

- (1) The size is exceptionally large; the total length is 20-25 mm.
- (2) A shallow scrobe, large enough to accommodate both the scape and funiculus, extends all the way around the eye.
- (3) The petiolar node is rectangular in side view, with the anterior and dorsal faces meeting at a right angle; also, the anterior petiolar peduncle bears a sharp, downward-directed spine on its venter (Fig. 1A).
- (4) The tarsal claws each bear a secondary, inner tooth which is almost as long as the primary, outer tooth (Fig. 1B). Some species of *Ectatomma* also possess such a secondary tooth, but it is much less developed.
- (5) Each of the lateral borders of the hypopygidium is lined with an upward-turning comb of sharp, slender spinules (Fig. 1C).

The Dominican amber fossil has all of the above generic traits (see for example Fig. 1D,E), with the sole exception that it appears to lack the ventral spine of the petiolar peduncle. This last variance is of questionable significance, however, because the specimen is badly shriveled and a number of other traits have obviously been partly or wholly obliterated as a result (for example, the sting is broken off and the right compound eye is missing). For the same reason it is not possible to make a sufficiently detailed comparison with *P. clavata* to determine whether the amber form is a distinct species or not. It may be significant that the fossil worker is at the lowermost end of the size variation of the large collection of *P. clavata* I have examined from South and Central America. Its head length, measured from the side and excluding the mandibles, is 4.4 mm, its scape length 3.6 mm, and its thorax length 5.4 mm. *P. clavata* workers show the following variation: head length 4.2-7.0 mm. Additional material, if it can be obtained, may reveal that the amber population was a smallish species different from the modern *clavata*. If so, it would conform in its specific rank to all of the other amber populations so far studied in sufficient detail to ascertain their status.

DISCUSSION

The Dominican amber *Paraponera* is important for several reasons. It is the first fossil recorded of the genus, and it is — I believe — the largest ant ever found in the fossil state. The closest rivals for the latter distinction are *Prionomyrmex longiceps* of the Baltic amber (Wheeler, 1914) and *Archiponera wheeleri* of the Miocene Florissant shales (Carpenter, 1930), which have a total length of 15 mm or less, as opposed to 20 mm in the *Paraponera*. The giant *Eoponera berryi* of the Eocene of Tennessee, another potential rival, has been removed from the ants and placed in the Myrmiciidae by Rasnitsyn (1980), which is listed as a synonym of the Pseudosiricidae by Smith (1978).

The discovery of the fossil also has biogeographic importance. *Paraponera* is today represented solely by *P. clavata*, which ranges in often dense populations over the mainland from Nicaragua to Paraguay and Bolivia but occurs nowhere in the Greater Antilles. It is a typical forest ant, whose workers forage from ground and tree-trunk nests out over the ground and up into the bushes and trees. The occurrence of *Paraponera* on Hispaniola during amber times, along with at least two other genera of large, arboricolous ants (*Dolichoderus*, *Monacis*) that later retreated from the