

A PRELIMINARY LIST OF ANTS FROM ILLINOIS.

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Some time ago I began work on the life history and ecology of our common corn-field ant, *Lasius niger* var. *americanus*. At the time I did not expect to study ants from the systematic standpoint, but on numerous field trips in search of colonies of *L. americanus*, I collected a great many ants belonging to other species, and was thus naturally led to take up a study of the occurrence and distribution of the various species of ants.

The following list is not assumed to be by any means complete for the ants of Illinois. In fact, the object of this paper is not so much to list the species already collected as to secure any possible co-operation on the part of members of the Academy in obtaining material for identification, and data from different parts of the state. As I understand it, one of the objects of this Academy is to enable investigators working in different parts of the state, especially those working on ecological and distributional problems, to co-operate in their work in such a way as to bring about the greatest mutual benefit. As a matter of fact, a certain amount of co-operation is necessary in order to work up the distribution of species over an area of any considerable extent.

The following list of ants I obtained from three sources: (1) my own collection, containing fifty-one species from this state; (2) from the collections of the Illinois State Laboratory of Natural History [including the Nason collection, the ants of which were determined by Prof. W. M. Wheeler]; and (3) the last thirteen species were kindly added by Prof. W. M. Wheeler from the list of species which he has taken in Illinois. Some of the ants of the State Laboratory collections were determined a number of years ago by Pergande, but the bulk of the material is as yet undetermined.

SUBFAMILY PONERINÆ.

This subfamily is represented by two species belonging to different genera.

1. *Stigmatomma pallipes* Haldeman.
2. *Ponera coarctata* Latreille.

These two species are the most primitive of our ants, and as a rule are found in rather low, moist situations. Their colonies are always small, most of them containing less than a dozen individuals.

SUBFAMILY MYRMICINÆ.

This subfamily is apparently the richest in number of genera, there being eleven in my list, most of them, however, being represented by but a few species.

Myrmecina sp. I have not taken this genus in Illinois, but find it represented by one specimen in the collection of the State Laboratory, taken on the University farm at Urbana in 1887.

Monomorium. This genus is represented by two very common species.

M. pharaonis L., the little red house-ant.

M. minimum Buckley, a small black ant found along roadsides and in meadows.

Solenopsis molesta Say, one of the smallest ants we have, the tiny yellow ant found commonly in fields and sometimes in houses.

Pheidole pilifera Roger.

P. vinelandica Forel.

Of these two species the first is apparently much more widely distributed in Illinois. *P. vinelandica* is found in sandy situations especially. Both species are quite small, and have major workers with enormously enlarged heads.

Cremastogaster lineolata Say is a common and very widely distributed species. It nests in fields under stones, in logs and stumps, under bark, in hollow stems of weeds, etc. It seems to be quite a variable species. I have one distinct variety so far, *C. lineolata lutescens* Emery.

C. victimæ F. Smith. A few specimens of this species were found in the Nason collection.

Stenamma. One species of this genus.

S. brevicorne Mayr.

Aphænogaster.

A. fulva Roger.

A. fulva aquia Buckley.

A. tennesseensis Mayr.

The above two species and variety of *Aphænogaster* are quite common in timber. They are the slender, reddish ants found under bark and in decaying wood.

A. lamellidens Mayr. I find this species represented in the State Laboratory collection by one specimen, taken at Aurora, Ill., in 1883.

Myrmica.

M. scabrinodis sabulcti Meinert. This is the commonest species of this genus found here.

M. scabrinodis schencki Emery. Taken near Chicago.

M. brevinodis canadensis Wheeler.

Leptothorax. Two species of this genus are fairly common.

L. curvispinosus Mayr.

L. fortinodis melanoticus Wheeler.

Both of these species live in such protected situations, as under bark of trees, in stems of weeds, etc. I have found entire colonies of the first species passing the winter on the inside of dried apples which had fallen to the ground and were protected by dead leaves.

Strumygenys. This genus is rare. I have two specimens taken near Bloomington, Ill., by Messrs. W. P. Flint and G. E. Sanders, the species of which I have not yet determined.

S. clypeata Roger. A number of specimens of this species was found by Mr. James Zetek in a wood near Urbana.

Trachymyrmex. This is a southern genus, and I have but one vial of it in my collection.

T. septentrionalis McCook. This was taken at Elizabethtown, Ill., by W. P. Flint. It is one of the fungus-growing ants.

SUBFAMILY DOLOCHODERINÆ.

This subfamily is represented by two species belonging to different genera.

Tapinoma sessile Say. A small, black ant having the odor of rancid butter. Rather common.

Iridomyrmex analis André. I have taken this ant in but one situation, near Urbana. This is the same genus as the introduced ant that is proving to be such a pest at some places in the southern states.

SUBFAMILY CAMPANOTINÆ.

While this subfamily is represented in the collections by fewer genera than the Myrmicinae, it contains our three most dominant genera, *Lasius*, *Formica* and *Camponotus*.

Brachymyrmex heeri subsp. *depilis* Emery.

Prenolepis imparis Say.

P. imparis testacea Emery.

Lasius.

L. niger americanus, the small, brown, corn-field ant, the most common of all our ants.

L. umbratus subsp. *mixtus* var. *aphidicola* Walsh, fairly common.

L. umbratus minutus Emery. This ant is not at all common. I have never taken it in Illinois myself, and have never seen more than one nest. This was one I found near Boston, Mass. It was a large mound nest about two and a half feet high, and contained many thousands of individuals—males, females, and workers. The specimens I have from Illinois were collected by Dr. C. C. Adams from a mound nest near Chicago.

L. (Acanthomyops) claviger Roger.

L. (Acanthomyops) latipes Walsh.

L. (Acanthomyops) interjectus Mayr.

These three species of the subgenus *Acanthomyops* are rather common in Illinois. They may be distinguished from the other yellow *Lasii* by having an odor something like that of oil of citronella.

Formica. In my own collection and that of the State Laboratory I have found fifteen species and varieties of this genus.

F. sanguinea rubicunda Emery. Slave-making species.

F. sanguina subintegra Emery. Slave-making species.

F. rufa obscuriventris Mayr.

F. rufa obscuripes rubiginosa Emery.

F. rufa obscuripes melanotica Emery.

F. exsectoides Forel. A very large red and black mound-building ant. Not so common here as in the east.

F. ulkei Emery. Closely related to *F. exsectoides*; not common.

F. pallide-fulva schaufussi Mayr.

F. pallide-fulva schaufussi incerta Emery.

These last two are the common, rather large, slender, yellowish brown ants found in the open fields.

F. pallide-fulva nitidiventris Emery. Darker and not quite so common as the two preceding species.

F. fusca subsericea Say. This is the common large black ant which so often disfigures lawns with its nests.

F. fusca argentata Wheeler, a less common variety.

F. subpolita Mayr.

F. subpolita picea Emery.

F. cinerea neocinerea Wheeler. I have one vial of this species from New Bedford, collected by G. E. Sanders.

Polyergus rufescens breviceps Emery. I have one vial of this slave-making ant, taken with its slave, *F. subsericea*, at Wyoming, Ill., by G. E. Sanders.

Camponotus. I have nine species of this genus.

C. castaneus Latr.

C. castaneus americanus Mayr.

C. herculanus pennsylvanicus De Geer.

C. herculanus ferrugineus Fabr.

The two preceding species are our common carpenter ants.

C. ligniperdis noveboracensis Fitch.

C. fallax minutus Emery.

C. fallax subbarbatus paucipilis Emery.

C. fallax tanquaryi Wheeler.

C. (subgenus) Colobopsis sp.

The following species were added to my list by Prof. W. M. Wheeler.

Pheidole bicarinata Mayr. (The type locality of this species is "Illinois.")

Aphaenogaster fulva aquia var. *rudis* Emery. Rockford, Ill. (W. M. W.)

A. fulva aquia var. *picea* Emery. Rockford, Ill. (W. M. W.)

Dolichoderus (Hypoclinea) plagiatus Mayr. The type locality is "Illinois." I have taken it at Rockford, Ill. (W. M. W.)

Dorymyrmex pterygatus Roger var. *niger* Pergande. Rockford, Ill. (W. M. W.)

Prionopeltis parvula Mayr. Rockford, Ill. (W. M. W.)

Lasius flavus L. subsp. *nearcticus* Wheeler. Rockford, Ill. (W. M. W.)

L. (Acanthomyops) claviger Roger subsp. *subglaber* Emery. Rockford, Ill. (W. M. W.)

Formica pallide-fulva Latr. subsp. *fuscata* Emery. Rockford, Ill. (W. M. W.)

F. fusca L. var. *subaenescens* Emery. Rockford, Ill. (W. M. W.)

F. subpolita Mayr var near *perpilosa* Wheeler. Rockford, Ill. (W. M. W.)

Polyergus lucidus Mayr. Rockford, Ill. (W. M. W.)

P. rufescens Latr. subsp. *bicolor* Wasmann. Rockford, Ill. (W. M. W.)

I take it that there are probably people in various parts of the state who are doing ecological work or perhaps merely making

entomological collections who may have ant material they would like to have identified. If so, I should be very glad to determine the material for them for the sake of getting data on the occurrence and distribution of the various species in the state. With such help and with the opportunity which Professor Forbes has allowed me of working over the large amount of as yet undetermined material of the State Laboratory, I hope some time in the future to be able to publish a complete annotated list of the ants of the state.

In building up my own collection I am indebted to a number of friends and co-workers, but especially to Messrs. W. P. Flint and G. E. Sanders, assistants to the State Entomologist. I am also indebted to Prof. S. A. Forbes for permission to use the extensive collections of the State Laboratory, and to Prof. W. M. Wheeler for making many determinations for me and for adding materially to my list.

THE MOLLUSCA OF PIATT, CHAMPAIGN AND VERMILION COUNTIES, ILLINOIS.

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(Abstract.)

The paper records the result of a molluscan reconnaissance of Piatt, Champaign and Vermilion counties. Previous to 1907 but twenty-eight species had been recorded from this area. The work of the past four years has raised this number to 116, distributed as follows: Piatt county, 52; Champaign county, 78; Vermilion county, 67; total 116. Of this number, 44 are pelecypods, 9 are prosobranchiate gastropods, 20 are aquatic pulmonata, and 43 are terrestrial pulmonata.

Fourteen different localities were visited and more or less extensive ecological observations were made; ten of these localities were in Champaign County, and two each in Piatt and Vermilion counties. Of the localities visited only two, the Brownfield and Cottonwood groves, three and one-quarter and four miles northeast of Urbana, were systematically searched for mollusks. It is believed that an equally careful study of the other localities will materially add to the number of species herein recorded.

The finding of *Paravitrea significans* (Bld.) in the Brownfield and Cottonwood groves is of great interest, extending the range of this species 300 miles northward.