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A new *Nalassus* Mulsant, 1854 (Coleoptera: Tenebrionidae: Helopini), the first representative of the genus from the Russian Far East

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Abstract

A new species, *Nalassus* (*Helopocerodes*) *olgae* sp. n., is described from Primorsky Krai in the Russian Far East. A new combination is established: *Nalassus* (*Helopocerodes*) *magyari* (Kaszab, 1968), **comb. n.** The new species is similar to *N. magyari* but differs in the sculpture of the metaventricle, larger body and widely flattened lateral sides of the pronotum.

Key words: Tenebrionidae, *Nalassus*, new species, new combination, Russian Far East, Eastern Asia

Introduction

The genus *Nalassus* Mulsant, 1854 is widespread in the Palaearctic and includes 69 species including descriptions published since the Palaearctic catalogue (Nabozhenko & Löbl 2008; Keskin & Nabozhenko 2010; Nabozhenko 2010, 2011a, b, 2012, 2013b). Until recently it was considered to be a Western Palaearctic genus with two isolated enclaves of distribution: the main one (from Europe to Western Kazakhstan and Iran) and Eastern Kazakhstani (Balkhash Region, Tarbagatay Mts.) (Medvedev 1987; Nabozhenko 2013b). Another generic enclave in Eastern Asia, with the single species *Nalassus pekinensis* (Fairmaire, 1888), has been added since studying the type material. One cause of these extensive disjunctions is perhaps fragmentation and the subsequent disappearance of the Turgayan flora, which was widespread in the northern hemisphere in the Middle-Late Oligocene (Nabozhenko 2012, 2013a). The study of additional material from East Asia and North America confirmed the distribution of many species of the nalassoid branch of the tribe Helopini (Nabozhenko 2005; Nabozhenko & Keskin 2014) in these regions (Nabozhenko 2013a). Most of these species need to be revised.

A new *Nalassus* was collected in 2014 by the second author in the Russian Far East near Ussuriysk. This species is closest to *Tarpela magyari*, described by Kaszab (1968) from the Korean Peninsula (type locality: Tshon-Bon-San, paratype from Pyongyang). Kaszab wrote in the comparative diagnosis that the new species *Tarpela magyari* was closest to “*Tarpela*” *pekinensis* (now *Nalassus*). Jung (2012) figured *T. magyari*, including the aedeagus, which is structured like many other *Nalassus*: aedeagus weakly sclerotized, transformed on apex to laterally compressed keel. The thickened male antennomeres of *T. magyari* are also typical for *Nalassus* and most expressed in the subgenus *Helopocerodes* Reitter, 1922 (Medvedev 1987). Thus, this species should be included in the subgenus *Helopocerodes* of the genus *Nalassus*: *Nalassus* (*Helopocerodes*) *magyari* (Kaszab, 1968), **comb. n.** We studied 2 specimens of *N. magyari* with labels: “Loc: temple Heungguk, mt. Bukhan, Goyang city, Gyeonggi-do province, Korea. Date: 31.III.2006 Leg: Taewoo Kim”. It should be noted that strongly thickened male antennomeres are found in different subgenera of *Nalassus*, and so additional studies, including molecular analyses, are needed to determine the future status of the subgenus *Helopocerodes*.

Other species of “*Tarpela*” recorded for the fauna of Korea need more thorough study. Distribution of some species on the Korean Peninsula has not been confirmed by current research (Jung 2012).

Taxonomy

Nalassus (Helopocerodes) olgae sp. n.

(Figs 1–12)

Type material. Holotype, ♂ and 42 paratypes (21♂, 21♀) with label: Russia, Primorsky kray, Oktyabrsky District, near Chernyatino, Sinelovka Mt., 17.05.–28.06.2014 (leg. S.N. Ivanov). Holotype and 3 paratypes are deposited in Zoological Institute RAS (St. Petersburg), 4 paratypes are deposited in Institute of Biology and Soil Science, Far Eastern Branch of RAS (Vladivostok, Russia), 4 paratypes (in ethanol) are in Zoological Department of Ege University (Bornova, Izmir, Turkey) other paratypes are in private collections of M.V. Nabozhenko and S.N. Ivanov.

Description. Male. Body dorsally and ventrally black, weakly convex, moderately shining. Legs, antennae and mouthparts brown. Head widest at eye level. Eyes large, moderately convex. Ratio of head width at level of eyes to distance between eyes 1.65. Anterior margin of clypeus straight. Genae strongly rounded. Outer margin of head between genae and clypeus with small sinuation. Punctuation of head coarse and dense: diameter of punctures subequal to distance between them on frons and visibly more than distance between punctures around frons and on clypeus. Antennae moderately long (reaching 1/6 of elytral length), with 3 apical antennomeres extending beyond base of pronotum. Antennomeres 4–8 visibly thickened. Ratio of length to width of antennomeres 2–11 (antennomere 9—ratio of width to length): 1.27, 2.25, 1.6, 1.4, 1.4, 1.35, 1.3, 1.06, 1.06 (wider than long), 1.06. Antennomere 3 2× as long as antennomere 2 and 1.2× as long as antennomere 4. Antennomeres 9–11 shorter than antennomeres 3–7.

Pronotum transverse (1.32× as wide as long), widest in middle, rarely before middle, 1.6× as wide as head. Lateral sides of pronotum moderately regularly rounded, rarely slightly sinuate near base. Anterior margin weakly rounded, bisinuate, base straight or weakly rounded. Anterior angles not projected, obtuse, widely rounded; posterior angles obtuse, narrowly rounded on apex. All margins of pronotum beaded, lateral margins wider beaded in basal 1/4. Disc regularly convex with widely flattened lateral sides. Punctuation of disc moderately coarse and dense: diameter of punctures subequal to distance between them, punctures round. Medial line usually without visible punctuation. Hypomera with flattened outer margins, longitudinal wrinkles and sparse recumbent setae. Prosternal process weakly convex.

Elytra elongate (1.6× as long as wide), 2.5× as long and 1.2× as wide as pronotum, 1.9–2× as wide as head. Lateral elytral sides weakly rounded. Elytra moderately convex, dorsal part of epipleural carina invisible dorsally. Punctures in striae merged in deep furrows. Elytral intervals weakly convex, with moderately coarse and dense punctuation (distance between punctures 2–3× as long as puncture diameter), 8th interval more convex on apex and connected with elytral margin. Epipleura and epipleural carina not reaching elytral apex.

Wings very short (1/4 of elytral length), reduced. Venation also subreduced, only 3 veins are presented: radial (R), main cubital (Cu) and short anal (A) (Fig. 7).

Metaventricle (Fig. 5) with coarse, moderately dense punctuation, convex in anterior half and with smooth tubercle, with T-shaped deep depression near base. Abdominal ventrites bare, with dense, moderately coarse punctuation, ventrites 1–2 with wrinkles on lateral sides; ventrite 5 with very weak wide depression.

Each trochanter with 1 long seta. Tibia straight, tarsi not widened.

Genitalia and terminalia (Figs 8–11). Aedeagus short (about 2 mm), weakly sclerotized. Apical piece (without ventral processes) 1.6× as short as basal piece, median lobe baculi not merged, narrow, with acute apices (Figs. 8, 9). Inner sternite VIII with deep emargination (Fig. 11). Gastral spicula with pseudo trunk (Fig. 10).

Body length 8–11 mm, body width 2.9–4.3 mm

Female. Antennae shorter, regularly widened to apex, antennomeres not thickened. Metaventricle (Fig. 6) with weak convexity, divided by arched-shaped transverse wrinkle. Genital tubes (Fig. 12): spermatheca and gland short, subequal, spermathecal basal duct absent, spermatheca without processes.

Body length 8.7–12 mm, width 3.1–5.2 mm.

Etymology. The species is named in honour of Olga Ivanova, wife of the second author.

Differential diagnosis. *Nalassus olgae* sp. n. is closely related to *N. magyari*, from which it differs by its larger body (length of *N. magyari* 6–7 mm), widely flattened lateral sides of pronotum and sculpture of metaventricle. The new species differs from *Nalassus pekinensis* by sculpture of metaventricle, black, moderately shining body (*N. pekinensis* has brown dull body), thickened antennomeres of male.

Habitat. The species was found on branches of *Quercus wutaishanica*, which was relatively recently recorded for Russian Far East (Beljaev 2004). The species is rarely collected on other trees (for example apricot *Prunus* sp.) and shrubs (*Lespedeza*) near the oak forest.

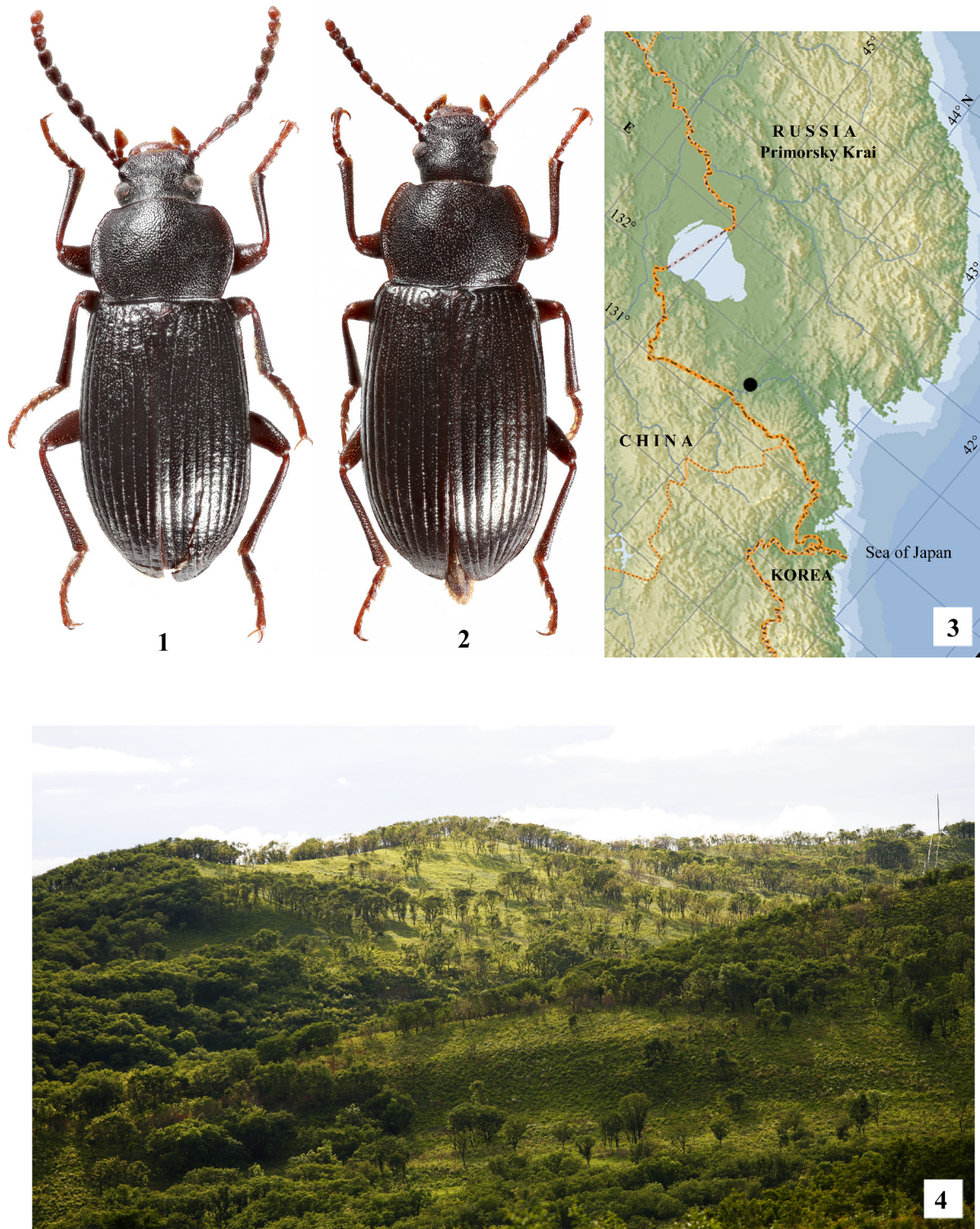


FIGURE 1–4. *Nalassus (Helopocerodes) olgae* sp. n. 1) Male. 2) Female. 3) Map of distribution. 4) Habitat, forest of *Quercus wutaishanica*.

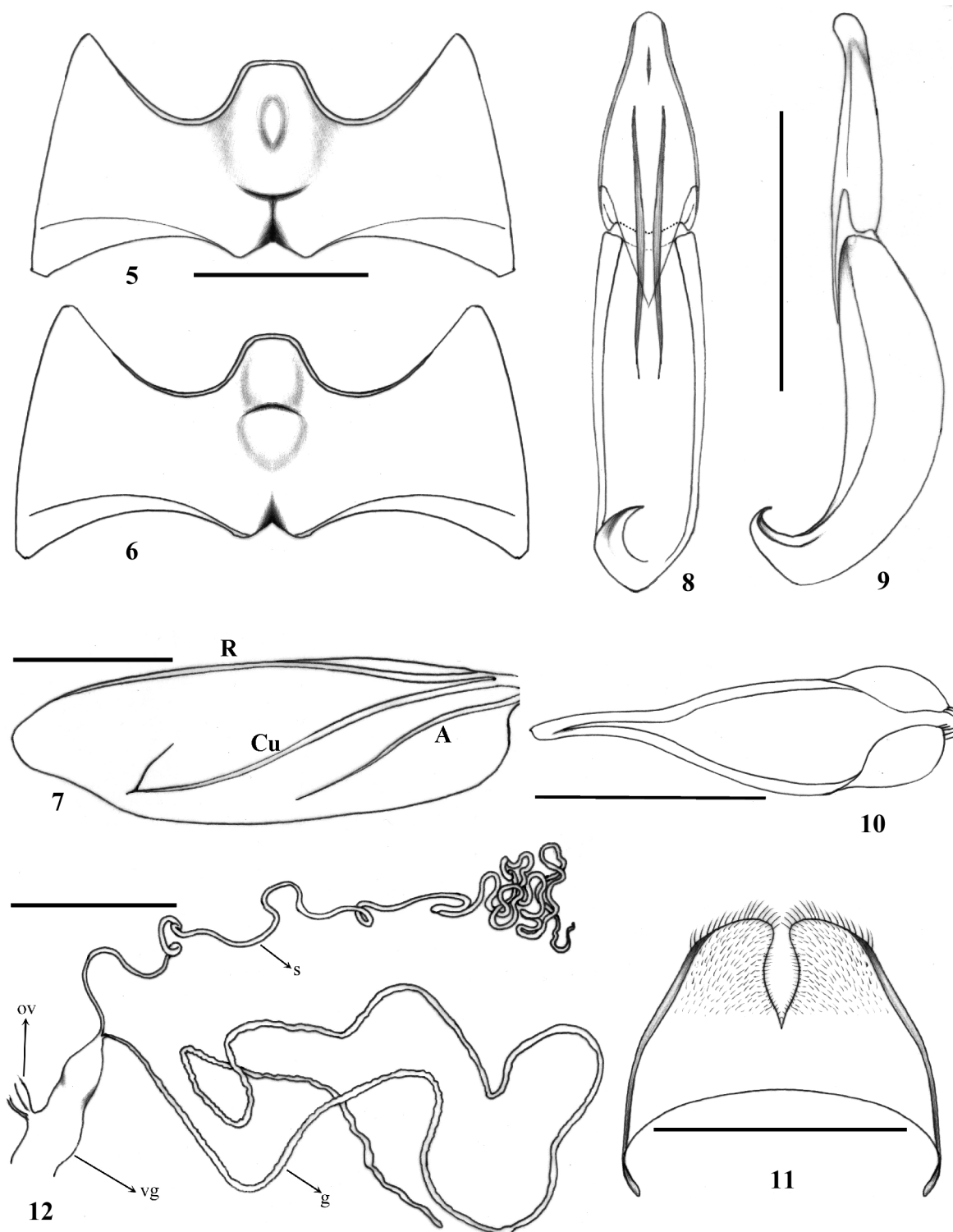


FIGURE 5–12. *Nalassus (Helopocerodes) olgae* sp. n., structure. 5) Metaventricle, male. 6) Metaventricle, female. 7) Right wing. 8) Aedeagus, ventral view. 9) Aedeagus, lateral view. 10) Gastral spicula. 11) Inner sternite VIII. 12) Female genital tubes (s—spermatheca, ov—oviduct, g—gland, vg—vagina). Scale 1 mm.

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