

Genus	Vol. 22(2): 241-249	Wrocław, 31 VII 2011
-------	---------------------	----------------------

Two new species and new records of the genus *Nanophthalmus*
MOTSCHULSKY, 1851
(Coleoptera: Staphylinidae: Scydmaeninae)

MIROSLAV STEVANOVIĆ
Obrenovićeve 21/4, 18000 Niš, Serbia, e-mail: mikicsn@open.telekom.rs

ABSTRACT. Two new anophthalmous species of the genus *Nanophthalmus* MOTSCHULSKY, 1851 from Turkey: *N. amplus* sp. n. and *N. assingi* sp. n. are described and the aedeagi are illustrated. *Nanophthalmus rotundicollis* (REITTER, 1882) is redescribed, lectotype is designated and the diagnostic characters are illustrated. New records are given for *N. robustus* ROUBAL, 1913, *N. turcicus* REITTER, 1894 and *N. bulgaricus* STEVANOVIĆ, 2009. Illustration of the aedeagus of *N. robustus* ROUBAL, 1913 is given for the first time.

Key words: entomology, taxonomy, Coleoptera, Staphylinidae, Scydmaeninae, Cephenniini, *Nanophthalmus*, new species, redescription, Turkey, Bulgaria, Greece, Caucasus.

INTRODUCTION

The genus *Nanophthalmus* MOTSCHULSKY, 1851 belongs to the tribe Cephenniini and so far ten species have been recorded from the western Palaearctic region (NEWTON & FRANZ 1998; BESUCHET & VÍT 2000; VÍT & BESUCHET 2004; STEVANOVIĆ 2009). *Nanophthalmus rotundicollis* (REITTER, 1882) from Caucasus and Azerbaijan has not been studied since its description.

New records are given for *N. robustus* ROUBAL, 1913, *N. turcicus* REITTER, 1894 and *N. bulgaricus* STEVANOVIĆ, 2009. Examination of the material collected by Volker ASSING and Michael SCHÜLKE in Turkey provided another two new species of the genus which are described here below.

MATERIAL AND METHODS

The material used in this study are deposited in the following collections:

HNHM - Hungarian Natural History Museum, Budapest, Hungary

NMNH - National Museum of Natural History, Sofia, Bulgaria

CHMG - private collection of Heinrich Meybohm, Großhansdorf, Germany

CMSN - author's private collection, Niš, Serbia

The measurements are as follows: body length is a sum of lengths of the head, pronotum and elytra measured separately; length of head was measured from a hypothetical line joining posterior margins of occiput to anterior margin of frontoclypeal area; width of head is maximum; length of antennae was measured in ventral view; length of pronotum was measured along mid-line; width of pronotum is maximum; length of elytra was measured along suture, from a hypothetical line joining the humeral denticles to the apex; width of elytra is the maximum combined width; elytral index (EI) is length divided by width; length of aedeagus was measured from base to apex. All measurements are given in millimeters.

***Nanophthalmus bulgaricus* STEVANOVIĆ, 2009**

MATERIAL STUDIED. (2♂♂): BULGARIA: "BG, Mts. Belasitsa, Kluch vill, 400 m, 29.03.2009, 1♂, leg. R. Bekchiev". GREECE: "GR, Makedonien, Bez. Drama, Umgeb. Makros, 12. 5. 1982, 1♂, leg. Brachat". (CMSN, NMNH).

DISTRIBUTION. Bulgaria. New species to Greece.

***Nanophthalmus robustus* ROUBAL, 1913**

(Fig.1)

MATERIAL STUDIED. (2♂♂, 2♀♀): RUSSIA: "Russia, Krasnodar terr., Aibga range, vill. Krasnaya Polyana env., 1000 m, 15. VIII, '94., 1♂, 2♀♀, leg. Solodovnikov"; "N-W. Kavkaz, Lagokaki, 10 km SW Dahov, 600-700 m, 1♂, 26 VIII '94., leg. A. Solodovnikov". (CMSN).

DISTRIBUTION. West-Southern Russia.

***Nanophthalmus rotundicollis* (REITTER, 1882)**

(Figs. 2-4)

MATERIAL STUDIED

Lectotype, (here designated) (♂): "Kaukas, Leder / Holotypus, *Cephennium rotundicolle* Reitter, 1881 / *Nanophthalmus rotundicollis* Reitt. / *rotundicollis* Rtt., Cl. Besuchet, det. III 1957." / "LECTOTYPUS, *Nanophthalmus rotundicollis* (Reitter, 1882), des. M. Stevanović, 2011" [red, printed] (HNHM).

DIAGNOSIS

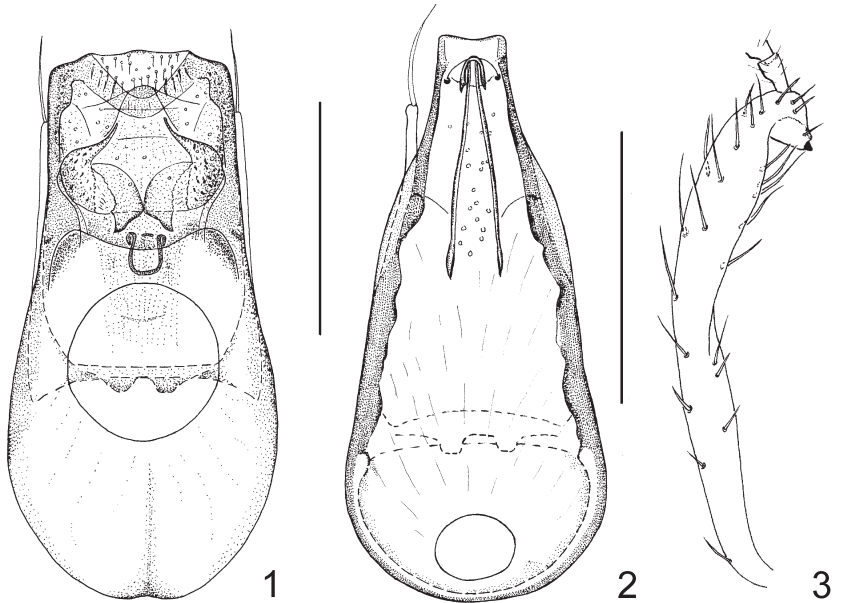
Punctuation on frontoclypeal region and vertex are very fine and sparse; antennomere IX ovoid, 1.2 times as broad as long; pronotum nearly semicircular; apices of elytra almost straight; metaventrite with shallow oval median impression; protibiae narrowed in middle and widened in distal part, strongly curved ventrally.

REDESCRIPTION

Male. Body length 1.4 mm, moderately convex, reddish-brown, tarsi and mouth parts lighter, mandibles dark-brown with black apices, setation yellowish.

Head widest in middle; length 0.18 mm, width 0.25 mm; labrum moderately small, transverse; mandibles short; frontoclypeal region relatively long, subtrapezoidal, slightly convex; vertex flat; supraantennal tubercles slightly raised; genae impressed with semi-elliptical edge directed towards postgenae. Punctuation on frontoclypeal region and vertex very fine and sparse; setation moderately long, sparse, suberect to erect. It has no eyes. Length of antennae 0.50 mm; pedicel subcylindrical, 1.2 times as long as broad, antennomeres III-V subcylindrical, 1.2 times as long as broad, VI very slightly longer than broad, VII-VIII nearly spherical, IX ovoid, 1.2 times as broad as long, X transverse, 1.2 times as broad as long, XI subconical, 1.2 times as long as broad.

Pronotum nearly semicircular, moderately convex, widest at middle, length 0.44 mm, width 0.52 mm, anterior margin weakly rounded, sides strongly rounded, posterior margin distinctly arcuate. Lateral carinae well-marked, posterior corners obtuse.



1, 2. Aedeagus, ventral aspect: 1—*Nanophthalmus robustus*; 2—*Nanophthalmus rotundicollis*; 3. *Nanophthalmus rotundicollis*, left protibia; scale bar: 0.20 mm

Puncturation very fine, moderately sparse, composed of small and shallow punctures, distance between punctures 1.5–3 times of their diameter; setation moderately long, sparse, suberect to erect.

Elytra oval, elongate, moderately convex, length 0.77 mm, width 0.59 mm, EI 1.30; widest in basal third; apices of elytra almost straight. Each elytron with moderately small, single basal fovea located closer to humerus than to scutellum. Puncturation relatively fine, punctures moderately large and shallow, distance between punctures 1.5–4 times of their diameter. Setation moderately long, suberect to erect. Scutellum subtriangular.

Metaventricle with shallow oval median impression, weakly punctured, with short and sparse setation.

Legs moderately long and slender; protibiae (Fig. 3) narrowed in middle and widened in distal part, strongly curved ventrally, with short erect setae; meso- and metatibiae slightly widened in basal third, with short, dense suberect setae.

Aedeagus as in Fig. 2, length 0.41 mm.

DISTRIBUTION

Caucasus and Azerbaijan.

REMARKS

REITTER's original description for the species gave two different localities "Caucasus, Caspische Gebiet: Lenkoran" and did not mention the number of examined specimens. The holotype was not designated and the number of syntypes is unknown. The holotype label associated to the studied specimen is due to a much later routine of collective relabelling of REITTER's collection, which was practised at the Budapest Museum (VÍT & HLAVÁČ 1998: 142). The lectotype is designated here to provide a unique bearer of the species name.



4. *Nanophthalmus rotundicollis*, original labels of the lectotype

Nanophthalmus turcicus REITTER, 1894

MATERIAL STUDIED. (3♂♂, 1♀): TURKEY: "TR., Strandzha Mts., Demirköy env., 06.07.2009, leg. R. Bekchiev." (CMSN, NMNH).

DISTRIBUTION. European part of Turkey.

Nanophthalmus amplus sp. n.

(Fig. 5)

ETYMOLOGY

The name „*amplus*” (in Latin „large, big“) refers to the large body of the species.

MATERIAL STUDIED

(1♂, 2♀♀): **Holotype**, ♂: TURKEY: "TR [11]-Gümüşhane, ca. 50 km SW Trabzon, NE Kürtün, 1430 m, 40°43'42"N, 39°12'54"E, 27.VII 2006, leg. V. Assing" [white, printed] / HOLOTYPUS *Nanophthalmus amplus* sp. n., det. M. Stevanović, 2010" [red, printed] (CMSN). **Paratypes**: 2♀♀, same date as the holotype. All paratypes are bearing the following label: "PARATYPUS, *Nanophthalmus amplus* sp. n., det. M. Stevanović, 2010" [red, printed] (CMSN, CHMG).

DIAGNOSIS

Body large; frontoclypeal region and vertex with sparse, moderately stout and shallow punctures; pronotum nearly semicircular; in males metaventricle with shallow median impression trapezoid in shape and protibiae moderately widened, apically with pair of very small granules.

DESCRIPTION

Male. Body large, length 1.54 mm, moderately convex, reddish-brown, tarsi and mouth parts lighter, mandibles dark-brown with black apices, setation yellowish.

Head large, widest in middle; length 0.22 mm, width 0.30 mm; labrum moderately small, transverse; mandibles moderately large; frontoclypeal region long, subtrapezoidal, slightly convex; vertex flat; supraantennal tubercles slightly raised; genae impressed with strongly raised edge directed towards postgenae. Frontoclypeal region and vertex with sparse, moderately stout and shallow punctures; setation moderately long, very sparse, suberect. It has no eyes. Length of antennae 0.63 mm; pedicel subcylindrical, 1.3 times as long as broad; antennomeres III-V subcylindrical, 1.2 times as long as broad; VI-VIII nearly spherical; IX subconical, 1.1 times as broad as long; X transverse, 1.2 times as broad as long; XI subconical, 1.4 times as long as broad.

Pronotum nearly semicircular, moderately convex, widest at middle, length 0.46 mm, width 0.55 mm, anterior margin weakly rounded, posterior margin weakly bisinuate. Lateral carinae well-marked, microserrate, posterior corners obtuse. Puncturation very fine, sparse, composed of small and shallow punctures, distance between punctures 3-5 times of their diameter; setation moderately long, sparse, suberect to erect.

Elytra oval, elongate, moderately convex, length 0.86 mm, width 0.63 mm, EI 1.36; widest in basal third; apices separately rounded. Each elytron with moderately small, single basal fovea located closer to scutellum than to humerus. Puncturation relatively fine, punctures moderately stout and shallow, distance between punctures 2.5–4 times of their diameter. Setation moderately long, suberect to erect. Scutellum subtriangular, with punctures.

Metaventricle with shallow median impression trapezoid in shape, sparsely punctured, with moderately long and very sparse setation.

Legs moderately long and slender; protibiae moderately widened, apically with pair of very small granules, moderately curved ventrally, with short erect setae; mesotibiae and metatibiae slightly widened in basal third, with short, dense suberect setae.

Aedeagus as in Fig. 5, length 0.58 mm.

Female. Very similar to the male, except for pedicel which is 1.5 times as long as broad; legs weakly expanded apically; metaventricle moderately convex; body length 1.49–1.50; head length 0.18–0.19 mm, width 0.28–0.29 mm; length of antennae 0.59–0.60 mm; pronotum length 0.45–0.46 mm, width 0.54–0.56 mm; length of elytra 0.85–0.86 mm, width of elytra 0.62–0.63 mm; EI 1.36–0.1.37.

DISTRIBUTION

So far known only from the type locality in Turkey.

REMARKS

The new species' body shape is similar to *N. assingi*, but it can be distinguished from this species by the following combination of characters: 1) body is longer, 2) much longer antennae, 3) longer and wider elytra, 4) metaventricle with shallow median impression trapezoid in shape and 5) by the different structure of the aedeagus.

Nanophthalmus assingi sp. n.

(Fig. 6, 7)

ETYMOLOGY

Species dedicated to Dr. Volker ASSING, the collector of the species.

MATERIAL STUDIED

(3♂♂, 4♀♀): **Holotype**, ♂: TURKEY: "TR [28]-Rize, 25 km ESE Rize, S Kaptanpaşa, mixed forest, 690 m, 40°56'56"N, 40°46'30"E, 2. VIII 2006, leg. V. Assing" [white, printed] / HOLOTYPUS, *Nanophthalmus assingi* sp. n., det. M. Stevanović, 2010" [red, printed] (CMSN). **Paratypes**: (2♂♂, 4♀♀): TURKEY: "TR [23]-Giresun, ca. 30 km S Giresun, 830 m, beech & hazelnut forest, 40°39'01"N, 38°27'08"E, 28. VII 2006, 1♂, leg. M. Schülke" [white, printed]; "TR [28]-Rize, 25 km ESE Rize, S Kaptanpaşa, mixed forest, 690 m, 40°56'56"N, 40°46'30"E, 2. VIII 2006, 1♂, 3♀♀, leg. V. Assing" [white, printed]; "TR [33]-Rize, 40 km S Ardeşen Çat, 1240

m, *Alnus* forest, 40°51'44"N, 40°56'25"E, 3. VIII 2006, 1♀, leg. M. Schülke" [white, printed]. All paratypes are bearing the following label: "PARATYPUS, *Nanophthalmus assingi* sp. n., det. M. Stevanović, 2010" [red, printed]. (CMSN, CHMG).

DIAGNOSIS

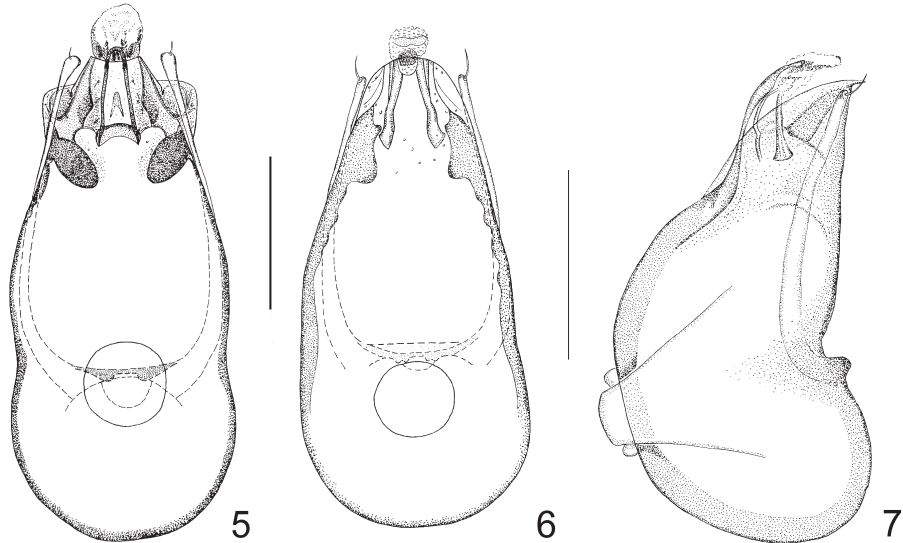
Frontoclypeal region lacking puncturation, puncturation of vertex very fine and sparse; pronotum nearly semicircular; metaventrite in middle very strongly trapezoidally impressed in males.

DESCRIPTION

Male. Body length 1.42-1.47 mm, moderately convex, reddish-brown, tarsi and mouth parts lighter, mandibles dark-brown with black apices, setation yellowish.

Head large, widest in middle; length 0.20-0.21 mm, width 0.27-0.29 mm; labrum moderately small, transverse; mandibles short; frontoclypeal region relatively long, subtrapezoidal, slightly convex; vertex flat; supraantennal tubercles slightly raised; genae strongly impressed with raised subrectangular edge directed towards postgenae. Frontoclypeal region lacking puncturation, puncturation of vertex very fine and sparse; setation moderately long, sparse, suberect to erect. It has no eyes. Length of antennae 0.54-0.55 mm; pedicel subcylindrical and 1.2 times as long as broad; antennomeres III-V subcylindrical, 1.1 times as long as broad; VI-VIII nearly spherical; IX 1.2 times as broad as long; X transverse, 1.1 times as broad as long; XI subconical, 1.2 times as long as broad.

Pronotum nearly semicircular, moderately convex, widest at middle, length 0.42-0.45 mm, width 0.50-0.53 mm, with strongly rounded anterior margin, posterior



5, 6. Aedeagus, ventral aspect: 5 – *Nanophthalmus amplus* sp. n.; 6 – *Nanophthalmus assingi* sp. n.; 7. *Nanophthalmus assingi* sp. n., aedeagus, lateral aspect; scale bar: 0.20 mm

margin weakly arcuate. Lateral carina well-marked, finely microserrate, posterior corners obtuse. Puncturation fine, sparse, composed of small and shallow punctures, distance between punctures 2–4 times of their diameter; setation moderately long, sparse, suberect to erect.

Elytra oval, elongate, moderately convex, length 0.80-0.81 mm, width 0.58-0.60 mm, EI 1.35-1.38; widest in basal third; apices separately rounded. Each elytron with small, single basal fovea located in middle between humerus and scutellum. Puncturation relatively fine, punctures shallow, distance between punctures 2–5 times of their diameter. Setation moderately long, suberect to erect, sparse. Scutellum subtriangular.

Metaventricle in middle very strongly trapezoidally impressed, moderately punctured, with moderately long setation.

Legs moderately long and slender; protibiae widened apically, moderately curved ventrally, with short erect setae; mesotibiae and metatibiae slightly widened in basal third, with short, dense suberect setae.

Aedeagus as in Figs. 6-7, length 0.48-0.50 mm.

Female. Very similar to male, except for antennomere IX which is 1.1 times as broad as long; legs weakly expanded at apex; metaventricle moderately convex; body length 1.45-1.49; head length 0.19-0.21 mm, width 0.28-0.29 mm; length of antennae 0.56-0.58 mm; pronotum length 0.43-0.44 mm, width 0.53-0.54 mm; length of elytra 0.83-0.84 mm, width of elytra 0.62-0.63 mm; EI 1.33-0.1.34.

DISTRIBUTION

So far known only from the type locality in Turkey.

REMARKS

The new species' body shape is similar to *N. armeniacus* which is known from Georgia and southern Russia but it can be easily distinguished from this species by the different structure of the aedeagus (see LAZORKO 1962: 313, Fig. 14).

ACKNOWLEDGEMENTS

I express my thanks to Gyorgy MAKRANCZY (HNHM), Dr. Rostislav BEKCHIEV (NMNH) and Heinrich MEYBOHM (CHMG) for sending me the material for this study, to Peter HLAVÁČ (Košice, Slovakia) and Jon COOTER (Hereford, England) for reading and commenting on the manuscript.

The material of *N. turcicus* was collected with the financial help of Bulgarian Ministry of Education and Science (project "Investigation of model epigeobiont and geobiont animal groups as a potential for long-term monitoring and conservation of the biodiversity in Strandzha Mountain (Bulgaria and Turkey)" - 2009 - 2011, D 02-159/16.12.08).

REFERENCES

- BESUCHET, C., VIT, S., 2000. Les *Nanophthalmus* MOTSCHOUJSKY d'Europe (Coleoptera, Scydmaenidae). Rev. Suisse Zool., **107**(1): 153-163.
- HLAVÁČ, P., VIT, S., 1998. Review of *Euconnus* (*Tetramelus*) of the *reitteri* group (Coleoptera: Scydmaenidae). Entomol. Problems, **29**(2): 139-147.
- LAZORKO, W., 1962. Zwei neue *Cephennium*-Arten (Col. Scydmaenidae) mit einer Übersicht der ukrainischen Arten der Tribus Cephenniini. Entomol. Arb. Mus. Frey, **13**(2): 273-320.
- MOTSCHULSKY, V. de, 1851. Énumération des nouvelles espèces de Coléoptères II. Bull. Soc. Imp. Nat. Moscou, **24**(2): 479-511.
- NEWTON, A. F., FRANZ, H., 1998. World catalog of the genera of Scydmaenidae (Coleoptera). Koleopterol. Rundsch., **68**: 137-165.
- REITTER, E., 1882. Bestimmungs-Tabellen der europäischen Coleopteren. V. Enthaltend die Familien: Paussidae, Clavigeridae, Pselaphidae und Scydmaenidae. Verh. Zool.-Bot. Ges. Wien, **31**(1881): 443-594.
- , Bestimmungs-Tabellen der europäischen Coleopteren. X. Nachtrag zu dem V. Theile, enthaltend: Clavigeridae, Pselaphidae und Scydmaenidae. Verh. Zool.-Bot. Ges. Wien, **34**: 59-94.
- , 1888. Coleopteren aus Circassien, gesammelt von Hans LEDER im Jahre 1887. IX. Theil. Wiener Entomol. Ztg., **7**: 317-321.
- , 1894. Neue Pselaphiden und Scydmaeniden aus der europäischen Türkei. Wiener Entomol. Ztg., **13**: 113-115.
- ROUBAL, J., 1913. Zwei neue paläarktische Coleopteren. Entomol. Mitt., **2**(1): 21-22.
- STEVANOVIĆ, M., 2009. New species of the genus *Nanophthalmus* MOTSCHULSKY, 1851 from Bulgaria (Coleoptera: Staphylinidae: Scydmaeninae). Genus, Wrocław, **20**(3): 399-402.
- VIT, S., BESUCHET, C., 2004. Scydmaenidae: Scydmaeninae, Cephenniini (p.203-206). In: LÖBL, I. & SMETANA, A. (Ed): Catalogue of Palearctic Coleoptera. Vol. 2. Stenstrup, Apollo Books: 942 p.