

BUTTERFLIES OBSERVED: ENVIRONS OF BORDEAUX (GIRONDE), AUGUST 1ST AND 2ND.—*Carcharodus alceæ*; *Pyrgus sao*; *Nisoniades tages*; *Chrysophanus dispar* var. *rutilus*, *L. dorilis*, *R. phleas*; *Nomiades semiargus*; *Polyommatus icarus*, *P. medon*; *Plebeius argus* (*ægon*); *Everes argiades*; *Celastrina argiolus*; *Lampides bœticus*; *Iphioides podalirius*; *Pontia daphidice*; *Colias hyale*, *C. edusa* (and ab. *pallida*); *Gonepteryx rhamni*; *Issoria lathonia*; *Melitæa cinxia*, *M. parthenic*; *Pyrameis cardui*; *Aglais urticæ*; *Epinephele tithonus*; *Pararge megæra*; *Cœnonympha pamphilus*.

(To be continued.)

A REVISED LIST OF THE BRITISH ANTS.

BY HORACE DONISTHORPE, F.Z.S., F.E.S.

I HOPE shortly to publish the distribution of the ants which occur in Britain, as far as is at present known. It seems to me therefore desirable first of all to publish a list of our species in the proper order and with the correct synonymy.

It is also necessary to place on a proper footing the different species, subspecies, and varieties. Three of the varieties and one subspecies have been added within the last two years, and it is probable that when more attention has been given to our ants, and more collecting has been done, several other species or forms will be found to exist.

I use the term "subspecies" instead of "race," as the former is more generally employed now by myrmecologists, though I think perhaps Prof. Forel's word "race" is more expressive.

The difference between subspecies and varieties in ants is only one of degree. The former is more constant, nearer to the species; the latter exhibits more hybrid forms and transitions.

The following is our list:—

FORMICIDÆ.

Subfamily PONERINÆ.

Genus PONERA, Latr.

coarctata, Latr. (*contracta*, Latr.).
punctatissima, Roger.

Subfamily MYRMICINÆ.

Genus MYRMECINA, Curt.

graminicola, Latr. (*latreillei*, Curt.).

Genus FORMICOXENUS, Mayr.

nitidulus, Nyl.

Genus SOLENOPSIS, West.

fugax, Latr.

Genus MYRMICA, Latr.

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| <i>sulcinodis</i> , Nyl. | <i>scabrinodis</i> , Nyl. |
| <i>laevinodis</i> , Nyl. | <i>lobicornis</i> , Nyl. |
| <i>ruginodis</i> , Nyl. | |

Genus STENAMMA, West.

- westwoodi*, West.

Genus LEPTOTHORAX, Mayr.

- acervorum*, Fab.
tubercum, Fab., subsp. *nylanderi*, Först.
 „ „ „ *corticalis*, Schenck.
 „ „ „ *unifasciata*, Latr.

Genus TETRAMORIUM, Mayr.

- cæspitum*, L.

Subfamily DOLICHODERINÆ.

Genus TAPINOMA, Först.

- erraticum*, Latr.

Subfamily CAMPONOTINÆ.

Genus LASIUS, Fab.

- fuliginosus*, Latr.
niger, L.
 „ subsp. *alienus*, Först.
flavus, Fab.
umbratus, Nyl.
 „ subsp. *mixtus*, Nyl.

Genus FORMICA, L.

- rufa*, L.
 „ var. *alpina*, Santschi.
 „ var. *rufo-pratensis*, Forel.
 „ subsp. *pratensis*, Deg.
sanguinea, Latr.
exsecta, Nyl.
fusca, L.
 „ var. *glebaria*, Nyl.
 „ var. *rubescens*, Forel.
 „ var. *fusco-rufibarbis*, Forel.
 „ subsp. *rufibarbis*, Fab.
 „ subsp. *gagates*, Latr.

With regard to some of the changes in the above list, I may mention I have placed the Ponerinæ at the beginning of the list because they are the most primitive of all the subfamilies of ants. In the genus *Myrmica* I have treated them as species, which I have always regarded them to be, instead of subspecies, and Prof. Wheeler refers to them as “the closely allied species,

scabrinodis, *lævinodis*, &c., which were formerly regarded as mere subspecies" ('Journal New York Ent. Soc.' xix. 1911, p. 163).

The varieties of *Formica fusca*, L., have been quite inaccurately dealt with in this country. It is impossible to tell if the various records of *rufibarbis* and *cunicularia* really refer to the subspecies *rufibarbis*, F., or one of the vars. of *fusca*. (*F. cunicularia*, Latr., is really a synonym of *rufibarbis*, F.) The var. *fusco-rufibarbis* is very abundant at Whitsand Bay, and all the ants in some of the nests are of a very dark colour, being intermediate between lighter *fusco-rufibarbis* and *glebaria*. The former lives chiefly in the sand on the borders of rivers, lakes, and by the sea; the latter in the earth on the plains. *F. fusca* is more common in woods. Forel says that *glebaria*, *rubescens*, and *fusco-rufibarbis* have more the habits of *F. fusca*, and are not so warlike as *rufibarbis*. On the other hand, I have found the var. *fusco-rufibarbis* is not nearly so cowardly an ant as *fusca* proper, and Crawley tells me this is his experience with *glebaria*. The var. *fusco-rufibarbis* is very silky (with silvery pubescence), darker than *rufibarbis*, the back of the thorax brown, less polymorphic, and much less hairy, especially on the thorax. It resembles *rubescens*, but is more pubescent and less red, more red, however, than *glebaria* as a rule.

It is of interest to notice that the myrmecophilous beetles, *Atemeles paradoxus* and *Dinarda pygmæa* occur with *fusco-rufibarbis* and not with *fusca* proper; the known distribution of both species in Britain being almost confined to the seaside (the first having been found in the Plymouth district, Weston-super-Mare, Isle of Wight, Folkestone, Bournemouth, &c., and the second in the Plymouth district and at Weston-super-Mare), as might be expected from the habits of the *Formica* hosts. Of the former genus, *Atemeles emarginatus*, on the other hand, is only found with *fusca*, and not with its subspecies or varieties; the winter hosts of both *Atemeles* being species of the genus *Myrmica*.

FORMALIN A REMEDY FOR MOULD ON CABINET SPECIMENS.

By W. G. SHELDON, F.E.S.

It is now some thirty-five years since I was informed by the late John T. Carrington that the best remedy for mould on cabinet specimens was "glacial carbolic acid," and from that day until about a year back I used it exclusively for that purpose.

The treatment proved fairly successful until I came to reside in my present house some seven years ago; but in consequence I suppose of the house being a new one, and the walls being full of damp, mould commenced to appear extensively in my collec-