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NEIVAMYRMEX NYENSIS, N. SP. (FORMICIDAE: DORYLINAE) FROM NYE COUNTY, NEVADA, U.S.A.

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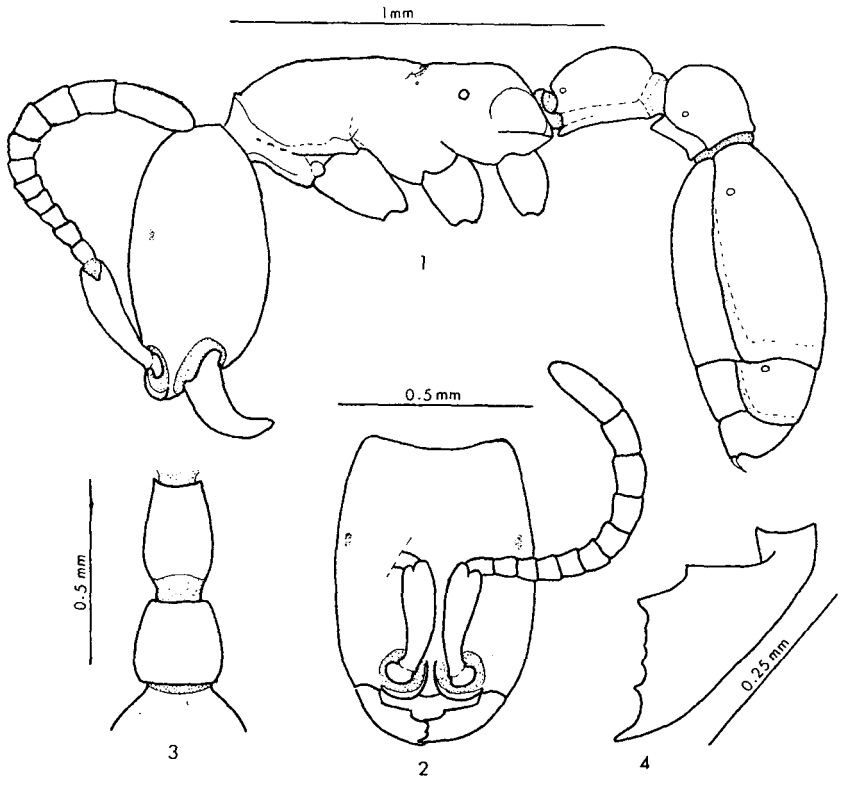
ABSTRACT. *Neivamyrmex nyensis*, n. sp. (Formicidae: Dorylinae) from 5½ miles south and 3 miles east of Beatty, Nye Co., Nevada, U.S.A., 3500 feet, collected 15 May 1970, by G. C. and J. Wheeler is described from the holotype worker. *Neivamyrmex nyensis* is most similar to *N. carettei* (Brazil, Argentina); however, the postpetiole of *N. nyensis* is broader than long while the postpetiole of *N. carettei* is as long or longer than broad; the anteroventral tooth of the petiole is absent from *N. nyensis*, but present on *N. carettei*. The small size (1.7–2.5 mm) may also cause *N. nyensis* to be confused with *N. leonardi*, *N. moseri* or *N. pauxillus*, but these species have more subquadrate petioles and differently shaped mandibles. The holotype is deposited in the Los Angeles County Museum of Natural History, Los Angeles, Calif., U.S.A.

Worker (*Holotype*). Length 2.2 mm. Head (Fig. 2): median length 0.62 mm; greatest width 0.5 mm; slightly narrowed posteriorly (upper surface from frontal view) with rounded corners and a slightly concave upper border; frontal carinae short, but distinct, and curving below the antennal fossae to form broad flanges. Eyes indistinct and reduced to tiny yellowish specks below the cuticle. Antenna: scape: length 0.37 mm; apical width 0.1 mm; bent basally and widened distally. Flagellum: length 0.87 mm; incrassated; width segment one 0.05 mm, five 0.06 mm, ten 0.08 mm; length of segments one through seven 0.05–0.06 mm, eight 0.07 mm, nine and ten 0.1 mm, eleven 0.18 mm. Mandible (anteroventral view, Fig. 4): length 0.31 mm; somewhat triangular; straight upper edge ending in a tooth-like corner; edge between tooth-like corner and upper tooth of masticatory margin concave; masticatory surface irregular with three distinct teeth (upper, submedial, apical).

Alitrunk (Fig. 1, lateral view): length 0.82 mm; dorsum straight except for the gradually down-curved anterior surface of the pronotum; juncture of mesonotal and propodeal surfaces barely indicated by a slight indentation; weak transverse carina at anterior border of pronotum; dorsum of propodeum longer than descending surface and

Neivamyrmex nyensis, n. sp.
(Figs. 1–4)



Figs. 1–4, major worker of *Neivamyrmex nyensis*, n. sp.: 1, lateral view of whole ant (without legs); 2, frontal view of head; 3, dorsal view of petiole and postpetiole; 4, anteroventral view of mandible.

the two surfaces forming an angle of about 135° with a slightly rounded juncture.

Petiole: elongate with slightly convex sides; anterior border slightly concave with distinct corners; node length 0.25 mm, greatest width 0.17 mm (dorsal view, Fig. 3); dorsum of node evenly convex; ventral surface with a weak anterior proturbance, but without a distinct anteroventral tooth; height 0.2 mm (lateral view, Fig. 1).

Postpetiole: subquadrate, slightly trapezoidal with rounded corners; length 0.2 mm; greatest width 0.22 mm (dorsal view, Fig. 3); height 0.22 mm; dorsum of node weakly convex; anteroventral corner angular (lateral view, Fig. 1).

Gaster (Fig. 1): length 0.8 mm, greatest width 0.52 mm, greatest height 0.4 mm; oval from a dorsal view, and somewhat compressed, elongate oval from a lateral view; stinger small.

Legs: proleg: coxa conical, length 0.22 mm; trochanter length 0.09 mm, width 0.07 mm; femur length 0.47 mm, enlarged in middle, median width 0.15 mm; tibia length 0.37 mm, width 0.1 mm, apical strigile well developed; tarsus length 0.4 mm, proximal segment slightly bent and almost as long as remaining segments combined, claws simple. Metaleg: coxa length 0.17 mm, width 0.12 mm, less conical than procoxa; trochanter length 0.07 mm, width 0.05 mm, femur length 0.5 mm, enlarged in middle, median width 0.12 mm; tibia length 0.5 mm, enlarged distally, greatest width 0.08 mm, apical strigile well developed; tarsus length, segment one 0.35 mm, two 0.15 mm, three 0.12 mm, four 0.07 mm, five 0.12 mm, claws simple.

Entire body smooth and shining, except some granulation on mesopleuron, sides of propodeum and dorsal mesonotal-propodeal juncture, and scattered indistinct punctation on head and dorsum of alitrunk (50X). Scattered semierect setae on most surfaces. Entire body yellowish brown except for darker reddish-brown mandibles.

Variations. Workers (about 100 examined): length 1.7–2.5 mm. The middle tooth on the masticatory edge of the mandible varies from distinct to absent on a few specimens. The dorsal mesonotal-propodeal juncture varies from weakly indented to a few darkened irregularities to completely invisible. Transverse carina on dorsum of anterior border of pronotum absent on smallest workers. The smallest workers lack almost all of the granulations and weak punctation present on some areas of the larger workers.

Male and Queen. Unknown.

TYPES. *Workers.* Red determination labels. Collected by G. C. and J. Wheeler; 15 May 1970: U.S.A., Nevada, Nye Co., S. E. of Beatty, 3500 feet. The holotype is deposited in the Los Angeles County Museum of Natural History, Los Angeles, Calif., U.S.A. Paratypes are deposited in the Los Angeles County Museum of Natural History; National Museum of Natural History, Wash., D. C., U.S.A.; G. C. Wheeler Collection, Desert Research Inst., Reno, Nevada, U.S.A.; and Watkins Collection, Baylor Univ., Waco, Texas, U.S.A.

Type Locality. U.S.A., Nevada, Nye Co., 5½ miles south and 3 miles east of Beatty, 3500 feet.

Geographical Distribution. Known only from type locality.

Specimens Examined. Over 100 workers from the same colony collected from type locality.

Differential Diagnosis. Workers: postpetiole distinct; antennal fossae not concealed by frontal carinae; tarsal claws without teeth; dorsum of mesonotum straight; antennal scape not exceeding eye level; transverse carina absent at juncture of dorsal and descending surfaces of propodeum; descending surface of propodeum not distinctly indented or concave; dorsum of propodeum longer than descending surface (lateral view); eye without a distinct convex cornea; upper (basal) edge of mandible straight to a tooth-like corner, then concave to the upper tooth of the masticatory edge; eyes reduced to faint yellow specks below cuticle; concave portion of posterior head margin as wide or wider than greatest width of alitrunk; petiole distinctly elongate (dorsal view); dorsum of mesonotum and propodeum forming a straight line with an indistinct juncture; postpetiole distinctly broader than petiole; although the anteroventral corner of the petiole forms a protuberance, the anteroventral tooth is completely absent; entire body yellowish; length 1.7–2.5 mm.

DISCUSSION. *Neivamyrmex nyensis*, n. sp. will key to *N. carettei* (Forel) in Borgmeier (1955:294) except the postpetiole is distinctly broader than the petiole (couplet 53.b), and also to *N. carettei* in Watkins (1976:17) except the dorsum of the propodeum is not slightly lower than the mesonotum (couplet 53.a.). *Neivamyrmex nyensis* (Nevada: U.S.A.) is more similar to *N. carettei* (Brazil, Argentina) than to any other known species, but can be distinguished by the following characteristics: the postpetiole of *N. nyensis* is broader than long and distinctly broader than the petiole–the postpetiole of *N. carettei* is as long or longer than broad and about the same width as the petiole; the anteroventral tooth of the petiole is absent on *N. nyensis*, but present in *N. carettei*; the alitrunk of *N. nyensis* is more yellowish and its dorsum is straighter (lateral view); the mandibles of the two species are also different.

Workers of three other small species found in the U.S.A. (Watkins, 1971) may also be confused with *N. nyensis*. These species [*N. leonardi* (Wheeler), *N. moseri* Watkins, *N. pauxillus* (Wheeler)] have differently shaped mandibles and more subquadrate petioles than *N. nyensis*. The first two species also have more distinct mesonotal-propodeal sutures. *Neivamyrmex leonardi* and *N. nyensis* both have broad flanges in front of the antennal fossae, but this flange is very narrow in *N. moseri* and *N. pauxillus*.

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