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## CHECKLIST OF SPRINGTAILS (COLLEMBOLA) FROM THE REPUBLIC OF MOLDOVA

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**Abstract.** The checklist of Collembola from the Republic of Moldova including 223 species is presented. The list is based on literature sources and personal collecting.

**Résumé.** Ce travail présente la liste des 223 espèces de collemboles de la République de Moldova. Cette liste fut réalisée en utilisant des références littéraires et des collections personnelles.

**Key words:** Collembola, checklist, Republic of Moldova.

### INTRODUCTION

The records on Collembola from the Republic of Moldova started about 50 years ago with the first two species included by Martynova in “The key to insects of the European part of the USSR. Collembola” (1964). Some more information on species diversity of Collembola from the soil of Moldavian vineyards was included in Stegărescu’s work (1967).

During the last twenty years, this group has been studied more systematically, with more than 200 species recorded (Bușmachiu 2001, 2004, 2006 a, b, 2008). Since 2002, eleven species new to science were described from the Republic of Moldova by da Gama & Bușmachiu (2002, 2004); Bușmachiu & Deharveng (2008) and Bușmachiu & Weiner (2008).

Until now, the faunistic data on Collembola from the Republic of Moldova have not been summarised in the form of a checklist. The present paper includes the complete list of Collembola from the Republic of Moldova using the modern nomenclature.

Totally, 223 species are listed. Some problematic and dubious species, such as *Pseudanurida clysmæ* Jackson, 1927, *Onychiurus fimetarius* (Linnaeus, 1758) and *Orchesella divergens* Handschin, 1929 recorded by Stegărescu (1967) and *Pseudosinella wahlgrei* Börner, 1907, are not included in the list. According to Mari Mutt (1978), the species *Heteromurus tetrophthalmus* Börner, 1903 is a synonym of *H. nitidus* Templeton, 1835, therefore it was excluded from list, too.

The checklist is based on the published information thus being open to be completed by further new species records for Moldova. Used nomenclature follows Zimdars & Dunger (1994), Pomorski (1998), Bretfeld (1999), Fjellberg (1998, 2007), Potapov (2001), Thibaud et al., (2004) and some recent taxonomic studies: Bernard (2008), Kaprus & Weiner (2009), Vargovitsh (2009), Rusek (2010).

### CHECKLIST OF SPRINGTAILS FROM THE REPUBLIC OF MOLDOVA

Family Poduridae  
*Podura* Linnaeus, 1758

*Podura aquatica* Linnaeus, 1758

Family Hypogastruridae  
*Choreutinula* Paclt, 1944

*Choreutinula inermis* (Tullberg, 1871)

*Schoettella* Schäffer, 1896

*Schoettella ununguiculata* (Tullberg, 1869)

*Hypogastrura* Bourlet, 1839

*Hypogastrura assimilis* (Krausbauer, 1898)

*Hypogastrura crassaegranulata* (Stach, 1949)

*Hypogastrura manubrialis* (Tullberg, 1869)

*Hypogastrura purpurescens* (Lubbock, 1867)

*Hypogastrura socialis* (Uzel, 1891)

*Hypogastrura vernalis* (Carl, 1901)

*Hypogastrura viatica* (Tullberg, 1872)

*Ceratophysella* Börner, 1932

*Ceratophysella armata* (Nicolet, 1841)

*Ceratophysella bengtssoni* (Ågren, 1904)

*Ceratophysella denticulata* (Bagnall, 1941)

*Ceratophysella engadinensis* (Gisin, 1949)

*Ceratophysella granulata* Stach, 1949

*Ceratophysella succinea* (Gisin, 1949)

*Xenylla* Tullberg, 1869

*Xenylla andrzeji* Buşmachiu & Weiner, 2008

*Xenylla boernerii* Axelson, 1905

*Xenylla brevicauda* Tullberg, 1869

*Xenylla brevisimilis brevisimilis* Stach, 1949

*Xenylla corticalis* Börner, 1901

*Xenylla maritima* Tullberg, 1869

*Xenylla unisetata* Gama, 1963

*Willemia* Börner, 1901

*Willemia intermedia* Mills, 1934

*Willemia scandinavica* Stach, 1949

*Orogastrura* Deharvend & Gers, 1979

*Orogastrura parva* (Gisin, 1949)

Family Odontellidae

*Superodontella* Stach, 1949

*Superodontella empodialis* (Stach, 1934)

*Superodontella lamellifera* (Axelson, 1903)

*Superodontella montemaceli* Arbea & Weiner, 1992

*Axenyllodes* Stach, 1949

*Axenyllodes bayeri* (Kseneman, 1935)

*Stachia* Folsom, 1932

*Stachia populosa* (Selga, 1963)

Family Brachystomellidae  
*Brachystomella* Ågren, 1903

*Brachystomella curvula* Gisin, 1948

*Brachystomella parvula* (Schäffer, 1896)

Family Neanuridae  
*Friesea* Dalla Torre, 1895

*Friesea afurcata* (Denis, 1926) sensu Denis, 1927

*Friesea mirabilis* (Tullberg, 1871)

*Friesea octooculata* Stach, 1949

*Friesea truncata* Cassagnau, 1958

*Pseudachorutella* Stach, 1949

*Pseudachorutella asigillata* (Börner, 1901)

*Pseudachorutes* Tullberg, 1871

*Pseudachorutes boernerii* Schött, 1902

*Pseudachorutes dubius* Krausbauer, 1898

*Pseudachorutes janstachi* Kaprus & Weiner, 2009

*Pseudachorutes parvulus* Börner, 1901

*Pseudachorutes pratensis* Rusek, 1973

*Pseudachorutes subcrassus* Tullberg, 1871

*Micranurida* Börner, 1901

*Micranurida anophthalmica* Stach, 1949

*Micranurida pygmaea* Börner, 1901

*Anurida* Laboulbène, 1865

*Anurida ellipsoides* Stach, 1920

*Anurida tullbergi* Schött, 1891

*Morulina* Börner, 1906

*Morulina verrucosa* (Börner, 1903)

*Neanura* Mac Gillivray, 1893

*Neanura minuta* Gisin, 1963

*Neanura moldavica* Buşmachi & Deharveng, 2008

*Neanura muscorum* (Templeton, 1835)

*Deutonura* Cassagnau, 1979

*Deutonura albella* (Stach, 1920)  
*Deutonura conjuncta* (Stach, 1926)  
*Deutonura stachi* (Gisin, 1952)

*Endonura* Cassagnau, 1979

*Endonura gracilirostris* Smolis, Skarzynski, Pomorski & Kaprus, 2007

*Thaumanura* Börner, 1932

*Thaumanura carolii* (Stach, 1920)

*Lathriopyga* Caroli, 1910

*Lathriopyga nistru* Buşmachiu, Deharveng & Weiner, 2010

## Family Onychiuridae

*Tetrodontophorura* Reuter, 1882

*Tetrodontophora bielanensis* (Waga, 1842)

*Kalaphorura* Absolon, 1901

*Kalaphorura paradoxa* (Schäffer, 1900)

*Hymenaphorura* Bagnall, 1948

*Hymenaphorura polonica* Pomorski, 1990

*Micraphorura* Bagnall, 1949

*Micraphorura absoloni* (Börner, 1901)  
*Micraphorura uralica* (Khanislamova, 1986)

*Dimorphaphorura* Bagnall, 1949

*Dimorphaphorura irinae* (Thibaud & Taraschuk, 1997)

*Protaphorura* Absolon, 1901

*Protaphorura armata* (Tullberg, 1869)  
*Protaphorura campata* (Gisin, 1952)  
*Protaphorura cancellata* (Gisin, 1956)  
*Protaphorura fimata* (Gisin, 1952)  
*Protaphorura gisini* (Haybach, 1960)  
*Protaphorura pannonica* (Haybach, 1960)  
*Protaphorura sakatoi* (Yosii, 1966)  
*Protaphorura subarmata* (Gisin, 1957)

*Thalassaphorura* Bagnall, 1949

*Thalassaphorura alborufescens* (Volger, 1895)  
*Thalassaphorura encarpata* (Denis, 1931)  
*Thalassaphorura tovtrensis* (Kaprus & Weiner, 1994)

*Agraphorura* Pomorski, 1998

*Agraphorura naglitschi* (Gisin, 1960)

*Deuteraphorura* Absolon, 1901

*Deuteraphorura silvaria* (Gisin, 1952)

*Orthonychiurus* Stach, 1954

*Orthonychiurus rectopapillatus* (Stach, 1933)

*Orthonychiurus stachianus* (Bagnall, 1939)

*Onychiuroides* Bagnall, 1948

*Onychiuroides granulatus* (Stach, 1930)

*Jevania* Rusek, 1978

*Jevania weineriae* Rusek, 1978

*Doutnacia* Rusek, 1974

*Doutnacia xerophila* Rusek, 1974

*Mesaphorura* Börner, 1901

*Mesaphorura critica* Ellis, 1976

*Mesaphorura hygrophila* (Rusek, 1971)

*Mesaphorura hylophila* Rusek, 1982

*Mesaphorura italica* (Rusek, 1971)

*Mesaphorura jarmilae* Rusek, 1982

*Mesaphorura krausbaueri* Börner, 1901

*Mesaphorura macrochaeta* Rusek, 1976

*Mesaphorura sylvatica* (Rusek, 1971)

*Mesaphorura yosii* (Rusek, 1967)

*Metaphorura* Stach, 1954

*Metaphorura affinis* (Börner, 1902)

*Neotullbergia* Bagnall, 1935

*Neotullbergia crassiscuspis* (Gisin, 1944)

*Stenaphorura* Absolon, 1900

*Stenaphorura denisi* (Bagnall, 1935)

*Stenaphorura quadrispina* (Börner, 1901)

*Karlstejnia* Rusek, 1974

*Karlstejnia rusekiana* Weiner, 1983

## Family Isotomidae

*Tetracanthella* Schött, 1891*Tetracanthella pilosa* Schött, 1891*Tetracanthella wahlgreni* Axelson, 1907*Anurophorus* Nicolet, 1842*Anurophorus cuspidatus* Stach, 1920*Pseudanurophorus* Stach, 1922*Pseudanurophorus octoculatus* Martynova, 1971*Folsomides* Stach, 1922*Folsomides angularis* (Axelson, 1905)*Folsomides marchicus* (Frenzel, 1941)*Folsomides parvulus* Stach, 1922*Subisotoma* Stach, 1947*Subisotoma pusilla* (Schäffer, 1900)*Isotomodes* Linnaniemi, 1907*Isotomodes productus* (Axelson, 1906)*Isotomodes sexsetosus sexsetosus* Gama, 1963*Folsomia* Willem, 1902*Folsomia candida* (Willem, 1902)*Folsomia manolachei* Bagnall, 1939*Folsomia penicula* Bagnall, 1939*Folsomia quadrioculata* (Tullberg, 1871)*Proisotoma* Börner, 1901*Proisotoma minima* (Absolon, 1901)*Proisotoma minuta* (Tullberg, 1871)*Ballistura* Börner, 1906*Ballistura schoetti* (Dalla Torre, 1895)*Cryptopygus* Willem, 1901*Cryptopygus bipunctatus* (Axelson, 1903)*Cryptopygus thermophilus* (Axelson, 1900)*Isotomiella* Bagnal, 1939*Isotomiella minor* (Schäffer, 1896)

*Vertagopus* Börner, 1906*Vertagopus arboreus* (Linnaeus, 1758)*Vertagopus cinereus* (Nicolet, 1841)*Parisotoma* Bagnal, 1940*Parisotoma notabilis* (Schäffer, 1896)*Desoria* Nicolet, 1841*Desoria fennica* (Reuter, 1895)*Desoria germanica* (Hüther & Winter, 1961)*Desoria nivea* (Schäffer, 1896)*Desoria olivacea* (Tullberg, 1871)*Desoria propinqua* (Axelson, 1902)*Desoria tigrina* Nicolet, 1842*Desoria trispinata* (Mac Gillivray, 1896)*Desoria violacea* (Tullberg, 1876)*Isotoma* Bourlet, 1839*Isotoma anglicana* Lubbock, 1862*Isotoma riparia* (Nicolet, 1842)*Isotoma viridis* Bourlet, 1839*Isotomurus* Börner, 1903*Isotomurus palustris* (Müller, 1776)

## Family Tomoceridae

*Tomocerus* Nicolet, 1842*Tomocerus minor* (Lubbock, 1862)*Tomocerus vulgaris* (Tullberg, 1871)*Pogonognathellus* Paclt, 1944*Pogonognathellus flavescens* (Tullberg, 1871)*Pogonognathellus longicornis* (Müller, 1776)*Tomocerina* Yosii, 1955*Tomocerina minuta* (Tullberg, 1876)

## Family Entomobryidae

*Orchesella* Templeton, 1835*Orchesella albofasciata* Stach, 1960*Orchesella cincta* (Linnaeus, 1758)*Orchesella disjuncta* Stach, 1960*Orchesella flavescens* (Bourlet, 1839)*Orchesella frontimaculata* Gisin, 1946*Orchesella maculosa* Ionesco, 1915

*Orchesella multifasciata* Stscherbakow, 1898  
*Orchesella orientalis* Stach, 1960  
*Orchesella pontica* (Ionesco, 1915)  
*Orchesella pseudobifasciata* Stach, 1960  
*Orchesella spectabilis* Tullberg, 1871  
*Orchesella xerothermica* Stach, 1960

*Heteromurus* Wankel, 1860

*Heteromurus major* (Moniez, 1889)  
*Heteromurus nitidus* (Templeton, 1835)

*Entomobrya* Rondany, 1861

*Entomobrya arborea* (Tullberg, 1871)  
*Entomobrya atrocincta* Schött, 1896  
*Entomobrya corticalis* (Nicolet, 1842)  
*Entomobrya handschini* Stach, 1922  
*Entomobrya lanuginosa* (Nicolet, 1842)  
*Entomobrya marginata* (Tullberg, 1871)  
*Entomobrya multifasciata* (Tullberg, 1871)  
*Entomobrya muscorum* (Nicolet, 1842)  
*Entomobrya nivalis* (Linnaeus, 1758)  
*Entomobrya pazaristei* Denis, 1933 (sensu Denis, 1936)  
*Entomobrya puncteola* Uzel, 1891  
*Entomobrya quinquelineata* Börner, 1901  
*Entomobrya spectabilis* Reuter, 1890  
*Entomobrya violaceolineata* Stach, 1963

*Entomobryoides* Maynard, 1951

*Entomobryoides myrmecophilus* (Reuter, 1886)

*Willowsia* Shoebottom, 1917

*Willowsia buski* (Lubbock, 1869)  
*Willowsia nigromaculata* (Lubbock, 1873)

*Seira* Lubbock, 1869

*Seira domestica* (Nicolet, 1841)  
*Seira ferrarii* Parona, 1888

*Lepidocyrtus* Bourlet, 1839

*Lepidocyrtus curvicollis* Bourlet, 1839  
*Lepidocyrtus cyaneus* Tullberg, 1871  
*Lepidocyrtus lanuginosus* (Gmelin, 1788)  
*Lepidocyrtus lignorum* (Fabricius, 1775)  
*Lepidocyrtus paradoxus* Uzel, 1890  
*Lepidocyrtus violaceus* (Geoffroy, 1762) Lubbock, 1873  
*Lepidocyrtus weidneri* Hüther, 1971



*Pseudosinella* Schäffer, 1897

- Pseudosinella alba* (Packard, 1873)  
*Pseudosinella albida* (Stach, 1930)  
*Pseudosinella codri* Gama & Buşmachi, 2002  
*Pseudosinella imparipunctata* Gisin, 1953  
*Pseudosinella ioni* Gama & Buşmachi, 2002  
*Pseudosinella gruia* Gama & Buşmachi, 2002  
*Pseudosinella octopunctata* Börner, 1901  
*Pseudosinella horaki* Rusek, 1985  
*Pseudosinella larisae* Gama & Buşmachi, 2002  
*Pseudosinella moldavica* Gama & Buşmachi, 2002  
*Pseudosinella noseki* Rusek, 1985  
*Pseudosinella pygmaea* Gama & Buşmachi, 2004  
*Pseudosinella sexoculata* Schött, 1902  
*Pseudosinella simpatica* Gama & Buşmachi, 2002  
*Pseudosinella variabilis* Gama & Buşmachi, 2004

Family Cyphoderidae  
*Cyphoderus* Nicolet, 1842

- Cyphoderus albinus* Nicolet, 1842  
*Cyphoderus bidenticulatus* (Parona, 1888)  
*Cyphoderus gisini* Gruia, 1967

Family Neelidae  
*Megalothorax* Willem, 1900

- Megalothorax minimus* Willem, 1900

*Neelus* Folsom, 1896

- Neelus murinus* Folsom, 1896

*Neelides* Caroli, 1912

- Neelides minutus* (Folsom, 1901)

Family Sminthurididae  
*Sminthurides* Börner, 1900

- Sminthurides aquaticus* (Bourlet, 1842)

*Stenacidia* Börner, 1906

- Stenacidia violacea* (Reuter, 1881)

*Sphaeridia* Linnaniemi, 1912

- Sphaeridia pumilis* (Krausbauer, 1898)

Family Arrhopalitidae  
*Arrhopalites* Börner, 1906

- Arrhopalites caecus* (Tullberg, 1871)

*Pygmarrhopalites* Vargovitsh, 2009

*Pygmarrhopalites pygmaeus* (Wankel, 1860)  
*Pygmarrhopalites secundarius* Gisin, 1958

## Family Katiannidae

*Sminthurinus* Börner, 1901

*Sminthurinus aureus* (Lubbock, 1862)  
*Sminthurinus bimaculatus* Axelson, 1902  
*Sminthurinus elegans* (Fitch, 1863)  
*Sminthurinus niger* (Lubbock, 1868)  
*Sminthurinus signatus* (Krausbauer, 1902)

*Gisinianus* Betsch, 1977

*Gisinianus flammeolus* (Gisin, 1957)

## Family Dicyrtomidae

*Dicyrtomina* Börner, 1903

*Dicyrtomina minuta* (Fabricius, 1783)  
*Dicyrtomina ornata* (Nicolet, 1842)

*Dicyrtoma* Bourlet, 1842

*Dicyrtoma fusca* (Lubbock, 1873)

*Ptenothrix* Börner, 1906

*Ptenothrix atra* (Linnaeus, 1758)  
*Ptenothrix leucostrigata* Stach, 1957

## Family Sminthuridae

*Caprainea* Dallai, 1970

*Caprainea marginata* (Schött, 1893)

*Lipothrix* Börner, 1906

*Lipothrix lubbocki* (Tullberg, 1872)

*Allacma* Börner, 1906

*Allacma fusca* (Linnaeus, 1758)

*Sminthurus* Latreille, 1804

*Sminthurus viridis* (Linnaeus, 1758)  
*Sminthurus wahlgreni* Stach, 1920

*Spatulosminthurus* Betsch & Betsch-Pinot, 1984

*Spatulosminthurus flaviceps* (Tullberg, 1871)

Family Bourletiellidae  
*Deuterosminthurus* Börner, 1901

*Deuterosminthurus bicinctus* (Koch, 1840)  
*Deuterosminthurus pallipes* (Bourlet, 1843)

*Bourletiella* Banks, 1899

*Bourletiella viridescens* Stach, 1920

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LISTA SPECIILOR DE COLEMOLE (COLLEMBOLA)  
 DIN REPUBLICA MOLDOVA

REZUMAT

Lucrarea prezintă prima listă a celor 223 specii de colebole din Republica Moldova. Lista este întocmită pe baza datelor din literatură și a colectărilor proprii efectuate pe parcursul a două decenii.

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