

## The Northeastern Palaearctic light coloured *Neocrepidodera* Heikertinger, 1911 (Coleoptera: Chrysomelidae), with description of a new species

ANDRÉS BASELGA

*Departamento de Biodiversidad y Biología Evolutiva, Museo Nacional de Ciencias Naturales – CSIC c/ José Gutiérrez Abascal, 2, 28006 Madrid (España). E-mail: baselga@mncn.csic.es*

### Abstract

The light coloured *Neocrepidodera* Heikertinger from East Siberia are reviewed. Six species are recognized in this region, including the newly described *N. konstantinovi* sp. nov. and the new record of *N. motschulskii* (Konstantinov) from Primorskiy Kray that represents a major range extension. A neotype is designated for *N. sublaevis* (Motschulsky) and a re-description is provided for this species. A diagnosis along with figures of pronotum, aedeagus, vaginal palpi and spermatheca are presented for all species, and a key for the Eastern Siberian light coloured taxa is provided.

**Key words.** Chrysomelidae, *Neocrepidodera*, Eastern Siberia, new species, neotype, identification key

### Introduction

The genus *Neocrepidodera* Heikertinger is comprised of more than 100 species distributed in the Holarctic, Oriental and Afrotropical regions, about a half of them occurring in the Palaearctic region (Konstantinov & Vandenberg 1996). The Palaearctic taxa were revised by Daniel (1904) and Heikertinger (1948). More recently Biondi (1989; 1993) analyzed the phylogenetic relations between the Western Palaearctic species. This author also provided a historical review of the nomenclatural change from *Crepidodera* Chevrolat to *Asiolestia* Jacobson (Biondi 1993). Finally, Konstantinov & Vandenberg (1996) synonymized *Asiolestia* with *Neocrepidodera*.

*Neocrepidodera* is characterized by the following combination of features (Doguet 1994; Konstantinov & Vandenberg 1996; Tazikawa 2002): body medium sized, oval, more or less convex from lateral view; colour yellow, dark brown, black with or without

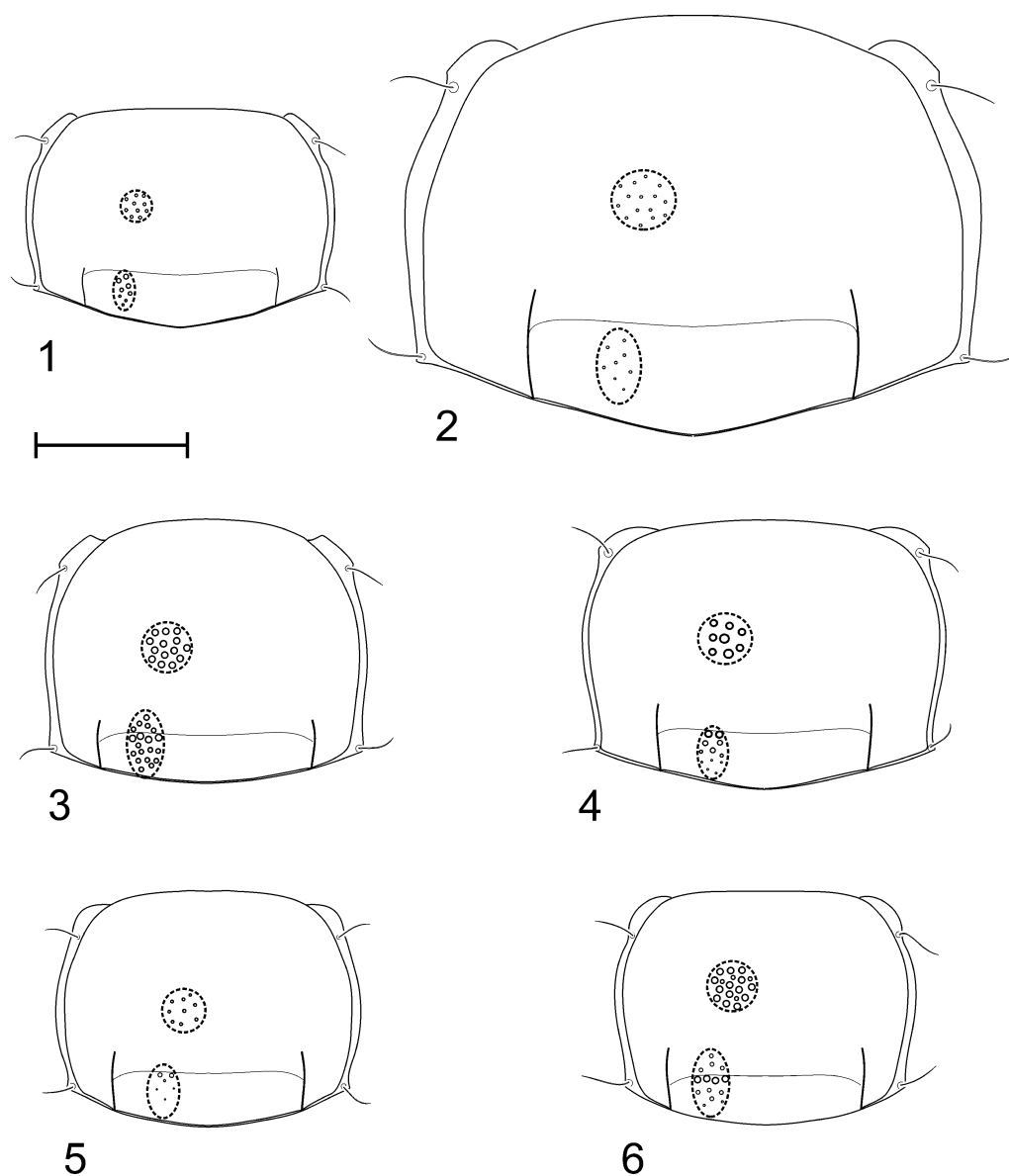
metallic lustre, metallic blue or green; head with antennal calli raised, oval, broadly connected, sometimes not delineated from vertex by furrows; antennae filiform and 11-segmented; pronotum subquadrate, with antebasal transverse impression delimited laterally by short longitudinal furrows; elytral punctures arranged in striae, these striae irregular or almost completely confused in some species.

Several modern taxonomic revisions are available for different areas of the Palaearctic region as China and Korea (Gressitt & Kimoto 1963), Central Europe (Mohr 1966), France (Doguet 1994), Poland (Warchalowski 1998) and Japan (Tazikawa 2002). Finally, in a previous paper we reviewed the Western Palaearctic species of the *N. ferruginea* (Scopoli) and *N. impressa* (Fabricius) species groups (Baselga & Novoa 2005), providing diagnostic characters for both females and males and also constructing a comprehensive identification key for the Western Palaearctic region. In the latter paper we showed the usefulness of the vaginal palpi, which provide diagnostic characters within these groups, and we confirmed the importance of other characters previously used by other authors as shape and punctuation of pronotum or the structure of aedeagus (Mohr 1966; Doguet 1994; Warchalowski 2003). During the cited study we had the opportunity to examine the collection of the National Museum of Natural History, Washington D.C., U.S.A. (USNM), and among this material there are some specimens from the Far East belonging to an unknown species. The purpose of this paper is to describe this new taxon and to provide an identification key to the Northeastern Palaearctic light coloured *Neocrepidodera*, reviewing the known taxa taking into account external and both male and female genital characters.

## Material and methods

This study is mainly based on the collection of the National Museum of Natural History, Washington D.C., U.S.A. (USNM), where all the specimens cited in this paper are deposited, unless otherwise indicated. Also, some specimens were borrowed from M. Bergeal, Versailles, France (BERC) and M. Döberl, Abensberg, Germany (DOBC), who also has kindly provided some specimens now deposited in my collection (BASC).

Species are arranged alphabetically. A detailed description is provided for the new species, but only diagnoses are provided for previously known taxa. Diagnoses consist only of characters valuable for the identification of each species. Male and female genitalia were dissected, cleared with Amman Lactophenol and thereafter mounted together with specimens using dimethyl hydantoin formaldehyde resin (DMHF). Drawings were traced using CorelDraw 11 software, from images captured with a Nikon Coolpix 4500 digital camera attached to a Zeiss 475057 stereomicroscope. Aedeagi are illustrated in ventral and lateral view, and figures of pronota include schematic representation of both discal and antebasal punctuation.



**FIGURES 1–6.** Pronota of *Neocrepidodera* spp. Circle and oval represent schematic samples of discal and antebasal punctation, respectively. (1) *N. sibirica*. (2) *N. obscuritarsis*. (3) *N. interpunctata*. (4) *N. konstantinovi*, paratype. (5) *N. sublaevis*, neotype. (6) *N. motschulskii*. Scale bar: 0.5 mm.

***Neocrepidodera interpunctata* (Motschulsky, 1859)**  
(Figs. 3, 9, 15)

*Crepidodera interpunctata* Motschulsky, 1859: 498

*Crepidodera mitsuhashii* Matsumura, 1911: 143

*Asiorestia interpunctata*: Gressit & Kimoto, 1963: 765

*Material examined*

RUSSIA: Buryatia, Kyakhta distr., Kiran, 15–30 June 1999, 2 ex. (I.V. Melnik leg., BERC); Khabarovskiy Kray, Bureinskiy Khrebet [Bureja Gebirge], 1 ex. (Radde leg.); Kunashir Island, 24 July 1985, 2 ex. (Saluk leg.); Primorskiy Kray, Terney, 22–25 July 1998, 2 ex. (V. Kuznetsov leg., BERC); Sakhalin Island, 27 June 1985, 1 ex. (Saluk leg.); Sakhalin Island, Aniva distr., Krilyon peninsula, 6–7 August 1994, 1 ex. (A. Besarukin leg., BERC); Sakhalin Island, Gornozavodsk, 11 August 1992, 2 ex. (Konstantinov leg.).

*Diagnosis*

Length = 2.9–3.7 mm. *Head*: frontal tubercles not distinctly delimited posteriad, supracallinal sulcus effaced. First antennomere distinctly shorter than second and third together. *Pronotum*: subquadrate, slightly constricted antebasally, narrowly margined. Anterolateral callosity obtuse-angled, well developed and slightly asymmetrical. Surface covered with very coarse punctures on disc and slightly finer ones on basal region (Fig. 3). *Elytra*: striae completely irregular because punctures are duplicated and disordered (more strongly in females). Punctures large and deep. Interstriae slightly convex and narrower than double rows of punctures. Base of sixth elytral stria strongly impressed, deeper than the other striae. *Aedeagus*: almost parallel sided in ventral view, produced apically into an acute point (Fig. 9). *Vaginal palpus*: poorly developed, extremely short and narrow (Fig. 15a). *Spermatheca*: as in Fig. 15b.

*Distribution*

North Europe, reaching Germany and Poland to the South, North of Asia, reaching Kazakhstan, China and Korea to the South, Japan and the Kuril Islands to the East.

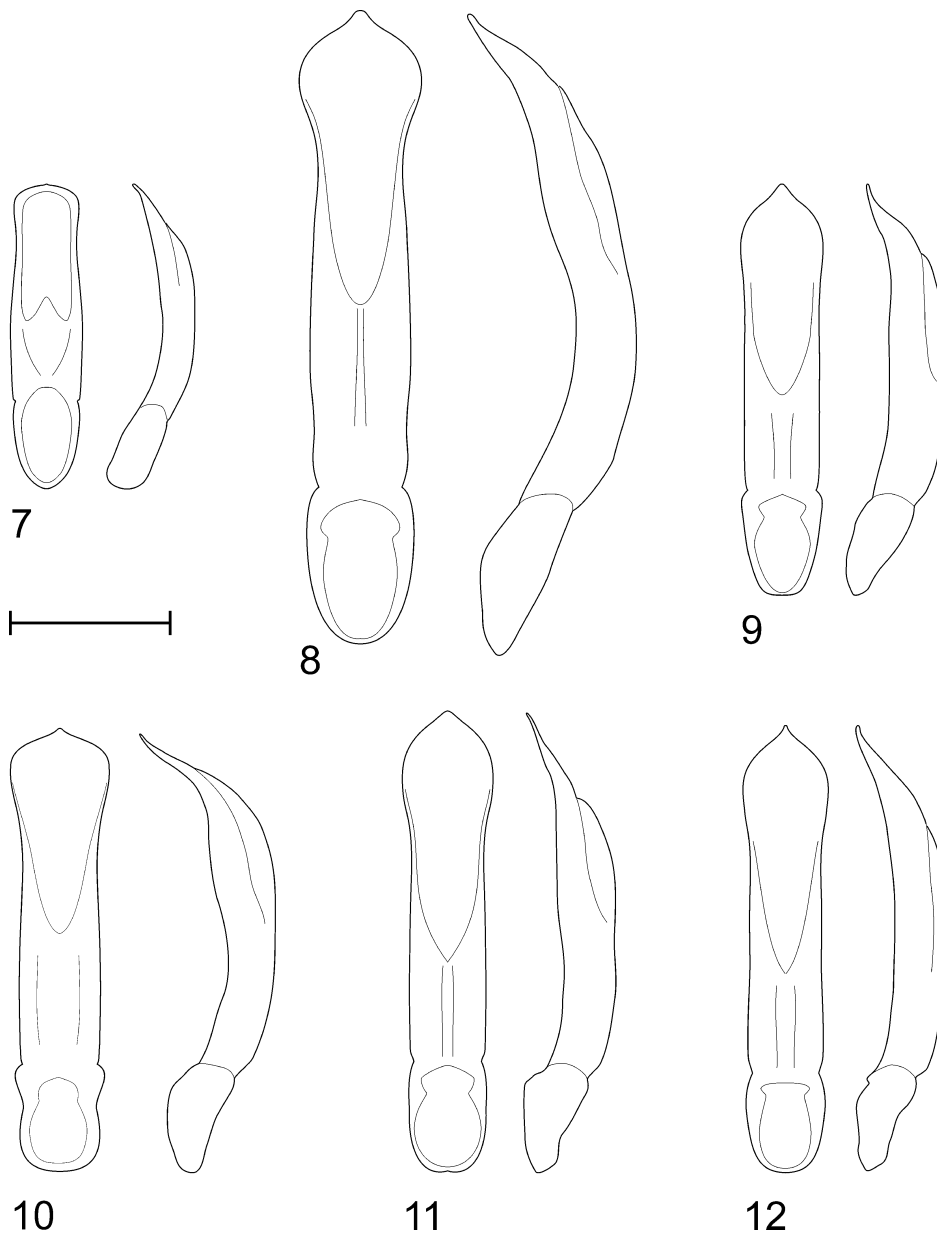
***Neocrepidodera konstantinovi* Baselga, sp. nov.**

(Figs. 4, 10, 16)

*Type material*

HOLOTYPE MALE: RUSSIA: Primorskiy Kray, Ussuriiskiy National Park, 6 July 1985 (Pisanenko leg.). Holotype is deposited in the collection of the USNM, Washington, USA; PARATYPES: CHINA: Dongbei Pingyuan [Mandtschuria], Hengdaohezi [Chandaoehelzy], 1 male; RUSSIA: Primorskiy Kray, Benevskoye [Benevskoe], 24 July 1989, 1 female (R. Dunda leg., DOBC); Primorskiy Kray, Khasan, 1–2 August 1991, 1 female (S. Kurbatov leg., BERC); Primorskiy Kray, Khasan, Zarubino, 20 August 1993, 1 male (V. Kusnetzov, BERC); Primorskiy Kray, Kraskino, Azajsanovka, 13–16 July 1992, 5 females (Snizek leg., DOBC); Primorskiy Kray, Lake Khanka, Kamen' Rybolov, 15 July 1910, 1 male (Tarobarov leg.); Primorskiy Kray, Novocugujevka, 20 July 1990, 2 males (BERC, DOBC); Primorskiy Kray, Pos'yet, 3 females (A. Cherskii and V. Berger leg.); Primorskiy Kray, Slavyanka [Slavjanka], 13–17 August 1992, 1 male and 4 females.

(Snizek leg., DOBC); Primorskiy Kray, Slavyanka, Razonovia, 13–17 August 1992, 1 male (Boukal leg., BERC); Primorskiy Kray, Ussuriiskiy, Kaymanovka, 2–9 August 1992, 1 female (Snizek leg., DOBC); Primorskiy Kray, Ussuriiskiy National Park, 6 July 1985, 1 male (Pisanenko leg.). Paratypes are deposited in the collection of the USNM, Washington, USA, unless otherwise indicated: BERC and DOBC collections.



**FIGURES 7–12.** Median lobe of aedeagi of *Neocrepidodera* spp., ventral and lateral view. (7) *N. sibirica*. (8) *N. obscuritarsis*. (9) *N. interpunctata*. (10) *N. konstantinovi*, paratype. (11) *N. sublaevis*, neotype. (12) *N. motschulskii*. Scale bar: 0.5 mm.

*Etymology*

This new species is named for Alexander Konstantinov, an outstanding Chrysomelidae researcher, in gratitude for the loan of many interesting specimens of *Neocrepidodera* and his always helpful advice.

*Diagnosis*

Length = 3.3–3.7 mm. *Head*: frontal tubercles not distinctly delimited posteriorly, supracallinal sulcus effaced. First antennomere distinctly shorter than second and third together. *Pronotum*: constricted basally, narrowly margined. Anterolateral callosity markedly transverse, distinctly asymmetrical, rounded anteriorly and angulose posteriorly. Surface covered with coarse punctures on disc, minute on basal region, with only a few slightly greater punctures in antebasal transverse groove (Fig. 4). *Elytra*: punctuation completely seriate. Punctures large but relatively shallow, almost effaced to the apex. Interstriae flat and broader than striae. Base of sixth elytral stria impressed slightly deeper than the remaining striae. *Aedeagus*: strongly expanded in the apical fourth in ventral view, apex rounded, forming a poorly developed denticle, strongly deflexed ventrad in lateral view (Fig. 10). *Vaginal palpus*: relatively short and thin, almost straight, tapering to the apex (Fig. 16a). *Spermatheca*: as in Fig. 16b.

*Description*

Length = 3.3–3.7 mm. Body convex, about two times longer than wide. Colour yellowish brown. *Head*: slightly convex. Labrum bearing three pairs of setae in anterior margin. Clypeus bearing 4 pairs of long setae in anterior margin and many other shorter ones. Frontal ridge between antennal calli wide and flat. Antennal calli oval and flat, not distinctly delimited from vertex. Vertex smooth and shiny, with a strong deep seta-bearing puncture near each eye. Third antennomere about 1.5 times longer than second, equal or slightly shorter than fourth and shorter than fifth. *Pronotum*: 1.4 times broader than long, widest at middle, constricted basally, narrowly margined, provided with an antebasal transverse furrow delimited laterally by two longitudinal impressions. Anterolateral callosity markedly transverse, distinctly asymmetrical, rounded anteriorly and angulose posteriorly. Surface covered with coarse punctures on disc, minute on basal region, with only a few slightly greater punctures in the antebasal transverse groove (Fig. 4). *Elytra*: moderately convex, about 1.3 times longer than broad, widest at middle. Humeral callus well developed, macropterous. Lateral margins explanate, apex rounded. Surface shiny. Punctuation arranged in 10 distinct striae, scutellar stria short. Punctures large but relatively shallow, almost effaced to the apex. Interstriae flat and broader than striae. Base of sixth elytral stria impressed slightly deeper than the remaining striae, delimiting anteriorly the humeral callus. *Aedeagus*: strongly expanded in the apical fourth in ventral view, apex rounded, forming a poorly developed denticle, strongly deflexed ventrad in lateral view (Fig. 10). *Vaginal palpus*: relatively short, almost straight, tapering to the apex and where

they are thin (Fig. 16a). *Spermatheca*: as in Fig. 16b.

#### Remarks

The new species is close to *N. sublaevis* Motschulsky and *N. motschulskii* Konstantinov by the elytral punctation regularly seriate and the shape of vaginal palpi. However external characters as the anterolateral callosity of pronotum or the base of sixth elytral stria, as well as the structure of aedeagus show marked differences among the three taxa.

#### Distribution

The new species is known from the Chinese and Russian Far East, in Heilongjiang Sheng and Ussuriiskiy Kray regions respectively. The known distribution is comprised between 129 and 132 degrees E, 42 and 45 degrees N.

#### *Neocrepidodera motschulskii* (Konstantinov, 1991)

(Figs. 6, 12, 18)

*Asiolestia motschulskii* Konstantinov, 1991: 143

#### Material examined

RUSSIA: Primorskiy Kray, Ussuriiskiy National Park, 27 July 1985, 1 ex. (Pisanenko leg.); 2 August 1985, 2 ex. (Pisanenko leg.).

#### Diagnosis

Length = 3.0–4.1 mm. *Head*: frontal tubercles not distinctly delimited posteriad, supracallinal sulcus effaced. First antennomere distinctly shorter than second and third together. *Pronotum*: constricted basally, narrowly margined. Anterolateral callosity rounded, well developed and almost symmetrical. Surface covered with coarse punctures on disc and minute ones on basal region, with greater punctures in the antebasal transverse groove (Fig. 6). In some specimens these strong punctures extend almost to the base, but there is always a basal strip covered with minute punctures. *Elytra*: punctation completely seriate, or sometimes with some striae partially irregular because some punctures are duplicated or slightly disordered (especially in females). Punctures large and deep. Interstriae slightly convex and slightly wider than striae. Base of sixth elytral stria strongly impressed, deeper than the other striae. *Aedeagus*: produced apically into a very acute point in ventral view (Fig. 12). *Vaginal palpus*: long, slightly curved and slightly tapering to the apex, basal membranous region long (Fig. 18a). *Spermatheca*: as in Fig. 18b.

#### Distribution

North and Central Europe, reaching France to the South, Turkey, Caucasus, Tajikistan,

Russian Far East (this paper). Present records are a major range extension for *N. motschulskii*, because previous easternmost records were from Tajikistan (Gruev & Döberl 1997).

***Neocrepidodera obscuritarsis* (Motschulsky, 1859)**

(Figs. 2, 8, 14)

*Crepidodera obscuritarsis* Motschulsky, 1859: 498

*Crepidodera lewisii* Jacoby, 1885: 721

*Asiolestia obscuritarsis*: Gressitt & Kimoto, 1963: 767

*Material examined*

RUSSIA: Primorskiy Kray, Slavyanka [Slavjanka], 13–17 August 1992, 2 ex. (Snizek leg., BASC ex DOBC).

*Diagnosis*

Length = 4.5–6.0 mm. *Head*: frontal tubercles not distinctly delimited posteriad, supracallinal sulcus effaced. First antennomere distinctly shorter than second and third together. *Pronotum*: transverse, slightly constricted basally, narrowly margined. Anterolateral callosity transverse, distinctly asymmetrical, rounded anteriorly and toothed posteriorly. Surface covered with minute punctures on disc and basal region (Fig. 2). *Elytra*: punctation almost completely confused because striae are irregular double or triple rows of punctures broader than interstriae, only basal region of striae more recognizable. Punctures small and shallow, interstriae completely flat. Base of sixth elytral stria not impressed, very slightly deeper than the other striae. *Aedeagus*: very large, strongly constricted anteapically in ventral view, produced into a denticle at apex (Fig. 8). *Vaginal palpi*: long and slender, moderately curved (Fig. 14a). *Spermatheca*: as in Fig. 14b.

*Distribution*

Far East, North East China, Japan.

***Neocrepidodera sibirica* (Pic, 1909)**

(Figs. 1, 7, 13)

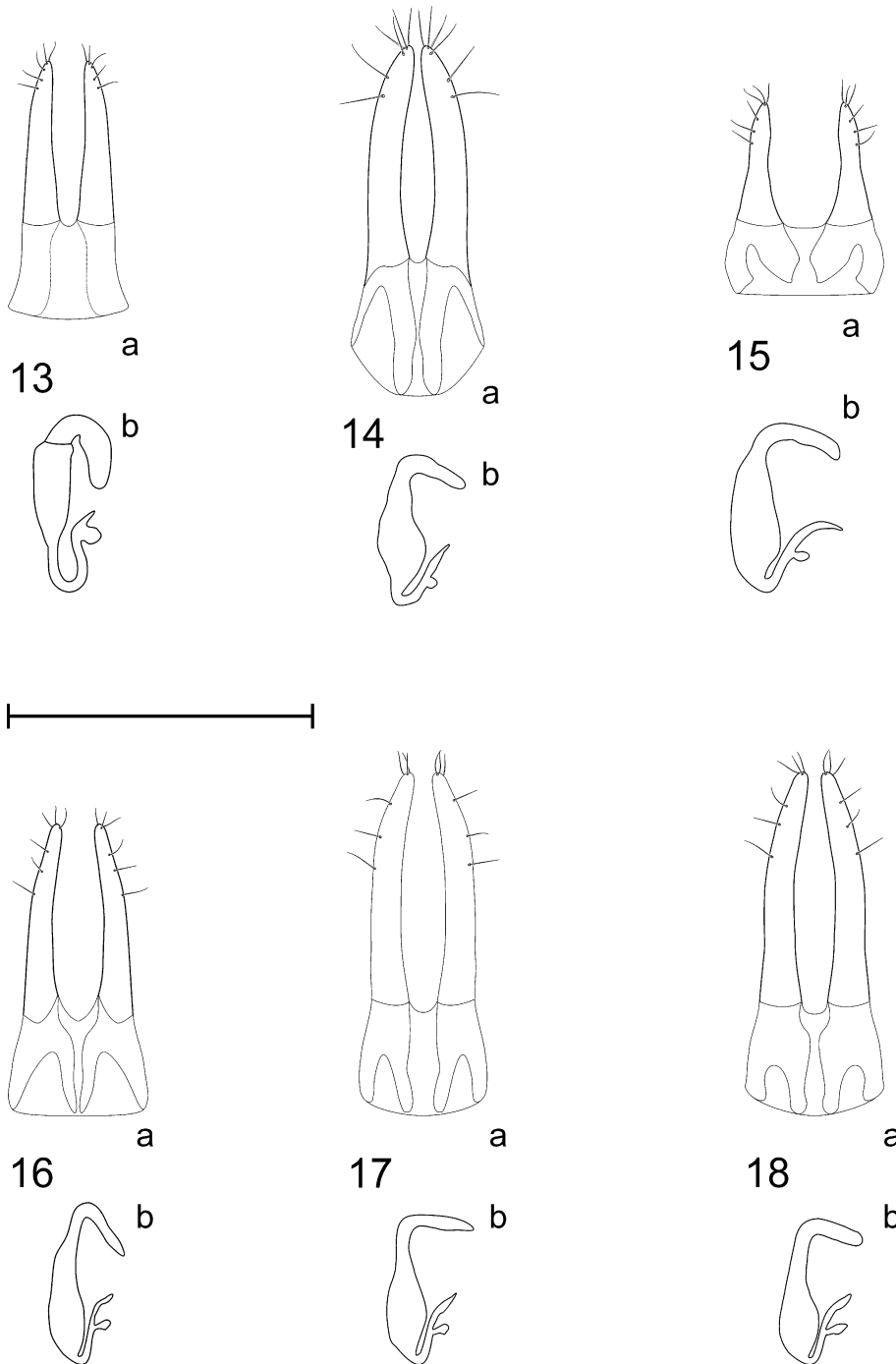
*Ochrosis sibirica* Pic, 1909: 155

*Neocrepidodera sibirica*: Heikertinger, 1911: 34

*Material examined*

RUSSIA: Primorskiy Kray, Kraskina, 13–16 July 1992, 1 ex. (Boukal leg., DOBC); Primorskiy Kray, Kraskino, Azajsanovka, 13–16 July 1992, 2 ex. (Snizek leg., BERC,

DOBC); Primorskiy Kray, Ussuriiskiy National Park, 6 July 1985, 1 ex. (Pisanenko leg.);  
27 July 1985, 1 ex. (Pisanenko leg.).



**FIGURES 13–18.** Female genitalia of *Neocrepidodera* spp.: (a) vaginal palpi, (b) spermatheca. (13) *N. sibirica*. (14) *N. obscuritarsis*. (15) *N. interpunctata*. (16) *N. konstantinovi*, paratype. (17) *N. sublaevis*. (18) *N. motschulskii*. Scale bar: 0.5 mm.

*Diagnosis*

Length = 2.8–3.2 mm. *Head*: frontal tubercles distinctly delimited posteriad, supracallinal sulcus shallow but distinct. First antennomere long and robust, almost as long as second and third together. *Pronotum*: constricted basally, narrowly margined. Anterolateral callosity obtuse-angled, well developed and slightly asymmetrical. Surface covered with minute punctures on disc and basal region (Fig. 1). *Elytra*: punctation seriate but striae partially irregular because some punctures are duplicated or slightly disordered. Punctures shallow, interstriae flat and wider than striae. Base of sixth elytral stria not impressed, as deep as the other striae. *Aedeagus*: very small, constricted anteapically and rounded at apex in ventral view (Fig. 7). *Vaginal palpus*: almost straight and tapering to the apex, basal membranous region different from all other species here considered in having only one branch (Fig. 13a). *Spermatheca*: very different from all other species here considered. Spermathecal receptacle and pump clearly delimited, ductus long, making a wide loop away from the receptacle (Fig. 13b).

*Distribution*

Far East, Korea, Japan.

***Neocrepidodera sublaevis* (Motschulsky, 1859)**

(Figs. 5, 11, 17)

*Crepidodera sublaevis* Motschulsky, 1859: 498

*Asiolestia sublaevis*: Gressitt & Kimoto, 1963: 770

*Type material*

present designation: Neotype MALE: KAZAKHSTAN: Dzhungarskiy Alatau, June 1951 (V. Paliy leg.). Neotype is deposited in the collection of the USNM, Washington, USA.

*Description of the neotype*

Length = 3.0 mm. Body convex, about two times longer than wide. Colour yellowish brown. *Head*: slightly convex. Frontal ridge between antennal calli wide and flat. Frontal tubercles not distinctly delimited posteriad, supracallinal sulcus effaced. Vertex smooth and shiny, with a strong deep seta-bearing puncture near each eye. First antennomere distinctly shorter than second and third together. Third antennomere about 1.5 times longer than second, slightly longer than fourth and slightly shorter than fifth. *Pronotum*: 1.3 times broader than long, widest at middle, constricted basally, narrowly margined, provided with an antebasal transverse furrow delimited laterally by two longitudinal impressions. Anterolateral callosity rounded, well developed and almost symmetrical. Surface covered with punctures variable in size, minute on disc, minute on basal region, with slightly

greater punctures in the antebasal transverse groove (Fig. 5). *Elytra*: moderately convex, about 1.4 times longer than broad, widest at middle. Humeral callus well developed, macropterous. Lateral margins explanate, apex rounded. Surface shiny. Punctuation arranged in 10 distinct striae, scutellar stria short. Punctures large and deep. Interstriae slightly convex and slightly wider than striae. Base of sixth elytral stria strongly impressed, deeper than the other striae, delimiting interiorly the humeral callus. *Aedeagus*: apex subtriangular shaped in ventral view, with denticle poorly developed, feebly deflexed ventrad in lateral view (Fig. 11).

*Remarks on the designation of the neotype*

Motschulsky (1859) described this species based on material from the river Amur, between Shilka and Nikolayevsk. The species was considered a Eurosiberian taxon widely distributed from northern Europe to the Far East until the description of *N. motschulskii* (Konstantinov, 1991). In the cited paper the distribution of *N. sublaevis* is restricted to the far East and a lectotype is designated, including a figure of its aedeagus (Konstantinov 1991). Among the material studied for this paper were some specimens (*N. konstantinovi* sp. nov., see above) from the distribution area of *N. sublaevis*, but with an aedeagus clearly different from that figured by Konstantinov. Thus, I tried to study the lectotype, deposited in the Zoological Museum of Moscow University. The type was kindly sent me by N. Nikitsky via British Museum of Natural History but, unfortunately, the parcel was stolen from the British Museum postage area on the 4th July 2005 (M. Barclay, personal communication). Therefore, the lectotype must be considered lost and no other syntypes are available in the Motschulsky collection (N. Nikitsky, personal communication). Considering the taxonomic problem of the separation of *N. konstantinovi* and *N. sublaevis*, the designation of a neotype becomes necessary. Despite the study of material from the USNM and from European colleagues (e.g. BERC, DOBC) I found no specimens from the Far East attributable to *N. sublaevis* following Konstantinov's description and figure. Therefore I selected the available specimen collected closer to the original type locality, following the International Code of Zoological Nomenclature (recommendation 75B) and the advice of A. Konstantinov.

*Other material examined*

KAZAKHSTAN: Narynkol, 1906, 1 ex. (Almásy leg.); KYRGIZSTAN: Austan, Alay, 1 ex.; Narynskiy Khrebet, Naryn river, 16 July 1966, 2 ex.; Przewalsk, Karakol, 1906, 1 ex. (Almásy leg.); Talass [Talass-Thal], 2 ex.; Tien Shan, 7 July 1962, 1 ex.; Tien Shan, Kyungey-Ala-Too, 18 July 1981, 1 ex. (I. Lopatin leg.); TAJIKISTAN: Turkestanskiy Khrebet, Kshemish, 27 June 1963, 5 ex. (I. Lopatin leg.); 4 July 1964, 3 ex. (I. Lopatin leg.); UZBEKISTAN: Chatkal, Sari-Chelek Lake, 17 July 1957, 1 ex.; Chatkalskiy Khrebet, Sari-Chelek Lake, 26 July 1962 (V. Palii leg.); Karzhantau Khrebet, Su-Cingan, 3 July 1938, 1 ex.; 25 July 1939, 1 ex.; Kokand, Nurlou River, 26 June 1908, 2 ex. (Zarudnii

leg.); Ravat, 1892, 1 ex. (Glasunov leg.); Zaravshan [Seravschan], 1892, 1 ex. (Glasunov leg.).

#### Diagnosis

Length = 2.5-3.6 mm. *Head*: frontal tubercles not distinctly delimited posteriad, supracallinal sulcus effaced. First antennomere distinctly shorter than second and third together. *Pronotum*: constricted basally, narrowly margined. Anterolateral callosity rounded, well developed and almost symmetrical. Surface covered with punctures variable in size, minute on disc (moderately large in some specimens), minute on basal region, with slightly greater punctures in the antebasal transverse groove (Fig. 5). *Elytra*: punctuation completely seriate, or sometimes with some striae partially irregular because some punctures are duplicated or slightly disordered (especially in females). Punctures large and deep. Interstriae slightly convex and slightly wider than striae. Base of sixth elytral stria strongly impressed, deeper than the other striae. *Aedeagus*: apex subtriangular shaped in ventral view, with denticle poorly developed (Fig. 11), feebly deflexed ventrad in lateral view. *Vaginal palpus*: long, slightly curved and slightly tapering to the apex, basal membranous region long (Fig. 17a). *Spermatheca*: as in Fig. 17b.

#### Distribution

Central Asia, Far East, Japan.

#### Key to the Northeastern Palaearctic light coloured *Neocrepidodera*

1. Frontal tubercles not distinctly delimited posteriad, supracallinal sulcus effaced. First antennomere distinctly shorter than second and third together. Aedeagus more or less subtriangular or pointed at apex in ventral view (Figs. 8–12). Spermathecal receptacle and pump not delimited, ductus short, running close to receptacle (Figs. 14–18)..... 2
- Frontal tubercles distinctly delimited posteriad, supracallinal sulcus shallow but distinct. First antennomere long and robust, almost as long as second and third together. Aedeagus extremely short, rounded at apex in ventral view (Fig. 7). Spermathecal receptacle and pump clearly delimited, ductus long, making a wide loop away from the receptacle (Fig. 13)..... *N. sibirica* (Pic)
- 2(1). Elytral striae irregular, punctures arranged in confused double or triple rows ..... 3
- Elytral striae completely or almost completely regular ..... 4
- 3(2). Body length more than 4.5 mm. Discal punctures of pronotum fine (Fig. 2). Aedeagus strongly constricted anteapically in ventral view (Fig. 8). Vaginal palpi long and slender (Fig. 14)..... *N. obscuritarsis* (Motschulsky)
- Body length less than 4.5 mm. Discal punctures of pronotum coarse (Fig. 3). Aedeagus almost parallel sided (Fig. 9). Vaginal palpi extremely short and narrow (Fig. 15).  
..... *N. interpunctata* (Motschulsky)

- 4(2). Anterolateral callosity of pronotum distinctly asymmetrical, rounded anteriorly and angulose posteriorly (Fig. 4). Apex of aedeagus strongly deflexed ventrad in lateral view (Fig. 10). Vaginal palpi relatively short and thin (Fig. 16) .....  
 ..... *N. konstantinovi* sp. nov.
- Anterolateral callosity of pronotum almost symmetrical, rounded both anteriorly and posteriorly (Figs. 5–6). Apex of aedeagus feebly deflexed ventrad in lateral view (Fig. 11–12). Vaginal palpi relatively long and broad (Fig. 17–18) ..... 5
- 5(4). Aedeagus apically subtriangular shaped in ventral view, with denticle poorly developed (Fig. 11) ..... *N. sublaevis* (Motschulsky)
- Aedeagus produced apically into a very acute point in ventral view (Fig. 12). .....  
 ..... *N. motschulskii* (Konstantinov)

### Acknowledgments

We are grateful to M. Bergeal, M. Döberl, and A. Konstantinov for the loan of the specimens of *Neocrepidodera* used for this study, V. Llorente (MNCN) for her kind assistance with the transcription of Russian labels of a great part of USNM collection, and N. Nikitsky and M. Barclay for their help in sending the type of *N. sublaevis*. Author's position at MNCN is supported by the Juan de la Cierva Program (Ministerio de Educación y Ciencia).

### References

- Baselga, A. & Novoa, F. (2005) The Western Palaearctic *Neocrepidodera* (Coleoptera: Chrysomelidae) of the *N. impressa* and *N. ferruginea* species groups. *Annals of the Entomological Society of America*, 98, 896–907.
- Biondi, M. (1989) Classification and phylogenesis of the Western Palaearctic species of the genus *Asiolestia* Jacobson (Coleoptera, Chrysomelidae, Alticinae). *Entomography*, 6, 519–529.
- Biondi, M. (1993) Revisione del sottogenere *Asiolestia* Jacob. s. str. (Coleoptera Chrysomelidae Alticinae). *Bollettino del Museo Civico di Storia Naturale di Verona*, 17, 1–55.
- Daniel, J. (1904) Revision der paläarktischen *Crepidodera*-Arten. *Münchener Koleopterologische Zeitschrift*, 2, 237–297.
- Doguet, S. (1994) *Coléoptères Chrysomelidae. Vol. 2, Alticinae. Faune de France, 80*. Fédération Française des Sociétés de Sciences Naturelles, Paris, 694 pp.
- Gressitt, J.L. & Kimoto, S. (1963) The Chrysomelidae (Coleopt.) of China and Korea, Part 2. *Pacific Insects Monograph*, 1B, 310–1026.
- Gruev, B. & Döberl, M. (1997) General distribution of the flea beetles in Palaearctic subregion (Coleoptera, Chrysomelidae: Alticinae). *Scopelia*, 37, 1–496.
- Heikertinger, F. (1911) Die Halticinengattung *Neocrepidodera* (nov. gen.). *Arch. Naturgesch.*, 77, 34–38.
- Heikertinger, F. (1948) Bestimmungstabelle der *Crepidodera*-Verwandtschaft weitesten Sinnes. *Koleopterologische Rundschau*, 31, 15–139.
- Jacoby, M. (1885) Descriptions of the Phytophagous Coleoptera of Japan obtained by Mr. George

- Lewis during his Second Journey, from February 1880 to September 1881. - Part II. Halticinae and Galerucinae. *Proc. R. Zool. Soc. Lond.*, 1885, 719-755.
- Konstantinov, A.S. (1991) On taxonomy of *Asiolestia* (Coleoptera, Chrysomelidae, Alticinae). [In Russian]. *Zoologicheskii Zhurnal*, 70, 143–144.
- Konstantinov, A.S. & Vandenberg, N.J. (1996) Handbook of Palearctic flea beetles (Coleoptera Chrysomelidae Alticinae). *Contributions on Entomology, International*, 1, 237–436.
- Matsumura, S. (1911) Erster Beitrag zur Insekten-Fauna von Sachalin. *Journal of the College of Agriculture, Tohoku Imperial University* 4, 1-145.
- Mohr, K.-H. (1966) Chrysomelidae. In: Freude H., Harde K.W. & Lohse G.A. (Ed.), *Die Käfer Mitteleuropas*, Goecke und Evers, Krefeld, 95–299.
- Motschulsky, V. (1859) Catalogue des insectes rapportés des environs du fl. Amour, depuis la Schilka jusqu'à Nikolaësvsk, examinés et énumérés. *Bulletin de la Société Impériale des Naturalistes de Moscou* 32, 487–507.
- Pic, M. (1909) Descriptions ou diagnoses et notes diverses. *L'Échange, Revue Linnéenne* 25, 153–156.
- Tazikawa, H. (2002) A revision of the genus *Neocrepidodera* Heikertinger in Japan (Chrysomelidae: Alticinae). *Insecta Matsumarana (New Series)*, 59, 39–53.
- Warchalowski, A. (1998) *Coleoptera: Chrysomelidae VI. Halticinae: Hermaeophaga – Dibolia. Fauna Polski* 20. Polska Akademia Nauk, Muzeum i Instytut Zoologii, Warszawa, 292 pp.
- Warchalowski, A. (2003) *Chrysomelidae. The leaf-beetles of Europe and the Mediterranean area*. Natura optima dux Foundation, Warszawa, 600 pp.