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*Descriptions of new Ants, chiefly from Waigeu Island,
 N. Dutch New Guinea.* By HORACE DONISTHORPE,
 F.Z.S., F.R.E.S., &c.

Formicidæ.*PONERINÆ.**Cryptopone motschulskyi*, sp. n.

♀. Blackish brown, antennæ, legs, margins of segments of gaster narrowly, and apex reddish yellow, mandibles, clypeus, apex and base of pronotum narrowly, and parts of sides of head and thorax brownish red. Clothed with outstanding yellow hairs, which are longer and more abundant on clypeus, epinotum, scale, and especially gaster, and abundant fine and short yellowish pubescence.

Head rectangular, slightly longer than broad, sides almost straight, posterior angles rounded, posterior border slightly excised in middle; mandibles long, rather narrow, shining, with a few punctures near base of teeth, masticatory border armed with 5 teeth, the apical one rather long and pointed, the 4th longer than the rest, the 5th being considerably the smaller; *clypeus* narrow, convex posteriorly, anterior border slightly rounded, *frontal furrow* very narrow and shallow, extending as far as median ocellus; *antennæ* 12-jointed, *scape* not reaching posterior border of head, only slightly extending beyond posterior ocelli, *funiculus* with a well-defined 4-jointed club, thicker but not longer than the rest of the joints; *eyes* fairly large, round-oval, slightly convex, situated near anterior corners of head; *ocelli* small, situated rather far back on top of head. *Thorax* longer than broad, narrowed in front and behind, dorsal surface rather flat; *pronotum* slightly convex, with neck not longer than broad, sides and anterior

margin behind neck rounded; *mesonotum* transverse, flat, trapezoidal, sides margined and converging posteriorly; *scutellum* small, flat, transverse, trapezoidal; *metanotum* narrow, transverse; *epinotum* slightly convex, narrowed to base, angle between declivity and dorsal surface rather abrupt but rounded; *declivity* straight, a little longer than dorsal surface; *node* of *petiole* high, rather thick, rounded above, anterior surface slanting, posterior surface nearly straight; *gaster* longer than broad, broadest behind middle of second segment; *post-petiole* rounded at sides, contracted behind middle. Intermediate and posterior tibiae armed with only a single pectinate spur. *Wings* dusky, pubescent, *veins* and *pterostigma* brown, one *discoidal cell*, two long *cubital cells* and a long closed *radial cell* present.

Long. 5.2 mm.

Described from two winged females taken by Miss L. E. Cheesman, N. Dutch New Guinea, Waigeu, Camp Nok, 2,500 ft., v. 1938. No. 37.

Type in B.M. (N.H.).

The known females of this genus are all only slightly larger than the workers. It is therefore evident that the worker of this species will prove to be, comparatively speaking, a large insect.

The following list shows the lengths of the species already described:—

Cryptopone testacea Motschulsky, from Ceylon. ♀=5 mm;
*♂ teste Emery=2.5 mm.

C. nicobarensis Forel, Nicobars. ♀=3.5 mm.

C. fusciceps Emery, New Guinea. ♂=1.66–1.75; ♀=2.5 mm.

C. mayri Mann, Solomons. ♂=2.5–2.75 mm.; ♀=3 mm.

C. fuscior Mann, Solomons. ♂=2 mm.

C. butteli Forel, Sumatra, Java. ♂=2 mm.; ♀=2.3–2.5 mm.

C. sarawakana Wheeler, Borneo. ♂=2.3 mm.

C. angustata Santschi, French Guinea. ♂=1.7 mm.

C. motschulskyi, sp. n., Waigeu. ♀=5.2 mm.

It will thus be seen that the only species near *motschulskyi* in size is *C. testacea* Mots. The last-named insect,

* As Wheeler suggested, and I have myself pointed out, Emery's species described as ♂♂ of *C. testacea* Mots. are too small to belong to that species. I therefore propose the name *emeryi*, nom. nov., for it.

besides being testaceous in colour, from its description differs entirely from our ant in question.

C. tenuis Emery and *C. mocydryi* Szabó, given under *Cryptopone* in the 'Genera Insectorum,' have been transferred by Wheeler to his genus *Pseudocryptopone* (1933).

Leptogenys (Lobopelta) nitens, sp. n.

♂. Black, shining, articulations of the antennæ yellow-red, masticatory border of mandibles, anterior border of clypeus and trochanters reddish brown, funiculi brown, apex of last joint reddish, tarsi, apex of gaster, and spurs yellowish brown. Clothed with long yellow scattered outstanding hairs.

Head longer than broad, slightly narrowed anteriorly and posteriorly, posterior angles rounded, posterior border with a raised narrow margin; sculpture consisting of raised, not very close, narrow longitudinal ridges, which are curved transversely posteriorly, becoming almost obsolete on vertex, the sides of the head are more closely longitudinally striate; *mandibles* long, finely longitudinally striate towards apex, and with a few rather large shallow punctures, masticatory border armed with a blunt tooth near centre, apical tooth long and curved; *clypeus* projecting in a blunt rounded point anteriorly, anterior margin narrow and flat, convex on disc, with a sharp, fine central carina with longitudinal striae on each side; excavation between *frontal carinæ*, smooth, deep, narrow and pointed posteriorly; *antennæ* long, *scape* extending beyond centre of pronotum, all the joints of the *funiculus* longer than broad, second joint longer than first and third, third joint longer than first, last joint as long as the two preceding taken together; *eyes* moderate, oval, situated before centre of sides of head. *Thorax* longer than broad, narrowest behind pronotum; *pronotum* convex, sides rounded and margined, rather deeply but not closely transversely striate behind neck, on disc a few shallow indistinct longitudinal impressions occur; *pro-mesonotal suture* margined; *mesonotum* small, oval, not very convex, with a few setiferous punctures, the base at the angle between mesonotum and epinotum is transverse, flat, very smooth and shining, and margined at sides; *epinotum* long, somewhat convex, broadest at base of declivity, marked on disc with a few indistinct shallow longitudinal impressions, declivity transversely striate, sides of thorax longitudinally striate;

node of petiole high, rounded above, higher than broad, marked with a few indistinct impressions, and setiferous punctures, posterior surface flat, higher than anterior surface, armed beneath at base with a short tooth pointing downwards; *gaster* long oval, narrowed to apex, strangulation behind post-petiole well marked; *post-petiole* armed at base with a narrow tooth pointing forwards; *sting* long.

Long. 8.5 mm.

Described from ten workers taken by Miss L. E. Cheesman, N. Dutch New Guinea, Waigeu, Camp Nok, 2,500 ft. May, 1938.

Type in B.M. (N.H.).

This distinct species comes in the *diminuta* group, and nearest to *diminuta* Smith. Some of the older myrmecologists would, no doubt, have treated it as a variety, or subspecies, of that species. It seems, however, simpler to call it a species; it is a little larger, considerably more shining; the sculpture being different and less marked, and the striæ not so fine, nor so close. In *diminuta* the striæ on the mandibles are much more evident, and those on the head finer, closer and not interrupted behind; the angle between the mesonotum and epinotum is very different, not being flat, smooth and shining, etc., as in *nitens*. Furthermore, *nitens* has a well-developed tooth in the centre of the masticatory border, which is considerably less apparent in *diminuta*; and the transverse striæ on the declivity of the epinotum are deeper, coarser and more numerous.

Anochetus seminiger, sp. n.

♀. *Head* and *thorax* jet black, *gaster* dirty yellow, mandibles, scapes, femora and tibiæ yellowish brown, tarsi, articulation of the limbs and funiculi brownish yellow; shining; short, outstanding yellow hairs and pubescence very sparse.

Head short, slightly longer than broad, broadest across eyes, sinuate behind the rounded projections extending beyond eyes, posterior border rather deeply excised and finely margined, posterior angles rounded, projecting, vertex shallowly hollowed out; a few fine longitudinal striæ extend along and between frontal carinæ, rest of head very smooth and shining; *mandibles* smooth and shining, short, thickened towards apex, armed with two strong apical teeth, the lower one a little longer and more

pointed than the upper one, and with a blunt tooth or projection in middle (this represents the third tooth, which is often longer and sharper in other species); the inner margins unarmed and only furnished with a slightly projecting angle before apical teeth; *antennæ* 12-jointed, moderate, *scape* not reaching posterior angles of head, first joint of *funiculus* a little broader and slightly longer than second, all the joints longer than broad, gradually increasing in length, and slightly in breadth, to apex, last joint long, sharply pointed, slightly longer than the two preceding taken together. *Thorax* with *neck* finely transversely striate; disc of *pronotum* convex, very smooth and shining, sides rounded; *mesonotum* short, oval, transverse, convex, very smooth and shining, suture between mesonotum and epinotum marked by a shallow furrow; *epinotum* marked anteriorly with a few short widely separated rugæ, the rest of epinotum above finely transversely striate; sides of thorax smooth and shining; suture between sternite of mesothorax and epinotum transversely striate. *Petiole* armed with a rather short, bluntly pointed spine; *gaster* long-oval, slightly constricted after post-petiole; *sting* long.

Long. 7.2 mm.

Described from two workers taken by Miss L. E. Cheesman, Waigeu, Camp Nok, 2,500 ft., May, 1938.

Type in B.M. (N.H.).

This rather large handsome species does not agree with the description of any of the known species, in colour, structure of the mandibles, etc.

DOLICHODERINÆ.

Iridomyrmex minutus, sp. n.

♀. Black, shining, mandibles, anterior angles of clypeus, antennal foveæ, articulation of antennæ, and tarsi brownish yellow. Clothed with fine yellowish grey pubescence, and short, very sparse, black outstanding hairs.

Head broad oval, a little longer than broad, broadest about centre, narrower in front than behind, posterior angles rounded, posterior border very slightly and shallowly excised; *mandibles* triangular with rather deep but not close punctures, masticatory border armed with five fine small teeth, the apical one being the longest and most

pointed; *clypeus* with anterior border straight, convex and round behind; *maxillary palpi* 6-jointed; *labial palpi* 4-jointed; *frontal area* narrow, pointed, not very clearly defined; *frontal carinæ* short, flat, parallel, rather widely separated, divergent behind; *eyes* large, oval, rather flat, placed above sides in front of centre of head; *antennæ* 12-jointed, *scape* not nearly reaching posterior border of head, *funiculus* gradually thickened to apex, first joint longer and broader than second, joints 3-10 transverse, last joint as long as the two preceding taken together. *Thorax* longer than broad; *pronotum* convex, sides rounded, anterior border with a narrow raised ridge; pro-mesonotal suture curved, shallow, fine but distinct; *mesonotum* oval, convex, at the base two prominent tuberculate spiracles are situated, after which comes a deeply impressed suture before epinotum (practically the metanotum); *epinotum* rounded above, higher than long, sides somewhat straight, dorsal surface broadly rounded into declivity, declivity somewhat concave with a raised ridge at base before scale. *Scale of petiole* inclined forward, somewhat prominent, pointed above, thin, narrow, sides rounded; *gaster* convex, short, oval. *Legs* moderate.

Long. 2.5 mm.

Described from 28 workers taken by Miss L. E. Cheesman, Dutch New Guinea, Waigeu Is., Camp Nok, 2,500 ft. March and April, 1938. Tube 22. Nest behind bark.

Type in B.M. (N.H.).

This is much the smallest species known from these regions. None of the specimens vary in size.

Stitz [Gesells. Naturf. Fr. Berlin, 1911, p. 369] describes two new species of *Iridomyrmex* from New Guinea. He does not give the length of either and his figures are poor, but the descriptions are quite unlike and will not do for *minutus*.

FORMICINÆ.

Polyrhachis (Myrma) taurus Donisthorpe,
Entom. lxx. p. 274 (1937).

♂ (undescribed), similar to the ♀ in colour, sculpture, pubescence, etc.

The structure of the head is chiefly the same and the highly-developed antennal carinæ looking like horns are as in the ♀ type.

The disc of the thorax is flatter and the sides very distinctly margined. The scale of the petiole is similarly formed.

Long. 7-8 mm. Tube 20.

Described from 33 workers taken by Miss L. E. Cheesman from a carton nest, on the underside of a leaf, with six entrances, on Mt. Nok, 2,500 ft., Waigeu Island, March, 1938.

Type in B.M. (N.H.).

Judging from the size of the workers they would belong to a larger race, and have a larger female than those on the mainland.

From the ♀ it is now possible to be certain that this species is a *Myrma*, and not a *Myrmatopa*, as given for the ♀.

There are no tables for the females of the subgenera of *Polyrhachis*. The margins to the thorax are less apparent, and the disc is generally more convex. Moreover, the spines and teeth are often less, or not developed. From a single female it is often difficult to place it with certainty in any given subgenus.

Polyrhachis (Myrma) sericata Guér. v. *nitidiventris* Stitz, Sitz. Gesells. Natur. Freunde Berlin, 1911, p. 375 (1911).

♂ (undescribed).

Black, extreme apex of antennæ, palpi, spurs, claws, articulations of legs and antennæ, apex, and apex of segments of gaster narrowly yellow. Clothed with sparse yellow outstanding hairs, and fine sparse greyish pubescence. Sculpture very finely coriaceous, rather dull; gaster shining.

Head triangular, narrowed in front, broadest across eyes, cheeks rounded, posterior angles blunt, posterior border slightly and widely excised, narrowly margined; *mandibles* rather long and narrow bluntly toothed at apex, masticatory border with a blunt tooth at base; *maxillary palpi* very long, especially joints three and four; *clypeus* transverse, triangular convex on disc, anterior border rounded, sinuate on each side and with a narrow raised margin; *frontal area* indistinct; *frontal carinæ* with sharp edges diverging, sinuate at base, with a raised round ridge between; *eyes* large, round, very prominent, situated at sides towards back of head; *ocelli* moderate, rather wide apart; *antennæ* long, 13-jointed, *scape* extending beyond

back of head by more than half its length; *funiculi* with all joints longer than broad, first joint short, about half as long as second, last joint not quite as long as the two preceding taken together. *Thorax* robust, convex, narrowed to base, broadest before insertion of wings; *pronotum* transverse, narrow; *mesonotum* very convex anteriorly, overlapping pronotum, flat on disc, a narrow longitudinal furrow extends from centre of anterior border for a short distance; *scutellum* very prominent, convex; *metanotum* transverse, narrow, flat; *epinotum* convex, rounded, with no angle between dorsal surface and declivity, with a shallow transverse depression near anterior border; *node* of *petiole* thick, short, about as high as broad, upper border shallowly excised; *gaster* long oval narrowed in front and behind; *cerci* present. *Genitalia* exerted; *stipites* long and narrow; *subgenital lamina* sharply excised in centre. *Legs* long. *Wings* dusky, *pterostigma* and *veins* brown, one long *cubital cell* and closed *radial cell* as in *Camponotus*.

Long. 10.5 mm.

♂ type in B.M. (N.H.).

Described from three males taken by Miss L. E. Cheesman, Dutch New Guinea, Waigou, Camp Nok, 2,500 ft., April, 1938, from a nest in log. Many workers and winged females, and one dealated ♀ taken.

♀ (undescribed).

Colour, hairs, pubescence, sculpture, etc., as in the ♀, but differs in being somewhat larger and in the usual characters, presence of ocelli, etc.

Also the jaws more massive and powerful; the spines on the pronotum are shorter and those of the scale considerably so.

Wings as in the ♂, but more ample.

Long. 10.5 mm.

Described from one dealated female and over a dozen winged ones from the same nest as the males previously described.

♀ type in B.M. (N.H.).

Echinopla pseudostrata, sp. n.

♂. Black, shining, extreme tip of antennæ, last joints of tarsi, claws and spurs reddish; clothed with longer and shorter black outstanding hairs, with some yellow outstanding hairs on clypeus and anterior portion of face,

and short decumbent yellow hairs on cheeks and funiculi of antennæ.

Head broader than long, broader than thorax, broadest behind eyes, rounded in front and behind, posterior angles round, posterior border sinuate on each side slightly projectioned in middle and narrowly margined; *mandibles* massive, deeply striate, masticatory border armed with 3 or 4 rather blunt teeth; *clypeus* large, triangular, carinate in centre, anterior border slightly emarginate, sharp, irregularly and faintly striate, with small raised scattered tubercules; *frontal carinæ* wide apart, lobes rather broad, with a fine raised central line between and longitudinal striæ, convergent to base, rest of head longitudinally striate, the striæ somewhat broken up by setiferous punctures, and irregular towards base of head; *eyes* round, very prominent; *antennæ* fairly long, *scape* extending beyond posterior angles of head by about one-third of its length, first joint of *funiculus* longer than second, rest of joints gradually increasing in length and breadth, last joint not longer than the two preceding taken together. *Thorax* longer than broad, not very convex, broadest a little behind anterior angles; *pronotum* transverse, narrowed to a neck in front which is smooth and shining, sides and anterior border crenulate, longitudinally striate, the striæ irregular as in head; *pro-mesonotal suture* curved, narrow but distinct, deeper at sides, forming a notch between pronotum and mesonotum; *mesonotum* transverse, narrower than pronotum, sculpture similar, but slightly more irregular than that of pronotum, sides crenulate; *meso-epinotal suture* deep and wide, forming a deep notch at sides between meso- and epinotum; *epinotum* round, globose, longer than mesonotum, sides strongly crenulate, sculpture considerably coarser than that of mesonotum, consisting of a network of raised ridges slightly longitudinal in centre, more rugose at sides, no marked angle between dorsal surface and declivity, the latter transversely striate at base. *Scale of petiole* transverse, upper surface narrow, armed at sides with a medium-sized pointed spine directed outwards and upwards, a row of eight blunt denticules or tubercles along the top, the two centre ones being the largest, the slanting sides armed with two or three short irregular teeth, the anterior and posterior surfaces slightly convex and transversely striate; *gaster* short, globose, round oval, finely and closely longitudinally striate, the

striae somewhat irregular in parts, enclosing setiferous punctures. *Legs* stout, *femora* spindle-shaped and transversely striate, *tibiae* with numerous setiferous punctures.

Long. 6.5 mm.

Described from two workers, one ex. coll. F. Smith, "79-22," "Tond.", Celebes, Tondano. This specimen was labelled "*Echinopla striata* Smith," in W. Kirby's handwriting. The other taken by C. F. Baker, Philippines, Luzon, Mt. Makiling. B.M. 1924-486.

Type in B.M. (N.H.).

This species comes near to *striata* Smith from Malacca (also recorded from Sumatra, Borneo, Celebes, and Ceram), but the sculpture of the mesonotum and epinotum is quite different. The striae in the head, pronotum and gaster are also coarser. In *striata*, the head, thorax and gaster are more or less evenly longitudinally striate.

NOTE.—*Echinopla rugosa* Er. André, Mem. Soc. Zool. France, v. p. 47 (1892). Borneo.

Echinopla rugosa Stitz, Sitz. Gesell. Naturf. Freunde, Berlin, 1938, p. 110, (1938). New Guinea, Arfak, Gebirge.

I propose the name (nom. nov.) of *E. arfaki* for the New Guinea insect.