

LIST OF A SMALL COLLECTION OF ANTS (*Formicidae*) OBTAINED
IN QUEEN'S COUNTY, NOVA SCOTIA, BY THE LATE WALTER
H. PREST.—BY HARRY PIERS, Curator of the Provincial
Museum, Halifax, N. S.

(Presented 26 May, 1922)

The names, distribution and relative abundance of even the commoner species of Ants occurring in Nova Scotia, are, I believe, practically unknown. It is therefore advisable to publish a short list of a few forms which the late Walter Henry Prest, of Halifax, was able to gather during a single month's field work shortly before his death. Everything pertaining to the Ant fauna of the province is of interest in connection with the general geographical distribution of these insects.

Mr. Prest, when a lad living at Moose River, Halifax County, became much interested in the Ants which he found in his home district, and he made extensive notes on their habits as he observed them. Having no descriptive works with which he might identify the various forms he met with, in fact possessing no books at all on the subject, he gave the various kinds tentative designations of his own, under which he classified his records.

In later years he specialized in the study of geology, and became widely known as a particularly well-informed student of and writer on the Gold Measures and pleistocene geology of Nova Scotia, in which subjects he was recognized as quite an authority. During these years his youthful studies of Ants were laid aside but not forgotten. The subject was taken up with revived interest in the summer and autumn of 1919, when he did some collecting at Pleasantfield, Queen's County, and about Halifax. Hearing from him of his interest in this neglected subject, I strongly urged him to collect and study all the forms he might meet with; and as books were not available to assist in questions of identification, I suggested that he send what he collected to Prof. William Morton Wheeler, of the Bussey Institution, Forest Hills, Boston, Mass., who is now the foremost authority on this family of insects in North America, and that he himself should make notes on his observations on all the specimens obtained, with the view of publishing something on the subject when sufficient material had accumulated.

Accordingly in September, 1920, while again engaged in prospecting and geological work at Pleasantfield, near Fifteen-mile Brook, three miles north-northwest of Middlefield, on the road from Liverpool to Brookfield, Queen's County, he collected, in vials, duplicate sets of some 31 lots of specimens, together with 6 lots from North Brookfield, eleven and a quarter miles further inland and to the north-northwest, in the same county.

One set was deposited in the Provincial Museum of Nova Scotia on 28th October, 1920 (Acc. No. 4944), and the other set, numbered to agree with the Museum's set, was forwarded on the same day to Prof. Wheeler, who had very kindly consented to identify the specimens. There being only one specimen of No. 32 (*Myrmica brevinodis*), it was sent to Prof. Wheeler, but the species is also represented in No. 27.

Not long afterward Mr. Prest was taken ill and died at Halifax on 25th December, 1920. Prof. Wheeler on 4th January, 1921, identified the specimens and sent to me the list of his determinations according to the numerical designations.

It is deeply to be regretted that Mr. Prest did not live to further carry on his investigations in this line, as it was his habit to devote his whole energy to anything he undertook. In that case the publication of a list would have awaited until much more material had been gathered, and his own full notes as to habits, abundance, etc., had been incorporated. After his death I was unable to ascertain where those notes were, and we have now only his very brief memoranda, usually as to habitat, which are written on the labels of the specimens.

In order that the results of his interrupted work may be of some use to future students, I have arranged the list of forms in systematic order, and appended the very brief notes which the collector actually attached to each vial of specimens. The names are according to the determinations of Prof. Wheeler, while the numbers refer to the original numbering of the collection, and indicate the order in which they were obtained.

It will be seen that fourteen forms, representing twelve species, are represented in the thirty-seven lots collected; and probably among them will be found a large proportion of the commoner Ants occurring here. A recent list of the Ants of Connecticut, U. S. A., contains sixty-four forms, representing about forty-five species, so that possibly about thirty forms should be found in our more northern region, where fewer kinds are liable to occur.

This short list will serve as a slight contribution to our local knowledge of these insects, and it is to be hoped that some other student will take up and make reasonably complete the work which Prest began. I do not happen to know of the publication of any other list of Ants of this province.*

Nos. 1 to 29, and 36 and 37 were collected at Pleasantfield, Queen's County; and Nos. 30 to 35 at North Brookfield in the same county; and all in the same month, September, 1920, except No. 37, which was obtained about July, 1919.

The following five lots of specimens were not determined by Prof. Wheeler, and therefore do not appear in the list: No. 10, "nests under rocks in low lands"; Pleasantfield. No. 17, "nests under stone; may be same as No. 18" (i. e. *B. heeri* subsp. *depilis*); Pleasantfield; received in fragments by Prof. Wheeler. No. 23, "nests beneath rocks; with Aphids on spruce root"; Pleasantfield; also received in fragments. No. 26, "nests in moss of meadows, a few inches above water; with Aphids"; [possibly the same as No. 27, *Myrmica brevinodis*]; Pleasantfield. No. 35, "duplicate or variety of a Pleasantfield species"; North Brookfield. The above quoted notes are Mr. Prest's.

Order HYMENOPTERA (Bees, Wasps, Ants, etc.)

Superfamily FORMICINA.

Family FORMICIDAE (Typical Ants).

Subfamily MYRMICINAE.

Crematogaster lineolata Say.—No. 6, nests in old wood; No. 14, nests in old stump, may be variety of No. 15; No. 15, nests under rock; No. 24, nests beneath rocks; No. 36, nests in old log; Pleasantfield.

Myrmica brevinodis Emery, variety.—No. 11; Pleasantfield. No. 32, North Brookfield.

Myrmica brevinodis Emery, variety with smooth postpetiole.—No. 27, nests in moss of meadows, a few inches above water, with Aphids; Pleasantfield.

Myrmica scabrinodis Nylander, variety.—No. 33; North Brookfield. Also in No. 31, two species living in the same nest, but in different passages, beneath rocks; North Brookfield. (The other species in No. 31 is *Lasius niger* var. *sithaenists*.)

*H. S. Poole in 1900 published a very brief note on the periodical appearance of Ants in a chimney at Stellarton, N. S., but he did not name or describe the species. See Proc. N. S. Inst. Sc., vol. 10, p. xlix.

Subfamily DOLICHODERINAE.

Dolichoderus (Hypoclinea) taschenbergi Mayr variety *aterimus* Wheeler.—No. 4, honey ants; No. 13, honey ants, with Aphids; Pleasantfield.

Tapinoma sessile Say.—No. 19, nests beneath rocks on dry land; No. 20, nest under stone; Pleasantfield.

Subfamily FORMICINAE.

Brachymyrmex heeri Forel subspecies *depilis* Emery.—No. 17(?), nest under stone, may be same as No. 18; No. 18, nest under stone; Pleasantfield.

Lasius (Formicina) brevicornis Emery.—No. 34; North Brookfield.

Lasius niger Linn. subspecies *alienus* Förster variety *americanus* Emery.—No. 9, nest under rocks in dry land; No. 21, nest under stone; Pleasantfield.

[Large swarms of *Lasius niger alienus* var. *americanus* are observed about Halifax during the nuptial flight on fine, warm, more or less calm days during the first week of September. This small, black, winged ant was observed in swarms about Halifax and Northwest Arm on 1st Sept., 1919. On 3rd Sept., 1921, a very hot day, numerous swarms were also noted about Halifax and Bedford. On the evening of 4th Sept., 1922, it occurred in countless small swarms, one swarm very closely following its predecessor and appearing like never-ending whisks of smoke or mist against the sky, all flying in a northwesterly direction, over Armdale at the head of the Northwest Arm, Halifax. The insects were also very plentiful in the air generally. They were noted from 6 to 7.30 p. m. daylight-saving time (5 to 6.30 standard time). It had been a dull, cloudy day, with a northwest breeze during the earlier part of the afternoon, and a temperature of 68°. Rain and lightning occurred at 10.40 p. m. Specimens sent to Prof. Wheeler were males of this variety (see Museum Acc. No. 5145). On 9th September, 1923, a warm, calm day, very many of these winged ants were observed about Armdale, Northwest Arm, and MacNab's Island. Less numerous swarms of large, winged, black ants of another species, not determined, occur on hot days from about 29th May to 4th June.—H. Piers.]

Lasius niger Linn. variety *sithkaensis* Pergande.—No. 12, beneath rocks on hills of No. 5 (*Formica ulkei*); No. 22, nests beneath rocks; Pleasantfield. No. 30, nest in well-formed hill;

also in No. 31, two species living in the same nest, but in different passages, beneath rock; North Brookfield. (The other species in No. 31 is *Myrmica scabrinodis*.)

Formica exsectoides Forel.—No. 1, without slaves; No. 3, slave owners; No. 28, nests in hills,—may be a lighter variety of Nos. 1 and 3; Pleasantfield.

Formica fusca Linn.—No. 2, slaves; No. 8, black wood-ants; No. 16, nest in rotten log; No. 25, nests beneath rocks, may be same as No. 2; No. 29, nests beneath rocks; Pleasantfield.

Formica ulkei Emery.—No. 5, slave-making ants, with well-formed hills; No. 37, stones carried by No. 5 to top of ant-hill, 1½ ft. high,—“carried by one ant, it shows strength; by two, intelligence”; Pleasantfield.

Camponotus herculeanus Linn. subspecies *ligniperda* Latreille variety *noveboracensis* Fitch.—No. 7, wood ants, keep Aphids; Pleasantfield.