

STUDIES OF NEW MEXICO ANTS. VII. THE GENUS  
POGONOMYRMEX WITH SYNONYMY AND A  
DESCRIPTION OF A NEW SPECIES  
(HYMENOPTERA: FORMICIDAE)<sup>1</sup>

A. C. COLE

*The University of Tennessee, Knoxville, Tennessee*

The genus *Pogonomyrmex* Mayr is very well represented in New Mexico which appears to be a region of intergradation of certain forms. Members of the genus flourish particularly in the arid valleys and plains, but *P. occidentalis*, the common western harvester, appears to be able to thrive at elevations above 6,000 feet and various other forms have been collected at such high elevations.

*Pogonomyrmex (Pogonomyrmex) anergismus* n. sp.

*Holotype.* Alate female (Cole Coll. No. N-331). Length, 7.5 mm. Head as broad as long, posterior corners broadly rounded, occipital border straight. Antennal scape reaching about three-quarters of the distance between its insertion and the occipital corner. Scutum very broadly convex in profile, nearly flat. Scutellum convex, extending dorsally from the posterior margin of the scutum. Basal surface of propodeum about twice as long as the declivious surface and descending to the propodeal spines at about a 45° angle, the declivious face nearly perpendicular. Petiolar node when viewed from the rear subrectangular, longer than its anterior peduncle, the superior border flattened, the corners rather truncate; when viewed in profile the superior border is quite sharp; apical half when viewed from above and behind somewhat broadly depressed medianly. Postpetiole when viewed from above subglobular, a little broader than long, about 1½ times as broad as the petiolar node. Propodeal spines notably shorter than the distance between their bases, stubby, broad at the base, rather blunt at the tip. Maxillary palpi 4-segmented, labial palpi 3-segmented.

Entire head with fine longitudinal rugules which tend to fade out on the occipital corners, the rugules being somewhat coarser just above the mandibular articulations and on the postgenae; interrugular spaces very faintly and finely punctulate; occipital corners with a few shallow elongate foveae. Pronotum with moderately fine transverse rugae; scutum finely and longitudinally rugulose; mesothoracic paraptera smooth, without rugulae; meso- and metathoracic epimera and episterna with prominent longitudinal rugae which continue transversely over the basal face of the propodeum; declivious surface of propodeum smooth. Lateral and posterior surfaces of petiolar node with fine transverse rugulae which are more prominent basally than apically. Dorsum of postpetiole with fine, irregular, transverse rugulae. Gaster smooth.

Entire body with moderately long, rather abundant, stiff, mostly coarse, golden hairs; those on clypeus long and pointed as are also the well developed ammochaetae; most of those elsewhere on head are blunt, shortest on frontal region, longest on vertex and occipital margin where they are largely clavate, sparse around the compound eyes and in the area between the median ocellus and clypeus; long, fine, reclinate, and subappressed on antennal scapes, suberect on first five funicular segments, largely subappressed and appressed on remaining segments. Hairs on thorax of variable length, longer and more pointed on pronotum; shorter and more clavate on scutum and scutellum; very short, blunt, and clavate on sides of thorax; long, slender, and pointed on fore coxae;

<sup>1</sup>Contribution No. 89, Department of Zoology and Entomology, The University of Tennessee, Knoxville. These studies were supported in part by grants from the Penrose Fund of the American Philosophical Society.

very sparse and short on propodeum; nearly absent from anterior peduncle of petiole; short and blunt on anterior surface of petiolar node; long and blunt on posterior and lateral surfaces of postpetiole; absent from venter of petiole and sparse on venter of postpetiole where they occur only on the swollen anterior portion. Hairs rather long, evenly distributed, and blunt on dorsum of gaster; longer, more slender, and pointed ventrally and terminally.

Body a rather uniform rich ferruginous color; antennae, anterior clypeal border, articulations, and posterior margins of gastric segments darker. Wings pale brownish hyaline; veins and stigma brown. Entire body shining.

*Paratype*. Male (Cole. Coll. No. N-331). Length, 6.3 mm. Very similar to the holotype in size, color, and general conformation, but differing in the following respects: Head broadest between the eyes; antennal scapes extending to the posterior margin of the compound eyes; compound eyes set a little more obliquely than those of holotype; cephalic rugulae absent except within and above the ocellar triangle, beneath and immediately around the compound eyes, and on the postgenae; cephalic hairs abundant, long, slender, pointed, longest on ventral and occipital surfaces, mandibles, and clypeal border. Scutellum smooth; without rugulae; rugae on pronotum much less prominent than in holotype; basal surface of propodeum less than  $1\frac{1}{2}$  times as long as the declivity; propodeal spines angulate, short, very broad at the base, blunt at the tip. In general the body hairs are more abundant, more pointed, and more slender than in the holotype; not flexible; rather evenly distributed; some have a tendency to curve near the tip; shorter than those of other *Pogonomyrmex* males. Petiolar node with a very broad and very distinct depression on its posterior face, its apical margin less angular in profile than that of the holotype and the superior corners when viewed from above and behind more rounded; petiolar node with a broadly triangular flange-like ventral projection; hairs on petiole and postpetiole long, pointed, numerous, more robust than those on head and thorax. Mayrian furrows poorly developed. Wing venation variable. Gaster with long, slender, abundant, rather uniformly distributed hairs of approximately equal length; hairs on genitalia curved. Head, dorsum of thorax, legs (except coxae), petiole, postpetiole, and gaster very shining; coxae and the lateral portions of thorax glossy subopaque. Wings brownish hyaline; veins and stigma brown.

Certain characteristics of the male, notably the pilosity which is stiff, only moderately long, and not at all flexible, contrast markedly with those of males of other species in the genus.

*Type locality*. The holotype and the more than one hundred paratype males and alate females were collected by the writer from a semidesert shrub area 15 mi. E. of Silver City, New Mexico, on U. S. 260, at an elevation of 6,900 feet, on September 13, 1951. They were within a large flat pebble nest occupied by a large colony of *Pogonomyrmex barbatus rugosus* Emery, the host species. When the nest was opened myriad workers of *rugosus* and the males and females of the contrastingly different new species milled out. The *rugosus* workers grasped the parasitic species and scurried back into nest tunnels. No workers of the new form were found nor were there any *rugosus* sexual forms. The entire nest was excavated. The probability that the males and females represented a workerless nest parasite (which because of the gross similarity in size and coloration did not show sexual differences without magnification) prompted me to collect a large series, but fully an equal number including many callows was left in the nest. Subsequent examination showed that there was a greater proportion of females than males in my sample.

*Disposition of types*. The holotype and a large series of paratype males and females are in the author's collection. Paratype males and females have been deposited in the Museum of Comparative Zoology (Harvard), the U. S. National Museum, the American Museum of Natural History, and in the collections of W. S. Creighton and R. E. Gregg.