

1935a

The Ants of Christmas Island. By HORACE DONISTHORPE,
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THIS short paper principally deals with the ants taken by Dr. F. Harms on Christmas Island in January to April 1934, when he secured some 19 species. Most of these are, as might be expected, cosmopolitan species introduced by commerce from one place to another, and found in most of the Islands of the South Seas. There are, however, two new species, which are described below.

So far as I am aware, only two previous records of ants have been published from this island.

In 1888 the late W. Kirby described a new species of *Camponotus* under the name of *C. melichloros* from a large series including ♂♂, ♀♀, ʌ ʌ, and ♀♀, taken by Mr. C. W. Andrews (types and cotypes in B.M. Coll.) [Proc. Zool. Soc. Lond. p. 551 (1888): "A Monograph of Christmas Island," London, pp. 81, 83-4 (1900)].

He also records *Lobopelta diminuta* Smith, some nine workers and one female in 1898. It had previously been taken in 1887 by Mr. Lister. The specimens are in the Brit. Mus. Coll.

In 1915 W. C. Crawley records four species of ants from Christmas Island [Ann. & Mag. Nat. Hist. (8) xv. p. 239 (1919)]:—

Odontomachus hæmatoda L. var. *breviceps*, nov.

Triglyphothrix striatidens Em.

Solenopsis geminata F. var. *rufa* Jerd.

Prenolepis vividula Nyl.

All of these, and the *Camponotus* in Kirby's list, have been retaken by Dr. Harms.

Christmas Island lies in the eastern part of the Indian Ocean, and Java, 190 miles to the north, is the nearest land.

The fauna, so far as the ants are concerned, belongs to the Oriental Region, chiefly the Malayan Subregion and partly the Indian Subregion. Kirby's *Camponotus*, the two new species here described, and Crawley's variety may be endemic or they may have been brought from elsewhere.

Formicidæ.

PONERINÆ.

1. *Euponera* (*Mesoponera*) *christmasi*, sp. n.

♀.—Dark blackish brown or fuscous, mandibles, funiculus, apex of scapes, and apex of gaster dirty yellow, greater part of scapes and base of anterior coxæ fuscous, shining, very finely punctured, hairs very sparse, pale yellow, thicker on the gaster; pubescence very fine, investing the whole body.

Head without mandibles slightly longer than broad, slightly narrower at base than in front, with sides evenly rounded and posterior border distinctly emarginate; *mandibles* strong, triangular, with masticatory border armed with seven or eight small subequal teeth, terminal tooth longer and pointed, with some six distinct punctures arranged in a double row; *clypeus* carinate, slightly projecting in front and slightly sinuate at sides; *antennæ* long, *scapes* extending slightly beyond posterior border of head, *funiculus* gradually getting broader to apex, first joint slightly longer than second, second to sixth subequal, seventh to apex getting longer, eighth to eleventh longer than broad; *eyes* small, flat, placed at the sides of the head considerably before the middle.

Thorax: *pronotum* about as long as broad, somewhat flat on disc, very bluntly submarginate at sides; *mesonotum* rounded, broader than long, with a well-marked suture all round it; *meso-epinotal* constriction distinct; *epinotum* shorter than pronotum and mesonotum taken together, with a distinct ridge above, declivity flat, forming an abrupt angle with dorsal surface, submarginate; *scale* high, somewhat convex anteriorly and concave

posteriorly, with a narrow border above, considerably broader just before apex than at base. *Gaster* about half as long as the rest of the insect, *post-petiole* sharply truncate in front, constriction between it and rest of gaster very feeble. *Legs* moderately long. *Long.* 4-4.1 mm. Described from six workers taken by Dr. Harms on Christmas Island in February 1933.

Types and cotypes in Brit. Mus. Coll.

2. *Euponera* (*Mesoponera* ?) sp. ?

Four ♂♂ taken in April 1933.

It is quite useless to describe ♂♂ of most of the *Ponerinæ* taken away from the nests. They may belong to the above species, but it would be very unsafe to assume the fact.

√ 3. *Leptogenys* (*Lobopelta*) *harmsi*, sp. n.

♀.—Black, shining, almost impunctate, mandibles, funiculi, tarsi, spurs, articulations of the antennæ, and legs brownish yellow, sparsely clothed with delicate, semi-erect, yellowish hairs, which are more abundant towards apex of gaster, shorter and closer on the antennæ.

Head longer than broad, narrowed behind, narrowest at base, posterior border emarginate; *mandibles* long and narrow, broader towards apex, masticatory margin shallow but distinct, with a small tooth at basal angle, terminating in a rather long pointed tooth at apex, with a few punctures at apex and a row along their inner border; *clypeus* triangular, carinate, produced into a blunt point; *frontal furrow* indistinct; *eyes* fairly large, somewhat projecting, situated a little before middle of sides of head; *antennæ* long, *scapes* extending a third of their length beyond posterior border of head, *funiculus* long, gradually thickened to apex, second joint twice as long as first, longer than third, third and fourth subequal.

Thorax long and narrow; *pronotum* convex, rounded at sides, narrowed in front and behind, about as broad in middle as head; *mesonotum* broader than long, rounded, with suture fine but distinct all round, slightly convex, lower than disc of pronotum and epinotum, seen in profile the episternite and sternite of mesothorax are divided by a faint dotted line, but from the rest of the thorax by a broad longitudinal suture marked

with strong transverse striæ; *epinotum* long, depressed at sides, highest before declivity, which is blunt and rounded, but distinct; *petiole* seen from above high, rounded, broadest at base, seen in profile higher than long, rounded from apex to base, very truncate posteriorly, flat and unarmed beneath. *Gaster* long and slender, *post-petiole* armed beneath, at junction with *petiole*, with a small projecting tooth, constriction between it and rest of *gaster* distinct; *sting* long. *Legs* long, *claws* pectinate. *Long.* 6.1 mm.

♂.—Black, shining, antennæ and legs brown, scapes, first joint of funiculus, tarsi, spurs, and articulations of the legs paler, clothed with delicate semi-erect yellow hairs, which are somewhat longer than in the ♀.

Head without eyes, longer than broad, strongly rounded behind, posterior border furnished with a very short collar; *mandibles* rudimentary; *clypeus* strongly carinate, produced into a sharp point anteriorly; *antennæ* moderately long; *scape* shining, about as long as third joint of antennæ, first joint of *flagellum* very short, shining, rest of antennæ rugose and dull; *eyes* very large; *frontal area* distinct with three raised lines; *frontal furrow* distinct; *ocelli* fairly large, the anterior one a little broader than the two posterior ones.

Thorax with well-marked *Mayrian furrows*; *scutellum* striate anteriorly; *epinotum* rounded without distinct declivity, transversely striate posteriorly; *petiole* much as in worker; *gaster* long and slender; *post-petiole* furnished with a similar tooth beneath to that of ♀, constriction between it and rest of *gaster* well marked; *pygidium* produced into a blunt tooth; *genitalia* exposed, *stipites* rather narrow. *Wings* pale yellow, veins more distinctly yellow, *pterostigma* brownish yellow; two closed cubital cells, two discoidal and one closed radial cell present. *Legs* long, *claw* pectinate. *Long.* 5.9–6.1 mm.

Described from six ♀♀ and two ♂♂, taken by Dr. Harms on Christmas Island in March and April 1934, in whose honour the species is named.

The ♂♂ were taken in April and the ♀♀ in March, but there is no doubt from the general similarity of the insects that they belong to the same species.

Types and cotypes in the B.M. Coll.

4. *Odontomachus hæmatoda* L. var. *breviceps* Craw. Ann. & Mag. Nat. Hist. (8) xv. p. 239 (1915).

Twenty-one ♀♀.

MYRMICINÆ.

5. *Pheidole* (*Pheidole*) *megacephala* F.

Formica megacephala Fabricius, Ent. Syst. ii. p. 361 (1793).

Ecophthora pusilla Heer Zurcher, Jung. Naturf. Ges. liv. pp. 1-24 (1852).

Myrmica ? *lævigata* Smith, Trans. Ent. Soc. Lond. (n. s.) iii. p. 130 (1855).

Pheidole (*Pheidole*) *megacephala* Emery, Gen. Ins. clxxiv. p. 85 (1922); Donisthorpe, Brit. Ants, 2nd ed. p. 389 (1927).

Distribution.—Cosmopolitan species.

One ♂, 32 ♀♀.

6. *Monomorium* (*Monomorium*) *floricola* Jerd.

Atta floricola Jerdon, Madras Journ. Litt. Sci. xvii. p. 107 (1851).

Monomorium (*Monomorium*) *floricola* Emery, Gen. Ins. clxxiv. p. 172 (1922).

Distribution.—Cosmopolitan species.

Two ♀♀.

7. *Monomorium* (*Monomorium*) *pharaonis* L.

Formica pharaonis Linnæus, Syst. Nat. ed. 10, i. p. 580 (1758).

Monomorium pharaonis Bingham, Bull. R. Bot. Gard. Kew (a. s.), v. p. 28 (1906).

Monomorium (*Monomorium*) *pharaonis* Emery, Gen. Ins. clxxiv. p. 172 (1922). For the very extensive synonymy, see Donisthorpe, Brit. Ants, 2nd ed. p. 103 (1927).

Distribution.—Cosmopolitan species.

One ♀.

8. *Monomorium* (*Parholcomyrmea*) *destructor* Jerd.

Atta destructor Jerdon, Madras Journ. Lit. Sci. xvii. (1851), p. 105 (1853).

Monomorium destructor Donisthorpe, Bull. R. Bot. Gard. Kew, xii. p. 368 (1911).

Monomcrium (*Parholcomyrmea*) *destructor* Emery, Gen. Ins. clxxiv. p. 180 (1923); Donisthorpe, Brit. Ants, 2nd ed. p. 387 (1927).

Distribution.—Cosmopolitan species.

One deälated ♀, 22 ♀♀.

9. *Solenopsis geminata* F. subspecies *rufa* Jerd.

Atta rufa Jerdon, Madras Journ. Litt. Sci. xvii. p. 106 (1851).

Solenopsis geminata F. subsp. *rufa* Emery, Gen. Ins. clxxiv. p. 197 (1921).

Distribution.—India, Malaya, Hawaiian Isles, Borneo, New Guinea.

Some 60 specimens, including ♂♂, 1 deäl. ♀, 4 4, and 66.

10. *Tetramorium guineensis* F.

Formica guineense Fabricius, Ent. Syst. ii. p. 357 (1793).

Tetramorium guineensis Donisthorpe, Bull. R. Bot. Gard. Kew, xii. p. 368 (1911); Emery, Gen. Ins. clxxiv. p. 278 (1922). For synonymy, see Donisthorpe, Brit. Ants, 2nd ed. p. 391 (1927).

Distribution.—Cosmopolitan species.

Two 66.

11. *Tetramorium simillimum* Smith.

Myrmica simillima Smith, List Brit. Anim. Brit. Mus., Acul. p. 118 (1851).

Tetramorium simillimum Donisthorpe, Bull. R. Bot. Gard. Kew, iii. p. 122 (1908); Emery, Gen. Ins. clxxiv. p. 279 (1922); Donisthorpe, Brit. Ants, 2nd ed. p. 392 (1927).

Distribution.—Cosmopolitan species.

Two winged ♀♀, two deäl. ♀♀, 22 66.

12. *Triglyphothrix striatidens* Emery.

Tetramorium obesum razza *striatidens* Emery, Ann. Mus. Civ. Gen. xxvii. p. 501 (1889).

Triglyphothrix striatidens Donisthorpe, Bull. R. Bot. Gard. Kew, iii. p. 122 (1908); Emery, Gen. Ins. clxxiv. p. 274 (1922); Donisthorpe, Brit. Ants, 2nd ed. p. 393 (1927).

Distribution.—India, Burma, Ceylon, Tunis, Sierra Leone, etc., becoming cosmopolitan.

Two 66.

DOLICHODERINÆ.

13. *Tapinoma melanocephalum* F.

Formica melanocephalum Fabricius, Ent. Syst. ii. p. 353 (1793).

Tapinoma melanocephalum Emery, Gen. Ins. cxxxvii. p. 41 (1912); Donisthorpe, Brit. Ants, 2nd ed. p. 395 (1927).

Distribution.—Cosmopolitan species.

21 66.

FORMICINÆ.

14. *Anoplolepis (Anoplolepis) longipes* Jerd.

Formica longipes Jerdon, Madras Journ. Litt. Sci. xxvii. p. 112 (1851).

Plagirolepis longipes Wheeler, Bull. Mus. Compar. Zool. lxiii. p. 366 (1919).

Anoplolepis (Anoplolepis) longipes Emery, Gen. Ins. clxxxiii. p. 17 (1928).

Distribution.—Tropical Asia. Imported by commerce into tropics, Borneo, Solomon Isls., Fiji, etc. Becoming a cosmopolitan species: see Donisthorpe, *Brit. Ants*, 2nd ed. p. 385 (1927).

Sixteen ♂♂.

√ 15. *Camponotus (Tanæmyrmex) melichloros* Kirby.

Camponotus melichloros Kirby, *Proc. Zool. Soc. Lond.* p. 551 (1888); Emery, *Gen. Ins.* clxxxiii. p. 172 (1925).

Distribution.—Christmas Island.

Over 150 specimens, including ♂♂, one deäl. ♀, ♀ ♀, and ♀♀.

16. *Camponotus (Tanæmyrmex) sp. ?*

Two ♂♂.

17. *Paratrechina (Paratrechina) longicornis* Latr.

Formica longicornis Latreille, *Hist. Nat. Fourm.* p. 113 (1802).
Tapinoma gracilescens Smith, *Cat. Hym. Brit. Mus.* vi. p. 56 (1858).
Prenolepis longicornis Donisthorpe, *Bull. R. Bot. Gard. Kew*, iii. p. 122 (1908).

Paratrechina (Paratrechina) longicornis Emery, *Gen. Ins.* clxxxiii. p. 217 (1925); Donisthorpe, *Brit. Ants*, 2nd ed. p. 399 (1927).

Distribution.—Cosmopolitan species.

One winged ♀, one deäl. ♀, 143 ♀♀.

18. *Paratrechina (Nylanderia) vividula* Nyl.

Formica vividula Nylander, *Acta Soc. Sc. Fenn.* ii. p. 900 (1846).
Prenolepis vividula Donisthorpe, *Bull. R. Bot. Gard. Kew*, iii. p. 122 (1908).

Paratrechina (Nylanderia) vividula Emery, *Gen. Ins.* clxxxiii. p. 233 (1925); Donisthorpe, *Brit. Ants*, 2nd ed. p. 398 (1927).

Distribution.—Cosmopolitan species.

Two ♂♂, 8 ♀♀.

19. *Paratrechina (Nylanderia) bourbonica* For.

Prenolepis nodifera bourbonica Forel, *Ann. Soc. Ent. Belg.* xxx. p. 210 (1866).

Paratrechina (Nylanderia) bourbonica Emery, *Gen. Ins.* clxxxiii. p. 219 (1925).

Distribution.—Reunion, Pembri Island, Madagascar, New Caledonia, Chigos Island, Solomon Atoll, Seychelles. Probably becoming cosmopolitan. Several subspecies have been described from Bengal, Hawayii Isles, Easter Island, etc.

5 ♂♂, 1 deäl. ♀, 32 ♀♀.