

$1\frac{3}{4}$ lines, which is too large for the *Bidessus*, but is correct for the *Hyphydrus*.

Sharp (Aq. Carn. Col., 1882) did not see either type, and seems to have originated the error in attribution, but using the name in error for the *Bidessus* does not give his description priority. He repeats the error in Trans. Ent. Soc. London, 1890, p. 344.

Régimbart (Ann. Soc. ent. Belg., 1892, XXXVI, p. 119) describes a *Bidessus inconstans* from India. In Ann. Soc. ent. France, LXIV, 1895, p. 328, he repeats the diagnosis of *inconstans*, and remarks that it is possibly the *Hydroporus intermixtus* Walck. (sic) and Sharp, but that their descriptions were so short and vague that he could not be sure. In Ann. Soc. ent. France, LXVIII, 1899, p. 227, he gives *inconstans* as a synonym of *intermixtus* Walk. Zimmermann's Catalogue of Dytiscidae, 1920, perpetuates the error.

It is therefore necessary to state that the *Bidessus* becomes *B. inconstans* Régimbart, and that Walker's species is *Hyphydrus intermixtus*. On examination, *Hyphydrus indicus* Sharp was found to be identical with *intermixtus* Walk., and therefore Sharp's name must be sunk as a synonym of this species.

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THE ANTS OF THE AZORES.

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In July, 1929, Messrs. J. Balfour-Browne, J. A. Kitching and A. P. G. Michelmore visited the Azores and captured a number of insects. Among the ants taken were four species which had not previously been recorded from these islands.

In 1908 Professor W. M. Wheeler, on his way to Europe, was able to spend part of a day at Sao Miguel and listed four species, all of which were retaken by Balfour-Browne's party.

In August and September, 1930, MM. L. Chopard and A. Méquignon collected in the Azores. Dr. F. Santschi studied the ants taken and lists ten forms, seven of which had not been previously taken or recorded. The present collection now brings the total up to fifteen forms, of which full particulars are given below.

There are four cosmopolitan species, the rest being mostly of European origin; this supports Alfred Russel Wallace's views on the origin of the fauna of these islands. Since the Middle Ages

most of the island trade has been carried on with Portugal, some 900 miles distant.

As Dr. Santschi points out, the presence of the terrible pest, 'The Argentine Ant,' *Iridomyrmex humilis* Mayr, may account for the poverty of the ant fauna, as in time it completely wipes out other species. It continues to spread throughout the world.

It is probable, however, that when a more complete search of the uncultivated parts of these islands, the tops of mountains, etc., is made, the list may be considerably increased.

The only endemic form is Santschi's new variety of *Aphaenogaster senilis* Mayr. *Ponera eduardi* Forel occurs in Madeira, whence it has probably spread to the Azores; this is also the probable origin of *Monomorium carbonarium* Smith. The subspecies *ebeninum* Forel of the *Monomorium* is the only ant of Neotropical origin, but it also may have arrived from Madeira.

The following is a complete list of the species as at present known from the Azores:—

Subfamily PONERINAE.

1. *Ponera eduardi* Forel, Bull. Soc. Vaud. Sci. Nat., **30**, p. 15 (1894).

Distribution: SAO MIGUEL: Ponta Delgada, ♀ (W.: B.B.); Furnas; Sete Cidades, ♀, ♀ (C. & M.). — PICO, ♀ (B.B.). Madeira, Canaries and along the entire shore of the Mediterranean.

Subfamily MYRMICINAE.

2. *Aphaenogaster testaceopilosa* Lucas, subsp. *gemella* Roger, Berl. Ent. Zeits., **6**, p. 260 (1862).

Distribution: PICO: forest area, ♀ (B.B.). Balearic Isles; Algiers.

3. *Aphaenogaster senilis* Mayr, var. *açoreensis* Santschi, loc. cit. Distribution: FAVAL: Horta, ♀. — TERCEIRA: Angra de Heroismo, ♀ (C. & M.).

4. *Pheidole megacephala* F., Ent. Syst., **2**, p. 361 (1793).

Distribution: FAVAL: Consulate, Horta, ♀♀ ♀♀ (B.B.). Cosmopolitan species.

5. *Monomorium carbonarium* Smith, Cat. Hym. Brit. Mus., **6**, p. 127 (1858).

Distribution: SAO MIGUEL: Furnas, ♀, ♀ (M.). Madeira.

6. *Monomorium carbonarium* Smith, subsp. *ebeninum* Forel, in Grandidier, Hist. Phys. Madagascar, **20**, j. 165 (1891).

Distribution: SAO MIGUEL: Ponta Delgada, ♀♀ (W.). — SAO

- JORGE: Conbres. — PICO: Sao Matteo, ♀♀ (B.B.). Antilles; N. America.
7. *Leptothorax tubereum* F., Syst. Ent., p. 393 (1775).
Distribution: TERCEIRA: Angra. PICO: Serra Gorda (B.B.). The whole of Europe except the extreme north; Caucasus; Algeria, Bône.
8. *Leptothorax tubereum* F., subsp. *unifasciatus* Latr., Ess. Fourm. Fr., 47 (1798).
Distribution: SAO MIGUEL: Furnas, ♀ (C. & M.); Pico de Ferro; Joos (M.).
Europe, Central and South.
9. *Tetramorium caespitum* L., Syst. Nat. (ed. 10), 1, p. 581 (1758); Creighton, Psyche, 41, p. 197 (1934).
Distribution: SAO MIGUEL: Ponta Delgada, ♀♀ (W.); Furnas, ♀ (C. & M.); Magdalena, ♀♀ (B.B.).
The whole of Europe and North of Asia; Japan; Africa, imported; N. America, not imported.
- NOTE.—It was formerly believed that *Tetramorium caespitum* was an introduced species in the United States, and indeed it has spread considerably during the last thirty years, which is in keeping with the character of an introduced species. As Creighton has shown, however, the discovery of an American species of *Anergates*, distinct from the European *A. atratulus* Schenck, entirely negatives this. One would have to assume that, when introduced, a nest of *T. caespitum* contained specimens of the European *Anergates*, and that since then the latter has evolved far enough to rank as a separate species. It would thus appear that *T. caespitum* is of holarctic distribution.
10. *Tetramorium guineense* F., Ent. Syst., 2, p. 357 (1793).
Distribution: SAO MIGUEL: Furnas, ♀ (C. & M.).
Cosmopolitan species.
11. *Tetramorium simillimum* Smith, var. *insulare* Santschi, Rev. Suisse Zool., 35, p. 69 (1928).
Distribution: SAO MIGUEL: Furnas, ♀ (C. & M.). Fiji Isles.
- Subfamily DOLICHODERINAE.
12. *Iridomyrmex humilis* Mayr., Ann. Soc. Nat. Modena, 3, p. 168 (1868).
Distribution: SAO MIGUEL: Ponta Delgada, Furnas. TERCEIRA: Angra de Heroismo. SAO JORGE, ♀♀ (C. & M.).
Argentina; Brazil.

Subfamily FORMICINAE.

13. *Acanthomyops niger* L., Syst. Nat. (ed. 10), 1, p. 58 (1758).
 Distribution: SAO MIGUEL: Ponta Delgada, ♀♀ (W.). SAO JORGE: Conbres. PICO: Sao Matteo; Serra Gorda; Magdalena, ♀♀, ♀♀, ♂♂ (B.B.); Furnas. TERCEIRA: Angra de Heroismo; Monte Brasil, ♀♀ (C. & M.).
 The whole of Europe; Japan; Turkestan; North of Africa; Madeira; Caucasus; Siberia; China.
14. *Acanthomyops niger* L., var. *grandis* Forel, Ann. Soc. Ent. Belg., 53, p. 104 (1909).
 Distribution: SAO MIGUEL: Furnas; Ponta Delgada; Sete Cidades. TERCEIRA: Angra de Heroismo. SAO JORGE, ♀♀ (C.M. & M.). Andalusia.
15. *Paratrechina longicornis* Latr., Hist. Nat. Fourm., p. 113 (1802).
 Distribution: SAO JORGE: Villa Velhas (B.B.).
 Cosmopolitan species.

Abbreviations: 'B.B.' for Mr. Balfour-Browne's party; 'C. & M.' for MM. Chopard and Méquignon; 'M.' for M. Méquignon; 'W.' for Professor Wheeler.

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THE PARASITES OF BRITISH BIRDS AND MAMMALS.

VIII.

SOME ADDITIONAL RECORDS OF BAT PARASITES.

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Since the publication of my first note, 'Records of Bat Parasites' (1935), some additional specimens have come to hand, thanks to the kindness of Messrs. Michael Blackmore, Percy Muschamp and D. H. S. Davis. These new records extend our knowledge of the parasites of some species of bats which were not included in the first note, but there still remains a great deal of collecting to be done before one can attempt a complete summary. Cimicidae are particularly needed, for there seems to be some doubt as to