

Myrmecophilous Notes for 1918.

By H. DONISTHORPE, F.Z.S., F.E.S.

Mr. A. W. Pickard-Cambridge having asked me to overhaul and name the ants belonging to his father, the late Rev. O. Pickard-Cambridge, I have now done so, and propose to publish a list of the same. Very few of them have locality labels attached, but Mr. Cambridge tells me that it may be taken for granted that all those without were taken in the Bloxworth district.

Myrmecina graminicola Latr. ♀ and ♂.

Monomorium pharaonis L. ♀ "Sailsbury." New County record.

Myrmica laevinodis Nyl. ♂♂, ♀♀, and ♂♂.

Myrmica ruginodis Nyl. ♂♂, ♀♀, and ♂♂. New County record. 1 ♀ labelled "Blox. Heath, Sept. 1885."

Myrmica sulcinodis Nyl. ♂♂, ♀♀, and ♂♂. "Bloxworth Heath." Among these I detected an interesting ergatandromorph, which Mr. Cambridge has generously given to me. It may be described as follows:—

Head reddish brown, mandibles yellow, antennæ and cheeks red, thorax light yellowish red, petiole and post-petiole red, gaster partly red, partly dark brown, legs red.

Whole body except gaster mostly normal ♂. *Head* less rugose than in normal ♀, *thorax* with rugose striae not longitudinal, but slanting on *prothorax*, and transverse and rounded on *mesothorax*. *Epinotal* spines slightly shorter than in normal ♀. *Gaster* deformed looking, triangular; 1st segment divided into three parts, the section on right side rounded, blackish brown, very shining, and covered with hairs, the centre section only visible on dorsal surface, small, light brown and glabrous, the left section lighter to darker brown with a few hairs, continued over most of the ventral surface where it meets the section from right side. The next three segments on dorsal surface are light brown and shining, with rows of hairs near apex, and two small parts of the ventral segments on left side. The 4th segment appears to form a continuous ring, which is slightly split at apex, and from it a bit of a 5th segment is visible. One *stipes*, the *sagittae*, and a *sting* are extruded from the latter segment. *Long.* 5.5mm.

Myrmica scabrinodis Nyl. ♂♂, ♀♀, ♂♂.

Myrmica scabrinodis Nyl. var. *sabuleti* Mein. ♂♂. New County record.

Stenammas westwoodi West. 4 ♂♂.

Leptothorax acervorum L. ♂♂, ♀♀, and ♂♂.

Leptothorax tuberum F. ♀; and ♂♂ "Portland."

Tetramorium caespitum L. ♂♂; are labelled "Blox. Heath."

Wasmannia auropunctata Roger. ♀ ♀; "Kew Gardens."

Tapinoma erraticum Latr. ♀ ♀.

Acanthomyops (Dendrolasius) fuliginosus Latr. ♀ ♀ and ♀ ♀.

Acanthomyops (Donisthorpea) niger L. ♂ ♂, ♀ ♀, and ♀ ♀. One deālated ♀ has the scale rather deeply emarginated; it is clearly however, only *niger*.

Acanthomyops (Donisthorpea) alienus Först. ♂ ♂, ♀ ♀, and ♀ ♀.

Acanthomyops (Chthonolasius) flavus F. ♂, ♀ ♀.

Formica rufa L. ♀ ♀, ♀ ♀.

Formica pratensis Retz. ♂ ♂, ♀ ♀, and ♀ ♀.

Formica fusca L. ♂, ♀ ♀, ♀ ♀. 3 winged ♀ ♀ and 2 ♂ ♂ on one card are labelled "Blox., Poole Rd., Aug. 9th, 1915." Probably a marriage flight.

Formica fusca L. var. *glebaria* Nyl. ♀ ♀.

MYRMICINAE.

Myrmecina graminicola Latr.—My interesting little colony of this ant, which I have had in my possession for over 8 years, is still in a flourishing condition; very many deālated ♀ ♀, ♀ ♀ and larvæ being present to-day (November 6th). Winged ♀ ♀ have been produced in it, for the fourth year in succession, this year; though in less numbers than in previous years. ♂ ♂ however appeared in great numbers. The first ♂ appeared on May 27th, and the first winged ♀ on June 30th. The last ♂ died on October 7th. Most of the ♀ ♀ removed their wings in about a month's time, but one still retained her wings on August 25th, when she was observed to help to carry the larvæ. During the first week in July the ♂ ♂ exhibited signs of wishing to leave the nest, by being restless and running and flying all over the nest. On September 17th a ♂ was observed trying to copulate with a dead ♀, and he persisted in his efforts for a considerable time.

Myrmica laevinodis Nyl. var. *ruginodo-laevinodis* Forel.—The Rev. E. E. Woodruiff-Peacock sent me specimens of this variety taken at Cadny, N. Lincs. (June, 1917), which is a new county record for the same.

Myrmica scabrinodis Nyl. and var. *sabuleti* Mein.—Specimens of this species and variety were taken at Church Stretton, Shropshire, by Mr. Leman (September, 1918), who kindly gave them to me. They are both new county records.

A large colony of the variety, found by me at the foot of a post in the New Forest on July 18th, contained very many winged ♀ ♀, but only ♂ pupæ. Some of the winged ♀ ♀ were observed to carry the pupæ into safety. On July 28th the colony was visited again, when numerous ♂ ♂ had hatched. One specimen taken home and mounted, is peculiar in that there are apparently no nerves visible in the wings.

Leptothorax acervorum F.—Mr. Butterfield sent me, among other ants to name, a gynæcoid ♀ of this species, which was running on a rock at Rumbold Moor, Yorks (March 20th, 1918), and a very curious ♀ taken in a mixed nest of *L. acervorum* and *Myrmica ruginodis* at Mauley Bog, Keighley (April 26th, 1918). This is a small deālated ♀ of *L. acervorum*, rather dark in colour, and is exceeding remarkable in that it possesses no trace of either a petiole or a post-petiole! The gaster is joined directly on to the epinotum by the small neck which

joins the post-petiole to the gaster in normal ♀♀. It measures 3.3mm. in length.

Tetramorium caespitum L.—A number of colonies were observed, when I was in the New Forest in July, which were mostly situated in sandy banks; one little nest, however, which was situated by the side of a road, consisted of a small cone, about 1½ in. high, built of tiny pebbles. This ant also occurred in some of the flower beds in the Beaulieu Road Hotel garden. All the nests contained winged ♀♀ and *Beckia albina*; in one nest only a ♂ occurred.

A large colony was dug up on July 17th, to serve as an observation nest at home, which contained many winged ♀♀, numerous ♂♂, eggs, larvæ, and pupæ. The Aphid *Paraclotus cimiciformis*, both alate and apterous, was present in numbers. A Coccid (unfortunately subsequently lost), and a Spider which the Rev. J. E. Hull tells me is *Acartauchenius* (*Mecynargus*) *longulus* Kalezynski ♀, occurred in the ants' galleries. This may be the same species which I have previously recorded as *Acartauchenius scurrilis* Camb., and which I discovered new to Britain with the same ant near Rame Head, Cornwall (April 19th, 1909) [*Proc. Dorset N.H. and A.F. Club*, 31, 55, 69 (1910)]. On June 11th and 12th, 1913, I captured specimens of the same spider, also with *Tetramorium caespitum*, on Lundy Island [*Ent. Rec.*, 25, 268 (1913)]. As to the synonymy I am of course unable to express an opinion; but Wasmann records *Acartauchenius scurrilis* Camb., with the same ant from Bohemia and the Rhineland.

A specimen of *Staphylinus stercorarius* Ol., was dug up from the very bottom of the nest. Wasmann has recorded *S. stercorarius*, chiefly with *T. caespitum*, in Luxemburg, where he always found it deep in the nests. The beetle preys on the ants. I have one other record of it with *Tetramorium* in Britain, when it was taken at Dover in August, 1910, by a friend of Mons. Bondroit. In the *Ent. Record* for 1913 [25, 90 (1913)], I gave a list of all the captures known to me of this beetle, with other ants, in Britain.

[It may be worth while to mention here that my friend Mr. W. E. Sharp tells me that on August 4th, 1918, at Crowthorne, after he had been watching a marriage flight of *Acanthomyops* (*Chthonolasius*) *umbratus*, a fine specimen of *Staphylinus latebricola* emerged from one of the holes in the lawn, whence all the winged ants had been pouring. There are also a few other records of *S. latebricola* having been taken with ants in Britain.]

CAMPONOTINÆ.

Acanthomyops (*Dendrolasius*) *fuliginosus* Latr.—The virgin ♀ *fuliginosus* which was accepted by my *umbratus* ♂♂ on September 3rd, 1915 [see *Ent. Rec.*, 33, 23 (1918)], is still alive and in good health to-day. I have recorded that I strengthened the nest with *niger* pupæ, and published the condition of the colony up to December 31st, 1917. In 1918 the *umbratus* ♂♂ (all the rest of those brought up from Weybridge having been added to the nest), started to kill the *niger* ♂♂, and by May 19th only one remained, this being killed before the end of the month.

The *fuliginosus* ♀ gradually got very swollen again, and on May 27th a small bunch of eggs had been laid, which was held up by several *umbratus* ♂♂. June 16th, two packets of eggs were present; no more

were laid, however, and on July 7th only a few eggs were to be seen. The ♂♂ evidently devoured them, as on August 1st (on my return home from the New Forest) neither eggs nor brood of any kind were to be seen. The ♀ remains swollen and is surrounded by a large court of ♂♂; but no more eggs have been noticed. Both the *Amphotis*, which have lived in the nest for over two years and six months, are alive and well to-day.

[I may mention that the following Acari occurred on the *umbratus* ♂♂. *Cillibano comata* Leon, on gasters of some ♂♂; *Urodiscella philoctena* Janet, on the strigils; *Antennophorus uhlmanni* Hall, on the chin; and *Uropolyaspis hamuliferus* Berl., on the femora. I am indebted to the Rev. J. E. Hull for the name of the last species. It is the mite I have previously recorded as *Uropoda ovalis* Kram., having been misled by Janet's description and figure [*Ent. Rec.* 23, 63 (1911), 24, 38 (1912)]. I took it first at Weybridge, in 1910, and subsequently at Woking, always with *A. (C.) umbratus*, and always fastened to the femora of the ants.]

It is a curious fact that *A. (D.) fuliginosus* is very rare in the New Forest. One would expect that such a locality, with its numbers of large old trees and stumps, would be an ideal spot for this ant; such, however, is not the case. The late G. R. Waterhouse recorded a colony at Brockenhurst, in 1856, and Dr. Sharp tells me he knew of one once, which disappeared some time ago. I have always been on the look out for it, but it was not until this year that I ever found it there. On July 17th I noticed ♂♂ of *fuliginosus* running along in files on the fence, just near the bridge above the railway at Beaulieu Road. On looking more closely, I found this was a most interesting mixed colony, as ♂♂ of *A. (C.) mixtus* were walking along with the *fuliginosus* ♂♂, and I subsequently found that the colony consisted of $\frac{2}{3}$ of the *fuliginosus* to $\frac{1}{3}$ of the *mixtus*. [*A. (C.) mixtus* has not been recorded from Hampshire before.] The two species were quite friendly together, tapping antennæ and saluting each other when they met on the tracks, and also when placed together in small tubes. I found that the tracks led right down the brickwork of the bridge to the ground beside the line. It was really a beautiful sight, when the sun was shining, to see the jet black *fuliginosus* and yellow *mixtus* marching in files up and down the wall of the bridge and saluting each other when they met. As *mixtus* is very subterranean in its habits, it must have learnt from the *fuliginosus* to march in files in the open. The tracks also led to and from a thick bramble grove growing by the side of a fence along the buttress of the bridge, and here the nest was evidently situated. I was unable to dig up the nest, as it would have caused the destruction of the fence, which was in a rather dilapidated condition. As it was, the railway people evidently thought I wished to blow up the bridge, as I was always digging under and round about it, in search of the nest. I found both species entering holes in the larger posts of this fence, which were surrounded by the brambles. A large red Coccid—*Leucanium persicae*, occurred in some numbers on the bramble stems, which no doubt attracted the ants. This was evidently a case where a *fuliginosus* ♀ had founded her colony in a nest of *mixtus*. It was a pity I was unable to get at the nest itself to prove if only a *fuliginosus* ♀ was present, or whether a *mixtus* ♀ also occurred; though I do not think the latter supposition probable.

The only myrmecophiles found were *Othius myrmecophilus* and several *Oxyptoda vittata*, in the runs of the ants. A specimen of *Homalota liturata* was taken walking with the ants on the bridge. A *miatus* ♂ was observed carrying a very small Aphid in its jaws.