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A NEW SPECIES OF *NEIVAMYRMEX* (Hymenoptera: Formicidae) FROM LOUISIANA[1]

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ABSTRACT

A new species, *Neivamyrmex moseri,* collected from a nest of *Atta texana* (Buckley) in Louisiana is described. Illustrations of the head, mandible, alitrunk, petiole and postpetiole are included.

A taxonomic review of the 17 forms of legionary ants comprising the subgenus *Neivamyrmex* Borgmeier of the United States was published by Smith (1942). *Neivamyrmex* was raised to a genus by Borgmeier (1950). A complete review and revision of the approximately 140 Neotropical species of Dorylinae was published by Borgmeier (1955). Several hundred workers of the new species of *Neivamyrmex* herein de-

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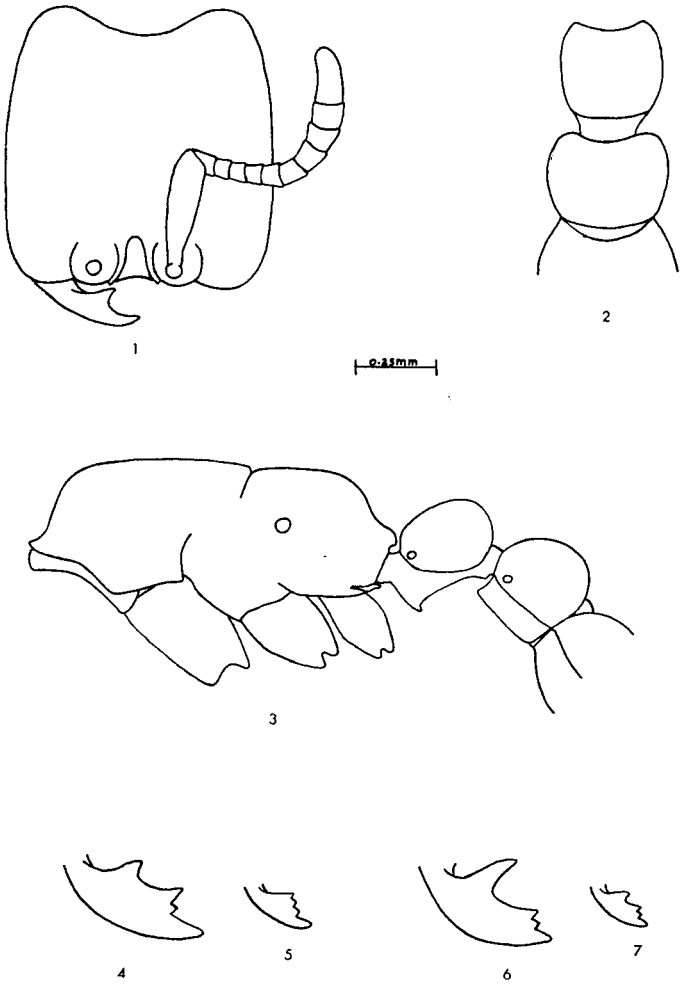
scribed were collected from a nest of *Atta texana* (Buckley) by John C. Moser. The specimens were originally identified as *Neivamyrmex pauxillus* (Wheeler, 1903) by another worker, and samples from this group have been deposited in several collections with the above name attached.

I am grateful to Dr. John C. Moser for collecting and permitting me to describe these interesting specimens, and to Father Thomas Borgmeier and Father Walter Kempf for their confirmations of the new form and the gift of specimens of *N. macrodentatus* (Menozzi, 1931). I wish to thank Dr. Carl W. Rettenmeyer for originally informing me that specimens of "*N. pauxillus*" sent to him from Louisiana belong to a different species from those which I sent to him from Texas.

Neivamyrmex moseri, n. sp. (worker)

MAJOR WORKER. Length 3.10 mm. Head (Fig. 1): median length without mandibles 0.78 mm, width 0.83 mm, sides slightly convex, posterior margin broadly concave with rounded corners. Eyes absent. Mandibles (Fig. 4) characteristic, but somewhat similar to those of *N. macrodentatus* (Fig. 6). Basal tooth large, triangular, not curved. Masticatory border with three teeth, the middle tooth less than half the length of the outer teeth, posterior tooth longest. Frontal carina short, curved outward and upward to form distinct lamella ending at the lower, inner edge of the antennal depression. Antenna short (1.10 mm); scape length (0.375 mm), about one-half median head length, greatest width 0.125 mm, narrower at the base and gradually thickening distally; flagellum length 0.725 mm, greatest width 0.10 mm, gradually thickening distally, last segment more than two times length of penultimate segment. Alitrunk robust, dorsally flattened, length 1.10 mm, greatest width 0.50 mm. Mesoepinotal suture well defined. Epinotum slightly longer than wide, length 0.45 mm, width at base 0.38 mm, posterior surface in profile steeply sloped and moderately concave (slightly concave to almost straight in some specimens). Petiole in profile strongly convex dorsally; anteroventral tooth large, pellucid, keel-shaped. Petiole from above slightly longer than broad, length 0.35 mm; greatest width 0.30 mm, length of node 0.25 mm, with slightly convex sides and concave anterior face. Postpetiole wider than long with convex sides, length 0.25 mm, greatest width 0.35 mm. Gaster somewhat flattened and elongated (more elongated in smaller specimens), length 1.10 mm, greatest width 0.80 mm. Hind femur and tibia about same length (0.65 mm). Proximal segment of hind tarsus almost as long (0.43 mm) as remaining segments combined (0.48 mm). Scattered punctures on the head, alitrunk, petiole and postpetiole, but most distinct on the dorsum of the alitrunk, petiole and postpetiole. Mesopleura shagreened. Body, including appendages, shining, yellowish brown, covered with scattered erect and suberect hairs which are longest on the gaster.

MINOR WORKER. Length 1.90 mm. Head slightly longer than wide, median length without mandibles 0.48 mm, greatest width 0.40 mm,



FIGS. 1–4. Major worker of *Neivamyrmex moseri* n. sp. 1, head. 2, petiole and postpetiole, dorsal view. 3, alitrunk, petiole and postpetiole, lateral view. 4, mandible. 5, mandible of minor worker of *N. moseri*. FIGS. 6–7. Workers of *N. macrodentatus*. 6, mandible of major. 7, mandible of minor.

sides almost parallel, posterior margin broadly concave with rounded corners. Median carina short, narrow, resembling an inverted "Y" with short outwardly curved "arms." Flagellum (0.43 mm) approximately two times length of scape (0.23 mm), last segment two times length of penultimate segment. Mandible (Fig. 5) somewhat similar to that of

N. macrodentatus minor (Fig. 7), length 0.25 mm; "basal tooth" forms outermost tooth of masticatory margin and is similar in size and shape to the next two adjacent teeth, posterior tooth large, more than three times length of other teeth. Dorsum of alitrunk unusually flattened, sides almost perpendicular, length 0.70 mm, greatest width 0.25 mm, mesoepinotal suture well defined. Petiole approximately as long as wide (0.15 mm), slightly convex sides, strongly convex dorsally, anteroventral tooth small, but distinct. Postpetiole wider (0.18 mm) than long (0.10 mm). Gaster elongate (0.70 mm), somewhat flattened, greatest width 0.43 mm, greatest height 0.33 mm. Hind femur (0.35 mm) slightly longer than tibia (0.33 mm). Length of proximal segment of hind tarsus (0.20 mm) two-thirds total length of remaining segments (0.30 mm). Body, including appendages, covered with scattered, moderately long, suberect hairs; surface smooth, except shagreened mesopleura; shining, yellowish.

Type locality and materials studied. Numerous workers collected by John C. Moser (April 13, 1959) 7 miles W. Alexandria, La. (92° 36′ long., 31° 14′ lat.) Kisatchie Nat. Forest, Rapides Parish, Louisiana, from a single colony found at a depth of one foot in the excavated surface subsoil of a large nest of *Atta texana* (Buckley).

Types (red labels). One holotype major and one paratype minor deposited in the Museum of Comparative Zoology, Harvard University, Cambridge, Mass.; other paratypes deposited in the American Museum of Natural History, New York; Borgmeier's collection, São Paulo, Brasil (in care of Walter W. Kempf), and the collection of J. F. Watkins, Baylor University, Waco, Texas.

Comments. Workers of *N. moseri* are very similar to those of *N. macrodentatus*; however, the two species can be readily separated by the shapes of the mandibles (Figs. 4–7). The basal tooth of the major of *N. moseri* (Fig. 4) is shorter, less curved, and more triangular than in the major of *N. macrodentatus* (Fig. 6). The mandible of the *N. macrodentatus* minor (Fig. 7) strongly resembles that of the *N. moseri* major (Fig. 4), except in size.

The larger body size, more prominent mandibular teeth, more definite mesoepinotal suture, and more triangular anteroventral tooth of the petiole of the *N. moseri* major readily distinguish it from *N. pauxillus*.

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