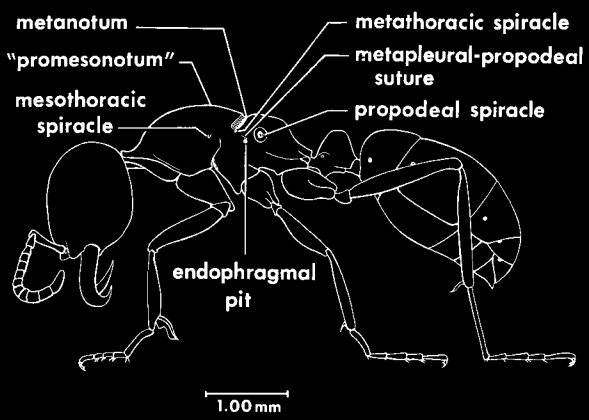

FIG. 1.—*C. morosus*, major worker habitus, pilosity omitted.

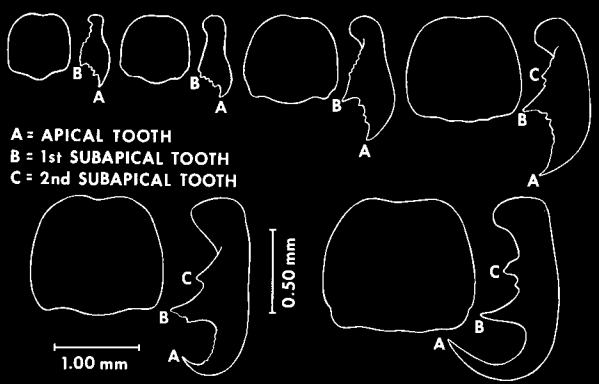

FIG. 2.—*C. morosus*, worker head capsules (excluding antennae) and mandibles, dorsal view, selected to illustrate the polymorphic range and allometry of the species.

a continuous morphological series from the smallest to the largest (Fig. 2). In the smallest mandibles, the second (or proximal) subapical tooth is not distinguishable. Head shape changes with total body length and the cephalic index is positively correlated with total body length (Fig. 3). Although these workers are eyeless, two small, light-pigmented "eye-spots" are evident on the head capsule of larger individuals. Innervation of these spots was not detected in the histological preparations. The antennae are 12-segmented in all workers regardless of size. The mouthparts of *C. morosus* were previously described by Gotwald (1969).

Alitrunk.—length 1.15–2.34 mm. Suturing in the alitrunk of *C. morosus* is greatly reduced. Without sutures, the identification of specific sclerites and/or subdivisions is difficult if not impossible. The alitrunk is divided dorsally into anterior and posterior regions by the furrow-like metanotum (Fig. 1). The anterior region, which accounts for 60% of the alitrunk length, consists of the pro- and mesonotum. However, there is no sutural or topological boundary between these nota. The "promesonotum" is flattened dorsally and smoothly rounded anteriorly and laterally. It is continuous with the pleural region and carapace-like. The only distinct morphological feature of the pleural region is the small mesothoracic spiracle located above the first coxa. The posterior region of the alitrunk is composed primarily of the propodeum. The pleural area of this region includes the metathoracic spiracle, the endophragmal pit, the large propodeal (first abdominal) spiracle, and the bulla and orifice of the metapleural gland. The orifice of this gland is shielded dorsally by a cuticular hood. A faint, incomplete metapleural-propodeal suture passes between the endophragmal pit and propodeal spiracle. Ventrally the alitrunk is composed of laterocervical plates and the pro-, meso-, and metasterna (Tulloch 1935) (Fig. 4). The prosternum is situated immediately posterior to the laterocervical plates and is the smallest of the thoracic sterna. It consists of a clearly defined basisternum and furcisternum and bears a pair of furcal pits. The mesosternum and metasternum are each marked by a median longitudinal groove, and each is considered to be composed of an extensive anterior basisternum and a small posterior furcisternum. However, these regions are not suturally separated from one another. Unlike the prosternum, the furcasterna of the meso- and metathorax each bear only a single, median furcal pit.

Petiole.—length 0.22–0.56 mm. Lateral aspect of petiole as in Fig. 5. In all workers the petiole bears a ventral median process of triangular shape. The apex of the ventral process projects posteriorly. Viewed dorsally, the petiole is approximately as long as it is wide.

Gaster.—length 1.26–2.61 mm. There are 5 externally visible segments in the gaster of *C. morosus*, and each segment bears a pair of spiracles (Fig. 1). While the color of the gaster is consistent with the color of the head, alitrunk and petiole in any one individual worker, the sting is usually darker.

Internal Morphology.—Alimentary canal and accessory structures: The pharynx is the first region of the alimentary canal. It is characterized by a thick,

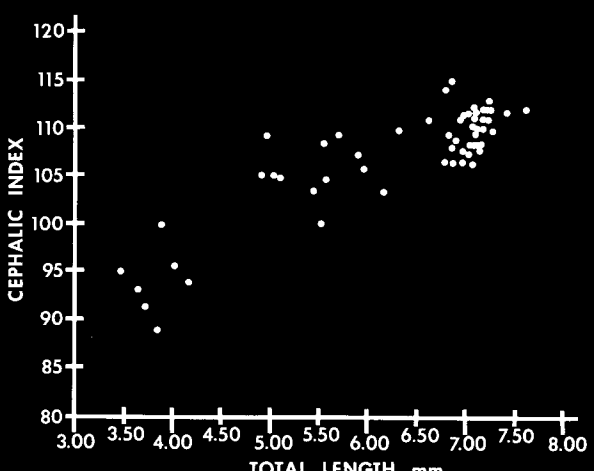

FIG. 3.—Relationship of head shape (cephalic index) to total body length in *C. morosus* workers.