## An Additional Annotated List of the Ants of Mississippi.

With a Description of a New Species of Aphaenogaster (Hym.: Formicidae).\*

Ву М. R. Smith, A. and M. College, Mississippi.

(Continued from page 246.)

96.—Aphaenogaster fulva aquia var. Picea Emery.

Boyle. Several colonies of this ant were found in the soil beneath logs at Boyle. The variety is characterized by being darker than the subspecies, the specimens being usually pitch-Macp; in other respects this and *aquia* are very similar.

97.—Aphaenogaster texana var. furvescens Wheeler.

A. and M. College. A worker of what I believe to be this species was taken from the soil around the base of a stump. At a superficial glance one might confuse the workers of texana and its various forms with that of fulva and its forms. The heads of the workers of the former species are rounder posteriorly than the heads of the workers of fulva and its forms. The scapes of the former are longer and more slender and there are other important differences. This variety is a very dark form of texana.

98.—Aphaenogaster texana flemingi subsp. nov.

§ Length: 4.3-4.6 mm. Head, excluding the mandibles, much longer than broad, slender, and very strikingly constricted in the region posterior to the eyes, but especially so at the junction of the head and thorax. Eyes rather large and prominent, convex, placed at a distance from the mandibles equivalent to one and one-half times their greatest diameter. Antennae long and slender, scapes surpassing the posterior angles of the head by at least one-third their length, segments 3-8 of the funiculus subequal, segments 9-12 slightly enlarged and forming a rather indefinite, distal club.

Viewed laterally, the segments of the thorax appear as follows: the prothorax is rather gently and evenly convex dorsally; the mesothorax bears a noticeable transverse depression midway of its length, and there is a prominent constriction between the mesothorax and the epinotum; the base of the epinotum is hori-

\*A contribution from the Mississippi Agricultural Experiment Station.

zontal, longer than the declivity, and bears a pair of prominent, acute spines, which are longer than broad at their bases. Postpetiole rather voluminous, approximately twice the width of the petiole.

Head, thorax, petiole and postpetiole punctate; frontal area, legs, and gaster smooth. Mandibles, clypeus, frontal area, posterior region of the head, prothorax, legs, petiole, postpetiole and gaster shining, remainder of body subopaque.

Hairs yellowish, erect, sparsely scattered over the body. Pubescence also yellowish, most easily discernible on the antennae and legs, on which it is abundant and appressed.

Color ferruginous brown.

Type locality: A. and M. College, Mississippi. Descriptions based on many cotype specimens which are in the collection of Dr. W. M. Wheeler, the author, and the Department of Entomology, of the Mississippi A. and M. College.

A colony consisting of 90 workers and many larvae were collected from the base of a rotten pine stump during mid-January, 1928. In this stump were numerous termites, none of which seemed to have been disturbed by the ants.

This new subspecies is named in memory of the late Mr. Andrew Fleming of Sibley, Mississippi, a man who made many important contributions to the knowledge of the ants of Mississippi.

The worker of this new subspecies, although allied to the worker of Aphaenogaster texana Emery and its varieties furvescens and carolinensis Wheeler, differs in an important number of respects, namely: that its head is more strongly constricted behind the eyes, its epinotal spines are larger and longer, and its sculpturing more feeble. The posterior region of the head, and the dorsum of the prothorax are so faintly sculptured that they appear glabrous. Future studies of this species may necessitate raising flemingi to specific rank; for the present, however, this subspecies has been referred to texana because the worker resembles that of texana in having a head with very much rounded posterior angles, long, slender antennae, a similar petiole and postpetiole and other such characters.

99.—Crematogaster minutissima Mayr.

A. and M. College, Sibley. On January 27, 1928, a colony of this exceedingly small, yellow ant was dug from the soil at the base of a stump in a wooded area here, near the college. The colony was composed of at least 6 dealated females, several hundred workers, and numerous larvae. Another colony from the same type of habitat was found in the earth about six inches from the surface. This colony contained at least 8 or more dealated females, about 150 workers, but apparently no larvae.

In this locality minutissima does not appear to be as common a species as victima subsp. missouriensis Pergande. It ressembles this ant in many respects but is noticeably smaller. This species may prove to be a subspecies or variety of victima, as is missouriensis.

## 100.—Strumigenys pulchella Emery.

Columbus. Three workers and a deälated female were collected from beneath the bark of a pine log and a pine stump. The frass beneath the bark of both the log and stump was slightly moist. The deälated female which came from the stump was found there along with the following other species of ants: Solenopsis molesta Say, Proceratium croceum Roger, Proceratium crassicorne Emery and Pheidole dentata Mayr.

The worker of this species resembles the worker of *Strumigenys pergandei* Emery. It can be distinguished from the worker of that species however by its smaller size (1.5-1.66 mm.), by the presence of a prominent tooth near the base of each mandible, which is hidden by the edge of the clypeus, and also by the fact that the anterior edge of the clypeus only bears ten or twelve club-like or scale-like hairs.

## Subfamily Formicinae.

101.—Lasius umbratus mixtus var. aphidicola Walsh.

Boyle, A. and M. College. In a wooded area at Boyle, a large colony of this ant was found beneath a log. Among the ants were many pinkish mealy bugs, which Miss Gladys Hoke determined as *Pseudococcus morrisoni* Hollinger. Wingless aphids in the same nest were tentatively determined by Mr. A.

L. Hamner as *Pemphigus lactucae* (Fitch). The workers from this colony were much lighter in color and more glabrous than the typical form which was collected at A. and M. College in a rotten stump along the bank of a stream. A species of mealy bug near *morrisoni* was also found with this colony.

102.—Prenolepis arenivaga Wheeler.

Columbus. Many nests of this ant were found in the pure white sand in a locality near Columbus. The nests were small craters, each with a central entrance.

The workers of *arenivaga* are characterized by their pale yellow color, their glabrous bodies and by the fact that the hairs covering the body are dark at the base and light at the apex. The antennal scapes bear erect hairs.

103.—Prenolepis imparis var. testacea Emery.

A. and M. College. This pale yellowish variety of *imparis* can be found nesting in the woods here. The ants seem to like moist spots for their nests. Their habits are similar to those of the species.

104.—FORMICA PALLIDE FULVA var. SUCCINEA Wheeler.

A. and M. College. A nest of this species was found on the side of a hill very near the edge of some woods. The nest of the ants extended for a foot and one-half in the clay loam. From this nest were taken many workers, pupae, larvae and eggs. The workers were very timid and tried to hide beneath particles of soil. I noted that some of them had been bringing in for food, the bodies of a soldier beetle, *Chauliognathus pennsylvanicus* DeGeer, an undetermined species of membracid, and some flesh flies.

This variety is distinguished from the species in that the ants are of a deeper reddish tinge and a more glabrous appearance than those of *Formica pallide fulva* Latr. The workers bear a very striking resemblance to the lighter forms of *Formica pallide fulva* subsp. *nitidiventris* Emery.

105.—Formica pallide fulva subsp. NITIDIVENTRIS Emery. Boyle. A colony of this ant was found in the soil beneath a log in a dense woodland patch at Boyle. Beneath the same

log were three other species of ants, but none of these was nesting in contact with *nitidiventris*. The ants which were found here were: Camponotus castaneus Latr., Lasius umbratus mixtus var. aphidicola Walsh, and Aphaenogaster lamellidens var. nigripes M. R. Smith.

106.—Formica rufa obscuripes var. Melanotica Emery.

A. and M. College. Last spring (1927) one of the students brought to the laboratory a small worker of what I believe to be this species. When questioned as to where he had collected it, the student stated that he took the specimen in the edge of a patch of woods near the college. At my request he later went back to hunt for more specimens but was unable to find any.