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A NEW ANT FROM INDIANA

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A. C. COLE, Jr.



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A New Ant from Indiana

A. C. Cole, Jr.

Formica indianensis sp. nov.

Holotype, worker. (Cole collection No. C-35).

Total length, 6.0 mm.

With the general characteristics of the *Microgyna* Group. Head, exclusive of mandibles, almost as broad as long, slightly broader behind than in front, with convex posterior margin and corners and nearly straight sides. Clypeus prominently carinate its entire length, the anterior border entire and somewhat angularly projecting, its median lobe large, broad and convex, abruptly set off from the lateral portions. Frontal area triangular, broader than long, its apical angle not well marked. Frontal carinae strongly divergent. Frontal furrow distinct, extending two-thirds of the distance from apex of frontal triangle to the median ocellus. Mandibles stout, 8-toothed. Antennal scapes slightly curved at base, rather stout, evenly thickened from base to apex and extending about one-third their length beyond posterior corners of the head; funicular joints longer than broad; basal joints much longer and narrower than apical joints; basal joint longest, terminal joint nearly as long as the two preceding joints taken together and tapering toward the apex.

Thorax in profile rather long, not particularly robust. Pronotum broadly convex; promesonotal constriction rather faint and only slightly breaking the promesonotal outline; mesonotum convex, more so than the pronotum; mesoepinotal suture rather broadly and shallowly impressed, base of depression flat; epinotum higher than long, dorsal face broadly convex, posterior declivity steep and flat, the angle between the two well marked. Seen from above, the pronotum is broad and very convex; mesonotum about one-half as wide as pronotum; apex of epinotum decidedly narrower than that of pro- or mesonotum, giving the appearance of a blunt crest. Petiole with a blunt anteroventral lobe; scale wide, as high as the angle made by the two dorsal faces of the epinotum, subhexagonal, with a convex anterior surface and a flat posterior surface; border rather blunt, produced upward in the middle, but the apex is subtruncate. Legs long, with rather stout femora and tibiae. Gaster large, broad and somewhat pointed at the apex.

Body opaque; mandibles slightly shining; densely shagreened, except mandibles; mandibles finely and longitudinally striated; frontal area subopaque.

Erect hairs golden yellow, blunt, very sparse; most numerous on clypeus, where they are long; much shorter and more delicate on pronotum and prosternum; absent from antennal scapes, genae, vertex, gula, mesonotum and epinotum; short, fine and very sparse on petiolar border; sparse, fine and

rather long on fore coxae; very sparse on frons, and on mid and hind coxae; present only as two rows on flexor surfaces of tibiae; dense on ventral surface of mandibles, sparse on dorsum; short, blunt and sparse on dorsum of gaster; long, slender and more pointed around anus and on venter. Pubescence fine, short, grayish and very dense on entire body except the mandibles; less dense on head; very dense on gaster, completely obscuring the surface.

Head, thorax and petiole Hay's russet; legs darker; mandibular teeth brown; vertex and occiput of head, tips of antennal scapes, pronotum, mesonotum and apex of epinotum infuscated. Gaster liver brown, lighter ventrally and around anus.

Paratype, male. (Cole collection No. C-35).

Total length, 5.5 mm.

Head short, robust through the eyes which are large; posterior corners broadly rounded; cheeks short, flat, converging anteriorly. Anterior border of clypeus with a distinct but broad notch. Clypeus ecarinate, depressed posteriorly. Mandibles with well developed, pointed apical tooth and two short, less sharp basal teeth. Frontal furrow distinct. Ocellar area elevated; lower half of median ocellus in a circular concavity. There is a small pit on each side of the frontal furrow, about half way from the upper boundaries of the antennal insertions to the median ocellus. Thorax, just anterior to wing insertions, of about the same width as the head through the eyes. Petiolar scale short, thick, blunt; convex anteriorly, less so posteriorly; upper border entire and subtruncate.

Head, thorax and petiole opaque; gaster subopaque, slightly shining; frontal area shining; posterior surface of petiolar scale and posterior declivity of epinotum slightly shining. Hairs sparse, short, slender, pointed, yellowish and rather evenly distributed; absent from eyes, frons and antennae; very sparse on genae, gula, posterior surface of petiolar scale and mid and hind coxae; sparse, short and suberect on gaster. Pubescence long, yellowish, abundant on thoracic dorsum, legs and petiolar scale; short and much less abundant on head and gaster.

Head, pronotum, scutum and scutellum blackish-brown (2); metanotum, epinotum and gaster light seal brown. Mandibles, ocelli, legs and genitalia yellow; antennae yellowish brown. Wings pale brown hyaline with brown stigma.

Variation in paratype material.—There is remarkably little variation among the 66 workers of the paratype series. Size varies from 5.0 to 6.2 mm. A few of the workers have the gaster more infuscated than do others, and there is some variability in the infuscation of the vertex of the head. The pubescence and pilosity are rather uniform throughout the series. Likewise, there is little difference between the males in the paratype series of ten. Two of them have a sparser pilosity of the gaster, two have the apical border of the petiolar scale with a broad impression, the frontal furrow in three of the specimens is

very faint and one specimen has the anterior border of the clypeus without an impression.

Affinities.—The new species shows definite characteristics of the *Microgyna* Group. Dr. M. R. Smith, of the National Museum, has kindly compared specimens of it with material in the Museum's collection, and has informed me that they do not agree with any of the eastern forms of the Group. The new species bears no close relationship with allied species in the western United States. It appears to be most closely related to *F. querquetulana* Kennedy & Dennis, from Ohio, but the worker differs from that of *querquetulana* in the following respects: Base of mesoepinotal constriction broader, anterior border of clypeus angularly projecting, posterior epinotal declivity steeper, mesonotum more convex, petiolar scale wider and subhexagonal, thorax darker reddish brown, gaster reddish brown, thoracic infuscation more pronounced and body length greater.

The holotype and the paratype male were selected from a series of 66 workers and 10 males collected by the author in an old grassy field, Jasper Co., Indiana, July 4, 1935. The large nest was under a stone banked along its margin with detritus (chiefly dry grass). The colony was populous and the workers were very active. Very few males were in the nest, and neither females nor the queen was found.

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