

HYMENOPTERA, DIPTERA, AND NEUROPTERA.—By *Frederick Smith*.

Fifteen species of *Hymenoptera* were collected by Messrs. G. Gulliver and H. H. Slater, twelve of which belong to the *Aculeata*, the remainder to the *Terebrantia* or Ichneumonidous division; five of the first of these divisions appear to be undescribed. Six species of *Formicidæ* were obtained, four being new to science: the other two have a cosmopolitan range; one is the species described by Heer as the House Ant of Madeira, *Pheidole pusilla*; the other is the *Prenolepis gracillescens* of Nylander, also found in Madeira, but common in conservatories generally; it is found abundantly in the Botanical Gardens both at Kew and Paris. The most interesting species of *Apidæ* is the *Apis unicolor* of Latreille, first discovered in Madagascar, and subsequently in the island of Bourbon. Two species of leaf-cutting Bees were found: both have a wide geographical range, as has also the only species of Wasp, *Polistes hebræus*; this has occurred in India, China, Mauritius, Madagascar, and in several of the islands of the Eastern Archipelago.

Six species of *Diptera* were obtained, two belonging to the *Tipulidæ*; these latter were in a fragmentary condition, and could neither be identified nor described; of the remaining four one is a described species, the others being apparently new.

Of *Neuroptera* three species were found, all of which are described by Rambur from specimens obtained in Mauritius.

HYMENOPTERA.

Name of Species found in Rodriguez.	Hitherto found in Rodriguez only.	Previously obtained elsewhere.		
		Mauritius and Bourbon.	Madagascar.	Other Localities.
<i>Tapinoma pallipes</i> , <i>Smith</i> - -	×			
„ <i>fragile</i> , <i>Smith</i> - -	×			
<i>Monomorium elongatum</i> , <i>Smith</i> - -	×			
„ <i>impressum</i> , <i>Smith</i> - -	×			
<i>Prenolepis gracillescens</i> , <i>Nyland.</i> - -				Cosmopolitan.
<i>Pheidole pusilla</i> , <i>Heer</i> - -				Cosmopolitan.
<i>Scolia</i> (<i>Dielis</i>) <i>rufa</i> , <i>St. Farg.</i> - -		×		
<i>Pelopæus convexus</i> , <i>Smith</i> - -	×			
<i>Megachile rufiventris</i> , <i>Guér.</i> - -		×		India.
„ <i>lanata</i> , <i>Fabr.</i> - -		×		India.
<i>Apis unicolor</i> , <i>Latr.</i> - -		×	×	
<i>Polistes hebræus</i> , <i>Fabr.</i> - -		×	×	India, Java, China.
<i>Evania lævigata</i> , <i>Latr.</i> - -				Australia, Angola, Egypt, Europe, Mexico.
<i>Paniscus perforator</i> , <i>Smith</i> - -	×			
<i>Ophion rufus</i> , <i>Brullé</i> - -		×		Bengal, Java, Africa.

Formicidæ.*Tapinoma*, Foerster.*Tapinoma pallipes*.

Ann. & Mag. Nat. Hist., 4th ser., vol. xvii., p. 447 (1876).

Worker. Length $1\frac{1}{2}$ line. Head and thorax reddish brown, abdomen dark brown; eyes black; mandibles and antennæ pale testaceous. Thorax rounded anteriorly, slightly narrowed posteriorly, with the metathorax obliquely truncate; the legs, petiole, and squama, pale testaceous, the latter rounded above. Abdomen smooth, shining, and impunctate.

Coll. by Gulliver. 20 specimens taken.

Tapinoma fragile.

Ann. & Mag. Nat. Hist., 4th ser., vol. xvii., p. 447 (1876).

Worker. Length 1 line. Head brown, smooth, and shining; the eyes black; mandibles white and pellucid, antennæ also white. Thorax pale brown, the sides and metathorax darker brown; the prothorax rounded in front; the metathorax oblique and concave; the legs, petiole, and squama, pale testaceous, nearly white. Abdomen brown, smooth, and shining, palest at the base.

Coll. by Gulliver: Three specimens taken.

Found under bark; very like the preceding species, but smaller; the legs and antennæ being pellucid.

Myrmicidæ, Smith.*Monomorium*, Mayr.*Monomorium impressum*.

Ann. & Mag. Nat. Hist., 4th ser., vol. xvii., 447 (1876).

Female. Length $1\frac{3}{4}$ line. Head and abdomen dark fusco-ferruginous. The clypeus, mandibles, and antennæ flavo-testaceous; ocelli distinct, with an impressed line in front of the anterior one, extending to the insertion of the antennæ; the apex of the scape and the club of the flagellum slightly rufo-fuscous. Thorax narrower than the head and one-third longer; the prothorax rounded in front, the sides nearly parallel, slightly narrowed towards the metathorax; the legs pale testaceous, the femora rufo-testaceous; the tarsi colourless and pellucid; the thorax testaceous, as well as the nodes of the abdomen. Abdomen oblong-ovate, as long as the head and thorax.

Male. Length $1\frac{1}{4}$ line. Dark fusco-ferruginous; mandibles and antennæ rufo-testaceous; ocelli prominent, with a deeply impressed line in front of the anterior one. Thorax oblong, narrowed posteriorly; the wings colourless hyaline;

legs white, with the femora slightly fuscous in the middle. Abdomen oblong-ovate, smooth, and shining.

Nine specimens found under bark. Coll. by Gulliver.

Monomorium elongatum.

Ann. & Mag. Nat. Hist., 4th ser., vol. vii., p. 448 (1876).

Female. Length 2 lines. Reddish brown; head oblong, slightly narrowed behind the eyes, truncate posteriorly; ocelli glassy, the anterior one placed in a deep fossulet; mandibles and antennæ pale rufo-testaceous. Thorax oblong, narrowed behind; the metathorax truncate; legs pale rufo-testaceous, the femora slightly fuscous. Abdomen oblong-ovate, smooth, and shining, with a thin scattered pubescence.

Worker. Length 1 line. Reddish brown, shining, with the mandibles, antennæ, and legs pale testaceous; the head oblong, the sides nearly parallel, truncate behind, with the angles rounded. Thorax strangulated a little beyond the middle; the metathorax without spines. Abdomen ovate, smooth, and shining.

Fifty-three specimens collected by Gulliver.

SCOLIIDÆ.

Scolia, Fabr.

Scolia rufa, St. Fargeau.

Male. Length $7\frac{1}{2}$ lines. Black, the pubescence fulvo-ferruginous; the face densely pubescent; the clypeus and mandibles yellow, the former with a large triangular black macula in the middle, the latter rufo-piceous at their apex and narrowly so on their lower margin; the head pubescent behind. Thorax pubescent, the metathorax densely so; wings fusco-hyaline, the nervures black, slightly iridescent; the anterior legs, with the tips of the femora above, also the tibiæ and tarsi above, yellow; the tips of the joints of the tarsi black; the intermediate and posterior tibiæ yellow above, their tarsi entirely so, with the tips of the joints black; all the calcaria pale testaceous. Abdomen with broad yellow fasciæ, the fasciæ emarginate in the middle and at the sides; the apical segment black, smooth, and shining, with a few strong punctures at the base, the rest of the abdomen with shallow punctures; beneath, the segments have narrow yellow apical marginal fasciæ, and are fringed with fulvous pubescence.

Two specimens. The female only of this species was known, until Mr. Gulliver took both sexes.

Sphegidæ.

Pelopæus, Latreille.

Pelopæus convexus.

Ann. & Mag. Nat. Hist., 4th ser., vol. vii., p. 449 (1876).

Male. Length $5-6\frac{1}{4}$ lines. Head and thorax blue; abdomen and legs blue

black. The face with silvery pubescence; on the cheeks a thin griseous pubescence. The mesothorax evenly punctured and convex, with a central impressed longitudinal line, without any other trace of longitudinal channels; rather strongly but not very closely punctured, on the disk a few transverse irregular carinæ; wings subhyaline, with their apical margins clouded; the thorax has a thin sparing griseous pubescence; the apex of the metathorax with bright silvery pubescence; the tibiæ with the calcaria black.

(Coll. by Slater.)

Three specimens obtained, which differ so much from the males of all the blue species of the genus, in having the thorax very convex, that the male is described as that of a new species: the capture of the other sex will probably prove the correctness of doing so.

Apidæ.

Megachile rufoventris, Guér.

A single specimen taken by Mr. Slater.

Megachile lanata, Fabr.

A single specimen taken by Mr. Gulliver.

Apis unicolor, Latr.

Thirty-two specimens taken by Mr. Gulliver.

Vespidæ.

Polistes hebraeus, Linn.

Seven examples taken by Mr. Gulliver.

Ophionidæ.

Ophion rufus, Brullé.

Two specimens taken by Mr. Gulliver.

Paniscus perforator, Smith, Ann. & Mag. Nat. Hist. 4th ser., vol. vii., p. 449.

Female. Length 6 lines. Rufo-ferruginous; the face and scape of the antennæ in front, yellow; the space between the ocelli black. Thorax: the sides, the sutures on the mesothorax, and the scutellum paler than the disk; wings hyaline and iridescent, the stigma and nervures rufous; the legs and abdomen rufous, the latter slightly fuscous at the apex.

A single example taken by Mr. Slater. This species is like *P. melanopus*, Brullé, but it differs in having all the tarsi rufous, as well as the nervures of the wings: in *P. melanopus* they are black.

Evanidæ.

Evania lævigata, Latr.

A single specimen taken by Mr. Gulliver; the genus *Evania* being parasitic on Blattidæ, some of the species are conveyed with merchandise to all parts of the world. *E. lævigata* is one of the species that has a wide distribution, and is found occasionally in warehouses in the docks in London.

DIPTERA.

Tabanidæ.

Tabanus sequens, Walker.

A single specimen taken by Mr. Gulliver.

Muscidæ.

Pollenia basalis, Macquar.

Smith, Ann. & Mag. Nat. Hist., 4th ser., p. 449 (1876).

Length 4 lines. Dark blue, with shades of green on the disk of the thorax; the face and cheeks luteous, and clothed with short, dense yellow pubescence; at the end of the facialia a black bristle on each side; antennæ in deep facial grooves, slightly yellow at the base, third joint long, arista longly plumose; palpi luteous, with black bristles; frons black and more than a quarter the width of the head; wings hyaline with their base fuscous; the transverse vein at the end of the wing nearly rectangular below and much curved above, leaving the cell open; the lower transverse vein very oblique. Abdomen with a little short luteous pubescence at the apex and also beneath; alulæ dirty white.

A single example taken by Mr. Slater.

Sarcophaga mutata.

Smith, Ann. and Mag. Nat. Hist., 4th ser., p. 450 (1876).

Female. Length 5 lines. Black, thinly clothed with black hairs and bristles; the face and cheeks with a covering of bright silvery pile; the margin of the facial groove fringed anteriorly with short black bristles; eyes dark reddish brown; the base of the antennæ black, the third joint tawny and with a long plumose black bristle at the base; frons with a broad black stripe running from the antennæ to the vertex. Thorax tawny above and with three black longitudinal stripes; the lateral margins set with black curved bristles; legs black and with a number of black bristles; wings sub-hyaline, the veins black; the transverse vein at the end of the

wing straight above, oblique and curved below; the lower transverse vein evenly waved; the alulæ white. Abdomen tessellated with black and silvery pile, covered with short black hairs, and having a few long black bristles at the apex; there are also four long black bristles on the hinder margin of the scutellum.

Two examples taken by Mr. Gulliver.

Sapromyza squallida.

Smith, Ann. and Mag. Nat. Hist., 4th ser., vol. vii., p. 950 (1876).

Male. Length 2 lines. Pale brown; frons yellow, with a dark brown central line; two long bristles at the hind corner of the eye, and two between them and the antennæ; face pale yellow; peristoma with a row of small bristles. Antennæ yellowish, brown above, the second joint with long black bristles beneath, at the end; arista black, yellow at the base and plumose; the palpi yellow. Thorax with obscure pale (almost white) longitudinal stripes; the scutellum pale brown, its outer margin and a central longitudinal pale yellow line. Legs yellow; the tibiæ have all a preapical bristle; the anterior femora with scattered bristles, the intermediate pair with a row of bristles in front near the tip. Wings faintly yellowish, middle transverse veinlets darkened, and yellowish spots at the tip of the lower transverse veinlet and at the tips of the second and third veins, and also on those veins, some distance from the tips, and on the second vein opposite where the first vein ends in the costa. Abdomen brownish yellow and thinly sprinkled with short black hairs.

A single example taken by Mr. Gulliver.

NEUROPTERA.

Name of Species found in Rodriguez.	Hitherto found in Rodriguez only.	Previously obtained elsewhere.		
		Mauritius and Bourbon.	Madagascar.	Other Localities.
Termes ?	- - - ×			
Myrmelion obscurus	- - -	×		
Libellula mauritiana	- - -	×		
Anax mauritianus	- - -	×		
Agrion ferrugineum	- - -		×	

Libellulidæ.

Libellula mauritiana, Rambur.

Four specimens obtained by Mr. Gulliver.

Anax mauritanus, Rambur.

Four specimens taken by Mr. Gulliver.

Agrionidæ.*Agrion ferrugineum*, Rambur.

A single example only obtained by Mr. Gulliver.

Termes, *sp.*

One hundred and seven specimens of a small species of Termite were in the collection, they were snow white, but only workers were obtained; in the absence of the females and males it was impossible to draw up distinctive specific characters. Obtained by Mr. Gulliver.

Myrmelion obscurus, Rambur.

A single specimen only obtained by Mr. Gulliver.
