

Type locality.—Prescott, Ariz.

Holotype.—United States National Museum No. 56398.

Paratypes.—Three in the United States National Museum, one in the American Museum of Natural History, and one in the Museum of Comparative Zoology (Harvard).

Described from the holotype specimen which was collected at the type locality on May 12, 1935, by R. H. Crandall. The five paratypes bear the same labels as the holotype. They differ from the holotype in their slightly smaller size, darker color, and more clearly defined frontal area.

This very characteristic species is readily recognized by its unusually long and robust antennal scape, impression on the dorsal surface of the clypeus, large mandibles, shape of the petiole and postpetiole, the prominent longitudinal rugulae on the basal half of the first gastric segment, and the peculiar type of sculpturing which somewhat resembles that of the ants of the genus *Myrmica*.

**PHEIDOLE (MACROPHEIDOLE) RHEA WHEELER,
A VALID SPECIES.
(Hymenoptera: Formicidae.)**

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In 1908 (Amer. Mus. Nat. Hist. Bul. 24: 452) Wheeler described *Pheidole rhea* from an unusually large (14.3 mm.) wingless female now in the Cornell University collection, collected at Nogales, Ariz., by Oslar. In 1915 (Amer. Mus. Nat. Hist. Bul. 34: 403) he synonymized *rhea* with *fimbriata* Roger after comparing the Nogales female with winged females, soldiers, and workers of *fimbriata* collected at Cuatololapan, Vera Cruz, Mexico, by A. G. Ruthven. That Wheeler later recognized the error is indicated by numerous specimens of soldiers and workers in his collection which bear his handwritten label, *rhea*. At my request, L. G. Wesson, Jr., kindly checked Wheeler's description of *rhea* with the specimens of *fimbriata* collected in Mexico by Dr. Ruthven and now in the Museum of Comparative Zoology at Harvard, and he found that they are not the same species. He stated, furthermore, "Comparing majors (soldiers) with those of *fimbriata* shows that the differences between the description of the female *rhea* and female *fimbriata* are virtually the same differences as between the majors of the two forms."

Pheidole fimbriata was described by Roger (1863, Berlin Ent. Ztschr. 7: 196) from two soldiers (in the Paris Museum) measuring 7.5 and 7.8 mm., respectively, from the Rio Paraguay. According to Emery (1921, in Wytzman, Genera Insectorum, fasc. 174 a: 81) this species, which is the type of the subgenus *Macropheidole*, ranges from Argentina into Mexico. There are no authentic records, however, of its presence in the United States. On the other hand, *rhea* has been collected at numerous localities in Arizona and Mexico. The known records are as follows:

Arizona: Nogales, 3,880 feet, rolling hills and grass, Robt. G. Wesson; Pinal Mountains, October 7, 1924, 4,000 feet, H. C. Millender; Cleator, 1936, R. H. Crandall; Sabino Canyon, October 4, 1937, R. H. Crandall; Atascosa Mountains, October 2, 1938, R. H. Crandall; Stratton, Santa Catalina Mountains, 6,000-7,000 feet, July 27, 1917, W. M. Wheeler; Blue River, August 24, 1914, E. G. Holt; Sabino Basin, Santa Catalina Mountains, July 8-12, 1916, collector ?; Sabino Canyon, Santa Catalina Mountains, July 23, 1917, W. M. Wheeler; Sabino Canyon, 3,700 feet, Robert G. Wesson; Baboquivari, 3,700 feet, mesquite and grass, Robert G. Wesson; Atascosa Mountains, in canyon, 4,600 feet, both in shade and sun, Robert G. Wesson.

Mexico: Escuinapa, Sinaloa, J. H. Batty; Guayamas, April 15, 1921, J. C. Chamberlin; San Pedro, Nolasoc Island, Gulf of California, April 17, 1921, E. P. Van Duzee.

In an attempt to show that *rhea* is entitled to distinct specific rank, I show below in parallel columns the more significant differences between it and *fimbriata*, in the soldier and worker castes, following which I describe the soldier and worker of *rhea* in detail.

SOLDIER.

P. rhea.

Head with fine, dense, longitudinal rugulae which tend to converge on each posterior corner; the interspaces alveolate, thus giving the head, in some lights, a subopaque appearance.

Eye small, but not extremely so (with approximately 15 ommatidia in its greatest diameter).

P. fimbriata.

At least the anterior half of the head with coarse, well-spaced longitudinal rugulae, with no pronounced sculpturing in the inter-spaces; posterior part of head with semi-circular or transverse rugulae which have a tendency to become reticulate.

Eye extremely small (with approximately 11 or 12 ommatidia in its greatest diameter).

Scape short, unusually slender, and somewhat compressed basally.

Ventral surface of petiole and postpetiole without tufts of short, erect, dense hairs.

Epinotal spines remarkably long, and with acute tips.

Scape short, but not unusually slender and not compressed basally.

Ventral surface of petiole and postpetiole each with a tuft of short, erect, dense hairs.

Epinotal spines well developed but neither remarkably long nor with acute tips.

WORKER.

Eye prominent (with 11 or 12 ommatidia in its greatest diameter).

Ventral surface of petiole and postpetiole without tufts of short, erect, dense hairs.

Epinotal spines unusually long and acute.

Superior border of petiole transverse, straight.

Eye extremely small (with 6 or 7 ommatidia in its greatest diameter).

Ventral surface of petiole and postpetiole each with a tuft of short, erect, dense hairs.

Epinotal spines short.

Superior border of petiole transversely rounded.

Pheidole (Macropheidole) rhea Wheeler.

Pheidole rhea Wheeler, 1908, Amer. Mus. Nat. Hist. Bul. 24: 452.

Pheidole fimbriata Roger; Wheeler (not Roger), 1915, Amer. Mus. Nat. Hist. Bul. 34: 403.

Soldier.—Length 5.5 mm.

Head subrectangular, widest anteriorly, with the sides subparallel in the anterior half and converging in the posterior half; posterior border deeply emarginate, forming strongly rounded posterior corners. A well-defined frontal furrow extending posteriorly from the frontal carinae. Antennal scape short, when laterally extended attaining the eye, slender, basally compressed. Frontal area impressed. Clypeus with a longitudinal carina or protuberance; anterior border with a distinct emargination which is neither wide nor deep. Mandible subtriangular, stout, convex exteriorly. Eye small, with approximately 15 ommatidia in its greatest diameter. Pronotum large, strongly sloping anteriorly from the promesonotal suture, where the thorax reaches its greatest height; humeral angles rounded. Mesonotum abruptly sloping into the pronounced mesoepinotal constriction, the transverse elevation weakly defined. Epinotal spines remarkably long, about one-third longer than the basal surface of the epinotum, the tips acute. Superior border of petiole thin, with a very distinct emargination. Postpetiole approximately one and one-half times as broad as long, the sides converging both anteriorly and posteriorly and forming on each side a prominent conule at their point of junction.

Mandible with coarse, scattered punctures in addition to the coarse, longitudinal rugulae which cover most of its surface. Median area of clypeus with longitudinal rugulae and sides with transverse rugulae, but

with the extreme central part largely smooth and shining. Head with fine, dense, longitudinal rugulae which tend to converge on each posterior corner of the head, the interspaces finely alveolate; posterior part of head with coarse, prominent, hair-bearing punctures. Pronotum mostly smooth and shining, remainder of thorax finely rugulose-alveolate. Dorsal surface of postpetiole and gaster very finely alveolate.

Body subopaque in some lights, more shining in others, this being especially true of the head. Body covered with numerous well-scattered, suberect to erect, yellowish hairs. Dark reddish brown, approaching black; the funiculi and tarsi light.

Worker.—Length 3 mm.

Head approximately as broad as long, with feebly convex sides and a straight or very feebly emarginate posterior border. Frontal area not strongly delimited as with the soldier. Clypeus convex, with angularly projecting anterior border and rounded posterior border. Eye prominent, with 11 or 12 ommatidia in its greatest diameter, placed less than twice its greatest diameter from base of mandible. Antennal scape long, slender, extending almost one-third its length beyond the posterior border of the head, slightly enlarged apically. Mandible large, subtriangular, with 15 or 16 small but distinct teeth. Thorax, in profile, highest in the region of the promesonotal suture; mesonotum forming an almost even slope from this point to the well-defined mesoepinotal constriction. Epinotal spines unusually long, longer than the base of the epinotum, their tips acute. Petiolar node, from behind, with straight, transverse, superior border. Postpetiole of approximately equal length and breadth, with the sides convergent in the anterior and posterior halves and forming a distinct angle on each side. Legs rather long and slender. Gaster, from above, subelliptical.

Mandible distinctly rugulose, also punctate, especially near the masticatory border. Longitudinal rugulae extending on the head beyond the posterior border of each eye, the interspaces finely alveolate. Posterior part of head mostly smooth except for the scattered, hair-bearing punctures. Sides of thorax, especially the meso- and metapleura, alveolate; dorsal surface either smooth or with extremely fine alveoli. Sculpture of petiole and postpetiole similar to that of thorax. Gaster smooth and shining.

Hair long, grayish or light yellowish, suberect to erect, moderately abundant and well scattered over body. Brown; gaster darker, funiculi and tarsi lighter.

Described from a soldier and worker collected at Nogales, Ariz., by Robert G. Wesson in rolling hills and grass at an altitude of 3,880 feet.

Since Nogales is the type locality of *rhea*, I have chosen to describe specimens from this region. Examination of numerous individuals from many localities shows that *rhea* is a polymorphic species and that the soldier described above does not represent the largest of its caste. An unusually large soldier from Escuinapa, Mexico, measures 8 mm. in length. In a

letter, Wesson indicated that Wheeler had labeled the Blue River, Ariz., and the Escuinapa, Mexico, specimens as *rhea* and those from Stratton, Sabino Canyon, July 23, and Sabino Basin, July 8-12, as a new variety. There are no means now of determining on what characters Wheeler based his concept of a new variety. I have examined the specimens labeled by Wheeler as *rhea* and those he marked as his new variety, as well as individuals from all the other localities listed above. Among these there is a noticeable tendency for the sculpture on the head of the soldier to vary and for the epinotal spines to differ in shape. The rugulae on the anterior half of the head are consistently longitudinal whereas those on the posterior half of the head may converge at each posterior corner and there form somewhat of a concentric pattern, or they may all converge mesially toward the deep emargination on the back of the head or even may form a concentric pattern around the central part of the head. The epinotal spines likewise vary greatly as to the direction in which they are pointed. In some individuals the spines are almost horizontal; in others they are more angularly directed. In view of the high degree of variability in the sculpturing of the head and the position of the spines it does not seem advisable to recognize any subspecific forms of *rhea*.

SOME NOTES UPON THE TYPES OF NORTH AND SOUTH AMERICAN SYRPHID FLIES IN THE BRITISH MUSEUM OF NATURAL HISTORY.

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Several years ago I made a study of rare genera and the types of species of the family Syrphidae as represented in the collections of the British Museum of Natural History. These collections are peculiarly interesting, containing as they do not only representatives from many parts of the world, but also types of such persons as Walker, Bigot and other dipterists. I am greatly indebted to Dr. John Smart and to the late Dr. F. W. Edwards, who placed the facilities of the museum at my disposal for study. This paper records some observations made at this time having to do principally with synonymy and are listed below.

Lepidomyia cincta Bigot belongs to the genus *Quihuana* Knab.
Eristalis fo Bigot belongs to *Lathyrrophthalmus*.
Helophilus scita Walker (from the Amazon) is a *Habromyia*.
Neascia (Ascia) striata Walker belongs in *Calostigma* Shannon.