

*F. integra tahoensis* Wheeler  
Female (alate). Cole Coll. No. Nev.-109

Superior border of petiolar scale sharp, the elevated, moderately and broadly excised median portion being especially so. Cephalic hairs absent except on the eyes, mandibles, palpi, and anterior border of the clypeus; thoracic hairs absent except for a few short, erect ones on the pronotal collar, scutum, and paraptera and a few considerably longer ones on the posterior half of the scutellum; hairs absent from legs except for the usual flexor surface rows; superior petiolar border with very sparse and short, erect hairs; gastric pilosity extremely sparse, there being a scattering of a number of short, rather blunt, and chiefly suberect hairs on the anterior surface of the first tergite and just a few, scattered, longer and more slender ones along the anterior and posterior borders of each succeeding tergite.

Head, thorax, legs, and petiole lighter than in the worker, being a dull, light tan; scutum with median and lateral infuscation; paraptera, scutellum, metanotum, meso- and metathoracic epimera, meso- and metathoracic sternites and episternites, posterior border of pronotum, and superior margin of petiolar scale rather deeply infuscated; head with a small infuscation behind each compound eye and in the ocellar triangle.

Head, except clypeus, mandibles, and frontal area, opaque; clypeus subopaque; frontal area very smooth and strongly shining; gaster subopaque. Pubescence on entire body moderately dense.

Male. Cole Coll. No. Nev.-109.

Resembling the male of *F. integra haemorrhoidalis* Wheeler, from which it differs principally in the following respects: (1) Erect hairs much less abundant, (2) tibiae without hairs except for the usual row on the flexor surface, and (3) frontal area opaque.

From *F. integra* Nylander it differs chiefly in the following characteristics:

- (1) Erect hairs present, (2) eyes hairy, and (3) frontal area opaque. Males and females were taken together with workers from a large, domed mound of detritus over a large stone in a dry, sagebrush area with scattered pine, near the shore of Lake Tahoe, at Nevada Beach. Lake Tahoe is the type locality of *tahoensis*. I was unable to find this ant elsewhere.

#### LITERATURE CITED

- Creighton, W. S. 1940. A revision of the North American variants of the ant *Formica rufa*. *Novitates, Amer. Mus. Nat. Hist.*, No. 1055: 1-10.  
1950. The ants of North America. *Bull. Mus. Comp. Zool.*, 104: 1-585.

### NEW SYNONYMY IN THE GENUS *MANICA* JURINE (HYMENOPTERA: FORMICIDAE)<sup>1</sup>

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More than forty years ago, Wheeler (1914, pp. 120-121) described as new, two species of *Manica* which he named *Myrmica (Oreomyrma) aldrichi* and *hunteri*, one having been collected from Idaho and the other from Montana. In his book on North American ants, Creighton (1950) lists as the range of *aldrichi* (p. 108) "mountains of northern Idaho to the Cascade Range in

<sup>1</sup>This study was aided by grants from the Penrose Fund of the American Philosophical Society.

Washington and Oregon" and of *hunteri* (p. 109) "mountains of southwestern Montana to the ranges of northeastern Nevada."

The three chief structural characteristics of the worker which have supposedly established *aldrichi* as being a species differing from *hunteri* are a comparatively short antennal scape with respect to head size, a pointed or conical, anterioventral, postpetiolar protuberance, and a clear yellowish body color.

My collections of *aldrichi*-*hunteri* include adequately long series from Oregon, Nevada, Idaho, and Wyoming. In order that the validity of scape length as a definite characteristic might be tested, measurements of workers from all series were plotted on a basis of scape length related to head length, of scape index in relation to head width and of cephalic index. None of the graphs shows any significant break in the plots which might otherwise indicate the presence of different species populations being involved. All series show marked overlaps. Expressed in terms of scape index,<sup>2</sup> the series (by geographic location) vary as follows: Cloud Cap Inn, 6,000 ft., Mt. Hood, Oregon, 82.35-93.62; Emigrant Park, 3,000 ft., near Pendleton, Oregon, 85.14-90.91; Elko, Nevada, 6,000 ft., 81.03-92.00; Stanley, Idaho, 5,900 ft., 81.13-90.70; Yellowstone National Park, Wyoming, 7,900 ft., 82.98-93.62; Jenny Lake Area, 6,600 ft., Grand Teton National Park, Wyoming, 82.22-94.87. Expressed otherwise, the results are comparable.

With regard to the shape and prominence of the postpetiolar protuberance, there is a considerable amount of both intranidal and internidal variation in colonies from Elko, being intranidally from all blunt to a ratio of ten blunt to two conical. In the Mt. Hood series there is a ratio of one blunt to eight conical, but in the Emigrant Park series all are blunt as they are also in all series from Grant Teton National Park and from Stanley, Idaho. The ratio of the Yellowstone National Park series is, however, one blunt to five conical. Thus the degree of development of the postpetiolar ventral protuberance will not hold as a characteristic of difference between *aldrichi* and *hunteri*. Creighton (*op. cit.*, p. 108) wisely eliminated this characteristic from his key to North American *Manica*.

There remains for consideration the possible significance of body color as a separatory feature. The specimens which have been called *aldrichi* are of a rather uniform yellow or a yellowish brown color (Creighton, *ibid.*; Wheeler, *op. cit.*, pp. 119, 121) whereas those which have been referable to *hunteri* are of a deep reddish orange (Creighton, *ibid.*) or brownish red or ferruginous shade with cephalic infuscation, those from Emigrant Park are equally as light but show pale but distinct infuscation of the head of some specimens. Moreover, of the several collections

<sup>2</sup>Scape length X 100/head width.

that I made from Grand Teton National Park, some show consistently the same light body color of the Oregon population, with cephalic infuscation in most representatives, whereas other adjoining colonies exhibit just as consistently the dark body color which has been attributed to *hunteri*, but they completely lack cephalic infuscation, and still others have a dark body color combined with an intense cephalic infuscation. It would appear then, from a consideration of the foregoing data, that body color cannot be used as a valid means of segregating the overall population into two species. Moreover, there is no consistent relation of body color to scape length and/or to development of the postpetiolar protuberance.

Finally, my efforts to support the status quo of there being represented two discrete populations by my attempting to find a sound discriminative morphologic characteristic, or a combination of characteristics, have met with no success. It is my conclusion, therefore, that the two names, *aldrichi* and *hunteri*, represent a single, large, diversified species population. There is no indication of subspeciation. I propose, then, that *Manica aldrichi* (Wheeler) be synonymized under *Manica hunteri* (Wheeler). The selection of the name has been based purely upon its greater euphony. It might be pointed out, as a concluding remark, that the very extensive population of *M. mutica* (Emery), to which *hunteri* is most closely related, displays a marked amount of normal intra-specific structural variation. Any population of *mutica* can readily be distinguished from any one of *hunteri*, however, on the basis of cephalic structure and the degree of development of the postpetiolar venter.

#### LITERATURE CITED

- Creighton, W. S. 1950. The ants of North America, *Bull. Mus. Comp. Zool.*, 104: 1-585.  
Wheeler, W. M. 1914. The American ants of *Myrmica* allied to *M. rubida* Latreille, *Psyche*, 21: 118-122.

#### NEWS OF TENNESSEE SCIENCE

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