quency distribution to a lognormal Poisson distribution as described by FAGEN and GOLDMAN (1977), using a computer program supplied by R.M. FAGEN. Size- related division of labor was considered separately, but the data are more limited because of difficulties in accurately distinguishing worker size classes in this monomorphic species.

DESCRIPTION OF GYNE

See *figure 1.* Total length about 6 mm, with little size variation. Head width of three Singaporean gynes 1.05-1.06 mm ; head length 1.08-1.10 mm ; cephalic index 96-98. Head similar to that of worker, but roughly triangular in full face view ; eyes oval, maximum diameter about 20 % of head length ; ocelli prominent ; mandibles and antennae as in worker. Trunk massive, with full complement of flight sclerites, and only about 25 % longer than high ; very similar in shape to that of Atta gynes. Metanotum with a single blunt spine medad, as in male. Petiole and postpetiole as in worker. Gaster heavily sclerotized, massive, of a length slightly greater than that of alitrunk. Head and alitrunk areolate-rugose (with alveolate microsculpturing) as in workers but more strongly impressed.

PHYLOGENETIC RELATIONSHIPS

WEBER (1958) removed the genus *Proatta* from the Attini, noting morphological differences between *P. butteli* and attine ants. Yet there are several characters that suggest *P. butteli* is phylogenetically close to the Attini ; indeed, this species is most similar to *Mycocepurus* and *Myrmicocrypta.* Perhaps most remarkable is the resemblance of the larva to those of attines, as has been confirmed by G.C. and J. WHEELER (1985). Yet in spite of probable evolutionary ties between *Proatta* and the Attini, this genus should be excluded from the Attini for geographic and behavioral reasons, at least until attine phylogeny is better understood.

For female castes, probable synapomorphies include :

1. The blunt spines on the head and alitrunk of workers, which closely resemble those found in many *Mycocepurus* and *Myrmicocrypta* species and some other attines.

2. Presence of a projection located somewhat ventrad on the posterior-lateral surface of the head (see *fig. 1*), remarkably similar to projections found in *Myrmicocrypta* (feeble ridges present on the heads of *Mycocepurus* workers may be homologous).

3. Presence of a narrow, finger-shaped extention of the clypeus, which is produced back between the antennal carinae, as in *Mycocepurus* and *Myrmicocrypta.*