Entomological Review, Vol. 83, No. 5, 2003, pp. 595–598. Translated from Entomologicheskoe Obozrenie, Vol. 82, No. 4, 2003, pp. 855–859.

Nanomias gen. n., a New Genus of Endogean Weevils of the Subfamily Entiminae (Coleoptera, Curculionidae) from the Mountain Crimea

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Received May 29, 2002

Abstract—The new genus *Nanomias* gen. n. is described for the endogean weevil species *Nanomias terricola* sp. n. from the Crimean mountains.

Four males of a new distinctive weevil species were found by B.A. Korotyaev in the material collected by I.V. Maltsev in the Crimea. The author collected 246 more specimens of this species on the Chatyr-Dagh Range and revealed some features of its ecology.

The holotype and paratypes of the new species are deposited in the collection of the Zoological Institute, Russian Academy of Sciences (St. Petersburg); 2 paratypes, in the Hungarian Museum of Natural History (Budapest).

Genus ***NANOMIAS*** Yunakov, gen. n.

Type species *Nanomias terricola* sp. n.

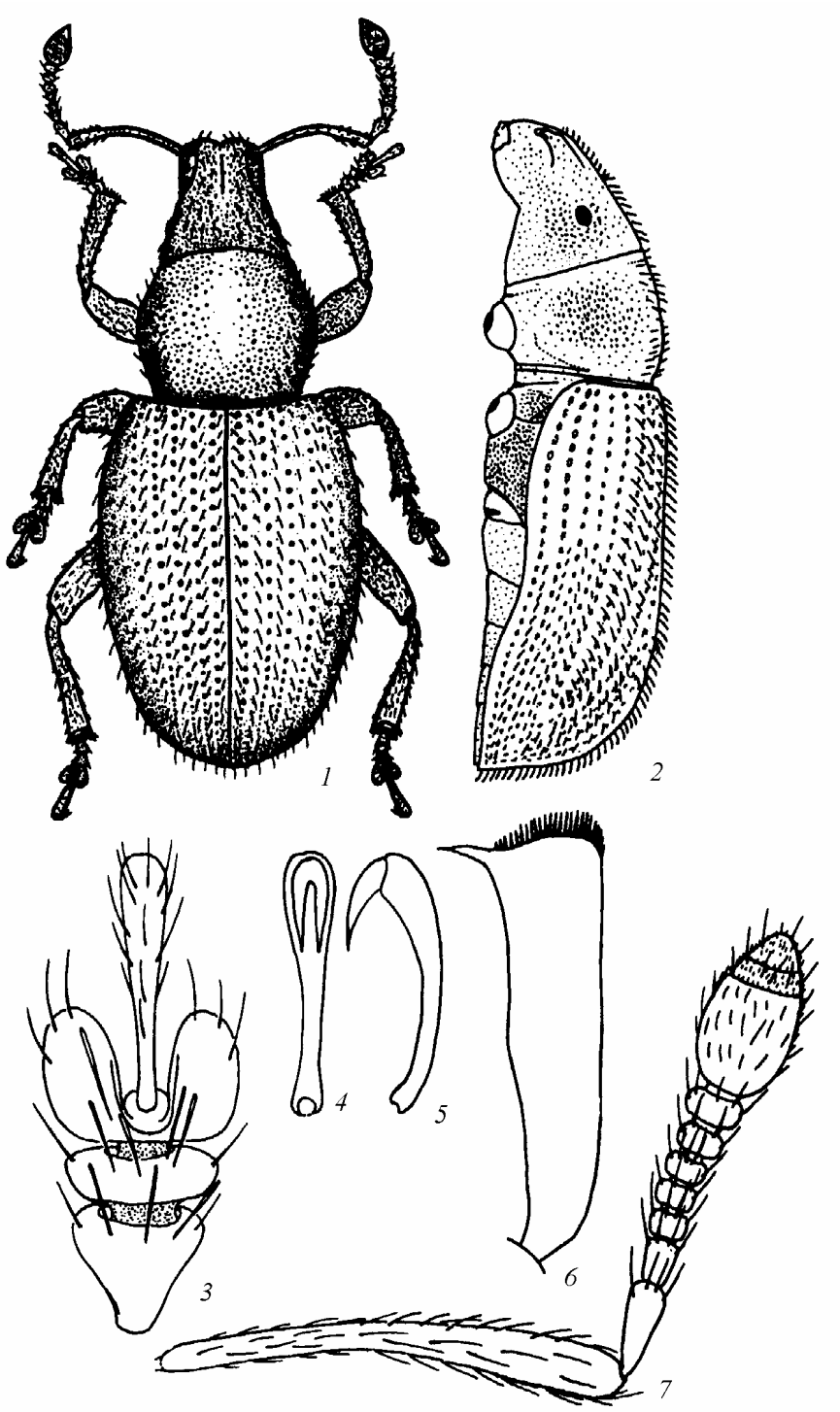
The genus is closely related to *Omiamima* Silfverberg, 1977 (type species *Omias mollinus* Boh.) and differs from it in the very small size; shorter head; rudimentary eyes; depigmented integument; basal elytral margin in the middle steep, forming a flat vertical surface for a closer contact with the prothorax, which makes the articulation harder; short legs; and mucro minute on the fore tibia and very poorly developed on the hind one. The males differ from the females in the smaller body, strongly widened tarsi, and presence of short obtused setae and hardly noticeable fine short hairs, instead of scales, on the elytral interstriae. Beetles of this genus are similar to *Omiamima concinna* (Boheman, 1834) and are among the smallest weevils of the subfamily Entiminae.

Distinctive features of the new genus characterize it as an endogean taxon, derivate of *Omiamima.* The structure of the elytral base and legs is an adaptation to inhabiting narrow soil cavities.

The beetles live among cereal roots at a depth of 15–20 cm in the cavities under stones sunken in soil. The gregarious rhizo-mycetophagous adults firmly hold on to plant roots by claws, and, apparently, never creep out to surface during the whole life. Together with alive beetles, their remains were found in cavities. Copulation was observed in late May–mid-June.

Nanomias terricola Yunakov, sp. n. (Figs. 1–11)

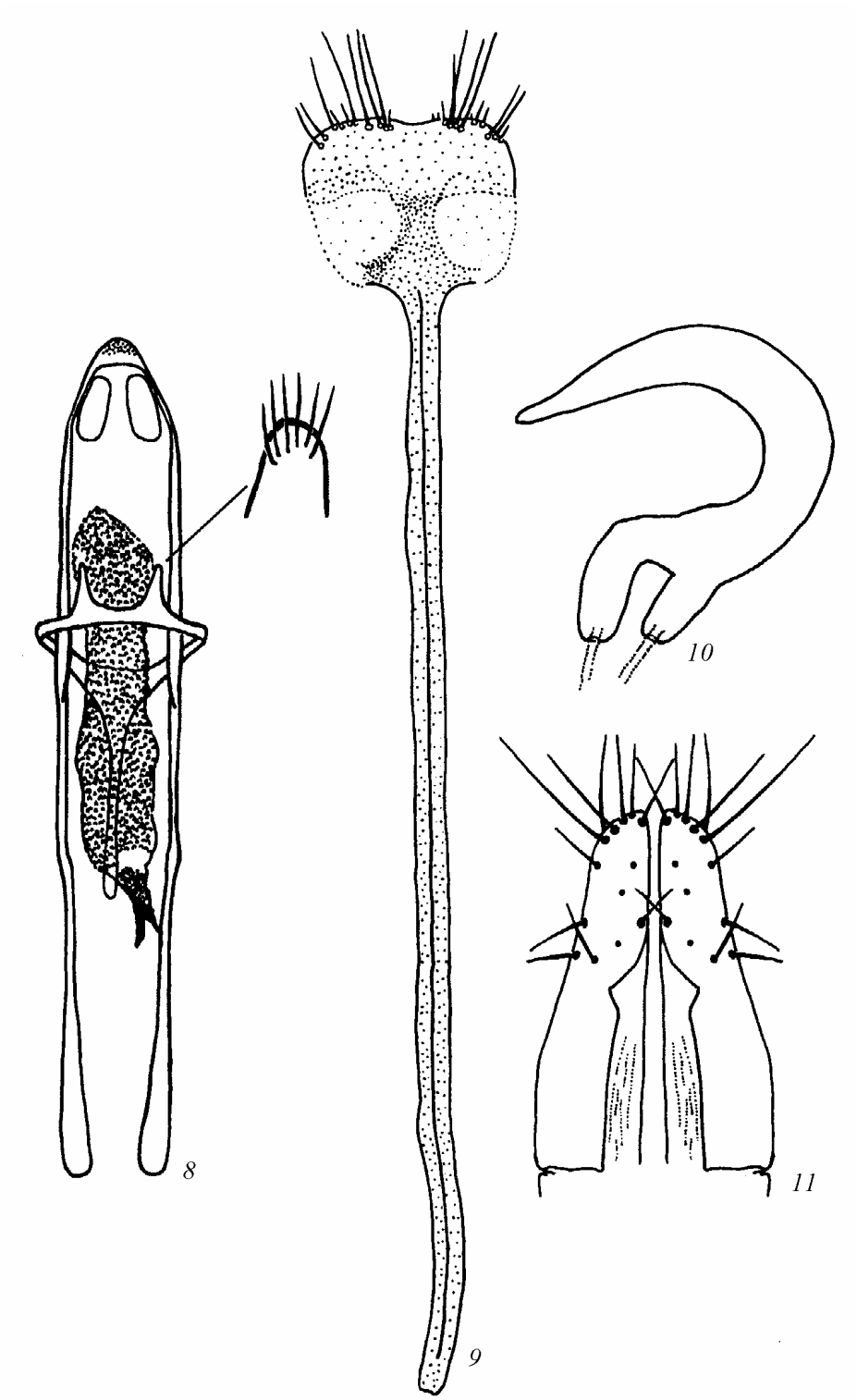
Description. Male. Rostrum very wide; longer than, or as long as wide; uniformly narrowed to apex; forming common cone with head capsule. Pterygia not projecting beyond contour of rostrum; antennal sockets visible in dorsal view; antennal scrobes smoothened and nearly invisible in lateral view. Rostral dorsum flat, occasionally shallowly longitudinally depressed in middle part, weakly narrowed forwards, parallel-sided behind antennal bases, slightly widened in apical third, half covering antennal bases, half as wide at the narrowest place as frons and not covering antennal fossae, distinctly separated from sides along nearly entire length, uniformly sloping at apex, forming no carina along epistomal emargination. Eyes widely oval, very small, symmetrically and weakly convex. Temples long, twice as long as longitudinal diameter of eye. Frons leveling with basal half of rostrum. Surface of head uniformly finely densely punctate. Antennal scape extending slightly beyond anterior margin of pronotum, rather thick, uniformly curved, distinctly thickened from middle to apex. Funicle weakly thickened to apex; 1st and 2nd funicular segments twice as long as wide, larger than other segments, 2nd about 0.7 times as long as 1st; 3rd cylindrical, as long as wide; other segments wider than long;



Figs. 1–7. *Nanomias terricola* gen. et sp. n.: (*1*) general view from above; (*2*) body, lateral view; (*3*) tarsus, dorsal view; (*4*, *5*) claw-segment of tarsus, ventral (*4*) and lateral (*5*) view; (*6*) right fore tibia, dorsal view; (*7*) right antenna.

7th segment widest. Club ovate, 1.75 times as wide as 7th funicular segment. Pubescence of funicle consisting of very fine, pale, weakly raised hairs.

Pronotum 1.25–1.4 times as wide as long, strongly roundly uniformly convex at sides, widest in middle. Basal constriction well visible at sides, situated closely to base; apical constriction inconspicuous, distant from margin. Disc flat, with fine sparse shallow punctures and longitudinal shining impunctate stripe in middle. Sides of pronotum with noticeably denser



Figs. 8–11. *Nanomias terricola* gen. et sp. n.: (*8*) aedeagus, dorsal view; (*9*) spiculum ventrale, dorsal view; (*10*) spermatheca; (*11*) ovipositor.

punctures as large and dense as those on head. Scutellum inconspicuous.

Elytra oblong-ovate, nearly parallel-sided, weakly narrowed to base and strongly narrowed to apex, widest in middle, 1.4–1.5 times as long as wide. Disc nearly flat in longitudinal direction and weakly convex in cross-section. Striae fine, shallow; interstriae on disc twice as wide as striae, slightly convex and

weakly shining. Epipleural margin weakly S-curved at the level of ventrites I and II.

Femora thick, without tooth. Tibiae wide; fore tibia with straight outer margin, not widened outwards at apex, with moderately bisinuate inner margin and not attenuate inner apical angle bearing long thick mucro. Middle and hind tibiae roundly widened outwards at apex; their outer margin straight; inner margin shallowly emarginate in apical half; mucro inconspicuous. Fore tibia with row of narrow pale spines along apical margin. First segment of tarsi triangular, as long as wide; 2nd segment much wider than long; 3rd 2.5 times as long, and 1.16 times as wide as 2nd; claw-segment very long and narrow, nearly as long as preceding segments combined, its part projecting from lobes of 3rd segment 1.4 times as long as the latter. Claws fused only at base, strongly deflexed to ventral side of segment. Sole surface with dense tufts of long pale setae. Anal ventrite without depression.

Aedeagus weakly sclerotized; ventral wall of penis almost entirely membranous, weakly sclerotized only in apical third. Ligulae nearly membranous. Apophyses slightly longer than penis. Walls of endophallus with minute weakly tapered spicules. Basal sclerite small, spiculiform. Parameres short.

Female. Antennae slightly shorter than those in male; scape only reaching anterior margin of pronotum. Femora slightly more slender, tibiae slightly narrower, and tarsi significantly narrower than those in male. Body usually noticeably larger than that in male.

Spermatheca with well-developed, strongly approximate collum and ramus. Valves of ovipositor weakly sclerotized, with long sensilla in apical third; styli missing. Manubrium of spiculum ventrale weakly sclerotized; caput absent; lamella weakly sclerotized, nearly membranous; its apical margin nearly straight and shallowly depressed in middle, with long sensilla at sides of depression.

Integument depigmented. Body pale brown, yellow in young individuals. Dorsal side with very fine short pale recumbent hairs visible only at great magnification and with long narrow pale erect setae blunted apically and forming regular rows on elytral interstriae. Length of setae about equal to width of interstriae. Ventral side shining, with very fine pale recumbent hairs.

Body length measured from anterior margin of pronotum to elytral apex 1.5–1.95 mm; width 0.75–0.95 mm; in holotype, 1.9 mm and 0.95 mm, respectively.

Material. Holotype ♂: Crimea, Chatyr-Dagh Range, Nizhnee Plateau, right board of Orlinoe Canyon, xerophytic slope dominated by grasses, on roots under deeply sunken stones, 16.VI.2001 (N.N. Yunakov). Paratypes: 4 ♂, 11 ♀, as holotype; same locality, under stones, 23.VI.1975 (A. Semik); 4 ♂, 27.V.2000 (N.N. Yunakov); 3 ♂, 2 ♀; 800 m, 20.VI.2003 (K.S. Nadein), 8 ♂, 8 ♀; left board of Orlinoe Canyon, 800 m, 25.VI.2003 (N.N. Yunakov), 39 ♂, 50 ♀; Kurt-Bair Hills, 900 m, 19–20.VI.2003 (N.N. Yunakov), 28 ♂, 29 ♀; northern slope of Nizhnee Plateau, 500 m, 25.VI.2003 (N.N. Yunakov), 12 ♂, 6 ♀; Chatyr-Dagh Range, Srednee Plateau: Kaminnaya Cave, 1000 m, 19.VI.2003 (N.N. Yunakov), 1 ♂; Bin-Bash-Koba Cave, 1000 m, 21, 23, 24.VI.2003 (N.N. Yunakov), 3 ♂, 1 ♀; Verkhnee Plateau: Eklizi-Burun Mt., 1527 m, 24.VI.2003 (N.N. Yunakov), 27 ♂, 34 ♀.

ACKNOWLEDGMENTS

The author thanks I.V. Maltsev (Odessa) for a very interesting material on weevils of the Crimea and I.A. Solodovnikov (Vitebsk), who advised to collect insects in the Orlinoe Canyon of Chatyr-Dagh. The author expresses special gratitude to his supervisor, B.A. Korotyaev, for help in the work on this paper.