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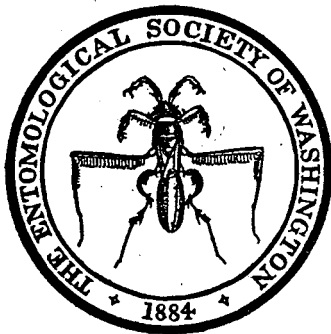
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Thaumatomyrmex - Key and n. sp. -

M R Smith



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**THE ANTS OF THE GENUS *THAUMATOMYRMEX* MAYR WITH
THE DESCRIPTION OF A NEW PANAMANIAN SPECIES
(HYMENOPTERA: FORMICIDAE)**

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Included in the ponerine genus *Thaumatomyrmex* Mayr are some of the rarest and most primitive of all ants, whose distribution is apparently entirely neotropical. Previous to the discovery of the new species described in this article only six species were known, one each having been found in Cuba, Honduras, Venezuela, British Guiana and Trinidad, Brazil, and Bolivia. The total number of known specimens of described species probably does not exceed a dozen individuals and very peculiarly all of these are workers. Since no one has been fortunate enough to discover a colony of these ants, information is lacking as to nesting sites, size of colonies, and the nature of their food.

Few ants are more easily recognized generically than the extraordinary workers of *Thaumatomyrmex*. They can be readily identified by a combination of the following characters: The narrow, arcuate mandible with three spiniform teeth; the convex, coarsely faceted eye, situated near the base of the mandible; the prominent frontal lobe; the usually anteriorly divergent lateral borders of the head; the black body with light brown appendages; and a range in length of 3.25 to 4.75 mm. As Weber (Bol. Ent. Venezolana 1:67, 1942) has so aptly stated, "The differences between the species lie chiefly in the proportions of the teeth, width of head compared with its length, convexity of the pronotum and mesonotum, angularity or lack of angularity between the epinotal base and declivous surfaces, shape of the petiolar node and development of striation or punctation. The differences are perfectly distinct yet no species varies so much that it might be placed in another genus, for there is none near it."

Since most of the species have been described very recently and there are no records of them in the common reference works including Dalla Torre's Catalogue Hymenopterorum and Wytzman's Genera Insectorum, most of the important bibliographic citations are given below.

T. mutilatus Mayr, 1887, Verh. Zool.-Bot. Gesell. Wien 37:531; Emery, 1894, Berlin. Ent. Ztschr. 39:380, fig.; Emery, 1911, Genera Insectorum, fasc. 118, p. 49, pl. 2, figs. 5, 5b; Weber, 1939, Ann. Ent. Soc. Amer. 32:98; Weber, 1942, Bol. Ent. Venezolana 1: 67, 68.

T. ferox Mann, 1922, Proc. U. S. Natl. Mus. 61:3; fig. 1; Weber, 1939, Ann. Ent. Soc. Amer. 32; 98; Weber, 1942, Bol. Ent. Venezolana 1: 67, 68,

T. cochlearis Creighton, 1928, Psyche 35: 163, fig. 1, A, B; Wheeler, 1937, Bul. Mus. Comp. Zool. 81:445; Weber, 1939, Ann. Ent. Soc. Amer. 32:98; Weber, 1942, Bol. Ent. Venezolana 1: 67, 68.

T. atrox Weber, 1939, Ann. Ent. Soc. Amer. 32:98, fig. 3; Weber, 1942, Bol. Ent. Venezolana 1:67, 68.

T. manni Weber, 1939, Ann. Ent. Soc. Amer. 32:99; Weber, 1942, Bol. Ent. Venezolana 1: 67, 68.

T. paludis Weber, 1942, Bol. Ent. Venezolana 1:68, 69, figs. 1, 2.

The following key, which is largely adapted from that of Weber (Bol. Ent. Venezolana 1:67, 68, 1942), will serve to distinguish the workers of the seven species:

1. Apical teeth of closed mandibles not exceeding lateral margins of head... 2
 Apical teeth of closed mandibles exceeding lateral margins of head... 5
2. Epinotum, in profile, evenly convex with no indication of an angle where base and declivity usually meet... 3
 Epinotum, in profile, not evenly convex but more or less angled where base and declivity usually meet... 4
3. Epinotum in profile low, evenly descending to ventral margin; anterior and dorsal margin of first gastric segment forming in profile an approximate right angle. Venezuela... *paludis* Weber
 Epinotum in profile high, passing ventrally into a second and smaller convexity; anterior and dorsal margins of first gastric segment forming in profile a marked and acute angle. Brazil... *mutilatus* Mayr
4. Basal and declivous surfaces of epinotum meeting in a distinct angle; head subopaque, covered with coarse punctures interspersed with fine striae. Cuba... *cochlearis* Creighton
 Basal and declivous surfaces of epinotum meeting in a broadly rounded angle; head smooth and shining, not covered with punctures and striae as described above. Canal Zone... *zeteki*, new species
5. Lateral margins of head strongly diverging anteriorly. Bolivia
 manni Weber
 Lateral margins of head moderately diverging anteriorly... 6
6. Third tooth of closed mandibles barely reaching center of clypeus. Honduras... *ferox* Mann
 Third tooth of closed mandibles exceeding center of clypeus. British Guiana and Trinidad... *atrox* Weber

Thaumatomyrmex zeteki, new species

Worker.—Length 3.25 mm.

Head, excluding mandibles, subquadrate, widest in the region where the strongly divergent genae touch the mandibles, posterior corners well rounded and merging into the very feebly impressed posterior border. Eye longer than broad, convex, with coarse facets; placed approximately its greatest length from the base of the mandible. Antennal lobe large, concealing base of antenna, ending anteriorly in a distinct angle. Clypeus concave, anterior border broadly and feebly emarginate. Frontal area subtriangular, but not strongly defined.

Frontal furrow rather distinct, of approximately the same length as the frontal area. Antennal scape stout, apparently not surpassing the posterior border of the head. Mandible composed of a basal portion from which projects 3 long spines each of which is more or less curved, these spines increasing in length apically; terminal spine unusually long, curved, acute, its apex scarcely attaining the greatest width of the gena. Dorsal surface of prothorax, not including collar, at least three times as long as the small but distinct mesonotum. Dorsal surface of mesothorax lower than that of prothorax and epinotum, thus giving this region a constricted appearance. Dorsal surface (base) of epinotum about one and one-third times the length of the dorsal surface of the prothorax, not including the collar, gently convex, meeting the declivous surface in a bluntly rounded, obtuse angle. Legs moderately long and slender. Petiole unusually large, wider than thorax but not as wide as gaster; from above, subtrapezoidal, with convex anterior face and flattened, sloping posterior face; petiole, in profile, at least one and one-half times as high as long. Gaster, in profile, with a flattened perpendicular base; from above, moderately large, oval. Very smooth and shining excepting for the rugulose anterior border of clypeus, antennal lobes, and prothoracic collar; the punctate region surrounding the antennal socket; the moderately shining legs, and subopaque antennae. Hairs yellowish; sparse, long, mostly suberect or curved; rather abundant on gaster. Pubescence on antennal scapes short, coarse and appressed, that on funiculi fine but also closely appressed. Black; mandibles, antennae, and tip of gaster reddish brown; legs yellowish, suffused with reddish brown.

Holotype and paratype from Barro Colorado Island, Canal Zone; James Zetek; July-August 1942; Zetek 4975, Lot No. 42-11986. Both specimens have been placed in the National Museum collection and assigned United States National Museum No. 56483.

This ant can be easily distinguished from all the other known species of *Thaumatomyrmex* except *cochlearis*, from which it is, however, quite distinct. W. S. Creighton, who kindly compared the worker of *zeteki* with that of the type of *cochlearis*, found that *zeteki* was smaller. He wrote, "In addition your specimen is a much smoother ant. The head and dorsum of the thorax in *cochlearis* are covered with close set punctures and delicate striae. Their surface is only feebly shining at best and in places is definitely dull. The anterior face of the petiole is also notably punctate in *cochlearis*. Other differences which are quite noticeable are: The angular posterior corners on the node of the petiole when seen from above in your specimen. The posterior corners of the node of *cochlearis* are broadly rounded. The head of your specimen is proportionately narrower than that of *cochlearis*. Its pro-mesonotum is more convex when seen from the side and stands higher above the dorsum of the epinotum. The epinotum of your specimen is less angular with basal and declivous faces joined by a rounded curve rather than a distinct angle."