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A NEW SPECIES OF THAUMATOMYRMEX FROM CUBA.¹

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The genus *Thaumatomyrmex* has hitherto been known from two species, *T. mutilatus* Mayr and *T. ferox* Mann. *T. mutilatus*, the type of the genus, was first described by Mayr in 1877 from material collected in Santa Catharina, Brazil. Unfortunately there are no field notes accompanying the description, even the collectors name having been omitted. Although Mayr was the first to describe this bizarre genus it seems altogether likely that the credit for its original discovery should go to Von Ihering. This worker began his observations and collecting in Rio Grande do Sul in 1880, seven years prior to Mayr's description. Von Ihering's publication appeared in 1894 and in it Emery, who prepared the taxonomic section, figured for the first time the head of *T. mutilatus*. I have been unable to find any references to this ant, in Von Ihering's rather voluminous field notes which form the major part of the paper. In 1920 Dr. W. M. Mann while collecting in Honduras, took two workers of a second species, which he described two years later as *T. ferox*. These specimens were found "in a depression in a half rotten log near a stream in the forest" (San Juan Pueblo).

The discovery of a third species in Cuba is of interest since it definitely places the genus with a number of genera known to be indigenous to the Antilles and to the tropical portions of the continent as well. The importance of a rare ant such as *Thaumatomyrmex* in the study of distribution will be obvious to anyone who has been confronted by the ever increasing problem of "tramp" species. Additional interest lies in the circumstances under which the new species was secured. These, while by no means conclusive, at least offer a hint as to the habits of the ants of this genus. In the fall of 1927 the writer enjoyed the privilege of spending two months at the Harvard Tropical Research

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Laboratory at Soledad, Cuba. Toward the end of that period a trip was made to the Mina Carlota, a pyrites mine in the Sierras to the south of Cumanyagua. The country in the vicinity of the mine is characteristic of the Cuban mountains; heavily wooded and excessively steep slopes with numerous limestone outcrops. The shells of land snails, always in evidence wherever the limestone occurs, were present in the greatest abundance, there being certain areas in which the ground was literally carpeted with the empty shells. Mr. W. J. Clench, Curator of Conchology of the Museum of Comparative Zoology, made a large collection of these, and on the return of the party to Soledad the new *Thaumatomyrmex* was discovered among the shells which had been spread out for sorting. Only one specimen was found and since the time was too short to permit a return to the Mina Carlota, no search could be made for other specimens. It may be that the occurrence of the ant in the snail shells was entirely fortuitous and yet it does not seem unlikely that the extraordinary mandibles are in some way connected with a diet of snails. At least there is an analogy in the pronounced, though less striking, modification of the mandibles of certain snail-eating beetles of the genus *Cychrus*.

***Thaumatomyrmex cochlearis* sp. nov.**

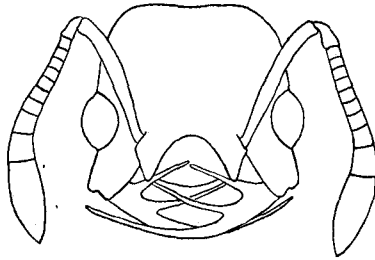
Worker. Length: 4 mm.

Head subquadrate, plainly longer than broad, the occiput very feebly impressed in the middle; the sides behind the eyes somewhat converging toward the occiput; the two prolongations of the genæ anterior to the eyes strongly divergent, the maximum width of the head occurring at the insertion of the mandibles. The eyes large and convex, composed of about fifty very distinct, coarse facets. Antennal lobes prominent, ending in front in distinct angles. Antennal scapes stout, increasing in thickness throughout their anterior half, their tips just reaching the occipital border. First funicular joint slightly longer than the succeeding two together; joints 2-7 distinctly transverse, the following three increasing in length; the terminal joint approximately as long as the four preceding joints together.

Mandibles composed of a short basal portion from which project three long spines. Outermost spine evenly curved and tapering towards its tip which just reaches the opposite side of the head when the mandibles are retracted. Median spine less curved and about two thirds as long as the outermost. Innermost spine straight, one third as long as the outermost. Clypeus slightly concave. Prothorax, seen from above, with strongly convex sides, considerably broader than the remainder of the thorax and separated from it by an impressed suture; in profile



B



A

Fig. 1. *Thaumatomyrmex cochlearis* sp. nov. worker. A, dorsal view of head; B, profile view.

subquadrate, slightly convex above. Mesonotum greatly reduced, barely one tenth as long as the pronotum. Epinotum about one and one half times as long as the pronotum, its basal face, in profile, feebly convex, much longer than the declivious face from which it is separated by a well marked angle. Petiole, seen from above, trapezoidal, widest behind, slightly wider than the epinotum; in profile slightly higher than the epinotum, the summit convex, passing by a curve to the somewhat slanting anterior face and more abruptly to the almost perpendicular

posterior face. The lower surface with a serrate lamina which ends posteriorly in a blunt tooth. Gaster large with a flat, perpendicular anterior face; constriction not pronounced; sting short and stout.

Head with numerous fairly coarse punctures interspersed with delicate striæ which together with the punctures give it a submatte appearance. Clypeus and dorsal portions of the forward-projecting lobes more plainly striate, without punctures. Thorax more shining, punctures somewhat sparser, the striæ confined to the sides of the epinotum. Punctuation of the petiole as in the thorax, without striæ. Abdomen much more shining, the punctures noticeably sparser.

Hairs long, brownish yellow. Sparse on the head, somewhat more numerous on the thorax and petiole, abundant on the gaster. Those on the appendages short, fine and appressed.

Piceous black; mandibles, antennæ, frontal lobes, legs and the tip of the gaster brownish yellow.

Mina Carlota, Cuba. December 2, 1927.

Through the courtesy of Dr. W. M. Wheeler I have been able to compare the new species with a cotype of *T. ferox* Mann. Mayr's description together with Emery's figures allow a fairly satisfactory comparison with *T. mutilatus*. The new species appears to be intermediate in structure between the two, although sufficiently distinct from either to amply justify its specific status. The head of *T. cochlearis* is plainly longer than in *ferox* but shows a similar dilation anterior to the eyes, a condition which is not present in *mutilatus*. The occipital angles are distinctly more acute in the new species giving the head a more quadrate appearance than in either of the previously described forms. The mandibles of *cochlearis* are similar to those of *ferox* but the terminal spine is shorter and the median spine feebly arcuate rather than sinuate. Both *cochlearis* and *ferox* may be separated from *mutilatus* by the absence of the rudimentary fourth spine at the base of the third. *Cochlearis* further differs from *ferox* in the longer basal face of the epinotum, the shorter mesonotum the noticeably narrower petiole and the very different sculpture. In this last it appears to approach *mutilatus* in which the sculpture is even more pronounced.

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