

a medial blade carrying 2 more teeth; on a part of the anterior surface are a few minute spinules in short, transverse rows.

The available information on the morphology and bionomics of odontomachite larvae is summarized by G. C. and J. Wheeler (1952: 642-652, pl. 5, fig. 1-17, pl. 6, fig. 22-29) and added to by them in 1964: 455-456 and 1971: 1212-1213, fig. 25-26.

In view of the present revision some of the old identifications listed by the Wheelers require correction or amplification:

Anochetus sp., [Mt.] Tobang, Borneo, 1300 m, E. Mjöberg, is *A. princeps*.

Odontomachus haematoda specimens listed from Costa Rica and Jamaica and figured in Plate 6, fig. 22-29, are very likely *O. bauri*; the samples from Ceylon that Clausen found parasitized by chalcidoids belonged to *O. simillimus*, and the specimens mentioned by Eidmann and by Emery could have been *haematodus*, *bauri*, or some other species. «*Odontomachus haematoda clarus*» is *O. clarus*; the species investigated by Haskins and Haskins is *O. brunneus*; the Cuban var. *pallens* is *O. insularis*, and the var. *bruneipes* discussed by Eidmann probably was *O. bauri*. The *O. biolleyi* larvae described by the Wheelers (1952: 651) should be questioned, because the only adults of this species I know to exist in collections are the types. *O. ruficeps coriaria* and *O. cephalotes* of the Wheelers are *O. ruficeps*, and their *O. haematoda insularis* is *O. brunneus*.

The larval characters of the *Odontomachiti* are in my opinion worth only generic rank within the Ponerini. The tubercle form and the holdfast structures of abdominal segments IV and V are the best characters, but the holdfasts are not universal in the subtribe (*O. tyrannicus* lacks them), and the form of the ordinary tubercles is not really strikingly different from that of some *Pachycondyla* (s. lat.) species, or species currently placed in *Myopias*.

Pupae: Normally enclosed in cocoons; I know of no exceptions. The silk is light to dark brown in color in the finished cocoon. As usual for ponerines, the spinning larvae require some sand or loose dirt as a substrate in order to complete the cocoon normally.

Cryptic characters: No species of odontomachite has yet been studied cytogenetically. The only data on Malpighian tubule number I can offer now is a count of 5 tubules in each of 2 Costa Rican workers of *Anochetus mayri*, a small species that cannot be considered as representative of the whole subtribe. Wheeler and Blum (1973) found a number of alkylpyrazine compounds in *Odontomachus hastatus*, *O. brunneus* and *O. clarus* that excite alarm behavior in these ants, but repel *Solenopsis invicta*. The pyrazines—apparently are produced by the mandibular glands.

Bionomics of *Odontomachiti*

Habitat. The places where odontomachites live are varied. Where they penetrate into the temperate zone, most species excavate nests in the earth. Occasionally the nest is dug under a covering rock. In the tropics, many nests are also dug in the soil, but in moist forested areas, a common site is the soil beneath a rotting log or other large mass of rotting wood, with