

THE FIRST RECORD OF LEPTOTHORAX, SUBGENUS GONIO-  
THORAX EMERY, IN THE UNITED STATES, WITH THE  
DESCRIPTION OF A NEW SPECIES (Hymenoptera: Formicidae)

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Previous to the finding of a new species of *Leptothorax* (*Goniothorax*) at Brownsville, Tex., by Mrs. Wilda S. Ross, no species of this subgenus was known to occur in the United States, although *Goniothorax* is well represented in South America, Central America, and to some extent in Mexico. The United States now contains 4 of the 5 subgenera of *Leptothorax* recognized by Emery, 1922.<sup>1</sup> *L. (Leptothorax)* is the largest, with 21 species, 6 subspecies, and 7 varieties, one or more of which are present in every State of the Union; *L. (Mychothorax)*, the second largest, has 5 species, 5 subspecies, and 6 varieties, which are distributed over the northern half of the United States, especially in the extreme north and northwest; *L. (Dichothorax)*, with 1 species, 2 subspecies, and 1 variety, is more typically southern, occurring from Florida to Virginia and westward at least to Iowa and Texas. It is unlikely that any form of *Temnothorax* will be found in the United States, as members of this subgenus are native to the region around the Mediterranean.

The worker of the *Goniothorax* here described is easily distinguished from the workers of the other subgenera by the very sharp humeral angles of the pronotum, the tubercles on the side of the thorax, which give a very irregular outline to this region, the prominent spines or tubercles of the petiole and postpetiole, and the peculiar obtuse or clubbed hairs. Since Emery's characterizations of the various castes of *Goniothorax* are not readily available to all formicologists, they are presented herewith, along with the synonymy of the subgenus, the citation of the subgenotype, and the general distribution of the group.

**Leptothorax**, subgenus **Goniothorax** Emery.

*Leptothorax*, subgenus *Goniothorax* Emery, 1896, Soc. Ent. Ital. Bol. 28:58; 1915, Portici R. Scuola. Super. di Agr. Lab. Zool. Gen. e Agr. Bol. 10: 24.

*Nesomyrmex* Wheeler, 1910, Amer. Mus. Nat. Hist. Bul. 28: 259.

*Leptothorax*, subgenus *Caulomyrma* Forel, 1914, Soc. Vaud. des Sci. Nat. Bul. 50: 233.

*Atopula* Forel (part), 1915, Tijdschr. v. Ent. 58: 25.

Type of subgenus, *Leptothorax vicinus* Mayr (by designation of Wheeler, 1911).

<sup>1</sup> Genera Insectorum, Fascicule 174c: 248.

*Worker*.—Antenna of 11 or 12 segments, including a club of 3 segments or, exceptionally, without a well-defined club, the last 4 or 5 segments gradually becoming wider and longer. Pronotum more or less distinctly shouldered, the anterior angles well defined, often sharp, sometimes toothed. Petiole and postpetiole variable, in some species adorned with numerous points. Body hair obtuse or clubbed, barbed.

*Female*.—Pronotum shouldered as in worker, amply extended beyond mesonotum, which is flattened. Anterior wing with a short, closed radial cell, the discoidal cell absent.

*Male*.—Antenna with 12 or 13 segments, without a distinct club; scape at least one-fourth as long as the funiculus. Pronotum shouldered, distinctly extended beyond mesonotum. Wing as in female.

*Geographic Distribution*.—Central America, South America, Africa, Madagascar, and Sumatra.

***Leptothorax (Goniothorax) wilda*, new species.**

*Worker*.—Length 2.5 mm.

Head, excluding mandibles, approximately one and one-sixth times as long as broad, with straight posterior border and feebly convex sides; narrowest anteriorly; area between inner margin of eye and frontal region impressed, causing the frontal region to appear elevated above the adjacent surfaces. Eye prominent, moderately convex, placed approximately its greatest diameter from base of mandible. Anterior border of clypeus extended as a broad, straight, or feebly rounded, median lobe. Antenna 11-segmented, scape moderately robust, extending approximately one-half distance between hind margin of eye and posterior border of head; last 3 segments of funiculus forming a rather distinct club, the last segment of which is longer than the combined length of the 3 preceding segments. Thorax, from above, with acute humeral angles; a very distinct boundary extending from side to side between humeral angles and delimiting pronotal collar from rest of pronotum; distance between humeral angles approximately twice that between apices of epinotal spines. Not including the humeral angle and the epinotal spine there are on each side of the thorax 3 distinct protuberances or tubercles; the most anterior of these marks the approximate junction of the prothorax and mesothorax, the second and larger lies in the mesothorax only a slight distance posterior to the first, and the third tubercle is situated anterior to the epinotal spine at a distance approximately equivalent to the length of the spine. Dorsum of thorax without promesonotal and mesoepinotal sutures. Epinotal spines short, not so long as space between their apices, apex of each spine directed posterolaterad and also very slightly dorsad. Borders of petiolar node, viewed from above, forming a subtrapezoid; posterior border of node bearing 4 distinct spines, anteromesad of which there is a pair of similar shape and still another pair anteromesad of the first-mentioned pair, thus making a total of 8 spines on the petiole excluding the angle formed on each side by the junction of the petiolar node with its peduncle. Post-

petiolar node broader than petiolar node, approximately one and one-half times as broad as long, convex anteroposteriorly, each side bearing a pair of small spines. Gaster with distinct basal angles.

Hairs yellowish, suberect or erect, sparsely distributed over dorsum of body but lacking on appendages and also on impressed areas of head; hairs on head and thorax short, subclavate, those on gaster longer and less clavate.

Head, thorax, petiole, and postpetiole subopaque, with an alveolaceous-rugulose sculpture in which the rugulae often tend to become reticulate, especially on the nodes of the petiole and postpetiole.

Color a sordid yellow or pale yellow, eyes black, mandibular teeth brownish.

*Female*.—Length 4 mm.

Differing from the worker principally in the following particulars: Larger size, subrectangular head, and shape of thorax, which not only is larger and more robust but lacks the anterior and median tubercles on each side. The female also possesses only a pair of very short, blunt tubercles instead of spines. The sculpturing on the head and mesonotum is coarser, with more distinct longitudinal rugulae.

*Type locality*.—Palm (*Sabal texana* Becc.) grove 5 miles south of Brownsville, Tex.

*Other locality*.—Harlingen, Tex., October 24, 1942, Wm. F. Buren. From a dead twig on a tree.

*Holotype*.—United States National Museum No. 56577.

Twenty-nine paratype workers and one female; two workers each in the American Museum of Natural History, the Museum of Comparative Zoology, and the California Academy of Sciences.

These ants were collected by Mrs. Wilda S. Ross at the type locality on September 28, 1942, while they were crawling on vines in an area subject to overflow by the Rio Grande. Typical vegetation of this area is the large palmetto, *Sabal texana* Becc.; hackberry, *Celtis mississippiensis* Bosc.; snow-on-the-mountain, *Dichrophyllum marginatum* Pursh; sugar berry, *Ehretia elliptica* DC.; dogwood, *Cornus asperifolia* Michx.; and the vine *Clematis drummondii* Torr. and Gray.

Paratypes range in length from approximately 2 to 2.5 mm. The head of some workers is longer (subrectangular) than that of the holotype. The spines, which occupy the same relative positions on the petiole and postpetiole of different individuals, are often variable in size; furthermore, the anterior pair on the postpetiole is sometimes missing.

The worker of the new species superficially resembles the worker of *Leptothorax* (*Goniothorax*) *echinatinodis spininodis* Mayr of Brazil. It can be distinguished from the worker of that subspecies by its shorter antennal scape, the presence of the impressed areas on the head lying between the eyes and the frontal region, the less rugulose sculpture of the thorax, longer postpetiolar node in proportion to the postpetiolar breadth, lack of distinct sculpture on the base of the first gastric segment, shorter and more clavate hairs, and lighter color.