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SCANNING ELECTRON MICROSCOPIC STUDY OF NORTH AMERICAN *POGONOMYRMEX* (HYMENOPTERA: FORMICIDAE)[1]

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Abstract.—A SEM study of 16 *Pogonomyrmex* taxa from the U.S.A. is presented. Taxa representing both groups previously referred to as subgenera and all four complexes of the nominate subgenus are examined. Some previously used surface structure terminology is corrected for the genus and the head of a bilateral gynandromorph of *P. occidentalis* is illustrated. The problematic nature of *P. huachucanus* is discussed.

The ant genus *Pogonomyrmex* Mayr is confined to the New World and is represented in North America by 29 species (Cole, 1968; MacKay, 1980; Snelling, 1981a; MacKay et al., 1985). These ants are commonly known as "harvesters" because they store seeds within their nests, possibly as a food source. Most of these ants are xerophilous and only one species occurs east of the Mississippi River in the U.S.A. The greatest concentration of species in the U.S.A. is in the desert Southwest.

Pogonomyrmex are the dominant ant throughout much of their range. Damage to cultivated crops through seed harvesting, grass cutting, and construction of large, durable mounds adversely affects both the farmer and urban resident. These insects often build nests near the road shoulder where extensive tunneling causes the road surface to crumble and collapse, forming potholes. Medically, harvester ants are important because of their highly algogenic stings which cause anaphylactic shock in hypersensitive victims. These ants are also of taxonomic interest because of the poorly understood relationships between congeners.

Wheeler (1902) divided *Pogonomyrmex* into two subgenera, *Ephebomyrmex* Wheeler and the nominate subgenus, based on the heavier sculpturing, smaller size, and reduced psammophore of *Ephebomyrmex.*

The subgenera created by Wheeler were retained by Creighton (1950) in his key to the ants of North America. Creighton considered that the criteria chosen for the recognition of *Ephebomyrmex* were inappropriate and that the reproductive forms required further study. He noted that the thoraces of females of *P.* (*E.*) *imberbiculus* lack the elevated scutellum of *Pogonomyrmex* sens. str. (Creighton, 1956). Angular metasternal flanges and an irregular or absent row of gular hairs (ammochaetae) that form the psammophore distinguish *Ephe-*

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