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BULLETIN

FROM THE

LABORATORIES OF NATURAL HISTORY

OF THE

STATE UNIVERSITY OF IOWA.

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NOTES ON THE HYMENOPTERA.

COLLECTED BY THE BAHAMA EXPEDITION FROM THE STATE UNIVERSITY OF IOWA.

BY WILLIAM H. ASHMEAD.

VERY little is known of the Hymenopterous fauna, of the Bahamas, and the following list of Hymenoptera, most of which were collected by Mr. H. F. Wickham on a visit to these Islands in 1893, will be of interest and value to those interested in the distribution of these insects.

Mr. Wickham made no special effort to collect Hymenoptera, his specialty being Coleoptera and his collecting must represent therefore, but a small fraction of the fauna.

FAMILY APIDÆ.

1. CŒLIOXYS sp.

One & specimen, Egg Island. This is possibly one of the numerous species described from South America. It is parasitic or inquilinous in the nest of the leaf-cutting bees (Megachile). I have seen no large collection of these bees from the West Indies and South America and no effort has been made to identify the single specimen taken.

2. Nomia wickhamii sp. n.

¿ Length, 12 mm. Black; face, cheeks, superior margin of collar, tubercles, metapleura, legs and sides of abdominal segments clothed with a cinereous or whitish pubescence; metascutellum with a hoary pubescence; tongue at tip piceous; palpi ferruginous; flagellum beneath dull ferruginous. The dilated posterior tibiæ and the broadly dilated apical margin, which is produced into a tooth within, yellow; the apical margins of the second, third, fourth and fifth segments banded with greenish-yellow, the band on the fourth segment not however, extending to the lateral margins. Genitalia ferru-

ginous, the claspers very large, angulated at apex outwardly and then strongly curving inwardly and produced into a curved prong within. Apical dorsal segments medially emarginated and fringed with black and white hairs. Ventral segments two and three, yellowish at apex, the third grooved indistinctly. medially, the fourth with a deep median channel, the fifth carinated. Wings dusky hyaline, broadly fuliginous at apex; the stigma ferruginous, the veins fuscous. Head transverse, scarcely as wide as the thorax, the frons closely punctate; clypeus smooth, slightly arcuated at apex; mandibles black, with a longitudinal groove along the inner margin; thorax and scutellum with rather coarse, rounded punctures, more confluent anteriorly, but separated on the disk; metathorax closely punctate. Last four joints of anterior tarsi and the last joint of middle and hind tarsi, yellow. Abdomen twice as long as head and thorax united, the first segment rather coarsely punctate, but smooth and shining at the apical margin, and clothed with sparse white hairs; the following segments, except at margins, finely, closely punctate, the surface of the bands being smooth, polished, impunctate.

Described from 2 & specimens collected at Eleuthera, Bahamas.

- 3. Agapostemon femoralis *Guér*. One é specimen from Eleuthera.
- 4. HALICTUS ALBITARSATUS sp. n.
- & length 3 to 3.5 mm. Submetallic black; face below antennæ bronzed green; scutellum and postscutellum with a brassy tinge; tarsi yellowish-white; flagellum beneath from second joint, brown.

Head transverse finely, closely punctate, less closely punctate on the face while on the clypeus the punctures are separated. The clypeus is slightly produced and truncate anteriorly; mentum transversely narrowed almost entirely covered by the clypeus, smooth, impunctate; mandibles rufous, blackish towards base; ocelli white; antennæ 13-jointed, the first flagellar joint quadrate, the second 1½ times longer. Thorax

slightly purplish anteriorly, finely punctate, the scutellum with some sparse punctures and an impunctate space at the middle; mesopleura rather closely punctate; metathorax above smooth, impunctate, except at extreme base where there are some raised radiating lines but no enclosure; the sides are delicately shagreened, while the posterior face has a deep median incision followed by a carina below. Wings subhyaline, the stigma and veins dark brown; the first submarginal cell is about as long as the second and third united; the first recurrent nervure joins the second submarginal cell near its apex while the second recurrent nervure joins the third submarginal cell a little beyond its middle. Abdomen oblong-oval smooth, impunctate, the first segment with a deep emargination at base above, the second, third and fourth segments along their sutures at base narrowly impressed, the extreme apical margins of second, third, fourth and fifth segments narrowly testaceous.

Q. Length 4.5 mm. Differs from 3 only in its larger size, the face below the antennæ being sparsely covered with whitish hairs, the clypeus fimbriate with golden hair; the antennæ 12-jointed, the second and third flagellar joints equal, a little wider than long, the first being a little longer than wide; the tibiæ and tarsi, as well as the terminal abdominal segment are covered with yellowish and whitish hairs; while the abdomen is larger, more hairy, the apical margins of the ventral segments being fimbriate with long sparse hair.

Described from δ and $\mathfrak P$ specimens, taken at Bahia Honda, Cuba, June 1.

FAMILY BEMBICIDÆ.

- 5. Monedula signata Linn.
 - One 9 specimen from Eleuthera. A species common in South America and Cuba.
- 6. Stizus hogardii Latr.
 - One a from Eleuthera. Mr. Wickham also took a large specimen of this species at Key West, Florida. It is the first notice of its occurrence in the United States.

FAMILY SPHEGIDÆ.

- 7. Sphex fulvihirta *Guér*.

 Two specimens, i & from Egg Island, i & from Spanish Wells.
- S. Pelopæus fasciatus *Lep*.

 Two specimens, i & Eleuthera, i & Egg Island.

FAMILY POMPILIDÆ.

9. Salius (Prionocnemis) flavipennis *Smith*. One 9 from Bahia Honda, Cuba.

FAMILY VESPIDÆ.

- One ♀ from Egg Island, May 13.
- Polistes americanus Fabr.
 One & from Eleuthera, 1 ♀ from Harbor Island, July 8.
- Polistes Minor Beauv.
 Two φ specimens from Eleuthera, July 15.
- 13. Polybia cubensis Sauss. One ♀ from Eleuthera.

FAMILY EUMENIDÆ.

- 14. ZETHUS AZTECUS Sauss.
 - One a from Eleuthera, evidently a variety of this species with the legs, except the coxæ, entirely rufous.
- Odynerus tibialis Sauss.
 One ♀ from Eleuthera, July 9.

FAMILY SCOLIIDÆ.

- 16. Myzine nitida Smith. One small ♀ from Harbor Isl. July 8.
- 17. Elis Trifasciatus Fabr.
 Two & specimens from Eleuthera, July 9.

FAMILY MUTILLIDÆ.

18. Sphærophthalma ferrugata Fabr. One ♀ specimen.

FAMILY BRACONIDÆ.

- 19. IPHIAULAX (BRACON) PLICATUS Cr. One \circ specimen from Eleuthera.
- 20. Spathius eleutheræ, sp. n.
- Q. Length 2.5 mm; ovipositor as long as the abdomen. Fuscous; basal four joints of antennæ and the legs including the coxæ pale yellowish; wings subhyaline, the anterior pair with whitish transverse band from the stigma; stigma and nervures brown.

Head quadrate, the face, except the median ridge wrinkled; frons rather coarsely transversely striated, the occiput more feebly striated; mesonotum trilobed, rugulose; metanotum distinctly areolated; petiole long, striated, the body of abdomen smooth, polished, with the sutures between the segments pale.

Described from 1 9 specimen, taken July 9, from Eleuthera.

FAMILY EVANIIDÆ.

21. EVANIA APPENDIGASTER *Linn*. One ♀ from Eleuthera, July 9.

FAMILY CHALCIDIDÆ.

22. Trigonaspis flavicollis Mayr.

One of from Bahia Honda, Cuba. A species described from Brazil. It is found associated with fig-insects (*Blastophagæ*) and no doubt these insects also occur on the Island.

23. Eupelmus sp.
One ♀ from Eleuthera, July.

24. Eupelmus sp.
One ♀ from Eleuthera, July.