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**An Additional Annotated List of Ants of Mississippi,
with a Description of a New Species of
Pheidole (Hym.: Formicidae).***

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Since the publication of the writer's article, "An Annotated List of the Ants of Mississippi" in Volume 35 of the ENTOMOLOGICAL NEWS for 1924, 11 species of ants new to the State have been collected. Among this number is a new species of *Pheidole*. With the addition of these species our list of ants known for the State now includes 87 species. The writer believes that more intensive collecting in the north-eastern, the southern and southwestern sections of the State will bring to light further species and probably several new ones.

The species new to our State list are given below in numerical sequence, with the usual notations or remarks accompanying each species. The new *Pheidole* is also described here.

Subfamily PONERINAE.

77.—*PONERA OPACICEPS* Mayr. Fayette, A. and M. College, Sibley, Bexley.

The worker of this ant bears a striking similarity to that of *Ponera coarctata* subsp. *pennsylvanica* Buckley, our most common eastern and northern species. The worker can be readily distinguished, however, by the finer and more contiguous punctation of the head. It measures about 3.10 mm. in length. Its color is generally black or very deep brown, with somewhat ferruginous or yellowish appendages and mouth parts. At Sibley, Mr. Andrew Fleming took alate males and females on June 5th, 1924. He remarks as follows concerning them. "I caught them while cultivating a tract near the creek. They were very numerous and annoying, swarming over my hands, face and neck." At Bexley a colony was found nesting in a cavity within a sweet potato on February 24, 1927. The cavity was thought to have been previously made by termites. Judging from the collections made in this section of

*A contribution from the Mississippi Agricultural Experiment Station.

the State this ant is not as common a species as *Ponera trigona* var. *opacior* Forel, but is more abundant than the following species.

✓78.—*PONERA INEXORATA* Wheeler. A. and M. College.

Only one colony of this ant has been found in the state. Wheeler remarks that the colonies are unusually small, seldom numbering over a dozen to a dozen and a half individuals. The workers taken from the colony mentioned above were found in the soil beneath a rotten limb. In the vicinity of the ants was found a small myrmecophilous beetle belonging to the family Pselaphidae. The workers of *inexorata* are ferruginous yellow throughout and measure from 2.75-3.25 mm. in length. They are about the size of the workers of *Ponera gilva* Roger but lack the sharply marginate sides of the epinotum of the latter species. The lateral borders of the mandibles of the worker of *inexorata* are concave or sinuate, an easily recognizable character.

79.—*STRUMIGENYS LOUISIANAE* Roger. Sibley.

This species was taken at Sibley on July 3, 1924, by Mr. Andrew Fleming, who wrote as follows concerning the ants, "I found a small nest in the cavity at the base of a small locust stump I had pulled up. I saw a winged form, presumably a female. It appeared to be a trifle larger and darker than the worker but I am not certain, as it was running rapidly and I failed to catch it. The workers are very slow in their movements. The stump was in a hillside thicket about ten feet from an open field." This species can be easily distinguished from all the other described North American forms by the elongate, subparallel mandibles of the worker, each of which bears at its apex two sub-equal teeth and posterior to these is a very small, faintly discernible tooth.

80.—*SOLENOPSIS PICTA* var. near *MOERENS* Wheeler. Sibley.

Workers of this species were sent to the writer by Mr. Andrew Fleming who took them from inside the twigs of a species of oak and from insect galls on red oak. Mr. Fleming states that this is one of the most common arboreal ants in that section of the state. These ants can be readily disting-

ished from any of the other species of *Solenopsis* occurring in the state by the black or deep brown color of the workers. At first sight, one not very familiar with ants might confuse this species with the tiny black ant, *Monomorium minimum* Buckley. The workers are, however, considerably smaller than those of the tiny black ant and have only a two-jointed distal club, whereas the tiny black ant has a three-jointed distal club.

81.—*CREMATOGASTER OPACA* var. *PUNCTULATA* Emery. A. and M. College, Sturgis.

The workers of this ant can be readily distinguished from the workers of other species of *Crematogaster* occurring in this State by the abundant and contiguous punctures which cover the posterior part of the head, the thorax, the petiole and the postpetiole. These punctuations give the body an opaque appearance. The epinotal spines are well developed and directed upward and backward. They are subparallel or parallel to each other. The ants nest in the ground and their colonies are rather numerous here at A. and M. College. The workers attend plant lice and mealy bugs, especially the subterranean forms. We have taken this ant in attendance on *Aphis gossypii* Glover on cotton, on the mealy bug, *Pseudaon-tonina* sp., on the roots of Johnson grass and on the mealy bug, *Trionymous* sp., on the roots of wild aster. The ants are often found trailing over the ground in single file where they are apparently in search of honey dew-excreting forms. A nest unearthed on February 24th, 1927, six inches below the surface of the ground, contained a dealated female, many workers and some partly grown larvae.

82.—*PHEIDOLE DENTIGULA* n. sp.—*Soldier*. Length: 2.25-2.5 mm.

Head, excluding the mandibles, longer than broad, about as broad in front as behind, with rounded posterior corners, angularly excised posterior border and distinct occipital groove, sides subparallel. Gula with two short, coarse, prominent teeth. Eyes placed near the anterior fourth of the head. Mandibles large, convex, with two distinct apical and two smaller basal teeth. Clypeus emarginate mesially. Frontal

area small, subtriangular, impressed. Antennal scapes extending about one-half the distance between the eyes and the posterior corners of the head; club longer than the remainder of the funiculus. Thorax short, robust, with prominent but rounded humeri; about one-half as broad as the head. Pro- and mesonotum convex, together forming a hemispherical mass when viewed in profile, the mesonotum with a faint transverse impression before the abrupt posterior surface. Mesoeipinotal constriction pronounced. Epinotum with two acute spines which are little, if any, longer than broad at the base, a lateral ridge extending on each side of the epinotum from the base of spines to the mesoeipinotal constriction. Petiole approximately twice as long as broad, with the sides slightly constricted at the base of the node, node when viewed from behind rectangular and with a straight or very indistinctly emarginate superior border. Postpetiole broader than long, slightly more than twice as broad as the petiole, with distinctly blunt, median conules. Gaster smaller than the head, oval, with straight anterior border.

Mandibles, clypeus and frontal area smooth and shining, the first longitudinally striated basally, apically with coarse, widely scattered, piligerous punctures. Head opaque, longitudinally striated in the region of the front and cheeks; remainder rugulose-reticulate throughout with very faint intermediate punctulae. Dorsum of pro- and mesothorax rugulose-punctulate with rather indefinitely distributed smooth areas. Intraspiral area on the epinotum finely punctulate. Pleurae of the thorax for the most part finely punctulate, occasionally with smooth punctureless areas, one of these areas very often present on the mesopleura. Superior surface of the postpetiole smooth and shining. Gaster very smooth and shining, legs less so.

Hairs pale yellowish, long and abundant, suberect to erect, more reclinate on the appendages.

Ferruginous; mandibles and clypeus darker.

Worker. Length 1.3-1.5 mm. Head, excluding the mandibles, slightly longer than broad, with convex sides and very faintly emarginate posterior border. Eyes anterior to the middle of the sides of the head. Clypeus convex, with a median carinula, which is most distinct anteriorly. Antennal scapes slightly surpassing the posterior corners of the head, the club longer than the remainder of the funiculus. Frontal area subtriangular. Thorax similar to that of the soldier, but relatively broader in proportion to the width of the head.

Posterior surface of the mesonotum meeting the mesoepinotal constriction at an almost right angle. Node of petiole and postpetiole not so well developed as that of the soldier, the postpetiole almost globular and lacking the decided conules which are so prominent in the soldier.

Head opaque, very finely and clearly punctulate throughout; anteriorly with faintly discernible longitudinal rugulae; posteriorly rugulose-reticulate. Mandibles, clypeus and frontal area smooth and shining, the first striated basally and with small scattered punctures apically. Thorax opaque, punctulate, with irregular rugulae, most of which occur on the mesonotum and are transverse or longitudinal. Petiole, postpetiole and gaster smooth and shining.

Hairs like those of the soldier; some workers with erect hairs on the antennal scape.

Color same as that of the soldier, but the mandibles and clypeus not quite so dark.

Described from ten soldiers and ten workers, the cotypes of which are in the writer's collection.

The type locality for this species is A. and M. College, Mississippi. The writer found these ants nesting in the soil at the bottom of a small ravine. Most of the specimens were taken at a depth of about six inches, where they were found nesting inside a small hollow root. Only soldiers, workers and larvae were seen. The ants appear to be entirely subterranean in their habits, since when exposed to the light they attempted to hide in the soil. A small proctotrupid taken in the vicinity of the ants' nest was determined by Mr. A. B. Gahan, of the Bureau of Entomology, as a species of *Hoplogyron*, apparently new. Mr. Gahan states that similar specimens have been received from Harrisburg, Pennsylvania, where they were bred from the egg of the carabid beetle, *Brachynus* sp.

The soldiers of this species, while they show an affinity to the *flavens* group, are entirely different from any members of that group with which the writer is acquainted. The writer has submitted specimens to Dr. W. M. Wheeler and he is also of the opinion that this ant is distinct from any species of *Pheidole* that he has seen.

The most outstanding characteristics of the soldier are the rectangularly shaped head, which is longer than broad, the

distinct coarse teeth on the anterior border of the gula, and the prominent median conules of the postpetiole.

83.—*MYRMECINA GRAMINICOLA* subsp. *AMERICANA* Emery. A. and M. College.

A nest of this species found in the soil in a woodland tract on July 12, 1924, contained a number of alate males, workers and larvae. The ant is apparently a very rare species in this state.

Subfamily FORMICINAE.

84.—*LASIUS NIGER* var. *NEONIGER* Emery. Corinth.

Workers taken at Corinth, in the northern part of the State, agree with the description of this variety. The genus is not well represented in Mississippi, as the species do not appear to be adapted to this climate. No species of *Lasius* have been taken further south in Mississippi than A. and M. College.

✓85.—*BRACHYMYRMEX NANELLUS* Wheeler. Columbus and Sibley.

What is apparently this species of ant has been collected in the State on several occasions. A nest was found in the woods near Columbus. Several small chambers about one-fourth inch in diameter were discovered, about three inches below the surface of the soil. In these were found a dealated female, about 40 or 50 workers and some small larvae.

✓86.—*PRENOLEPIS (NYLANDERIA) PARVULA* Mayr. A. and M. College.

This small species of *Prenolepis* has only been taken once in the State. It does not appear to be as common in this vicinity as the species *P. bruesi* Wheeler. The workers of *parvula* can be readily distinguished from those of *bruesi* by the absence of erect hairs on their antennal scapes. On April 1, 1927, a colony of this species was found in the soil on a hill side slope beneath some leaves and a rotten tree branch. In the nest were found one dealate and four alate females, many workers and some medium-sized larvae.

87.—*CAMPONOTUS CARYAE DISCOLOR* var. *CNEMIDATUS* Emery. Adaton.

A small number of workers of what the writer believes to be this species were taken from beneath the bark of the trunk of an oak tree, in a low, not well drained patch of woodlands. The workers were very timid and tried to avoid capture by frantically running away or hiding under flakes of bark and remaining perfectly still. Their food is undoubtedly honey dew.

- 88 - *F. nuxa obscuripes*.
 189 - *Synphlebotia pergandei*
 ✓ 90 - *F. p. f. nitidiventris*
 ✓ 91 - *Lasius aphidicola*
 92 - *Aphaenogaster texana*. nov. var.
 ✓ 93 - " *fulva* var. *picea* - Boyle
 ✓ 94 - *Onodopsis arenivaga*?
 95 - *Formica f. fulva* var. *ruccinea*?
 A. + N. G. 128. 27.
 ✓ 96 - *Aph. famellidors*. Oc. Springs
 ✓ 97 - " *texana fuscicornis*. A. + N.
 ✓ 98 - *C. minutissima*?
 ✓ 99 - *Aph. f. aquia* - Costa - *lucida*?
 100 - *O. impatiens* var. *dentata* Frey
 A. + N. coll.
 ✓ 101 - *Onc. cræcum*
 102 - " " *cræcum*
 103 - *Stenogaster guttata*.