

## New species and subspecies of *Nymphius* (Coleoptera: Chrysomelidae: Galerucinae) from Iran and Turkey

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**Abstract.** *Nymphius gianassoi* sp. nov. from Iran and *N. styliifer kadleci* ssp. nov. from Turkey are described, illustrated, and compared with related taxa. The study is completed with a literature review and drawings of male terminal abdominal segments and aedeagi of all known species of *Nymphius* Weise, 1900.

**Key words.** Coleoptera, Chrysomelidae, Galerucinae, *Nymphius*, taxonomy, new species, Iran, Turkey

### Introduction

The genus *Nymphius* Weise, 1900, was proposed by WEISE (1900) as a subgenus of *Luperus* Geoffroy, 1762, and raised to the generic rank by WILCOX (1973). It is characterized by a metallic green or green-blue colour, very complicated structure of the male abdomen and relatively robust aedeagus, which is quite different than in the genus *Luperus*. FOGATO (1981) included the following taxa into *Nymphius* in his revision: *N. ensifer* (Guillebeau, 1891), *N. forcipifer* (Weise, 1900) (type species), *N. lydius* (Weise, 1886), *N. pravei* (Jacobson, 1899), *N. ogloblini* (Bogachev, 1947), and *N. styliifer* (Weise, 1899). BEZDĚK (2007) downgraded *N. ogloblini* to a subspecies of *N. styliifer*.

Recently, MEDVEDEV (1996) and LOPATIN (2002, 2006) added to *Nymphius* completely yellow species from the Arabian Peninsula and Israel with a peculiar structure of the male abdomen with characteristic appendages similar to the metallic *Nymphius*. This group is not included in the present paper and includes the following taxa: *Calomicrus buettikeri* Medvedev, 1996 (Saudi Arabia), *C. emir* Lopatin, 2006 (United Arab Emirates), *C. friedmani* Lopatin, 2002 (Israel), *C. millingeni* (Pic, 1915) (Saudi Arabia), and *Luperodes artificiosus* Peyerimhoff, 1931 (Algeria). Probably due to their similarity with many species of *Calomicrus* Stephens, 1834, MEDVEDEV (1996) and LOPATIN (2002, 2006) presented *Nymphius* as a subgenus of *Calomicrus*. However, the correct generic position of the yellow species is unclear. In my opinion, they should be placed into a separate new genus.

In this paper, I provide the description of one new species from Iran and one new subspecies from Turkey of the 'true' *Nymphius*.

## Materials and methods

All morphological measurements were made with an ocular grid in the MBS-10 binocular microscope at 16x magnification for the body length and 32x magnification for the remaining measurements.

The material is housed in the following collections:

FKLC	František Kantner collection, Lipí u Českých Budějovic, Czech Republic;
JBBC	Jan Bezděk collection, Brno, Czech Republic;
JSPC	Jaromír Strejček collection, Praha, Czech Republic;
JVJC	Jiří Voříšek collection, Jirkov, Czech Republic;
MDVI	Mauro Daccordi collection, Verona, Italy;
NMPC	National Museum, Praha, Czech Republic (Jiří Hájek);
SMNS	Staatliches Museum für Naturkunde, Stuttgart, Germany (Wolfgang Schawaller);
ZMHB	Museum für Naturkunde der Humboldt-Universität, Berlin, Germany (Johannes Frisch, Joachim Willers).

Exact label data are cited for all type specimens; a double slash (//) divides data on different labels and a single slash (/) divides data in different rows. Type localities are cited in the original spelling. Other comments and remarks are placed in square brackets: [p] – preceding data are printed, [h] – preceding data are handwritten, and [w] – white label, x/y – number of males / number of females.

## Description of new taxa

### *Nymphius gianasso* sp. nov.

(Figs. 3, 11, 17-18)

**Type locality.** Iran, Azarbayjan-e Gharbi province, 35 km W of Mahabad.

**Type material.** HOLOTYPE: ♂, 'NW. Iran / Āzerbāyġān-e Garbī / 35 km W di Mahābād [w, p] // 14-5.2002 m. 1900 / Leg. D. Gianasso [w, p] // Collezione / Daccordi M. [grey label, p] // *Nymphius / domenicus* / n. sp. [h] / det. M. Daccordi 20 [p] 02 [w, h]' (NMPC). PARATYPES: 1 ♂, 'NW. Iran / Āzerbāyġān-e Garbī / 35 km W di Mahābād [w, p] // 14-5.2002 m. 1900 / Leg. D. Gianasso [w, p] // Collezione / Daccordi M. [grey label, p] // *Nymphius / gianasso* n. sp. [h] / det. M. Daccordi 20 [p] 07 [w, h]' (MDVI); 3 ♀♀, 'NW. Iran / Āzerbāyġān-e Garbī / 35 km W di Mahābād [w, p] // 14-5.2002 m. 1900 / Leg. D. Gianasso [w, p] // Collezione / Daccordi M. [grey label, p]' (NMPC, MDVI, JBBC). The specimens are provided with additional printed red labels: 'HOLOTYPUS [or PARATYPUS], / *Nymphius / gianasso* sp. nov., / det. J. Bezděk 2007'. Two paratypes, male and female, were damaged due to handling during postal transport (both have missing head and pronotum).

**Description.** Body length: male (holotype) 4.95 mm; females 5.00-5.85 mm.

**Male.** Body slender, flattened, subparallel, nearly glabrous. Body metallic blue-green. Mouthparts, genae and anterior margin of clypeus yellow, mandibles black at apices. Antennomeres 1-4 yellow, antennomere 5 gradually darkened, antennomeres 6-11 black. Scutellum black. Legs yellow, last two tarsomeres infusate. Abdomen bluish-black, ventrite 4 brownish laterally.

Head as wide as anterior part of pronotum and 1.83 times as wide as interocular space. Labrum transverse, at each lateral side covered with several setigerous pores bearing pale setae, anterior margin slightly sinuate, lustrous. Anterior part of head nearly lustrous, sparsely covered with small punctures and pale setae. Frontal tubercles large, slightly elevated, subtriangular, with anterior tips separated by nasal keel, lustrous. Both tubercles separated by deep furrow;

another deep furrow separating posterior margin of each tubercle from frons. Frons slightly impressed just behind frontal tubercles, nearly lustrous, sparsely punctured at sides. Vertex semiopaque, very finely covered with microreticulation. Antennae slender, 0.77 times as long as body, length ratios of antennomeres 1-11 equal to 16-6-11-17-17-16-16-15-15-13-16.

Pronotum lustrous, glabrous, transverse, 1.53 times as broad as long, widest in middle, slightly narrowed anteriorly and posteriorly. Surface densely covered with very fine punctures. Lateral margin moderately rounded, anterior and posterior margins nearly straight. All margins distinctly bordered, all angles with distinct tooth bearing long pale seta. Anterior angles nearly rectangular, posterior angles obtusely angulate.

Scutellum subtriangular with widely rounded apex, lustrous, glabrous, impunctate, very indistinctly covered with microsculpture.

Elytra subparallel, very slightly divergent posteriorly, with maximal width at the last third, lustrous, glabrous, apical fourth with sparse long pale hairs. Humeral calli well developed. Lateral sides of each elytron with distinct obtuse rib starting from humeral callus and disappearing before apex. Surface along rib slightly longitudinally impressed. Elytral surface covered with small and very dense confluent punctures. Epipleura distinct, gradually tapering, disappearing behind midlength of elytra. Macropterous. Elytra 0.63 times as long as body and 1.56-1.65 times as long as wide.

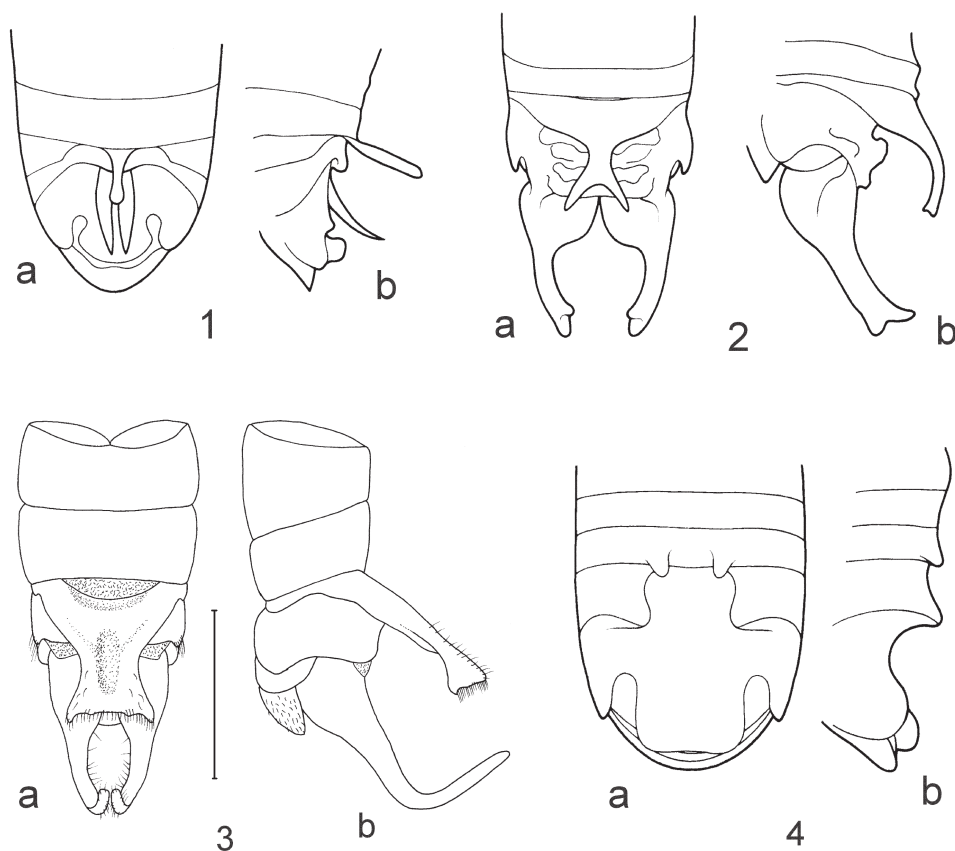
Legs slender, densely covered with short pale hairs. Protarsomere 1 0.93 as long as two following tarsomeres combined, length ratios of protarsomeres 1-4 equal to 14-10-5-10. Metatarsomere 1 0.94 as long as two following tarsomeres combined, length ratios of metatarsomeres 1-4 equal to 16-11-6-11. Claws with distinct basal tooth.

Ventral surface semiopaque, finely punctate and covered with microsculpture and dense pale hairs. Abdomen modified (Fig. 3): ventrites 1 and 2 simple, without modifications. Ventrite 3 prolonged posteriorly to a tapered process, apex widened, posterior margin truncated, with two small indicated teeth laterally and distinct marginal angles slightly bent dorsally; posterior margin densely covered with long pale setae, lateral margins before apex with sparse setae; anterior margin with distinct round depression, middle of ventrite (at the narrowest place) with shallow longitudinal depression. Ventrite 4 robust, simple, in ventral view mostly covered by ventrite 3, thus only small lateral parts visible. Ventrite 5 prolonged into two long appendages with relatively robust bases, prolonged parts narrow; gradually narrowed in second third; last third strongly rectangularly bent ventrally.

Shape of aedeagus as in Fig. 11.

**Female.** Antennomeres 1-6 yellow, antennomeres 7 and 8 gradually darkened, antennomeres 9 to 11 black. Depression in the middle of last ventrite brownish. Head 1.58-1.66 times as wide as interocular space. Antennae 0.65 times as long as body, length ratios of antennomeres 1-11 equal to 14-7-11-15-15-14-15-15-15-15-17. Pronotum 1.46-1.53 times as broad as long, widest at anterior third. Elytra 0.70 times as long as body and 1.72-1.83 times as long as wide. Protarsomere 1 as long as two following tarsomeres combined, slightly shorter than in male, length ratios of protarsomeres 1-4 equal to 12-8-4-12. Metatarsomere 1 as long as two following tarsomeres combined, slightly slimmer than in male, length ratios of metatarsomeres 1-4 equal to 16-10-6-12. Last ventrite with shallow longitudinal depression along midline (Fig. 17). Pygidium with sharply pointed apex (Fig. 18).

**Variability.** In one female the scutellum has a brownish apical margin.

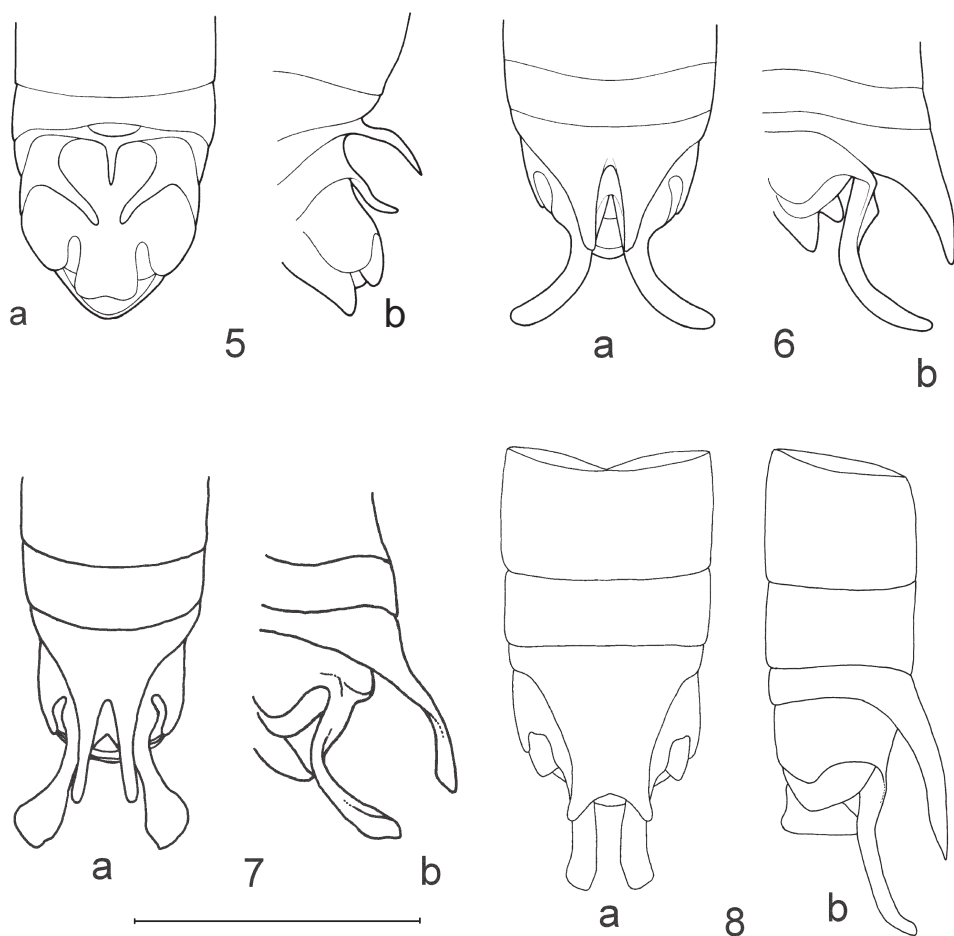


Figs. 1-4. Male abdomen (a – ventral view; b – lateral view). 1 – *Nymphius ensifer* (Guillebeau, 1891); 2 – *N. forcipifer* (Weise, 1900); 3 – *N. gianassoi* sp. nov.; 4 – *N. lydius* (Weise, 1886). Scale: 2 mm for Fig. 3; Figs. 1-2, and 4 redrawn from FOGATO (1981).

**Differential diagnosis.** *Nymphius gianassoi* sp. nov. seems to be very similar to *N. forcipifer*, which differs in the structure of male ventrites (Figs. 2 and 3): ventrite 3 is shorter, much more tapered, and the posterior margin is not truncated but forms a distinct furca. Ventrite 4 has large transverse corrugations (smooth in *N. gianassoi* sp. nov.). The appendages of ventrite 5 are more robust, shorter, and with only small ventrally bent teeth. The aedeagi of both species are also similar but in the lateral view, the aedeagus of *N. gianassoi* sp. nov. is almost straight while it is distinctly sinuated in *N. forcipifer*. In dorsal view, the subapical area of the aedeagus is somewhat extended in *N. gianassoi* sp. nov. and nearly parallel in *N. forcipifer*.

**Etymology.** Dedicated to the collector of the type series, Dr. Domenico Gianasso (Castelnuovo don Bosco, Italy), a specialist in the Buprestidae.

**Bionomics.** The specimens were collected in a hilly steppe environment with growths of *Astragalus* sp. and low bushes of *Prunus* sp., with a nearby stream with willows on the shores.



Figs. 5-8. Male abdomen (a – ventral view; b – lateral view). 5 – *Nymphius pravei* (Jacobson, 1899); 6 – *N. styliifer styliifer* (Weise, 1899); 7 – *N. styliifer ogloblini* (Bogachev, 1947); 8 – *N. styliifer kadleci* ssp. nov. Scale: 2 mm for Figs. 7-8; Figs. 5-6 redrawn from FOGATO (1981).

The herbaceous vegetation was varied with numerous flowers of the Asteraceae (Gianasso 2008, pers. comm.).

**Distribution.** North-western Iran, Azarbayjan-e Gharbi province.

***Nymphius styliifer kadleci* ssp. nov.**

(Figs. 8, 16, 19-20)

**Type locality.** Turkey, Muş province, Muş Ovasi.

**Type material.** HOLOTYPE: ♂, 'TR vill. Muş 18.6.86 / Muş Ovasi 1520 m / Kadlec + Voříšek leg. [w, p] // *Nymphius / styliifer* Wse [h] / Voříšek det. 2001 [w, p]' (NMPC). PARATYPES: 1 ♂ 14 ♀♀, 'TR vill. Muş 18.6.86 / Muş Ovasi 1520 m / Kadlec + Voříšek leg. [w, p]' (1 PT in NMPC, 2 PT in JBBC, 12 PT in JVJC). The specimens are provided

with additional printed red labels: 'HOLOTYPUS [or PARATYPUS], / *Nymphius styliifer* / ssp. *kadleci* ssp.nov., / J. Bezděk det 2008'.

**Description.** Body length: males 4.35-4.75 mm (holotype 4.35 mm); females 4.65-5.75 mm.

**Male.** Body slender, flattened, parallel, glabrous. Body metallic blue-green. Mouthparts, genae, and anterior margin of clypeus yellow. Antennomeres 1-3 yellow, antennomeres 4-6 gradually darkened, antennomeres 7-11 black. Legs yellow, last two tarsomeres infusate. Abdomen bluish brown to bluish black.

Head as wide as anterior part of pronotum and 2.05 times as wide as the interocular space. Labrum transverse, at each lateral side covered with several setigerous pores bearing pale setae, anterior margin straight. Anterior part of head semiopaque, finely microsculptured, sparsely covered with small punctures and long pale setae. Frontal tubercles large, slightly elevated, subtriangular, with anterior edges separated by nasal keel, lustrous. Both tubercles separated by deep furrow; another deep furrow separating posterior margin of each tubercle from frons. Frons and vertex with fine median impressed line. Vertex semiopaque, microsculptured, with indistinct wrinkles. Antennae slender, 0.90 times as long as body, length ratios of antennomeres 1-11 equal to 12-6-11-16-16-15-15-15-14-14-16.

Pronotum nearly lustrous, glabrous, transverse, 1.35 times as broad as long, widest in anterior third, narrowed anteriorly and posteriorly. Surface densely covered with very fine punctures. Lateral margin rounded at maximal width, straight and convergent posteriorly, anterior and posterior margins straight. All margins distinctly bordered. Anterior angles nearly rectangular, posterior angles obtusely angulate, each angle with distinct tooth bearing long pale seta.

Scutellum subtriangular with widely rounded apex, glabrous, impunctate, lustrous.

Elytra parallel, lustrous, glabrous. Humeral calli well developed. Lateral side of each elytron with indistinct obtuse rib beginning posteriorly of humeral callus and disappearing before elytral apex. Elytral surface covered with small and very dense confluent punctures. Epipleura distinct, gradually tapering, disappearing behind elytral midlength. Macropterous. Elytra 0.73 times as long as body and 1.83 times as long as wide.

Legs slender, densely covered with short pale hairs. Protarsomere 1 slightly enlarged, as long as two following tarsomeres combined, length ratios of protarsomeres 1-4 equal to 13-8-5-10. Metatarsomere 1 as long as two following tarsomeres combined, length ratios of metatarsomeres 1-4 equal to 16-10-6-11. Claws with distinct basal tooth.

Ventral surface semiopaque, finely punctate and covered with microsculpture and pale hairs. Abdomen modified (Fig. 8): ventrites 1 and 2 simple. Ventrite 3 widely prolonged posteriorly to tapered process, with shortly divergently bifurcate apex, posterior margin with wide shallow incision. Ventrite 4 prolonged into two narrow parallel appendages, with apices slightly bent outwards. Ventrite 5 without appendages, simply trilobed, incisions very deep.

Shape of aedeagus as in Fig. 16.

**Female.** Depression in middle of last ventrite brownish. Head 0.95 times as wide as anterior part of pronotum and 1.84 times as wide as interocular space. Antennae 0.70 times as long as the body, length ratios of antennomeres 1-11 equal to 15-6-12-15-15-15-15-14-14-18. Pronotum 1.43 times as broad as long. Elytra 0.75 times as long as body and 1.86 times as long as wide. Protarsomere 1 0.80 times as long as two following tarsomeres combined,

length ratios of protarsomeres 1-4 equal to 13-10-6-9. Metatarsomere 1 0.90 times as long as two following tarsomeres combined, length ratios of metatarsomeres 1-4 equal to 16-10-5-12. Last ventrite with median depression, wide and shallow in anterior part and narrow and deeper in posterior part (Fig. 19). Lateral convergent sides of last ventrite moderately rounded, with wide and shallow emargination near midlength. Pygidium subtriangular, with apex rounded.

**Differential diagnosis.** Males of *Nymphius stylifer kadleci* ssp. nov. differ from *N. stylifer stylifer* and *N. stylifer ogloblini* in the structure of the abdominal appendages (Figs. 6-8). In *N. s. stylifer* and *N. s. ogloblini*, ventrite 3 forms two long posterior processes separated by a very deep incision, but the incision in *N. s. kadleci* ssp. nov. is very shallow and the processes therefore form only very short divergent furca. The long processes of ventrite 4 are distinctly divergent in *N. s. stylifer* and *N. s. ogloblini* (and claviform in *N. s. ogloblini*), but parallel with apices slightly bent outwards in *N. s. kadleci* ssp. nov. The aedeagus of *N. s. kadleci* ssp. nov. is similar to that of *N. s. stylifer* and *N. s. ogloblini* but the apical part is more rounded in lateral view (Figs. 14-16).

Females of all three subspecies can be separated by the shape of the pygidium and the last ventrite. The apex of the pygidium is sharply pointed in *N. s. ogloblini* and rounded in *N. s. stylifer* and *N. s. kadleci* ssp. nov. The depression on the last ventrite is shallow and parallel in *N. s. ogloblini* and *N. s. stylifer* but wide and shallow in the anterior part and narrow and deeper in the posterior part of ventrite in *N. s. kadleci* ssp. nov.

**Etymology.** Dedicated to one of the collectors of the type series, Stanislav Kadlec (Litvínov, Czech Republic), a specialist in the Cerambycidae.

**Distribution.** Eastern Turkey, Muş province.

## Review of the genus *Nymphius*

### *Nymphius* Weise, 1900

*Nymphius* Weise, 1900: 135 (subgenus of *Luperus*). Type: *Luperus (Nymphius) forcipifer* Weise, 1900, by monotypy.

*Luperus (Nymphius)*: WEISE (1924) (catalogue).

*Nymphius*: WILCOX (1973) (catalogue), FOGATO (1981) (revision), SEENO & WILCOX (1982), WARCHALOWSKI (1994) (key), WARCHALOWSKI (2003) (key).

### *Nymphius ensifer* (Guillebeau, 1891)

(Figs. 1, 9)

*Luperus (Luperus) ensifer* Guillebeau, 1891: 297.

*Luperus (Nymphius) ensifer*: WEISE (1924) (catalogue), WINKLER (1930) (catalogue).

*Calomicrus (Nymphius) ensifer*: LOPATIN (2002).

*Nymphius ensifer*: WILCOX (1973) (catalogue), FOGATO (1981), LOPATIN et al. (2003), WARCHALOWSKI (2003) (key).

*Nymphius* [sic!] *ensifer*: CHIKATUNOV & PAVLIČEK (2005), CHIKATUNOV et al. (2006).

**Type locality.** 'Syrie, Anti-Liban, Zebedani'.

**Type material.** Not examined. According to FOGATO (1981) deposited in Muséum national d'Histoire naturelle Paris.

**Additional material examined** (17 spec.). **SYRIA**: Burqush env., NW of Damascus, 25.v.1998, 8 ♂♂ 9 ♀♀, S. Kadlec leg. (JBBC, FKLC).



**Distribution.** Turkey (FOGATO 1981), Syria (GUILLEBEAU 1891, FOGATO 1981, this paper), Israel (LOPATIN 2002, LOPATIN et al. 2003, CHIKATUNOV & PAVLÍČEK 2005, CHIKATUNOV et al. 2006).

***Nymphius forcipifer* (Weise, 1900)**

(Figs. 2, 10)

*Luperus* (*Nymphius*) *forcipifer* Weise, 1900: 135.

*Luperus* (*Nymphius*) *forcipifer*: WEISE in BODEMEYER (1900) (duplicate description), WEISE (1924) (catalogue), WINKLER (1930) (catalogue).

*Luperus* (*Luperus*) *forcipifer*: OGLOBLIN (1936).

*Nymphius forcipifer*: WILCOX (1973) (catalogue), FOGATO (1981), WARCHAŁOWSKI (2003) (key), GÖK & DURAN (2004).

**Type locality.** Originally described from 'Angora, Konia' [= Ankara, Konya] (WEISE 1900). Due to the lectotype designation by FOGATO (1981), the type locality is restricted to 'Konia'.

**Type material.** LECTOTYPE: ♂, 'Anatolien / Konia / 1899 Korb [w, h] // Typus [red label, p] // *Nymphius* / *Luperus* / *forcipifer* / m. [w, h] // Zool. Mus. / Berlin [w, p] // LECTOTYPUS / *Nymphius* / *forcipifer* (Wse) / des. W. Fogato 1980 [red label, h]' (ZMHB). PARALECTOTYPES: ♀, 'Anatolien / Konia / 1899 Korb [w, h] // Typus [red label, p] // Zool. Mus. / Berlin [w, p] // PARALECTOTYPUS / *Nymphius* / *forcipifer* (Wse) / des. W. Fogato 1980 [red label, h]' (ZMHB); ♀, 'Angora / ... [partly illegible, w, h] // Typus [red label, p] // Zool. Mus. / Berlin [w, p] // PARALECTOTYPUS / *Nymphius* / *forcipifer* (Wse) / des. W. Fogato 1980 [red label, h]' (ZMHB).

**Additional material examined** (13 spec.). **TURKEY:** KONYA prov., Obruk Yalâsi, Sarayonü, 5.vi.1986, 1 ♂ 1 ♀, S. Kadlec & J. Voříšek leg. (JBBC). AFYON prov., Suhut, 1700 m a.s.l., 28.v.1996, 5 ♀♀, Odvárka leg. (JVJC); same data, 1200 m a.s.l., 29.v.1996, 6 ♀♀, Odvárka leg. (JVJC).

**Bionomics.** In Turkey, GÖK & DURAN (2004) reported it from *Crataegus orientalis* (Rosaceae).

**Distribution.** Turkey (WEISE 1900, FOGATO 1981, GÖK & DURAN 2004, this paper).

**Comments.** I had the possibility to examine also one specimen (female) deposited in SMNS and labelled: 'Asia minor / Burna / 15 v Bodemeyer [w, h] // TYPE [pink label, p] // *Luperus* / *forcipifer* / n. sp. Wse [w, h] // Coll. / Piesbergen [w, p]'. The identification label seems to be written by Weise. However, the specimen is not mentioned in the original description and cannot be included in the type series.

***Nymphius gianassoï* sp. nov.**

(Figs. 3, 11, 17-18)

**Type material.** See above.

**Distribution.** North-western Iran, Azarbayjan-e Gharbi province (this paper).

***Nymphius lydius* (Weise, 1886)**

(Figs. 4, 12)

*Luperus* (*Luperus*) *lydius* Weise, 1886: 594.

*Luperus* (*Nymphius*) *lydius*: LABOISSIÈRE (1913), WINKLER (1930) (catalogue).

*Luperus* (*Nymphius*) *Lydius*: LABOISSIÈRE (1925) (catalogue).

*Luperus* (*Luperus*) *lydius*: GUILLEBEAU (1891), OGLOBLIN (1936), WEISE (1924) (catalogue), BERTI & RAPILLY (1973).

*Luperus lydius*: MOHR (1966), MOHR (1969), GRUEV & TOMOV (1979).

*Luperus lidius* [sic!]: TOMOV & GRUEV (1975).



*Nymphius lydius*: WILCOX (1973) (catalogue), FOGATO (1981), GRUEV & TOMOV (1986), WARCHALOWSKI (1994), ASLAN (1998), GRUEV & TOMOV (1998), ASLAN et al. (2000), WARCHALOWSKI (2003) (key), GÖK & DURAN (2004), GRUEV & TOMOV (2007).

**Type locality.** Originally described from ‘Smyrna, Graecia?’ (WEISE 1886). Due to the lectotype designation by FOGATO (1981), the type locality is restricted to ‘Smyrna’ [= Turkey, İzmir].

**Type material.** LECTOTYPE: ♂, ‘Smyrna [w, h] // Zool. Mus. / Berlin [w, p] // LECTOTYPUS / Nymphius / lydius (Wse) / des. W. Fogato 1980 [red label, h]’ (ZMHB). PARALECTOTYPES: 2 ♂♂, ‘Graecia [w, h] // Zool. Mus. / Berlin [w, p] // PARALECTOTYPUS / Nymphius / lydius (Wse) / des. W. Fogato 1980 [red label, h]’ (ZMHB); ♂, ‘Graecia [w, h] // lydius Ws. [w, h] // Zool. Mus. / Berlin [w, p] // PARALECTOTYPUS / Nymphius / lydius (Wse) / des. W. Fogato 1980 [red label, h]’ (ZMHB).

**Additional material examined** (29 spec.). **TURKEY:** MANISA prov., Manisa Dagi, v.1994, 2 ♂♂, D. Hauck leg. (JBBC). İZMİR prov., Bergama, 29.iv.1991, 2 ♂♂ 1 ♀, T. Růžička leg. (JBBC); same locality, 20.-21.iv.1983, 2 ♂♂, H. & L. Freude leg. (FKLC); Tesava, 830 m a.s.l., 26.iv.2001, 1 ♂, D. Keith leg. (JBBC). AFYON prov., Suhut, 1700 m a.s.l., 28.v.1996, 2 ♂♂, Odvárka leg. (JVJC); same locality, 1200 m a.s.l., 29.v.1996, 1 ♂ 4 ♀♀, Odvárka leg. (JVJC); same locality, 24.v.1996, 1 ♂, Odvárka leg. (JVJC). ADIYAMAN prov., Nemrut Dagi, Kahta env., 13.vi.1998, 1 ♀, J. Voříšek leg. (JVJC). ÇANKIRI prov., Kursunlu env., 7.vi.2002, 1 ♀, Košťál & Voříšek leg. (JVJC); Korgun, 3.vi.1996, 1 ♂, P. Kresl leg. (FKLC). ANKARA prov., Kizilcahamam, 6.vi.2002, 8 ♂♂ 2 ♀♀, Košťál & Voříšek leg. (JVJC).

**Bionomics.** In Turkey reported from *Crataegus orientalis* (Rosaceae), *Anagyris foetida* and *Robinia pseudoacacia* (Fabaceae) (GÖK & DURAN 2004).

**Distribution.** Bulgaria (MOHR 1966, 1969; GRUEV & TOMOV 1986, 1998, 2007), ?Greece (WEISE 1886), Turkey (WEISE 1886, LABOISSIÈRE 1913, TOMOV & GRUEV 1975, GRUEV & TOMOV 1979, FOGATO 1981, ASLAN 1998, ASLAN et al. 2000, GÖK & DURAN 2004, this paper), Iran (BERTI & RAPILLY 1973). Listed also from Armenia but without precise data (WILCOX 1973, FOGATO 1981).

**Comments.** During my visit to SMNS I had the possibility to examine also two specimens (males) labelled: ‘Asia minor / Konia / S. v Bodemeyer [w, h] // TYPE [pink label, p] // Luperus / lydius / n. sp. Wse. [w, h] // Coll. / Piesbergen [w, p]’ and ‘Asia min. / Konia / 0.30 v Bodem. [w, h] // Asia minor / Konia / v Bodemeyer [w, p] // Coll. / Piesbergen [w, p]’. The identification label seems to be written by Weise. However, specimens from Konia are not mentioned in the original description, and these two specimens cannot thus be included in the type series.

### *Nymphius pravei* (Jacobson, 1899)

(Figs. 5, 13)

*Lyperus pravei* Jacobson, 1899: 141.

*Luperus (Luperus) pravei*: OGLOBLIN (1936).

*Luperus* (s. str.) *pravei*: LOPATIN (1977) (key), LOPATIN & KULENOVA (1986) (key).

*Luperus (Luperus) Pravei*: WEISE (1924) (catalogue).

*Luperus (Nymphius) Pravei*: LABOISSIÈRE (1913), LABOISSIÈRE (1925) (catalogue), WINKLER (1930) (catalogue).

*Luperus pravei*: MEDVEDEV (1965) (key), BIEŃKOVSKI (1999) (key), BIEŃKOVSKI (2004) (key).

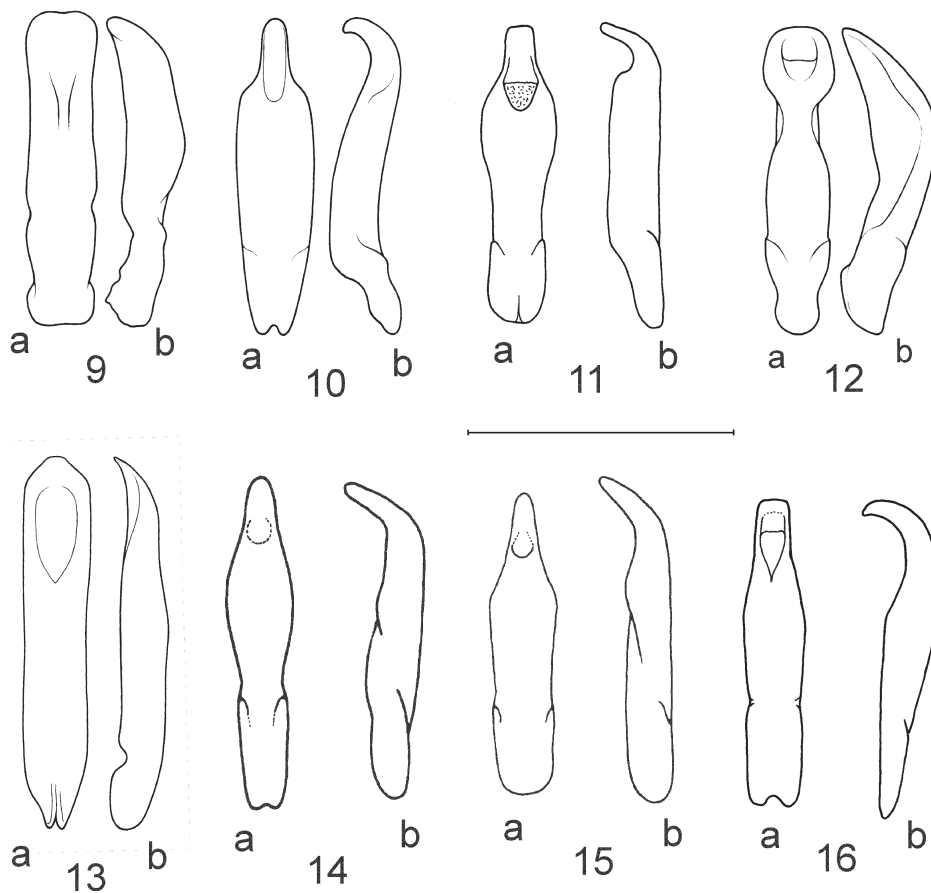
*Nymphius pravei*: WILCOX (1973) (catalogue), FOGATO (1981) (designation of neotype), WARCHALOWSKI (2003) (key), LOPATIN et al. (2004) (catalogue).

**Type locality.** Originally described from ‘Caucasus sept.-occid.: districtus Ejskensis provinciae Kubanensis, qui situs est ad mare Maeoticum’ [= Yeysk, Krasnodarskiy Kray, Russia] (JACOBSON 1899). Due to the neotype designation by FOGATO (1981), the type locality is replaced by ‘Askania Nova Dniepr. U. Tavr. G.’ [= Askania Nova Biosphere Reserve, Kherson Oblast, Ukraine].

**Type material.** Not examined. The original type material is lost. The neotype was designated by FOGATO (1981) and is deposited in the Zoological Museum of the Academy of Sciences in St. Petersburg (Russia).

**Additional material examined** (4 spec.). **RUSSIA:** VOLGOGRADSKAYA obl., Sarepta, without date, 1 ♂, Merkel leg. (ZMHB); same locality, 1 ♂ 1 ♀, Bodemeyer leg. (ZMHB). STAVROPOLSKIY kray, Stavropol, without additional data, 1 spec. (ZMHB).

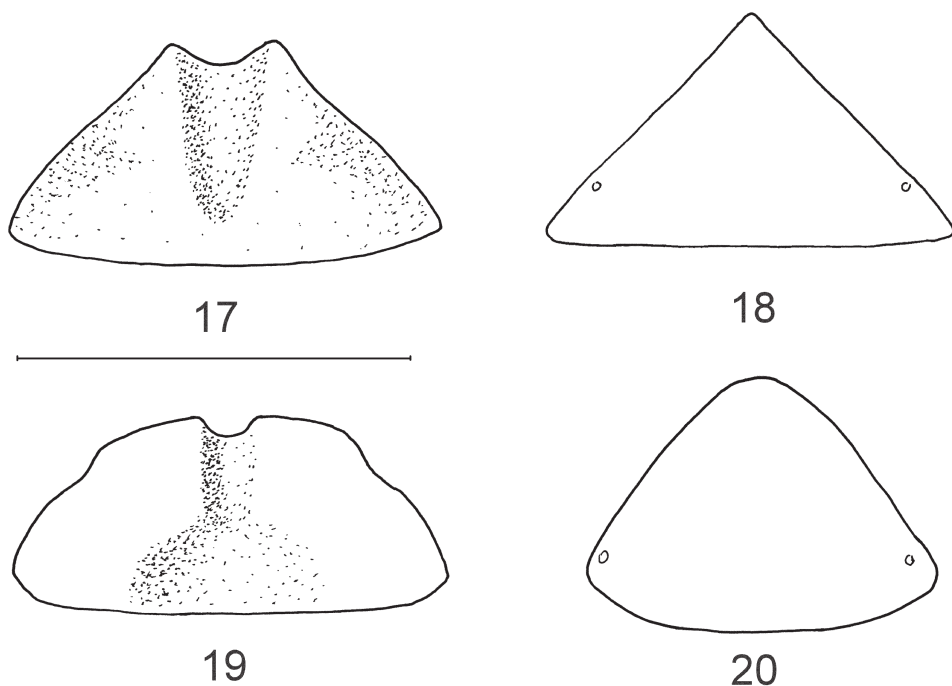
**Distribution.** Ukraine (FOGATO 1981, OGLOBLIN 1936), Russia: Krasnodarskiy Kray (JACOBSON 1899, OGLOBLIN 1936), Volgogradskaya obl. (LABOISSIÈRE 1913, OGLOBLIN 1936), Rostovskaya obl. (OGLOBLIN 1936), Astrakhanskaya obl. (OGLOBLIN 1936), Samarskaya obl. (OGLOBLIN 1936). In various catalogues and keys listed also from Caucasus (WEISE 1924, LABOISSIÈRE 1925, WINKLER 1930, WILCOX 1973, BIEŃKOVSKI 2004) and North-east Kazakhstan (LOPATIN 1977; LOPATIN & KULENOVA 1986; BIEŃKOVSKI 1999, 2004; WARCHAŁOWSKI 2003; LOPATIN et al. 2004).



Figs. 9-16. Aedeagus (a – dorsal view; b – lateral view). 9 – *Nymphius ensifer* (Guillebeau, 1891); 10 – *N. forcipifer* (Weise, 1900); 11 – *N. gianassoi* sp. nov.; 12 – *N. lydius* (Weise, 1886); 13 – *N. pravei* (Jacobson, 1899); 14 – *N. stylifer stylifer* (Weise, 1899); 15 – *N. stylifer ogloblini* (Bogachev, 1947); 16 – *N. stylifer kadleci* ssp. nov. Scale: 1 mm for Figs. 11, 14-16; Figs. 9-10, 12-13 redrawn from FOGATO (1981).

*Nymphius stylifer stylifer* (Weise, 1899)

(Figs. 6, 14)

*Lyperus lydius* (misidentification): JACOBSON (1899).*Luperus stylifer* Weise, 1899: 380 (new name for *L. lydius* sensu JACOBSON (1899)).*Luperus (Nymphius) stylifer*: LABOISSIÈRE (1913) (treated as nomen nudum under *N. lydius*), WEISE (1924) (catalogue), WINKLER (1930) (catalogue, as synonym of *N. lydius*), LABOISSIÈRE (1925) (catalogue, as synonym of *N. lydius*).*Luperus (Luperus) stylifer*: OGLOBLIN (1936).*Luperus stylifer*: LOPATIN & KONSTANTINOV (1991), LOPATIN & KONSTANTINOV (1995), MIRZOEVA (2001).*Luperus stilifer* [sic!]: BORUMAND (1999).*Nymphius stylifer*: WILCOX (1973) (catalogue), FOGATO (1981), ASLAN (1998), ASLAN & WARCHALOWSKI (1998), ASLAN et al. (2000), WARCHALOWSKI (2003) (key), LOPATIN et al. (2004) (catalogue).*Nymphius stylifer stylifer*: BEZDĚK (2007).**Type locality.** Originally not stated (WEISE 1899). The lectotype designated by FOGATO (1981) is a male without a locality label, thus the type locality is defined by the locality of the female paralectotype as 'Cauc. Dorotschitschak' [= ?] (FOGATO 1981).**Type material.** Not examined. The lectotype and the paralectotype were designated by FOGATO (1981) and are deposited in the Zoological Museum of the Academy of Sciences in St. Petersburg (Russia).**Additional material examined** (3 spec.). **ARMENIA:** ABOVYAN distr., Arzni, 1600 m a.s.l., 29.v.1973, 1 ♂, A. Svozil leg. (JBBC). **IRAN:** AZARBAYJAN-E GHARBI prov., Serou env., NW Orumiye, 37°39'N 44°45'E, 1800 m a.s.l., 9.vi.2000, 1 ♀, S. Kadlec leg. (FKLC). **TURKEY:** VAN prov., Gevas, 29.vi.1993, 1 ♀, T. Růžicka leg. (JBBC).

Figs. 17-20. 17-18 – *Nymphius gianassoi* sp. nov. (female). 17 – last ventrite; 18 – pygidium. 19-20 – *N. stylifer kadleci* ssp. nov. (female). 19 – last ventrite; 20 – pygidium. Scale: 1 mm.

**Distribution.** Turkey (ASLAN 1998, ASLAN & WARCHAŁOWSKI 1998, BEZDĚK 2007), Armenia (FOGATO 1981; LOPATIN & KONSTANTINOV 1991, 1995; BEZDĚK 2007), Georgia (OGLOBLIN 1936, FOGATO 1981), Azerbaijan (LOPATIN & KONSTANTINOV 1991, 1995; MIRZOEVA 2001) and western Iran (BEZDĚK 2007). The record from the Iranian province of Esfahan (BORUMAND 1999) could refer to *Nymphius stylifer ogloblini*.

*Nymphius stylifer kadleci* ssp. nov.

(Figs. 8, 16, 19–20)

**Type material.** See above.

**Distribution.** Turkey, Muş province (this paper).

*Nymphius stylifer ogloblini* (Bogachev, 1947)

(Figs. 7, 15)

*Luperus* (*Nymphius*) *ogloblini* Bogachev, 1947: 16.

*Luperus* (*Nymphius*) *ogloblini*: BOGACHEV (1948) (duplicate description).

*Nymphius ogloblini*: WILCOX (1973) (catalogue), FOGATO (1981), LOPATIN et al. (2004) (catalogue).

*Nymphius stylifer ogloblini*: BEZDĚK (2007).

**Type locality.** ‘Kordéstan (Iran)’.

**Type material.** Not examined. According to BOGACHEV (1948) the type material is deposited in the Zoological Institute of the Azerbaijan Academy of Sciences in Baku, Azerbaijan.

**Additional material examined** (86 spec.). **ARMENIA:** ARARAT distr., Khosrov reserve, 3.-18.vi.2003, 14 ♂♂ 33 ♀♀, J. Voříšek & Z. Košťál leg. (JBBC, JVJC, FKLC); same locality, 7.-10.vi.2001, 3 ♂♂ 2 ♀♀, M. Kalashian leg. (JBBC); 6 km S of Shaghap, 31.v.2002, 4 ♀♀, M. Kalashian leg. (JBBC). MEGRI distr., Zangezur Mts., 6 km N of Litchk, 11.-14.vi.2003, 1 ♂ 1 ♀, J. Voříšek & Z. Košťál leg. (JBBC, JVJC). SYUNIK prov., Sisian (Ughedzor) pass, 2300 m a.s.l., 10.vi.2003, 1 ♂, M. Kalashian leg. (JBBC). VAYOTSDZOR prov., 10 km E of Vayk, 15.vi.2003, 1 ♀, M. Kalashian leg. (JBBC); 3 km E of Areni, 15.vi.2003, 2 ♂♂ 4 ♀♀, M. Kalashian leg. (JBBC). GARNI prov., Gocht, Azat river valley, 1600 m a.s.l., 6.vi.1989, 1 ♀, E. Strejčková leg. (JSPC); same locality, 15.vi.1988, 1 ♀, J. Strejček leg. (JSPC). JEREVAN distr., Jerevan, Geghardt, 2000 m a.s.l., 22.vi.1979, 1 ♂ 8 ♀♀, V. Švihla leg. (JSPC). **IRAN:** AZARBAYJAN-E GHARBI prov., 20 km W Hoy, 38°40'N 44°39'E, 960 m a.s.l., 6.vi.2000, 1 ♂ 2 ♀♀, E. & P. Hajdaj leg. (FKLC); 33 km W Mahabad, 1700 m a.s.l., 14.v.2002, 1 ♂, G. Sama leg. (JBBC). QAZVIN prov., Hasan Sabbah Castle (streamlet valley), 2075 m a.s.l., 36°27.0'N 50°34.9'E, 13.v.2006, 1 ♂ 2 ♀♀, J. Hájek & P. Chvojka leg. (NMPC); 3 km NE of Razjerd, ‘Pardis garden’ (stream valley, at light), 1630 m a.s.l., 36°20.5'N 50°10.3'E, 13.v.2006, 1 ♂, J. Hájek & P. Chvojka leg. (NMPC). **TURKEY:** HAKKARI prov., Daglica, 4.vi.1987, 1 ♂, Schönnmann & Schillhammer leg. (JBBC).

**Distribution.** Armenia (BEZDĚK 2007, this paper), Iran (BOGACHEV 1947, 1948; BEZDĚK 2007; this paper), Turkey (this paper). LOPATIN et al. (2004) listed *N. stylifer ogloblini* also from northern Turkey but his record could refer to *N. stylifer stylifer*.

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