

minal somite IX; (2) with stout base and a few apical denticles, 0.024-0.07 mm long, on the thorax, abdominal somites IX and X and ventral surface of abdominal somite I; (3) a few simple, minute (about 0.009 mm long), scattered hairs. (Material studied; seven larvae from Panama collected by G. C. Wheeler, No. 185; near *phalangium*.)

One of the above larvae has a eucharid planidium attached to the integument on the dorsal surface in the suture between prothorax and mesothorax.

Genus **Messor** Forel

Stout. Thorax curved ventrally. Body hairs sparse; minute to very short; of three types. Head moderately large. Head hairs moderately numerous; short. Posterior surface of labrum spinulose, the spinules arranged in short areuate rows which tend to form a reticulate pattern. Mandibles small; apex slender and curved medially; no medial teeth; basal half of medial surface bearing several long spinules; anterior and posterior surfaces with a few rows of minute spinules. Maxillae not spinulose; galea a slender frustum. Labium not spinulose. Dorsal portion of hypopharynx with sublongitudinal ridges; ventral portion spinulose, the spinules minute and in subtransverse rows.

Bischoff, 1927, p. 122: "Die körnersammelnden *Messor*-Arten ernähren ihre Larven entweder mit dem Inhalt des Kropfes oder einer aus den Körnern hergestellten halbfüssigen Paste."

Emery, 1921, p. 68: "Ces fourmis mangent les graines, elles dissolvent l'amidon cru au moyen de leur salive et se nourrissent et nourrissent leurs larves de cet aliment."

Forel, 1923: "Pour nourrir leurs larves les *Messor* détachent des portions de graines qu'ils portent dans le nid" (p. 38) (= 1928, Vol. II, p. 217: "To feed their larvae, the *Messor* ♀ detach portions of seeds, which they bear into the nest.") "Les larves sont alimentées par les ♀, soit par la régurgitation du contenu de leur jabot, soit par la présentation directe de la pâte en question" (p. 41). (= 1928, Vol. II, p. 220: "The ♀ feed the larvae either by regurgitating the contents of their crop, or by directly presenting the aforesaid paste.")

Stärcke, 1948, p. 26 and 28: "The caudal extremity more swollen. The duct of the labial glands broader and its epithelium composed of taller cylindrical cells."

Wheeler, 1928a, p. 202 (= 1926, p. 243): The larvae are fed on fragments of seeds but the very youngest larvae and the older queen and soldier larvae are fed on regurgitated food.

Messor barbarus (Linnaeus)

(Pl. I, figs. 14-20)

Stout, diameter greatest at the fifth abdominal somite, diminishing gradually toward the anterior end and rapidly to the posterior end which is broadly rounded. Thorax curved ventrally. Lateral longitudinal