

her prey. When confined in a box the ♀ invariably devoured the ♂, leaving nothing but the head, legs, and part of the thorax.

Seeing this phenomenon on such a large scale strengthened my theory that it is an important factor towards the successful adoption of the ♀ by a *niger* colony. The devouring of the ♂ would serve two purposes; first, it would enable the ♀ to exist during her search for a suitable colony, since she has not the supply of fat which enables the self-founders to exist for months without food from external sources; and secondly it would cause the ♀ to lose the *umbratus* odour and acquire that of *niger*, and thus favour her chance of acceptance by a colony of the latter. Or, looked at from another point of view, the act might set in motion a process transforming the ♀ from her present condition of antagonism towards all strange ants, into one of friendliness for, and attraction towards, *L. niger*.

Though repeated experiments have shown that it is only queenless or small colonies that normally accept a parasitic queen, I found a marked difference in the behaviour of a powerful colony (queen and several thousand ♂ ♂) of *L. niger* towards *L. umbratus* ♀ ♀ that had devoured *niger* ♂ ♂, and those that had not. In the latter case the ♀ ♀ were killed at once, but the former were approached in a very different manner, and were not attacked until some time had elapsed and they had penetrated into the centre of the nest. Every one of fourteen small queenless colonies of *niger* accepted *umbratus* ♀ ♀ readily, three of them taking two each, and another three. In all but one of these latter four cases the ♀ ♀ fought, only one surviving in each; and numerous ♀ ♀ put in pairs and threes always fought, the strongest killing the others by cutting them in two at the pedicel by sawing movements of the mandibles, as before described.

It is very probable that the bodies of these parasitic ♀ ♀ are attractive to the ants, as appears to be the case with *Anergates*, which also sometimes captures and holds, but does not kill, a host ♂ after impregnation; at any rate, they have an attraction for the myrmecophilous beetle *Claviger testaceus* not possessed by *L. niger* or *L. flavus*. In two nests of *L. flavus* containing two *Claviger* and one queen, and fourteen *Claviger* and five queens respectively, and in one of *niger* with one queen and one *Claviger*, the beetles were never observed to cling to the bodies of the queens, whereas in two colonies of *Lasius niger* with a *L. umbratus* queen and two *Claviger* in each, the beetles were almost invariably clinging to the gasters of the queens, and often appeared to lick the surface of the body.

Marriage-flights of *Donisthorpea* species on August 8th, etc.

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When recording a marriage flight of *Donisthorpea* (= *Lasius*) *nigra* which took place at Folkestone on August 9th, 1911, I mentioned that marriage flights also took place at Margate and Seaview, Isle of Wight, on the same afternoon, and I stated:—"It is evident that the ants are affected by some atmospheric influence, and it would be interesting to find out over how large an area they are affected at the same time."—*Ent. Rec.*, 24, 6-7 (1912).

The marriage flights on August 8th this year help to answer this question. In the newspapers vast numbers of winged ants are men-

tioned as having been observed at Cardiff on that date, and I have been informed of flights of *Donisthorpea* species which occurred on that day at Penge, Forest Hill, Streatham, Wallington, Woking, Beckenham, East Farleigh, Brockley, St. Helens, Isle of Wight, and Lynton in Devonshire. My son also informs me that he saw numbers of winged ants at Abbeville in France about that date.

In my garden at Putney *Donisthorpea nigra* and *D. flava* were swarming from about 4.30 onwards, and they occurred all over Fulham, Putney, and Barnes. Later in the evening I captured two dealated *D. umbrata* ♀ ♀ near the entrances to nests of *D. nigra* in a road close by. I enclosed them in a box, when the one female killed the other by cutting off its head.

I should be glad if any of our readers will record marriage-flights from localities and counties not mentioned in the above two notes.

In connection with the colony-founding of species of this genus I may mention that a large number of small *umbrata* ♂ ♂ have at last been brought up (this year) in my captive colony of *D. aliena* obtained at Weybridge on July 10th, 1912, which accepted a *D. umbrata* ♀ on July 27th, 1913.

My *Donisthorpea fuliginosa* ♀ died on August 29th last; she had been accepted into a colony of *D. mixto-umbrata* (strengthened with ♂ ♂ of *D. umbrata*) on August 11th, 1912. All the ♂ ♂ in this colony had gradually died off, so on August 27th I went to Woking and obtained a large number of fresh *D. umbrata* ♂ ♂. The *D. fuliginosa* ♀ was accepted by the new ♂ ♂, she was very weak and died, as before stated, on the 29th, though not from injuries.

[Morice and Durrant have shown that *Lasius*, Fabricius, sinks as a homonym of the earlier *Lasius*, Jurine, a genus of bees. A new name being necessary for § *Lasius*, F., they proposed that of *Donisthorpea*, adopting *nigra* as the type [*Trans. Ent. Soc. Lond.*, 1914, 421-423 (1915)].—H.J.T.]

NOTES ON COLLECTING, Etc.

PHRYXUS LIVORNICA IN BRITAIN.—Apparently this species is quite established in its western habitat. For some years past now it has been regularly obtained and by no means as odd specimens. Many of the specimens captured are in excellent condition and evidently have emerged in this country.—H.J.T.

CELASTRINA ARGIOLUS IN LONDON.—This species appears to be getting more abundant in the London suburbs year by year. Reports are continually being made of its occurrence in fresh spots as well as notes on its reappearance where it has previously been seen. On July 26th, while walking up Holborn somewhat after mid-day, I saw a male of *C. argiolus* threading its way among the traffic. Of course this was a second brood specimen. In the same week specimens were frequently seen flying across my own garden at New Cross.—H.J.T.

RESTING POSITION OF EUPITHECIA OBLONGATA (CENTAUREATA).—Recently my son found on the stem of a twig of a nut-bush in the garden, about the calibre of a thin pencil, a pair of *E. oblongata* in cop. He was attracted by the appearance of a white "bird's dirt" enfolding the stem. The wings were stretched out in the usual "png" attitude along the stem so that the two insects were "looking each other in the face"