

necessary factor for nomadic behavior and for propagation of the cyclic pattern itself."

Bernard, 1951, p. 1049-1051—A resumé of Schneirla's work on the influence of larvae on the behavior of the colony.

Schneirla, 1948, p. 109:—"Results show that a male brood has trophallactic stimulative relationships with workers comparable to those ordinarily exerted by a worker brood. Once larval development is well under way, the energizing effect of a male brood is comparable to that exerted by a worker brood roughly ten times its population size. Since male developmental phases are largely the same as those of worker broods, the appearance of the male broods occasions no substantial modification of the (nomad-statory) cycle of colony behavior changes."

Eciton burchelli (Westwood)

Bernard, 1951, p. 1048:—Stomach and food of larva (after Wheeler and Bailey, 1920, p. 254-255).

Emery, 1899, p. 6:—"Nella larva di *Eciton* (fig. 6) il capo è più piccolo e meno staccato dal tronco; le mandibole strette e minute non oltre passano il labbro superiore, anzi, non lo raggiungono neppure. Il cono laterale delle mascelle è sostituito da un gruppo di piccoli tubercoli (fig. 6 c)."

Lappano (1958) described polymorphism, external anatomy, internal anatomy and histology. "The description of the external morphology . . . herein presented conforms to and extends the general descriptions given . . . by Emery (1899 and 1901) and G. C. Wheeler (1943)" (p. 49). Photographs (p. 51) of larvae of three sizes (Fig. 1) and of the head in anterior view (Fig. 2) and side view (Fig. 3).

Marcus, 1954, Fig. 6 b and c (p. 11):—Outline drawings of larvae in side view (after Schneirla).

Schneirla, 1945:—"During bivouac-change the larvae were carried individually, gripped anteriorly in the carrier's mandibles and slung underneath her body in the typical *Eciton* manner. In general, larvae were transported in the latter half of the movement" (p. 177).

Schneirla, 1948, p. 91:—A male brood numbers about 3000 larvae, which are subcylindrical and of approximately the same size. Mature larvae are 22-24.8 mm long. The production of males seems to be confined to the dry months. Photographs of male larvae of three sizes and of a male semipupa, P1. I.

Schneirla and Brown, 1952, P1. I:—Photographs of queen and male larvae.

Wheeler, 1921, p. 304:—"From what is now known of ant-larvae it can be positively asserted that Müller's description and Fig. 2 refer to larvae of the Ponerine genus *Pachycondyla*," not to *Eciton* larvae.

Eciton burchelli jeanae Weber

Weber, 1943, p. 90:—"Larvae slender, curved, with numerous fine, flexuous hairs which are mostly simple and of variable size but are sometimes bifid, trifid or multifid; mandibles slender, falcate."

Eciton hamatum (Fabricius)

IMMATURE MALE LARVA—Length (through spiracles) 5.6 mm. Generally similar to the worker larva except in the following details: Body hairs 0.036-0.132