

## Revision of Palaearctic and Oriental *Oiceoptoma* (Coleoptera: Silphidae)

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**Abstract.** Palaearctic and Oriental species of the genus *Oiceoptoma* Leach, 1815 are revised. The following new combination is proposed: *Oiceoptoma nakabayashii* (Miwa, 1937) (from *Silpha* Linnaeus, 1758). *Thanatophilus thoracicus* var. *davidi* Portevin, 1903 is treated as a junior subjective synonym of *O. subrufum* (Lewis, 1888). Lectotype and paralectotypes for *Silpha nigropunctata* Lewis, 1888 and *S. subrufa* Lewis, 1888 are designated. The genus *Isosilpha* Portevin, 1920 is confirmed as a junior subjective synonym of *Oiceoptoma* Leach, 1815. Species diagnoses for all six so far known species of *Oiceoptoma* are provided, all species are keyed, male genitalia and habitus are illustrated, and distribution of all species is summarized and material from eastern Palaearctic region is mapped. New distributional records are reported for *O. hypocrita* (Portevin, 1903) (India: Uttaranchal and Himachal Pradesh states, China: Xizang autonomous region and Shaanxi province, and Myanmar), *O. picescens* (Fairmaire, 1894) (China: Yunnan province) and *O. subrufum* (Lewis, 1888) (China: Shaanxi and Zhejiang provinces, Nei Mongol autonomous region and Beijing municipality).

**Taxonomy, synonymy, lectotype designation, Coleoptera, Silphidae, *Oiceoptoma*, *Isosilpha*, Palaearctic region, Oriental region**

### INTRODUCTION

The genus *Oiceoptoma* is Holarctic in distribution: three species are Nearctic (Hatch 1928, Anderson & Peck 1985, Peck & Kaulbars 1987), the rest Palaearctic and partially also Oriental. Only one species (*O. thoracicum* (Linnaeus, 1758)) is Transpalaearctic and a further three to four species are found in the eastern Palaearctic region and the northern Oriental region (Portevin 1926, 1943, Hatch 1928, Miwa 1937). Until recently, the Asian monospecific genus *Isosilpha* (*I. hypocrita*) was treated as valid. Just recently, Peck (2001) listed it, without any detailed discussion, as junior subjective synonym of *Oiceoptoma* (based probably on an unpublished catalogue and the opinion of A. F. Newton, Jr.).

In the present paper, the Palaearctic species of the genus are revised and six species are recognised. The main aim of this paper is to provide diagnoses of the species (including male genital characters, figured for most of the species for the first time), present a serviceable key for their determination and summarize the distribution of individual species in the eastern Palaearctic region and the northern Oriental region (based on records of more than 1200 specimens studied or provided by other specialists).

### MATERIAL AND METHODS

Material for this study came from the following museums and private collections (acronyms according to Arnett et al. 1993): BMNH – Natural History Museum, London (M. J. D. Brendell); DEIC – Deutsches Entomologisches Institut, Müncheberg (L. Zerche); HNHM – Magyar Természettudományi Múzeum, Budapest (O. Merkl); ISNB – Institut royal

des sciences naturelles de Belgique, Bruxelles (D. Drugmand); JHAC – private collection of J. Háva, Praha; JMAC – private collection of J. Mašek, Žlutice, Czech Republic; JRUC – private collection of J. Růžička, Praha; JSCC – private collection of J. Schneider, Praha; KHAC – private collection of K. Harusawa, Osaka-sayama, Japan; MNIC – private collection of M. Nishikawa, Ebina, Japan; MNHN – Muséum national d’Histoire naturelle, Paris (Nicole Berti); MPEC – private collection of M. Perreau, Paris; MSCC – private collection of M. Schülke, Berlin; MTRC – private collection of M. Trýzna, Děčín; MULC – private collection of M. Ulyshen, Athens, Georgia, USA; NHMT – Natural History Museum, Hannam University, Taejon, Korea (Y. B. Cho); NHMW – Naturhistorisches Museum, Wien (H. Schönmann); NMPC – Národní Museum, Praha (J. Jelínek); NSMT – National Science Museum, Tokyo (S. Nomura); SBPC – private collection of S. B. Peck, Ottawa; SMFD – Forschungsinstitut Senckenberg, Frankfurt am Main (Andrea Vesmanis, D. Kovac); SMNS – Staatliches Museum für Naturkunde, Stuttgart (W. Schawaller); SMTD – Staatliches Museum für Tierkunde, Dresden (O. Jäger); WBAC – private collection of W. Baries, Wien; ZMHB – Zoologisches Museum der Humboldt-Universität, Berlin (M. Uhlig).

Each specimen designated a lectotype or paralectotype bears a red printed label “LECTOTYPUS [or] PARALECTOTYPUS, (male symbol) [or] (female symbol), [Name of a taxon], Jan Růžička, Jiří Háva & Jan Schneider des. 1999”. The lectotype and paralectotypes are designated in order to stabilize the nomenclature in this group, according to the Article 74.7.3 of the Code (ICZN 1999).

Following abbreviations are used throughout the text: coll. – collection of, det. – determined by; env. – environs, mt. – mountain, mts – mountains, reg. – region, vill. – village. Exact label data are cited only for the type material, separate lines on labels are indicated by “/”, separate labels by “/”. Author’s remarks and comments are found in square brackets. [p] – the preceding data was printed; [h] – the same was hand-written; [illeg.] – follows illegible data.

If not otherwise mentioned, all material was identified or reviewed by J. Růžička, J. Háva and/or J. Schneider. The non-type material examined for each species is reported in Appendix. If coordinates are missing on the locality label, approximate values are given within square brackets after the name of identified localities and these data were used to prepare the distributional maps. For each species, localities within separate states/regions are sorted chronologically, and larger geographical units are ordered from west to east and from north to south in Appendix.

## RESULTS

### *Oiceoptoma* Leach, 1815

*Oiceoptoma* Leach, 1815: 89 (type species *Silpha thoracica* Linnaeus, 1758, by monotypy).

*Oiceoptoma*: Agassiz 1847: 256, 257 (unjustified emendation of *Oiceoptoma*).

*Isosilpha* Portevin, 1920: 398 (type species *Eusilpha hypocrita* Portevin, 1903, by original designation) (synonymy by Peck 2001: 270).

**DIAGNOSIS.** Small to medium-sized species (body length 12.1–16.2 mm) with distinct habitus (Figs 10–15), dorsoventrally flattened and rounded body, orange and/or black in colour. Head with short row of long erect setae behind eyes, elytral shoulders with tooth (Anderson & Peck 1985, Peck 2001).

**TAXONOMIC NOTES.** (1) The name *Oiceoptoma*, introduced by Agassiz (1847), is treated by Madge (1980) as an unjustified emendation of *Oiceoptoma* Leach, 1815. (2) The genus *Isosilpha* Portevin, 1920 was described for the single species, *I. hypocrita* (Portevin, 1903), from China and Sikkim (Portevin 1920). The characters provided in the generic diagnosis are not consistently different from those of *Oiceoptoma* Leach, 1815.

Portevin (1926: 117) further commented on the differences between these genera – namely, mentioned the larger tooth on elytral shoulders, pronotum without setation and three-segmented antennal club in *I. hypocrita* (vs. pronotum with setation and four- to five-segmented antennal club in *Oiceoptoma*). In fact, other species of *Oiceoptoma* have a distinct tooth on elytral shoulders and the pronotum of *I. hypocrita* is covered with short, black setation. Also the antennal club in this species is four-segmented, as in other *Oiceoptoma* species (Figs 20, 21).

Peck (2001) recently treated the genus name *Isosilpha* Portevin, 1920 as a junior subjective synonym of *Oiceoptoma* Leach, 1815, which opinion is followed here.

**BIONOMICS.** Both larvae and adults of *Oiceoptoma* are generally associated with decaying animal and plant remains and rotten fungi, excrement and slime fluxes, oozing from tree trunks (Portevin 1926,

Šustek 1981, Nikolaev & Kozminykh 2002). *Oiceoptoma thoracicum* is repeatedly observed in central Europe in association with fruiting body of *Phallus* (Basidiomycetes: Phallaceae) (Šustek 1981; J. Růžička unpubl.).

### Key to Palearctic species of *Oiceoptoma*

- 1 Body uniformly black. Elytra almost round together with wide elytral epipleura, internal costae indistinct (Figs 10, 16). Penis with developed subapical lateral lobes (Figs 1, 2) (northern India, southern and central China, Nepal to Myanmar).  
..... *O. hypocrita* (Portevin)
- Body uniformly piceous to orange or black with orange pattern on pronotum. Elytra subparallel with narrow elytral epipleura, internal costae distinctly developed (Figs 11–15). Penis with simple apex, without subapical lobes (Figs 3–9).  
..... 2
- 2 Pronotum covered by long, orange setation; surface of elytra with patchy velvety pattern, surface-ripened fields (Figs 15, 19). Aedeagus with robust paramere and penis with elongate, robust apex (Fig. 9) (Europe to Japan).  
..... *O. thoracicum* (Linnaeus)
- Pronotum covered by very short, orange and/or black setation; surface of elytra simple (Figs 11–14, 17, 18). Aedeagus with slender paramere and penis with variable, short and slender apex (Figs 3–8).  
..... 3
- 3 Pronotum black with orange lateral margins (Fig. 12) (Taiwan).  
..... *O. nakabayashii* (Miwa)
- Pronotum piceous to orange (Figs 11, 13, 14).  
..... 4
- 4 Pronotum and elytra uniformly piceous to orange (brownish in old collection specimens); pronotum with a compact median spot (Fig. 13). Penis regularly tapering to triangular, sharp apex (Fig. 5) (China: Sichuan and Yunnan provinces).  
..... *O. picescens* (Fairmaire)
- Pronotum orange; elytra darker, brown to black (Figs 11, 14).  
..... 5
- 5 Pronotum with four black, glossy punctures, arranged in trapezoidal pattern (Fig. 11). Elytra black, with simple surface (Fig. 18). Penis gradually tapered to slender, sharp apex (Fig. 4) (Japan).  
..... *O. nigropunctatum* (Lewis)
- Pronotum with diffuse median spot (usually composed of several scattered darker spots or almost indistinct, Fig. 14). Elytra brown to black (rarely light brown), subapical surface with rugosities (as on Fig. 17). Penis subapically laterally sinuous, tapering to a widely rounded apex (Figs 7, 8) (central and north-eastern China, Far East of Russia, Korea to Japan).  
..... *O. subrufum* (Lewis)

### *Oiceoptoma hypocrita* (Portevin, 1903)

(Figs 1, 2, 10, 16, 20)

*Eusilpha hypocrita* Portevin, 1903: 332 (type locality: “Mou-Pin”).

*Isosilpha hypocrita*: Portevin 1920: 398.

*Oiceoptoma hypocrita*: Peck 2001: 270.

TYPE MATERIAL. Holotype male (MNHN), labelled “MUSEUM PARIS / MOU-PIN [= Baoxing, Sichuan province, China; ca. 30°22'N 102°49'E] / A. DAVID [leg.] 1870 [p] // Moupin / David [hw] // TYPE [p, red characters] // Holotypus [p, violet label]”.

DIAGNOSIS. Body uniformly black (Fig. 10). Pronotum distinctly transverse and deeply sinuate posterolaterally; surface covered with short, black setation. Elytra flat, together almost round (Fig. 10), with wide elytral epipleura; surface simple, without rugosities, internal costae almost invisible (Figs 10, 16). Male. Paramere slender, penis regularly tapering to a wide apex with subapical lateral lobes (Figs 1, 2). Female. Apex of elytron distinctly prolonged to a slender tip.

MEASUREMENTS (n = 25 specimens). Total body length 12.1–15.9 (mean 14.3) mm. Pronotum 1.86–2.00 (mean 1.93) times as wide as long. Elytra 1.05–1.33 (mean 1.20) times as wide as long.

TAXONOMIC NOTE. Peck (2001) treated the monotypic genus *Isosilpha* Portevin, 1920 as a junior subjective synonym of *Oiceoptoma* Leach, 1815. The type species of *Isosilpha*, *I. hypocrita* (Portevin, 1903), is consequently transferred to *Oiceoptoma*.

DISTRIBUTION (Fig. 22). India: Uttaranchal state (first record), Himachal Pradesh state (first record), Sikkim (Portevin 1920); China: Xizang autonomous region (first record), Sichuan province (Portevin

1903, Růžička & Schneider 1996), Yunnan province (Růžička & Schneider 1996), Shaanxi province (first record); Nepal (Emetz & Schawaller 1975, Schawaller 1982), Bhutan (Schawaller 1982) and Myanmar (first record).

***Oiceoptoma nakabayashii* (Miwa, 1937) comb. nov.**  
(Figs 3, 12, 17)

*Silpha* (*Oiceoptoma*) *nakabayashii* Miwa, 1937: 244 (type locality “Tompo on Mt. Niitaka in Taichû district”).

TYPE MATERIAL. Not examined.

DIAGNOSIS. Body black, with lateral portions of pronotum orange (Fig. 12). Pronotum moderately transverse and weakly sinuate postero-laterally; surface covered with short setation (black on disc and orange laterally). Elytra subparallel, with narrow elytral epipleura; surface simple, subapically with rugosities (Figs 12, 17), costae fully developed. Male. Paramere slender, penis subapically constricted, tapering suddenly to slender apex (Fig. 3). Female. Apex of elytron weakly prolonged, elytra rounded (Fig. 12).

MEASUREMENTS (n = 2 specimens). Total body length 13.3 and 13.4 mm. Pronotum 1.77 and 1.81 times as wide as long. Elytra 0.92 and 1.03 times as wide as long.

TAXONOMIC NOTE. In the original description of this species, *Oiceoptoma* was treated only as a subgenus of *Silpha* Linnaeus, 1758. Because *Oiceoptoma* is treated as a separate genus in this paper, a new combination is proposed for *O. nakabayashii* (Miwa, 1937).

DISTRIBUTION (Fig. 23). Known only from Taiwan (Miwa 1937). The records of *O. thoracicum* from “Formosa” [=Taiwan], given by Portevin (1914, 1926), Hatch (1928) and Miwa (1931) probably refer to *O. nakabayashii*.

***Oiceoptoma nigropunctatum* (Lewis, 1888)**  
(Figs 4, 11, 18)

*Silpha nigropunctata* Lewis, 1888: 9 (type locality: “Nikko, Miyanoshta, and Samegai”).

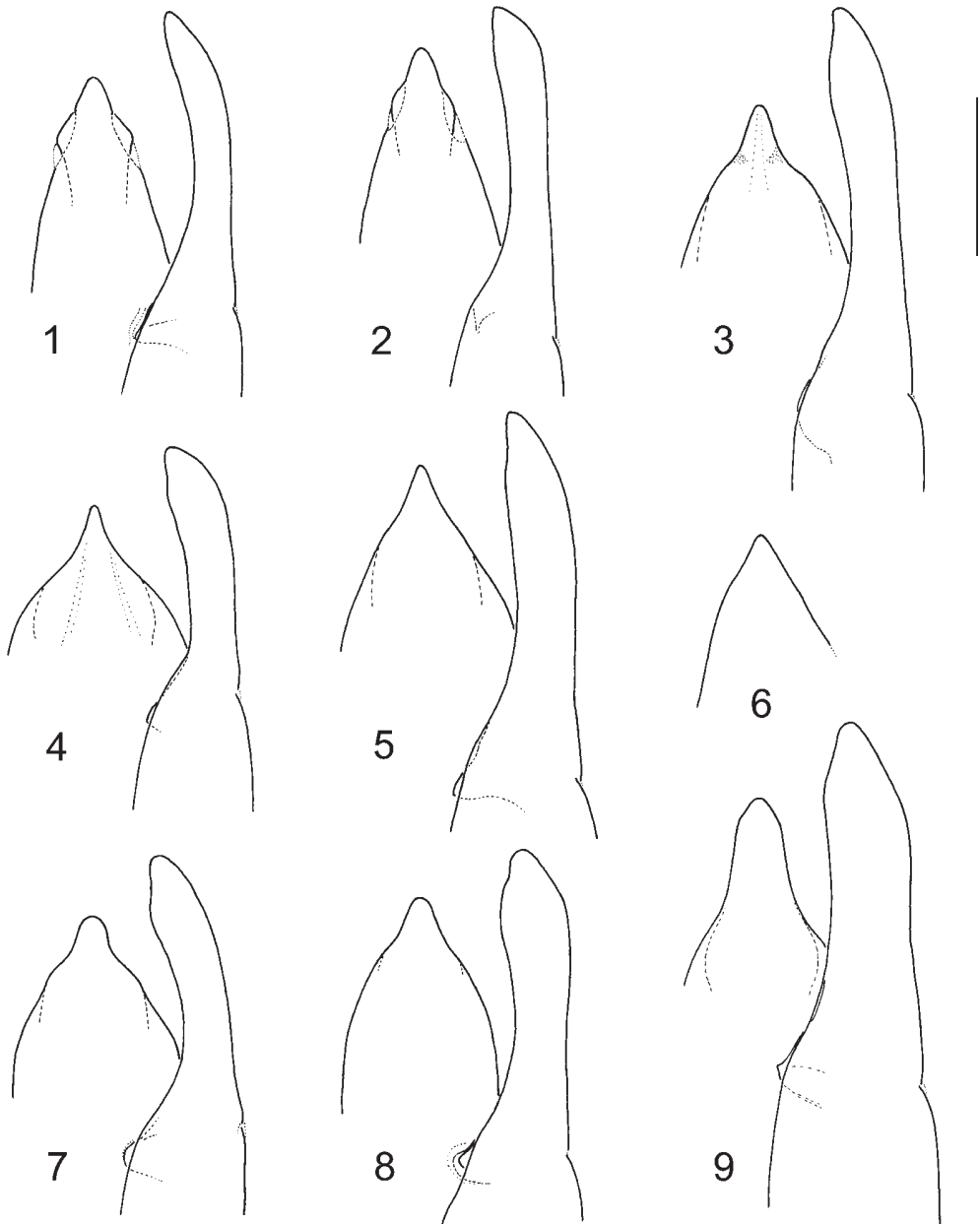
*Oiceoptoma nigropunctatum*: Portevin 1914: 222.

TYPE MATERIAL. Lectotype male (BMNH, here designated), labelled “SYN- / TYPE [p, round label with light blue margin] // Japan / G. Lewis. / 1910-320 [p] // Miyanoshta. [p] // nigropunctata Lewis [hw, Lewis’s manuscript]”; paralectotype female (BMNH), labelled ditto, except “*Silpha* / nigropunctata / Lewis. [hw, Lewis’s manuscript]”; paralectotype female (BMNH), labelled “SYN- / TYPE [h, round label with light blue margin] // Nikko. [p] [Honshu, Japan; ca. 36°45’N 139°37’E] // Japan. / G. Lewis. / 1910-320. [p] // *Silpha* / nigropunctata / Lewis. [hw, Lewis’s manuscript]”; paralectotype male (BMNH), labelled “SYN- / TYPE [p, round label with light blue margin] // Japan. / G. Lewis. [p] // Sharp Coll. / 1905-313. [p] // *Silpha* / nigropunctata / Lewis. [hw, Lewis’s manuscript]”.

DIAGNOSIS. Body black with orange pronotum (Fig. 11). Pronotum moderately to distinctly transverse, weakly sinuate postero-laterally; surface covered with short orange setation. Pronotal disc medially with four black, glossy punctures, arranged in symmetrical, trapezoidal pattern (Fig. 11). Elytra subparallel, with narrow elytral epipleura; surface simple (Fig. 18), costae fully developed. Male. Paramere slender, penis gradually tapering to slender, sharp apex (Fig. 4). Female. Apex of elytron weakly prolonged, elytra rounded (Fig. 11).

MEASUREMENTS (n = 10 specimens). Total body length 12.3–14.9 (mean 13.5) mm. Pronotum 1.78–1.97 (mean 1.88) times as wide as long. Elytra 0.99–1.18 (mean 1.08) times as wide as long.

DISTRIBUTION (Fig. 23). Endemic species of Japan, known from Honshu, Shikoku and Kyushu (Lewis 1888, Portevin 1914, Kamimura et al. 1964, Kurosawa 1985, Satô & Saito 1989).



Figs 1-9. Apex of penis and right paramere, dorsal view: 1 – *Oiceoptoma hypocrita* (Portevin) (China: Sichuan province, 20 km N Sabbê; JRUC), 2 – *O. hypocrita* (Portevin) (holotype; MNHN), 3 – *O. nakabayashi* (Miwa) (Taiwan: Kaohsiung hsien, Peinantashan trail; JRUC), 4 – *O. nigropunctatum* (Lewis) (lectotype; BMNH), 5 – *O. picescens* (Fairmaire) (China: Sichuan province, 20 km N Sabbê; JRUC), 6 – *O. picescens* (Fairmaire) (holotype, penis damaged; MNHN), 7 – *O. subrufum* (Lewis) (lectotype; BMNH), 8 – *O. subrufum* (Lewis) (holotype of *Thanatophilus thoracicus* var. *davidi* Portevin; MNHN), 9 – *O. thoracicum* (Linnaeus) (Czech Republic: Alber; JRUC). Scale 2 mm.

### *Oiceoptoma picescens* (Fairmaire, 1894)

(Figs 5, 6, 13)

*Silpha picescens* Fairmaire, 1894: 217 (type locality: “Se-Pin-Lou-Chan, Thibet”).

*Oiceoptoma picescens*: Portevin 1926: 149.

TYPE MATERIAL. Holotype male (MNHN), labelled “Se Pin-Lou Chan [= path between Ya’an and Kangding, Sichuan province, China] / Ya Tcheou [not located] / Chasseurs indigènes [= unknown collectors] / 1893 [p] // MUSÉUM PARIS / 1952 / COLL. R. OBERTHUR [p, light yellow label] // L. Fairmaire / Vidit 1894 [p] // G. J. Arrow / Vidit 1902. [p] // silpha / picescens / typ – ... [illeg.] [hw] // HOLOTYPE [p, red label]”.

DIAGNOSIS. Pronotum and elytra piceous to orange (brown in old collection specimens), ventral surface of body and appendages black (Fig. 13). Pronotum weakly transverse, weakly sinuate postero-laterally; surface with darker, compact median spot; pronotum covered with longer, orange setation. Elytra subparallel, with narrow elytral epipleura; surface simple, subapically with rugosities, costae fully developed. Male. Paramere slender, penis regularly tapering to triangular, sharp apex (Figs 5, 6). Female. Apex of elytron prolonged to sharp angle.

MEASUREMENTS (n = 25 specimens). Total body length 13.9–16.2 (mean 15.3) mm. Pronotum 1.68–1.85 (mean 1.75) times as wide as long. Elytra 0.91–1.17 (mean 1.04) times as wide as long.

TAXONOMIC NOTE. Portevin (1926: 92) mentioned in a note, that he was not able to find any differences between the original description of *Oiceoptoma picescens* and *Oiceoptoma subrufum* (Lewis, 1888). In the catalogue part of his paper (Portevin 1926: 149), he treated *O. picescens* as a possible junior subjective synonym of *O. subrufum*. This was accepted later by Hatch (1928: 91). However, in a short note under *O. davidi*, Portevin (1943: 48) referred to *O. picescens* as a valid species.

DISTRIBUTION (Fig. 23). China: Sichuan province (Fairmaire 1894; this region at the end of 19th century belonged to Tibet) and Yunnan province (first record).

### *Oiceoptoma subrufum* (Lewis, 1888)

(Figs 7, 8, 14)

*Silpha subrufa* Lewis, 1888: 9 (type locality: “Chiuzenji, Akita, and Sapporo”).

*Oiceoptoma subrufum*: Portevin 1914: 222.

*Thanatophilus thoracicus* var. *Davidi* Portevin, 1903: 331 (type locality: “Jehol, nord de Pékin”), **syn. nov.**

*Oiceoptoma Davidi*: Portevin 1943: 48.

TYPE MATERIAL. Lectotype male of *Silpha subrufa* (BMNH, here designated), labelled “Type [p, round label with red margin] // Japan. / G. Lewis. / 1910-320. [p] // Nikko. [Honshu, Japan; ca. 36°45’N 139°37’E] / 10.VIII.–18.VIII. [18]81. [p] // SYN- / TYPE [p, round label with light blue margin] // *Silpha* / *subrufa* / Type. Lewis [hw, Lewis’s manuscript]”; paralectotype male and paralectotype female (both BMNH), labelled “SYN- / TYPE [p, round label with light blue margin] // Sapporo. [Hokkaido, Japan; ca. 43°03’N 141°21’E] / 5.VIII.–16.VIII. [18]80. [p] // Japan / G. Lewis. / 1910-320. [p] // *Silpha* / *subrufa* / Lewis [hw, Lewis’s manuscript]”; paralectotype male (BMNH), labelled “SYN- / TYPE [p, round label with light blue margin] // Japan. / G. Lewis. [p] // Sharp Coll. / 1905-313. [p] // *Silpha* / *subrufa* / Lewis [hw, Lewis’s manuscript]”; paralectotype male (BMNH), labelled “SYN- / TYPE [p, round label with light blue margin] // [text in Japanese] [p, with pink circle] // Japan. / G. Lewis. / 1910-320. [p] // *Subrufa* Lewis [hw, Lewis’s manuscript]”.

Holotype male of *Thanatophilus thoracicus* var. *davidi* (MHNH), labelled “Jehol [p] [territory NE of Beijing, mostly now a part of Hebei province] // MUSÉUM PARIS / Nord PEKIN / A. DAVID [leg.] 1865 [p] // 227 / 65 [p, round label] // 1199 [hw] // Gehoe / Geruru [?, illeg.] / David [hw] // TYPE [p, red characters] // HOLOTYPE [p, violet label]”.

DIAGNOSIS. Pronotum orange, elytra brown to black (rarely light brown), ventral surface of body and appendages black (Fig. 14). Pronotum weakly to moderately transverse, weakly sinuate postero-laterally, surface with diffuse median spot (usually composed of several scattered darker spots or almost indistinct, Fig. 14); pronotum covered with longer, orange setation. Elytra subparallel, with narrow elytral epipleura; surface simple, subapically with rugosities (as on Fig. 17), costae fully developed. Male.



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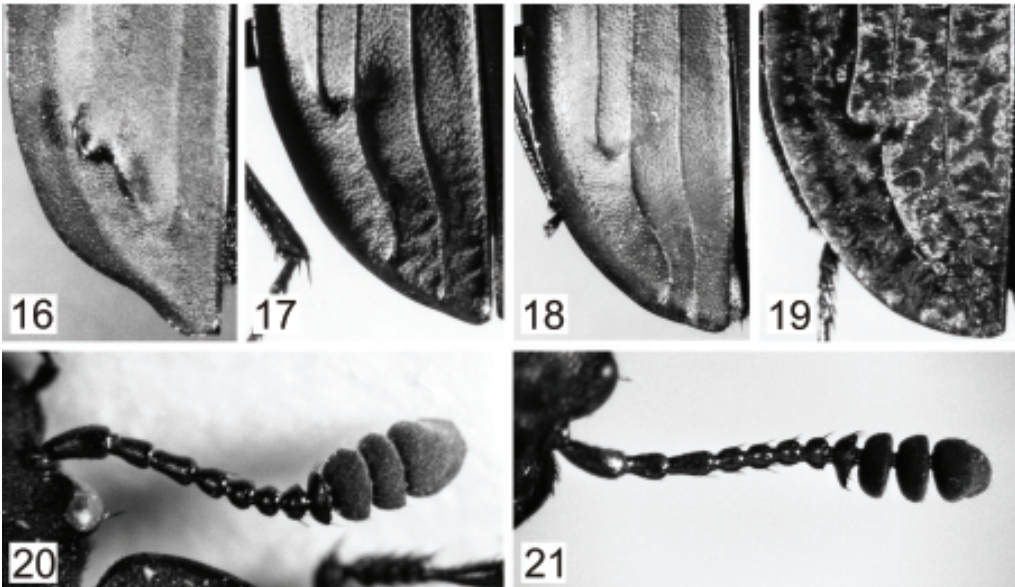


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Figs 10–13. Habitus, dorsal view: 10 – *Oiceoptoma hypocrita* (Portevin) (female, China: Sichuan province, Emei Shan; JRUC), 11 – *O. nigropunctatum* (Lewis) (female, Japan: Oita prefecture, Mt. Kurodake; JRUC), 12 – *O. nakabayashi* (Miwa) (female, Taiwan: Chiao-Lo-Hu; SMNS), 13 – *O. picescens* (Fairmaire) (male, China: Sichuan province, 20 km N Sabdê; JRUC).



Figs 14–21. 14, 15 – habitus, dorsal view: 14 – *O. subrufum* (Lewis) (female, China: Beijing municipality, Xiaolongmen; JRUC), 15 – *O. thoracicum* (Linnaeus) (male, Czech Republic: Pitkovice; JRUC); 16–19 – apex of left elytron, dorsal view: 16 – *O. hypocrita* (Portevin) (female, China: Sichuan province, Emei Shan; JRUC), 17 – *O. nakabayashi* (Miwa) (female, Taiwan: Chiao-Lo-Hu; SMNS), 18 – *O. nigropunctatum* (Lewis) (female, Japan: Oita prefecture, Mt. Kurodake; JRUC), 19 – *O. thoracicum* (Linnaeus) (male, Czech Republic: Pitkovice; JRUC); 20, 21 – antenna, dorsal view: 20 – *O. hypocrita* (Portevin) (male, China: Sichuan province, Moxi; JRUC), 21 – *O. thoracicum* (Linnaeus) (male, Czech Republic: Kosof; JRUC).



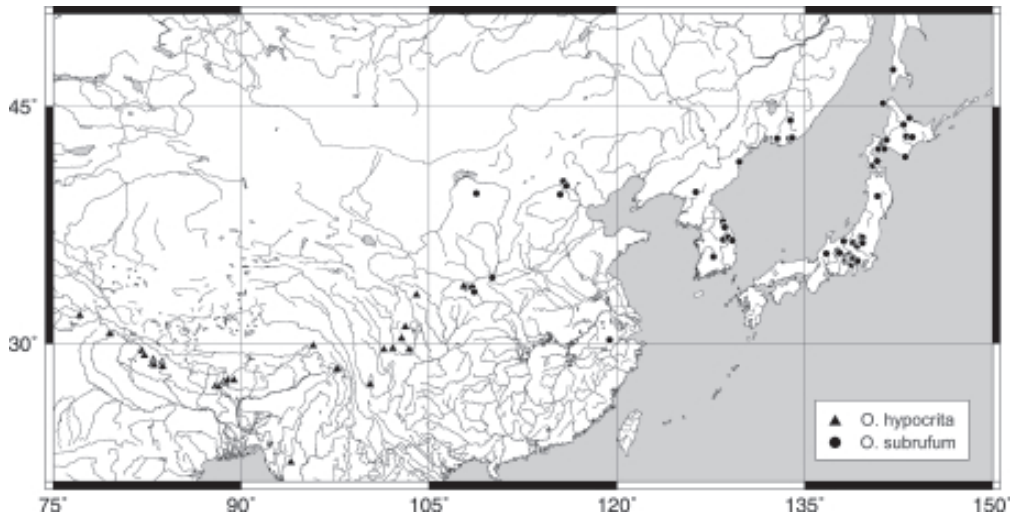


Fig. 22. Distribution of *Oiceoptoma hypocrita* (Portevin) and *O. subrufum* (Lewis).

Paramere slender, penis subapically laterally sinuous, tapering to a widely rounded apex (Figs 7, 8). Female. Apex of elytron weakly prolonged, elytra rounded.

MEASUREMENTS (n = 25 specimens). Total body length 12.1–14.7 (mean 13.4) mm. Pronotum 1.68–1.92 (mean 1.76) times as wide as long. Elytra 1.01–1.28 (mean 1.13) times as wide as long.

TAXONOMIC NOTE. Portevin (1926: 149) treated *Thanatophilus thoracicus* var. *dauidi* Portevin, 1903 as a junior subjective synonym of *Oiceoptoma subrufum* (Lewis, 1888). However, in a short note, Portevin (1943: 48) removed this species from synonymy with *O. subrufum*. The study of the types of both taxa confirms its conspecificity, including similar shape of aedeagus (Figs 7, 8). *Thanatophilus thoracicus* var. *dauidi* Portevin, 1903 is consequently treated here again as a junior subjective synonym of *Oiceoptoma subrufum* (Lewis, 1888).

DISTRIBUTION (Fig. 22). China: Shaanxi province (first record), Nei Mongol autonomous region (first record), Hebei province (Portevin 1903), Beijing municipality (first record), Zhejiang province (first record); Far East of Russia (Emetz 1977, Lafer 1989); North Korea, South Korea (Cho & Lee 1992, 1995); and Japan: Hokkaido and Honshu (Lewis 1888, Kamimura et al. 1964, Kurosawa 1985, Martin 1989, Satô & Saito 1989). *Oiceoptoma subrufum* is listed also from “Tibet” (Wu 1937), which is probably based on a misidentification of *O. picescens*.

### ***Oiceoptoma thoracicum* (Linnaeus, 1758)**

(Figs 9, 15, 19)

*Silpha thoracica* Linnaeus, 1758: 360 (type locality “Europa”).

*Oiceoptoma thoracicum*: Leach, 1815: 89.

*Oiceoptoma collaris*: Motschulsky, 1859: 491 (nomen nudum).

*Oiceoptoma Golowatschowii* Lindermann, 1865: 148 (type locality “Gouvernement Orel” and “Reval (Katharinenthal)”) (synonymy by Portevin 1926: 149).

TYPE MATERIAL. Not examined.

DIAGNOSIS. Body black with orange pronotum (Fig. 15). Pronotum weakly to moderately transverse, weakly sinuate postero-laterally; surface with darker, diffuse to indistinct median spot; pronotum cov-

ered with very long, orange setation (arranged in a patchy pattern with fields of differently orientated setae). Elytra subparallel, with narrow elytral epipleura; surface with patchy pattern of velvety, surface-ripened fields (Fig. 19); elytra subapically with rugosities, internal two pairs of costae weakly developed (Fig. 15). Male. Paramere robust, penis subapically constricted, with elongated, robust, sub-pentagonal apex (Fig. 9). Female. Apex of elytron prolonged to distinct tip.

MEASUREMENTS (n = 25 specimens). Total body length 13.4–15.6 (mean 14.5) mm. Pronotum 1.6–1.89 (mean 1.73) times as wide as long. Elytra 0.94–1.11 (mean 1.01) times as wide as long.

TAXONOMIC NOTE. Following Růžička (2002), the name *Oiceoptoma collaris*, introduced by Motschulsky (1859), is treated as nomen nudum.

DISTRIBUTION (Fig. 24). Widely distributed from Europe to Japan (Portevin 1926). In eastern part of Palaearctic region, known from Russia (Emetz 1977, Lafer 1989), Mongolia (Mroczkowski 1966b, Emetz 1975a, b), China: Heilongjiang province (first record) and Jilin province (first record), North Korea, South Korea (incl. Cheju Island) (Mroczkowski 1966a, Cho & Lee 1992, 1995) and Japan: Hokkaido and Honshu (Lewis 1888, Kamimura et al. 1964, Kurosawa 1985, Satô & Saito 1989).

#### DISCUSSION

Distribution of the six *Oiceoptoma* species in the eastern Palaearctic region is quite distinct (Figs 22–24): only one species (*O. hypocrita*) occurs in the Himalayan-Tibetan orographic system, in central China (Sichuan and Yunnan provinces) widely overlapping with the endemic *O. picescens*, and on the eastern border is sympatric (but not syntopic) with westernmost records of *O. subrufum* (in Qinling Shan mts, Shaanxi province). Endemic *O. nakabayashii* is restricted to Taiwan. Transpalaearctic *O. thoracicum* overlaps in easternmost continental Asia (north-eastern China, Far East of Russia to Korea) with *O. subrufum*.

More complex is the situation in Japan, where both *O. thoracicum* and *O. subrufum* occur partially in sympatry with the endemic Japanese *O. nigropunctatum*. Both *O. thoracicum* and *O. subrufum* occur on Hokkaido and part of Honshu (east of Biwa-ko lake) (Figs 22, 24); *O. nigropunctatum* is



Fig. 23. Distribution of *Oiceoptoma picescens* (Fairmaire), *O. nakabayashi* (Miwa) and *O. nigropunctatum* (Lewis).

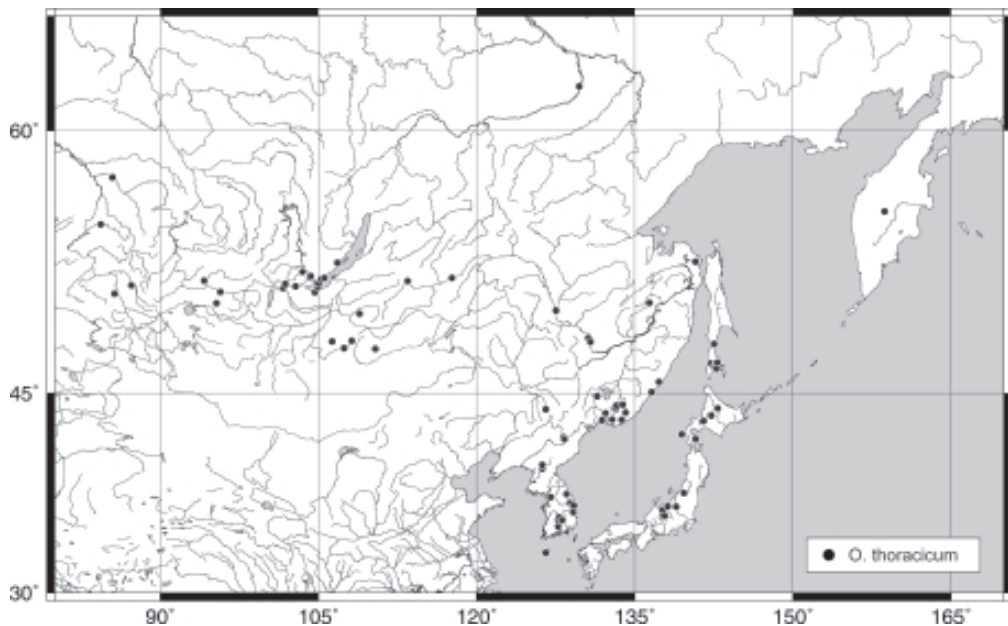


Fig. 24. Eastern Palaearctic distribution of *O. thoracicum* (Linnaeus).

absent on Hokkaido but widely distributed throughout Honshu, Shikoku and Kyushu (Fig. 23). No record of *Oiceoptoma* is known for the Ryukyus Islands.

In the Nearctic region, a further three species are distributed as follows (Anderson & Peck 1985, Peck & Kaulbars 1987): *O. noveboracense* (Forster, 1771) occurs from the Rocky Mountains east to the Atlantic coast and north-eastern United States, where it partially overlaps with *O. inaequale* (Fabricius, 1781), distributed from southern parts of Canada and Quebec south to Florida, and west to east Texas and North and South Dakota. In southern United States, it overlaps with a third species, *O. rugulosum* Portevin, 1903, restricted to south-eastern United States (from coastal North Carolina through Florida to central Texas).

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## APPENDIX

### List of examined non-type material of Palaearctic *Oiceoptoma* species

#### *Oiceoptoma hypocrita* (Portevin, 1903)

MATERIAL EXAMINED. (34 localities, 263 specimens) **India**: Uttaranchal state: beetwen Badarinath and Govind Ghat [ca. 30°44'N 079°29'E], 2800 m, 9.–11.vii.1994, Valenta leg., 5 males (JSCC); 15 km S Badarinath, 30 km N Joshimath [ca. 30°41'N 079°31'E], 2800 m, 9.–11.vii.1994, M. Snižek leg., 1 female (JRUC); Himachal Pradesh: Kulu distr. [= Kullu, ca. 31°57'N 077°06'E], without date and collector's name, ex Musaeo W. Rothschild, 1 female (BMNH); Sikkim: Gnatang [= Gangtok, ca. 27°20'N 088°37'E], vii.1901, without collector's name, 1 male, 1 female (BMNH); de Padamtzin [= Padamchen, ca. 27°14'N 088°45'E], near Lington, vii.1901, without collector's name, 1 male, 3 females (BMNH); Darjeeling district, Rungbong valley, Gopaldhara [ca. 26°57'N 088°11'E], 1911, W. K. Webb leg., ex coll. H. Stevens, 1 female (BMNH); **China**: Xizang autonomous region: Yatong [= Yadong, ca. 27°26'N 088°55'E], 10500 ft., without date, A. E. Hobson leg., 1 female (BMNH); Bomi env., 29°52'N 095°45'E, 3000 m, 9.–10.vii.1997, J. Turna leg., mixed forest, 3 males, 2 females (JSCC, MTRC); Sichuan province: Gongga Shan mts, Moxi [ca. 29°40'N 102°07'E], 21.–24.vii.1992, J. Schneider leg., 58 spec. (JHAC, JSCC, FMNH, WBAC); Wolong [ca. 31°10'N 103°07'E], 9.–10.viii.1992, J. Schneider leg., 1 female (JSCC); Emei Shan mt. [ca. 29°37'N 103°24'E], vi.1992, R. Sauer leg., 1 male, 1 female (JSCC); same locality, 29.viii.–2.ix.1995, J. Schneider leg., 30 spec. (JSCC, JRUC); same locality, 29.viii.–2.ix.1995, J. Schneider leg., M. Nishikawa det., 2 spec. (MNIC); same locality, 2450 m, 3.–7.vii.1993, M. Trýzna leg., 1 female (MTRC); Emei county, Baoguo [= Baoguosi, ca. 29°35'N 103°25'E], 29.vii.–3.viii.1994, Beneš leg., 1 female (MPEC); Jiuzhaigou env. [ca. 33°20'N 104°00'E], 12.–16.vi.1995, V. Beneš leg., 1 male, 1 female (JSCC); Jiuzhaigou [ca. 33°20'N 104°00'E], 16.vi.1995, V. Beneš leg., J. Zidek det., 4 spec. (FMNH); Gongga Shan mts, Hailuoguo Nat. Park, above camp 2, 29°35'N 102°00'E, 2600–2750 m, 3.–6.vii.1998, J. Schneider leg., 1 male, 4 females (JSCC); 20 km N Sabdê, 29°35'N 101°23'E, 3200 m, 10.–16.vii.1998, J. Schneider leg., mixed primary forest near a river, under a dog carrion, 20 males, 17 females (JHAC, JRUC, JSCC); Shaanxi province: Qinling Shan mts, Taibai Shan range above Houshenzi [= Houzhenzi, ca. 33°54'N 107°47'E], 3050 m, 9.vi.–3.vii.1998, J. Martens & P. Jäger leg., W. Schawaller det., 3 females (SMNS); Yunnan province: Yulong Shan mts, Baishui vill., 27°08'N 100°14'E, 2900–3500 m, 7.–12.vii.1990, D. Král leg., 1 female (JRUC); 30 km N Lijiang, Heishui, 27°13'N 100°19'E, 18.vi.–4.vii.1993, S. Bečvář leg., 2 females (JSCC); **Nepal**: Karnali zone: Dolpa district, northern Dhaulagiri, Gompa to Tarakot [ca. 28°53'N 082°59'E], 3300–3400 m, 2.–6.vi.1973, J. Martens leg., W. Schawaller det., 4 males, 10 females (SMNS); same locality, 3300–3400 m, 1.–5.vii.1973, J. Martens leg., W. Schawaller det., 1 male, 14 females (SMFC); same locality, 3300–3400 m, 2.–6.vi.1973, J. Martens leg., W. Schawaller det., 2 spec. (FMNH); Jumla district, 2 km W Gothichaur [ca. 29°11'N 082°17'E], 2700–2800 m, 20.–21.v.1995, M. Hartmann leg., W. Schawaller det., 4 females (SMNS); Mugu district, Rara lake [ca.

29°30'N 082°05'E], 3000 m, 27.–29.vi.1995, D. Ahrens leg., W. Schawaller det., 5 males, 5 females (SMTD, SMNS); **Rapti zone**: Rukum district, Thankur [= Tankur] to Pelma [ca. 28°34'N 082°54'E], 2800–3300 m, v.1973, J. Martens leg., W. Schawaller det., 1 male, 1 female (SMFC); **Dhaulagiri zone**: Baglung district, Dhaulagiri Himal mts, Dhorpatan [ca. 28°30'N 083°04'E], 3000 m, 9.–13.v.1973, J. Martens leg., W. Schawaller det., 1 male, 4 females (SMFC); same locality, 3000–3200 m, 22.–24.v.1973, J. Martens leg., W. Schawaller det., 3 males, 1 female (SMFC); same locality, 3000–3200 m, 7.–25.v.1973, W. Schawaller det., 1 female (SMFC); Mustang district, Thakkhola, Chadziou – Khola near Ghasa [ca. 28°36'N 083°39'E], 2600 m, vi.–vii.1970, J. Martens leg., W. Schawaller det., 1 male, 1 female (SMFC); Mustang district, Thakkhola, Tukuhe – Thansang [ca. 28°42'N 083°40'E], 3100–3300 m, 1.–5.vii.1973, J. Martens leg., W. Schawaller det., 1 male (SMFC); Parbat district, 40 km NW Pokhara, Gorepani [ca. 28°24'N 083°43'E], 3000 m, 6.–10.v.1984, without collector's name, W. Barries det., 2 spec. (WBAC); **Gandaki zone**: Kaski district: between Chitre and Ghandrung [ca. 28°25'N 083°42'E], Chitre side of the pass, 2800–2900 m, *Tsuga* and *Rhododendron* forest, 4.–7.v.1980, J. Martens & B. Ausobsky leg., W. Schawaller det., 11 males, 10 females (SMFC, SMNS); **Mechi zone**: Panchthar district, upper Mai Majuwa Khola, Dhobar Kharka [ca. 26°59'N 087°57'E], 2700 m, 27.–28.viii.1983, J. Martens & B. Daams leg., W. Schawaller det., 1 female (SNMS); **not located**: Kalapokri, 9000 ft., v.1912, without collector's name, 1 female (BMNH); **Bhutan**: Paro district, Chiley-La [ca. 27°26'N 089°25'E], 21.vi.1988, 3000 m, C. Holzschuh leg., 1 female (JSCC); **Myanmar** (Burma): Seinghku valley, 28°07'N 097°35'E, 9500 ft., 7.vi.1926, F. Kingdon Ward leg., 1 female (BMNH); Adung Valley, 8000 ft., 28°15'N 097°40'E, 31.v.1931, F. Kingdon Ward leg., A. Newton det., 1 spec. (FMNH); same locality, 3.vi.1931, F. Kingdon Ward leg., A. Newton det., 1 spec. (FMNH); same locality, 6.vi.1931, F. Kingdon Ward leg., A. Newton det., 1 spec. (FMNH); same locality, 8000–10000 ft., 7.vi.1931, F. Kingdon Ward leg., 3 females (BMNH); Chin hills, Mt. Victoria [ca. 21°26'N 093°59'E], 2400–2800 m, iv.1938, G. Heinrich leg., 1 female (BMNH).

### *Oiceoptoma nakabayashii* (Miwa, 1937)

MATERIAL EXAMINED. (6 localities, 7 specimens) **Taiwan**: **Taichung hsien**: Hoping [ca. 24°11'N 120°58'E], 14.x.1989, C. C. Chiang leg., W. Schawaller det., 1 female (SMNS); **Nantou hsien**: Jenai [ca. 24°01'N 121°05'E], Meifeng env., 5.v.1978, T. Niisato leg., M. Nishikawa det., 1 spec. (MNIC); Sungkang [ca. 24°04'N 121°10'E], 9.vii.1988, C.–C. Lo leg., S. Nomura det., 1 spec. (NSMT); **Chiayi hsien**: Mt. Yushan [ca. 23°28'N 120°57'E], 2.viii.1974, Y. Kiyoyama leg., S. Nomura det., 2 spec. (NSMT); **Kaohsiung hsien**: Peinantashan trail [ca. 23°03'N 120°51'E], 2250 m, 4.vii.1993, A. Smetana leg., broadleaved evergreen forest with *Chamaecyparis*, rotten fungi on fallen log, 1 male (JRUC); **not located**: Chiao-Lo-Hu, 28.v.2002, Wenbe Hwang leg., W. Schawaller det., 1 female (SMNS).

### *Oiceoptoma nigropunctatum* (Lewis, 1888)

MATERIAL EXAMINED. (84 localities, 249 specimens) **Japan**: **Honshu**: Fukushima prefecture, Aizu [ca. 37°30'N 139°56'E], without date, K. Nagayama leg., S. Nomura det., 1 spec. (NSMT); Tokyo prefecture, Okutama [ca. 35°49'N 139°07'E], without date, Watanabe leg., S. Nomura det., 1 spec. (NSMT); Saitama prefecture, Chichibu [ca. 36°00'N 139°06'E], 25.v.1929, K. Kamiya leg., S. Nomura det., 1 spec. (NSMT); Tokyo prefecture, Kogesawa, 21.vi.1942, T. Shinohara leg., S. Nomura det., 1 spec. (NSMT); Fukushima prefecture, Mt. Azuma-yama [ca. 37°44'N 140°12'E], 19.vii.1942, Y. Kurosawa leg., S. Nomura det., 2 spec. (NSMT); Fukushima prefecture, Tateiwa-mura, Yunohana, 17.vi.1947, Y. Kurosawa leg., S. Nomura det., 1 spec. (NSMT); Fukushima prefecture, Aizu-Wakamatsu-shi, Tennejiji-machi, 22.v.1949, T. Yoneyama leg., S. Nomura det., 1 spec. (NSMT); Fukushima prefecture, Omata-mura, Ebiyama pass, 9.vi.1951, Y. Kurosawa leg., S. Nomura det., 2 spec. (NSMT); Akita prefecture, Towada-ko lakeside [ca. 40°27'N 140°51'E], 14.vi.1952, K. Shimoyama leg., S. Nomura det., 1 spec. (NSMT); Gunma prefecture, Niiharu-mura, Hoshi Spa – Mikuni-toge pass, 6.vi.1953, Y. Kurosawa leg., S. Nomura det., 1 spec. (NSMT); Aomori prefecture, Takedate-mura, Nurukawa, 5.viii.1953, K. Shimoyama leg., S. Nomura det., 2 spec. (NSMT); Tochigi prefecture, Nikko, Mt. Komanako-yama, 13.v.1956, Y. Kataoka leg., S. Nomura det., 6 spec. (NSMT); Tokyo prefecture, Okutama-machi, Nippara [ca. 35°50'N 139°02'E], 25.vii.1960, Y. Kurosawa leg., S. Nomura det., 1 spec. (NSMT); Nara prefecture, Kami-Kitayama-mura, Mt. Ohdaigahara [ca. 34°11'N 136°06'E], 28.–31.vii.1960, Y. Kurosawa leg., S. Nomura det., 1 spec. (NSMT); same locality, 9.vi.1997, S. Nomura leg., S. Nomura det., 7 spec. (NSMT); Nara prefecture, Yoshino-gun, Kamikitayama-mura, Oodaigahara Parking Area to Owase-Tsuji [ca. 34°08'N 136°06'E], 1550 m, 1.viii.1971, K. Harusawa leg., K. Harusawa det., 2 males, 1 female (KHAC); Nara prefecture, Yoshino-gun, Tenkawa-mura, Mt. Misen Ookamidaira [ca. 34°10'N 135°54'E], 1600 m, 1.viii.1972, K. Harusawa leg., human excrement, K. Harusawa det., 3 males, 1 female (KHAC); Nara prefecture, Yoshino-gun, Kamikitayama-mura, Mt. Oodaigahara, Nagoya Dani, 29.vii.1973, K. Harusawa leg., K. Harusawa det., 1 male (KHAC); Nara prefecture, Yoshino-gun, Kamikitayama-mura, Oodaigahara Parking Area, 1580 m, 29.vii.1973, K. Harusawa leg., K. Harusawa det., 1 female (KHAC); Tokyo prefecture, Okutama, Mt. Mito-san [ca. 35°44'N 139°01'E], 9.vii.1978, S. Morita leg., S. Nomura det., 2 spec. (NSMT); Fukushima prefecture, Minami-aizu, Shindenhara [ca. 36°49'N 139°33'E], 8.–9.vi.1979, A. Izumi leg., M. Nishikawa det., 4 spec. (MNIC); Kanagawa prefecture, Tanzawa mts,

Fudakake [ca. 35°27'N 139°12'E], 500 m, 8.v.1980, M. Nishikawa leg., traps, M. Nishikawa det., 14 spec. (MNIC); Niigata prefecture, Kitaonuma-gun, Irihirose-mura [ca. 37°16'N 139°09'E], Migisawa, 760 m, 5.viii.1980, K. Harusawa leg., human excrement, K. Harusawa det., 1 male (KHAC); Osaka prefecture, Minamikawachi-gun, Chihaya-Akasaka-mura, Mt. Kongo [ca. 34°25'N 135°40'E], Chihaya Dani, 550 m, 12.iv.1981, K. Harusawa leg., dog manure, K. Harusawa det., 1 male (KHAC); Tokyo, Itsukaichi [ca. 35°44'N 139°13'E], Kamiyozawa, 4.vii.1982, M. Nishikawa leg., traps, M. Nishikawa det., 2 spec. (MNIC); Iwate prefecture, Shimohei, Kuzubezawa [ca. 39°42'N 140°49'E], 19.vi.1983, A. Izumi leg., M. Nishikawa det., 1 spec. (MNIC); Nara prefecture, Gose C., Mt. Kongo [ca. 35°25'N 135°40'E], 23.x.1983, K. Harusawa leg., K. Harusawa det., 1 female (dead specimen) (KHAC); same locality, 1000 m, 4.iv.1993, K. Harusawa leg., rotten squid, K. Harusawa det., 1 female (KHAC); Tottori prefecture, Ketaka county, Shikano cho, Mt. Jubo-san [ca. 35°26'N 134°03'E], 870 m, 29.iv.–11.v.1985, H. Kinugasa leg., 1 male (JHAC); same locality, 610 m, 29.iv.–11.v.1985, K. Harusawa leg., carrion trap, K. Harusawa det., 3 males (KHAC); Gunma prefecture, Niiharu-mura [ca. 36°45'N 138°52'E], near Hoshi-onsen spa, 26.v.1987, T. Matsumoto leg., M. Nishikawa det., 2 spec. (MNIC); Yamanashi prefecture, Sudama-machi, Kuromori [ca. 35°54'N 138°32'E], Mizugaki-Tenshien, 23.–25.vii.1987, R. Inagawa leg., M. Nishikawa det., 1 spec. (MNIC); Gunma prefecture, Agatsuma-machi [ca. 36°32'N 138°45'E], Hagio, Amazakebara, 23.–25.vii.1987, T. Matsumoto leg., M. Nishikawa det., 1 spec. (MNIC); Gunma prefecture, Matsuida-machi, Mt. Komochi-yama (Kirizumi) [ca. 36°33'N 139°00'E], 26.–28.vii.1987, T. Matsumoto leg., M. Nishikawa det., 1 spec. (MNIC); Yamanashi prefecture, Enzan-shi, Hikawa-rindo [ca. 35°48'N 139°06'E], 27.–29.vii.1987, H. Yamazaki leg., M. Nishikawa det., 1 spec. (MNIC); Nagano prefecture, Kawakami-mura [ca. 35°55'N 138°37'E], near Takatoya-yama, 28.vii.1987, R. Inagawa leg., M. Nishikawa det., 2 spec. (MNIC); Gunma prefecture, Matsuida-machi [ca. 36°21'N 138°44'E], Nishinonmaki, Ura-Myogi, 29.–31.vii.1987, T. Matsumoto leg., M. Nishikawa det., 1 spec. (MNIC); Nagano prefecture, Minamiaki-mura [ca. 36°00'N 138°35'E], Kurio, 30.vii.1987, R. Inagawa leg., M. Nishikawa det., 7 spec. (MNIC); Nara prefecture, Yoshino-gun, Kamikitayama-mura, Wasamata Hut, 1140 m, 26.vii.–4.viii.1990, K. Harusawa leg., human excrement, K. Harusawa det., 1 male (KHAC); Nara prefecture, Yoshino-gun, Kawakami-mura [ca. 34°17'N 135°57'E], E Mt. Daifugen, 1500–1550 m, 26.vii.–4.viii.1990, K. Harusawa leg., carrion trap, K. Harusawa det., 1 male, 1 female (KHAC); Kanagawa prefecture, Doshi mts [ca. 35°35'N 139°13'E], Dozaka-toge pass, 800 m, 10–19.viii.1993, M. Nishikawa leg., trap, M. Nishikawa det., 1 spec. (MNIC); Shizuoka prefecture, Izu Peninsula, Amagi mts [ca. 34°52'N 139°01'E], Haccho-no-ike env., 800–1000 m, 10.–20.viii.1993, M. Nishikawa leg., trap, M. Nishikawa det., 1 spec. (MNIC); Osaka prefecture, Tondabayashi C., Kannabi [ca. 34°48'N 135°44'E], 23.–26.iv.1994, K. Harusawa leg., pitfall traps, rotten squid, K. Harusawa det., 1 male, 1 female (KHAC); Nara prefecture, Yoshino-gun, Kamikitayama-mura, Musodo, 1100 m, 25.–26.vi.1994, K. Harusawa leg., pitfall trap, rotten squid, K. Harusawa det., 1 female (KHAC); Nara prefecture, Yoshino-gun, Nosegawa-mura, Kawarabi Gawa, Shimodani, 770 m, 6.v.1995, K. Harusawa leg., K. Harusawa det., 1 spec. (KHAC); Osaka prefecture, Osaka, Tondabayashi [ca. 34°31'N 135°36'E], Kongo colony, 8.v.1995, without collector's name, M. Ulyshen det., 3 spec. (MULC); Nagano prefecture, Mt. Asamayama, Mineno-chaya, 17.–20.vi.1995, S. Nomura leg., S. Nomura det., 2 spec. (NSMT); Yamanashi prefecture, Ashiyasu-mura, Yashajin pass, 1.–8.vii.1995, S. Nomura leg., S. Nomura det., 2 spec. (NSMT); Nara prefecture, Yoshino-gun, Nosegawa-mura, Mt. Obako [ca. 34°04'N 135°39'E], Nabewari Dani, 850 m, 16.vii.1995, K. Harusawa leg., human excrement, K. Harusawa det., 1 female (KHAC); Fukushima prefecture, Tokiwa-machi [ca. 37°26'N 140°39'E], Oniana Cave, 20.vii.1995, S. Nomura leg., S. Nomura det., 1 spec. (NSMT); Gunma prefecture, Fujimi-mura, Mt. Akagiyama, 1450 m, 27.vii.1995, S. Nomura leg., S. Nomura det., 13 spec. (NSMT); Niigata prefecture, Yuzawa-machi, Mikuni-toge pass [ca.], 1050 m, 27.vii.1995, S. Nomura leg., S. Nomura det., 2 spec. (NSMT); Nara prefecture, Yoshino-gun, Kamikitayama-mura, E Gyojyagaeri tunnel, 2.ix.1995, K. Harusawa leg., pitfall trap, rotten squid, K. Harusawa det., 1 male (KHAC); Kanagawa prefecture, Ashigarakami-gun, Shiraishi-toge [ca. 36°46'N 138°49'E], 11.–12.v.1996, K. Matsumoto leg., K. Harusawa det., 1 female (KHAC); Yamanashi prefecture, Enzan C. [ca. 35°42'N 138°44'E], Yunosawa-toge, 1680 m, 30.v.1996, M. Sawai leg., pitfall traps, rotten squid, K. Harusawa det., 1 male (KHAC); Osaka prefecture, Minamikawachi-gun, Chihayaakasaka-mura, Mt. Kongo, Ishibute Nishidani, 550 m, 9.v.1997, K. Harusawa leg., snake carcass, K. Harusawa det., 1 male (KHAC); same locality, 550 m, 12.–13.v.1997, K. Harusawa leg., snake carcass, K. Harusawa det., 1 male, 4 females (KHAC); same locality, 550 m, 18.v.1997, K. Harusawa leg., snake carcass, K. Harusawa det., 1 male, 1 female (KHAC); Nara prefecture, Tenkawa-mura, Mt. Sanjoga-take [ca. 34°15'N 135°53'E], 9.vi.1997, S. Nomura leg., S. Nomura det., 24 spec. (NSMT); Shiga prefecture, Ibuki-machi, Mt. Ibukiyama [ca. 35°26'N 136°25'E], 1300 m, 28.vi.1997, K. Yahiro leg., S. Nomura det., 25 spec. (NSMT); Hyogo prefecture, Kawabe-gun, Inagawa Cho, Mt. Ooya, 750 m, 28.vi.1998, K. Harusawa leg., K. Harusawa det., 1 male (KHAC); Nara prefecture, Yoshino-gun, Tenkawa-mura, Kosei Gawa, Kotsubo Dani, 1150 m, 5.vii.1998, K. Harusawa leg., K. Harusawa det., 1 male (KHAC); Nara prefecture, Gose C., Mt. Yamatokatsuragi, Mukoarai Ike, 860 m, 29.v.–2.vi.1999, O. Tominaga leg., pitfall traps, cocoon powder of silk worm, K. Harusawa det., 1 male (KHAC); Kyoto prefecture, Kasa-gun, Ooe Cho, Bussyo-ji, 250 m, 14.v.2000, K. Harusawa leg., K. Harusawa det., 1 female (KHAC); Kyoto prefecture, Kitakuwata-gun, Miyama Cho, Kyoto University Asiu Experimental Forest [ca. 35°17'N 135°45'E], 650 m, 30.vii.2000, K. Harusawa leg., carnivorous animal dung, K. Harusawa det., 2 males (KHAC); same locality, 650 m, 2.viii.2000, K. Harusawa leg., carnivorous animal dung, K. Harusawa det., 1 male (KHAC); Yamanashi prefecture, Mt. Nyugasa-yama, 1900 m, 6.–16.viii.2000, M. Nishikawa leg., trap, M. Nishikawa

det., 1 spec. (MNIC); Hyogo prefecture, Shiso county, Haga [ca. 35°11'N 134°42'E], Akasai valley, 530 m, 8.iv.2001, without collector's name, M. Ulyshen det., 1 spec. (MULC); Hyogo prefecture, Shiso-gun, Haga Cho, Akasai Keikoku, 530 m, 8.iv.2001, K. Harusawa leg., dog manure, K. Harusawa det., 3 males, 4 females (KHAC); Okayama prefecture, Kawakami-cho, Anatoiyama-jinja [ca. 34°40'N 133°29'E], 14.iv., 16.iv. and 28.iv.2001, Y. Fujitani leg., traps, M. Nishikawa det., 3 spec. (MNIC); Okayama prefecture, Kamisaibara-mura [ca. 35°19'N 133°58'E], Mt. Sangakami, 800 m, 13.v.2001, Y. Fujitani leg., trap, M. Nishikawa det., 1 spec. (MNIC); Hiroshima prefecture, Yamagata-gun, Geihoku Chu, Mt. Garyu [ca. 34°41'N 132°12'E], 1100 m, 17.vi.2001, Y. Oka leg., K. Harusawa det., 1 female (KHAC); Nara prefecture, Yoshino-gun, Mt. Wasamata, 1250 m, 15.vii.2001, K. Harusawa leg., K. Harusawa det., 1 female (KHAC); Nara prefecture, Yoshino-gun, Mt. Wasamata Syonoiwaya, 1300–1450 m, 15.vii.2001, without collector's name, K. Harusawa det., 1 male (KHAC); Okayama prefecture, Nagi-machi, Takiyama [ca. 35°10'N 134°10'E], 24.v.–1.vi.2002, Y. Fujitani leg., trap, M. Nishikawa det., 1 spec. (MNIC); Wakayama prefecture, Hidaka-gun, Ryujiin-mura, S Mt. Gomadan [ca. 34°03'N 135°34'E], 1340 m, 7.viii.2002, K. Harusawa leg., carnivorous animal dung, K. Harusawa det., 1 male, 1 female (KHAC); Tochigi prefecture, Nikko C., Mt. Nyoho [ca. 36°49'N 139°32'E], E Jikan Daki, 1250 m, 4.v.2003, K. Harusawa leg., deer carcass, K. Harusawa det., 1 male (KHAC); Toyama prefecture, Kaminiikawa-gun, Ooyama Cho, Arimine [ca. 36°34'N 137°38'E], 1160–1200 m, 5.–7.vi.2003, K. Harusawa leg., pitfall traps, cocoon powder of silk worm, K. Harusawa det., 1 male (KHAC); Hyogo prefecture, Kanzaki-gun, Ookawachi Cho, Tonomine Kogen, 890 m, 27.vii.2003, K. Harusawa leg., human excrement, K. Harusawa det., 1 male (KHAC); Nara prefecture, Yoshino-gun, Tenkawa-mura, Tsubonouchi Rindo, 1000 m, 3.viii.2003, K. Harusawa leg., snake carcass, K. Harusawa det., 2 males, 1 female (KHAC); Shikoku: Ehime prefecture, Omogokei [ca. 33°44'N 133°08'E], 20.v.1952, S. Hisamatsu leg., 1 male (ISNB); Ehime prefecture, Ishizuchi Mt. Nat. Park [ca. 33°46'N 133°07'E], Tsuchigoya, 1400 m, 11.–18.viii.1980, S. B. Peck leg., S. B. Peck det., 8 spec. (SBPC); Tokushima prefecture, Miyosi-gun, Ikeda [ca. 34°01'N 133°47'E], Mt. Ryugadake, 2.iv.1999, without collector's name, M. Ulyshen det., 1 spec. (MULC); Tokushima prefecture, Higashiiyayama-mura, Ochiai-toge pass [ca. 33°43'N 134°04'E], 17.vi.2001, Y. Fujitani leg., traps, M. Nishikawa det., 3 spec. (MNIC); Ehime prefecture, Omogomura, Mt. Ishizuchi-yama [ca. 33°46'N 133°07'E], Tsuchigoya, 1500 m, 22.–23.vii.2002, Y. Fujitani leg., trap, M. Nishikawa det., 1 spec. (MNIC); Kyushu: Oita prefecture, Kuju mts, Mt. Kurodake, Kakushimizu, 20.vi.1992, F. Hirokawa leg., S. Nomura det., 2 spec. (NSMT); Oita prefecture, Kuju mts, Mt. Kurodake [ca. 33°05'N 131°15'E], 9.viii.1992, R. Noda leg., S. Nomura det., 3 spec. (NSMT); same locality, 21.viii.1994, S. Nomura leg., S. Nomura det., 5 spec. (NSMT); same locality, 19.v.1997, S. Nomura leg., S. Nomura det., 9 spec. (NSMT); same locality, 21.viii.1994, carrion, S. Nomura leg., 3 males, 3 females (JRUC, JSCC); Fukuoka prefecture, Mt. Hikosan [ca. 33°27'N 130°56'E], Buzenbo, 21.iv.1993, R. Noda leg., S. Nomura det., 2 spec. (NSMT); Fukuoka prefecture, Kitakyushu, Mt. Hikosan [ca. 33°27'N 130°56'E], 31.v.1995, H. Hoshina leg., 2 spec. (JRUC); Oita prefecture, Yubuini [ca. 33°16'N 131°24'E], foot of Mt. Yubu-dake, 750 m, 19.vi.2002, T. Iwamoto leg., M. Nishikawa det., 1 spec. (MNIC).

### *Oiceoptoma picescens* (Fairmaire, 1894)

MATERIAL EXAMINED. (10 localities, 149 specimens) **China**: Sichuan province: Tatsienlu-Kiulung [= Kiulung mts, S of Kangding], without date and collector's name, ex coll. Em. Reitter, 21 males, 28 females (NMPC, NHMW, SMFC); same locality, without date and collector's name, ex coll. E. Reitter, 3 spec. (FMNH); Tatsien-lu [= Kangding, ca. 30°05'N 102°04'E], without date and collector's name, ex coll. Em. Reitter, 1 male, 2 females (NHMW); Chasseurs de Ta-tsien-lou [collectors from Kangding], 1895, 1 male (BMNH); Su-Tcheu, 1897, Chass.[eurs] Thibétains [Tibetan collectors], ex coll. R. Oberthur, 1 male (BMNH); 20 km N Sabdê, 3200 m, 29°35'N 101°23'E, 10.–16.vii.1998, J. Schneider leg., on dog carrion, 75 spec. (FMNH, JHAC, JRUC, JSCC, MNIC, MTRC, WBAC); Yunnan province: road Deqen – Yanjing, 10 km W Deqen, 28°28'N 098°53'E, 3600 m, 21.–22.vi.1997, J. Turna leg., 3 males (JSCC); same locality, 3600 m, 21.–22.vi.1997, without collector name, 2 males, 2 females (MTRC); Zhonglian env. [= Zhongdian, ca. 27°50'N 099°36'E], 3400 m, 3.vii.1998, without collector's name, W. Barries det., 1 spec. (WBAC); Qiaojia county, Yao Shan mts, 27°11'–16'N 103°01'–03'E, 2400–3900 m, 19.–30.vii.1998, L. & R. Businsky leg., 2 males, 3 females (JSCC); same locality, 19.–30.vii.1998, without collector's name, W. Barries det., 1 spec. (WBAC); Jizu mts, 26°58'N 100°21'E, 2800 m, 30.v.–3.vi.1993, Bolm leg., 1 male (JSCC); Habashan mts [ca. 27°20'N 100°11'E], 3150 m, vi.2002, S. Bečvář leg., J. Zidek det., 2 spec. (FMNH).

### *Oiceoptoma subrufum* (Lewis, 1888)

MATERIAL EXAMINED. (89 localities, 265 specimens) **China**: Shaanxi province: Qinling Shan mts, N slope Huxian, 33°50'N 108°26'E, 1300–1600 m, 12.–13.vi.1995, L. & R. Businsky leg., 1 female (JSCC); Qinling Shan mts, 100 km E Xi'an, Hua Shan mt., 34°30'N 110°04'E, 1500 m, 7.–14.vii.1996, Kleinfeld & Schutze leg., 1 male (JSCC); Qinling Shan mts, 6 km E Xunyangba [ca. 33°33'N 108°37'E], 1000–1300 m, 23.v.–13.vi.1998, I. H. Marshal leg., 1 male, 1 female (JSCC); Qinling Shan mts, Taibaishan range, Houzhenzi vill. env. [ca. 33°54'N 107°47'E], 1500 m, 26.vi.1998, O. Šafránek et M. Trýzna



leg., 1 female (MTRC); same locality, 33°53'N 107°49'E, 1900 m, 1.–2.viii.1999, V. Siniaev & A. Plutenko leg., 2 males, 4 females (JSCC); Qinling Shan mts, Fooping Nature Reserve, 33°51'N 107°57'E, 1600 m, 8.iv.1999, V. Siniaev & A. Plutenko leg., 1 male (JMAG); same locality, 20.iv.–11.v.1999, V. Siniaev & A. Plutenko leg., 7 males, 4 females (JSCC); Qinling Shan mts, 45 km SSW Xi'an, mountain range W pass on road Xi'an – Shagonjie, N slope, 39°52'N 108°46'E, 2675 m, 25.vii.2001, M. Schülke leg., *Abies, Betula, Larix, Rhododendron* / subalpine meadows, sifted, 1 male, 1 female (MSCC); Hebei province: 100 km W Beijing, Dongling Shan mts [ca. 39°48'N 115°29'E], 1500 m, 12.–15.vi.2000, Z. Jindra leg., 1 female (JSCC); Beijing municipality: Qing Long Qiao [= Qinglongqiao, ca. 40°20'N 115°59'E], 27.vii.1990, S. Bečvář leg., 1 male (JSCC); Dongling Shan mts, Xiaolongmen, 39°97'N 115°43'E, 17.vi.2001, J. Cooter leg., rotting kitchen waste, 5 males, 1 female (JCOC, JRUC); Nei Mongol autonomous region: Chingan mts, Buchalu, without date and collector's name, ex coll. W. H. Muche, 1 male, 2 females (SMTD); Zhejiang province: Tien Muchan [= Tianmu Shan mts, between ca. 30°06'N 118°47'E and 30°26'N 119°39'E], without date and collector's name, 2 males (JSCC); **Far East of Russia**: Primorskyi region [= Maritime territory]: Ussuri, Sutchan, without date and collector's name, ex coll. W. H. Muche, 1 male (SMTD); Pidán mts, Anisimovka [ca. 43°10'N 132°48'E], 3.v.1975, A. Plutenko leg., 1 female (JSCC); Jasnoe [= Yasnoe, ca. 44°13'N 133°51'E], 400 m, 12.–19.vii.1989, M. Nikodým leg., 3 females (JRUC, JSCC); Benevskoe [= Benevskoye, ca. 43°10'N 133°46'E], 21.vii.1989, R. Červenka leg., 1 spec. (FMNH); Lazo env., Lazo Nat. Park [ca. 43°12'N 134°00'E], vii.1993, M. Trýzna leg., 1 male (JSCC); same locality, 1993, without collector's name, W. Barries det., 1 spec. (WBAC); Krinicznaya mt. [ca. 43°05'N 132°47'E], 13.–27.vii.1994, without collector's name, 1 male, 2 females (JHAC, JRUC); Sakhalin territory: Saghalien [= Sakhalin], without date and collector's name, S. Nomura det., 1 spec. (coll. H. Kôno, NSMT); Maoka [= Kholmok, ca. 47°03'N 142°03'E], 8.viii.1938, H. Hasegawa leg., S. Nomura det., 1 spec. (NSMT); **North Korea**: North Hamgyeong province: Seishin olto [= Ch'ëongjin, ca. 41°47'N 129°47'E], without date and collector's name, 2 males, 2 females (SMFC, JRUC); South P'yëongan province: Mt. Myohyang-san [ca. 39°57'N 126°18'E], 17.viii.1989, Szollát leg., W. Schawaller det., 1 male (HNHM); **South Korea**: Gangwon-do [= Kangweon] province: Mt. Sorak Nat. Park [ca. 38°07'N 128°28'E], Hankyeryong pass, 19.viii.1979, G. Minet leg., W. Schawaller det., 1 male (SMNS); Pyeongchang-gun, Mt. Odaesan [ca. 37°48'N 128°32'E], 5.viii.1985, Y. B. Cho leg., Y. B. Cho det., unknown number of spec. (NHMT); Mt. Odae Nat. Park [ca. 37°46'N 128°36'E], 5.vii.1986, Y. B. Cho leg., W. Schawaller det., 1 male, 2 females (SMNS); Pyeongchang-gun, Mt. Balwangsán, 18.–20.viii.2000, Y. B. Cho leg., Y. B. Cho det., unknown number of spec. (NHMT); Taebaek-shi, Mt. Taebaeksán [ca. 37°07'N 128°54'E], 30.vii.1986, Y. B. Cho leg., Y. B. Cho det., unknown number of spec. (NHMT); same locality, 31.vii.1986, without collector's name, S. Nomura det., 1 spec. (NSMT); same locality, 23.vii.1998, D. S. Kim leg., Y. B. Cho det., unknown number of spec. (NHMT); Jeollabuk-do [= North Cheolla] province: Muju-gun, Mt. Deokyusan [ca. 35°51'N 127°44'E], 21.v.1983, G. S. Yui leg., Y. B. Cho det., unknown number of spec. (NHMT); Gyeongsangbuk-do [= North Kyongsang] province: Yeongju-gun, Mt. Sobaeksán [ca. 36°57'N 128°30'E], 6.vii.1981, O. J. Wak leg., Y. B. Cho det., unknown number of spec. (NHMT); Uljin-gun, Seo-myeon, Mt. Tonggo-san [ca. 36°55'N 129°13'E], 12.–14.vii.2001, Y. B. Cho leg., Y. B. Cho det., unknown number of spec. (NHMT); **Japan**: Hokkaido: Oshima sub-prefecture, Hakodate [ca. 41°47'N 140°45'E], without date, Albrecht leg., W. Schawaller det., 1 male (SMNS); Iburi sub-prefecture, Shirai-cho [ca. 42°33'N 141°21'E], Shadai, 11.viii.1921, without collector's name, S. Nomura det., 1 spec. (NSMT); Ishikari sub-prefecture, N Sapporo, Enza, 4.vi.1939, S. K. leg., S. Nomura det., 1 spec. (NSMT); Kamikawa sub-prefecture, Teshio [ca. 43°58'N 142°53'E], Okushibetsu, 2.ix.1945, T. Hasegawa leg., S. Nomura det., 1 spec. (NSMT); Soya sub-prefecture, Rishiri Is., Mt. Rishiridake [ca. 45°11'N 141°15'E], 21.viii.1965, K. Suga leg., S. Nomura det., 1 spec. (NSMT); Tokachi sub-prefecture, Ashoro [ca. 43°15'N 143°35'E], 1.v.1970, K. Maruyama leg., M. Nishikawa det., 1 spec. (MNIC); Oshima sub-prefecture, Shiriuchi, Wakimoto [ca. 41°34'N 140°26'E], 10.viii.1970, M. Nishikawa leg., M. Nishikawa det., 1 spec. (MNIC); Ishikari sub-prefecture, Mt. Sapporo-dake [ca. 42°53'N 141°12'E], 5.viii.1970, M. Sakai leg., 1 spec. (SBPC); Soya sub-prefecture, Rishiri-to Is. [ca. 45°11'N 141°14'E], 7.viii.1970, K. Maruyama leg., M. Nishikawa det., 3 spec. (MNIC); same locality, 28.viii.1985, Y. Nagao leg., M. Nishikawa det., 2 spec. (MNIC); Tokachi sub-prefecture, Kato-gun, Shikaribetsu Ko lake [ca. 43°17'N 143°07'E], 30.vi.1971, K. Harusawa leg., K. Harusawa det., 1 female (KHAC); Ishikari sub-prefecture, Sapporo env., Nopporo [ca. 43°05'N 141°32'E], 8.v.1987, M. Ohara leg., M. Nishikawa det., 9 spec. (MNIC); Oshima sub-prefecture, Horokanai [ca. 41°50'N 140°46'E], Butokamabetsu river, 300 m, 3.vii.1991, A. Smetana leg., 1 female (JRUC); Iburi sub-prefecture, Toya lake, Soubetsu [= Sobetsu, ca. 42°33'N 140°54'E], 30.vi.1992, Nakajima leg., M. Ulyshen det., 1 spec. (MULC); Hidaka sub-prefecture, Samani-cho, Horoman valley [ca. 42°04'N 143°02'E], 21.–23.viii.1995, S. Nomura leg., S. Nomura det., 2 spec., 1 larva (NSMT); Abashiri sub-prefecture, Monbetsu C. [ca. 44°21'N 143°21'E], Sasanozawa, 22.vi.2001, T. Shimada leg., deer carcass, K. Harusawa det., 5 males, 5 females (KHAC); Honshu: Fukushima prefecture, Jesso [= Yaso, ca. 37°06'N 139°36'E], without date and collector's name, ex coll. Roll, 1 male, 3 females (ZMHB); Nagano prefecture, Northern Alps [= Hida mts], Kamikochi [ca. 36°15'N 137°38'E], 5000 ft., without date and collector's name, ex coll. E. Reitter, 3 males, 2 females (JRUC, NMPC); same locality, without date and collector's name, 1 spec. (FMNH); Nagano prefecture, Azumi-mura, Kamikouchi [ca. 36°15'N 137°38'E], 1924, without collector's name, S. Nomura det., 1 spec. (NSMT); same locality, 20.vii.1981, I. Sagara leg., S. Nomura det., 1 spec. (NSMT); Tochigi prefecture, Nikko, Yumoto [ca. 36°48'N 139°26'E], 26.vii.1930, without collector's name, S. Nomura det., 1 spec. (coll. S. Asahina, NSMT); same locality, 15.vii.1929, K. Kamiya leg., S. Nomura det., 1 spec. (coll. H. Kôno,

NSMT); Tochigi prefecture, Kotoku-numa, Nikko, 28.vii.1930, without collector's name, S. Nomura det., 1 spec. (coll. S. Asahina, NSMT); Yamanashi prefecture, Daibosatsu [ca. 35°45'N 138°51'E], 3.viii.1932, without collector's name, S. Nomura det., 3 spec. (coll. S. Asahina, NSMT); Nagano prefecture, Azumi-mura, Nakabusa-dani, 25.v.1934, T. Nakajima leg., S. Nomura det., 2 spec. (NSMT); Nagano prefecture, Nippon Alps [= Hida mts], Kamikochi, 5000 ft., 20.vii.1939, E. Suenson leg., 1 male (JRUC); same locality, 23.vii.1939, E. Suenson leg., 1 male (JRUC); Fukushima prefecture, Tateiwamura, Yunohana, 8.vii.1948, Y. Kurosawa leg., S. Nomura det., 1 spec. (NSMT); same locality, 5.–8.viii.1983, Y. Kurosawa and S. Okajima leg., S. Nomura det., 3 spec. (NSMT); Tochigi prefecture, Nikko, Mt. Komanako-yama, 13.v.1956, Y. Kataoka leg., S. Nomura det., 2 spec. (NSMT); Tochigi prefecture, Nikko [ca. 36°45'N 139°37'E], 11.viii.1963, K. Masumoto leg., M. Nishikawa det., 3 spec. (MNIC); Nagano prefecture, Hida mts, Tokugo-toge pass [ca. 36°14'N 137°38'E], 19.vii.1969, K. Masumoto leg., M. Nishikawa det., 1 spec. (MNIC); Nagano prefecture, Shimoina-gun, Oojika-mura, Minamizawa Sanpuku Togu [ca. 35°34'N 138°12'E], 2100–2500 m, 14.viii.1973, K. Harusawa leg., human excrement, K. Harusawa det., 2 males, 2 females (KHAC); Fukushima prefecture, Minami-aizu [ca. 37°10'N 139°30'E], Shindenhara, 8.vi.1979, A. Izumi leg., M. Nishikawa det., 1 spec. (MNIC); Nagano prefecture, Azumi-mura, Shimashimadani, 27.ix.1975, S. Kasahara leg., S. Nomura det., 1 spec. (NSMT); Yamanashi prefecture, Nyugasa-yama [ca. 35°56'N 138°22'E], 25.vii.1979, K. Maruyama leg., M. Nishikawa det., 1 spec. (MNIC); Kanagawa prefecture, Tanzawa mts, Fudakake [ca. 35°28'N 139°10'E], 500 m, 8.v.1980, M. Nishikawa leg., traps, M. Nishikawa det., 4 spec. (MNIC); Iwate prefecture, Shimohei, Kuzubezawa [ca. 39°42'N 140°49'E], 19.–20.vi.1983, A. Izumi leg., M. Nishikawa det., 3 spec. (MNIC); Nagano prefecture, Hida mts, Mt. Hachimori-yama [ca. 36°06'N 137°46'E], 1700–1900 m, 6.–7.viii.1984, M. Nishikawa leg., traps, M. Nishikawa det., 30 spec. (MNIC); Fukui prefecture, Mt. Hakusan, Peak Sannoto-mine [ca. 36°03'N 136°44'E], 2000 m, 14.viii.1983, M. Saito leg., S. Nomura det., 2 spec. (NSMT); Nagano prefecture, Minami Alps, Mt. Kaikoma [ca. 35°45'N 138°14'E], 2100 m, 16.viii.–13.ix.1986, S. J. Martin leg., 1 female (BMNH); Nagano prefecture, Minami Alps, Kitazawa Toge [ca. 35°40'N 138°15'E], 2000 m, 2.–19.vii.1986, S. J. Martin leg., 1 male (BMNH); Gunma prefecture, Niiharu-mura [ca. 36°45'N 138°52'E], near Hoshi-onsen spa, 26.v.1987, T. Matsumoto leg., M. Nishikawa det., 1 spec. (MNIC); Yamanashi prefecture, Kofu-shi [center ca. 35°40'N 138°35'E], Kurobera-machi, Kizotoge pass, 21.–23.vii.1987, H. Yamazaki leg., M. Nishikawa det., 4 spec. (MNIC); Yamanashi prefecture, Makioka-machi [ca. 35°48'N 138°40'E], Yanagidaira, 23.–25.vii.1987, H. Yamazaki leg., M. Nishikawa det., 1 spec. (MNIC); Yamanashi prefecture, Makioka-machi [ca. 35°48'N 138°40'E], Yanagidaira, Otome-kogen, 23.–25.vii.1987, H. Yamazaki leg., M. Nishikawa det., 1 spec. (MNIC); Nagano prefecture, Minamiaiki-mura [ca. 36°00'N 138°35'E], Kurio, Mt. Goza-yama, 29.–31.vii.1987, R. Inagawa leg., M. Nishikawa det., 8 spec. (MNIC); Nagano prefecture, Minamiaiki-mura [ca. 36°00'N 138°35'E], near Kurio, 29.–31.vii.1987, R. Inagawa leg., M. Nishikawa det., 1 spec. (MNIC); Yamanashi prefecture, Sudama-machi, Masutomi, Goriyama [ca. 35°48'N 138°47'E], 8.ix.1987, S. Nishigaki leg., M. Nishikawa det., 1 spec. (MNIC); Nagano prefecture, Kiso-gun, Ookuwa-mura, Aji Keikoku, 21.vi.1992, K. K. leg., K. Harusawa det., 1 male (KHAC); Kanagawa prefecture, Doshi mts [ca. 35°35'N 139°13'E], Dozaka-toge pass, 800 m, 10.–19.viii.1993, M. Nishikawa leg., traps, M. Nishikawa det., 2 spec. (MNIC); Yamanashi prefecture, Ashiyasu-mura, Yashajin pass, 1.–8.vi.1995, S. Nomura leg., S. Nomura det., 2 spec. (NSMT); Nagano prefecture, Shiga-kogen, Mt. Kasagatake, 17.–20.vi.1995, S. Nomura leg., S. Nomura det., 1 spec. (NSMT); Tochigi prefecture, Nikko, Sanno Pass, 17.–21.vii.1995, S. Nomura leg., S. Nomura det., 2 spec. (NSMT); Nagano prefecture, Azumi-mura, Mt. Norikuradake [ca. 36°07'N 137°33'E], 2100 m, 5.–10.viii.1995, S. Nomura leg., S. Nomura det., 4 spec. (NSMT); Kanagawa prefecture, Asigarakami-gun, Siraisi Toge, 11.–12.v.1996, K. Matsumoto leg., K. Harusawa det., 5 males, 3 females (KHAC); Yamanashi prefecture, Enzan C. [ca. 35°42'N 138°44'E], Yunosawa-toge, 1680 m, 30.v.1996, M. Sawai leg., pitfall traps, rotten squid, K. Harusawa det., 2 males (KHAC); Gunma prefecture, Fujimi-mura, Mt. Akagi-yama [ca. 36°33'N 139°11'E], 1450 m, 27.vii.1996, S. Nomura leg., S. Nomura det., 10 spec. (NSMT); Niigata prefecture, Yuzawa-machi, Mikuni-toge pass, 1050 m, 27.vii.1996, S. Nomura leg., S. Nomura det., 6 spec. (NSMT); Yamanashi prefecture, Makioka-machi, Otome-toge pass, 1450 m, 8.viii.1996, S. Nomura leg., S. Nomura det., 12 spec. (NSMT); Yamanashi prefecture, Ashiyasu-mura, Hirogawara, 18.viii.1996, S. Nomura leg., S. Nomura det., 17 spec. (NSMT); Gifu prefecture, Hirayu, Abo-daira, 4.viii.1997, S. Nomura leg., S. Nomura det., 2 spec. (NSMT); Yamanashi prefecture, Minamikoma-gun, Hayakawa Cho, Yamabushi-toge, 1800–1900 m, 10.–11.vii.1999, H. Ookawa leg., K. Harusawa det., 1 female (KHAC); Niigata prefecture, Myotokogen-machi, Mt. Myoko-yama [ca. 36°52'N 138°07'E], Sasaga-mine, 1300 m, 15.viii.2000, M. Nishikawa leg., trap, M. Nishikawa det., 1 spec. (MNIC); Shizuoka prefecture, Mizugazuka on Mt. Fuji-san [ca. 35°22'N 138°44'E], 20.–25.viii.2000, M. Nishikawa leg., trap, M. Nishikawa det., 1 spec. (MNIC); Tochigi prefecture, Nikko C., Mt. Nyoho [ca. 36°49'N 139°32'E], Jikan Daki, 1180 m, 4.v.2003, K. Harusawa leg., deer carcass, K. Harusawa det., 2 males, 1 female (KHAC).

### *Oiceoptoma thoracicum* (Linnaeus, 1758)

MATERIAL EXAMINED. (only selected material from east of the Palaearctic region is listed; 106 localities, 247 specimens). **Russia:** Tomsk province: Barnaulka [ca. 57°42'N 85°28'E], without date and collector's name, 1 male, 1 female (ZMHB); Novosibirsk region: Toguchin env. [ca. 55°14'N 84°23'E], 8.–23.vi.1989, S. Pokorný leg., 1 male (JRUC); Altay Repub-

lic: Altai mts, Teletzkoe lake, Artybash [ca. 51°48'N 087°16'E], 30.vi.1987, A. Barkalov leg., A. Newton det., 2 spec. (FMNH); Altai mts, Shebalio vill. [= Shebalino, ca. 51°17'N 085°40'E], 16.vi.2000, without collector's name, 2 spec. (MNIC); **Tuva Republic**: Sush env. [ca. 52°03'N 094°10'E], 800–1000 m, vi.1997, S. Vaschenko leg., J. Zidek det., 1 spec. (FMNH); Khorumnug – Taiga Mt. Range, Shuurmak circle, 1100 m, 50°44'N 095°19'E, 20.vi.–18.vii.1996, Marusik & Obydov leg., ex H. Nelson coll., larch forest, pitfall trap, A. Newton det., 3 spec. (FMNH); Khorumnug – Tayga mts, Buren river valley [ca. 51°24'N 095°42'E], 1000–1600 m, 8.–15.vi.1999, S. N. Vashchenko leg., 3 males, 4 females (JSCC); Wynkskiy region, Sush [ca. 52°03'N 094°10'E], 1000 m, 13.vi.–10.vii.2002, without collector's name, W. Barries det., 1 spec. (WBAC); **Irkutsk province**: Baikal lake, Irkutsk env., Kultuk [ca. 52°34'N 103°30'E], without date and collector's name, ex coll. W. H. Mucho, 4 spec. (SMTD); Baikal lake, Turan [ca. 51°38'N 101°40'E], without date and collector's name, ex coll. Noesske, 1 female (SMTD); Baikal lake, Nikola [ca. 51°54'N 104°50'E], 17.viii.1964, R. Mertens leg., 1 female (SMFC); Irkutsk env., Smolentschna [ca. 52°15'N 104°10'E], 18.vi.1974, E. Berlov leg., M. Nishikawa det., 2 spec. (MNIC); Baikal lake, 90 km E Irkutsk, Buhta Peschanaya [ca. 52°14'N 105°35'E], 800 m, 12.–14.vii.1979, D. Szalóki leg., pitfall traps, 1 male (HNHM); Irkutsk env., Kochergat [= Kachergat, ca. 52°08'N 105°16'E], 14.vii.1990, O. Berlov leg., M. Nishikawa det., 2 spec. (MNIC); S Baikal, W Bol'schiye Koty [ca. 51°54'N 105°04'E], valley of Shilistsche brook, 18.vi.1993, Krause & Jäger leg., under stones, 1 female (SMTD); Baikal lake env., Sarma [ca. 53°06'N 106°48'E], 26.vi.1993, T. Matsumoto leg., M. Nishikawa det., 1 spec. (MNIC); Baikal lake, Pribaikalskiy Gosudarstvenniy Prirodniy Park [ca. 51°57'N 104°43'E], 28.vi.1993, T. Matsumoto leg., M. Nishikawa det., 2 spec. (MNIC); Irkutsk [ca. 52°20'N 104°15'E], Memorial cemetery, 5.–11.viii.2001, M. Nishikawa leg., traps, M. Nishikawa det., 8 spec. (MNIC); Khamar-Daban ridge, near Snezhnaya river [ca. 51°23'N 104°39'E], 500 m, 6.viii.2001, M. Nishikawa leg., M. Nishikawa det., 1 spec. (MNIC); **Buryatia Republic**: Saján [= Sayan] mts, Mondy [ca. 51°40'N 104°59'E], without date and collector's name, ex coll. W. H. Mucho, 4 spec. (SMTD); Saján [= Vostochniy Sayan] mts, Turan, Tunkinsche Weisberge [= Tunkinskie Gol'tsy mts, ca. 51°53'N 101°52'E], 2000 m, without date and collector's name, ex coll. W. H. Mucho, 9 spec. (SMTD); E Saján [= Vostochniy Sayan mts], central Irkut valley, Sun Murino [= Zun-Morino, ca. 51°44'N 102°50'E], 16.vii.1974, F. Hieke leg., 1 female (ZMHB); Zun-Murino [= Zun-Morino, ca. 51°44'N 102°50'E], 23.vii.1974, Shilenkov leg., W. Schawaller det., 1 male, 3 females (HNHM); **Khitinskaya territory**: Chita [= Khita, ca. 52°02'N 113°27'E], without date, N. L. Sakharov leg., 1 spec. (BMNH); Schilka-Gora [near Stretensk, ca. 52°14'N 117°41'E], without date [probably 9.iv.–6.v.1912], B. von Bodemeyer leg., 1 male, 1 female (SMFC); Transbaikal, 130 km S Petrowsk-Zabaykalskiy, Malchan mts [ca. 50°05'N 108°54'E], 17.vi.1966, F. Hieke leg., 1 female (ZMHB); **Yakutia**: Jakutsk [= Yakutsk, ca. 62°02'N 129°43'E], 26.–30.v.1908, without collector's name, ex coll. Pfitzenmayer, 1 male (ZMHB); **Amur region**: Amur, without date, Jankowsky leg., ex coll. Putze, 1 female (ZMHB); Amur, without date, Balogh leg., W. Schawaller det., 1 male (HNHM); Blagowestschensk [= Blagoveshchensk, ca. 50°17'N 127°32'E], without date and collector's name, ex coll. B. Schwarzer, 1 male, 1 female (SMFC); **Yevrey autonomous region**: Amur, Radde [ca. 48°35'N 130°36'E], without date and collector's name, 2 females (SMTD); Siberia or., Sotka-Gora [near Pompeyevka, ca. 48°21'N 130°48'E], without date [probably 15.–16.vi.1912], B. von Bodemeyer leg., 1 male (SMTD); **Khabarovsk territory**: Nicolajefsk [= Nikolajevsk-na-Amure, ca. 53°09'N 140°45'E], without date and collector's name, ex coll. Koltze, 6 spec. (DEIC); Nicolajewsk [= Nikolajevsk-na-Amure], without date and collector's name, ex coll. B. Schuster, 2 males, 1 female (SMFC); Amur, Nicolajewsk [= Nikolajevsk-na-Amure], without date and collector's name, ex coll. W. H. Mucho, 1 male, 1 female (SMTD); same locality, without date and collector's name, ex coll. Noesske, 1 male, 1 female (SMTD); near Komsomol'sk-na-Amure, Gornij vill. env. [ca. 50°45'N 136°24'E], 10.vii.1992, without collector's name, M. Nishikawa det., 4 spec. (MNIC); **Primorskiy region** [= Maritime territory]: Manchukuo, Yablonya, 19.vii.1940, M. I. Nikitin leg., S. Nomura det., 3 spec. (NSMT); Wladivostok [= Vladivostok, ca. 43°08'N 131°54'E], 24.vii.1956, without collector's name, 1 female (ZMHB); Ternei [= Terney, ca. 45°03'N 136°36'E], 19.vi.1979, without collector's name, W. Barries det., 1 spec. (WBAC); same locality, 26.vii.1989, R. Dunda leg., 1 female (JRUC); Anuchino distr., Vostochniy Siniy khrebet mountain ridge [ca. 43°56'N 133°13'E], 24.vii.1985, without collector's name, W. Barries det., 1 spec. (WBAC); Kamenushka [ca. 43°37'N 132°14'E], vii.1989, R. Dunda leg., 4 males, 3 females (JRUC); Jasnoe [= Yasnoe, ca. 44°13'N 133°51'E], 400 m, 12.–19.vii.1989, M. Nikodým leg., 5 males, 2 females (JRUC, JSCC); Mt. Oblachnaya [ca. 43°40'N 134°08'E], 800 m, 13.–16.vii.1989, M. Nikodým leg., 1 male (JRUC); Novovarvarovka [ca. 43°58'N 132°59'E], 10.vii.1989, R. Červenka leg., 1 female (JSCC); Benevskoe [= Benevskoye, ca. 43°10'N 133°46'E], 21.vii.1989, R. Červenka leg., 1 female (JSCC); Novotschuguyevka [ca. 44°13'N 133°51'E], 16.vii.1990, S. Bečvát, senior leg., 1 male (JRUC); same locality, 18.vii.1990, without collector's name, W. Barries det., 1 spec. (WBAC); Tygrovyi [= Tigrovoy, ca. 43°11'N 132°53'E], 20.–28.vii.1990, M. Snížek leg., 1 female (JRUC); same locality, 25.vii.1990, without collector's name, W. Barries det., 1 spec. (WBAC); Arsenev env. [= Arsen'yev, ca. 44°10'N 133°17'E], 27.v.–5.vii.1991, O. Šauša leg., 1 male (JHAC); Mt. Tumannaja [= Mt. Tumannaya, ca. 45°45'N 137°18'E], 950 m, 21.viii.1991, S. Ueno leg., S. Nomura det., 3 spec. (NSMT); Kajmanka [= Kaymanka], 9.viii.1992, Plutenko leg., J. Zidek det., 1 spec. (FMNH); Kaimanovka [= Kaymanovka, ca. 43°38'N 132°14'E], vii.1993, Z. Kletečka leg., 1 female (JHAC); Barabash-Levada [ca. 44°46'N 131°25'E], 19.vii.1993, A. Gorodinski leg., A. Newton det., 1 spec. (FMNH); 30 km S Lazo, Benevskoe [= Benevskoye, ca. 43°10'N 133°46'E], 22.–25.vii.1993, M. Trýzna leg., J. Zidek det., 2 spec. (FMNH); Anuchino distr. [ca. 43°57'N 133°03'E], 25.vi.1994, A. Gorodinski leg., A. Newton det., 5 spec. (FMNH); **Sakhalin territory**: Shimizu [near

Chaplakovo, ca. 46°58'N 142°14'E], Haga, without date and collector's name, S. Nomura det., 1 spec. (coll. H. Kôno, NSMT); Ohtomari [= Korsakov, ca. 46°38'N 142°47'E], Furumaki, 4.viii.1924, without collector's name, S. Nomura det., 1 spec. (NSMT); Honryu, 7.viii.1924, without collector's name, S. Nomura det., 1 spec. (NSMT); Maguntan [= Pugachevo, ca. 48°12'N 142°31'E], 18.viii.1924, without collector's name, S. Nomura det., 2 spec. (NSMT); Toyohara [= Yuzhno-Sakhalinsk, ca. 46°58'N 142°44'E], 10.ix.1924, without collector's name, S. Nomura det., 1 spec. (NSMT); Aniva [ca. 46°43'N 142°31'E], 6.vi.–11.vii.1987, without collector's name, W. Barries det., 1 spec. (WBAC); Yuzhno Sakhalinsk env., Susunayski mts, Mt. Chekhov [= Mt. Tshekhov, ca. 47°01'N 142°51'E], vii.1987, M. Nesterov leg., M. Nishikawa det., 1 spec. (MNIC); same locality, 8.vi.1988, E. Berlov leg., M. Nishikawa det., 5 spec. (MNIC); same locality, 11.vi.1989, E. Berlov leg., M. Nishikawa det., 8 spec. (MNIC); same locality, 26.v.1990, without collector's name, 1 male (JSCC); same locality, 7.vi. and 14.vi.1990, E. Berlov leg., M. Nishikawa det., 5 spec. (MNIC); same locality, 29.vii.–2.viii.1991, E. Berlov leg., M. Nishikawa det., 3 spec. (MNIC); same locality, vii.1996, without collector's name, W. Barries det., 3 spec. (WBAC); Yuzhno-Sakhalinsk [ca. 46°58'N 142°44'E], 20.vii.1993, A. Gorodinski leg., J. Zidek det., 1 spec. (FMNH); Kamchatka territory: Kamchatka Peninsula, near Esso vill. [ca. 55°55'N 158°42'E], 600 m, 7.vii.2002, without collector's name, M. Nishikawa det., 2 spec. (MNIC); not located: Sibiria or., Monda, without date, Franklin Müller leg., ex coll. W. H. Mucbe, 3 spec. (SMTD); Mongolia: Khentiy aimak: Chentey mts [= Khentey Nuruu mts, ca. 48°24'N 108°11'E], vii.1971, A. Seifert leg., 1 male, 1 female (JRUC); 65 km NNW Öndörchaan [= Öndörkhaan, ca. 47°53'N 110°24'E], 8.ix.–5.x.1980, Zs. Peregi leg., W. Schawaller det., 1 male (HNHM); Töv aimak: 40 km E Ulaanbaatar, Terelji [ca. 47°56'N 107°25'E], 12.vii.1996, Y. Takahashi leg., M. Nishikawa det., 1 spec. (MNIC); without locality name, 1100 m, 48°22'N 106°18'E, 18.–23.vi.1997, Y. M. Marusik leg., ex H. Nelson coll., A. Newton det., 1 spec. (FMNH); China: Heilongjiang province: Manchukuo, Sanjiang-sheng [= Heilongjiang], Tairei, 4.vii.1941, without collector's name, S. Nomura det., 1 spec. (coll. H. Kôno, NSMT); Jilin province: Manchukuo, Chichirin [= Jilin, ca. 43°53'N 126°35'E], 16.–21.vii.1944, without collector's name, S. Nomura det., 1 spec. (coll. H. Kôno, NSMT); not located: Manchuria [without more detailed locality], before 1863, without collector's name, ex coll. Bowring, 1 spec. (BMNH); North Korea: Chagang province: Mts Myohyang [ca. 39°58'N 126°14'E], 14.ix.1980, Topál & Forré leg., singled, No. 665, W. Schawaller det., 1 male (HNHM); Yanggang province: Samjiyon [ca. 41°48'N 128°19'E], 1000 m, 5.vi.1985, A. Vojnits & L. Zombori leg., No. 1001, W. Schawaller det., 1 female (HNHM); same locality, 1000 m, 26.vi.1988, O. Merkl & Gy. Szél leg., Nos. 1348 and 1349, W. Schawaller det., 2 females (HNHM); Paekdu-san [= Mt. Paektu, ca. 41°57'N 128°14'E], 1500 m, 27.vi.1988, O. Merkl & Gy. Szél leg., No. 1354, W. Schawaller det., 1 male (HNHM); South P'yongan province: Mt. Myohyang-san, Hotel Myohyang-san and Manpoktona, 13.vii.1982, Forré & Ronkay leg., singled, No. 781, W. Schawaller det., 1 male (HNHM); Mt. Myohyang-san, v.1985, A. Vojnits & L. Zombori leg., No. 930, W. Schawaller det., 1 male (HNHM); Ansan env. [ca. 39°41'N 126°13'E], vi.1988, Pak Bin leg., 1 male, 1 female (JHAC); South Korea: Seoul: Seoul [ca. 37°33'N 127°02'E], vii.1957, without collector's name, S. Nomura det., 1 spec. (NSMT); Gangwon-do [= Kangweon] province: Taebaek-shi, Mt. Taebaeksan [ca. 37°07'N 128°54'E], 30.vii.1986, Y. B. Cho leg., Y. B. Cho det., unknown number of spec. (NHMT); same locality, 31.vii.1986, Y. B. Cho leg., S. B. Peck det., 4 spec. (SBPC); same locality, 31.vii.1986, without collector's name, S. Nomura det., 9 spec. (NSMT); Pyeongchang-gun, Mt. Odaesan [ca. 37°48'N 128°32'E], 3.viii.1983, S. L. An leg., Y. B. Cho det., unknown number of spec. (NHMT); same locality, 5.viii.1985, Y. B. Cho leg., Y. B. Cho det., unknown number of spec. (NHMT); same locality, 5.viii.1985, Y. B. Cho leg., S. B. Peck det., 3 spec. (SBPC); Inje-gun, Mt. Seolaksan, 3.viii.1985, Y. B. Cho leg., Y. B. Cho det., unknown number of spec. (NHMT); Jeongseon-gun, Nam-myeon, Mt. Duribong, 21.–22.vii.2000, Y. B. Cho leg., Y. B. Cho det., unknown number of spec. (NHMT); Chungcheongbuk-do [= North Chungcheo'n] province: Boeun-gun, Mt. Sokrisan, 17.–23.vi.2001, Y. B. Cho leg., Y. B. Cho det., unknown number of spec. (NHMT); Yeongdong-gun, Mt. Minjujisan [ca. 36°02'N 127°51'E], 16.–18.vi.2000, Y. B. Cho leg., Y. B. Cho det., unknown number of spec. (NHMT); Jeollabuk-do [= North Cheolla] province: Muju-gun, Mt. Deokusan [ca. 35°51'N 127°44'E], 26.vii.1983, Y. B. Cho leg., Y. B. Cho det., unknown number of spec. (NHMT); Jeollanam-do [= South Cheolla] province: Gurye-gun, Mt. Jirisan [ca. 35°20'N 127°43'E], Piagol, 5.vi.1983, Y. B. Cho leg., Y. B. Cho det., unknown number of spec. (NHMT); Gyeongsangbuk-do [= North Kyongsang] province: Chongsong-gun, Mt. Juwang-san [ca. 36°24'N 129°11'E], 29.vi.1987, Y. B. Cho leg., Y. B. Cho det., unknown number of spec. (NHMT); Yeongyang-gun, Subi-myeon, Mt. Ulryeonsan, 12.–14.vii.2001, Y. B. Cho leg., Y. B. Cho det., unknown number of spec. (NHMT); Uljin-gun, Seo-myeon, Mt. Tonggo-san [ca. 36°55'N 129°13'E], 12.–14.vii.2001, Y. B. Cho leg., Y. B. Cho det., unknown number of spec. (NHMT); Gyeongsangnam-do [= South Kyongsang] province: Hapchon-gun, Mt. Kayasan [ca. 35°49'N 128°07'E], 14.vii.1983, K. Y. Baek leg., Y. B. Cho det., unknown number of spec. (NHMT); Jeju-do province [Cheju Island]: Seogwipo-shi-shi [ca. 33°15'N 126°34'E], 10.ix.1985, K. S. Lee leg., Y. B. Cho det., unknown number of spec. (NHMT); Japan: Hokkaido: Ishikari sub-prefecture, Sapporo [ca. 43°03'N 141°21'E], 5.–16.viii.1880, G. Lewis leg., 1 spec. (BMNH); Ishikari sub-prefecture, Ebetsu-shi, Nopporo [ca. 43°05'N 141°32'E], 18.vii.1928, K. Sato leg., S. Nomura det., 1 spec. (NSMT); Ishikari sub-prefecture, Sapporo-shi, Maruyama [ca. 43°28'N 142°16'E], 27.viii.1931, K. Katô leg., S. Nomura det., 3 spec. (NSMT); same locality, 14.v.1933, without collector's name, S. Nomura det., 1 spec. (coll. S. Asahina, NSMT); same locality, 10.viii.1935, without collector's name, S. Nomura det., 2 spec. (coll. S. Asahina, NSMT); same locality, 2.v.1943, T. Hasegawa leg., S. Nomura det., 1 spec. (NSMT); same locality, 25.viii.1952, T. Sôsa leg., S. Nomura det., 2 spec. (NSMT); Kamikawa

sub-prefecture, Teshio [ca. 43°58'N 142°53'E], Okushibetsu, 16.vi.1948, T. Hasegawa leg., S. Nomura det., 2 spec. (NSMT); Ishikari sub-prefecture, Sapporo env., Kotoni [ca. 43°04'N 141°18'E], 12.vi.1953, without collector's name, 1 female (ISNB); Oshima sub-prefecture, Okushiri-to Is. [ca. 42°10'N 139°28'E], 12.viii.1970, J. Akiyama leg., M. Nishikawa det., 1 spec. (MNIC); Oshima sub-prefecture, Horokanai, Dorogawa, 280–300 m, 5.viii.1991, A. Smetana leg., 1 male (JRUC); Oshima sub-prefecture, Horokanai [ca. 41°50'N 140°46'E], Butokamabetsu river, 300 m, 3.vii.1991, A. Smetana leg., 1 female (JRUC); Honshu: Nagano prefecture, Azumi-mura, Mt. Norikuradake [ca. 36°06'N 137°33'E], 4.vi.1940, S. Eda leg., S. Nomura det., 1 spec. (NSMT); Nagano prefecture, Azumi-mura, Shimashima-dani, 4.vi.1940, T. Nimura leg., S. Nomura det., 9 spec. (NSMT); Yamagata prefecture, Mt. Iidesan [ca. 37°52'N 139°41'E], 7.viii.1943, Y. Kurosawa leg., S. Nomura det., 1 spec. (NSMT); Gunma prefecture, Tanigawadake mts [ca. 36°50'N 138°55'E], Yomogi pass, 9.vii.1955, S. Higuma leg., S. Nomura det., 1 spec. (NSMT); Toyama prefecture, Tateyama mts [ca. 36°34'N 137°38'E], Tsurugisawa, 24.–30.vii.1961, Y. Hayashi leg., S. Nomura det., 1 spec. (NSMT); Nagano prefecture, Azumi-mura, Tokugo pass, 1.viii.1966, T. Ito leg., S. Nomura det., 1 spec. (NSMT); Nagano prefecture, Hida mts, Tokugo-toge pass [ca. 36°14'N 137°38'E], 19.vii.1969, K. Masumoto leg., M. Nishikawa det., 1 spec. (MNIC); Yamagata prefecture, Nishiokitama-gun, Oguni-mura, Mt. Monnai Kajikawamine, 1600–1800 m, 7.viii.1980, K. Harusawa leg., human excrement, K. Harusawa det., 1 female (KHAC); Nagano prefecture, Hida mts, Mt. Hachimori-yama [ca. 36°09'N 137°51'E], 1700–1900 m, 6.–7.viii.1984, M. Nishikawa leg., traps, M. Nishikawa det., 4 spec. (MNIC); Nagano prefecture, Azumi-mura, Mt. Norikuradake, 2100 m, 5–10.viii.1995, S. Nomura leg., S. Nomura det., 1 spec. (NSMT); Niigata prefecture, Myokokogen-machi, Mt. Myoko-yama [ca. 36°52'N 138°07'E], Sasagamine, 15.viii.2000, M. Nishikawa leg., traps, M. Nishikawa det., 3 spec. (MNIC); Toyama prefecture, Kaminiikawa-gun, Ooyama Cho, Arimine [ca. 36°34'N 137°38'E], 1160–1200 m, 5.–7.vi.2003, K. Harusawa leg., pitfall traps, cocoon powder of silk worm, K. Harusawa det., 2 females (KHAC).