

of both sexes is «complete», that is, with all of the primitive formicid components (except 1r in the forewing) present; the anal lobe is present on the hind wings of at least the larger *Odontomachus* and *Anochetus* species. In most cases, the tarsal claws are slender and simple, and the tibial apices of the middle and hind pairs of legs each have a larger mesial pectinate and a smaller lateral spur, at least in the large and medium-sized species. These character states are all found also among the genera of Ponerini. The frontal carinae and their lobes are close together in odontomachites, which is not surprising in view of the *Bauplan* of the head, but at least this condition is similar to that seen in Ponerini.

The larvae of odontomachites (G. C. and J. Wheeler, 1952: 642 ff., 1964: 455 ff., 1971: 1212) have clearcut «piligerous tubercles», and are therefore euponerine in the Emery classification. Within the euponerine series of genera, odontomachites can be distinguished as a group (G. C. and J. Wheeler, 1971: 1216) but it seems to me, considering all of the variation among euponerines, that this distinction is hardly to be taken as more than a generic level one.

An adult character state that seems significant to me is the maximally 4-merous condition of both maxillary and labial palpi in workers and queens of both odontomachites and primitive Ponerini. This implies the evolutionary loss of 2 segments of the maxillary palpi, which primitively have 6 segments in ants (and Hymenoptera). In view of the other similarities involved, it seems likely that odontomachites and Ponerini have the 4,4 segmentation of the palpi as a shared primitive condition.

The evidence presented above seems clearly to lead to the conclusion that the odontomachites and Ponerini sprang from a common phyletic stem. Further, since the odontomachites obviously represent a derivative condition with respect to head and mandible form, it follows that they most likely arose from a stock within the Ponerini. (The fossil record tells us nothing about odontomachites, since as far as we know, they are not represented there). The Ponerini, as a tribe consisting predominantly of specialized predators of arthropods, have (not surprisingly) radiated diversely in the form of the main prey-getting structures, the mandibles. I interpret the odontomachite mandible-and-head mechanism as an extreme of this radiation that broke through onto a new general-adaptive plane allowing more efficient