

An Annotated List of the Ants of Mississippi (Hym.).

By M. R. SMITH, A. and M. College, Mississippi.

(Continued from page 54.)

25.—*P. dentata* Mayr.

Tupelo; Aberdeen; A. and M. College; Sturgis. Next to *vinelandica* this is one of the most common species of *Pheidole* in Mississippi. Unlike the former species, *dentata* seems to prefer building its nests under stones, logs, planks, etc. The soldiers and workers probably feed almost entirely on insects.

P. dentata is considerably larger than *vinelandica* and possesses more rounded thoracic angles. The specimens examined by the writer have two spines on their gular borders, while those of *vinelandica* are bare of spines. The presence, or absence of spines should not be relied upon entirely, however, in the determination of the species of *Pheidole*.

26.—*P. dentata* var. *commutata* Mayr.

Sibley: The writer has not taken this variety in the state but on different occasions has received specimens from Mr.

Andrew Fleming of Sibley. Mr. Fleming found this variety nesting in a post resting on the gallery floor of his house. The workers were noticed carrying a small beetle and a leaf hopper into the nest; they would also carry flies and sugar into the nest when these were placed near the nest's entrance. Mr. Fleming thinks that the ants do most of their foraging at night, for very few ants were seen during the day and these appeared quite timid, almost frantic, if disturbed.

This variety is a much more smooth and shining ant than *dentata*. The posterior portion of the head, the prothorax, gaster and legs are very noticeably shining. The specimens sent to the writer are very dark brown, almost black. Dr. Wheeler states that there is considerable variation in the color of *commutata*.

27.—***P. tysoni*** Forel.

Sibley. This is also a soil-nesting species which does not seem to be common in the state.

The soldiers of this species can be distinguished by their distinctly elongated heads, the sides of which are sub-parallel. The gular border contains two prominent spines which can be easily seen in profile.

28.—***P. flavens*** Roger subsp. ***floridana*** Emery.

Ocean Springs. This is a tropical species which has become established in the state.

29.—***P. metallescens*** var. ***splendidula*** Whlr.

Gulfport. This is another soil-nesting species of *Pheidole*. According to Dr. Wheeler nests are built in the sand in more or less grassy places.

The beautiful violaceous, or metallic colored workers of this species at once distinguish it from the other *Pheidole* that occur in Mississippi.

30.—***Solenopsis geminata*** Fabr.

"The fire ant" as it is commonly called, because of its fire-like sting, is one of the most common ants in the state. It is often complained of as a house pest, the workers showing a decided fondness for greasy foods. Nests are built in the soil in open, sunny places and the particles of earth thrown out in a more or less loose mass which is characteristic of this species.

When the nest is disturbed the workers rush forth in a very vicious manner and will sting the intruder who dares put his hand or feet near them. The fire ant is a very important predator of the boll weevil because of its habit of entering the squares and feeding on the immature young of the weevil. In literature it is reported as eating into ripening strawberries and other small fruits of this type.

This ant is rather variable in color, the smaller workers being much darker than the larger workers. The head of the larger workers is reddish while the thorax, petiole, abdomen and appendages are darker.

31.—*S. geminata* var. *xyloni* McCook.

This is a color variety of *geminata*. The workers are much darker than those of the species. *Xyloni* has habits similar to *geminata*.

32.—*S. geminata* subsp. *rufa* Jerdon.

Tupelo. This is an imported ant which has been found in only one locality in the state. Nests were found under concrete sidewalks. The workers were noticed crawling here and there on the sidewalk in search of food.

This subspecies may be distinguished from *geminata* by the presence of a tooth on each side of the thorax between the prosternum and the mesosternum, the tooth extending backward and downward.

33.—*S. molesta* Say.

This tiny yellow species is well known in the literature of economic entomology. It is very often a troublesome house pest. It has been reported to attack the germinating seed of small cereals in Kansas. *Molesta* seems to have a very varied food habit, feeding on insects, seeds, human eatables, etc. It occasionally lives in the nest of other ants, stealing the larvae and pupae for food. This is the smallest ant mentioned in this paper.

34.—*Cremastogaster ashmeadi* Mayr.

A. and M. College; West Point. This little species nests in the twigs of trees or in galls. It feeds on the honey dew excreted by plant lice.

A. ashmeadi may be distinguished from the other *Cre mastogaster* occurring in this state by its unusually small size and by the short, blunt, incurved spines on the epinotum of the worker.

35.—*C. lineolata* Say.

This common North American ant undoubtedly occurs throughout the state. It nests in the ground under stones, in rotten logs, etc. It is also very fond of honey dew. The workers when disturbed turn up their abdomens in such a manner as to earn for themselves the title of acrobatic ants. *Lineolata* is more closely related to *atkinsoni* than to any of the other ants mentioned here.

36.—*C. laeviuscula* Mayr.

This species is very commonly found crawling up and down the trunks of trees or over logs on the ground. The workers are exceedingly fond of honey dew but no doubt feed on insects, etc. Wheeler states that he has found *laeviuscula* nesting in the galls of the Cynipid, *Holcaspis cimerosus*, on oak in Texas.

Laeviuscula may be recognized by the uniform smoothness of the body; the head, thorax and pedicel are shining and very finely punctate above. The epinotal spines are rather long, acute and diverging.

37.—*C. laeviuscula* var. *clara* Mayr.

The variety *clara* is a larger ant than *laeviuscula*. It has similar food and nesting habits.

It may be distinguished from the other species of the genus by the bright yellowish red color of the head, thorax, pedicel, and appendages of the worker. The abdomen is black, usually with a slight tinge of red at the base. The spines on the epinotum are longer, more curved and acute than those of *laeviuscula*.

38.—*C. atkinsoni* Wheeler.

A. and M. College. This species builds large paper-like nests which resemble very much those of the white-faced hornet, *Vespa maculata*. For a long time this species was confused with *C. lineolata*; recently Wheeler has published an article pointing out the differences between the two species. It is a smaller and more slender ant than the typical *lineolata* and has a smoother, and more shining thorax. The epinotal spines are also straighter and more acute than in the former.

39.—*C. victima* subsp. *missouriensis* Pergande.

A. and M. College; Sibley. Nests are built in the soil, usually in a clay or a clay loam. Small particles of earth are thrown out of the nest's entrance to form a small crater. The ants when unearthed are slow of movement and appear blinded by the light. Nothing is known concerning their food habits.

This species can be recognized by its pale, yellowish color; the gaster is slightly infuscated at the tip. It is the smallest of the species of *Cremastogaster* found in this state.

40.—*Tetramorium guineense* Fabr.

Gulfport; Biloxi; Pascagoula. This is the only species of *Tetramorium* known to be present in the state, although the writer has been expecting to find *caespitum* also. This imported ant is very common in the localities mentioned above, where it may be found crawling up and down trees in search of honey dew. Like *caespitum*, it is a house-infesting ant.

This is a reddish yellow ant with dark colored gaster. It can be easily distinguished from *caespitum* by the distinct rugosity of the head and thorax, the former species having this portion of the body striated.

41.—*Dolichoderus (Hypoclinea) mariae* Forel.

A. and M. College; Columbus. This beautiful red and black species constructs its nest in the soil at the base of broom straw grass, *Andropogon* sp., or more occasionally about the roots of small bushes. The colonies are very large, consisting of thousands of individuals. Not only are the ants fond of honey dew but they also like insect food. The workers have a habit of crawling up and down tree trunks in files.

The workers are easily distinguished from the other species of *Dolichoderus* by their color, size, and smooth, shining surface of the body.

42.—*D. (Hypoclinea) taschenbergi* Mayr.

Rara-Avis; A. and M. College. The shining, black workers of this species are easily recognized. Nests are built in situations similar to those of *mariae*, the habits of the two species being about the same. A large nest found at A. and M. College on

May 5, 1922, contained thousands of workers, and numerous males and immature forms.

This species is about the same size as *mariae* but is easily distinguished from that species by its black color. It is also smooth and shining.

43.—**D. (Hypoclinea) plagiatus** subsp. **pustulatus** Mayr.

Okolona. This species has habits similar to those mentioned above, the colonies, however, are not so large, consisting only of a few hundred individuals.

The workers are smaller than those of *mariae* or *taschenbergi*. The head is almost black, the thorax reddish brown and the base of the gaster is spotted with yellow.

44.—**Dorymyrmex pyramicus** Roger.

Macon, Columbus, Aberdeen, Laurel, Sibley. The "lion ant," as it is commonly called, builds its crater-shaped nests in sunny spots. The workers are very fond of honey dew, but also feed on small insects. Sexed forms have been found in the nests as early as April and the writer is led to conclude from this that the queens take their nuptial flights early in the spring. The workers when crushed have the peculiar rotten cocoanut-like odor, which is so common to many of the species of Dolichoderinid ants. This species and its varieties are often found nesting together.

This ant can be distinguished by its slender form, its dark color, and by the conical shaped epinotum of the worker.

45.—**D. pyramicus** var. **niger** Pergande.

Macon; Sibley; McHenry. This is a very dark form of *pyramicus* with similar nesting, and other habits. It seems to be more common to the lower part of the state.

46.—**D. pyramicus** var. **flavus** Pergande.

Tupelo; Gulfport; A. and M. College; Newton. This is a distinct yellow variety of the species, which also has similar nesting habits. *Flavus* is a more common variety than *niger* in this state.

47.—**Tapinoma sessile** Say.

Artesia; Clarksdale. This species nests in logs, also in the

soil under planks, stones, etc. The workers when crushed have the peculiar odor so characteristic of this, and related species. *T. sessile* does not seem to be a common ant in Mississippi, at least the writer has not found it so. The workers bear some resemblance to the Argentine ant and might be taken for that species by the ordinary layman, but the presence of the distinct odor in *sessile* is evidence enough to distinguish the two.

This ant varies considerably in size and color but is usually a very dark brown with a pruinose tinge. The petiole is vestigial, another characteristic which readily separates it from the Argentine ant.

48.—*Iridomyrmex pruinosus* Roger.

Pascagoula. Several workers of this species were taken at the above named locality.

49.—*I. pruinosus* var. *analis* Andre.

This is probably the most common ant found in the state. Nests are constructed in the soil and the earth very often piled up at the entrance to form a small crater. The workers are exceedingly fond of sweets and, not only attend plant lice, scale insects, etc., but often wander into houses in search of food. This is the nearest relative of the Argentine ant and is often confused with it. The presence of a distinct odor readily separates it from the Argentine ant. It may be told also from this species by the pale, yellowish white color of the abdomen, that of the Argentine ant being a uniform dark brown.

50.—*I. pruinosus* var. *humilis* Mayr.

This imported species, commonly known as the Argentine ant, is by far the worst house-infesting ant that we have in the state. At present, about seventy towns in Mississippi are known to be infested with it and there are, no doubt, many others of which we have no record. The workers have a habit of getting into every conceivable place, especially where food is stored. They have been known to crawl over a chunk of ice in a refrigerator in order to reach meat. They also drive setting hens from the nest, thus making chicken raising in some towns practically impossible. The greatest damage from the Argentine ant is

caused, no doubt, through its pernicious habit of spreading scale insects, plant lice, mealy bugs, etc. Last year the state spent about \$25,000 in fighting this pest. Campaigns of control were conducted in seventeen of the infested towns. Once these ants become established in a town they drive, or kill out all of the native ants, with the exception of a few small species with which they live amicably. The spread of this species is, for the greater part, accomplished by man through the channels of commerce. The Plant Board has, on numerous occasions, intercepted these ants in nursery shipments from infested to non-infested places.

This ant can be distinguished from its nearest relatives by the absence of an odor, by the rather slender appearance, the uniform brownish color, and by the absence of a sting.

51.—**Eciton (Acmatius) schmitti** Emery.

A. and M. College; Natchez; Starkville, Toomsuba. This is perhaps the commonest *Eciton* in the state. The workers have vestigial eyes and are more or less blind, probably depending on their sense of smell for guidance. The ants are seldom seen on the surface of the ground. They are fond of fleshy foods and, as far as the writer is aware, are never seen in attendance on any honey dew-excreting forms of insects. A female of this species was plowed up by a correspondent at Toomsuba.

E. schmitti can be distinguished from its nearest relatives by the opaque, reddish brown head, thorax, petiole and postpetiole, which are also punctate and foveolate.

52.—**E. (Acmatius) opacithorax** Emery.

Sibley. This species has been taken but once in the state, altho it will probably be found later to occur throughout the state. The ants seem to show a fondness for nesting in wood, the writer having taken them from beneath the bark of a pine log in North Carolina. Mr. Fleming has also found them nesting in the base of a stump at Sibley. The food habits of *schmitti* and *opacithorax* are the same.

Opacithorax, as its name indicates, can easily be distinguished from the other *Ecitons* by its opaque thorax. The head, abdomen and appendages are smooth and shining. This is a light, yellowish red species.

53.—E. (*Acmatus*) *pilosus* F. Smith.

Sibley; Hazlehurst. This does not seem to be a very common species in Mississippi. Mr. Fleming, who took specimens at Sibley, wrote the writer as follows concerning them: "I saw several colonies moving the same day. The colonies are evidently very large, one moving along a path leading to my yard formed a solid column, $\frac{3}{8}$ to $\frac{1}{2}$ inch broad and about 150 feet long: it then separated into two lines going a little to the right and left of the original column. I could see the two branches for about 25 feet. I do not know how long they were in going, but in places they left a distinct trail where they had passed along. I did not see where they came from or where they went." Mr. Fleming also sent the writer a species of ant, which some of the workers of *pilosus* were carrying in their mouths; the ant, on determination, proved to be *Cremastogaster ashmeadi*. Wheeler mentions that the *Ecitons* are fond of the larvæ and pupæ of other ants and will forage their nests. This may explain what was taking place when Mr. Fleming observed them. In January, 1915, a correspondent at Hazlehurst sent in a number of specimens of *pilosus* which he claimed were getting into his well and decomposing, thus causing the water to have a foul odor.

(To be continued.)