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ANTS COLLECTED IN GRENADA, W. I. BY MR. C. T. BRUES.

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The ants of the island of Grenada were first systematically collected by Mr. H. H. Smith and enumerated in a short paper by Prof. Auguste Forel.² Thirty forms, nearly all of wide distribution in the West Indies, are cited.

During the summer of 1910 Mr. C. T. Brues visited Grenada for the Museum of Comparative Zoölogy and made careful search for ants. Although the season was not the most favorable for collecting he succeeded nevertheless in taking specimens of the twenty-four forms enumerated below. Of these the following twelve do not occur in Forel's list:

Euponera (Pseudoponera) stigma Fabr.

Anochetus (Stenomyrmex) emarginatus Fabr. (typical).

Leptogenys punctaticeps Emery.

Odontomachus haematodes Linn. (typical).

Cremastogaster brevispinosa Mayr.

Cremastogaster laevis Mayr var. bruesi, var. nov.

Pheidole jelskii Mayr var. antillensis Forel.

Pheidole triconstricta Forel. var. bruesi, var. nov.

Myrmicocrypta brittoni Wheeler.

Iridomyrmex iniquus Mayr.

Camponotus abdominalis nocens, subsp. nov.

Camponotus ustus Forel.

Forel's list, however, comprises the following eighteen forms not taken by Brues:

Leptogenys arcuata Roger.

Anochetus mayri Emery.

Anochetus (Stenomyrmex) emarginatus testaceus Forel.

Odontomachus haematodes insularis Guérin.

Odontomachus haematodes hirsutiusculus F. Smith.

Eciton klugi Shuckard.

Eciton antillanum Forel.

¹ Contributions from the Entomological Laboratory of the Bussey Institution, Harvard University. No. 38.

² Quelques Formicides de l'Antille de Grenada récoltés par M. H. H. Smith. Trans. Ent. soc. London, 1897, pt. 3, p. 297-300.

Pseudomyrma flavidula F. Smith.

Monomorium minutum ebeninum Forel.

Solenopsis castor Forel.

Solenopsis globularia F. Smith.

Wasmannia sigmoidea Forel.

Cryptocerus araneolus F. Smith.

Strumigenys smithi Forel.

Dorymyrmex pyramicus Roger (pale var.).

Prenolepis quatemalensis antillana Forel.

Brachymyrmex heeri Forel var. obscurior Forel.

Camponotus abdominalis opaciceps Roger.

It follows, therefore, that only forty-two forms are now known from Grenada, a small number considering its proximity to Trinidad and the mainland, the fact that Forel has recorded seventy-one forms from St. Vincent, an island of about the same size, and the care with which Mr. Brues collected.

FORMICIDAE.

Ponerinae.

- 1. Platythyrea punctata F. Smith.—Several workers from Grand Etang and Richmond Hill.
- 2. Euponera (Pseudoponera) stigma Fabr.— A single deälated female from Grand Etang.
- 3. Leptogenys punctaticeps Emery.—A few workers and males from a single colony from Grand Etang. The male measures 4.5–5 mm. and in color, sculpture, pilosity and the shape of the petiole is very similar to the worker. The head is as broad as long, nearly circular, with very small, lobe-like, yellow mandibles and the clypeus broad, convex but ecarinate, and with a broadly rounded, entire anterior border. The wings are rather short, distinctly infuscated, with brown veins and black stigma.
 - 4. Anochetus inermis Ern. André.— Two workers from Sauteurs.
- 5. Anochetus (Stenomyrmex) emarginatus Fabr.— Numerous workers and a few males of the typical form from Grand Etang.
- 6. Odontomachus haematodes Linné.— Several workers and a winged female from Richmond Hill are of rather large size and blackish coloration and may be assigned to the typical form of this common tropicopolitan ant.

Myrmicinae.

- 7. Monomorium floricola Jerdon.— A few workers from Sauteurs.
- 8. Cremastogaster brevispinosa Mayr.— Numerous workers from Grand Etang.
- 9. Cremastogaster brevispinosa Mayr var. minutior Forel.— A few workers from Richmond Hill.
- 10. Cremastogaster laevis Mayr var. bruesi, var. nov.—Several workers from Grand Etang agree closely with Mayr's description and three Brazilian workers received from Forel, except that the hairs on the tibiae are short and appressed, the gaster is black and joints 2–8 of the antennal funiculi are longer in proportion to their width. A deälated female accompanying the workers measures 4 mm., is black, with the legs, antennae, mandibles and articulations of the thorax and gaster brown and the antennal clubs more deeply infuscated. The surface of the body is smooth and shining, with scattered piligerous punctures. The epinotal spines are reduced to short, acute teeth.
- 11. Solenopsis geminata Fabr.— A few workers from Richmond Hill.
- 12. Pheidole flavens Roger subsp. sculptior Forel var. grenadensis Forel.— A few soldiers and workers from Richmond Hill.
- 13. Pheidole guilelmi-muelleri Forel subsp. antillana Forel var. nigrescens Forel.— A soldier, a winged female and several workers from Grand Etang.
- 14. Pheidole jelskii Mayr var. antillensis Forel.—Several workers from Grand Etang and Sauteurs.
 - 15. Pheidole triconstricta Forel var. bruesi, var. nov.

Soldier. Length 2.5 mm.

Differing from the typical form in its smaller size, in color and in the length of the antennae. The scapes reach to fully $\frac{2}{3}$ the distance between the eyes and the posterior corners of the head. The body and appendages are yellow, the thorax and tip of gaster sometimes slightly brownish; the borders of the mandibles are black, the anterior border of the clypeus dark brown.

Worker. Length 1.6-2 mm.

Colored like the soldier. The antennal scapes surpass the posterior corners of the head by fully $\frac{1}{3}$ their length.

Described from three soldiers and several workers taken at Grand Etang.

This form resembles the var. ambulans Emery of Buenos Aires in the length of the antennal scapes in the soldier and worker but differs in color, Emery's form being dark brown like the type of the species.

- 16. Wasmannia auropunctata Roger.— One deälated female and many workers from Sauteurs and Richmond Hill.
- 17. Cyphomyrmex rimosus Spinola.— Numerous workers and two deälated females from Richmond Hill.
- Myrmicocrypta brittoni Wheeler.— Four males and twelve workers from a single colony found in the sand of the sea-shore at Point Saline. The male, which has not been described, differs from that of other species of the genus (M. dilacerata Forel, subnitida Forel, godmani Forel and uncinata Mayr) in lacking the various crests, teeth and spines on the head and thorax. These regions in brittoni are all smooth and unarmed. The head is like that of the worker but smaller, with large eyes and ocelli; the thorax has a convex scutellum and the epinotum has small blunt elevations in the place of spines or teeth. The genitalia are large and exserted and quite unlike those of dilacerata. The surface of the body and appendages is opaque and very finely granular or punctate, with short, scattered and appressed, yellowish hairs. Color black; mandibles, funiculi, tarsi and genitalia vellowish; scapes and legs brown. Wings grayish hyaline, with very pale, almost colorless veins and stigma. Length 2.3-2.6 mm.

In the absence of the ridges and spines on the head and thorax and in the shape and large size of the genitalia, the male M. brittoni differs so much from the males of the other known species, that it may have to be placed in a distinct genus or subgenus. This had better not be done, however, till we have more material of the various species of the genus and especially the females, which seem to be unknown in all the species except M. uncinata.

Dolichoderinae.

- 19. Iridomyrmex iniquus Mayr.— Numerous workers, males and females from several colonies nesting in the ground at Grand Etang and Sauteurs.
- 20. Dorymyrmex pyramicus Roger.— Several workers of the typical form from Sauteurs.

Camponotinae.

- 21. Prenolepis longicornis Fabr.— Several workers from Richmond Hill.
- 22. Camponotus abdominalis Fabr. subsp. nocens, subsp. nov. Worker major. Length 10-11 mm.

Mandibles shining, finely striated and coarsely and sparsely punctate; head opaque, finely and densely punctate, slightly shining on the sides and in front. Elongated foveolae on the cheeks small and not abundant. Thorax, petiole, gaster and legs shining; gaster very finely and transversely shagreened. Antennal scapes subopaque.

Hairs fulvous, long, erect, but much less abundant than in the typical abdominalis, confined to the vertex, clypeus, gula, mandibles, thoracic dorsum, border of petiole, surface of gaster and fore coxae. There are a few scattered, suberect hairs on the flexor surfaces of the femora and a few (less than half a dozen) on the extensor surface of each tibia. Pubescence yellow, very sparse, most distinct on the gaster, cheeks and antennal scapes.

Rich yellow; head, antennae and tarsi red, with the vertex and mesial portions of the cheeks brown; mandibular teeth, corners of clypeus, anterior borders of cheeks and apical two-thirds of antennal scapes black; posterior half of first gastric segment and the whole of the remaining segments, except their posterior margins and sometimes portions of the venter, dark brown.

Worker minor. Length 6-7 mm.

Like the worker major, except that the head is more shining, the antennal scapes are not blackened and nearly the whole of the first gastric segment is yellow. The head is subrectangular, broad behind the eyes, with straight posterior border and distinct posterior corners.

Female (deälated). Length 14-15 mm.

Resembling the worker major. Head narrower, with straight, anteriorly converging sides, sharp posterior corners and straight posterior border. Thorax and gaster more glabrous and shining; otherwise the sculpture, color and pilosity are like those of the worker major. The mesonotum has a faint brown anteromedian and two lateral spots. The border of the petiole is rather deeply notched in the middle.

Described from two females and a number of workers taken from rotten logs at Grand Etang and Richmond Hill.

The vivid coloration and feeble pilosity place this form in the group

of abdominalis subspecies comprising sharpi Forel of St. Vincent and hannani Forel and willardi Forel of Jamaica. It really represents one of the transitions between these insular forms and those of the American continent like atriceps F. Smith and opaciceps Roger. It differs from hannani and willardi in color, in lacking the erect hairs on the scapes and in having very few such hairs on the legs; whereas sharpi, with which it is very closely related in color, has absolutely no erect hairs on the legs. Perhaps nocens should be regarded merely as a variety of sharpi, rather than as an independent subspecies.

- 23. Camponotus sexuttatus Fabr. var. grenadensis Forel.— Numerous workers, males and winged females taken from hollow stems at Grand Etang and Richmond Hill.
 - 24. Camponotus ustus Forel.— A few workers from Grand Etang.