tanabe, 2002, Journal of Natural History, 36(18): 2179.

*Riukiaria semicircularis hosidei* – Shinohara, 1977, Acta Arachnologica, 27: 118.

### ***Riukiaria spiralipes* (Takakuwa, 1942)**

*Rhysodesmus spiralipes* Takakuwa, 1942a, Transactions of the Natural History Society of Formosa, 32(224): 198, fig. 2. MALE? HT? (YM). Type material destroyed in fire from air raid on Matsuyama-shi in 1945. Japan: Okinawa Prefecture, Kume-jima Island. Wang, 1957, Quarterly Journal of the Taiwan Museum, 10: 110. Takakuwa, 1954, A Monograph of Diplopoda of Japan, 60-61, fig. 60.

*Riukiaria spiralipes* – Shinohara, 1977, Acta Arachnologica, 27: 118. Tanabe, 2005, in: Threatened Wildlife in Okinawa, second edition (Animals)—Red Data Okinawa, 307. Nakamura & Korsós, 2010, Acta Arachnologica, 59(2): 76. Tanabe & Shinohara, 1996, Journal of Natural History, 30: 1486. Korsós et al., 2011, Zootaxa, 2877: 56.

Note: Tanabe & Shinohara (1996) indicated that *Riukiaria spiralipes* possessed a number of features diagnostic of the genus *Xystodesmus*. Collection of new topotypic material may provide evidence that *R. spiralipes* instead belongs to *Xystodesmus*. Nakamura & Korsós (2010) recognized *Riukiaria spiralipes* and *Riukiaria variata* as distinct species; however, Tanabe & Shinohara (1996) indicated the species are synonyms.

### ***Riukiaria taiwana* (Takakuwa, 1942)**

*Rhysodesmus taiwanus* Takakuwa, 1942a, Transactions of

the Natural History Society of Formosa, 32(224): 197, fig. 1. MALE? HT? (YM). Type material destroyed in fire from air raid on Matsuyama-shi in 1945. Taiwan: Taichung County, Taichung. Takakuwa, 1954, A Monograph of Diplopoda of Japan, 59-60, figs. 58, 59. Wang, 1957, Quarterly Journal of the Taiwan Museum, 10: 110. Wang, 1963, Quarterly Journal of the Taiwan Museum, 16: 90.

*Riukiaria taiwanalis* [sic!] – Shinohara, 1977, Acta Arachnologica, 27: 118. Wang & Mauriès, 1996, Mémoires du Muséum national d'histoire naturelle, 16: 88.

*Riukiaria taiwanus* – Wang & Mauriès, 1996, Mémoires du Muséum national d'histoire naturelle, 16: 88.

*Riukiaria taiwana* – Korsós, 2004, Collection and Research, 17: 20.

Note: Korsós (2004: 20) remarked that *Riukiaria taiwana* and *Riukiaria uraensis* deserve comparison.

### ***Riukiaria tianmu* (Tanabe, Ishii & Yin, 1996)**

*Sinoria tianmu* Tanabe, Ishii & Yin, 1996, Edaphologia, 57: 14, fig. 1a-h. MALE HT (IEAS). China: Zhejiang, Hangzhou Prefecture. Korsós et al., 2011, Zootaxa, 2877: 56.

*Riukiaria tianmu* – Golovatch, 2014, Zootaxa, 3793: 189.

Note: Korsós et al. (2011: 56) suggested the assignment of *Sinoria* with *Riukiaria*, however did not formally synonymize the genera.

### ***Riukiaria uncatata* (Haga, 1968)**

*Rhysodesmus uncatatus* Haga, 1968, Japanese Millipedes, 7-8. MALE HT (NSMT). Japan: Honshu, Yamaguchi Prefecture.

*Riukiaria uncatata* – Shinohara, 1977, Acta Arachnologica, 27: 118.

### ***Riukiaria uraensis* (Wang, 1956)**

*Rhysolus uraensis* Wang, 1956, Quarterly Journal of the Taiwan Museum, 9(2): 157, fig. 2. MALE HT (NTUT). Taiwan: Taipei City, Wulai District. Wang, 1957, Quarterly Journal of the Taiwan Museum, 10: 110. Wang, 1958a, Proceedings of the 10th International Congress of Entomology, 1:881.

*Riukiaria uraensis* – Shinohara, 1977, Acta Arachnologica, 27: 119. Wang & Mauriès, 1996, Mémoires du Muséum national d'histoire naturelle, 16: 88. Korsós, 2004, Collection and Research, 17: 20.

Note: See note above regarding *Riukiaria taiwana*.

***Riukiaria variata* (Pocock 1895)**

*Fontaria variata* Pocock, 1895, The Annals and Magazine of Natural History, {6} 15(88): 361, pl. 11, figs. 15, 15a. MALE HT (BMNH). Japan: Okinawa Prefecture, Okinawa-jima Island. Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 263.

*Rhysodesmus variatus* – Attems, 1931, Zoologica, 30(79): 63. Attems, 1938, Das Tierreich, 69: 143. Takakuwa, 1941a, Transactions of the Natural History Society of Formosa, 31: 413. Takakuwa, 1942a, Transactions of the Natural History Society of Formosa, 32(224): 202.

*Riukiaria variata* – Hoffman, 1949a, Natural History Miscellanea, 45(1): 5. Wang, 1957, Quarterly Journal of the Taiwan Museum, 10: 111. Shinohara, 1977, Acta Arachnologica, 27: 118. Tanabe & Shinohara, 1996, Journal of Natural History, 30: 1487. Wang & Mauriès, 1996, Mémoires du Muséum national d'histoire naturelle, 16: 88. Tanabe, 2005, in: Threatened Wildlife in Okinawa, second edition (Animals)—Red Data Okinawa, 307. Nakamura & Korsós, 2010, Acta Arachnologica, 59(2): 78-81.

*Rhysolus variatus* – Ikehara et al., 1974, in: Ecological Studies of the Nature Conservation of the Ryukyu Islands (I).

Note: Tanabe & Shinohara (1996) indicated that *Riukiaria spiralipes* and *Riukiaria variata* are synonyms; however, Nakamura & Korsós (2010) recognized the species as distinct.

Note: Nakamura & Korsós (2010: 81) list two unnamed species from Japan: *Riukiaria* sp. n. from Yonaguni-jima Island (also referred to in Tanabe, 2005) and *Riukiaria* sp. from Naka-no-shima Island, and the former species was subsequently described as *R. mundyi* in Korsós et al. 2011. Golovatch et al. (2011: 133) list one unnamed species from Taiwan: *Riukiaria* sp. from Mount Dahan.

**Species of uncertain status in *Riukiaria******Pachydesmus attemsi* (Wang, 1960)**

*Pachydesmus attemsi* Wang, 1960, in: Verhandlungen der XI. Internationalen Kongress für Entomologie, 289, fig. 1. MALE? HT? (NTUT?). Taiwan: Taipei City, Beitou District. Korsós, 2004, Collection and Research, 17: 19. Wang & Mauriès, 1996, Mémoires du Muséum national d'histoire naturelle, 16: 88. Korsós et al., 2011, Zootaxa, 2877: 56.

Note: Korsós et al. (2011: 56) suggested the transfer of *Pachydesmus attemsi* to *Riukiaria*, however did not formally

establish the new combination.

**Genus *Thrinaphe* Shelley, 1993a**

1 species

*Thrinaphe* Shelley, 1993a, Myriapodologica, 2(13): 92. Type species: *T. hargerii* Shelley, 1993, by original designation. Shelley, 1993d, Canadian Journal of Zoology, 71: 1163. Tanabe & Shinohara, 1996, Journal of Natural History, 30: 1470. Shelley, 1997, Insecta Mundi, 11: 334. Shelley et al., 2000, Nomenclator Generum et Familiarum Diplopodorum II: 133. Korsós et al., 2011, Zootaxa, 2877: 55.

Distribution: Klickitat County, Washington to Marion County, Oregon.

***Thrinaphe hargerii* Shelley, 1993a**

*Thrinaphe hargerii* Shelley, 1993a, Myriapodologica, 2(13): 95, figs. 1-6. MALE HT (UCD). United States: Oregon, Hood River County. Shelley, 1995, Entomologica Scandinavica, 26: 340.

**Genus *Xystodesmus* Cook, 1895**

9 species

*Xystodesmus* Cook, 1895, In: Cook & Collins, Annals of the New York Academy of Sciences, 9: 5. Type species: *Polydesmus (Fontaria) Martensii* Peters, 1864, by original designation. Attems, 1938, Das Tierreich, 69: 152. Hoffman, 1949a, Natural History Miscellanea, 45(1): 6. Hoffman, 1956a, Proceedings of the Entomological Society of Washington, 58(2): 96. Hoffman, 1978c, Spixiana, 1(3): 223. Hoffman, 1980, Classification of the Diplopoda, 156. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 293. Tanabe & Shinohara, 1996, Journal of Natural History, 30: 1470. Shelley et al., 2000, Nomenclator Generum et Familiarum Diplopodorum II: 139. Korsós et al., 2011, Zootaxa, 2877: 55. Tanabe & Sota, 2014, Evolution, 68: 444.

*Takakuwaia* Verhoeff, 1936a, Transactions of the Sapporo Natural History Society, 14(3): 152. Type species: *Takakuwaia furculigera* Verhoeff, 1936a, by monotypy. Attems, 1938, Das Tierreich, 69: 152. Verhoeff, 1936b, Zoologischer Anzeiger, 115(11-12): 298. Verhoeff, 1944, Bulletin of the Southern California Academy of Sciences, 43: 65. Takakuwa, 1954, A Monograph of Diplopoda of Japan, 68-69. Miyosi, 1959, Über japanische Diplopoden, 80. Hoffman, 1960, Proceedings of the United States National Museum 112: 215. Shinohara, 1977, Acta Arachnologica, 27: 115. Hoffman, 1978c, Spixiana, 1(3): 222. Jeekel, 1971, Monografieën



**Table 1:** Valid genera of Xystodesmidae, subfamily Xystodesminae

| Tribe Apheloriini                      |                      |    |   |
|----------------------------------------|----------------------|----|---|
| 1                                      | <i>Apheloria</i>     | 4  |   |
| 2                                      | <i>Appalachioria</i> | 4  |   |
| 3                                      | <i>Brachoria</i>     | 34 |   |
| 4                                      | <i>Brevigonus</i>    | 2  |   |
| 5                                      | <i>Cheiropus</i>     | 1  |   |
| 6                                      | <i>Cleptoria</i>     | 5  |   |
| 7                                      | <i>Croatania</i>     | 4  |   |
| 8                                      | <i>Deltotaria</i>    | 2  |   |
| 9                                      | <i>Dixioria</i>      | 8  |   |
| 10                                     | <i>Dynoria</i>       | 2  |   |
| 11                                     | <i>Falloria</i>      | 17 |   |
| 12                                     | <i>Furcillaria</i>   | 4  |   |
| 13                                     | <i>Lyrranea</i>      | 1  |   |
| 14                                     | <i>Prionogonus</i>   | 4  |   |
| 15                                     | <i>Rudiloria</i>     | 5  |   |
| 16                                     | <i>Sigmoria</i>      | 17 |   |
| 17                                     | <i>Stelgipus</i>     | 2  |   |
| 17 genera, 116 species                 |                      |    |   |
| Tribe Chonaphini                       |                      |    |   |
| 18                                     | <i>Chonaphe</i>      | 4  |   |
| 19                                     | <i>Metaxycheir</i>   | 1  |   |
| 20                                     | <i>Montaphe</i>      | 2  |   |
| 21                                     | <i>Selenocheir</i>   | 3  |   |
| 22                                     | <i>Semionellus</i>   | 1  |   |
| 23                                     | <i>Tubaphe</i>       | 1  |   |
| 6 genera, 12 species                   |                      |    |   |
| Tribe Devilleini                       |                      |    |   |
| 24                                     | <i>Devillea</i>      | 5  |   |
| 1 genus, 5 species                     |                      |    |   |
| Tribe Nannariini                       |                      |    |   |
| 25                                     | <i>Nannaria</i>      | 22 |   |
| 26                                     | <i>Oenomaea</i>      | 1  |   |
| 2 genera, 23 species                   |                      |    |   |
| Tribe Orophini                         |                      |    |   |
| 27                                     | <i>Kiulinga</i>      | 2  |   |
| 28                                     | <i>Pamelaphe</i>     | 1  |   |
| 29                                     | <i>Orophe</i>        | 2  |   |
| 3 genera, 5 species                    |                      |    |   |
| Tribe Pachydesmini                     |                      |    |   |
| 30                                     | <i>Dicellarius</i>   | 5  |   |
| 31                                     | <i>Pachydesmus</i>   | 2  |   |
| 32                                     | <i>Thrinaxoria</i>   | 3  |   |
| 3 genera, 10 species                   |                      |    |   |
| Tribe Rhysodesmini                     |                      |    |   |
| 33                                     | <i>Boraria</i>       | 4  |   |
| 34                                     | <i>Caralinda</i>     | 5  |   |
| 35                                     | <i>Cherokia</i>      | 1  |   |
| 36                                     | <i>Erdelyia</i>      | 1  |   |
| 37                                     | <i>Gonoessa</i>      | 5  |   |
| 38                                     | <i>Gyalostethus</i>  | 1  |   |
| 39                                     | <i>Lourdesia</i>     | 1  |   |
| 40                                     | <i>Parvulodesmus</i> | 2  |   |
| 41                                     | <i>Pleuroloma</i>    | 4  |   |
| 42                                     | <i>Rhysodesmus</i>   | 73 |   |
| 43                                     | <i>Stenodesmus</i>   | 5  |   |
| 11 genera, 102 species                 |                      |    |   |
| Tribe Sigocheirini                     |                      |    |   |
| 44                                     | <i>Ochthocelata</i>  | 1  |   |
| 45                                     | <i>Sigocheir</i>     | 3  |   |
| 2 genera, 4 species                    |                      |    |   |
| Tribe Xystocheirini                    |                      |    |   |
| 46                                     | <i>Anombrocheir</i>  | 2  |   |
| 47                                     | <i>Motyxia</i>       | 8  |   |
| 48                                     | <i>Parcipromus</i>   | 3  |   |
| 49                                     | <i>Wamokia</i>       | 7  |   |
| 50                                     | <i>Xystocheir</i>    | 9  |   |
| 5 genera, 29 species                   |                      |    |   |
| Tribe Xystodesmini                     |                      |    |   |
| 51                                     | <i>Harpaphe</i>      | 3  |   |
| 52                                     | <i>Isaphe</i>        | 2  |   |
| 53                                     | <i>Koreoaria</i>     | 2  |   |
| 54                                     | <i>Levizonus</i>     | 8  |   |
| 55                                     | <i>Riukiaria</i>     | 35 |   |
| <i>Riukiaria</i> , uncertain species   |                      |    | 1 |
| 56                                     | <i>Thrinaphe</i>     | 1  |   |
| 57                                     | <i>Xystodesmus</i>   | 7  |   |
| <i>Xystodesmus</i> , uncertain species |                      |    | 2 |
| 58                                     | <i>Yaetakaria</i>    | 1  |   |
| 8 genera, 62 species                   |                      |    |   |
| Xystodesminae, uncertain species       |                      |    |   |
| <i>Fontaria</i> , uncertain species    |                      |    | 2 |

van de Nederlandse Entomologische Vereniging, 5: 289. Synonymized by Hoffman, 1956a, Proceedings of the Entomological Society of Washington, 58(2): 97.

*Cyphonaria* Verhoeff, 1936a, Transactions of the Sapporo Natural History Society, 14(3): 160. Type species: *Fontaria (Cyphonaria) scabra* Verhoeff, 1936a, by monotypy. Takakuwa, 1954, A Monograph of Diplopoda of Japan, 73. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 257. Hoffman, 1978c, Spixiana, 1(3): 222. Synonymized by Hoffman, 1980, Classification of the Diplopoda, 156.

*Phruodesmus* Takakuwa, 1943, Transactions of the Natural History Society of Taiwan, 33: 604. Type species: *Phruodesmus gracilipes* Takakuwa, 1943, Transactions of the Natural History Society of Taiwan, 33: 84, by monotypy. Miyosi, 1959, Über japanische Diplopoden, 81. Hoffman, 1980, Classification of the Diplopoda, 158. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 279. Shinohara, 1977, Acta Arachnologica, 27: 115. Synonymized by Tanabe & Shinohara, 1996, Journal of Natural History, 30: 1472.

*Nikkonus* Chamberlin & Wang, 1953, American Museum Novitates, 1621: 9. Type species: *Nikkonus nikkoensis* Chamberlin & Wang, 1953, by original designation. Miyosi, 1959, Über japanische Diplopoden, 81. Jeekel, 1971, Monografieën van de Nederlandse Entomologische Vereniging, 5: 275. Shinohara, 1977, Acta Arachnologica, 27: 115. Hoffman, 1980, Classification of the Diplopoda, 158. Synonymized by Tanabe & Shinohara, 1996, Journal of Natural History, 30: 1472.

Distribution: Japan – Honshu, Shikoku, Tsu-shima, Iki, Yaku-shima, and Kume-jima islands (Tanabe & Shinohara, 1996).

### ***Xystodesmus gracilipes* (Takakuwa, 1943)**

*Phruodesmus gracilipes* Takakuwa, 1943, Transactions of the Natural History Society of Taiwan, 33: 604, fig. 2. MALE? HT? (YM). Type material destroyed in fire from air raid on Matsuyama-shi in 1945. Japan: Shikoku, Ehime Prefecture. Miyosi, 1959, Über japanische Diplopoden, 217, pl. 6, fig. 98.

*Phruodesmus kinshaensis* Murakami, 1965, Zoological Magazine, 74: 165, figs. 1, 2. MALE HT (NSMT). Japan: Shikoku, Ehime Prefecture. Synonymized by Tanabe & Shinohara, 1996, Journal of Natural History, 30: 1484.

*Xystodesmus gracilipes* – Tanabe & Shinohara, 1996, Journal of Natural History, 30: 1484, figs. 3-7, 11l, 13b, 16b, 17k. Tanabe, 2002, Journal of Natural History, 36(18): 2179. Tanabe & Sota, 2014, Evolution, 68: Supporting Information.

### ***Xystodesmus martensii* (Peters, 1864)**

*Polydesmus (Fontaria) Martensii* Peters, 1864, Monatsberichte der Königlich Preußischen Akademie der Wissenschaften zu Berlin, Juli 1864: 531. MALE HT (NHMB). Japan: Honshu, Kanagawa Prefecture. Karsch, 1880, Zeitschrift für die Gesamte Naturwissenschaften, 53: 847.

*Fontaria Martensii* – Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 263.

*Xystodesmus martensii* – Cook, 1895, In: Cook & Collins, Annals of the New York Academy of Sciences, 9: 3. Attems, 1938, Das Tierreich, 69: 199. Hoffman, 1956a, Proceedings of the Entomological Society of Washington, 58(2): 97, figs. 1-4. Tanabe & Shinohara, 1996, Journal of Natural History, 30: 1480. Tanabe, 2002, Journal of Natural History, 36(18): 2179.

*Takakuwaia furculigera* Verhoeff, 1936a, Transactions of the Sapporo Natural History Society, 14(3): 153, pl. 3, figs. 6-8. MALE HT (ZSMC). Japan: Honshu, Kanagawa Prefecture. Attems, 1938, Das Tierreich, 69: 152, figs. 172, 173. Chamberlin & Wang, 1953, American Museum Novitates, 1621: 8. Takakuwa, 1954, A Monograph of Diplopoda of Japan, 69. Miyosi, 1959, Über japanische Diplopoden, 216, pl. 4, figs. 57-59. Synonymized by Hoffman, 1956a, Proceedings of the Entomological Society of Washington, 58(2): 97.

*Fontaria (Cyphonaria) scabra* Verhoeff, 1936a, Transactions of the Sapporo Natural History Society, 14(3): 160. FEMALE HT (ZSMC). Japan: Honshu, Saitama Prefecture. Attems, 1938, Das Tierreich, 69: 166. Takakuwa, 1954, A Monograph of Diplopoda of Japan, 73. Synonymized by Hoffman, 1980, Classification of the Diplopoda, 156.

*Rhysodesmus tuberculatus* Takakuwa, 1942a, Transactions of the Natural History Society of Formosa, 32(224): 200, figs. 5, 6. MALE? HT? (YM). Type material destroyed in fire from air raid on Matsuyama-shi in 1945. Japan: Honshu, Tokyo Prefecture. Takakuwa, 1954, A Monograph of Diplopoda of Japan, 59, figs. 56-57. Miyosi, 1959, Über japanische Diplopoden, 216, pl. 3, fig. 45. Synonymized by Tanabe & Shinohara, 1996, Journal of Natural History, 30: 1480.

*Rhysodesmus ikaoensis* Takakuwa, 1942a, Transactions of the Natural History Society of Formosa, 32(224): 201, fig. 7. MALE? HT? (YM). Type material destroyed in fire from air raid on Matsuyama-shi in 1945. Japan: Honshu, Gunma Prefecture. Takakuwa, 1954, A Monograph of Diplopoda of Japan, 58, Fig 55. Miyosi, 1959, Über japanische Diplopoden, 216, pl. 3, fig. 44. Synonymized by Tanabe & Shinohara, 1996, Journal of

Natural History, 30: 1480.

*Rhysodesmus kitazawai* Miyosi, 1953, *Zoological Magazine*, 62: 186, fig. 1. MALE? HT? (NSMT). Japan: Honshu, Saitama Prefecture. Miyosi, 1959, Über japanische Diplopoden, 216, pl. 3, fig. 46. Synonymized by Tanabe & Shinohara, 1996, *Journal of Natural History*, 30: 1480.

*Cyphonaria scabra* – Jeekel, 1971, *Monografieën van de Nederlandse Entomologische Vereniging*, 5: 257. Hoffman, 1978c, *Spixiana*, 1(3): 223.

Note: Hoffman (1978c: 223) implied synonymy of *Cyphonaria scabra* (Verhoeff, 1936a) with *Xystodesmus martensii*; however, withheld judgement until topotypes could be studied. The synonymy of *Cyphonaria* with *Xystodesmus* was unequivocally listed in Hoffman (1980: 156) and subsequently the synonymy of *Cyphonaria scabra* with *Xystodesmus martensii* confirmed by Tanabe & Shinohara, 1996, *Journal of Natural History*, 30: 1480.

### ***Xystodesmus nikkoensis* (Chamberlin & Wang, 1953)**

*Nikkonus nikkoensis* Chamberlin & Wang, 1953, *American Museum Novitates*, 1621: 9, fig. 3. MALE HT (AMNH). Japan: Honshu, Tochigi Prefecture. Miyosi, 1959, Über japanische Diplopoden, 216, pl. 6, fig. 97.

*Xystodesmus nikkoensis* – Tanabe & Shinohara, 1996, *Journal of Natural History*, 30: 1484, figs. 3-7, 11j, 11k, 13a, 16a, 17l, 17m. Tanabe, 2002, *Journal of Natural History*, 36(18): 2179. Nakamura & Korsós, 2010, *Acta Arachnologica*, 59(2): 75.

### ***Xystodesmus serrulatus* (Miyosi, 1952)**

*Rhysodesmus serrulatus* Miyosi, 1952a, *Zoological Magazine*, 61: 281, fig. 1. MALE? HT? (OMNH). Japan: Honshu, Nara Prefecture. Miyosi, 1959, Über japanische Diplopoden, 216, pl. 3, fig. 49.

*Xystodesmus serrulatus* – Tanabe & Shinohara, 1996, *Journal of Natural History*, 30: 1483, figs. 3-7, 10g, 11h, 11i, 12d, 15d-i, 17i, 17j. Tanabe, 2002, *Journal of Natural History*, 36(18): 2179. Tanabe & Sota, 2014, *Evolution*, 68: Supporting Information.

### ***Xystodesmus shirozui* (Takakuwa, 1942)**

*Rhysodesmus shirozui* Takakuwa, 1942d, *Zoological Magazine*, 54: 239, fig. 5. MALE? HT? (YM). Type material destroyed in fire from air raid on Matsuyama-shi in 1945. Japan: Tsu-shima Island, Nagasaki Prefecture. Takakuwa, 1954, *A Monograph of Diplopoda of Japan*, 63, fig. 65.

*Rhysolus shirozui* – Miyosi, 1959, Über japanische Diplopoden, 216, pl. 4, fig. 55.

*Riukiaria shirozui* – Shinohara, 1977, *Acta Arachnologica*, 27: 119.

*Xystodesmus shirozui* – Tanabe & Shinohara, 1996, *Journal of Natural History*, 30: 1485, figs. 3-7, 11m, 11n, 13c, 13d, 16c, 16d, 17o, 17p. Tanabe, 2002, *Journal of Natural History*, 36(18): 2179.

### ***Xystodesmus tokaiensis* Tanabe & Shinohara, 1996**

*Xystodesmus tokaiensis* Tanabe & Shinohara, 1996, *Journal of Natural History*, 30: 1482, figs. 1, 3-7, 10f, 11f, 11g, 12c, 15a-c, 17g, 17h. MALE HT (TKPM). Japan: Honshu, Shizuoka Prefecture. Tanabe, 2002, *Journal of Natural History*, 36(18): 2179. Tanabe & Sota, 2014, *Evolution*, 68: Supporting Information.

### ***Xystodesmus yamamiensis* Masuda, 2001**

*Xystodesmus yamamiensis* Masuda, 2001, *KUMO*, 34: 635, fig. 1. MALE HT (NMST). Japan: Honshu, Aichi Prefecture.

Note: Nakamura & Korsós (2010: 81) list two unnamed species: *Xystodesmus* sp. n. from Kume-jima Island (also referred to in Tanabe, 1992; Tanabe & Shinohara, 1996) and *Xystodesmus* sp. From Takara-jima Island.

### **Species of uncertain status in *Xystodesmus***

#### ***Nikkonus bazaensis* (Takakuwa, 1942)**

*Pachydesmus bazaensis* Takakuwa, 1942c, *Transactions of Natural History Society of Formosa*, 32: 363, 366, fig. 6. MALE? HT? (YM). Type material destroyed in fire from air raid on Matsuyama-shi in 1945. South Korea: South Gyeongsang Province, Changwon City. Takakuwa, 1954, *A Monograph of Diplopoda of Japan*, 70. Tanabe & Shinohara, 1996, *Journal of Natural History*, 30: 1466.

*Nikkonus bazaensis* – Chamberlin & Wang, 1953, *American Museum Novitates*, 1621: 9.

Note: Chamberlin & Wang (1953) placed *Pachydesmus bazaensis* in the genus *Nikkonus*, which was subsequently synonymized with *Xystodesmus* by Tanabe & Shinohara, 1996. However, not having seen material of *P. bazaensis*, Tanabe & Shinohara conservatively chose to keep the species in *Pachydesmus*. Though more likely to be a species of *Xystodesmus*, based on its geographical location and agreement with the diagnostic features, confirmation of its generic status awaits collection of fresh topotypic material from South Korea.



***Rhysodesmus spinosissimus* (Miyosi, 1952)**

*Rhysodesmus spinosissimus* Miyosi, 1952b, Zoological Magazine, 61: 314, fig. 1a-g. MALE? HT? (NSMT). Japan, Shikoku, Ehime Prefecture. Miyosi, 1959, Über japanische Diplopoden, 216, pl. 3, fig. 48. Tanabe & Shinohara, 1996, Journal of Natural History, 30: 1486.

Note: Despite general agreement in diagnostic characters with *Xystodesmus*, Tanabe & Shinohara had not seen material of *Rhysodesmus spinosissimus* and therefore conservatively chose to keep the species in *Rhysodesmus* and not treat it as *Xystodesmus*. Though more likely to be *Xystodesmus*, based on its geographical location, confirmation awaits re-examination of type material or collection of fresh topotypic material from Japan.

**Genus *Yaetakaria* Hoffman, 1949**

1 species

*Yaetakaria* Hoffman, 1949a, Natural History Miscellanea, 45(1): 1. Type species: *Yaetakaria youngi* Hoffman, 1949a, by original designation. Hoffman, 1980, Classification of the Diplopoda, p. 157. Shelley, 1993d, Canadian Journal of Zoology, 71: 1163. Tanabe & Shinohara, 1996, Journal of Natural History, 30: 1470. Korsós et al., 2011, Zootaxa, 2877: 55. Tanabe & Sota, 2014, Evolution, 68: 444.

Distribution: Japan – Okinawa-jima Island, Okinawa Prefecture.

***Yaetakaria neptuna* (Pocock, 1895)**

*Fontaria neptunus* Pocock, 1895, The Annals and Magazine of Natural History, {6} 15(88): 360, pl. 11, fig. 10. MALE HT (BMNH). Japan: Okinawa Prefecture. Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 263.

*Rhysodesmus neptunus* – Attems, 1931, Zoologica, 30(79): 63. Attems, 1938, Das Tierreich, 69: 142, fig. 164. Takakuwa, 1941a, Transactions of the Natural History Society of Formosa, 31: 413. Takakuwa, 1942a, Transactions of the Natural History Society of Formosa, 32(224): 202.

*Yaetakaria neptuna* – Hoffman, 1949a, Natural History Miscellanea, 45(1): 2. Nakamura & Korsós, 2010, Acta Arachnologica, 59(2): 76, 78, 81. Tanabe, 2005, in: Threatened Wildlife in Okinawa, second edition (Animals)—Red Data Okinawa, 308. Tanabe & Sota, 2014, Evolution, 68: Supporting Information.

*Yaetakaria youngi* Hoffman, 1949a, Natural History Miscellanea, 45(1): 2, figs. 1, 2. MALE HT (USNM).

Japan: Okinawa Prefecture, Okinawa-jima Island. Synonymized by Shinohara, 1977, Acta Arachnologica, 27: 118.

*Riukiaria neptuna* – Shinohara, 1977, Acta Arachnologica, 27: 118. Wang & Mauriès, 1996, Mémoires du Muséum national d'histoire naturelle, 16: 88.

**Species of uncertain status in Xystodesminae*****Fontaria virginiensis* Gray, 1832**

*Fontaria Virginensis* (nec Drury & Westwood, 1832; nec C.L. Koch, 1847; nec Wood 1865; nec Bollman, 1888d) Gray, 1832, in: The animal kingdom arranged in conformity with its organization by the Baron Cuvier, 15: 787, pl. 135, figs. 1, 1a, 1b. Type material lost. MALE HT (BMNH?). United States: “Georgia” or “Virginia.” Pocock, 1910, Biologia Centrali-Americana, Diplopoda, p. 188.

Note: The name *Fontaria virginensis* Gray, 1832 is unidentifiable pending examination of the type material. See the beginning of this article and Hoffman (1952; 1957) and Shelley (1980) for further discussion.

***Fontaria coriacea* Koch, 1847**

*Fontaria coriacea* C.L. Koch, 1847, in: Kritische Revision der Insectenfauna Deutschlands, 141. Type material lost. MALE? HT? (ZMB). United States: “Virginien.” Koch, 1863, Die Myriapoden, 72, pl. 32, fig. 63.

Note: The name *Fontaria coriacea* Koch, 1847 remains unidentifiable. The type material of the species is unknown, the type locality is vague, and the description does not conform unambiguously with known species in the east. See Hoffman (1949, 1957) for discussion of the matter.

**Subfamily Melaphinae Hoffman, 1980**

(2 tribes; Mediterranean rim: Greece, Turkey, Cyprus, Syria, Croatia, Serbia, Montenegro, Albania, Spain, Morocco, Ethiopia, Algeria)

Melaphini Brölemann, 1916, Annales de Société entomologique de France, 84: 554.

Melaphinae Verhoeff, 1941a, Archiv für Naturgeschichte, 10: 403. Hoffman, 1962b, Opuscula Zoologica, 59: 3. Hoffman, 1980, Classification of the Diplopoda, p. 159.

**Tribe Macellophini Hoffman, 1980**

(2 species: southern Spain, northern Morocco, and northern Algeria)

Macellophidae Attems, 1940, *Das Tierreich*, 70: 481.

Verhoeff, 1931, *Zoologische Jahrbücher, Abteilung für Systematik, Ökologie und Geographie der Tiere*, 61(4): 435.

Macellolophini Hoffman, 1980, *Classification of the Diplopoda*, p. 159.

### **Genus *Macellolophus* Attems, 1940**

2 species

*Macellolophus* Attems, 1940, *Das Tierreich*, 70: 481. Type species: *Macellolophus excavatus* Verhoeff, 1931. (*Macellolophus* Verhoeff, 1931, was invalidly proposed without a type species.) Verhoeff, 1931, *Zoologische Jahrbücher, Abteilung für Systematik, Ökologie und Geographie der Tiere*, 61(4): 435. Hoffman & Lohmander, 1968, *Mitteilungen aus dem Hamburgischen zoologischen Museum und Institut*, 65: 99. Jeekel, 1971, *Monografieën van de Nederlandse Entomologische Vereniging*, 5: 271. Hoffman, 1980, *Classification of the Diplopoda*, p. 159. Mauriès et al., 2006, *Arthropoda Selecta*, 15(1): 20.

Distribution: same as tribe, monogeneric.

### ***Macellolophus rubromarginatus* (Lucas, 1846)**

*Polydesmus rubromarginatus* Lucas, 1846, *Revue zoologique, par la Société Cuvierienne*, 9: 285. MALE LT (MNHP). Algeria: Tlemcen (lectotype), other syntypes from Oran.

*Macellolophus excavatus* Verhoeff, 1931, *Zoologische Jahrbücher, Abteilung für Systematik, Ökologie und Geographie der Tiere*, 61(4): 439, pl. 7, 8, figs. 39, 43, 44. MALE HT (ZSMC). Attems, 1940, *Das Tierreich*, 70: 482, figs. 680, 681. Schubart, 1960, *Bulletin de la Société des sciences naturelles du Maroc* 40 (3): 180. Ceuca, 1988, *Studia Universitatis Babes-Bolyai, Seria Biologia*, 33(2): 41, fig. 1. Spain: Valencia, Tabernes. Synonymized by Mauriès et al., 2006, *Arthropoda Selecta*, 15(1): 20.

*Macellolophus hispanicus* Verhoeff, 1931, *Zoologische Jahrbücher, Abteilung für Systematik, Ökologie und Geographie der Tiere*, 61(4): 441, pl. 7, fig. 38k. FEMALE HT (ZSMC). Spain: Murcia, Cartagena. Attems, 1940, *Das Tierreich*, 70: 483. Schubart, 1960, *Bulletin de la Société des sciences naturelles du Maroc* 40 (3): 180. Ceuca, 1988, *Studia Universitatis Babes-Bolyai, Seria Biologia*, 33(2): 41. Synonymized by Vicente, 1988, *Orsis*, 3: 175.

*Macellolophus panousei* Schubart, 1960, *Bulletin de la Société des sciences naturelles du Maroc* 40 (3): 181, figs. 15-17. MALE HT (ZMB). Morocco: Rif, Talassemantane. Ceuca, 1988, *Studia Universitatis Babes-Bolyai, Seria*

*Biologia*, 33(2): 41. Synonymized by Mauriès et al., 2006, *Arthropoda Selecta*, 15(1): 20.

*Macellolophus rubromarginatus* – Mauriès, 1978, *Annalen des Naturhistorischen Museums in Wien*, 81: 586. Hoffman, 1982, *Journal of Natural History*, 16(5): 641. Mauriès et al., 2006, *Arthropoda Selecta*, 15(1): 20. Reboleira & Enghoff, 2013, *Zootaxa*, 3646(5): 526. Kime & Enghoff, 2011, *Atlas of European millipedes*, 1: 73. Reboleira & Enghoff, 2013, *Zootaxa*, 3646(5): 526.

*Macellolophus breuili* Ceuca, 1988, *Studia Universitatis Babes-Bolyai, Seria Biologia*, 33(2): 41, fig. 2. MALE HT (MNHN). Spain: Málaga, Campillos. Synonymized by Mauriès et al., 2006, *Arthropoda Selecta*, 15(1): 20.

### **Species of uncertain status in *Macellolophus***

#### ***Polydesmus diadema* Gervais, 1836**

*Polydesmus diadema* Gervais, 1836, *Annales de la société entomologique de France*, {1} 2: 375. Type material lost. MALE? HT? (MHNP). Great Britain: Gibraltar. Lucas, 1840, in: *Histoire naturelle des animaux articulés*. I: 524. Gervais, 1844, *Annales des Sciences naturelles*, 2: 66. Gervais, 1847, in: Walckenaer & Gervais, *Histoire Naturelle des Insectes Aptères*, 4: 7, pl. 45, fig. 2. Mauriès et al., 2006, *Arthropoda Selecta*, 15(1): 19.

*Macellolophus diadema* – Hoffman & Lohmander, 1968, *Mitteilungen aus dem Hamburgischen zoologischen Museum und Institut*, 65: 99. Ceuca, 1988, *Studia Universitatis Babes-Bolyai, Seria Biologia*, 33(2): 41.

Note: Though more likely to be a species of *Macellolophus*, based on its geographical location and agreement with the diagnostic features of the genus, confirmation of its generic status awaits collection of fresh topotypic material from Gibraltar. Hoffman & Lohmander (1968) formally transferred *Polydesmus diadema* into *Macellolophus*; however, Mauriès et al. (2006) conservatively chose to keep the species in *Polydesmus* until new material is collected.

#### **Tribe Melaphini Brölemann, 1916**

(2 genera, 8 species: Greece, Turkey, Cyprus, Syria, Croatia, Serbia, Montenegro, Albania, Morocco, Ethiopia, Algeria)

#### **Genus *Melaphe* Cook, 1904**

7 species

*Oxyurus* C.L. Koch, 1847, in: *Kritische Revision der Insectenfauna Deutschlands*, 139. Type species: *Oxyurus vestitus* C. L. Koch, 1847. Preoccupied by four earlier usages of the name.

*Melaphe* Cook, 1904, in: Harriman Alaska Expedition, 8: 55. Type species: *Oxyurus vestitus* C. L. Koch, 1847, in: Kritische Revision der Insectenfauna Deutschlands, 139, by original designation. Brölemann, 1916, Annales de Société entomologique de France, 84: 554. Attems, 1931, Zoologica, 30(79): 71. Attems, 1938, Das Tierreich, 69: 187. Verhoeff, 1940, Istanbul üniversitesi fen fakültesi mecmuasi, 5(1-2): 41. Hoffman, 1962b, Opuscula Zoologica, 59: 3. Hoffman & Lohmander, 1968, Mitteilungen aus dem Hamburgischen zoologischen Museum und Institut, 65: 102. Hoffman, 1980, Classification of the Diplopoda, p. 159.

*Haploleptodesmus* Brölemann, 1910. Archives de zoologie expérimentale et générale, 5e série, 5 (7): 362. Type species: *Polydesmus (Oxyurus) cyprius* Humbert & DeSaussure, 1869, by subsequent designation by Attems, 1914, Archiv für Naturgeschichte, 80A: 245. Synonymized by Attems, 1931, Zoologica, 30(79): 71.

*Leptodesmus (Asiodesmus)* Verhoeff, 1926, Mitteilungen der Bulgarischen Entomologischen Gesellschaft, 3: 201. Type species: *Leptodesmus (Asiodesmus) vestitus thracicus* Synonymized by Attems, 1931, Zoologica, 30(79): 71.

Distribution: Algeria, Morocco, Greece, Turkey, Cyprus, Syria, and an isolated species (*Melaphe corrupta* Attems, 1944) from the highlands of Ethiopia.

### ***Melaphe apamea* Hoffman & Lohmander, 1968**

*Melaphe apamea* Hoffman & Lohmander, 1968, Mitteilungen aus dem Hamburgischen zoologischen Museum und Institut, 65: 109, figs. 49, 50. MALE HT (ZMUH). Turkey: Aegean Region, Denizli Province.

**Table 2:** Valid genera of Xystodesmidae, subfamilies Melaphinae and Parafontariinae

|                                          |    |
|------------------------------------------|----|
| <b>Melaphinae, tribe Macellolophini</b>  |    |
| 59 <i>Macellolophus</i>                  | 1  |
| <i>Macellolophus</i> , uncertain species | 1  |
| 1 genus, 2 species                       |    |
| <b>Melaphinae, tribe Melaphini</b>       |    |
| 60 <i>Melaphe</i>                        | 6  |
| <i>Melaphe</i> , uncertain species       | 1  |
| 61 <i>Ochridaphe</i>                     | 1  |
| 2 genera, 8 species                      |    |
| <b>Parafontariinae</b>                   |    |
| 62 <i>Parafontaria</i>                   | 12 |
| <i>Parafontaria</i> , uncertain species  | 1  |
| 1 genus, 13 species                      |    |

### ***Melaphe castianeira* Hoffman & Lohmander, 1968**

*Melaphe castianeira* Hoffman & Lohmander, 1968, Mitteilungen aus dem Hamburgischen zoologischen Museum und Institut, 65: 106, figs. 47, 48, 50. MALE HT (ZMUH). Turkey: Marmara region, Bursa Province.

### ***Melaphe corrupta* Attems, 1944**

*Melaphe corrupta* Attems, 1944, Zoologischer Anzeiger, 144: 229, fig. 8. MALE HT (NHMW). Ethiopia: between Harar and Jijiga – “Harar, Ig-Iga, Abessinien (Mali leg. 1897).” Hoffman & Lohmander, 1968, Mitteilungen aus dem Hamburgischen zoologischen Museum und Institut, 65: 102.

### ***Melaphe cypria* (Humbert & Saussure, 1869)**

*Polydesmus (Oxyurus) Cyprius* Humbert & Saussure, 1869, Verhandlungen der Zoologisch-botanischen Gesellschaft in Wien, 16: 684. MALE HT (NHMW). “l’île de Chypre” [Cyprus].

*Leptodesmus cyprius* – Attems, 1898, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 67: 395, fig. 142.

*Haploleptodesmus cyprius* - Brölemann, 1910. Archives de zoologie expérimentale et générale, 5e série, 5 (7): 363.

*Leptodesmus (Asiodesmus) cyprius* – Verhoeff, 1926, Mitteilungen der Bulgarischen Entomologischen Gesellschaft, 3: 202.

*Melaphe cypria* – Attems, 1931, Zoologica, 30(79): 76. Attems, 1938, Das Tierreich, 69: 190, figs. 211, 212. Verhoeff, 1932, Zoologische Jahrbücher, Abteilung für Systematik, Ökologie und Geographie der Tiere, 62(5-6): 472. Verhoeff, 1940, Istanbul üniversitesi fen fakültesi mecmuasi, 5(1-2): 41. Hoffman & Lohmander, 1968, Mitteilungen aus dem Hamburgischen zoologischen Museum und Institut, 65: 103, figs. 44, 45, 50. Ceuca, 1992, In: Advances in Myriapodology - Berichte des naturwissenschaftlich-medizinischen Vereins in Innsbruck, 10: 417.

### ***Melaphe mauritanica* (Lucas, 1844)**

*Polydesmus mauritanicus* Lucas, 1844, *Revue Zoologique*, 7: 51. MALE? HT? (ZMUH). Algeria: Béjaïa Province, Grand Kabylie. Lucas, 1849, Exploration scientifique de l’Algérie, 328, pl. 1, fig. 6.

*Haploleptodesmus mauritanicus geniculatus* – Brölemann, 1910. Archives de zoologie expérimentale et générale, 5e série, 5 (7): 363, pl. 7, fig. 55.



*Melaphe mauritanica* – Attems, 1931, *Zoologica*, 30(79): 75, figs. 112, 113. Brölemann, 1931, *Bulletin de la Société d'histoire naturelle de l'Afrique du Nord*, 22: 130. Verhoeff, 1932, *Zoologische Jahrbücher, Abteilung für Systematik, Ökologie und Geographie der Tiere*, 62(5-6): 472. Attems, 1938, *Das Tierreich*, 69: 189, figs. 209, 210. Verhoeff, 1940, *Istanbul üniversitesi fen fakültesi mecmuasi*, 5(1-2): 41. Hoffman & Lohmander, 1968, *Mitteilungen aus dem Hamburgischen zoologischen Museum und Institut*, 65: 102.

### ***Melaphe vestita vestita* (Koch, 1847)**

*Oxyurus vestitus* C.L. Koch, 1847, in: *Kritische Revision der Insectenfauna Deutschlands*, 139. Koch, 1863, *Die Myriapoden*, 9, pl. 4, fig. 9. Type material lost. MALE? HT? (ZMB?). “Asia Minor.”

*Oxyurus throx* Attems, 1894, *Sitzungsberichte, Akademie der Wissenschaften in Wien, Mathematisch-Naturwissenschaftliche Klasse*, 103(1): pl. 1, fig. 18. Type material lost. MALE? HT? (NMW?).

*Leptodesmus vestitus* – Attems, 1898, *Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe*, 67: 394, fig. 134.

*Melaphe vestita* – Cook, 1904, in: *Harriman Alaska Expedition*, 8: 55. Verhoeff, 1932, *Zoologische Jahrbücher, Abteilung für Systematik, Ökologie und Geographie der Tiere*, 62(5-6): 472. Attems, 1931, *Zoologica*, 30(79): 73, figs. 109-111. Ceuca, 1992, In: *Advances in Myriapodology - Berichte des naturwissenschaftlich-medizinischen Vereins in Innsbruck*, 10: 417. Kime & Enghoff, 2011, *Atlas of European millipedes*, 1: 73.

*Haploleptodesmus caramanicus* Brölemann, 1910. *Archives de zoologie expérimentale et générale*, 5e série, 5 (7): 363, pl. 7, figs. 62, 63. MALE HT (MNHP). Turkey: “Côte de Caramania” – Coast of Caramania. Synonymized by Hoffman, 1962b, *Opuscula Zoologica*, 59: 5.

*Leptodesmus (Asiodesmus) vestitus vestitus* – Verhoeff, 1926, *Mitteilungen der Bulgarischen Entomologischen Gesellschaft*, 3: 201.

*Melaphe vestita vestita* – Attems, 1938, *Das Tierreich*, 69: 188, figs. 207, 208. Hoffman, 1962b, *Opuscula Zoologica*, 59: 4, fig. 1. Hoffman & Lohmander, 1968, *Mitteilungen aus dem Hamburgischen zoologischen Museum und Institut*, 65: 105, figs. 46, 50.

*Melaphe caramanica* – Attems, 1938, *Das Tierreich*, 69: 191.

*Melaphe wohlberedti* Verhoeff, 1940, *Istanbul üniversitesi fen fakültesi mecmuasi*, 5(1-2): 41, fig. 39. MALE

HT (ZSMC). Greece: Southern Aegean, Rhodes. Synonymized by Hoffman, 1962b, *Opuscula Zoologica*, 59: 5.

*Melaphe arcuata* Verhoeff, 1941c, *Istanbul üniversitesi fen fakültesi mecmuasi*, 6(3-4): 294, fig. 19. MALE HT (ZSMC). Turkey: Aegean Region, Aydin Province. Synonymized by Hoffman, 1962b, *Opuscula Zoologica*, 59: 5.

*Melaphe vestita turcica* Verhoeff, 1941c, *Istanbul üniversitesi fen fakültesi mecmuasi*, 6(3-4): 294, fig. 20. MALE HT (ZSMC). Turkey: Izmir Province, Bornova District. Synonymized by Hoffman, 1962b, *Opuscula Zoologica*, 59: 5.

### ***Melaphe vestita thracica* (Verhoeff, 1926)**

*Leptodesmus (Asiodesmus) vestitus thracicus* Verhoeff, 1926, *Mitteilungen der Bulgarischen Entomologischen Gesellschaft*, 3: 200, pl. 6, fig. 4. MALE HT (ZMUH). Turkey: Çanakkale Province, “Kuru Dagh.”

*Melaphe thracia* – Verhoeff, 1932, *Zoologische Jahrbücher, Abteilung für Systematik, Ökologie und Geographie der Tiere*, 62(5-6): 473.

*Melaphe vestita thracia* – Attems, 1938, *Das Tierreich*, 69: 189. Hoffman, 1962b, *Opuscula Zoologica*, 59: 5, fig. 2, 3. Hoffman & Lohmander, 1968, *Mitteilungen aus dem Hamburgischen zoologischen Museum und Institut*, 65: 106, figs. 50. Ceuca, 1992, In: *Advances in Myriapodology - Berichte des naturwissenschaftlich-medizinischen Vereins in Innsbruck*, 10: 417.

*Melaphe thracia* – Verhoeff, 1940, *Istanbul üniversitesi fen fakültesi mecmuasi*, 5(1-2): 41.

### **Species of uncertain status in *Melaphe***

#### ***Polydesmus blainvillei* (Eydoux & Gervais, 1836)**

*Polydesmus Blainvillei* Eydoux & Gervais, 1836, *Voyage autour du Monde par les Mers de l'Inde et de Chine exécuté sur la Corvette de l'État La Favorite 1830-1832 sous le Commandement de Laplace*, 179, pl. 54, fig. 2. Type material lost. MALE? HT? (MHNP). “Morocco.” Gervais, 1847, in: *Walckenaer & Gervais, Histoire Naturelle des Insectes Aptères*, 4: 98. Hoffman, 1962b, *Opuscula Zoologica*, 59: 1.

*Melaphe blainvillei* – Attems, 1938, *Das Tierreich*, 69: 191.

Note: Attems (1938) proposed transferring *Polydesmus Blainvillei* into *Melaphe* and listed the new combination *Melaphe blainvillei*. However, he was unable to secure any type material for the species. Hoffman (1962b) searched for types and again was unable to find material.

**Genus *Ochridaphe* Hoffman, 1962**

1 species

*Ochridaphe* Hoffman, 1962b, *Opuscula Zoologica*, München, 59: 7. Type species: *Melaphe albanica* Verhoeff, 1932, by monotypy and original designation. Hoffman, 1980, Classification of the Diplopoda, p. 159. Shelley et al., 2000, Nomenclator Generum et Familiarum Diplopodorum II: 115.

Distribution: Albania, Montenegro, and Greece.

***Ochridaphe albanica* (Verhoeff, 1932)**

*Melaphe albanica* Verhoeff, 1932, *Zoologische Jahrbücher, Abteilung für Systematik, Ökologie und Geographie der Tiere*, 62(5-6): 473. MALE CT (ZSB). Albania: Elbasan County, Jablanica Mountain. Verhoeff, 1940, *Istanbul üniversitesi fen fakültesi mecmuasi*, 5 (1-2): 41. Moritz & Fischer, 1978, *Mitteilungen aus dem Zoologischen Museum in Berlin*, 54 (1): 111.

*Ochridaphe albanica*—Hoffman, 1962b, *Opuscula Zoologica*, München, 59: 7. Hoffman & Lohmander, 1968, *Mitteilungen aus dem Hamburgischen zoologischen Museum und Institut*, 65: 101. Strasser, 1971, *Ljubljana: Academia Scientiarum et Artium Slovenica*, 3: 19. Strasser, 1974b, *Revue suisse de zoologie*, 81(1): 223. Ceuca, 1992, In: *Advances in Myriapodology - Berichte des naturwissenschaftlich-medizinischen Vereins in Innsbruck*, 10: 417. Curcic et al., 1999, *Archives of Biological Sciences*, 51(1): 17.

**Subfamily Parafontariinae Hoffman, 1978**

(1 genus; Japan)

Parafontariinae – Hoffman, 1978c, *Spixiana*, 1(3): 219. Tanabe, 2002, *Journal of Natural History*, 36(18): 2139.

**Genus *Parafontaria* Verhoeff, 1936**

13 species

*Parafontaria* Verhoeff, 1936b, *Zoologischer Anzeiger*, 115(11-12): 300, figs. 4-6. Type species: *Fontaria (Parafontaria) armigera*, Verhoeff, 1936b, by monotypy. Verhoeff, 1937, *Zoologischer Anzeiger*, 117: 313. Attems, 1938, *Das Tierreich*, 69: 179. Jeekel, 1971, *Monografieën van de Nederlandse Entomologische Vereniging*, 5: 278. Hoffman, 1978c, *Spixiana*, 1(3): 219. Hoffman, 1980, Classification of the Diplopoda, p. 159. Shelley, 1986, in: Shelley & Whitehead, *Transactions of the American Entomological Society*, 35: 213. Tanabe, 2002, *Journal of Natural History*, 36(18): 2144. Tanabe & Sota, 2008, *The American Naturalist*, 171(5): 692. Korsós et al., 2011, *Zootaxa*, 2877: 56. Tanabe & Sota, 2014, *Evolution*, 68: 441.

*Japonaria* Attems, 1938, *Das Tierreich*, 69: 174. Type species: *Fontaria falcifera* Verhoeff, 1936a, by original designation. [*Fontaria (Japonaria)* Verhoeff, 1936a, was invalidly proposed without a type species.] Verhoeff, 1936b, *Zoologischer Anzeiger*, 115(11-12): 300. Verhoeff, 1937, *Zoologischer Anzeiger*, 117: 313. Hoffman, 1949a, *Natural History Miscellanea*, 45(1): 5. Hoffman, 1952, *Entomological News*, 63: 73. Hoffman, 1956a, *Proceedings of the Entomological Society of Washington*, 58(2): 100. Takakuwa, 1954, *A Monograph of Diplopoda of Japan*, 75. Miyosi, 1959, *Über japanische Diplopoden*, 83. Jeekel, 1971, *Monografieën van de Nederlandse Entomologische Vereniging*, 5: 268. Synonymized by Hoffman, 1978c, *Spixiana*, 1(3): 217.

*Grayaria* Chamberlin, 1943b, *Bulletin of the University of Utah*, 8(2): 16. Type species: *Grayaria attemsii* Chamberlin, 1943, by original designation. [Misidentification of the name *Fontaria coarctata acutidens* Attems, 1909.] Hoffman, 1949a, *Natural History Miscellanea*, 45(1): 5. Jeekel, 1971, *Monografieën van de Nederlandse Entomologische Vereniging*, 5: 265. Synonymized by Hoffman, 1949a, *Natural History Miscellanea*, 45(1): 5.

Distribution: Japan – Honshu, Shikoku, Kyushu, and Sadoga-shima islands (Tanabe, 2002).

***Parafontaria crenata* Shinohara, 1986**

*Parafontaria crenata* Shinohara, 1986, *Acta Arachnologica*, 35: 3, fig. 2. MALE HT (NSMT). Japan: Honshu, Aichi Prefecture. Murakami, 1993, *A Checklist of the Japanese Species of Wildlife, Invertebrates I*, 99. Tanabe, 2002, *Journal of Natural History*, 36(18): 2160, figs. 2, 6g, 11a, 13e, 15f, 16, 18, 19. Tanabe & Sota, 2014, *Evolution*, 68: Supporting Information.

***Parafontaria doenitzi* (Karsch, 1880)**

*Polydesmus (Fontaria) Dönitzi* Karsch, 1880, *Zeitschrift für die Gesamte Naturwissenschaften*. 53: 848. MALE HT (ZMB). “Japan.”

*Fontaria coarctata* Pocock, 1895, *The Annals and Magazine of Natural History*, {6} 15(88): 361, pl. 11, fig. 11. MALE HT (BMNH). “Japan.” Attems, 1898, *Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe*, 68: 263. Synonymized by Hoffman, 1978c, *Spixiana*, 1(3): 222.

*Fontaria Doenitzii* – Attems, 1898, *Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe*, 68: 263.

*Fontaria (Japonaria) coarctata coarctata* – Verhoeff, 1936a, *Transactions of the Sapporo Natural History Society*,

14(3): 157. Verhoeff, 1937, Zoologischer Anzeiger, 117: 314.

*Fontaria (Japonaria) attemsii* Verhoeff, 1936a, Transactions of the Sapporo Natural History Society, 14(3): 159, pl. 3, figs. 9, 10. MALE HT (ZSM). Japan: Honshu, Tochigi Prefecture. Verhoeff, 1937, Zoologischer Anzeiger, 117: 311. Takakuwa, 1942b, Annotationes Zoologicae Japonenses, 21: 41. Synonymized Hoffman, 1978c, Spixiana, 1(3): 222.

*Fontaria (Japonaria) coarctata attemsii* – Verhoeff, 1937, Zoologischer Anzeiger, 117: 314, figs. 9, 10.

*Fontaria dōnitzii* – Attems, 1938, Das Tierreich, 69: 166.

*Japonaria (Japonaria) coarctata* – Attems, 1938, Das Tierreich, 69: 176.

*Japonaria (Japonaria) attemsii* – Attems, 1938, Das Tierreich, 69: 178, fig. 197.

*Japonaria attemsi* – Takakuwa, 1942b, Annotationes Zoologicae Japonenses, 21: 41, fig. 4. Takakuwa, 1954, A Monograph of Diplopoda of Japan, 77, fig. 81. Miyosi, 1959, Über japanische Diplopoden, 216, pl. 5, figs. 74-76.

*Japonaria coarctata* – Takakuwa, 1954, A Monograph of Diplopoda of Japan, 78. Miyosi, 1959, Über japanische Diplopoden, 87, pl. 5, fig. 77.

*Parafontaria doenitzii* – Hoffman, 1978c, Spixiana, 1(3): 222, fig. 8. Murakami, 1993, A Checklist of the Japanese Species of Wildlife, Invertebrates I, 99. Tanabe, 2002, Journal of Natural History, 36(18): 2155, figs. 2, 6d, 10e, 13c, 15c, 15d, 18, 19. Tanabe & Sota, 2014, Evolution, 68: Supporting Information.

### ***Parafontaria erythrosoma* (Takakuwa, 1942)**

*Japonaria erythrosoma* Takakuwa, 1942b, Annotationes Zoologicae Japonenses, 21: 40, fig. 3. MALE? HT? (YM). Type material destroyed in fire from air raid on Matsuyama-shi in 1945. Japan: Honshu, Tochigi Prefecture. Takakuwa, 1954, A Monograph of Diplopoda of Japan, 81, figs. 86, 87. Miyosi, 1959, Über japanische Diplopoden, 216, pl. 4, fig. 67.

*Parafontaria erythrosoma* – Murakami, 1993, A Checklist of the Japanese Species of Wildlife, Invertebrates I, 99. Tanabe, 2002, Journal of Natural History, 36(18): 2150, figs. 2, 6a, 6b, 10a, 10b, 13a, 15a, 18, 19. Tanabe & Sota, 2014, Evolution, 68: Supporting Information.

### ***Parafontaria falcifera* (Verhoeff, 1936)**

*Fontaria (Japonaria) falcifera* Verhoeff, 1936a, Transactions of the Sapporo Natural History Society, 14(3): 157, pl.

3, fig. 11. MALE HT (ZSM). Japan: Honshu, Gunma Prefecture. Verhoeff, 1937, Zoologischer Anzeiger, 117: 314.

*Japonaria (Japonaria) falcifera* – Attems, 1938, Das Tierreich, 69: 175, fig. 192.

*Japonaria falcifera* – Takakuwa, 1954, A Monograph of Diplopoda of Japan, 79, fig. 84. Miyosi, 1959, Über japanische Diplopoden, 216, pl. 5, figs. 68.

*Parafontaria falcifera* – Murakami, 1993, A Checklist of the Japanese Species of Wildlife, Invertebrates I, 99. Tanabe, 2002, Journal of Natural History, 36(18): 2163, figs. 2, 7d, 11f, 13i, 15i, 18, 19. Tanabe & Sota, 2014, Evolution, 68: Supporting Information.

### ***Parafontaria ishiii* Shinohara, 1986**

*Parafontaria ishiii* Shinohara, 1986, Acta Arachnologica, 35: 6, figs. 4, 5. MALE HT (NSMT). Japan: Honshu, Chiba Prefecture. Murakami, 1993, A Checklist of the Japanese Species of Wildlife, Invertebrates I, 99. Tanabe, 2002, Journal of Natural History, 36(18): 2151, figs. 2, 6c, 10c, 10d, 13b, 15b, 18, 19. Tanabe & Sota, 2014, Evolution, 68: Supporting Information.

### ***Parafontaria laminata* (Attems, 1909)**

*Fontaria coarctata laminata* Attems, 1909, Arkiv für zoologie, 5: 29, figs. 14, 15. MALE ST (NMW). Japan: Honshu, Shizuoka Prefecture.

*Fontaria (Japonaria) coarctata laminata* – Verhoeff, 1936a, Transactions of the Sapporo Natural History Society, 14(3): 157.

*Fontaria (Parafontaria) armigera* Verhoeff, 1936b, Zoologischer Anzeiger, 115(11-12): 301, figs. 4-6. MALE ST (ZSM). Japan: Honshu, Nagano Prefecture. Synonymized by Tanabe, 2002, Journal of Natural History, 36(18): 2156.

*Fontaria (Japonaria) laminata* – Verhoeff, 1937, Zoologischer Anzeiger, 117: 314.

*Fontaria (Parafontaria) kuhlgatzi* Verhoeff, 1937, Zoologischer Anzeiger, 117: 318, figs. 1, 2. MALE ST (ZSM). Japan: Honshu, Toyama Prefecture. Synonymized by Tanabe, 2002, Journal of Natural History, 36(18): 2156.

*Japonaria (Japonaria) laminata* – Attems, 1938, Das Tierreich, 69: 177, fig. 194.

*Japonaria (Parafontaria) armigera* – Attems, 1938, Das Tierreich, 69: 179.

*Fontaria (Parafontaria) kuhlgatzi montana* Verhoeff, 1941b, Zoologischer Anzeiger, 136: 67, figs. 5, 6. MALE ST



- (ZSM). Preoccupied by *Fontaria montana* Bollman, 1887, Proceedings of the United States National Museum, 10: 622. Japan: Honshu, Nagano Prefecture. Synonymized by Shinohara, 1989, Proceedings of the Japanese Society of Systematic Zoology, 40: 44.
- Fontaria (Parafontaria) aculeata* Verhoeff, 1941b, Zoologischer Anzeiger, 136: 68. MALE HT (ZSM). Japan: Honshu, Nagano Prefecture. Synonymized by Shinohara, 1989, Proceedings of the Japanese Society of Systematic Zoology, 40: 45.
- Japonaria laminata laminata* – Takakuwa, 1942b, Annotationes Zoologicae Japonenses, 21: 42. Takakuwa, 1954, A Monograph of Diplopoda of Japan, 79, figs. 82, 83. Miyosi, 1959, Über japanische Diplopoden, 216, pl. 5, figs. 78, 79.
- Japonaria laminata armigera* – Takakuwa, 1942b, Annotationes Zoologicae Japonenses, 21: 42, fig. 6. Takakuwa, 1954, A Monograph of Diplopoda of Japan, 79. Miyosi, 1959, Über japanische Diplopoden, 216, pls. 5, 6, figs 87-89, 100.
- Japonaria laminata kuhlgatzi* – Miyosi, 1959, Über japanische Diplopoden, 216, pl. 5, figs. 80, 81.
- Japonaria laminata montana* – Miyosi, 1959, Über japanische Diplopoden, 216, pl. 5, figs 82-84.
- Japonaria laminata aculeata* – Miyosi, 1959, Über japanische Diplopoden, 216, pl. 5, figs 85, 86.
- Parafontaria laminata laminata* – Hoffman, 1978c, Spixiana, 1(3): 221, figs 6, 7. Nijjima and Shinohara, 1988, Japanese Journal of Ecology, 38: 258, figs 1, 2A. Shinohara, 1989, Proceedings of the Japanese Society of Systematic Zoology, 40: 44, figs 1–3. Murakami, 1993, A Checklist of the Japanese Species of Wildlife, Invertebrates I, 99.
- Parafontaria laminata armigera* – Hoffman, 1978c, Spixiana, 1(3): 221. Nijjima and Shinohara, 1988, Japanese Journal of Ecology, 38: 258, fig 2B. Shinohara, 1989, Proceedings of the Japanese Society of Systematic Zoology, 40: 44, figs 4–6. Kuse et al., 2010, Bioscience, biotechnology, and biochemistry, 74(11): 2307. Korsós et al., 2011, Zootaxa, 2877: 55.
- Parafontaria laminata monticola* Hoffman, 1978c, Spixiana, 1(3): 222. New name for *Fontaria (Parafontaria) kuhlgatzi montana* Verhoeff, 1941. Synonymized by Shinohara, 1989, Proceedings of the Japanese Society of Systematic Zoology, 40: 44.
- Parafontaria echizenensis* Shinohara, 1986, Acta Arachnologica, 35: 1, fig. 1. MALE HT (NSMT). Japan: Honshu, Fukui Prefecture. Nijjima and Shinohara, 1988, Japanese Journal of Ecology, 38: 259, fig 2D. Shinohara, 1989, Proceedings of the Japanese Society of Systematic Zoology, 40: 46, figs. 12-15. Murakami, 1993, A Checklist of the Japanese Species of Wildlife, Invertebrates I, 99. Synonymized by Tanabe, 2002, Journal of Natural History, 36(18): 2157.
- Parafontaria kuhlgatzi* – Nijjima and Shinohara, 1988, Japanese Journal of Ecology, 38: 259. Shinohara, 1989, Proceedings of the Japanese Society of Systematic Zoology, 40: 45, figs 7-11. Murakami, 1993, A Checklist of the Japanese Species of Wildlife, Invertebrates I, 99.
- Parafontaria laminata* – Tanabe, 2002, Journal of Natural History, 36(18): 2156, figs. 3, 6e, 6f, 10f-i, 13d, 15e, 18, 19. Tanabe & Sota, 2014, Evolution, 68: Supporting Information.
- Note: *Parafontaria laminata* swarms in great numbers of individuals, and are often flattened by passing trains thus causing the innards to ooze out onto the tracks. The compressed millipedes cause a slick, which en masse prevents the train's wheels from gaining a purchase. For this reason they are commonly known as the "train millipede." Other xystodesmid species that have been recorded to aggregate are: *Pleurolooma flavipes* and *Chonaphe armata* (Cloudsley-Thompson, 1949; Shelley, 1980b) and *Parafontaria tonominea* (Kaneko & Hashimoto, 2010).
- Parafontaria longa* Shinohara, 1986**
- Parafontaria longa* Shinohara, 1986, Acta Arachnologica, 35: 5, fig. 3. MALE HT (NSMT). Japan: Honshu, Gibu Prefecture. Murakami, 1993, A Checklist of the Japanese Species of Wildlife, Invertebrates I, 99. Tanabe, 2002, Journal of Natural History, 36(18): 2160, figs. 2, 6h, 11b, 11c, 13f, 13g, 15g, 18, 19. Tanabe & Sota, 2014, Evolution, 68: Supporting Information.
- Parafontaria shiraiwaensis* Shinohara, 1986**
- Parafontaria shiraiwaensis* Shinohara, 1986, Acta Arachnologica, 35: 7, fig. 6. MALE HT (NSMT). Japan: Honshu, Saitama Prefecture. Murakami, 1993, A Checklist of the Japanese Species of Wildlife, Invertebrates I, 99. Tanabe, 2002, Journal of Natural History, 36(18): 2160, figs. 2, 7b, 7c, 11e, 18, 19.
- Parafontaria spathulata* (Miyosi, 1951)**
- Japonaria spathulata* Miyosi, 1951, Zoological Science, 60: 266. MALE? HT? (YM?). Japan: Shikoku, Ehime Prefecture. Miyosi, 1959, Über japanische Diplopoden, 216, pl. 4, figs. 63, 64.
- Parafontaria spathulata* – Murakami, 1993, A Checklist of the Japanese Species of Wildlife, Invertebrates I, 100. Tanabe, 2002, Journal of Natural History, 36(18): 2163,

figs. 4, 7e, 11g, 13j, 15j, 18, 19.

### ***Parafontaria takakuwai* (Shinohara, 1957)**

*Japonaria takakuwai* Shinohara, 1957, in: Takashima & Shinohara, 1957, Miscellaneous Reports of the Yamashina's Institute for Ornithology and Zoology, 10: 406, fig. 1. MALE HT (NSMT). Japan: Honshu, Saitama Prefecture. Miyosi, 1959, Über japanische Diplopoden, 216, pl. 6, figs. 94-96.

*Parafontaria takakuwai* – Murakami, 1993, A Checklist of the Japanese Species of Wildlife, Invertebrates I, 100. Tanabe, 2002, Journal of Natural History, 36(18): 2165, figs. 2, 7f, 11h, 18, 19.

### ***Parafontaria tokaiensis* Tanabe, 2002**

*Parafontaria tokaiensis* Tanabe, 2002, Journal of Natural History, 36(18): 2160, figs. 2, 7a, 11d, 13h, 15h, 18, 19. MALE HT (NSMT). Japan: Honshu, Shizuoka Prefecture. Tanabe & Sota, 2014, Evolution, 68: Supporting Information.

### ***Parafontaria tonominea* (Attems, 1899)**

*Fontaria tonominea* Attems, 1899, Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68: 260, pl. 13, fig. 310. FEMALE HT (ZMUH). Japan: Honshu, Nara Prefecture.

*Fontaria coarctata circula* Attems, 1901, Mitteilungen aus dem Naturhistorischen Museum (Hamburg), 18: 97, pl. 1, figs. 5-7. FEMALE ST (NMW). Japan: Honshu, Kyoto Prefecture. Synonymized by Tanabe, 2002, Journal of Natural History, 36(18): 2166.

*Fontaria coarctata acutidens* Attems, 1909, Arkiv für zoologie, 5: 30, pl. 1, fig. 13. MALE ST (ZSM). Japan: Honshu, Gunma Prefecture. Synonymized by Tanabe, 2002, Journal of Natural History, 36(18): 2166.

*Fontaria (Japonaria) circula* – Verhoeff, 1936a, Transactions of the Sapporo Natural History Society, 14(3): 157. Verhoeff, 1937, Zoologischer Anzeiger, 117: 314.

*Fontaria (Japonaria) coarctata acutidens* – Verhoeff, 1936a, Transactions of the Sapporo Natural History Society, 14(3): 160, pl. 3, fig. 12.

*Fontaria (Japonaria) acutidens* – Verhoeff, 1937, Zoologischer Anzeiger, 117: 314.

*Fontaria (Japonaria) spiraligera* Verhoeff, 1937, Zoologischer Anzeiger, 117: 315, figs. 3-6. MALE ST (ZSM). Japan: Honshu, Shiga Prefecture. Takakuwa, 1942b, Annotationes Zoologicae Japonenses, 21: 41.

Synonymized by Tanabe, 2002, Journal of Natural History, 36(18): 2166.

*Fontaria (Japonaria) marmorata* Verhoeff, 1937, Zoologischer Anzeiger, 117: 316, fig. 7. MALE HT (ZSM). Japan: Honshu, Wakayama Prefecture. Synonymized by Tanabe, 2002, Journal of Natural History, 36(18): 2166.

*Apheloria tonominea* – Attems, 1938, Das Tierreich, 69: 171.

*Japonaria (Japonaria) acutidens* – Attems, 1938, Das Tierreich, 69: 176, fig. 193.

*Japonaria (Japonaria) circula* – Attems, 1938, Das Tierreich, 69: 177, figs. 195, 196.

*Japonaria (Japonaria) spiraligera* – Attems, Das Tierreich, 69: 1938: 178.

*Japonaria (Japonaria) marmorata* – Attems, Das Tierreich, 69: 1938: 179.

*Japonaria spiraligera* – Takakuwa, 1942b, Annotationes Zoologicae Japonenses, 21: 41, fig. 5. Takakuwa, 1954, A Monograph of Diplopoda of Japan, 81, figs. 88, 89. Miyosi, 1959, Über japanische Diplopoden, 216, pl. 4, figs 60-62.

*Grayaria attemsi* Chamberlin, 1943b, Bulletin of the University of Utah, 8(2): 16. Synonymized by Hoffman, 1949a, Natural History Miscellanea, 45(1): 5. Misidentification of the name *Fontaria coarctata acutidens* Attems, 1909.

*Japonaria longispinosa longispinosa* Miyosi, 1951, Zoological Science, 60: 266, fig. 2a. MALE? HT? (YM?). Japan: Shikoku, Ehime Prefecture. Miyosi, 1959, Über japanische Diplopoden, 216, pl. 6, fig. 92. Synonymized by Tanabe, 2002, Journal of Natural History, 36(18): 2166.

*Japonaria longispinosa falcata* Miyosi, 1951, Zoological Science, 60: 266, fig. 2b. MALE? HT? (YM?). Japan: Shikoku, Ehime Prefecture. Miyosi, 1959, Über japanische Diplopoden, 216, pl. 6, fig 93. Synonymized by Tanabe, 2002, Journal of Natural History, 36(18): 2166.

*Japonaria circula* – Chamberlin & Wang, 1953, American Museum Novitates, 1621: 7. Takakuwa, 1954, A Monograph of Diplopoda of Japan, 76, fig. 80. Miyosi, 1959, Über japanische Diplopoden, 216, pl. 6, figs 90, 91.

*Japonaria acutidens* – Chamberlin & Wang, 1953, American Museum Novitates, 1621: 7. Takakuwa, 1954, A Monograph of Diplopoda of Japan, 82, figs. 90, 91. Miyosi, 1959, Über japanische Diplopoden, 216, pl. 5, figs 71-73.

*Japonaria marmorata* – Takakuwa, 1954, A Monograph

of Diplopoda of Japan, 83, fig. 92. Miyosi, 1959, Über japanische Diplopoden, 216, pl. 4, figs 65, 66.

*Japonaria acutidens takashimai* Shinohara, 1957, in: Takashima & Shinohara, 1957, Miscellaneous Reports of the Yamashina's Institute for Ornithology and Zoology, 10: 406, fig. 2. MALE HT (NSMT). Japan: Honshu, Saitama Prefecture. Synonymized by Tanabe, 2002, Journal of Natural History, 36(18): 2166

*Japonaria egregia* Haga, 1968, Japanese Millipedes, 6, pl. 5, fig. 11. MALE HT (NSMT). Japan: Kyushu, Fukuoka Prefecture. Synonymized by Tanabe, 2002, Journal of Natural History, 36(18): 2166.

*Parafontaria tonominea* – Hoffman, 1978c, Spixiana, 1(3): 219, figs. 4, 5. Tanabe, 2002, Journal of Natural History, 36(18): 2165, figs. 1, 5, 8, 9, 12, 14, 15k-n, 17-19. Tanabe & Sota, 2014, Evolution, 68: 441.

*Parafontaria acutidens* – Murakami, 1993, A Checklist of the Japanese Species of Wildlife, Invertebrates I, 99.

*Parafontaria circula* – Murakami, 1993, A Checklist of the Japanese Species of Wildlife, Invertebrates I, 99.

*Parafontaria egregia* – Murakami, 1993, A Checklist of the Japanese Species of Wildlife, Invertebrates I, 99.

*Parafontaria longispinosa longispinosa* – Murakami, 1993, A Checklist of the Japanese Species of Wildlife, Invertebrates I, 99.

*Parafontaria longispinosa falcata* – Murakami, 1993, A Checklist of the Japanese Species of Wildlife, Invertebrates I, 99.

*Parafontaria marmorata* – Murakami, 1993, A Checklist of

the Japanese Species of Wildlife, Invertebrates I, 99.

*Parafontaria spiraligera* – Murakami, 1993, A Checklist of the Japanese Species of Wildlife, Invertebrates I, 100.

Note: *Parafontaria tonominea* appears to be an aggregation of very closely related forms comprising diverse evolutionary states ranging from mere geographic variation to full reproductive units (Tanabe et al., 2001; Sota & Tanabe, 2010) and thus can be recognized as a species complex.

#### Species of uncertain status in *Parafontaria*

##### ***Parafontaria terminalis* (Takakuwa, 1942)**

*Japonaria terminalis* Takakuwa, 1942b, Annotationes Zoologicae Japonenses, 21: 39, figs. 1, 2. MALE? HT? (YM). Type material destroyed in fire from air raid on Matsuyama-shi in 1945. Japan: Kyushu, Kagoshima Prefecture. Miyosi, 1959, Über japanische Diplopoden, 216, pl. 5, figs. 69, 70.

*Parafontaria terminalis* – Murakami, 1993, A Checklist of the Japanese Species of Wildlife, Invertebrates I, 100. Tanabe, 2002, Journal of Natural History, 36(18): 2165.

Note: Tanabe (2002) suggested synonymy of *P. terminalis* with *P. erythrosoma* due to close similarity between the two species descriptions and examination of recently collected material of *P. erythrosoma*. However, fresh material for *P. terminalis* is unavailable and the type specimens for both species have been destroyed thus hampering certainty regarding potential synonymy of these names.



**Table 3:** Generic synonyms in the family Xystodesmidae, organized in tribes, in alphabetical order by valid genus name; valid genus names are bold.

| Xystodesminae, Apheloriini  |                    | Xystodesminae, Xystocheirini |                                 |
|-----------------------------|--------------------|------------------------------|---------------------------------|
| <i>Apheloria</i>            | <i>Leptocircus</i> | <b><i>Motyxia</i></b>        | <i>Amplocheir</i>               |
| <b><i>Brachoria</i></b>     | <i>Anfractogon</i> | <b><i>Motyxia</i></b>        | <i>Luminodesmus</i>             |
| <i>Brachoria</i>            | <i>Tucoria</i>     | <b><i>Xystocheir</i></b>     | <i>Cheirauxus</i>               |
| <b><i>Deltotaria</i></b>    | <i>Phanoria</i>    | <b><i>Xystocheir</i></b>     | <i>Delocheir</i>                |
| <i>Falloria</i>             | <i>Hubroria</i>    | <b><i>Xystocheir</i></b>     | <i>Paimokia</i>                 |
| <b><i>Sigmoria</i></b>      | <i>Sigiria</i>     |                              |                                 |
| Xystodesminae, Nannariini   |                    | Xystodesminae, Xystodesmini  |                                 |
| <b><i>Nannaria</i></b>      | <i>Mimuloria</i>   | <b><i>Isaphe</i></b>         | <i>Hybaphe</i>                  |
| <i>Nannaria</i>             | <i>Castanaria</i>  | <b><i>Levizonus</i></b>      | <i>Ezaria</i>                   |
|                             |                    | <b><i>Levizonus</i></b>      | <i>Ezodesmus</i>                |
|                             |                    | <b><i>Levizonus</i></b>      | <i>Hokkaidaria</i>              |
|                             |                    | <b><i>Levizonus</i></b>      | <i>Profontaria</i>              |
|                             |                    | <b><i>Riukiaria</i></b>      | <i>Rhysolus</i>                 |
|                             |                    | <b><i>Riukiaria</i></b>      | <i>Sinoria</i>                  |
|                             |                    | <b><i>Xystodesmus</i></b>    | <i>Cyphonaria</i>               |
|                             |                    | <b><i>Xystodesmus</i></b>    | <i>Nikkonus</i>                 |
|                             |                    | <b><i>Xystodesmus</i></b>    | <i>Phrurodesmus</i>             |
|                             |                    | <b><i>Xystodesmus</i></b>    | <i>Takakuwaia</i>               |
| Xystodesminae, Orophini     |                    | Melaphinae, Melaphini        |                                 |
| <b><i>Orophe</i></b>        | <i>Chipus</i>      | <b><i>Melaphe</i></b>        | <i>Haploleptodesmus</i>         |
|                             |                    | <b><i>Melaphe</i></b>        | <i>Oxyurus</i>                  |
|                             |                    | <b><i>Melaphe</i></b>        | <i>Leptodesmus (Asiodesmus)</i> |
| Xystodesminae, Pachydesmini |                    | Parafontariinae              |                                 |
| <b><i>Dicellarius</i></b>   | <i>Spathoria</i>   | <b><i>Parafontaria</i></b>   | <i>Japonaria</i>                |
| <i>Dicellarius</i>          | <i>Epeloria</i>    | <b><i>Parafontaria</i></b>   | <i>Grayaria</i>                 |
| Xystodesminae, Rhysodesmini |                    |                              |                                 |
| <b><i>Boraria</i></b>       | <i>Howellaria</i>  |                              |                                 |
| <b><i>Pleuroloma</i></b>    | <i>Zinaria</i>     |                              |                                 |
| <b><i>Rhysodesmus</i></b>   | <i>Acentronus</i>  |                              |                                 |
| <b><i>Rhysodesmus</i></b>   | <i>Aporiaria</i>   |                              |                                 |
| <b><i>Rhysodesmus</i></b>   | <i>Dampfaria</i>   |                              |                                 |
| <b><i>Stenodesmus</i></b>   | <i>Cruzodesmus</i> |                              |                                 |
| <b><i>Stenodesmus</i></b>   | <i>Cibularia</i>   |                              |                                 |
| Xystodesminae, Sigocheirini |                    |                              |                                 |
| <b><i>Sigocheir</i></b>     | <i>Tuolumnia</i>   |                              |                                 |

**Table 4:** Generic synonyms in Xystodesmidae, in alphabetical order of valid genus name; there are 40 generic synonyms in Xystodesmidae.

|                     |                                 |
|---------------------|---------------------------------|
| <i>Apheloria</i>    | <i>Leptocircus</i>              |
| <i>Boraria</i>      | <i>Howellaria</i>               |
| <i>Brachoria</i>    | <i>Anfractogon</i>              |
| <i>Brachoria</i>    | <i>Tucoria</i>                  |
| <i>Deltotaria</i>   | <i>Phanoria</i>                 |
| <i>Dicellarius</i>  | <i>Epeloria</i>                 |
| <i>Dicellarius</i>  | <i>Spathoria</i>                |
| <i>Falloria</i>     | <i>Hubroria</i>                 |
| <i>Isaphe</i>       | <i>Hybaphe</i>                  |
| <i>Levizonus</i>    | <i>Ezaria</i>                   |
| <i>Levizonus</i>    | <i>Ezodesmus</i>                |
| <i>Levizonus</i>    | <i>Hokkaidaria</i>              |
| <i>Levizonus</i>    | <i>Profontaria</i>              |
| <i>Melaphe</i>      | <i>Haploleptodesmus</i>         |
| <i>Melaphe</i>      | <i>Leptodesmus (Asiodesmus)</i> |
| <i>Melaphe</i>      | <i>Oxyurus</i>                  |
| <i>Motyxia</i>      | <i>Amplocheir</i>               |
| <i>Motyxia</i>      | <i>Luminodesmus</i>             |
| <i>Nannaria</i>     | <i>Castanaria</i>               |
| <i>Nannaria</i>     | <i>Mimuloria</i>                |
| <i>Orophe</i>       | <i>Chipus</i>                   |
| <i>Parafontaria</i> | <i>Grayaria</i>                 |
| <i>Parafontaria</i> | <i>Japonaria</i>                |
| <i>Pleurolooma</i>  | <i>Zinaria</i>                  |
| <i>Rhysodesmus</i>  | <i>Acentronus</i>               |
| <i>Rhysodesmus</i>  | <i>Aporiaria</i>                |
| <i>Rhysodesmus</i>  | <i>Dampfaria</i>                |
| <i>Riukiaria</i>    | <i>Rhysolus</i>                 |
| <i>Riukiaria</i>    | <i>Sinoria</i>                  |
| <i>Sigmocheir</i>   | <i>Tuolumnia</i>                |
| <i>Sigmoria</i>     | <i>Sigiria</i>                  |
| <i>Stenodesmus</i>  | <i>Cibularia</i>                |
| <i>Stenodesmus</i>  | <i>Cruzodesmus</i>              |
| <i>Xystocheir</i>   | <i>Cheirauxus</i>               |
| <i>Xystocheir</i>   | <i>Delocheir</i>                |
| <i>Xystocheir</i>   | <i>Paimokia</i>                 |
| <i>Xystodesmus</i>  | <i>Nikkonus</i>                 |
| <i>Xystodesmus</i>  | <i>Cyphonaria</i>               |
| <i>Xystodesmus</i>  | <i>Phrurodesmus</i>             |
| <i>Xystodesmus</i>  | <i>Takakuwaia</i>               |

**Table 5:** Generic synonyms in Xystodesmidae, in alphabetical order of synonym.

|                                 |                     |
|---------------------------------|---------------------|
| <i>Acentronus</i>               | <i>Rhysodesmus</i>  |
| <i>Amplocheir</i>               | <i>Motyxia</i>      |
| <i>Anfractogon</i>              | <i>Brachoria</i>    |
| <i>Aporiaria</i>                | <i>Rhysodesmus</i>  |
| <i>Castanaria</i>               | <i>Nannaria</i>     |
| <i>Cheirauxus</i>               | <i>Xystocheir</i>   |
| <i>Chipus</i>                   | <i>Orophe</i>       |
| <i>Cibularia</i>                | <i>Stenodesmus</i>  |
| <i>Cruzodesmus</i>              | <i>Stenodesmus</i>  |
| <i>Cyphonaria</i>               | <i>Xystodesmus</i>  |
| <i>Dampfaria</i>                | <i>Rhysodesmus</i>  |
| <i>Delocheir</i>                | <i>Xystocheir</i>   |
| <i>Epeloria</i>                 | <i>Dicellarius</i>  |
| <i>Ezaria</i>                   | <i>Levizonus</i>    |
| <i>Ezodesmus</i>                | <i>Levizonus</i>    |
| <i>Grayaria</i>                 | <i>Parafontaria</i> |
| <i>Haploleptodesmus</i>         | <i>Melaphe</i>      |
| <i>Hokkaidaria</i>              | <i>Levizonus</i>    |
| <i>Howellaria</i>               | <i>Boraria</i>      |
| <i>Hubroria</i>                 | <i>Falloria</i>     |
| <i>Hybaphe</i>                  | <i>Isaphe</i>       |
| <i>Japonaria</i>                | <i>Parafontaria</i> |
| <i>Leptocircus</i>              | <i>Apheloria</i>    |
| <i>Leptodesmus (Asiodesmus)</i> | <i>Melaphe</i>      |
| <i>Luminodesmus</i>             | <i>Motyxia</i>      |
| <i>Mimuloria</i>                | <i>Nannaria</i>     |
| <i>Nikkonus</i>                 | <i>Xystodesmus</i>  |
| <i>Oxyurus</i>                  | <i>Melaphe</i>      |
| <i>Paimokia</i>                 | <i>Xystocheir</i>   |
| <i>Phanoria</i>                 | <i>Deltotaria</i>   |
| <i>Phrurodesmus</i>             | <i>Xystodesmus</i>  |
| <i>Profontaria</i>              | <i>Levizonus</i>    |
| <i>Rhysolus</i>                 | <i>Riukiaria</i>    |
| <i>Sigiria</i>                  | <i>Sigmoria</i>     |
| <i>Sinoria</i>                  | <i>Riukiaria</i>    |
| <i>Spathoria</i>                | <i>Dicellarius</i>  |
| <i>Takakuwaia</i>               | <i>Xystodesmus</i>  |
| <i>Tucoria</i>                  | <i>Brachoria</i>    |
| <i>Tuolumnia</i>                | <i>Sigmocheir</i>   |
| <i>Zinaria</i>                  | <i>Pleurolooma</i>  |

**Table 6:** Species synonyms in the family Xystodesmidae, in alphabetical order by valid genus-species combination; valid species name are in bold. Currently, there are 152 specific synonyms recognized.

| <b>Valid Species Name</b>                                | <b>Synonymous Species Name</b>                                                        |
|----------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>Apheloria montana (Bollman, 1887)</b>                 | <i>Apheloria unaka</i> Chamberlin, 1939                                               |
| <b>Apheloria montana (Bollman, 1887)</b>                 | <i>Apheloria pinicola</i> Chamberlin, 1947                                            |
| <b>Apheloria montana (Bollman, 1887)</b>                 | <i>Apheloria roanea</i> Chamberlin, 1947                                              |
| <b>Apheloria tigana Chamberlin, 1939</b>                 | <i>Apheloria aspila</i> Chamberlin, 1939                                              |
| <b>Apheloria tigana Chamberlin, 1939</b>                 | <i>Apheloria waccamana</i> Chamberlin, 1940                                           |
| <b>Apheloria virginiensis butleriana (Wood, 1864)</b>    | <i>Apheloria asburna</i> Chamberlin, 1949b                                            |
| <b>Apheloria virginiensis butleriana (Wood, 1864)</b>    | <i>Leptocircus inexpectatus</i> Attems, 1931                                          |
| <b>Apheloria virginiensis corrugata (Wood, 1864)</b>     | <i>Apheloria adela</i> Chamberlin, 1939                                               |
| <b>Apheloria virginiensis corrugate (Wood, 1864)</b>     | <i>Fontaria coriacea sensu</i> Bollman, 1889                                          |
| <b>Apheloria virginiensis virginiensis (Drury, 1770)</b> | <i>Apheloria virginia</i> Chamberlin, 1939                                            |
| <b>Boraria infesta (Chamberlin, 1918)</b>                | <i>Aporiaria brunnior</i> Chamberlin, 1943                                            |
| <b>Boraria infesta (Chamberlin, 1918)</b>                | <i>Aporiaria geniculata</i> Chamberlin, 1939                                          |
| <b>Boraria infesta (Chamberlin, 1918)</b>                | <i>Aporiaria media</i> (nec Chamberlin, 1918 )                                        |
| <b>Boraria stricta (Brölemann, 1896)</b>                 | <i>Nannaria media</i> Chamberlin, 1918                                                |
| <b>Boraria stricta (Brölemann, 1896)</b>                 | <i>Aporiaria carolina</i> Chamberlin, 1939                                            |
| <b>Boraria stricta (Brölemann, 1896)</b>                 | <i>Aporiaria fumans</i> Chamberlin, 1943                                              |
| <b>Brachoria initialis Chamberlin, 1939</b>              | <i>Brachoria benderi</i> Causey, 1950                                                 |
| <b>Brachoria initialis Chamberlin, 1939</b>              | <i>Brachoria brachypus</i> Chamberlin, 1947                                           |
| <b>Brachoria initialis Chamberlin, 1939</b>              | <i>Brachoria ochra initialis</i> Keaton, 1959?                                        |
| <b>Brachoria ochra (Chamberlin, 1918)</b>                | <i>Brachoria ochra ochra</i> Keeton, 1959                                             |
| <b>Brachoria ochra (Chamberlin, 1918)</b>                | <i>Brachoria sequens</i> Chamberlin, 1939                                             |
| <b>Brachoria ochra (Chamberlin, 1918)</b>                | <i>Anfractogon tenebrans</i> Hoffman, 1948                                            |
| <b>Brachoria splendida (Causey, 1942)</b>                | <i>Tucoria dynama</i> Chamberlin, 1947                                                |
| <b>Cherokia georgiana georgiana (Bollman, 1889)</b>      | <i>Fontaria tallulah</i> Bollman, 1889                                                |
| <b>Cherokia georgiana georgiana (Bollman, 1889)</b>      | <i>Fontaria furcifer</i> <i>Fontaria</i> (nec Bollman, 1893) – sensu<br>Brimley, 1938 |
| <b>Cherokia georgiana georgiana (Bollman, 1889)</b>      | <i>Mimuloria furcifer</i> Chamberlin, 1940                                            |
| <b>Cherokia georgiana georgiana (Bollman, 1889)</b>      | <i>Dynoria parvior</i> Chamberlin, 1947                                               |
| <b>Chonaphe armata (Harger, 1872)</b>                    | <i>Chonaphe cygneia</i> Chamberlin, 1949                                              |
| <b>Chonaphe armata (Harger, 1872)</b>                    | <i>Chonaphe patriotica</i> Chamberlin, 1949                                           |
| <b>Chonaphe armata (Harger, 1872)</b>                    | <i>Chonaphe serratus</i> Loomis & Schmitt, 1971                                       |



Table 6 continued

| Valid Species Name                                       | Synonymous Species Name                                          |
|----------------------------------------------------------|------------------------------------------------------------------|
| <b>Cleptoria rileyi (Bollman, 1889)</b>                  | <i>Cleptoria rileyi alabama</i> Hoffman, 1967                    |
| <b>Cleptoria rileyi (Bollman, 1889)</b>                  | <i>Cleptoria rileyi rileyi</i> Hoffman, 1967                     |
| <b>Deltotaria brimleii brimleii Causey, 1942</b>         | <i>Deltotaria brimleardia</i> Causey, 1950                       |
| <b>Deltotaria brimleii brimleii Causey, 1942</b>         | <i>Deltotaria tela</i> Causey, 1950                              |
| <b>Deltotaria brimleii brimleii Causey, 1942</b>         | <i>Deltotaria mariana</i> Hoffman, 1961                          |
| <b>Dicellarius bimaculatus fictus (Chamberlin, 1943)</b> | <i>Epeloria dela</i> Chamberlin, 1946                            |
| <b>Dicellarius bimaculatus fictus (Chamberlin, 1943)</b> | <i>Epeloria leiacantha</i> Chamberlin, 1946                      |
| <b>Dicellarius okefenokensis (Chamberlin, 1918)</b>      | <i>Epeloria nannoides</i> Chamberlin, 1949                       |
| <b>Dixioria acuminata Hoffman, 1956</b>                  | <i>Dixioria pela acuminata</i> Hoffman, 1956                     |
| <b>Dixioria brooksi Hoffman, 1956</b>                    | <i>Dixioria pela brooksi</i> Hoffman, 1956                       |
| <b>Dixioria coronata Hoffman, 1949</b>                   | <i>Dixioria pela coronata</i> Hoffman, 1949                      |
| <b>Dixioria fowleri Hoffman, 1956</b>                    | <i>Dixioria pela fowleri</i> Hoffman, 1956                       |
| <b>Dixioria pela (Chamberlin, 1918)</b>                  | <i>Dixioria dentifer</i> Chamberlin, 1947                        |
| <b>Dixioria pela (Chamberlin, 1918)</b>                  | <i>Dixioria pela pela</i> Hoffman, 1956b                         |
| <b>Dixioria wrighti Hoffman, 1956</b>                    | <i>Dixioria pela wrighti</i> Hoffman, 1956                       |
| <b>Harpaphe haydeniana haydeniana (Wood, 1864)</b>       | <i>Fontaria Simoni</i> Brölemann, 1896                           |
| <b>Harpaphe haydeniana haydeniana (Wood, 1864)</b>       | <i>Harpaphe penulta</i> Chamberlin, 1949                         |
| <b>Harpaphe haydeniana haydeniana (Wood, 1864)</b>       | <i>Leptodesmus (Isaphe) simplex</i> Chamberlin, 1918             |
| <b>Harpaphe haydeniana haydeniana (Wood, 1864)</b>       | <i>Polydesmus (Oxyurus) intaminatus</i> Karsch, 1881             |
| <b>Harpaphe haydeniana scotia (Chamberlin, 1941)</b>     | <i>Harpaphe clara</i> Chamberlin, 1949                           |
| <b>Isaphe tersa (Cook, 1904)</b>                         | <i>Hybaphe curtipes</i> Cook, 1904                               |
| <b>Levizonus montanus (Takakuwa, 1941)</b>               | <i>Japonaria (Japonaria) hamuligera</i> Kraus, 1960              |
| <b>Levizonus takakuwai (Verhoeff, 1941)</b>              | <i>Ezodesmus lunatus</i> Takakuwa, 1942                          |
| <b>Levizonus thaumasius Attems, 1898</b>                 | <i>Levizonus orientalis</i> Lokšina & Golovatch, 1977            |
| <b>Macellolophus rubromarginatus (Lucas, 1846)</b>       | <i>Macellolophus breuili</i> Ceuca, 1988                         |
| <b>Macellolophus rubromarginatus (Lucas, 1846)</b>       | <i>Macellolophus excavatus</i> Verhoeff, 1931                    |
| <b>Macellolophus rubromarginatus (Lucas, 1846)</b>       | <i>Macellolophus hispanicus</i> Verhoeff, 1931                   |
| <b>Macellolophus rubromarginatus (Lucas, 1846)</b>       | <i>Macellolophus panousei</i> Schubart, 1960                     |
| <b>Melaphe mauritanica (Lucas, 1844)</b>                 | <i>Haploleptodesmus mauritanicus geniculatus</i> Brölemann, 1910 |
| <b>Melaphe vestita vestita (Koch, 1847)</b>              | <i>Haploleptodesmus caramanicus</i> Brölemann, 1910              |

Table 6 continued

| Valid Species Name                                      | Synonymous Species Name                                                                                |
|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <b>Melaphe vestita vestita (Koch, 1847)</b>             | <i>Melaphe arcuata</i> Verhoeff, 1941                                                                  |
| <b>Melaphe vestita vestita (Koch, 1847)</b>             | <i>Melaphe vestita turcica</i> Verhoeff, 1941                                                          |
| <b>Melaphe vestita vestita (Koch, 1847)</b>             | <i>Melaphe wohlberedti</i> Verhoeff, 1940                                                              |
| <b>Melaphe vestita vestita (Koch, 1847)</b>             | <i>Oxyurus throx</i> Attems, 1894                                                                      |
| <b>Motyxia monica Chamberlin, 1944</b>                  | <i>Motyxia dissecta</i> (nec <i>Polydesmus dissectus</i> Wood, 1867)<br>– sensu Causey & Tiemann, 1969 |
| <b>Motyxia monica Chamberlin, 1944</b>                  | <i>Motyxia exilis</i> Loomis, 1953                                                                     |
| <b>Motyxia monica Chamberlin, 1944</b>                  | <i>Motyxia expansa</i> Loomis, 1953                                                                    |
| <b>Motyxia monica Chamberlin, 1944</b>                  | <i>Motyxia tejona</i> Chamberlin, 1947                                                                 |
| <b>Nannaria fowleri Chamberlin, 1947</b>                | <i>Nannaria cayugae</i> Chamberlin, 1949                                                               |
| <b>Pachydesmus clarus (Chamberlin, 1918)</b>            | <i>Pachydesmus kisatchinsis</i> Chamberlin, 1942a                                                      |
| <b>Pachydesmus crassicutis crassicutis (Wood, 1864)</b> | <i>Fontaria louisiana</i> Chamberlin, 1918                                                             |
| <b>Pachydesmus crassicutis crassicutis (Wood, 1864)</b> | <i>Pachydesmus simulans</i> Chamberlin, 1942                                                           |
| <b>Parafontaria doenitzi (Karsch, 1880)</b>             | <i>Fontaria (Japonaria) attemsii</i> Verhoeff, 1936                                                    |
| <b>Parafontaria doenitzi (Karsch, 1880)</b>             | <i>Fontaria coarctata</i> Pocock, 1895                                                                 |
| <b>Parafontaria laminata (Attems, 1909)</b>             | <i>Fontaria (Parafontaria) aculeata</i> Verhoeff, 1941                                                 |
| <b>Parafontaria laminata (Attems, 1909)</b>             | <i>Fontaria (Parafontaria) armigera</i> Verhoeff, 1936                                                 |
| <b>Parafontaria laminata (Attems, 1909)</b>             | <i>Fontaria (Parafontaria) kuhlgatzi montana</i> Verhoeff, 1941                                        |
| <b>Parafontaria laminata (Attems, 1909)</b>             | <i>Fontaria (Parafontaria) kuhlgatzi</i> Verhoeff, 1937                                                |
| <b>Parafontaria laminata (Attems, 1909)</b>             | <i>Parafontaria echizenensis</i> Shinohara, 1986                                                       |
| <b>Parafontaria laminata (Attems, 1909)</b>             | <i>Parafontaria laminata monticola</i> Hoffman, 1978                                                   |
| <b>Parafontaria tonominea (Attems, 1899)</b>            | <i>Fontaria (Japonaria) marmorata</i> Verhoeff, 1937                                                   |
| <b>Parafontaria tonominea (Attems, 1899)</b>            | <i>Fontaria (Japonaria) spiraligera</i> Verhoeff, 1937                                                 |
| <b>Parafontaria tonominea (Attems, 1899)</b>            | <i>Fontaria coarctata acutidens</i> Attems, 1909                                                       |
| <b>Parafontaria tonominea (Attems, 1899)</b>            | <i>Fontaria coarctata circula</i> Attems, 1901                                                         |
| <b>Parafontaria tonominea (Attems, 1899)</b>            | <i>Grayaria attemsii</i> Chamberlin, 1943                                                              |
| <b>Parafontaria tonominea (Attems, 1899)</b>            | <i>Japonaria acutidens takashimai</i> Shinohara, 1957                                                  |
| <b>Parafontaria tonominea (Attems, 1899)</b>            | <i>Japonaria egregia</i> Haga, 1968                                                                    |
| <b>Parafontaria tonominea (Attems, 1899)</b>            | <i>Japonaria longispinosa falcata</i> Miyosi, 1951                                                     |
| <b>Parafontaria tonominea (Attems, 1899)</b>            | <i>Japonaria longispinosa longispinosa</i> Miyosi, 1951                                                |
| <b>Pleuroloma flavipes Rafinesque, 1820</b>             | <i>Fontaria virginiensis brunnea</i> Bollman, 1887                                                     |

Table 6 continued

| Valid Species Name                                     | Synonymous Species Name                                                                                                                            |
|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Pleuroloma flavipes Rafinesque, 1820</b>            | <i>Fontaria virginiensis castanea</i> Bollman, 1893                                                                                                |
| <b>Pleuroloma flavipes Rafinesque, 1820</b>            | <i>Polydesmus (Fontaria) virginiensis</i> (nec Gray, 1832; nec Drury & Westwood, 1837; nec C.L. Koch, 1847; nec Bollman, 1888d) – sensu Wood, 1865 |
| <b>Pleuroloma flavipes Rafinesque, 1820</b>            | <i>Polydesmus butlerii</i> McNeill, 1888                                                                                                           |
| <b>Pleuroloma flavipes Rafinesque, 1820</b>            | <i>Zinaria busheyi</i> Causey, 1951                                                                                                                |
| <b>Pleuroloma flavipes Rafinesque, 1820</b>            | <i>Zinaria iowa</i> Chamberlin, 1942                                                                                                               |
| <b>Pleuroloma flavipes Rafinesque, 1820</b>            | <i>Zinaria mima</i> Chamberlin, 1949                                                                                                               |
| <b>Pleuroloma flavipes Rafinesque, 1820</b>            | <i>Zinaria miribilia</i> Causey, 1951                                                                                                              |
| <b>Pleuroloma flavipes Rafinesque, 1820</b>            | <i>Zinaria proxima</i> Causey, 1951                                                                                                                |
| <b>Pleuroloma flavipes Rafinesque, 1820</b>            | <i>Zinaria rubrilata</i> Hoffman, 1949                                                                                                             |
| <b>Pleuroloma flavipes Rafinesque, 1820</b>            | <i>Zinaria urbana</i> Chamberlin, 1939                                                                                                             |
| <b>Pleuroloma flavipes Rafinesque, 1820</b>            | <i>Zinaria warreni</i> Causey, 1951                                                                                                                |
| <b>Prionogonus divergens (Chamberlin, 1939)</b>        | <i>Cleptoria divergens divergens</i> (Chamberlin, 1939)                                                                                            |
| <b>Prionogonus divergens (Chamberlin, 1939)</b>        | <i>Sigmoria nigrescens</i> Hoffman, 1950                                                                                                           |
| <b>Rhysodesmus dampfi (Verhoeff, 1932)</b>             | <i>Rhysodesmus eutypus</i> Chamberlin, 1943                                                                                                        |
| <b>Rhysodesmus dasypus (Gervais, 1847)</b>             | <i>Polydesmus (Fontaria) limax</i> DeSaussure, 1859                                                                                                |
| <b>Rhysodesmus tepanecus (DeSaussure, 1859)</b>        | <i>Rhysodesmus pater</i> Chamberlin, 1943                                                                                                          |
| <b>Rhysodesmus texicolens (Chamberlin, 1938)</b>       | <i>Rhysodesmus brachus</i> Chamberlin, 1941                                                                                                        |
| <b>Rhysodesmus texicolens (Chamberlin, 1938)</b>       | <i>Rhysodesmus quadruplus</i> Chamberlin, 1943                                                                                                     |
| <b>Rhysodesmus texicolens (Chamberlin, 1938)</b>       | <i>Rhysodesmus viabilis</i> Loomis, 1966                                                                                                           |
| <b>Rhysodesmus toltecus (DeSaussure, 1859)</b>         | <i>Polydesmus (Fontaria) mayus</i> DeSaussure, 1859                                                                                                |
| <b>Rhysodesmus toltecus (DeSaussure, 1859)</b>         | <i>Polydesmus (Leptodesmus) granulosus</i> DeSaussure, 1859                                                                                        |
| <b>Rhysodesmus toltecus (DeSaussure, 1859)</b>         | <i>Rhysodesmus amplinus</i> Chamberlin, 1952                                                                                                       |
| <b>Riukiaria scutata (Takakuwa, 1942)</b>              | <i>Riukiara hoffmani</i> Jeekel, 1952                                                                                                              |
| <b>Rudiloria trimaculata tortua (Chamberlin, 1949)</b> | <i>Apheloria picta</i> Hoffman, 1949                                                                                                               |
| <b>Rudiloria trimaculata trimaculata (Wood, 1864)</b>  | <i>Apheloria antrostromicola</i> Hoffman, 1949                                                                                                     |
| <b>Rudiloria trimaculata trimaculata (Wood, 1864)</b>  | <i>Apheloria coriacea Apheloria</i> (nec C.L. Koch, 1847)                                                                                          |
| <b>Rudiloria trimaculata trimaculata (Wood, 1864)</b>  | <i>Apheloria keuka</i> Chamberlin, 1939                                                                                                            |
| <b>Rudiloria trimaculata trimaculata (Wood, 1864)</b>  | <i>Fontaria lutzi</i> Jacot, 1938                                                                                                                  |
| <b>Rudiloria trimaculata trimaculata (Wood, 1864)</b>  | <i>Apheloria trimaculata incarnata</i> Hoffman, 1951                                                                                               |



Table 6 continued

| Valid Species Name                                             | Synonymous Species Name                                                    |
|----------------------------------------------------------------|----------------------------------------------------------------------------|
| <b>Semionellus placidus (Wood, 1864)</b>                       | <i>Polydesmus (Leptodesmus) floridus</i> Wood, 1864                        |
| <b>Semionellus placidus (Wood, 1864)</b>                       | <i>Leptodesmus borealis</i> Bollman, 1888                                  |
| <b>Semionellus placidus (Wood, 1864)</b>                       | <i>Chonaphe michigana</i> Chamberlin, 1946                                 |
| <b>Sigmocheir calaveras Chamberlin, 1951</b>                   | <i>Sigmocheir danehyi</i> Chamberlin, 1953                                 |
| <b>Sigmocheir calaveras Chamberlin, 1951</b>                   | <i>Sigmocheir dohenyi</i> [sic, error pro <i>danehyi</i> Chamberlin, 1953] |
| <b>Sigmoria latior latior (Brölemann, 1900)</b>                | <i>Sigmoria aberrans</i> Chamberlin, 1939                                  |
| <b>Sigmoria latior latior (Brölemann, 1900)</b>                | <i>Sigmoria conclusa</i> Chamberlin, 1939                                  |
| <b>Sigmoria latior latior (Brölemann, 1900)</b>                | <i>Sigmoria furcifera</i> Hoffman, 1949b                                   |
| <b>Sigmoria latior munda Chamberlin, 1939</b>                  | <i>Sigmoria brachygon</i> Chamberlin, 1940                                 |
| <b>Sigmoria latior munda Chamberlin, 1939</b>                  | <i>Sigmoria mariona</i> Chamberlin, 1939                                   |
| <b>Sigmoria rubromarginata (Bollman, 1887)</b>                 | <i>Sigiria scorpio</i> Chamberlin, 1939                                    |
| <b>Sigmoria rubromarginata (Bollman, 1887)</b>                 | <i>Sigmoria zyga</i> Chamberlin, 1949a                                     |
| <b>Sigmoria simplex Shelley, 1981</b>                          | <i>Sigmoria (Sigiria) inornata</i> Shelley, 1986                           |
| <b>Stenodesmus acuarius (Attems, 1931)</b>                     | <i>Cruzodesmus browni</i> Chamberlin, 1943                                 |
| <b>Stenodesmus mexicanus DeSaussure, 1859</b>                  | <i>Cruzodesmus ergus</i> Chamberlin, 1943                                  |
| <b>Stenodesmus simillimus (Humbert &amp; DeSaussure, 1869)</b> | <i>Cruzodesmus purojenus</i> Chamberlin, 1943                              |
| <b>Stenodesmus tuobitus (Chamberlin, 1910)</b>                 | <i>Aporiaria anamesa</i> Chamberlin & Mulaik, 1941                         |
| <b>Stenodesmus tuobitus (Chamberlin, 1910)</b>                 | <i>Nannaria ursa</i> Chamberlin, 1938                                      |
| <b>Thrinaxoria lampra (Chamberlin, 1918)</b>                   | <i>Zinaria aberrans Zinaria</i> Chamberlin, 1942                           |
| <b>Tubaphe levii Causey, 1954</b>                              | <i>Metaxycheir pacifica</i> Shelley, 1990,                                 |
| <b>Xystocheir dissecta dissecta (Wood, 1867)</b>               | <i>Cheirauxus sapiens</i> Chamberlin, 1949                                 |
| <b>Xystocheir dissecta dissecta (Wood, 1867)</b>               | <i>Polydesmus (Fontaria) furcifer</i> Karsch, 1881                         |
| <b>Xystocheir dissecta dissecta (Wood, 1867)</b>               | <i>Xystocheir acuta</i> Cook, 1904                                         |
| <b>Xystocheir dissecta dissecta (Wood, 1867)</b>               | <i>Xystocheir francisca</i> Chamberlin, 1949                               |
| <b>Xystocheir dissecta dissecta (Wood, 1867)</b>               | <i>Xystocheir milpitas</i> Chamberlin, 1949                                |
| <b>Xystocheir dissecta dissecta (Wood, 1867)</b>               | <i>Xystocheir obtusa</i> Cook, 1904                                        |
| <b>Xystocheir dissecta taibona Chamberlin, 1912</b>            | <i>Delocheir conservata</i> Chamberlin, 1949                               |
| <b>Xystocheir dissecta taibona Chamberlin, 1912</b>            | <i>Delocheir dalea</i> Chamberlin, 1949                                    |
| <b>Xystodesmus gracilipes (Takakuwa, 1943)</b>                 | <i>Phruodesmus kinshaensis</i> Murakami, 1965                              |
| <b>Xystodesmus martensii (Peters, 1864)</b>                    | <i>Fontaria (Cyphonaria) scabra</i> Verhoeff, 1936                         |

Table 6 continued

| Valid Species Name                          | Synonymous Species Name                        |
|---------------------------------------------|------------------------------------------------|
| <b>Xystodesmus martensii (Peters, 1864)</b> | <i>Rhysodesmus ikaoensis</i> Takakuwa, 1942    |
| <b>Xystodesmus martensii (Peters, 1864)</b> | <i>Rhysodesmus kitazawai</i> Miyosi, 1953      |
| <b>Xystodesmus martensii (Peters, 1864)</b> | <i>Rhysodesmus tuberculatus</i> Takakuwa, 1942 |
| <b>Xystodesmus martensii (Peters, 1864)</b> | <i>Takakuwaia furculigera</i> Verhoeff, 1936   |
| <b>Yaetakaria neptuna (Pocock, 1895)</b>    | <i>Yaetakaria youngi</i> Hoffman, 1949         |

**Table 7:** Species synonyms in the family Xystodesmidae, in alphabetical order by synonymous species name, valid genus-species combination are in bold.

| Species Name of Synonymized Species                                     | Valid Species Name                                    |
|-------------------------------------------------------------------------|-------------------------------------------------------|
| <i>aberrans</i> Chamberlin, 1939, <i>Sigmoria</i>                       | <i>Sigmoria latior latior</i> (Brölemann, 1900)       |
| <i>aberrans</i> Chamberlin, 1942, <i>Zinaria</i>                        | <i>Thrinaxoria lampra</i> (Chamberlin, 1918)          |
| <i>aculeata</i> Verhoeff, 1941, <i>Fontaria</i> ( <i>Parafontaria</i> ) | <i>Parafontaria laminata</i> (Attems, 1909)           |
| <i>acuta</i> Cook, 1904, <i>Xystocheir</i>                              | <i>Xystocheir dissecta dissecta</i> (Wood, 1867)      |
| <i>acutidens takashimai</i> Shinohara, 1957, <i>Japonaria</i>           | <i>Parafontaria tonominea</i> (Attems, 1899)          |
| <i>adela</i> Chamberlin, 1939, <i>Apheloria</i>                         | <i>Apheloria virginiensis corrugata</i> (Wood, 1864)  |
| <i>amplinus</i> Chamberlin, 1952, <i>Rhysodesmus</i>                    | <i>Rhysodesmus toltecus</i> (DeSaussure, 1859)        |
| <i>anamesa</i> Chamberlin & Mulaik, 1941, <i>Aporiaria</i>              | <i>Stenodesmus tuobitus</i> (Chamberlin, 1910)        |
| <i>antrostromicola</i> Hoffman, 1949, <i>Apheloria</i>                  | <i>Rudiloria trimaculata trimaculata</i> (Wood, 1864) |
| <i>arcuata</i> Verhoeff, 1941, <i>Melaphe</i>                           | <i>Melaphe vestita vestita</i> (Koch, 1847)           |
| <i>armigera</i> Verhoeff, 1936, <i>Fontaria</i> ( <i>Parafontaria</i> ) | <i>Parafontaria laminata</i> (Attems, 1909)           |
| <i>asburna</i> Chamberlin, 1949, <i>Apheloria</i>                       | <i>Apheloria virginiensis butleriana</i> (Wood, 1864) |
| <i>aspila</i> Chamberlin, 1939, <i>Apheloria</i>                        | <i>Apheloria tigana</i> Chamberlin, 1939              |
| <i>attemsi</i> Chamberlin, 1943, <i>Grayaria</i>                        | <i>Parafontaria tonominea</i> (Attems, 1899)          |
| <i>attemsii</i> Verhoeff, 1936, <i>Fontaria</i> ( <i>Japonaria</i> )    | <i>Parafontaria doenitzi</i> (Karsch, 1880)           |
| <i>benderi</i> Causey, 1950, <i>Brachoria</i>                           | <i>Brachoria initialis</i> Chamberlin, 1939           |
| <i>borealis</i> Bollman, 1888, <i>Leptodesmus</i>                       | <i>Semionellus placidus</i> (Wood, 1864)              |
| <i>brachus</i> Chamberlin, 1941, <i>Rhysodesmus</i>                     | <i>Rhysodesmus texicolens</i> (Chamberlin, 1938)      |
| <i>brachygon</i> Chamberlin, 1940, <i>Sigmoria</i>                      | <i>Sigmoria latior munda</i> Chamberlin, 1939         |
| <i>brachypus</i> Chamberlin, 1947, <i>Brachoria</i>                     | <i>Brachoria initialis</i> Chamberlin, 1939           |
| <i>breuili</i> Ceuca, 1988, <i>Macellolophus</i>                        | <i>Macellolophus rubromarginatus</i> (Lucas, 1846)    |
| <i>brimleardia</i> Causey, 1950, <i>Deltotaria</i>                      | <i>Deltotaria brimleii brimleii</i> Causey, 1942      |
| <i>browni</i> Chamberlin, 1943, <i>Cruzodesmus</i>                      | <i>Stenodesmus acuarius</i> (Attems, 1931)            |
| <i>brunnior</i> Chamberlin, 1943, <i>Aporiaria</i>                      | <i>Boraria infesta</i> (Chamberlin, 1918)             |
| <i>busheyi</i> Causey, 1951, <i>Zinaria</i>                             | <i>Pleurolooma flavipes</i> Rafinesque, 1820          |
| <i>butlerii</i> McNeill, 1888, <i>Polydesmus</i>                        | <i>Pleurolooma flavipes</i> Rafinesque, 1820          |
| <i>caramanicus</i> Brölemann, 1910, <i>Haploleptodesmus</i>             | <i>Melaphe vestita vestita</i> (Koch, 1847)           |
| <i>carolina</i> Chamberlin, 1939, <i>Aporiaria</i>                      | <i>Boraria stricta</i> (Brölemann, 1896)              |
| <i>cayugae</i> Chamberlin, 1949, <i>Nannaria</i>                        | <i>Nannaria fowleri</i> Chamberlin, 1947              |
| <i>clara</i> Chamberlin, 1949, <i>Harpaphe</i>                          | <i>Harpaphe haydeniana scotia</i> (Chamberlin, 1941)  |
| <i>coarctata acutidens</i> Attems, 1909, <i>Fontaria</i>                | <i>Parafontaria tonominea</i> (Attems, 1899)          |



Table 7 continued

| Species Name of Synonymized Species                                                                         | Valid Species Name                                       |
|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| <i>coarctata circula</i> Attems, 1901, <i>Fontaria</i>                                                      | <i>Parafontaria tonominea</i> (Attems, 1899)             |
| <i>coarctata</i> Pocock, 1895, <i>Fontaria</i>                                                              | <i>Parafontaria doenitzi</i> (Karsch, 1880)              |
| <i>conclusa</i> Chamberlin, 1939, <i>Sigmoria</i>                                                           | <i>Sigmoria latior latior</i> (Brölemann, 1900)          |
| <i>conservata</i> Chamberlin, 1949, <i>Delocheir</i>                                                        | <i>Xystocheir dissecta taibona</i> Chamberlin, 1912      |
| <i>coriacea</i> (nec C.L. Koch, 1847), <i>Apheloria</i>                                                     | <i>Rudiloria trimaculata trimaculata</i> (Wood, 1864)    |
| <i>coriacea sensu</i> Bollman, 1889, <i>Fontaria</i>                                                        | <i>Apheloria virginiensis corrugate</i> (Wood, 1864)     |
| <i>curtipes</i> Cook, 1904, <i>Hybaphe</i>                                                                  | <i>Isaphe tersa</i> (Cook, 1904)                         |
| <i>cygnea</i> Chamberlin, 1949, <i>Chonaphe</i>                                                             | <i>Chonaphe armata</i> (Harger, 1872)                    |
| <i>dalea</i> Chamberlin, 1949, <i>Delocheir</i>                                                             | <i>Xystocheir dissecta taibona</i> Chamberlin, 1912      |
| <i>dela</i> Chamberlin, 1946, <i>Epeloria</i>                                                               | <i>Dicellarius bimaculatus fictus</i> (Chamberlin, 1943) |
| <i>dentifer</i> Chamberlin, 1947, <i>Dixioria</i>                                                           | <i>Dixioria pela</i> (Chamberlin, 1918)                  |
| <i>dissecta</i> (nec <i>Polydesmus dissectus</i> Wood, 1867) – sensu Causey & Tiemann, 1969, <i>Motyxia</i> | <i>Motyxia monica</i> Chamberlin, 1944                   |
| <i>divergens divergens</i> (Chamberlin, 1939), <i>Cleptoria</i>                                             | <i>Prionogonus divergens</i> (Chamberlin, 1939)          |
| <i>dohenyi ? danehyi?</i> Chamberlin, 1953, <i>Sigmocheir</i>                                               | <i>Sigmocheir calaveras</i> Chamberlin, 1951             |
| <i>dynama</i> Chamberlin, 1947, <i>Tucoria</i>                                                              | <i>Brachoria splendida</i> (Causey, 1942)                |
| <i>echizenensis</i> Shinohara, 1986, <i>Parafontaria</i>                                                    | <i>Parafontaria laminata</i> (Attems, 1909)              |
| <i>egregia</i> Haga, 1968, <i>Japonaria</i>                                                                 | <i>Parafontaria tonominea</i> (Attems, 1899)             |
| <i>ergus</i> Chamberlin, 1943, <i>Cruzodesmus</i>                                                           | <i>Stenodesmus mexicanus</i> DeSaussure, 1859            |
| <i>eutypus</i> Chamberlin, 1943, <i>Rhysodesmus</i>                                                         | <i>Rhysodesmus dampfi</i> (Verhoeff, 1932)               |
| <i>excavatus</i> Verhoeff, 1931, <i>Macellolophus</i>                                                       | <i>Macellolophus rubromarginatus</i> (Lucas, 1846)       |
| <i>exilis</i> Loomis, 1953, <i>Motyxia</i>                                                                  | <i>Motyxia monica</i> Chamberlin, 1944                   |
| <i>expansa</i> Loomis, 1953, <i>Motyxia</i>                                                                 | <i>Motyxia monica</i> Chamberlin, 1944                   |
| <i>floridus</i> Wood, 1864, <i>Polydesmus (Leptodesmus)</i>                                                 | <i>Semionellus placidus</i> (Wood, 1864)                 |
| <i>francisca</i> Chamberlin, 1949, <i>Xystocheir</i>                                                        | <i>Xystocheir dissecta dissecta</i> (Wood, 1867)         |
| <i>fumans</i> Chamberlin, 1943, <i>Aporiaria</i>                                                            | <i>Boraria stricta</i> (Brölemann, 1896)                 |
| <i>furcifer</i> Chamberlin, 1940, <i>Mimuloria</i>                                                          | <i>Cherokia georgiana georgiana</i> (Bollman, 1889)      |
| <i>furcifer</i> (nec Bollman, 1893) – sensu Brimley, 1938, <i>Fontaria</i>                                  | <i>Cherokia georgiana georgiana</i> (Bollman, 1889)      |
| <i>furcifer</i> Karsch, 1881, <i>Polydesmus (Fontaria)</i>                                                  | <i>Xystocheir dissecta dissecta</i> (Wood, 1867)         |
| <i>furcifera</i> Hoffman, 1949, <i>Sigmoria</i>                                                             | <i>Sigmoria latior latior</i> (Brölemann, 1900)          |
| <i>furculigera</i> Verhoeff, 1936, <i>Takakuwaia</i>                                                        | <i>Xystodesmus martensii</i> (Peters, 1864)              |

Table 7 continued

| Species Name of Synonymized Species                                              | Valid Species Name                                       |
|----------------------------------------------------------------------------------|----------------------------------------------------------|
| <i>geniculata</i> Chamberlin, 1939, <i>Aporiaria</i>                             | <i>Boraria infesta</i> (Chamberlin, 1918)                |
| <i>granulosus</i> DeSaussure, 1859, <i>Polydesmus</i> ( <i>Leptodesmus</i> )     | <i>Rhysodesmus toltecus</i> (DeSaussure, 1859)           |
| <i>hamuligera</i> Kraus, 1960, <i>Japonaria</i> ( <i>Japonaria</i> )             | <i>Levizonus montanus</i> (Takakuwa, 1941)               |
| <i>hispanicus</i> Verhoeff, 1931, <i>Macellolophus</i>                           | <i>Macellolophus rubromarginatus</i> (Lucas, 1846)       |
| <i>hoffmani</i> Jeekel, 1952, <i>Riukiara</i>                                    | <i>Riukiaria scutata</i> (Takakuwa, 1942)                |
| <i>ikaoensis</i> Takakuwa, 1942, <i>Rhysodesmus</i>                              | <i>Xystodesmus martensii</i> (Peters, 1864)              |
| <i>inexpectatus</i> Attems, 1931, <i>Leptocircus</i>                             | <i>Apheloria virginiensis butleriana</i> (Wood, 1864)    |
| <i>inornata</i> Shelley, 1986, <i>Sigmoria</i> ( <i>Sigiria</i> )                | <i>Sigmoria simplex</i> Shelley, 1981                    |
| <i>intaminatus</i> Karsch, 1881, <i>Polydesmus</i> ( <i>Oxyurus</i> )            | <i>Harpaphe haydeniana haydeniana</i> (Wood, 1864)       |
| <i>iowa</i> Chamberlin, 1942, <i>Zinaria</i>                                     | <i>Pleurolooma flavipes</i> Rafinesque, 1820             |
| <i>keuka</i> Chamberlin, 1939, <i>Apheloria</i>                                  | <i>Rudiloria trimaculata trimaculata</i> (Wood, 1864)    |
| <i>kinshaensis</i> Murakami, 1965, <i>Phrurodesmus</i>                           | <i>Xystodesmus gracilipes</i> (Takakuwa, 1943)           |
| <i>kisatchinsis</i> Chamberlin, 1942, <i>Pachydesmus</i>                         | <i>Pachydesmus clarus</i> (Chamberlin, 1918)             |
| <i>kitazawai</i> Miyosi, 1953, <i>Rhysodesmus</i>                                | <i>Xystodesmus martensii</i> (Peters, 1864)              |
| <i>kuhlgatzi montana</i> Verhoeff, 1941, <i>Fontaria</i> ( <i>Parafontaria</i> ) | <i>Parafontaria laminata</i> (Attems, 1909)              |
| <i>kuhlgatzi</i> Verhoeff, 1937, <i>Fontaria</i> ( <i>Parafontaria</i> )         | <i>Parafontaria laminata</i> (Attems, 1909)              |
| <i>laminata monticola</i> Hoffman, 1978, <i>Parafontaria</i>                     | <i>Parafontaria laminata</i> (Attems, 1909)              |
| <i>leiacantha</i> Chamberlin, 1946, <i>Epeloria</i>                              | <i>Dicellarius bimaculatus fictus</i> (Chamberlin, 1943) |
| <i>limax</i> DeSaussure, 1859, <i>Polydesmus</i> ( <i>Fontaria</i> )             | <i>Rhysodesmus dasypus</i> (Gervais, 1847)               |
| <i>longispinosa falcata</i> Miyosi, 1951, <i>Japonaria</i>                       | <i>Parafontaria tonominea</i> (Attems, 1899)             |
| <i>longispinosa longispinosa</i> Miyosi, 1951, <i>Japonaria</i>                  | <i>Parafontaria tonominea</i> (Attems, 1899)             |
| <i>louisiana</i> Chamberlin, 1918, <i>Fontaria</i>                               | <i>Pachydesmus crassicutis crassicutis</i> (Wood, 1864)  |
| <i>lunatus</i> Takakuwa, 1942, <i>Ezodesmus</i>                                  | <i>Levizonus takakuwai</i> (Verhoeff, 1941)              |
| <i>lutzi</i> Jacot, 1938, <i>Fontaria</i>                                        | <i>Rudiloria trimaculata trimaculata</i> (Wood, 1864)    |
| <i>mariana</i> Hoffman, 1961, <i>Deltotaria</i>                                  | <i>Deltotaria brimleii brimleii</i> Causey, 1942         |
| <i>mariona</i> Chamberlin, 1939, <i>Sigmoria</i>                                 | <i>Sigmoria latior munda</i> Chamberlin, 1939            |
| <i>marmorata</i> Verhoeff, 1937, <i>Fontaria</i> ( <i>Japonaria</i> )            | <i>Parafontaria tonominea</i> (Attems, 1899)             |
| <i>mauritanicus geniculatus</i> Brölemann, 1910, <i>Haploleptodesmus</i>         | <i>Melaphe mauritanica</i> (Lucas, 1844)                 |
| <i>mayus</i> DeSaussure, 1859, <i>Polydesmus</i> ( <i>Fontaria</i> )             | <i>Rhysodesmus toltecus</i> (DeSaussure, 1859)           |
| <i>media</i> (nec Chamberlin, 1918 ), <i>Aporiaria</i>                           | <i>Boraria infesta</i> (Chamberlin, 1918)                |

Table 7 continued

| Species Name of Synonymized Species                           | Valid Species Name                                         |
|---------------------------------------------------------------|------------------------------------------------------------|
| <i>media</i> Chamberlin, 1918, <i>Nannaria</i>                | <i>Boraria stricta</i> (Brölemann, 1896)                   |
| <i>michigana</i> Chamberlin, 1946, <i>Chonaphe</i>            | <i>Semionellus placidus</i> (Wood, 1864)                   |
| <i>milpitas</i> Chamberlin, 1949, <i>Xystocheir</i>           | <i>Xystocheir dissecta dissecta</i> (Wood, 1867)           |
| <i>mima</i> Chamberlin, 1949, <i>Zinaria</i>                  | <i>Pleurolooma flavipes</i> Rafinesque, 1820               |
| <i>miribilia</i> Causey, 1951, <i>Zinaria</i>                 | <i>Pleurolooma flavipes</i> Rafinesque, 1820               |
| <i>nannoides</i> Chamberlin, 1949, <i>Epeloria</i>            | <i>Dicellarius okefenokensis</i> (Chamberlin, 1918)        |
| <i>nigrescens</i> Hoffman, 1950, <i>Sigmoria</i>              | <i>Prionogonus divergens</i> (Chamberlin, 1939)            |
| <i>obtusa</i> Cook, 1904, <i>Xystocheir</i>                   | <i>Xystocheir dissecta dissecta</i> (Wood, 1867)           |
| <i>ochra initialis</i> Keaton, 1959?, <i>Brachoria</i>        | <i>Brachoria initialis</i> Chamberlin, 1939                |
| <i>ochra ochra</i> Keaton, 1959, <i>Brachoria</i>             | <i>Brachoria ochra</i> (Chamberlin, 1918)                  |
| <i>orientalis</i> Lokšina & Golovatch, 1977, <i>Levizonus</i> | <i>Levizonus thaumasius</i> Attems, 1898                   |
| <i>pacifica</i> Shelley, 1990,, <i>Metaxycheir</i>            | <i>Tubaphe levii</i> Causey, 1954                          |
| <i>panousei</i> Schubart, 1960, <i>Macellolophus</i>          | <i>Macellolophus rubromarginatus</i> (Lucas, 1846)         |
| <i>parvior</i> Chamberlin, 1947, <i>Dynoria</i>               | <i>Cherokia georgiana georgiana</i> (Bollman, 1889)        |
| <i>pater</i> Chamberlin, 1943, <i>Rhysodesmus</i>             | <i>Rhysodesmus tepanecus</i> (DeSaussure, 1859)            |
| <i>patriotica</i> Chamberlin, 1949, <i>Chonaphe</i>           | <i>Chonaphe armata</i> (Harger, 1872)                      |
| <i>pela acuminata</i> Hoffman, 1956, <i>Dixioria</i>          | <i>Dixioria acuminata</i> Hoffman, 1956                    |
| <i>pela brooksi</i> Hoffman, 1956, <i>Dixioria</i>            | <i>Dixioria brooksi</i> Hoffman, 1956                      |
| <i>pela coronata</i> Hoffman, 1949, <i>Dixioria</i>           | <i>Dixioria coronata</i> Hoffman, 1949                     |
| <i>pela fowleri</i> Hoffman, 1956, <i>Dixioria</i>            | <i>Dixioria fowleri</i> Hoffman, 1956                      |
| <i>pela pela</i> Hoffman, 1956, <i>Dixioria</i>               | <i>Dixioria pela</i> (Chamberlin, 1918)                    |
| <i>penulta</i> Chamberlin, 1949, <i>Harpaphe</i>              | <i>Harpaphe haydeniana haydeniana</i> (Wood, 1864)         |
| <i>picta</i> Hoffman, 1949, <i>Apheloria</i>                  | <i>Rudiloria trimaculata tortua</i> (Chamberlin, 1949)     |
| <i>pinicola</i> Chamberlin, 1947, <i>Apheloria</i>            | <i>Apheloria montana</i> (Bollman, 1887)                   |
| <i>proxima</i> Causey, 1951, <i>Zinaria</i>                   | <i>Pleurolooma flavipes</i> Rafinesque, 1820               |
| <i>purojenus</i> Chamberlin, 1943, <i>Cruzodesmus</i>         | <i>Stenodesmus simillimus</i> (Humbert & DeSaussure, 1869) |
| <i>quadruplus</i> Chamberlin, 1943, <i>Rhysodesmus</i>        | <i>Rhysodesmus texicolens</i> (Chamberlin, 1938)           |
| <i>rileyi alabama</i> Hoffman, 1967, <i>Cleptoria</i>         | <i>Cleptoria rileyi</i> (Bollman, 1889)                    |
| <i>rileyi rileyi</i> Hoffman, 1967, <i>Cleptoria</i>          | <i>Cleptoria rileyi</i> (Bollman, 1889)                    |
| <i>roanea</i> Chamberlin, 1947, <i>Apheloria</i>              | <i>Apheloria montana</i> (Bollman, 1887)                   |
| <i>rubrilata</i> Hoffman, 1949, <i>Zinaria</i>                | <i>Pleurolooma flavipes</i> Rafinesque, 1820               |



Table 7 continued

| Species Name of Synonymized Species                                                                                               | Valid Species Name                                       |
|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| <i>sapiens</i> Chamberlin, 1949, <i>Cheirauxus</i>                                                                                | <i>Xystocheir dissecta dissecta</i> (Wood, 1867)         |
| <i>scabra</i> Verhoeff, 1936, <i>Fontaria</i> ( <i>Cyphonaria</i> )                                                               | <i>Xystodesmus martensii</i> (Peters, 1864)              |
| <i>scorpio</i> Chamberlin, 1939, <i>Sigiria</i>                                                                                   | <i>Sigmoria rubromarginata</i> (Bollman, 1887)           |
| <i>sequens</i> Chamberlin, 1939, <i>Brachoria</i>                                                                                 | <i>Brachoria ochra</i> (Chamberlin, 1918)                |
| <i>serratus</i> Loomis & Schmitt, 1971, <i>Chonaphe</i>                                                                           | <i>Chonaphe armata</i> (Harger, 1872)                    |
| <i>Simoni</i> Brölemann, 1896, <i>Fontaria</i>                                                                                    | <i>Harpaphe haydeniana haydeniana</i> (Wood, 1864)       |
| <i>simplex</i> Chamberlin, 1918, <i>Leptodesmus</i> ( <i>Isaphe</i> )                                                             | <i>Harpaphe haydeniana haydeniana</i> (Wood, 1864)       |
| <i>simulans</i> Chamberlin, 1942, <i>Pachydesmus</i>                                                                              | <i>Pachydesmus crassicutis crassicutis</i> (Wood, 1864)  |
| <i>spiraligera</i> Verhoeff, 1937, <i>Fontaria</i> ( <i>Japonaria</i> )                                                           | <i>Parafontaria tonominea</i> (Attems, 1899)             |
| <i>tallulah</i> Bollman, 1889, <i>Fontaria</i>                                                                                    | <i>Cherokia georgiana georgiana</i> (Bollman, 1889)      |
| <i>tejona</i> Chamberlin, 1947, <i>Motyxia</i>                                                                                    | <i>Motyxia monica</i> Chamberlin, 1944                   |
| <i>tela</i> Causey, 1950, <i>Deltotaria</i>                                                                                       | <i>Deltotaria brimleii brimleii</i> Causey, 1942         |
| <i>tenebrans</i> Hoffman, 1948, <i>Anfractogon</i>                                                                                | <i>Brachoria ochra</i> (Chamberlin, 1918)                |
| <i>throx</i> Attems, 1894, <i>Oxyurus</i>                                                                                         | <i>Melaphe vestita vestita</i> (Koch, 1847)              |
| <i>trimaculata incarnata</i> Hoffman, 1951, <i>Apheloria</i>                                                                      | <i>Rudiloria trimaculata trimaculata</i> (Wood, 1864)    |
| <i>tuberculatus</i> Takakuwa, 1942, <i>Rhysodesmus</i>                                                                            | <i>Xystodesmus martensii</i> (Peters, 1864)              |
| <i>unaka</i> Chamberlin, 1939, <i>Apheloria</i>                                                                                   | <i>Apheloria montana</i> (Bollman, 1887)                 |
| <i>urbana</i> Chamberlin, 1939, <i>Zinaria</i>                                                                                    | <i>Pleurolooma flavipes</i> Rafinesque, 1820             |
| <i>ursa</i> Chamberlin, 1938, <i>Nannaria</i>                                                                                     | <i>Stenodesmus tuobitus</i> (Chamberlin, 1910)           |
| <i>vestita turcica</i> Verhoeff, 1941, <i>Melaphe</i>                                                                             | <i>Melaphe vestita vestita</i> (Koch, 1847)              |
| <i>viabilis</i> Loomis, 1966, <i>Rhysodesmus</i>                                                                                  | <i>Rhysodesmus texicolens</i> (Chamberlin, 1938)         |
| <i>virginia</i> Chamberlin, 1939, <i>Apheloria</i>                                                                                | <i>Apheloria virginiensis virginiensis</i> (Drury, 1770) |
| <i>virginiensis brunnea</i> Bollman, 1887, <i>Fontaria</i>                                                                        | <i>Pleurolooma flavipes</i> Rafinesque, 1820             |
| <i>virginiensis catanea</i> Bollman, 1893, <i>Fontaria</i>                                                                        | <i>Pleurolooma flavipes</i> Rafinesque, 1820             |
| <i>virginiensis virginiensis</i> (nec Drury, 1770; nec C.L. Koch, 1847) – sensu Wood, 1865, <i>Polydesmus</i> ( <i>Fontaria</i> ) | <i>Pleurolooma flavipes</i> Rafinesque, 1820             |
| <i>waccamana</i> Chamberlin, 1940, <i>Apheloria</i>                                                                               | <i>Apheloria tigana</i> Chamberlin, 1939                 |
| <i>warreni</i> Causey, 1951, <i>Zinaria</i>                                                                                       | <i>Pleurolooma flavipes</i> Rafinesque, 1820             |
| <i>wohlberedti</i> Verhoeff, 1940, <i>Melaphe</i>                                                                                 | <i>Melaphe vestita vestita</i> (Koch, 1847)              |
| <i>youngi</i> Hoffman, 1949, <i>Yaetakaria</i>                                                                                    | <i>Yaetakaria neptuna</i> (Pocock, 1895)                 |
| <i>zyga</i> Chamberlin, 1949, <i>Sigmoria</i>                                                                                     | <i>Sigmoria rubromarginata</i> (Bollman, 1887)           |

## LITERATURE CITED

- Attems, C.G. 1894. Die Copulationsfüsse der Polydesmiden. Sitzungsberichte, Akademie der Wissenschaften in Wien, Mathematisch-Naturwissenschaftliche Klasse, Abteilung I 103 (1):39-54.
- Attems, C.G. 1898. System der Polydesmiden, I. Theil. Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 67:221-482.
- Attems, C.G. 1899. System der Polydesmiden, II. Theil. Denkschriften der Kaiserlichen Akademie der Wissenschaften zu Wien, Mathematisch-Naturwissenschaftliche Classe, 68:251-435.
- Attems, C.G. 1901. Neue Polydesmiden der Hamburger Museum. Mitteilungen aus dem Naturhistorischen Museum (Hamburg), 18:85-107.
- Attems, C.G. 1909. Die Myriopoden der Vega-Expedition. Arkiv für Zoologie, 5:1-84.
- Attems, C.G. 1914. Die indo-australischen Myriopoden. Archiv für Naturgeschichte, 80A:1-398.
- Attems, C.G. 1926. Progoneata, in: Handbuch der Zoologie. Vierter Band. Erste Hälfte., 7-238.
- Attems, C.G. 1931b. Die Familie Leptodesmidae und andere Polydesmiden. Zoologica (Stuttgart), 30(79):1-149.
- Attems, C.G. 1938. Polydesmoidea II. Fam. Leptodesmidae, Platyhachidae, Oxydesmidae, Gomphodesmidae. Das Tierreich, 69:1-487.
- Attems, C.G. 1940. Polydesmoidea III. Fam. Polydesmidae, Vanhoeffeniidae, Cryptodesmidae, Oniscodesmidae, Sphaerotrichopidae, Periodontodesmidae, Rhachidesmidae, Macellophidae, Pandirodesmidae. Das Tierreich, 70:1-577.
- Attems, C.G. 1944. Neue Polydesmoidea. Zoologischer Anzeiger, 144(11-12):223-251.
- Barber, H.S. 1915. Migrating armies of myriapods. Proceedings of the Entomological Society of Washington, 17:121-123.
- Bollman, C.H. 1887. Description of fourteen new species of North American myriapods. Proceedings of the United States National Museum, 10:617-627.
- Bollman, C.H. 1888a. Notes on a collection of Myriapoda from Mossy Creek, Tenn., with a description of a new species. Proceedings of the United States National Museum 11:339-342.
- Bollman, C.H. 1888b. Notes upon some myriapods belonging to the U.S. National Museum. Proceedings of the United States National Museum, 11:343-350.
- Bollman, C.H. 1888c. Catalogue of the myriapods of Indiana. Proceedings of the United States National Museum, 11:403-410.
- Bollman, C.H. 1888d. A preliminary list of the Myriapoda of Arkansas, with descriptions of new species. Entomologica Americana, 4:1-8.
- Bollman, C.H. 1889a. Myriapoda. Proceedings of the United States National Museum, 12:211-216.
- Bollman, C.H. 1889b. Description of a new species of insect, *Fontaria pulchella*, from Strawberry Plains, Jefferson County, Tennessee. Proceedings of the United States National Museum, 11:316.
- Bollman, C.H. 1893. The Myriapoda of North America. Bulletin of the United States National Museum, 46:1-210.
- Bond, J. E., D. A. Beamer, M. C. Hedin, and P. Sierwald. 2004. Gradual evolution of male genitalia in a sibling species complex of millipedes (Diplopoda: Spirobolida: Rhinocricidae: Anadenobolus). Invertebrate Systematics, 17(6):711-717.
- Brimley, C.S. 1938. The Insects of North Carolina. Division of Entomology, North Carolina Department of Agriculture, Raleigh, 560 pp.
- Brimley, C.S. 1942. Supplement to Insects of North Carolina. Division of Entomology, North Carolina Department of Agriculture, Raleigh, 39 pp.
- Brölemann, H.W. 1896. Liste de Myriapodes des États-Unis, et principalement de la Caroline du Nord, faisant partie des collections de M. Eugène Simon. Annales de Société entomologique de France, {1} 65:43-70.
- Brölemann, H.W. 1900. Myriapodes d'Amérique. Mémoires de la Société Zoologique de France, 13:89-131.
- Brölemann, H.W. 1902. Myriapodes cavernicoles. IIe Note. Annales de la Société Entomologique de France, 71:448-460.
- Brölemann, H.W. 1910. Biospeologica. XVII. Symphytes, Pselaphognathes, Polydesmoids et Lysiopetaloids (Myriapodes) (première série). Archives de zoologie expérimentale et générale, 5e série, 5(7):339-378.
- Brölemann, H.W. 1916. Essai de classification des Polydesmiens (myriapodes). Annales de Société Entomologique de France, 84:523-608.
- Brölemann, H.W. 1931. Myriapodes recueillis par M. le Dr H. Gauthier en Algérie. Bulletin de la Société d'histoire Naturelle de l'Afrique du Nord, 22:121-134.
- Bruner, L. 1891. Phosphorescent myriopods. Insect Life, 3:319-321.
- Buckett, J.S. 1964. Annotated list of the Diplopoda of

- California. Published by the author, Davis, CA, 34 pp.
- Buckett, J.S. and M.R. Gardner. 1968a. Rediscovery of type of milliped *Harpaphe telodonta* (Chamberlin) (Diplopod-Eurydesmidae). *Journal of the New York Entomological Society*, 76:60-63.
- Buckett, J.S. and M.R. Gardner. 1968b. Revision of the milliped genus *Harpaphe* Cook from western North America. *Occasional Papers, Bureau of Entomology, California Department of Agriculture*, 11:1-51.
- Buckett, J.S. and M.R. Gardner. 1968c. Revision of the milliped genus *Wamokia* Chamberlin from the Sierra Nevada of central California (Diplopoda: Polydesmida: Xystodesmidae). *Proceedings of the Biological Society of Washington*, 81, 511-538.
- Buckett, J.S. and M.R. Gardner. 1969a. A new genus of xystodesmid milliped from northern California. *Entomological News*, 80, 67-73.
- Buckett, J.S. and M.R. Gardner. 1969b. A new genus of Xystodesmid milliped with the description of a new species from Idaho USA (Diplopoda, Xystodesmidae, *Metaxycheir prolata* new genus new species). *Proceedings of the Entomological Society of Washington*, 71(1):65-70.
- Carl, J. 1903. Revision amerikanischer Polydesmiden. *Revue Suisse de Zoologie*, 11:543-562.
- Causey, N.B. 1942. Six new diplopods of the family Xystodesmidae. *Entomological News*, 53:165-170.
- Causey N.B. 1943. A correction. *Entomological News*, 54:264.
- Causey, N.B. 1950a. A collection of xystodesmid millipeds from Kentucky and Tennessee. *Entomological News*, 61(1):5-8.
- Causey, N.B. 1950b. Two new polydesmoid diplopods. *Entomological News*, 61(2), 37-39.
- Causey, N.B. 1950c. On four new polydesmoid millipeds. *Entomological News*, 61(7):193-198.
- Causey, N.B. 1950d. A new genus and species of diplopod (family Xystodesmidae). *Natural History Miscellanea*, 73:1-3.
- Causey, N.B. 1951. The milliped assembly *Zinaria butlerii* isogen. (Xystodesmidae). *Proceedings of the Arkansas Academy of Science*, 4:73-88.
- Causey, N.B. 1952. Some records and descriptions of polydesmoid millipeds from the United States. *Natural History Miscellanea Number*, 106: 1-11.
- Causey, N.B. 1954a. The millipeds collected in the Pacific northwest by Dr. M.H Hatch. *Annals of the Entomological Society of America*, 47(1):81-86.
- Causey, N.B. 1954b. New Mexican and Venezuelan millipeds in the collection of the Illinois State Natural History Survey. *Proceedings of the Biological Society of Washington*, 67:55-68.
- Causey, N.B. 1954c. New records and species of millipeds from the western United States and Canada. *Pan-Pacific Entomologist*, 30(3):221-227.
- Causey, N.B. 1955a. New records and descriptions of polydesmoid millipeds (Order Polydesmida) from the eastern United States. *Proceedings of the Biological Society of Washington*, 68:21-30.
- Causey, N.B. 1955b. New records and descriptions of Californian Diplopoda. *Proceedings of the Biological Society of Washington*, 68:87-94.
- Causey, N.B. 1960. A third luminous milliped, *Motyxia tiemanni*, n. sp. (Xystodesmidae: Polydesmida). *Wasmann Journal of Biology*, 18:131-135.
- Causey, N.B. 1963. Additional records of Louisiana millipeds. *Proceedings of the Louisiana Academy of Science*, 26:76-79.
- Causey, N.B. and D.L. Tiemann. 1969. A revision of the bioluminescent millipedes in the genus *Motyxia* (Xystodesmidae: Polydesmida). *Proceedings of the American Philosophical Society*, 113, 14-33.
- Causey, N.B. and D.L. Tiemann. 1970. The bioluminescent millipedes of the genus *Motyxia* (Xystodesmidae, Polydesmida). *Bulletin du Muséum national d'histoire naturelle. Supplément*, 2, 41:35-39.
- Cerruti, M. 1968. Materiali per un primo elenco degli Arthropodi speleobii della Sardegna (In memoria di Saverio Patrizi). *Fragmenta entomologica*, 5(3):207-257.
- Ceuca, T. 1988. Sur quelques diplopodes de la Peninsule Iberique et du nord de l'Afrique. *Studia Universitatis Babes-Bolyai, Seria Biologia*, 33(2):40-48.
- Ceuca, T. 1992. Quelques aspects sur la faunistique l'écologie et la zoogeographie des diplopodes de la Région Balkanique, in: *Advances in Myriapodology - Berichte des naturwissenschaftlich-medizinischen Vereins in Innsbruck, Supplement 10:411-429. Innsbruck.*
- Chamberlin, R.V. 1910. Diplopoda from the western states. *Annals of the Entomological Society of America*, 3(4):233-276.
- Chamberlin, R.V. 1911. Notes on myriopods from Alaska and Washington. *The Canadian Entomologist*, 43(08):260-264.
- Chamberlin, R.V. 1912. New North American chilopods and diplopods. *Annals of the Entomological Society of America*, 5:141-172.



- Chamberlin, R.V. 1913. A new leptodesmid from Montana. *Canadian Entomologist*, 45:424-426.
- Chamberlin, R.V. 1918a. Four new western diplopods. *Pomona College Journal of Entomology and Zoology*, 10:9-11.
- Chamberlin, R.V. 1918b. Myriopods from Okefenokee swamp, Ga., and from Natchitoches Parish, Louisiana. *Annals of the Entomological Society of America*, 11:369-380.
- Chamberlin, R.V. 1918c. New polydesmoid diplopods from Tennessee and Mississippi. *Psyche*, 25:122-127.
- Chamberlin, R.V. 1918d. Two new diplopods from Louisiana. *The Canadian Entomologist*, 50:361-363.
- Chamberlin, R.V. 1920. A new leptodesmoid diplopod from Louisiana. *Proceedings of the Biological Society of Washington*, 33:97-100.
- Chamberlin, R.V. 1921. On some chilopods and diplopods from Knox Co., Tennessee. *Canadian Entomologist*, 53:230-233.
- Chamberlin, R.V. 1925. Notes on chilopods and diplopods from Barro Colorado Id., and other parts of the Canal Zone, with diagnoses of new species. *Proceedings of the Biological Society of Washington*, 38:35-44.
- Chamberlin, R.V. 1928. Some Chilopods and Diplopods from Missouri. *Entomological News*, 39:153-155.
- Chamberlin, R.V. 1931. A new milliped of the genus *Fontaria* from Mississippi (Chilognatha: Xystodesmidae). *Entomological News*, 42:78-79.
- Chamberlin, R.V. 1938. New diplopods. *Proceedings of the Biological Society of Washington*, 51:205-208.
- Chamberlin, R.V. 1939. On some diplopods of the family Fontariidae. *Bulletin of the University of Utah*, 30:1-19.
- Chamberlin, R.V. 1940a. Four new polydesmoid millipeds from North Carolina (Myriapoda). *Entomological News*, 51:282-284.
- Chamberlin, R.V. 1940b. On some chilopods and diplopods from North Carolina. *The Canadian Entomologist*, 72(03):56-59.
- Chamberlin, R.V. 1941a. New western millipeds. *Bulletin of the University of Utah*, 31(12):1-23.
- Chamberlin, R.V. 1941b. On five new polydesmid millipeds from Mexico. *Proceedings of the Biological Society of Washington*, 54:63-66.
- Chamberlin, R.V. 1942a. New southern millipeds. *Bulletin of the University of Utah*, 32:1-19.
- Chamberlin, R.V. 1942b. On a collection of myriapods from Iowa. *Canadian Entomologist*, 74, 15-17.
- Chamberlin, R.V. 1942c. Two millipeds of the genus *Rhysodesmus* from Mexico. *Canadian Entomologist*, 74:81-92.
- Chamberlin, R.V. 1943a. On nine North American Polydesmoid millipeds. *Proceedings of the Biological Society of Washington*, 56:35-40.
- Chamberlin, R.V. 1943b. On some genera and species of American millipeds, *Bulletin of the University of Utah*, vol. 34, no. 6, *Biological Series*, 8(2):1-20.
- Chamberlin, R.V. 1943c. On Mexican millipeds. *Bulletin of the University of Utah*, vol. 34, no. 7, *Biological Series*, 8(3):1-103.
- Chamberlin, R.V. 1943d. Some records and descriptions of American diplopods. *Proceedings of the Biological Society of Washington*, 56:143-152.
- Chamberlin, R.V. 1944. Two millipeds from southern California. *Proceedings of the Biological Society of Washington*, 57:113-116.
- Chamberlin, R.V. 1946. On some millipeds of Georgia. *Entomological News*, 57:149-152.
- Chamberlin, R.V. 1947. Some records and descriptions of diplopods chiefly in the collection of the Academy. *Proceedings of the Academy of Natural Sciences of Philadelphia*, 99:21-58.
- Chamberlin, R.V. 1948. A third species in the chelodesmid genus *Semionellus* (Diplopoda). *Entomological News*, 59:258-259.
- Chamberlin, R.V. 1949a. A new genus and four new species in the diplopod family Xystodesmidae. *Proceedings of the Biological Society of Washington*, 62:3-6.
- Chamberlin, R.V. 1949b. Some millipeds of the families Polydesmidae and Xystodesmidae. *Journal of the Washington Academy of Sciences*, 39:94-102.
- Chamberlin, R.V. 1949c. Some western millipeds of the family Chelodesmidae. *Proceedings of the Biological Society of Washington*, 62:125-132.
- Chamberlin, R.V. 1950. Neotropical Chilopods and Diplopods in the collection of the department of tropical research, New York. *Zoologica*, New York, 35 (2):133-144.
- Chamberlin, R.V. 1951a. Eleven new western millipeds. *Chicago Academy of Sciences Natural History Miscellanea*, 87:1-12.
- Chamberlin, R.V. 1951b. On eight new southern millipeds. *Great Basin Naturalist*, 11:19-27.
- Chamberlin, R.V. 1952. Some American polydesmid millipeds in the collection of the Chicago Museum of Natural History *Annals of the Entomological Society of*

- America, 45:553-584.
- Chamberlin, R.V. 1953a. Two new millipeds taken in California caves. *Entomological News*, 64:93-95.
- Chamberlin, R.V. 1953b. Six new American millipeds, with notes on several cave-dwelling species. *Proceedings of the Biological Society of Washington*, 66:67-72.
- Chamberlin, R.V. and R.L. Hoffman. 1950. On some genera and families of North American diplopods. *Chicago Academy of Sciences, Natural History Miscellanea*, 71:1-7.
- Chamberlin, R.V. and R.L. Hoffman. 1958. Checklist of the millipeds of North America. *Bulletin of the United States National Museum*, 212:1-236.
- Chamberlin, R.V. and S. Mulaik. 1941. On a collection of millipeds from Texas and New Mexico. *Journal of the New York Entomological Society*, 49:57-64.
- Chamberlin, R.V. and Yu-Hsi Moltze Wang. 1953. Records of millipeds (Diplopoda) from Japan and other oriental areas, with descriptions of new genera and species. *American Museum Novitates*, 1621:1-13
- Cloudsley-Thompson, J.L. 1949. The significance of migration in Myriapods. *The Annals & Magazine of Natural History*, 2(24):947-962.
- Cockerell, T.D.A. 1922. Dru Drury, an eighteenth century entomologist. *The scientific monthly*, 14:67-82.
- Cook, O.F. 1895. Introductory note on the families of Diplopoda, in Cook & Collins, *The Craspedosomatidae of North America*. *Annals of New York Academy of Science*, 9:1-9.
- Cook, O.F. 1900. Camphor secreted by an animal (*Polyzonium*). *Science*, 12(301):516-521.
- Cook, O.F. 1904. Myriapoda of northwestern North America. *Harriman Alaska Expedition*, 8:47-82.
- Curcic, B.P.M., S.E. Makarov, E.A. Stojovska and S.V. Stancovic-Jovanovic. 1999. Some remarks on the millipede fauna of Macedonia. *Archives of Biological Sciences*, 51(1): 17-18.
- Davenport, D., D.M. Wootton and J.E. Cushing. 1952. The biology of the Sierra luminous millipede, *Luminodesmus sequoiae*, Loomis and Davenport. *The Biological Bulletin*, 102(2), 100-110.
- DeSaussure, H.F. 1859. Note sur la famille des Polydesmides, principalement au point de vue des espèces Américaines. *Linnaea Entomologica*, 13:318-327.
- DeSaussure, H.F. 1860. Essai d'une faune des Myriapodes du Mexique, avec la description de quelques espèces des autres parties de l'Amérique. *Mémoires de la Société de Physique et d'Histoire Naturelle de Genève*, pt. 2, 15:259-393.
- DeSaussure, H.F. and A. Humbert. 1872. Etudes sur les myriapodes, in: *Mission scientifique au Mexique et dans l'Amérique Centrale, recherches zoologiques*, 6:1-211.
- Drury, D. 1770. *Illustrations of natural History; wherein are exhibited upwards of two hundred and forty figures of exotic insects, according to their different genera; very few of which have hitherto been figured by any author, being engraved and coloured from nature, with the greatest accuracy, and under the authors own inspection, on fifty copper-plates. With a particular description of each insect: interspersed with remarks and reflections on the nature and properties of many of them.* Vol. 1. White, London. 111 pp.
- Drury, D. and J.O. Westwood. 1837. *Illustrations of exotic entomology: containing upwards of six hundred and fifty figures and descriptions of foreign insects, interspersed with remarks and reflections on their nature and properties. A new edition, brought down to the present state of the science, the systematic characters of each species, synonyms, indexes, and other additional matter.* Vol. 1. Bohn, London. 123 pp.
- Enghoff, H., W. Dohle and J.G. Blower. 1993. Anamorphosis in millipedes (Diplopoda)—the present state of knowledge with some developmental and phylogenetic considerations. *Zoological Journal of the Linnean Society*, 109(2):103-234.
- Eydoux, J.F.T. and P. Gervais 1836. *Voyage autour du Monde par les Mers de l'Inde et de Chine exécuté sur la Corvette de l'État La Favorite 1830-1832 sous le Commandement de Laplace*, Paris.
- Filka, M.E., and R.M. Shelley. 1980. The millipede fauna of the Kings Mountain region of North Carolina (Arthropoda: Diplopoda). *Brimleyana*, 4:1-42.
- Foddai, D., A. Minelli, U. Scheller, and M. Zapparoli. 1995. Chilopoda, Diplopoda, Pauropoda, Symphyla, in: *Checklist delle Specie della Fauna Italiana*, 32/33, 1-35.
- Ganin, G.N. 1997. [Soil animals of the Ussuri region.] *Dal'nauka, Vladivostok*, 159 pp.
- Gardner, M.R. and J.S. Buckett. 1969. A new species of *Anombrocheir* Buckett and Gardner from the inner Coast Ranges of northern California. *Entomological News*, 80:293-299.
- Gervais, P. 1836. Note sur le genre *Polydesmus* de la classe des Myriapodes. *Annales de la société entomologique de France*, {1} 5:373-381.
- Gervais, P. 1844. Études sur les Myriapodes. *Annales des Sciences naturelles*, {3}, 2:51-80.
- Gervais, P. 1847. Myriapodes, in: *Walckenaer and Gervais*,

- Histoire naturelle des Insectes Aptères. Paris, pp. 1-623.
- Golovatch, S.I. 1978. [Some new East Asian millipedes (Diplopoda) in the collection of the Zoological Institute of the USSR Academy of Sciences]. *Entomologicheskoe Obozrenie*, 57(3):77-681.
- Golovatch, S.I. 1979. Notes on *Levizonus thaumasius* Att. (Diplopoda), in: *Ekologiya i biologiya chlenistonogikh yuga Dalnego Vostoka*. DVNTC AN SSSR Press, Vladivostok, 17-20.
- Golovatch, S.I. 2014. The millipede genus *Riukiaria* Attems, 1938 in continental China, with descriptions of new species (Diplopoda: Polydesmida: Xystodesmidae). *Zootaxa*, 3793:188-200.
- Golovatch, S.I., E.V. Mikhajlova, H.W. Chang. 2011. The millipede families Cryptodesmidae, Haplodesmidae, Pyrgodesmidae, Opisotretidae and Xystodesmidae in Taiwan (Diplopoda, Polydesmida). *Tropical Natural History*, 11(2):119-134.
- Gray, J.E. 1832. Myriapods, in: *The animal kingdom arranged in conformity with its organization by the Baron Cuvier*, 14 (Plates, 279 pp.) and 15 (Insects, 796 pp).
- Gressitt, J. L. 1941. IV.—New Myriapods from Formosa and Hainan Island. *The Annals & Magazine of Natural History*, 8(43):55-61.
- Gunthorp, H. 1913. Annotated list of the Diplopoda and Chilopoda of Kansas, with a key to the Myriapoda of Kansas. *University of Kansas Science Bulletin*, 7:161-182.
- Haga, A. 1968. [Millipedes of Japan], 1, (Published by the author in Japanese), 11 pp.
- Harger, O. 1872. Descriptions of new North-American Myriapods. *American Journal of Science*, 3(4):117-121.
- Hastings, J.W., and D. Davenport. 1957. The luminescence of the millipede, *Luminodesmus sequoiae*. *The Biological Bulletin*, 113(1):120-128.
- Hoffman, R.L. 1948a. Three new eastern millipedes of the family Xystodesmidae. *Journal of the Washington Academy of Sciences*, 38:346-350.
- Hoffman, R.L. 1948b. Two new genera of xystodesmid millipedes from eastern United States. *Proceedings of the Biological Society of Washington*, 61:93-96.
- Hoffman, R. L. 1949a. A new genus of Xystodesmid millipedes from the Riu Kiu Archipelago with notes on related Oriental genera. *Natural History Miscellaneous*, 45(1):1-6.
- Hoffman, R.L. 1949b. Nine new xystodesmid millipedes from Virginia and West Virginia, with records of established species. *Proceedings of the United States National Museum*, 99(3244):371-389.
- Hoffman, R.L. 1949c. The identity of *Apheloria coriacea* (Diplopoda, Xystodesmidae). *American Museum Novitates*, 1405:1-6
- Hoffman, R.L. 1949d. Three new species of Diplopoda from Virginia. *Proceedings of the Biological Society of Washington*, 62:81-88.
- Hoffman, R.L. 1950a. American polydesmoid millipedes of the genus *Sigmoria*, with notes on distribution. *American Museum Novitates*, 1462:1-7.
- Hoffman, R.L. 1950b. Records and descriptions of diplopods from southern Appalachians. *Journal of the Elisha Mitchell Scientific Society*, 66:11-33.
- Hoffman, R.L. 1951. Subspecies of the milliped *Apheloria trimaculata* (Wood) (Polydesmida: Xystodesmidae). *Natural History Miscellaneous*, 81:1-6.
- Hoffman, R.L. 1952. The identity of the milliped genus *Fontaria* Gray (Polydesmida: Xystodesmidae). *Entomological News*, 63:72-74.
- Hoffman, R.L. 1956a. Studies on some oriental xystodesmine millipedes. *Proceedings of the Entomological Society of Washington*, 58(2):95-104.
- Hoffman, R.L. 1956b. Revision of the milliped genus *Dixioria* (Polydesmida: Xystodesmidae). *Proceedings of the United States National Museum*, 106(3362):1-19.
- Hoffman, R.L. 1957. The status of *Fontaria coriacea* Koch and of *Polydesmus corrugatus* Wood: A most regrettable tangle of names in the Diplopoda (Polydesmida: Xystodesmidae). *Proceedings of the Biological Society of Washington*, 70:183-187.
- Hoffman, R.L. 1958a. A new milliped of the genus *Sigmoria* from western North Carolina. *Proceedings of the Entomological Society of Washington*, 60:281-285.
- Hoffman, R.L. 1958b. Revision of the milliped genus *Pachydesmus* (Polydesmida: Xystodesmidae). *Proceedings of the United States National Museum*, 108(3399):181-218.
- Hoffman, R.L. 1960. Revision of the milliped genus *Cherokia* (Polydesmida: Xystodesmidae). *Proceedings of the United States National Museum*, 112:227-264.
- Hoffman, R.L. 1961. Revision of the milliped genus *Deltotaria* (Polydesmida: Xystodesmidae). *Proceedings of the United States National Museum*, 113(3451):15-35.
- Hoffman, R.L. 1962a. A new genus and species in the diplopod family Xystodesmidae (Polydesmida). *Proceedings of the Biological Society of Washington*, 75:181-188.



- Hoffman, R.L. 1962b. Taxonomic studies on the Melaphinae, a group of palaeartic polydesmoid diplopoda. *Opuscula Zoologica, München*, 59:1-10.
- Hoffman, R.L. 1963a. A new diplopod genus and species from Georgia (Polydesmida: Xystodesmidae). *Proceedings of the Biological Society of Washington*, 76:113-119.
- Hoffman, R.L. 1963b. A new milliped of the xystodesmid genus *Brachoria* from southwestern Virginia. *Proceedings of the Biological Society of Washington*, 76:223-225.
- Hoffman, R.L. 1964a. A new subfamily of xystodesmid millipeds from North America and China (Polydesmida). *Transactions of the American Entomological Society*, 90:301-311.
- Hoffman, R.L. 1964b. The status of *Fontaria pulchella* Bollman, with the proposal of a new genus and tribe in the diplopod family Xystodesmidae. *Proceedings of the Biological Society of Washington*, 77:25-34.
- Hoffman, R.L. 1965. Revision of the milliped genera *Boraria* and *Gyalostethus* (Polydesmida: Xystodesmidae). *Proceedings of the United States National Museum*, 117:305-347.
- Hoffman, R.L. 1966. The Mexican genera of Xystodesmidae (Diplopoda: Polydesmida). *Transactions of the American Entomological Society*, 92:1-16.
- Hoffman, R.L. 1967. Revision of the milliped genus *Cleptoria* (Polydesmida: Xystodesmidae). *Proceedings of the United States National Museum*, 124(3630):1-27.
- Hoffman, R.L. 1969. The origin and affinities of the southern Appalachian diplopod fauna, pp. 221-246, in: *The Distributional History of the Biota of the Southern Appalachians. Research Division Monograph 1, Virginia Polytechnic Institute, Blacksburg*. pp. 1-295.
- Hoffman, R.L. 1970. Random studies on *Rhysodesmus*. I. Notes and redescrptions of miscellaneous species. *Radford Review*, 24(4):143-162.
- Hoffman, R.L. 1971. Millipeds of the genus *Brachoria* in Virginia (Polydesmida: Xystodesmidae). *Radford Review*, 25(3):83-99.
- Hoffman, R.L. 1978a. A new genus and species of rhysodesmine milliped from southern Georgia (Polydesmida: Xystodesmidae). *Proceedings of the Biological Society of Washington*, 91:365-373.
- Hoffman, R.L. 1978b. Revalidation of the generic name *Rudiloria* Causey, 1955 (Polydesmida: Xystodesmidae). *Myriapodologica*, 1 (1): 1-7
- Hoffman, R.L. 1978c. The taxonomic and nomenclatorial status of the milliped generic names *Parafontaria* Verhoeff, *Cyphonaria* Verhoeff, and *Japonaria* Attems (Polydesmida, Xystodesmidae), *Spixiana*, 1(3):215-224
- Hoffman, R. L. 1980. "1979" Classification of the Diplopoda. *Muséum d'Histoire naturelle*, 237 pp. (Date of publication 3 June 1980.)
- Hoffman, R.L. 1982. Chelodesmid studies. XVIII. On some new or poorly-known taxa in the tribe Batodesmini (Polydesmida: Chelodesmidae). *Journal of Natural History*, 16(5):633-654.
- Hoffman, R.L. 1998. An Appalachian species of *Rhysodesmus* (Polydesmidae: Xystodesmidae). *Myriapodologica*, 5:77-83.
- Hoffman, R.L. 1999. Checklist of millipeds of North and Middle America. *Virginia Museum of Natural History, Martinsville, VA*, 584 pp.
- Hoffman, R.L. and R.E. Crabill. 1953. Rafinesque as the real father of American myriapodology: an analysis of his hitherto unrecognized species. *Florida Entomologist*, 36:73-82.
- Hoffman, R.L., and H. Lohmander. 1968. The Diplopoda of Turkey. *Mitteilungen aus dem Hamburgischen zoologischen Museum und Institut*, 65:61-121.
- Hoffman, R.L. and W.A. Shear. 1969. Nomenclatorial alterations in the milliped genus *Boraria*. *Radford Review*, 23:93-101.
- Humbert, A. and H.F. DeSaussure. 1869. *Myriapoda nova American*. *Revue et Magasin de Zoologie*, {2} 21:149-159.
- Ikehara, S., T. Omine, M. Shimojana, and T. Abe. 1974. Outline of the studies on the terrestrial animal communities in the forest of Iriomote and Ishigaki Island, in: *Ecological Studies of the Nature Conservation of the Ryukyu Islands (I)*. University of the Ryukyus, Naha, pp. 51-61.
- International Commission on Zoological Nomenclature 2012. *International Code of Zoological Nomenclature*, Online at <http://www.nhm.ac.uk/hosted-sites/iczn/code/>
- Jacot, A.P. 1938. Four New Arthropods from New England. *American Midland Naturalist*, 20(3):571-574.
- Jeekel, C.A.W. 1952. Milliped miscellany. *Entomologische Berichten*, 14(323):71-77.
- Jeekel, C.A.W. 1971. *Nomenclator Generum et Familiarum Diplopodorum: A list of the genus and family-group names in the Class Diplopoda from the 10th edition of Linnaeus, 1758, to the end of 1957*. *Monografieën van de Nederlandse Entomologische Vereniging*, 5, 1-412.
- Johnson, B.M. 1954. The millipeds of Michigan. *Papers of the Michigan Academy of Science, Arts, and Letters*, 39:241-252.



- Kaneko, N., and M. Hashimoto. 2010. Life history of millipede *Parafontaria tonominea* (Attems) (Xysotodesmidae, Diplopoda) at Mt. Sanbe, western Japan. *Edaphologia*, 86:21-25.
- Karsch, F. 1880. Ein neuer japanischer Myriopod. *Zeitschrift für die Gesamte Naturwissenschaften*, 53:846-848.
- Karsch, F. 1881. Zum Stadium der Myriapoda Polydesmida. *Archiv für Naturgeschichte*, 47:36-49.
- Karsch, F. 1885. 7. Myriapoda. *Zoologischer Jahresbericht*, 115-125.
- Keeton, W.T. 1959. A revision of the millipede genus *Brachoria* (Polydesmida: Xystodesmidae). *Proceedings of the United States National Museum*, 109:1-58.
- Keeton, W.T. 1960. A new genus and species of xystodesmid millipede from Tennessee. *Bulletin of the Brooklyn Entomological Society*, 55:42-45.
- Keeton, W.T. 1965. Descriptions of three new species of *Brachoria*, with notes on established species (Diplopoda, Polydesmida, Xystodesmidae). *Proceedings of the Biological Society of Washington*, 78:225-240.
- Kenyon, F.C. 1893. A preliminary list of the Myriapoda of Nebraska, with descriptions of new species. *Publications of the Nebraska Academy of Science*, 3:14-18.
- Kevan, D.K.McE. 1983. A preliminary survey of known and potentially Canadian millipedes (Diplopoda). *Canadian Journal of Zoology*, 61(12):2956-2975.
- Kevan, D.K.McE., and G.G.E. Scudder. 1989. Illustrated keys to the families of terrestrial arthropods of Canada. I. Myriapods (Millipedes, Centipedes, etc.). *Biological Survey of Canada Taxonomic Series*, 1, 88.
- Kikunaga, T., H. Kinjyo, and M. Kuniyoshi. 1993. Studies on the constituents of smells from some Okinawan local millipedes. *Bulletin of the College of Science, University of the Ryukyus*, 56:91-112.
- Koch, C.L. 1847. System der Myriapoden mit den Verzeichnissen und Berichtigungen zu Deutschlands Crustaceen, Myriapoden und Arachniden, in: *Kritische Revision der Insectenfauna Deutschlands*, III. Bändchen, Regensburg, pp. 1-196.
- Koch, C.L. 1863. Die Myriapoden I. Getreu nach der Natur abgebildet und beschrieben. Halle, Druck und Verlag von H.W. Schmidt, pp. 134.
- Korsós, Z. 2003. Ödön Tömösváry (1852-1884), Pioneer of Hungarian Myriapodology. *Bulletin of the British Myriapod and Isopod Group*, 19:78-87
- Korsós, Z. 2004. Checklist and bibliography of millipedes (Diplopoda) of Taiwan. *Collection and Research*, 17:11-32.
- Korsós, Z. 2012. Riukiu karimás ikerszelvényes (*Riukiaria rosulans*) leírása; Ryukyu flatback millipede (*Riukiaria rosulans*). The Natural Europe Project, Hungarian Natural History Museum, Budapest, 1 p.
- Korsós, Z., Nakamura, Y., and Tanabe, T. 2011. Two new millipede species of the genus *Riukiaria* (Diplopoda, Polydesmida, Xystodesmidae) endemic to the Ryukyu Archipelago, Japan. *Zootaxa*, 2877:55-68.
- Kraus, O. 1960. Über "*Hokkaidaria hamuligera*" Verhoeff nom.nud., eine neue Art der Gattung Japonaria (Diplopoda, Leptodesmidae). *Opuscula zoologica*, 49:1-3.
- Kurcheva, G.F. and E.V. Mikhajlova. 1980. [Millipedes (Diplopoda) of some forest types of the Verkhne-Ussuriyskii Research Station.] *Kompleksnyye issledovaniya lesnykh biogeotsenozov*, 117-127.
- Kuse, M., M. Yanagi, E. Tanaka, N. Tani, and T. Nishikawa. 2010. Identification of a fluorescent compound in the cuticle of the train millipede *Parafontaria laminata armigera*. *Bioscience, biotechnology, and biochemistry*, 74(11):2307-2309.
- Latreille, P.A. 1802-1804. *Histoire naturelle, générale et particulière des Crustacés et des Insectes*. 3 + 7. (= Tom 95 + 99). Paris: Dufart. 467pp.
- Lokšina, I.E., and S.I. Golovatch. 1977. The new myriapods (Diplopoda) from the USSR. *Biulleten Moskovskogo obshchestva ispytatelei prirody. Otdel biologicheskii*, 82(1):73-78.
- Lokšina, I.E., and Golovatch, S.I. 1979. Diplopoda of the USSR fauna. *Pedobiologia*, 19(6):381-389.
- Loomis, H.F. 1944. Millipeds principally collected by Professor V. E. Shelford in the eastern and southeastern United States. *Psyche*, 51 (3-4):166-177.
- Loomis, H.F. 1943. New cave and epigeal millipeds of the United States, with notes on some established species. *Bulletin of the Museum of Comparative Zoology*, 92:373-410.
- Loomis, H.F. 1953. New millipeds of the western States and Lower California. *Journal of the Washington Academy of Sciences*, 43:417-422.
- Loomis, H.F. 1966. Descriptions and records of Mexican Diplopoda. *Annals of the Entomological Society of America*, 59:11-27.
- Loomis, H.F. 1968a. A checklist of the millipeds of Mexico and Central America. *Bulletin of the United States National Museum*, 266:1-137.
- Loomis, H.F. 1968b. New species and records of millipeds from Nuevo León, México. *Journal of the Kansas Entomological Society*, 41:382-394.

- Loomis, H.F. 1969. New and known millipeds from four southern states. *Florida Entomologist*, 52:245-251.
- Loomis, H.F., and R.L. Hoffman. 1948. Synonymy of various diplopods. *Proceedings of the Biological Society of Washington*, 61:51-54.
- Loomis, H.F. and D. Davenport. 1951. A luminescent new systodesmid milliped from California. *Journal of the Washington Academy of Sciences*, 41:270-272.
- Loomis, H.F. and Schmitt, R. 1971. The millipeds of Montana west of the Continental Divide. *Northwest Science*, 45:107-131.
- Lucas, H. 1840. Histoire naturelle des Crustacés, des Arachnides et des Myriapodes, in: Histoire naturelle des animaux articulés. I: 1-600.
- Lucas, H. 1844. Description d'une nouvelle espèce de Polydesmus qui habite l'Est des possessions français du nord de l'Afrique. *Revue Zoologique*, 7:51.
- Lucas, H. 1846. Note sur quelques nouvelles espèces d'insectes qui habitent les possessions françaises du nord de l'Afrique. *Revue zoologique*, par la Société Cuvierienne, 9:283-289.
- Lucas, H. 1849. Exploration scientifique de l'Algérie, Zool. I et Atlas. Première partie de Histoire naturelle des animaux articulés. Paris 1840.
- Manfredi, P. 1956a. Contributo alla conoscenza dei Miriapodi cavernicoli della Francia (Diplopodi). *Premier Congrès International de Spéléologie. Communications*, 3:283-288.
- Manfredi, P. 1956b. Miriapodi cavernicoli del Marocco, della Sardegna e del Piemonte. *Atti della Società italiana di scienze naturali, e del Museo civile di storia naturale*, 95:197-222.
- Marek, P.E. 2010. A revision of the Appalachian millipede genus *Brachoria* Chamberlin, 1939 (Polydesmida: Xystodesmidae: Apheloriini). *Zoological Journal of the Linnean Society*, 159:817-889.
- Marek, P.E. and J.E. Bond. 2006. Phylogenetic systematics of the colorful, cyanide-producing millipedes of Appalachia (Polydesmida, Xystodesmidae, Apheloriini) using a total evidence Bayesian approach. *Molecular Phylogenetics and Evolution*, 41:704-729.
- Marek, P.E. and J.E. Bond. 2007. A reassessment of apheloriine millipede phylogeny: additional taxa, Bayesian inference, and direct optimization (Polydesmida: Xystodesmidae). *Zootaxa*, 1610:27-39.
- Marek, P.E., and J.E. Bond. 2009. A Müllerian mimicry ring in Appalachian millipedes. *Proceedings of the National Academy of Sciences*, 106(24):9755-9760.
- Marek, P., D. Papaj, J. Yeager, S. Molina, and W. Moore. 2011. Bioluminescent aposematism in millipedes. *Current Biology*, 21(18):R680-R681.
- Masuda, K. 2001. A new xystodesmid millipeds of the genus *Xystodesmus* from Japan. *KUMO*, 34:635-636.
- Mauck, A.V. 1901. On the swarming and variation in a myriapod (*Fontaria virginiensis*). *American Naturalist*, 35:477-478.
- Mauriès, J-P 1978. Myriapodes - Diplopodes du sud de l'Espagne. *Annalen des Naturhistorischen Museums in Wien*, 81:575-588.
- Mauriès, J-P, S.L. Golovatch, R.L. Hoffman. 2006. Review of the millipede genus *Macellophus* Attems, 1940 (Diplopoda: Polydesmida: Xystodesmidae). *Arthropoda Selecta*, 15(1):19-21.
- McAllister, C.T., C.S. Harris, R.M. Shelley, and J.T. McAllister. 2002a. Millipeds (Arthropoda: Diplopoda) of the Ark-La-Tex. I. New distributional and state records for seven counties of the West Gulf Coastal Plain of Arkansas. *Journal of the Arkansas Academy of Science*, 56:91-94.
- McAllister, C.T., R.M. Shelley, and J.T. McAllister. 2002b. Millipeds (Arthropoda: Diplopoda) of the Ark-La-Tex. II. Distributional records for some species of Western and Central Arkansas and Eastern and Southeastern Oklahoma. *Journal of the Arkansas Academy of Science*, 56:95-98.
- McNeill, J. 1887. List of the myriapods found in Escambia County, Florida, with descriptions of six new species. *Proceedings of the United States National Museum*, 10:323-327.
- McNeill, J. 1888. A list, with brief descriptions, of all the species, including one new to science, of Myriapoda of Franklin County, Indiana. *Bulletin of the Brookville Society of Natural History*, 3:1-20.
- Mikhailjova, E.V. 1981. [The millipede genus *Levizonus* (Diplopoda, Xystodesmidae) from the USSR Far East]. *Bulleten Moskvitsky obshestva ispitatel priroda*, 86(3):62-67.
- Mikhailjova, E.V. 1983) [Distribution of millipedes (Diplopoda) along the soil profile in the forest of the Primorsky Province.] *Fauna i ekologiya chlenistonogikh Dalnego Vostoka*, 77-90.
- Mikhailjova, E.V. 1984. [On the breeding of *Levizonus thaumasius* Att. (Diplopoda).] *Problemy pochvennoy zoologii*, 2:14.
- Mikhailjova, E.V. 1988. [Millipedes (Diplopoda) of the Ussuriyskii and "Kedrovaya Pad" nature reserves.] *Rol nasekomykh v biotsenozakh Dalnego Vostoka*, 114-126.

- Mikhaljova, E.V. 1990. [On the fauna of Diplopoda from the Far East of the USSR]. *Zoologiceskij zurnal*, 69(5):134-138.
- Mikhaljova, E.V. 1993. The millipedes (Diplopoda) of Siberia and the Far East of Russia. *Arthropoda Selecta*, 2(2):3-36.
- Mikhaljova, E.V. 1997. Review of the cavernicolous millipede fauna of the Far East of Russia, with description of a new troglomorphic species (Diplopoda). *Arthropoda Selecta*, 5(3/4):143-149.
- Mikhaljova, E.V. 1998. The millipedes of the Far East of Russia (Diplopoda). *Arthropoda Selecta*, 7(1):1-77.
- Mikhaljova, E.V. 2002. A contribution to the millipede faunas of Korea and the Russian Far East (Diplopoda). *Arthropoda Selecta*, 10(2):147-150.
- Mikhaljova, E.V. 2004. The millipedes (Diplopoda) of the Asian part of Russia. *Pensoft, Sofia-Moscow*, 292 pp.
- Mikhaljova, E.V. 2009a. A list of the millipedes (Diplopoda) of the Russian far east. *Far Eastern Entomologist*, 197:1-8.
- Mikhaljova, E.V. 2009b. The millipedes (Diplopoda) of the Russian Far East islands and the Kamchatka Peninsula. *Soil Organisms*, 81(3):599-616.
- Mikhaljova, E.V., and E.V. Petukhova. 1983. A comparative analysis of the millipede faunas (Diplopoda) of Primorsky Province's forests with the help of inclusion and similarity indices. *Teoretiko-grafovye metody v biogeografichesikikh issledovaniyakh*, 48-66.
- Mikhaljova, E.V. and Bakurov, V.D. 1989. [On millipedes (Diplopoda) of the Siniy Mountain Ridge (Sikhotealin)]. *Pochvennye bespozvonochnye yuga Dalnego Vostoka*, 38-47.
- Mikhaljova, E.V., and Z. Korsós. 2003. Millipedes (Diplopoda) from Korea, the Russian far east, and China in the collection of the Hungarian natural history museum. *Acta Zoologica Academiae Scientiarum Hungaricae*, 49(3):215-242.
- Mikhaljova, E.V. and Z. Korsós. 2003. Millipedes (Diplopoda) from Korea, the Russian Far East, and China in the collection of the Hungarian Natural History Museum. *Acta Zoologica Hungarica*, 49(3):215-242.
- Miyosi, Y. 1951. Beiträge zur Kenntnis japanischer Myriopoden. 3. Aufsatz: über 2 neue Arten und 1 neue Unterart von Japonaria, *Zoological Science*, 60:266-267.
- Miyosi, Y. 1952a. Beiträge zur Kenntniss japanischer Myriopoden 4. Aufsatz: über eine neue Art und eine neue Unterart von Diplopoda. *Zoological Magazine*, 61(9):281-282.
- Miyosi, Y. 1952b. Beiträge zur Kenntnis japanischer Myriopoden. 5. Aufsatz: über zwei neue Arten von Diplopoda. *Zoological Magazine*, 61(10):314-316.
- Miyosi, Y. 1953. Beiträge zur Kenntniss japanischer Myriopoden 9. Aufsatz: über eine neue Art von Leptodesmidae (Diplopoda) Anhängsel; eine neue Art von Mecistocephalidae aus Marcus-Insel. *Zoological Magazine*, 62:186-188.
- Miyosi, Y. 1957. Beiträge zur Kenntniss japanischer Myriopoden. 22. Aufsatz: Über zwei neue Arten von Diplopoda. *Zoological Magazine*, 66(10):403-406.
- Miyosi, Y. 1959. Über japanische Diplopoden. *Osaka: Arachnological Society of East Asia*, 223 pp.
- Moritz, M. and S.C. Fischer. 1978. Die Typen der Myriopoden-Sammlung des Zoologischen Museums Berlin. I. Diplopoda. Teil 4: Polydesmida. Teil 5: Ergänzungen. *Mitteilungen aus dem Zoologischen Museum in Berlin*, 54 (1):99-160.
- Murakami, Y. 1965. Postembryonic development of the common Myriapoda of Japan XX. On new species of *Phruodesmus* (Diplopoda; Leptodesmidae) and *Lithobius* (Chilopoda; Lithobiidae). *Zoological Magazine*, 74:165-169.
- Murakami, Y. 1993. Diplopoda, in *Environmental Agency, in: A Checklist of the Japanese Species of Wildlife, Invertebrates I. Tokyo: Japanese Wildlife Research Center*, pp. 95-106.
- Mwabvu, T., J. Lamb, R. Slotow, M. Hamer, and D. Barraclough. 2013. Is millipede taxonomy based on gonopod morphology too inclusive? Observations on genetic variation and cryptic speciation in *Bicoxidens flavicollis* (Diplopoda: Spirostreptida: Spirostreptidae). *African Invertebrates*, 54(2):349-356.
- Nakamura, Y. and Z. Korsós. 2010. Distribution and diversity of millipedes of the Ryukyu Archipelago, with the Senkaku and Daito Island Groups: A literature review (Arthropod: Diplopoda). *Acta Arachnologica*, 59:73-86.
- Newport, G. (1844). A list of the species of Myriapoda, order Chilognatha, contained in the cabinets of the British Museum, with descriptions of a new genus and thirty-two new species. *The Annals and Magazine of Natural History*, 13, 263-270.
- Nijjima, K. and K. Shinohara. 1988. Outbreaks of the *Parafontaria laminata* group (Diplopoda: Xystodesmidae). *Japanese Journal of Ecology*, 38:257-268.
- Oba, Y., M.A. Branham, and T. Fukatsu. 2011. The terrestrial bioluminescent animals of Japan. *Zoological Science*, 28(11):771-789.



- Omine, T. 1977. An outline of Myriapoda fauna in Takara-jima and Nakanoshima, The Tokara Islands, in: Ecological Studies of Nature Conservation of the Ryukyu Islands III. Ministry of Education, Okinawa Prefecture, Naha, pp. 151-162.
- Palisot de Beauvois, A. 1805-1817. Insectes recueillis en Afrique et en Amérique. pp. 276.
- Peters, W.C.H. 1864. Übersicht der im Königl. zoologischen Museum befindlichen Myriopoden aus der Familie der Polydesmi, so wie Beschreibungen einer neuen Gattung, Trachyjulus, der Juli und neuer Arten der Gattung Siphonophora. Monatsberichte der Königlich Preußischen Akademie der Wissenschaften zu Berlin, Juli 1864, 529-551.
- Pocock, R. I. 1887. On the classification of the Diplopoda. Annals and Magazine of Natural History, {5} 20:283-295.
- Pocock, R. I. 1895. XLIII.—Report upon the Chilopoda and Diplopoda obtained by PW Bassett-Smith, Esq., Surgeon RN, and JJ Wallcer, Esq., RN, during the cruise in the Chinese Seas of HMS 'Penguin,' Commander WU Moore commanding. The Annals and Magazine of Natural History, {6} 15(88):346-369.
- Pocock, R.I. 1903-1910. Chilopoda and Diplopoda, in: Biologia Centrali-Americana, Zoologia. Taylor & Francis, London, pp. 1-217.
- Rafinesque, C.S. 1820. Annual synopsis of new genera and species of animals and plants discovered in North America. Annals of Nature, 1:1-20.
- Reboleira, A.S., and Enghoff, H. 2013. The genus *Boreviulisoma* Brolemann, 1928 – an Iberian-N African outlier of a mainly tropical tribe of millipedes (Diplopoda: Polydesmida: Paradoxosomatidae). Zootaxa, 3646(5):516-528.
- Rowe, M. 2010. Copulation, mating system and sexual dimorphism in an Australian millipede, *Cladethosoma clarum*. Australian Journal of Zoology, 58(2):127-132.
- Schubart, O. 1960. Ein weiterer Beitrag zur Diplopoden-Fauna Marokkos. Bulletin de la Société des sciences naturelles du Maroc, 40(3):159-232.
- Shear, W.A. 1972. A new millipede in the genus *Apheloria* from southern West Virginia and the taxonomic position of *Rudiloria mohicana* (Diplopoda, Polydesmida, Xystodesmidae). Proceedings of the Biological Society of Washington, 85(43):493-498.
- Shelley, R.M. 1974. Polydesmoid diplopods of the eastern Piedmont of North Carolina. Journal of the Elisha Mitchell Scientific Society, 90:111-112.
- Shelley, R.M. 1975. The identity of *Nannaria conservata* Chamberlin, with notes on an abnormal male and descriptions of two new species of *Nannaria* from North Carolina (Diplopoda: Polydesmida: Xystodesmidae). Proceedings of the Biological Society of Washington 88:179-187.
- Shelley, R.M. 1976. Millipeds of the *Sigmoria latior* complex (Polydesmida: Xystodesmidae). Proceedings of the Biological Society of Washington, 88:373-382.
- Shelley, R.M. 1977. The milliped genus *Croatania* (Polydesmida: Xystodesmidae). Proceedings of the Biological Society of Washington 90 (2):302-325.
- Shelley, R.M. 1978. Millipeds of the eastern Piedmont region of North Carolina, USA (Diplopoda). Journal of Natural History, 12(1):37-79.
- Shelley, R.M. 1979. A new millipede of the genus *Caralinda* from north Florida (Polydesmida: Xystodesmidae). Florida Entomologist, 62:183-187.
- Shelley, R.M. 1980a. The status of *Cleptoria shelfordi* Loomis, with the proposal of a new genus in the milliped genus Xystodesmidae (Polydesmida). Brimleyana, 3:31-42.
- Shelley, R.M. 1980b. Revision of the milliped genus *Pleurolooma* (Polydesmida: Xystodesmidae). Canadian Journal of Zoology, 58:129-168.
- Shelley, R.M. 1981a. Revision of the milliped genus *Sigmoria* (Polydesmida: Xystodesmidae). Memoirs of the American Entomological Society, 33:1-141.
- Shelley, R.M. 1981b. A new xystodesmid milliped genus and three new species from Piedmont South Carolina (Polydesmida: Xystodesmidae). Proceedings of the Biological Society of Washington, 94(4):949-967.
- Shelley, R.M. 1981c. A new millipede of the genus *Brevigonus* from South Carolina, with comments of the genus and *B. shelfordi* (Loomis) (Polydesmida: Xystodesmidae). Brimleyana, 6:51-60.
- Shelley, R.M. 1982. A new xystodesmid milliped genus and three new species from the Eastern Blue Ridge Mountains of North Carolina (Polydesmida). Proceedings of the Biological Society of Washington, 95 (3):458-477.
- Shelley, R.M. 1983a. New records and species of the milliped genus *Caralinda* (Polydesmida: Xystodesmidae). The Florida Entomologist, 66:407-415.
- Shelley, R.M. 1983b. *Parvulodesmus prolixogonus*, a new genus and species of xystodesmid milliped from South Carolina (Polydesmida). Proceedings of the Biological Society of Washington, 96:121-126.
- Shelley, R.M. 1983c. The status of *Cleptoria divergens* (Chamberlin) (Polydesmida: Xystodesmidae). Myriapodologica 1 (12): 81-89.

- Shelley, R.M. 1984a. A new xystodesmid milliped genus and five new species from the coastal plain of Alabama (Polydesmida). *The Florida Entomologist*, 67:453-464.
- Shelley, R.M. 1984b. A revision of the milliped genus *Dicellarius* with a revalidation of the genus *Thrinaxoria* (Polydesmida: Xystodesmidae). *Proceedings of the Biological Society of Washington*, 97:473-512.
- Shelley, R.M. 1987. The milliped *Stenodesmus tuobitus* (Chamberlin) (Polydesmida: Xystodesmidae) in Texas and New Mexico. *National Geographic Research*, 3:336-342.
- Shelley, R.M. 1988. The millipeds of eastern Canada (Arthropoda: Diplopoda). *Canadian Journal of Zoology*, 66(7):1638-1663.
- Shelley, R.M. 1989. *Rhysodesmus chisosi* new species, a biogeographically significant milliped from the Chisos Mountains, Texas (Polydesmida: Xystodesmidae). *The Southwestern Naturalist*, 34:219-224.
- Shelley, R.M. 1990. A new milliped of the genus *Metaxycheir* from the Pacific coast of Canada (Polydesmida: Xystodesmidae), with remarks on the tribe Chonaphini and the western Canadian and Alaskan diplopod fauna. *Canadian Journal of Zoology*, 68(11):2310-2322.
- Shelley, R.M. 1991. A fourth genus of small-bodied xystodesmid millipeds from the southeastern coastal plains (Polydesmida). *Proceedings of the Entomological Society of Washington*, 93:244-247.
- Shelley, R. M. 1992. Occurrence of the milliped, *Stenodesmus tuobitus* (Chamberlin), west of the Rio Grande (Polydesmida: Xystodesmidae). *Insecta Mundi*, 450:19-21.
- Shelley, R.M. 1993a. A new xystodesmid milliped genus and species from Oregon and Washington (Polydesmida). *Myriapodologica*, 2 (13):91-100.
- Shelley, R.M. 1993b. The milliped genus *Underwoodia* (Chordeumatida: Caseyidae). *Canadian Journal of Zoology* 71:168-176.
- Shelley, R.M. 1993c. The myriapod types of Oscar Harger. *Brimleyana*, 18:1-13.
- Shelley, R.M. 1993d. The milliped genus *Isaphe* Cook (Polydesmida: Xystodesmidae). *Canadian Journal of Zoology*, 71:1161-1168.
- Shelley, R.M. 1993e. The milliped genus *Orophe* Chamberlin (Polydesmida: Xystodesmidae). *Insecta Mundi*, 7:175-182.
- Shelley, R.M. 1994. The Chonaphini, a biogeographically significant milliped tribe in eastern and western North America (Polydesmida: Xystodesmidae). *Brimleyana*, 20:111-200.
- Shelley, R.M. 1995a. *Parcipromus*, n. gen., a xystodesmid milliped genus from the Sierra Nevada Mountains, California (Polydesmida). *Myriapodologica*, 3:53-70.
- Shelley, R.M. 1995b. The Sigmocheirini, a xystodesmid milliped tribe in the Sierra Nevada Mountains, California, U.S.A. (Polydesmida: Xystodesmidae). *Entomologica Scandinavica*, 26:339-360.
- Shelley, R.M. 1996. Revision of the milliped genus *Xystocheir* Cook (Polydesmida: Xystodesmidae). *Canadian Journal of Zoology*, 74:1336-1363.
- Shelley, R.M. 1997. A re-evaluation of the milliped genus *Motyxia* Chamberlin, with a re-diagnosis of the tribe Xystocheirini and remarks on the bioluminescence (Polydesmida: Xystodesmidae). *Insecta Mundi*, 11:331-351.
- Shelley, R.M. 1999. A second east-Nearctic species of *Rhysodesmus* Cook (Polydesmida: Xystodesmidae). *Myriapodologica*, 6(3):19-22.
- Shelley, R.M. 2000a. A new diplopod of the genus *Caralinda* Hoffman from South Carolina (Polydesmida: Xystodesmidae). *Myriapodologica*, 6(15):147-150.
- Shelley, R.M. 2000b. Annotated checklist of the millipeds of North Carolina (Arthropoda: Diplopoda), with remarks on the genus *Sigmoria* Chamberlin (Polydesmida: Xystodesmidae). *Journal of the Elisha Mitchell Scientific Society*, 116(3):177-205.
- Shelley, R.M. 2000c. Annotated checklist of the millipeds of Florida (Arthropoda). *Insecta Mundi*, 14:241-252.
- Shelley, R.M. 2001. A new milliped of the genus *Parvulodesmus* Shelley from North Carolina, with rediagnoses of the genus and *P. prolixogonus* Shelley (Polydesmida: Xystodesmidae). *Myriapodologica*, 7(9):77-84.
- Shelley, R.M. 2001. Occurrence of the milliped *Pachydesmus crassicutis adsinicolus* Hoffman in Florida (Polydesmida: Xystodesmidae). *Insecta Mundi*, 15(4):220.
- Shelley, R.M. 2002a. *Thrinaxoria paynei*, a new species of pachydesminine milliped from Georgia (Polydesmida: Xystodesmidae). *Entomological News*, 113(2):144-146.
- Shelley, R.M. 2002b. Annotated checklist of the millipeds of California (Arthropoda: Diplopoda). *Monographs of the Western North American Naturalist*, 1(1):90-115.
- Shelley, R.M. 2002c. The millipeds of central Canada (Arthropoda: Diplopoda), with reviews of the Canadian fauna and diplopod faunistic studies. *Canadian Journal of Zoology*, 80(11):1863-1875.
- Shelley, R.M. 1984a. Revision of the milliped genus *Dynoria* (Polydesmida: Xystodesmidae). *Proceedings of the*

- Biological Society of Washington, 97(1):90-102.
- Shelley, R. M. 1984b. Revision of the milliped genus *Cheiropus* (Polydesmida: Xystodesmidae). Proceedings of the Biological Society of Washington, 97(2):263-284.
- Shelley, R. M. 1984c. A revision of the milliped genus *Dicellarius* with a revalidation of the genus *Thrinaxoria* (Polydesmida: Xystodesmidae). Proceedings of the Biological Society of Washington, 97(3):473-512.
- Shelley, R.M. 1984d. A new xystodesmid milliped genus and five new species from the coastal plain of Alabama (Polydesmida). Florida Entomologist, 67(3):453-464.
- Shelley, R.M. and M. Filka. 1979. Occurrence of the milliped *Pachydesmus crassicutis incurtus* Chamberlin in the King's Mountain region of North Carolina and the Coastal Plain of South Carolina. Brimleyana, 1:147-153.
- Shelley, R.M. and D.R. Whitehead. 1986. A reconsideration of the milliped genus *Sigmoria*, with a revision of *Deltotaria* and an analysis of the genera in the tribe Apheloriini (Polydesmida: Xystodesmidae). Memoirs of the American Entomological Society, 35:223.
- Shelley, R.M., P. Sierwald, S.B. Kiser, and S.I. Golovatch. 2000. Nomenclator generum et familiarum Diplopodorum II. Pensoft, Sofia, Moscow.
- Shelley, R.M., C.T. McAllister, and S.B. Smith. 2003. Discovery of the milliped *Pleurolooma flavipes* (Polydesmida: Xystodesmidae) in Texas, and other records from west of the Mississippi River. Entomological News, 114(1):2-6.
- Shelley, R.M., McAllister, C.T., Nagy, C.M., Weckel, M.E., Christie, R.G., Wilson, P., and Wilson, A. 2011. Distribution of the American milliped genus *Boraria* Chamberlin, 1943: Introductions of *B. stricta* (Brölemann, 1896) in New York and *B. infesta* (Chamberlin, 1918) in Connecticut; indigenous occurrence of *B. profuga* (Causey, 1955) in Louisiana (Diplopoda: Polydesmida: Xystodesmidae). Insecta Mundi, 0194:1-8.
- Shelley, R.M. and C.T. McAllister. 2006. Composition and distribution of the milliped tribe Pachydesmini west of the Mississippi River (Polydesmida: Xystodesmidae). Western North American Naturalist, 66(1):45-54.
- Shelley, R.M. and C.T. McAllister. 2007. Distribution of the milliped genus *Apheloria* Chamberlin, 1921; summaries of peripheral localities and ones of *A. virginensis* (Drury, 1770) west of the Mississippi River (Polydesmida: Xystodesmidae). Western North American Naturalist, 67(2):258-269.
- Shelley, R.M. and B.A. Snyder. 2012. Millipeds from the eastern Dakotas and western Minnesota, USA, with an account of *Pseudopolydesmus serratus* (Say, 1821) (Polydesmida: Polydesmidae); first published records from six states and the District of Columbia. Insecta Mundi, 0239:1-17.
- Shimomura, O. 1981. A new type of ATP-activated bioluminescent system in the millipede *Luminodesmus sequoiae*. FEBS Letters, 128(2):242-244.
- Shimomura, O. 1984. Porphyrin chromophore in *Luminodesmus* photoprotein. Comparative Biochemistry and Physiology Part B: Comparative Biochemistry, 79(4):565-567.
- Shinohara, K. 1977. Reevaluation on *Riukiaria* (Diplopoda). Acta Arachnologica, 27:115-119
- Shinohara, K. 1986. Five new species of the genus *Parafontaria* (Diplopoda: Xystodesmidae) from Japan. Acta Arachnologica, 35:1-9.
- Shinohara, K. 1989. Synonymy of *Parafontaria laminata* and its relative species (Diplopoda: Xystodesmidae). Proceedings of the Japanese Society of Systematic Zoology, 40:43-48.
- Sierwald, P., and A. J. Reft. 2004. The millipede collections of the world (No. 103). Fieldiana: Zoology, {N.S.} 103:1-100.
- Silvestri F. 1903. *Devillea doderoi* n. sp. Silvestri (in litt.). Fasc. 100, 1-2. In: Acari Myriopoda et Scorpiones hucusque in Italiae reperta.
- Sota, T., and T. Tanabe. 2010. Multiple speciation events in an arthropod with divergent evolution in sexual morphology. Proceedings of the Royal Society B, 277:689-696.
- Stewart, T.C. 1969. Records of millipeds in twenty-five northeast Texas counties. Texas Journal of Science, 20:383-385.
- Strasser, K. 1960. Diplopoden aus Alpen-, Apenninen- und Balkanländern. Fragmenta entomologica, 3(6):95-140.
- Strasser, K. 1971. Catalogus Faunae jugoslaviae. III/5. Diplopoda. Ljubljana: Academia Scientiarum et Artium Slovenica 3:3-50.
- Strasser, K. 1974a. I diplopodi chilognathi della Sardegna. Fragmenta entomologica, 10(3):231-293.
- Strasser, K. 1974b. Über Diplopoda-Chilognatha Griechenlands. Revue suisse de zoologie, 81(1):219-300.
- Strasser, K. 1980. Nuovi diplopodi cavernicoli della Sardegna. Fragmenta entomologica 15(2): 267-279.
- Swafford, L., and J.E. Bond. 2010. Failure to cospeciate: an unsorted tale of millipedes and mites. Biological Journal of the Linnean Society, 101(2):272-287.
- Swainson, W. 1833, Zoological illustrations, or, Original



- figures and descriptions of new, rare, or interesting animals, selected chiefly from the classes of ornithology, entomology, and conchology, and arranged accordi by Wm. Swainson. {2} London. 7 pp.
- Tadler, A. 1993. Genitalia fitting, mating behaviour and possible hybridization in millipedes of the genus *Craspedosoma* (Diplopoda, Chordeumatida, Craspedosomatidae). *Acta Zoologica* 74:215-225.
- Takakuwa, Y. 1941a. *Rhysodesmus*-Arten aus Japan. Transactions of the Natural History Society of Formosa, 31:413-415.
- Takakuwa, Y. 1941b. Weitere japanische *Lithobius*-Arten und zwei neue Diplopoden. Transactions of the Sapporo Natural History Society, 17:1-9.
- Takakuwa, Y. 1942a. Ueber weitere japanische *Rhysodesmus*arten. Transactions of the Natural History Society of Formosa, 32(224):197-203.
- Takakuwa, Y. 1942b. Zur Kenntnis der Japanischen Diplopoden. *Annotationes Zoologicae Japonenses*, 21:39-47.
- Takakuwa, Y. 1942c. Die Myriopoden aus Formosa, Philippinen U.S.W. Transactions of Natural History Society of Formosa, 32:359-367.
- Takakuwa, Y. 1942d. Einige neue Arten von Diplopoda aus Nippon, *Zoological Magazine*, 54:237-239.
- Takakuwa, Y. 1943. Die drei neue Diplopoden aus Taiwan und Westnippon. Transactions of the Natural History Society of Taiwan, 33:603-607.
- Takakuwa, Y. 1954. A Monograph of Diplopoda of Japan. Tokyo: Japan Society for the Promotion of Science, 241 pp. In Japanese with German descriptions of new species.
- Takashima, H., and K. Shinohara. 1957. Taxonomic and morphological study on Myriapoda 3: one new subspecies of the genus *Japonaria* (Diplopoda). *Miscellaneous Reports of the Yamashina's Institute for Ornithology and Zoology*, 10:404-407
- Tanabe, T. 1988. Two new species of the genus *Riukiaria* from Kyûshû and Is. Yaku-shima, Japan (Diplopoda: Polydesmida: Xystodesmidae). *Acta Arachnologica*, 37:37-45.
- Tanabe, T. 1990. A new milliped of the genus *Riukiaria* from Is. Yaku-shima, Japan (Diplopoda: Polydesmida: Xystodesmidae). *Zoological Science*, 7(3):443-447.
- Tanabe, T. 1992. Millipedes on Kume-jima Island. *Takakuwaia*, 24:65-66.
- Tanabe, T. 1994. The milliped genus *Levizonus* (Polydesmida, Xystodesmidae) in Japan. *Japanese Journal of Entomology*, 62(1):101-113.
- Tanabe, T. 2002. Revision of the millipede genus *Parafontaria* Verhoeff, 1936 (Diplopoda, Xystodesmidae). *Journal of Natural History*, 36(18):2139-2183.
- Tanabe, T. 2005. Millipedes, in: *Threatened Wildlife in Okinawa, second edition (Animals)—Red Data Okinawa*. Nature Conservation Division, Department of Cultural & Environmental Affairs, Okinawa Prefectural Government, Naha, pp. 305-310.
- Tanabe, T., Katakura, H., and S. F. Mawatari 2001. Morphological differences and reproductive isolation: morphometrics in the millipede *Parafontaria tonominea* and its allied forms. *Biological Journal of the Linnean Society*, 72:249-264.
- Tanabe, T. and K. Shinohara. 1996. Revision of the millipede genus *Xystodesmus*, with reference to the status of the tribe Xystodesmini (Diplopoda: Xystodesmidae). *Journal of Natural History*, 30:1459-1494.
- Tanabe, T. and T. Sota. 2008. Complex copulatory behavior and the proximate effect of genital and body size differences on mechanical reproductive isolation in the millipede genus *Parafontaria*. *The American Naturalist*, 171(5):692-699.
- Tanabe, T. and T. Sota. 2014. Both male and female novel traits promote the correlated evolution of genitalia between the sexes in an arthropod. *Evolution*, 68:441-452.
- Tanabe, T., K. Ishii, and W.Y. Yin. 1996. Two new xystodesmid millipeds from the Tian-mu Mountains, Zhejiang Province, China. *Edaphologia*, 57:13-19.
- Tömösváry, E. 1885. Myriapoda a Joanne Xantus in Asia orientali collecta. Ennumeravit speciesque novas descripsit. *Természetrájtji Füzetek*, 9:63-72.
- Verhoeff, K.W. 1926. Über einige von Dr. I. Buresch in Bulgarien gesammelte Diplopoden. 2. Aufsatz. *Mitteilungen der Bulgarischen Entomologischen Gesellschaft*, 3:193-210.
- Verhoeff, K.W. 1931. Chilognathen aus den Bergamasker Alpen und Nachbargebieten; auch über zwei neue Gattungen der Polydesmoidea aus Spanien und Japan. 121. Diplopoden-Aufsatz. *Zoologische Jahrbücher, Abteilung für Systematik, Ökologie und Geographie der Tiere*, 61(4):397-452.
- Verhoeff, K.W. 1932. Diplopoden-Beiträge. *Zoologische Jahrbücher, Abteilung für Systematik, Ökologie und Geographie der Tiere*, 62(5-6):469-524.
- Verhoeff, K.W. 1936a. Über Diplopoden aus Japan, gesammelt von Herrn Y. Takakuwa. Transactions of the Sapporo Natural History Society, 14(3):148-172.

- Verhoeff, K.W. 1936b. Zur Kenntnis ostasiatischer Strongylosomiden und Fontariiden. 149. Diplopoden-Aufsatz. Zoologischer Anzeiger, 115(11-12):297-311.
- Verhoeff, K.W. 1937. Zur Kenntnis ostasiatischer Diplopoden. Zoologischer Anzeiger, 117:309-321.
- Verhoeff, K.W. 1940. Über Diplopoden aus der Türkei. Istanbul üniversitesi fen fakültesi mecmuasi, 5(1-2):1-49.
- Verhoeff, K.W. 1941a. Über Gruppen der Leptodesmiden und neues System der Ordo Polydesmoidea. Archiv für Naturgeschichte, 10:399-415.
- Verhoeff, K.W. 1941b. Zur Kenntnis ostasiatischer Diplopoden, VI. Zoologischer Anzeiger, 136:62-70.
- Verhoeff, K.W. 1941c. Asiatische Beiträge. Istanbul üniversitesi fen fakültesi mecmuasi, 6(3-4):277-318.
- Verhoeff, K.W. 1943. Cavernicole Diplopoden, Chilopoden und Land-Isopoden der Insel Capri. Zeitschrift für Karst- und Höhlenkunde, 1942/43:163-165.
- Verhoeff, K.W. 1944. Some Californian Chilognatha. Bulletin of the Southern California Academy of Sciences, 43:53-70.
- Vicente M.C. 1988. Sinonimia entre las dos especies ibéricas del género *Macellophus* Attems, 1940 (Diplopoda, Polydesmida, Xystodesmidae). Orsis, 3:173-181.
- Wang, Da-Qing., and Chong-Zhou, Zhang. 1993. Diplopoda, Chilopoda. Animals of Longqi Mountain. Institute of Zoology, Academia Sinica Beijing, 8:845-851.
- Wang, Da-Qing., and J-P Mauriès. 1996. Review and perspective of study on myriapodology of China. Mémoires du Muséum national d'histoire naturelle, 169:81-99.
- Wang, Yu-Hsi Moltze 1956. Serica 1e: Records of myriapods on Formosa with description of new species (2). Quarterly Journal of the Taiwan Museum, 9(2):155-159.
- Wang, Yu-Hsi Moltze 1957. Serica 1g: Records of myriapods on Taiwan Islands (4) Six new polydesmids. Quarterly Journal of the Taiwan Museum, 10:103-111.
- Wang, Yu-Hsi Moltze 1958a. Records of Formosan Myriapods. Proceedings of the 10th International Congress of Entomology, Montréal, vol. 1, pp. 881-882.
- Wang, Yu-Hsi Moltze 1958b. Serica 1i, On Diplopoda from Taiwan with a new strongylosomids. Quarterly Journal of the Taiwan Museum, 11(3-4):340-344.
- Wang, Yu-Hsi Moltze 1960. On millipedes and centipedes from Taiwan, China., in: Verhandlungen des XI. Internationalen Kongress für Entomologie. Wien, pp. 288-291.
- Wang, Yu-Hsi Moltze 1963. Millipedes and centipedes of Quemoy, Fukien Province and Taiwan Island, Botel Tobago (Lan Yu), Taiwan Province and of Singapore. Quarterly Journal of the Taiwan Museum, 16:89-96.
- Wheeler, W.M. 1890. Hydrocyonic acid secreted by *Polydesmus virginensis*, Drury. Psyche, 5:442.
- Williams, S.R., and R.A. Hefner 1928. The millipedes and centipedes of Ohio. Bulletin of the Ohio Biological Survey Number 18.
- Williams, E.C., and D.B. Ward. 1950. An unusual aggregation of the milliped *Zinaria butleri* (McNeill). Proceedings of the Indiana Academy of Science, 60:329-331.
- Wojcieszek, J.M., and L.W. Simmons. 2012. Evidence for stabilizing selection and slow divergent evolution of male genitalia in a millipede (*Antichiropus variabilis*). Evolution, 66(4):1138-1153.
- Wood, H.C. 1864. Descriptions of new species of North American Polydesmidae. Proceedings of the Academy of Natural Sciences of Philadelphia, 16:6-10.
- Wood, H.C. 1865. On the Myriopoda of North America. Transactions and Proceedings of the American Philosophical Society, 13:137-248.
- Wood, H.C. 1867. Notes on a collection of Californian Myriopoda, with descriptions of new eastern species. Proceedings of the Academy of Natural Sciences of Philadelphia, 19:127-130.
- Wray, D.L. 1950. Insects of North Carolina, 2nd Supplement. North Carolina Department of Agriculture, Raleigh, 181 pp.
- Wray, D.L. 1967. Insects of North Carolina, 3rd Supplement. North Carolina Department of Agriculture, Raleigh, 181 pp.
- Yahata, K. 2005. Geographical variations of *Riukiaria holstii* (Pocock, 1895) (Diplopoda, Polydesmida, Xystodesmidae) in Okinawa Island. Zoological Science, 22:1515-1516.
- Zhang, Chong-Zhou, and J-R Mao. 1984. A new species of the genus *Kiulinga* (Diplopoda: Xystodesmidae). Acta Zootaxonomica Sinica, 9(2):135-137.

