

**STUDIES OF NEVADA ANTS  
III. THE STATUS OF FORMICA  
NEVADENSIS WHEELER  
(HYMENOPTERA: FORMICIDAE)<sup>1</sup>**

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*Formica nevadensis* was described as *F. microgyna* var. *nevadensis* Wheeler (1904, p. 373) from a single alate female collected in Ormsby County, Nevada, by Mr. C. F. Baker. Creighton (1950, p. 505) elevated it to full specific rank. During the summer of 1954, the writer had an opportunity to collect and study the ants of Nevada. Among several series of forms of *Formica* in the *microgyna* group which were collected are two samples of *nevadensis* taken in Ormsby County (and near Lake Tahoe) at an elevation of 6,900 feet. Both nests were beneath flat stones on a dry, sunny slope with a sparse stand of spruce and fir. Each stone was lightly banked with detritus along its periphery. From both colonies series of workers were obtained and in one of the nests two alate females were found. No males were observed. The writer compared the females with the original description of *nevadensis* which they appear to fit rather well. Inasmuch as the worker caste has been either unknown, or at least unreported in the literature, the writer compared his collections of *nevadensis* workers with those of *microgyna* Wheeler which were at hand. Differences appeared to be comparatively slight. Dr. Brown, at the Museum of Comparative Zoology, very kindly compared one of the two females, from the nest found by the writer, with the type female of *nevadensis*. He reported (*in litt.*) that he considers the two females to be conspecific. He also compared workers and the female from the writer's series of *nevadensis* with type workers and females of *microgyna*. Dr. Brown informed me that the difference in erect pilosity between the females of *nevadensis* and *microgyna* is only average, but that the females of the two species differ demonstrably in gastric sculpture and pubescence. When observed at high magnification, the gastric pubescence of the *nevadensis* female is less dense and the surface slightly more smooth and shining. My two females possess the uniformly dark brown mesonotum which Wheeler (1904, p. 373) described for *nevadensis*. Apparently there are no consistent differences in body pilosity between workers of the two species. But the worker of *microgyna* possesses notably more dense pubescence (overlapping widely at the tips) than does that of *nevadensis*.

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It would appear, then, that *nevadensis* is a distinctive population very closely related to *microgyna* and, from data obtained thus far, the two are allopatric. It might be mentioned that the writer has made collections of *microgyna*, which compare favorably with those taken at Manitou, Colorado (the type locality of *microgyna*), from Lamoille Canyon, in the Ruby Mountains of Northeastern Nevada, at an elevation of 6,300 feet. *F. densiventris* Viereck was collected in both Lamoille Canyon and the Lake Tahoe area.

## LITERATURE CITED

- Creighton, W. S. 1950. The ants of North America, *Bull. Mus. Comp. Zool.*, 104: 1-585.  
 Wheeler, W. M. 1904. A new type of social parasitism among ants, *Bull. Amer. Mus. Nat. Hist.*, 20: 347-374.

**STUDIES OF NEVADA ANTS. IV.  
 DESCRIPTIONS OF SEXUAL CASTES OF THREE  
 MEMBERS OF THE RUFA GROUP OF THE  
 GENUS FORMICA L.<sup>1</sup>**

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During the summer of 1954, the writer made intensive studies of ants in Nevada. Among the collections taken at Lake Tahoe, which is situated within the borders of both Nevada and California, are samples from nests of *Formica integroides propinqua* Wheeler, *planipilis* Creighton,<sup>2</sup> and *integra tahoensis* Wheeler. The series include both males and females of *propinqua* and *tahoensis* and females of *planipilis*, none of which has heretofore been described in the literature. The descriptions follow.

*Formica integroides propinqua* Wheeler

Female (nest queen). Cole Coll. No. Nev.166.

Head length, 1.90 mm.; head width, 1.92 mm.; scape length, 1.70 mm.; pronotal width, 1.79 mm.; thoracic length, 3.44 mm.

Head with occipital border nearly straight; occipital corners broadly convex. Hairs on cranium absent except for numerous, long, rather slender, yellow, flexuous ones on the clypeus and a scattering of six, long, slender, pointed ones on the gula. Eyes hairy; mandibular hairs long, sharp, suberect and subdecumbent. Pubescence yellowish, short, fine, appressed, scattered, moderately abundant. Surface of head finely and densely granulose, opaque; frontal area finely shagreened, shining in reflected light.

Pronotum with a few long, grayish-brown hairs scattered near the posterior margin. Hairs on scutum very sparse, scattered, uneven in length. Scutellum with a few long hairs. Hairs absent from paraptera, metanotum, and epinotum. Femora with scattered hairs of variable length. Pubescence rather short, appressed, moderately abundant. Surface of thorax finely and densely granulose; opaque. The petiolar scale, viewed in profile, rather thick

<sup>1</sup>These studies were aided by a grant from the Penrose Fund of the American Philosophical Society.

<sup>2</sup>The status of this ant is discussed elsewhere in this paper.