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NOTES ON THE GENUS LEPTOTHORAX IN NEW MEXICO AND A DESCRIPTION OF A NEW SPECIES

(HYMENOPTERA, FORMICIDAE)[1]

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During my studies of ants of New Mexico in the summer of 1951[2] I was able to collect a number of colonies of *Leptothorax* and to learn something of the distribution of the genus in that state. I believe that the notes and description which follow may be of interest to myrmecologists.

Numerous collections of *L.* (*Leptothorax*) *crassipilis* Wheeler were made from beneath stones at Cimarron Canyon and in the area between Ute Park and Taos, New Mexico, at the following elevations: 7,050, 7,250, 7,400, 7,500, 7,750, 8,100, and 8,500 feet. The species was also found nesting under stones in a stand of spruce and pine in the Gila National Forest, Mogollon Mountain, in the extreme western part of the state, at an elevation of 8,350 feet. On the other hand, nests of *L.* (*L.*) *canadensis* were found beneath stones in the spruce, pine, and aspen communities of the Santa Fe National Forest, Hyde Park, near Santa Fe, at the following elevations: 7,900,

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8,000, 8,200, 8,400, 8,600, 9,000, 9,500, and 10,000 feet. At no place were the two species collected together. The ranges of the two populations in New Mexico seem to be discrete. Morphologically the two species are very closely related.

Colonies of *L.* (*Myrafant*) *rugatulus* Emery were observed nesting beneath stones on rather dry, open slopes at an elevation of 6,350 ft., at Bandelier National Monument. I was unable to find this species elsewhere in the state.

Collections of *L.* (*Myrafant*) *tricarinatus neomexicanus* Wheeler were taken in Cimarron Canyon, between Cimarron and Ute Park, at elevations of 6,500 and 6,700 feet. The nests were in moist soil beneath stones in open, grassy areas.

Leptothorax (Myrafant) obliquicanthus, new species

Holotype, worker (Cole coll. no. N-279).—Length, 2.6 mm. Head rather large, excluding the mandibles a little longer than broad, narrower in front than behind, the occipital corners broadly rounded, the sides feebly convex. Eyes very large, fig. 1, much elongated, subobovate and subreniform, convex, oblique, and directed anterio-ventrad, the dorsal portion broader than the ventral, the distance between the lower margin and the mandibular insertion equivalent to less than one-half greatest transverse diameter of the eye. Mandibles with 5 distinct teeth. Clypeus moderately convex, with broadly rounded anterior border. Frontal area indistinct. Antennae 12-segmented; scapes rather robust, not extending to the occipital margin; first funicular segment as long as the succeeding three segments taken together, the distal segment of the club of about the same length as the preceding two segments taken together.

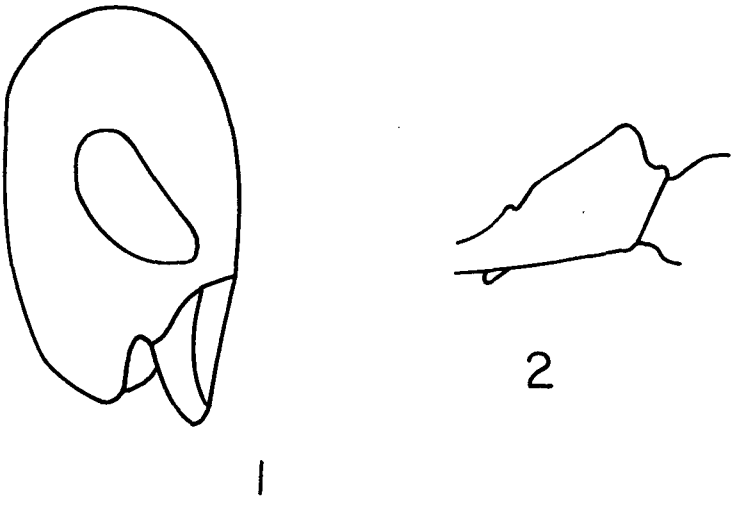
Thorax rather robust; pronotum convex, with rounded humeral angles; dorsum of meso- and epinotum flat in profile, the mesoepinotal suture obsolete; sides of meso- and epinotum strongly compressed laterally; epinotal spines robust, broad at base, distinctly tapered from base to the rather blunt apex, about as long as the distance between their bases, very slightly curved, directed upward, backward, and outward. Petiole, when viewed in profile, fig. 2, with the anterior face flat and sloping sharply anterioventrally, the apex of the node subtruncated, only feebly convex, and sloping steeply posterioventrally; when viewed from above the node is transversely subrectangular; peduncle very short, ventral surface with a prominent, triangular tooth. Postpetiole much broader than the petiole, but not twice as broad, its dorsal surface very convex, when viewed from above it is transversely subrectangular. Legs stout, femora incrassated.

Gaster ovoid, truncate basally, the basal angles sharp.

Thorax, petiole, and postpetiole opaque; head subopaque. Head finely and longitudinally rugulose—reticulate and finely punctate; mandibles longitudinally striated; clypeus coarsely and longitudinally rugulose. Thorax, petiole, and postpetiole more coarsely rugulose—reticulate and with abundant, larger, and more pronounced punctures; pleurae with rather coarse longitudinal rugae. Gaster and legs shining, very finely coriaceo-reticulate.

Hairs silvery; short, rather numerous, blunt, subclavate, and erect, as well as some which are short, slender, pointed, appressed and subappressed, on head; longer, slender, and sharper on clypeal border, gula, and mandibles; longer and more clavate on dorsum of thorax, petiole, and postpetiole; erect on thoracic dorsum, reclinate on petiole, postpetiole, and gaster.

Color of body black, appearing as very dark brown under high magnification; leg articulations and apical half of mandibles brown.



Leptothorax (*Myrafant*) *obliquicanthus* worker. Fig. 1, head, showing compound eye; fig. 2, petiole in profile.

Type locality.—The holotype and a series of 61 paratype workers were collected by the writer on August 10, 1951, at a point 12 miles south of Santa Fe, New Mexico, along U. S. highway 85. The ants were ambling about on the soil of a dry, grassy area and were apparently foraging. The nest was not found.

Disposition of type material.—The holotype and a series of paratypes are in the collection of the writer. Paratypes have been deposited in the U. S. National Museum, the Museum of Comparative Zoology at Harvard, and the American Museum of Natural History.

Variation.—Body length of the paratypes varies from 2.2 to 3.0 mm. A few of the specimens have the postpetiole somewhat less opaque than do others. The eyes of some of the paratypes are more subreniform than those of others.

Affinities.—This new species is apparently a member of the *tricarinatus-texanus* complex. The most outstanding, distinctive feature of this ant is the shape, size, and position of the eyes. The eyes are evidently quite different from those of any other known North American *Leptothorax*. *L.* (*M.*) *obliquicanthus* bears some resemblance to *L. tricarinatus neomexicanus* Wheeler, which is known from northern New Mexico and Arizona, from which it differs chiefly in the shorter scapes, larger epinotal spines, differently shaped petiole, and the more compressed thorax, as well as in the shape, size, and position of the eyes.

The writer wishes to express his gratitude to Dr. M. R. Smith, of the U. S. National Museum. Dr. Smith examined specimens of this new species and compared them with cotypes of members of the *tricarinatus-texanus* complex. He substantiated my belief that the specimens might represent a new species and generously supplied me with some important diagnostic characteristics.