

# HYMENOPTERA.

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The collection submitted to me consisted of a number of specimens preserved in spirits and contained in small phials, a large proportion of the specimens being *Formicidæ* (ants). It should, however, be pointed out that, although spirit is a convenient method for collecting specimens, it is undesirable to employ it for any insects except hard-shelled beetles or bugs; for the exposed wings of insects are very liable to get torn in it, and the hair of bees, etc., gets matted together and spoiled.

With the exception of a few specimens, which were too much damaged for identification, a full list of the species obtained is given below. Altogether twenty-eight species of *Hymenoptera aculeata* are here enumerated, of which six appear to be new to science.

## HYMENOPTERA ACULEATA.

### FORMICIDÆ.

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#### 1. *Camponotus schencki*.

*Camponotus schencki*, Mayr, Verh. Zool. Bot. Ges. Wien, XII., p. 674 (1862).  
Paisley Bluff (one specimen).

#### 2. *Camponotus impavidus*.

*Camponotus impavidus*, Forel., Ann. Soc. Ent. Belg. XXXVIII., p. 455  
(1893).

McDonnell Range, under stones on hill-side (several specimens).

#### 3. *Camponotus arcuatus*.

*Camponotus arcuatus*, Mayr, Journ. Mus. Godeffroy, IV. (Heft 12), p. 8  
(1876).

Hugh Creek, McDonnell Range, July 11, 1894.

Two specimens, apparently belonging to this rare species.

4. *Camponotus reticulatus*, sp.n.

*Length*.—Large worker, 9 mm. ; small worker, 6 mm.

*Large worker*.—Dark pitchy-brown, inclining to rufotestaceous ; mandibles ferruginous, antennæ, tarsi, and under surface of legs reddish ; abdomen with a white stripe on each side intersecting the white incisions ; mandibles about twice as long as broad at the base, gradually curved, pointed at the tip, and armed with six large teeth, in addition to the long terminal tooth ; clypeus carinated, about as broad as long, the sides subrotund, the upper and lower extremities concave. Outer antennal ridges slightly waved, but diverging above, and neither these nor the central one attain the summit of the vortex. Head very convex behind, thorax sloping, gradually narrowed behind ; thorax and abdomen sparsely clothed with thick, raised hairs. Antennæ and legs clothed with short hair ; legs moderately long and slender, with a very strong, pale, terminal spine on the tibia. Petiole large, conical, sloping slightly forwards.

The small workers are nearly black, with the scape of the antennæ and the tarsi rufotestaceous, and the incisions of the abdomen pale.

Paisley Bluff, burrow-nest under stones, many specimens ; also Palm Creek and Finke Gorge.

I cannot make this conspicuous species agree with any of the specimens or descriptions before me, though it somewhat resembles *C. testaceipes*, Smitt. It is possibly a honey ant, but the carinated clypeus is alone sufficient to separate it from *C. inflatus*, Lubbock.

5. *Camponotus novæ-hollandiæ*.

*Camponotus novæ-hollandiæ*, Mayr, Verh. Zool. Bot. Ges. Wien, XX., p. 939 (1871).

McDonnell Range ; Palm Creek ; Paisley Bluff.

Forms burrows under stones on hill-sides ; sometimes found solitary.

Many specimens, a variable species ; some of the small workers are wholly pale yellow ; the large workers have black heads, and their abdomen is reddish-brown with pale incisions, and the under-surface pale.

6. *Camponotus denticulatus*, sp.n.

*Worker*.—Length, 9 mm. Black, the antennæ, mandibles, and adjacent part of the face, as well as the thorax and legs, more or less ferruginous ; head, body

and legs with oblique, short, white bristles; abdomen with a fine, silky pubescence in addition. Head long, mandibles with six rather oblique teeth, the first small, and of nearly equal size; the last apicals are much larger. Clypeus only slightly carinated; antennal ridges strongly marked; thorax gradually sloping, somewhat narrower behind; petiole rounded above, legs long.

McDonnell Range. Ant from mound-nest with a slit opening at the top. Burrows underground. Several specimens. A considerably smaller specimen from Paisley Bluff may also belong to this species.

Appears to be related to *C. novæ-hollandiæ*, Mayr.

### 7. *Camponotus horni*, sp.n.

*Worker*.—Length, 9 mm. Rufous, with a slight purplish suffusion, legs and petiole purplish above, abdomen with purple and coppery reflections, tarsi rufous. Head smooth, rounded, short; clypeus short, not carinated; antennal ridges not strongly marked, but with a third between them. Scape of antennæ with short, raised bristles. The hairs on the head and body short and erect; those on the legs oblique. Mesothorax much depressed; prothorax and metathorax much rounded above.

*Females*.—Length 13 lines. Black, shining, with short white bristles, antennæ rufous, legs entirely testaceous, the tibia and tarsi a little darker than the coxæ and femora. Wings smoky hyaline, the fore wings with the crossing narrower, united for a short space at their point of junction.

Palm Creek.

Burrow-nest under stones. Several specimens. The peculiar structure of this species will probably ultimately necessitate its removal to another genus; but the rufous body and purple abdomen will render it easily recognisable.

### 8. *Hoplomyrmus micans*.

*Polyrhachis micans*, Mayr., Journ. Mus., Godeffroy, IV. (Heft 12), p. 21 (1876).

Storm Creek (four specimens).

As the name *Polyrhachis* is preoccupied, I prefer to use *Hoplomyrmus*, Gerst., for this genus.

9. *Hypoclinea flavipes*, sp.n.

*Worker*.—Length, 2 mm. Black, very closely and finely punctured, the large metanotum ending in an open crescent, with moderately long, diverging horns; the central ridge also ends in a projection; scale very long, rounded, and flattened; tarsi and more or less of the mouth-parts and antennæ yellow and testaceous.

Ants from Porcupine Grass (*Triodia pungens*) Tempe Downs.

A very small but well-marked species, apparently resembling the much larger *H. scabrida*, Roger, in colour.

## PONERINÆ.

10. *Bothroponera denticulata*, sp.n.

*Worker*.—Length, 12 mm. Black, pubescent, the mandibles, the extreme tip of the antennæ, the under-surface of the legs, and the incisions of the abdomen more or less rufous. Head and thorax very closely and irregularly rugose and granulated, the pronotum and petiole showing a tendency towards longitudinal striation, head with two strong ridges between the antennæ, and the occiput somewhat concave. Antennæ pubescent, rather stout. Mandibles broad, strongly punctured, sub-triangular, with nine teeth, the second, fourth and sixth smaller than the others; the three last broad, and successively increasing in length; the seventh and eighth with a short notch on the inside at the base. On the other side there are only eight teeth, and the small notches are not visible. The face is set with long yellowish bristles, and the mandibles are also bordered with smaller bristles, of which there is a row above the teeth, which sometimes renders their examination difficult. Tibia with several terminal spines, the last serrated, tarsi set with numerous short spines, as well as hairs. Petiole longitudinally ridged, the ridges terminating in strong teeth behind; the middle one is slenderer and rather longer than the others, of which there are about four on each side.

Blood Creek, several specimens. Allied to the Indian *B. rufipes*, Jerdon.

11. *Myrmecia nigriceps*.

*Myrmecia nigriceps*, Mayr., Verb. Zool. Bot. Ges. Wien, XIV., pp. 725-728 (1862).

Reedy Hole, Bagot Creek, Alice Springs (one specimen from each); Ayers Rock and Illamurta (several specimens from each).

## MYRMECINÆ.

12. *Pheidole longiceps*.

*Pheidole longiceps*, Mayr., Journ. Mus. Godeffroy, IV. (Heft 12), p. 51 (1876).

Paisley Bluff, in burrow-nest under stones.

## MUTILLIDÆ.

13. *Mutilla rugicollis*.

*Mutilla rugicollis*, Westw., Arcana Entomologica, II., p. 17, Plate 53, Fig. 5 (1844).

Tempe Downs (one specimen).

## THYNNIDÆ.

14. *Thynnus ochrocephalus*.

*Thynnus ochrocephalus*, Smith, Trans. Ent. Soc. Lond., 1868, p. 231.

Camp, Illamurta (one specimen). A very fine, and apparently rather scarce species.

15. *Thynnus obscurus*.

*Thynnus obscurus*, Klug., Abhand. Akad., Berlin, 1842, p. 22, Fig. 4.

Palm Creek (one specimen).

16. *Thynnus carbonarius*.

*Thynnus (Thynnoides) carbonarius*, Smith, Cat. Hym. Ins. B.M., VII., p. 23 n. 51 (1859).

One specimen, without locality.

17. *Rhagigaster illustris*, sp.n.

*Male*.—Length, 11 mm. Black, legs and apex of the abdomen red, mouth-parts mostly pale yellow; prothorax narrowly bordered with pale yellow before and behind; middle of the scutellum and hind border of the post-scutellum pale yellow, and five pale yellow spots on each side of the black part of the abdomen above, the first linear, the others slightly indented on the outer part of the front edge.

Crown Point (one damaged specimen).

Differs from *R. hemorrhoidalis*, Guér., in the pale yellow (inclining to ivory white) markings on the abdomen.

#### SCOLIIDÆ.

##### 18. *Scolia læviceps*.

*Scolia læviceps*, Kirby, Trans. Ent. Soc. London, 1889, p. 447.

Adminga Creek (one specimen).

##### 19. *Campsomeris radula*.

*Tiphia radula*, Fabr., Syst. Ent., p. 354, n. 5 (1775).

Alice Springs (three specimens); George Gill Range (two specimens).

#### BEMBICIDÆ.

##### 20. *Bembex raptor*.

*Bembex raptor*, Smith, Cat. Hym. Ins. B.M., IV., p. 326, n. 40 (1856).

Crown Point (one specimen).

#### POMPILIDÆ.

##### 21. *Pompilus morio*.

*Sphex morio*, Fabr., Syst. Ent., p. 349, n. 16 (1775).

Storm Creek (one specimen).

##### 22. *Pompilus semiluctuosus*.

*Pompilus semiluctuosus*, Smith, Cat. Hym. Ins. B.M., III., p. 166, n. 234 (1855).

Rudall Creek, Gosse Range (one specimen).

##### 23. *Agenia fusiformis*.

*Agenia fusiformis*, Sauss, Reise der Novara, Hymenoptera, p. 53 (1867).

Opossum Creek (three specimens); Darwent Creek (one specimen).

## SPHEGIDÆ.

24. *Sphex canescens*.

*Sphex canescens*, Smith, Cat. Hym. Tns. B.M., IV., p. 246, n. 37 (1856).

Crown Point (one specimen).

25. *Sphex luctuosa*.

*Sphex luctuosa*, Smith, Cat. Hym. Tns. B.M., IV., p. 250, n. 47 (1856).

Alice Springs (two specimens); Dalhousie (one specimen).

The *Sphegidæ* in the collection are injured by spirit, rendering their identification somewhat uncertain.

## VESPIDÆ.

## EUMENINÆ.

26. *Eumenes latreillei*.

*Eumenes Latreillei*, Sauss., Mon. Guêpes Sol., p. 51, Plate 10, Fig. 5 (1852).

Alice Springs (many specimens); near Idracowra (one specimen); Illamurta (one specimen).

27. *Abispa ephippium*.

*Vespa ephippium*, Fabr., Syst. Ent., p. 362, n. 2 (1775).

Bagot Creek (one specimen). A slight variety, differing from the type in having the thorax almost entirely red, instead of black.

28. *Odynerus sanguinolartus*.

*Odynerus sanguinolartus*, Sauss., Mon. Guêpes, Sol., Suppl., p. 221 (1854).

Darwent Creek (one specimen).