## A DESCRIPTION OF FORMICA PARCIPAPPA, A NEW ANT FRON IDAHO

(Hymenoptera: Formicidae)

Ву

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## A DESCRIPTION OF FORMICA PARCIPAPPA, A NEW ANT FROM IDAHO<sup>1</sup>

(Hymenoptera: Formicidae)

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## Formica parcipappa n. sp.

Holotype, worker. (Cole collection, No. 420.)

Total length, 5.8 mm.

Head, excluding mandibles, only slightly longer than broad, broadest between upper third of compound eyes, sides slightly convex, occipital angles somewhat rounded, median portion of occipital border only slightly concave. Median lobe of clypeus moderately and broadly convex when viewed laterally, projecting anteriorly rather abruptly from its lateral portions. Clypeal impression distinct, rather deep and angular. Clypeal carina feeble. Frontal area triangular, broader than long. Frontal lobes short, subparallel, acutely pointed anteriorly. Frontal furrow faint, extending about two-thirds the distance from frontal area to median ocellus. Compound eyes oval, convex, anterior border extending slightly in front of median portion of the side of the head. Mandibles 7-toothed, stout, very convex. Antennal scapes rather stout, gradually thickened from base to apex, slightly curved, distinctly surpassing posterior corners of the head by about one-fifth their length. Funicular segments longer than broad, segments 1-4 increase in breadth from base to apex, segments 5-10 cylindrical, slightly thicker than preceding segments, ultimate segment longer than penultimate, nearly as long as the combined lengths of the two preceding segments and tapering apically.

Pronotum rather strongly convex in profile, mesonotum somewhat less so. Promesonotal suture well marked and breaks the promesonotal outline in profile. Mesoepinotal suture narrowly and not particularly deeply impressed. Epinotum higher than long, the basal face straight and the obtuse angle between it and the abrupt slightly convex declivity sharp and only slightly rounded, the two faces of about equal lengths. Thorax, seen from above, stout; pronotum with very convex sides, less. than twice as wide as the dorsum of the mesonotum; behind the mesoepinotal constriction, the lower portions of the mesonotum and epinotum are parallel. Petiolar scale, when viewed from in front, with the apex not greatly broader than the base; low, wide, thick at the base anterioposteriorly; as seen in profile, the anterior face consists of a short, vertical, basal portion which passes through a distinct angle to the long, nearly straight surface sloping posteriorly to the apex of the scale; the straight posterior face is feebly convex and only slightly slopes posteriorly to the base; superior border moderately sharp, broadly

<sup>&</sup>lt;sup>1</sup>Contribution No. 13, Department of Zoology and Entomology, University of Tennessee, Knoxville.

rounded and feebly notched in the middle, when viewed from in front, and the corners are rather broadly rounded. Gaster moderately

large, rounded.

Head, thorax and petiole finely and rather densely shagreened, subopaque, with a faint luster. Occiput, posterior corners, sides and venter of head, and the antennae and legs somewhat shining. Frontal area faintly shagreened and very shining in certain lights. Mandibles shining, coarsely and sparsely punctate, longitudinally, finely, rather irregularly and densely striate, the striae more pronounced toward the apex. Gaster uniformly shagreened, more shining than the thorax.

Erect hairs mostly pointed, yellowish, rather abundant, varying in length; most numerous on the gaster where they are scattered and longer on the posterior portion and the venter; on the head most abundant on clypeus, shorter on vertex, very sparse but long on gula, very short and sparse on occiput; a cluster of 20 long and shorter hairs on dorsal convexity of pronotum, eight much shorter ones on anterior portion of dorsum of mesonotum (just anterior to the mesoepinotal suture), a group of six moderately long ones on epinotum at posterior portion of epinotal base (near the angle of the epinotum), prominent along superior border of petiolar scale (and extending around the corners); long on coxae, shorter and less numerous on femora of fore legs and flexor surfaces of middle and hind femora. Pubescence fine, indistinct, rather short and everywhere sparse; most prevalent on antennae, anterior surface of petiolar scale and on the gaster (where it is somewhat longer and denser but does not obscure the shagreened surface.)

Light ferruginous, head slightly darker, antennae somewhat darker than the head, mandibles rich reddish brown, superior border of petiolar scale dark reddish brown. Posterior borders of first three gastric segments each with a broad, somewhat irregular transverse light brown band which is darker than the rest of the gastric segment and which narrows laterally and widens greatly ventrally; median portion of first

gastric segment slightly suffused with brown.

Variation in Paratype Series.—Total body length varies from 4.9 to 5.8 mm. In some specimens the frontal area is nearly equiangular, and in none is it longer than broad. In the smaller workers the color of the body is somewhat darker, and there are distinct splotches of brown on various parts of the head (notably the vertex and genae) and the pronotum and mesonotum; in a few of the paratypes the increase in breadth of antennal funicular segments includes segments 5 and 6, although decreasingly so; in some specimens the petiolar scale, when viewed from in front, has more diverging sides than that of the holotype (and hence is proportionately broader at the apex than at the base), the superior border is less broadly rounded and its corners are more sharp; the thoracic hairs are more delicate; the occipital border is straight and the sides of the head are more convex. In some specimens, irrespective of their size, the clypeal notch is deeper and more distinct than in others; in no specimen is it indistinct. The length of the frontal furrow varies greatly, but on the average it does not extend more than one-half the distance from the frontal area to the median ocellus. Two specimens lack hairs on the gula, the others possess one or two rather long gular hairs; two specimens have only one or two distinct occipital hairs; one specimen bears a few short hairs on the occiput, the posterior corners of the head, the genae and the sides of the head behind the eyes. One large worker has the genae, thorax, petiolar scale and gaster flecked with brown. The gaster of one of the paratypes is not at all banded with brown, and the gaster of a few others is only very slightly banded. In one worker of medium size, the gaster is more densely pubescent.

Type Locality.—Near Nampa, Idaho. The holotype and the fifteen paratype workers were collected by the writer, July 11, 1931. The workers were foraging on the ground in a community of greasewood and shadscale. The nest was not found. The slave is unknown.

Affinities.—The clypeal notch identifies this species as a member of the Sanguinea Group. At the first appearance of paricipappa, one is reminded of bradleyi, because of the similarity in coloration. The two species have little in common, however. The new species is of considerably greater size, the head has a different shape, the clypeal carina is much more feeble, the clypeal notch is very much deeper and less broad, the petiolar scale is broader and has a sharper superior border, the epinotum is more angular, the pilosity is much less abundant and less evenly distributed, and the body is less shining.

The new species appears to be most closely related to wheeleri, which it resembles structurally rather closely, but from which it differs by such characters as follows: the shape of the head is somewhat different the basal and declivous faces of the epinotum are of about equal length, and the angle formed by the two surfaces is much sharper and less broadly rounded in profile; the pronotum is more convex; the promesonotal impression breaks the promesonotal outline; the petiolar scale is proportionately somewhat broader at the base, and the corners of the superior border are more rounded; the genae lack coarse and shallow punctures; the lobe of the clypeus lacks striae; the pubescence is more dilute; the body surface has more of a luster; and the color is different.

The writer is indebted to Dr. W. S. Creighton, who kindly compared specimens of the new species with types of *emeryi* and *pergandei*. Paratypes are to be deposited in the U. S. National Museum and in the collection of the writer.