

Some new Forms of Formicidæ and a Correction. By
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Family **Formicidæ.**

Subfamily *FORMICINÆ.*

Tribe MELOPHORINI.

Pseudonotoncus turneri, sp. n.

♂. Head, thorax, and petiole dark red; gaster, legs, and antennæ yellow; tibiæ and first two or three joints of tarsi darker; eyes black; covered with fine erect yellowish hairs which are longer on the thorax.

Head opaque, finely and closely punctured, together with mandibles longer than broad, narrowed in front, temples and cheeks rounded; *mandibles* armed with six sharp teeth, the first, second, and fourth being the longest; *clypeus* large with a broad raised carina ending in a somewhat turned up pointed tooth at apex; *frontal carinæ* not very long, sharply margined; *frontal area* triangular, not very clearly defined; *frontal furrow* fine, narrow, reaching median ocellus; *eyes* large, prominent; *ocelli* small, but distinct; *antennæ* long, scape projecting beyond posterior angles of head by one-fourth of its length; *funiculus* with joints 2-11 gradually increasing in length and breadth, 11 not quite as long as 9 and 10 taken together. *Thorax* strongly rugosely punctured, longitudinally at sides, granulate on pro- and mesonotum, transverse on epinotum; *pronotum* transverse convex, rounded at sides; *promesonotal suture* semicircular, deeply impressed; *meso-*

notum longer than broad; *meso-epinotal suture* deeply and widely constricted; *epinotum* with two medium-sized, slightly curved, and pointed spines at the sides of base of dorsum, the space in front of spines confined by a ridge continued from the spine, and two smaller sharp spines situated in the middle of sides of declivity, these wider apart than the longer ones; *petiole* furnished with a thick high node, longer than broad in profile, furnished on the dorsal surface with two short sharp spines posteriorly. *Gaster* slightly longer than broad, narrowed to apex, sides and base rounded and convex. *Legs* medium, slender; *tibiæ* and *femora* somewhat spindle-shaped.

Long. 3.6 mm.

Described from a worker taken by Mr. R. E. Turner at Tambourine Mountain, S.E. Queensland, 19-26. iv. 35.

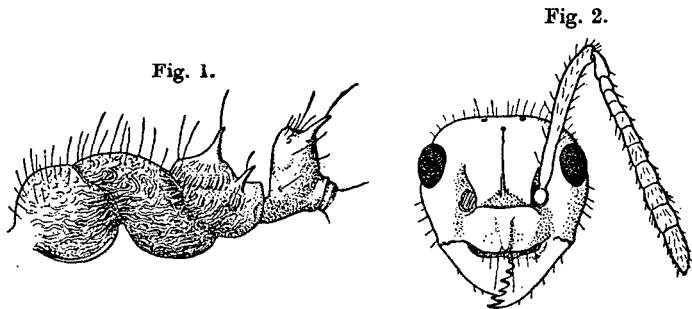


Fig. 1.

Fig. 2.

Pseudonotoncus turneri, sp. n., ♀.

Fig. 1.—Body in profile.

Fig. 2.—Head.

Type in Brit. Mus. Coll.

The genus *Pseudonotoncus* was created by Mr. J. Clark for the ants of a colony found under a log at Gellibrand at the foot of the Otway Ranges, Victoria, S. Australia [Mem. Nat. Mus. Vict. viii. p. 64 (1934)].

Tribe DIMORPHOMYRMICINI.

Cladomyrma hobbyi, sp. n.

♀. Brown; antennæ, palpi, tibiæ, and tarsi brownish yellow; clypeus, base of mandibles and mouth-parts reddish; eyes and teeth black. Whole body shining and with longer and shorter suberect yellowish hairs, and yellow decumbent pubescence in parts, especially on the ventral surface of the gaster.

Head longer than broad, rectangular, slightly narrower

anteriorly than posteriorly, covered with very fine shallow punctures and some scattered, slightly larger ones; *posterior border* slightly emarginate in centre; *posterior angles* rounded, in profile the head is somewhat narrow, slightly convex on the underside of the *chin*; the *foramen* is not situated at the posterior part of the head, there being a distinctly noticeable distance between it and the posterior border, giving the head the appearance of a cap, or button, fixed on the neck; *mandibles* robust, longitudinally striate, furnished with four strong *teeth* on the *terminal border*, the posterior one being the broadest and strongest, and the apical one the longest and sharpest;

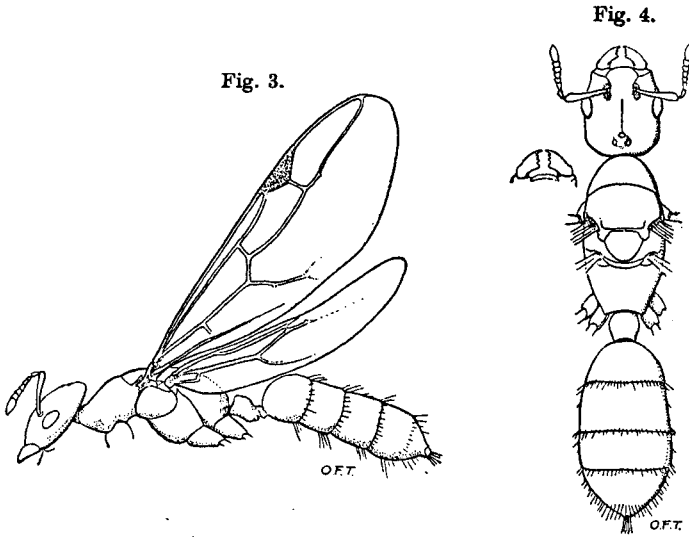


Fig. 3.

Fig. 4.

Cladomyrma hobbyi, sp. n., ♀.

Fig. 3.—In profile.

Fig. 4.—Dorsal surface.

the *external border* is furnished with a distinct tooth, or projection, before base; *clypeus* large, slightly convex, gently sloping to *anterior border*, which is slightly projecting, rounded, but slightly emarginate in centre, longitudinally striate, as are the *cheeks*; *frontal area* indistinct; *frontal carinæ* short; slightly divergent posteriorly, the distance between them in the middle, and between either of them and the inner margins of the eye, being the same; *frontal furrow* reaching median ocellus, more distinct anteriorly; *eyes* large, reniform, situated at sides of head, slightly nearer anterior than posterior

border; *ocelli* moderate; *antennæ* short, 8-jointed; *scapes*, when bent back, barely reaching median ocellus; *funiculus*, first joint twice as long as broad, longer than second, 2-7 gradually increasing in breadth, 4-6 transverse, terminal joint equal in length to the two preceding taken together. *Thorax* elongate, not quite as broad as head at its broadest point (the mesonotum), narrowed and depressed anteriorly and posteriorly, rather flat on disc; *neck* rather thick, projecting anteriorly; *pronotum* and *mesonotum* covered with very fine, small punctures; *scutellum* and *epinotum* broader than long, punctured much as in the head; *metanotum* narrow, widely and deeply separated from scutellum, narrowly and deeply from epinotum; *epinotum* feebly convex and rounded to base without a distinct declivity. *Petiole* furnished with a *node*, flat on disc, finely punctured, convex beneath, anterior border truncate, narrowed anteriorly and more distinctly posteriorly, longer than high and slightly broader than long, not as high as the epinotum. *Gaster* long, narrow, about as long as thorax, broadest before apex, where it is broader than thorax, very finely, microscopically punctured, and transversely striate; *anal cilia* well developed. *Legs* robust, *claws* and *empodia* well developed. *Wings*: long. 6 mm., slightly tinted and iridescent; *veins* and *pterostigma* light brown, with one long *cubital cell* and one long *radial cell*, closed; the *cubitus* ends abruptly at the junction with the *radius*.

Long. 7 mm.

Described from three winged females taken in Borneo (Sarawak) by B. M. Hobby, Oxford University Expedition, two at the foot of Mt. Dulit, at the junction of the Rivers Tinjar and Lejok, in light traps, 3. viii. 32 and 1. ix. 32, and one on Mt. Dulit, 4500 ft., in moss forest, 14. x. 32.

This insect comes in the tribe Dimorphomyrmicini and is possibly a *Cladomyrma*. It may possibly be generically distinct, on account of the structure of the head, venation of the wings, etc., but, as the ♀♀ (and ♂♂) are unknown at present, it is perhaps safer to leave it in the genus *Cladomyrma* Wheeler. There are two species known, *C. andrei* Emery and *C. hewitti* Wheeler, both from Borneo. It differs from both by its larger size, venation of the wings, etc; from *hewitti* in colour, many points in structure, puncturation, etc.

Tribe CAMPONOTINI.

Dendromyrmex wheeleri, sp. n.

♂. Dark reddish brown; palpi, apex of funiculi and tarsi, bristles on tibiæ and spurs lighter; eyes black; whole body somewhat shining, though sculptured, practically glabrous.

Head finely and closely granulate, with fine transverse striæ at temples, occiput, and between the frontal carinæ; dorsal view, longer than broad without mandibles, slightly contracted from in front of eyes to base of mandibles, strongly contracted from behind eyes to neck, and then widened to posterior angles in profile: triangular, highest at frontal carinæ above the insertion of the antennæ, from thence gradually and then more suddenly sloping to base, convex and rounded in front of frontal carinæ to base of mandibles; *mandibles* large with five or six strong sharp teeth, with a number of scattered punctures, smooth between the punctures; *clypeus* large, convex, about as long as broad with a distinct carina in the centre which forms a point; *frontal area* triangular, not very clearly defined; *frontal carinæ* high with sharp-curved edges; *frontal furrow* fine, reaching between the carinæ to nearly opposite their base; *antennæ* long and slender, *scapes* reaching beyond the pro-mesonotal suture; *eyes* large and very prominent, situated in the centre of the sides of the head. *Thorax* finely transversely striate on dorsum, longitudinally at sides, somewhat flat on dorsum; *pronotum* longer than broad, rounded at sides, which are margined, and narrowed slightly in front; *pro-mesonotal suture* semicircular, well defined; *mesonotum* as long as broad on dorsum; *meso-epinotal suture* ill defined; *epinotum* with dorsal surface continuous with the declivity, gradually rounded to base. *Petiole* with a rather thick node, triangular in profile, dorsal surface longer than anterior surface, with a straight ridge at summit. *Gaster* very short, convex on disc, narrowed at sides, and above and below, to apex, finely transversely striate. *Legs* long, slender; *coxæ*, *femora*, and *tibiæ* transversely striate, the two last somewhat compressed.

Long. 9.3 mm.

Described from nine workers taken by Captain A. R. Totton in the Quare River Valley, Trinidad, in January

1931. Named in honour of my esteemed colleague Professor W. M. Wheeler.

Type in Coll. Brit. Mus.

This species comes nearest to *D. chartifex* Smith, from which it differs in being glabrous (*chartifex* being covered with fine long hairs), darker in colour, somewhat larger, and having the eyes situated in the centre of the sides of the head. In *chartifex* the eyes are nearer to the base and placed a little higher on the head, the head being more contracted to base, etc.

Polyrhachis (*Florencea*, subgen. nov.) *kirkæ*, sp. n.

♀. Head varying from chestnut-red to almost black; thorax and petiole of a rich chestnut-red, varying to dark brown; the apex of the spines, the lateral border of the pronotum, and the pro-mesonotal suture darker; gaster honey-yellow; legs chestnut-red; femora lighter; tarsi darker; in some specimens the trochanters and femora are yellow; antennæ with scape brown; funiculus yellowish. Whole body smooth and shining, covered with very sparse short whitish hairs.

Head longer than broad, in dorsal view somewhat parallel-sided, but narrowed and rounded at base; posterior border finely margined; *mandibles* with five teeth, the end one long and pointed, smooth except for a few scattered punctures near masticatory border; *clypeus* with anterior border emarginate and slightly crenulate, the carina in centre consists of a raised ridge forming a blunt point in profile; *frontal carinæ* sharp and considerably raised, slightly convergent, and then divergent posteriorly, extending to opposite base of eyes, a raised carina is situated between them reaching nearly to their base; *antennæ* long and slender; *eyes* fairly large, slightly more than one-seventh of the total length of the head, longer than broad, prominent, situated behind middle of head. *Thorax* long and slender, round and not margined, somewhat constricted in middle; *pronotum* narrowed in front, rounded at sides, broadest before base, with a narrow margin to lateral borders, furnished on shoulders with a pair of short spines curving outwards and downwards; *pro-mesonotal suture* very distinct; no *suture* between *mesonotum* and *epinotum*; *epinotum* armed with a pair of long sharp spines which are almost parallel, the declivity somewhat abrupt. *Petiole* without any spines of any kind, flat above with rounded sides

broadest and angled before middle, narrowed before base, base narrowly margined, anterior face straight, underside slightly emarginate; *gaster* oval. *Legs* long and slender.

Long. 11.6 mm.

Subgenotype: *Florencea kirkæ*, sp. n.

Described from five workers taken by Miss L. E. Cheesman in long grass at a height of 1200 ft., at Kokoda, Papua, in April 1933.

Type in Coll. Brit. Mus.

Fig. 5.

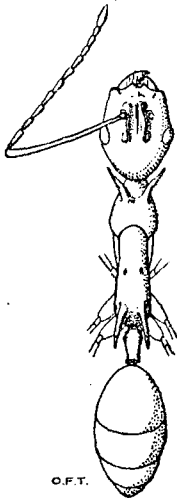


Fig. 6.



Polyrhachis (Florencea) kirkæ, sp. n., ♀.

Fig. 5.—Dorsal surface.

Fig. 6.—In profile.

The subgeneric and trivial names in honour of the late Florence J. Kirk.

This new subgenus comes near to W. M. Mann's *Dolichorhachus* in some respects, but the absence of any margins to the thorax and especially the want of spines to the petiole renders it abundantly distinct. The latter character and the epinotal structure also separate it from the subgenus *Myrmhopla*.

This insect bears a strong superficial resemblance to the Myrmicine ant *Aphænogaster (Planimyrmæ) lorai* Emery (also taken by Miss Cheesman in Papua), especially in the darker-coloured specimens, and in the spines on the pronotum and epinotium, etc. The colouring is

most unusual for a *Polyrhachis*, and personally I regard this as a case of mimicry.

Polyrhachis (Myrmothrinax) textor Smith

var. *brunneogaster*, var. nov.

♂. Black; mandibles, apex of scapes, gaster, and legs dark reddish brown; apex of funiculi and tarsi testaceous.

Gaster opaque, covered with very fine close microscopical punctures.

Long. 7 mm.

This variety differs from the typical form from Malacca in colour, the sculpture is stronger, the spines on the epinotum are considerably longer and sharper than those of the prothorax, which are very short and blunt. The two outer spines on the petiole are almost as long as the one in the centre.

Described from ten specimens taken by Mr. Gilbert Rogers in Central Nicobar Island in 1906.

Type in Coll. Brit. Mus.

This variety differs from the vars. *hero* Forel (Sumatra), *æqualis* Forel (Philippines, Sumatra), and *charpillioni* Forel (Sumatra, Malacca) in colour, structure, etc.

Polyrhachis (Myrma) vigilans Smith.

♂ undescribed.

Black; whole body covered with fine, short, close, golden or silvery, decumbent pubescence; body, legs, and scapes furnished with long, erect, whitish hairs.

Typical *Myrma* in structure. The *eyes* are very conical and prominent, sticking out sideways, not upwards, in which they agree exactly with Smith's type of *Polyrhachis vigilans* ♀, although he does not mention this character in his description. The *pronotal spines* are a little longer and sharper than in the ♀, and the four *spines* on the petiole are considerably longer and sharper. Those on the upper angles are long, sharp, and slightly curved inwards and backwards, and the two lateral ones are sharp and not truncate, or bimucronate.

Long. 8.5-9 mm.

Described from two workers taken by Commander J. J. Walker at Tamaon I., China, in 1892.

♂ type in Coll. Brit. Mus.

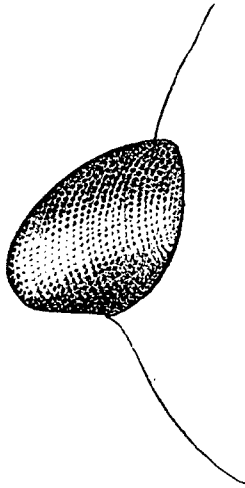
Smith described the species from a single dealated

female from Hong Kong [Cat. Hym. in Coll. Brit. Mus. vi. p. 69, 1858].

Type in Brit. Mus. Coll.

This species comes near to *P. (M.) illandata* Walker, 1859 (= *mayri* Roger, 1863), *P. (M.) intermedia* Forel, and *P. (M.) proxima* Roger; from all three of which it differs in its extraordinary shaped eyes. From the first species it also differs in possessing slightly longer teeth to the petiole, those on the upper angles being slightly more curved backwards; and from the two latter because the lateral teeth are not truncate or bimucronate.

Fig. 7.



Eye of ♂ of *Polyrhachis (Myrma) vigilans* Smith.

Polyrhachis (Polyrhachis) lamellidens Smith.

♀. Black, very shining; petiole except apex of spines, insertion of antennæ, and wings, claws, and spurs red, furnished with long erect scattered hairs, which are more numerous at base of head, pronotal spines, base of thorax, petiole and spines, and base of gaster; some fine decumbent silvery pubescence is present on pronotum, epinotum, and sides of thorax.

Head rather more elongate than in ♂, smooth and shining all over instead of being finely coriaceous; *mandibles* larger with longer sharper apical tooth; *eyes* larger; *ocelli* present. *Thorax* smooth and shining instead of being strongly coriaceously punctured, rounded at sides,

no spines to *mesonotum*; *epinotum* rounded not flat, with two rounded blunt peg-like spines, which are slightly thicker and round at apex; *petiole* with spines wider apart at base, and much less curved at apex. *Gaster* smooth and shining. *Legs* as in ♀, but more shining. *Wings* typical *Polyrhachis*, light brown, with darker veins and *pterostigma*.

Long. 9 mm.

Described from five dealated females taken by Commander J. J. Walker at Da-laen-Saen, China, in 1892, and one winged female taken by S. Akiyami at Idzu, Japan, June 1910.

♀ type in Brit. Mus. Coll.

The female does not appear to have been described before. The only reference to it in the 'Genera Insectorum' (Emery) is "*P. lamellidens*, Yano, Japanese *Polyrhachis* (en japonaise), pl. avec 12 fig. (date ?) ♀♀♂, larve." There is no reference, it is not in the Museum library, and as it is in Japanese it seems as well to give an English description. If it had not been that we possess a Japanese ♀ and ♀ taken together by S. Akiyami, I should have hesitated in describing the ♀ from the Chinese specimens, as the ♀ and ♀ are so very unlike each other.

P.S.—In a short paper, "On a small Collection of Ants made by Dr. F. W. Edwards in Argentina" [Ann. & Mag. Nat. Hist. (10) xii. pp. 532-538 (1933)], I described three species of *Acanthomyops*—*A. (Donisthorpea) edwardsi*, *A. (Chthonolasius) negrensis*, and *A. (C.) rufo-niger*.

My good friend Professor W. M. Wheeler suggested to me that the gizzards of these species should be dissected out, as he thought they must belong to the genus *Lasiophanes* Emery. He also kindly sent me some slides with the gizzards of this and allied genera. Having had the gizzards of my species made into slides, he was proved to be right, and all three species must be placed under the genus *Lasiophanes*. This has been done in the collection. I must admit that these species are much more like *Acanthomyops* than any *Lasiophanes* or any other *Melophorini* we possess; moreover, they work out to *Acanthomyops* by Emery's table in the 'Genera Insectorum.' Nevertheless, the shape of the gizzard is the final test.