

read any of them for the reason given by Weaver (q.v.). Any one interested in these topics is advised to consult Weaver or Sudd (1967) or Wilson (1971).

Weaver (1966) has given an excellent review of some of Brian's papers. One of his comments is pertinent: "Caste determination in *Myrmica rubra* has been studied by Brian and reported in language that is almost aggressively obscure" (p. 91).

Weir 1957, 1959a, 1959b and 1959c—See titles.

Wheeler, G. C. and J. 1952: 118-125—We gave the date of Swammerdam's *Historia Insectorum Generalis* as 1693; it should be changed to 1669.

#### *Myrmica striologaster* Cole

Length (through spiracles) about 5.2 mm. Similar to *M. emeryana* Forel (1952: 114) except in the following details. Body hairs of 2 types: (1) 0.025-0.23 mm, denticulate, a few on each somite; (2) 0.175-0.2 mm, with flexuous shaft and short anchor-tip. Head hairs 0.05-0.125 mm long, denticulate. Anterior surface of each half of labrum with eight minute hairs and/or sensilla; posterior surface with four sensilla on each half; entire posterior surface with minute spinules in transverse rows. Mandibles with the medial border highly varied but similar to *M. emeryana*. (Material studied: six larvae from Arizona, courtesy of Dr. A. C. Cole.)

#### Genus PARAMYRMICA Cole

##### *Paramyrmica colax* Cole

Gregg 1961: 214—"Dr. and Mrs. G. C. Wheeler (1959) have studied and described the larva of *Paramyrmica colax* and found it to be closely related to that of *Myrmica*. However, they showed that the former is generically different from *Myrmica* because it lacks the anchor-tipped hairs and by the similarity of head and body hairs."

#### Genus *Manica* Jurine

Mature larvae show variation in shape of the neck from tapered to thickened, with a constriction at abdominal somites I and II. Our figure (1960: pl. I, fig. 5) is intermediate in constriction. Immature larvae have a sac-like swollen abdomen with an abruptly narrowed neck (=thoracic somites). The neck shows segmentation but the abdomen is so swollen that the segmentation is indistinct or lacking.

G. C. and J. Wheeler 1970: 133—The larvae of *Myrmica* have anchor-tipped hairs; the larvae of *Manica* do not.

##### *Manica bradleyi* (Wheeler)

(Fig. 7)

SUBMATURE LARVA: Length (through spiracles) 5.6-7 mm. Similar to *Manica mutica* (1960a: 5) except as follows. Thorax and AI forming a neck (stout to slender) which is distinctly marked off from the remainder of the body; dorsal profile C-shaped and ventral surface of the abdomen flat. Anus ventral, with two small lips. Body hairs about half as long. Integument of AX and of the ventral surface of the thorax with minute spinules in short transverse rows. Labrum deeply bilobed; posterior surface with three isolated and two contiguous sensilla on each lobe. Each mandible with the blade extending to tip of apical tooth and with subapical teeth more rounded. (Material studied: numerous larvae from