

the posterior border of the eye to the rim of the occipital neck is the shortest distance between these two points; (8) length of scape is the shortest distance from base to apex. The color of the body hairs and the degree of distinctness of the body sculpturing will vary greatly according to the intensity of the artificial light used.

#### Acknowledgements

I am deeply grateful to all institutions and individuals who have so freely cooperated with me. Material has been secured from the following: Museo Civico di Storia Naturale, Genova, through Delfa Guiglia; the British Museum (Natural History), London, through I. H. Yarrow; the Museum of Comparative Zoology, Cambridge, Massachusetts, through W. L. Brown; the California Academy of Sciences, San Francisco, through C. Don MacNeill; the Museum d'Histoire Naturelle, Geneva, through Chas. Ferrière. In addition to the sources mentioned I have studied types and other specimens belonging to the U. S. National Museum, Washington, D. C.

I should especially like to express my sincere appreciation to E. O. Wilson of the Biological Laboratories, Harvard University and to Dr. Brown at Cambridge. These persons have not only furnished numerous specimens and many helpful biological notes but have also greatly encouraged me at all times.

The illustrations for the article were prepared by Arthur D. Cushman.

#### Aphaenogaster Mayr

The genus *Aphaenogaster* was erected by Mayr 1853, p. 107 but no type designated until 1903 when Bingham chose *sardoa* Mayr. At present five subgenera are recognized: *Aphaenogaster* Mayr, *Attomyrma* Emery, with its type *subterranea* (Latr.), *Deromyrma* Forel, *Planimyрма* Viehmeyer and *Nystalomyrma* Wheeler. Since only the three latter subgenera are known to occur in New Guinea each of these will be treated in detail. Such treatment will give the following: Original reference to the subgenus, type, general distribution throughout the World, and brief but salient characterizations of the castes. It should be clearly understood that the characters used in the keys to subgenera and species are only for New Guinea ants and may not be applicable to ants from other parts of the world.

#### *Aphaenogaster*, subgenus *Deromyrma* Forel

*Aphaenogaster*, subgenus *Deromyrma* Forel, 1913, Zool. Jahrb. Syst., 36: 49.

Type: *Aphaenogaster (Ischnomyrmex) swammerdami* Forel. Orig. desig.

Distribution—Mediterranean Region and Central Asia. Insular and Continental India, Madagascar, Mexico and Central America.

#### *Worker.*

Body slender, antennae and legs unusually long. Head including mandibles but not the occipital neck, subelliptical; prolonged posteriorly to form a long funnel-like, occipital neck. Antenna 12-segmented; scape curved, slightly enlarged near its apex, approximately as long as the combined lengths of the first 8 or 9 funicular segments. Mandible rather large, subtriangular, the masticatory border bearing 3 distinct teeth followed by a row of smaller and more irregular teeth. Eye protuberant but not strongly convex, not especially large, 0.3–0.4 mm. in its greatest diameter, placed