

**Article VII.**—ON SOME ORTHOPTERA FROM PORTO RICO,  
CULEBRA AND VIEQUES ISLANDS.

BY JAMES A. G. REHN,

Academy of Natural Sciences of Philadelphia.

Several years ago Dr. William M. Wheeler, formerly of the American Museum, placed in my hands for study a small collection of Orthoptera made by him in March, 1906, in Porto Rico, and on Culebra Island. The material was alcoholic and a good portion too immature for positive specific determination. The collection, however, contained a number of species of interest, including a new roach of the genus *Epilampra*, and the results are here presented along with notes on a small lot of Porto Rican and Vieques Island material belonging to the United States National Museum, loaned by the late Dr. Wm. H. Ashmead. My thanks are due the officials of the two institutions for the opportunity to examine these two collections.

BLATTIDÆ.

**Ischnoptera rufescens** (*Beauvois*).

Culebra Island, March, 1906. (Wheeler.) [A. M. N. H.] Five males, three females.

Gundlach reported this species from Porto Rico.

**Geratinoptera diaphana** (*Fabricius*).

Culebra Island, March 6, 1906. (Wheeler.) [A. M. N. H.] One male, one female.

**Phœtalia lævigata** (*Beauvois*).

Utua do, Porto Rico, March 17, 1906. (Wheeler.) [A. M. N. H.] One female.

This is apparently the first Porto Rican record of the species, which has also been recorded from Cuba, San Domingo, Martinique and Grenada, as well as from localities in Central and South America and Madeira.

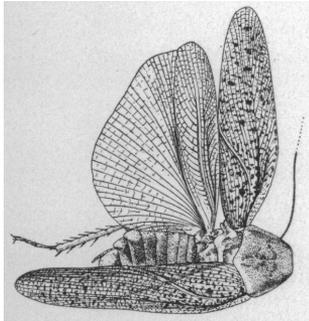
**Epilampra wheeleri** n. sp.

Type: ♂; Mandios, near Utua do, Porto Rico, alt. 3000 feet, March 17, 1906. (Wm. M. Wheeler.) [Amer. Mus. of Nat. Hist.]

Related to the Cuban *E. caraibea* and *burmeisteri*, but differing from the former in the caudal coxæ and venter having numerous granulations, in the lateral portions of the pronotum being about as thickly punctulate as mesad and without large punctures and in the longer tegmina and slightly broader pronotum, while from *burmeisteri* it differs in the heavily spotted tegmina and more distinctly spotted legs. Comparison has also been made with *E. insularis* Bolivar from Cuba and *E. sabulosa* and *microspila* Walker from Haiti.

Size medium: from moderately elongate; surface moderately polished. Head completely hidden under the pronotum; interspace between the eyes equal to about half the greatest length of the eye; antennæ incomplete in the type. Pronotum with the narrow cephalic margin rotundato-truncate, the caudal margin moderately produced mesad, the angle of the production well rounded and the sides of this margin very slightly concave, lateral margins converging cephalad, the caudo-lateral angles rotundato-rectangulate, the cephalo-lateral angles rounded; lateral portions of the disk considerably deflected, the dorsal deplanate section rounding into the

subvertical lateral section; middle of the disk with two distinct though shallow depressions, one cephalad of the other, the projecting caudal portion of the disk with numerous slight transverse crease-like striæ. Tegmina exceeding the apex of the abdomen by slightly more than the length of the disk of the pronotum, the greatest width of the tegmina being about a third the length of the same; costal margin gently arcuate, the sutural margin rounding distad to the rotundato-angulate apex. Wings with a slight intercalary field. Angles of the abdominal segments obtuse; supra-anal plate produced, bilobate, with a slight median carination proximad; subgenital plate about equal in width to the supra-anal plate but not equalling the same in length, the apical



*Epilampra wheeleri* n. sp. Dorsal view of type. ( $\times 1\frac{1}{2}$ .)

margin broadly rounded, styles slender, short, not reaching caudad of the margin of the supra-anal plate; cerci slightly depressed, fusiform, the apex tapering and exceeding the apical margin of the supra-anal plate by about half the length of the latter. Cephalic femora with the ventro-cephalic margin armed with four large spines mesad and one apical (in addition to the genicular spine) while between these is a series of very short bristle-like spines, ventro-caudal margin with four large spines. Median femora with four spines on the ventro-cephalic and five spines on the ventro-caudal margins; genicular spine robust, apical. Caudal femora with four spines on each margin; genicular spine shorter than on median limbs. Caudal tarsi missing. Cephalic and median tarsi serrato-spinose on each ventral margin, pulvilli prominent.

General color pale ochraceous. Head with a piceous quadrate patch between the eyes, a distinct spot of the same ventrad of each ocellus; occiput punctulate with red brown and piceous, the face sparsely punctulate with piceous; antennæ ochraceous becoming pale red brown distad. Pronotum heavily and uniformly

punctulate with piceous, an indistinct lyrate red brown pattern present on the disk as well as a median red brown spot on each deflected lateral portion of the disk. Tegmina rather heavily punctulate with piceous, the points becoming sparse and more red brown distad, the discoidal and anal field having the base color more suffused with brownish than the costal field which is clear ochraceous-buff with the spots sparser and decidedly red brown; humeral streak decidedly piceous and about a third the entire length of the tegmen; comparatively large punctations of the overlying color are sprinkled rather irregularly over the discoidal and anal fields. Wings infumate, the costal margin dull yellowish and the apex of the wing paler than the remainder, the infumation of the greater portion of the wing being due to the heavy pencilling of the veins. Abdomen dull ochraceous brown dorsad with the lateral portions of the segments and the greater portion of the supra-anal plate pale ochraceous; ventral surface punctulate with deep brownish, the points much thicker distad, the proximal segments with the spots placed on low tubercles; subgenital plate entirely piceous except for the margins which are yellowish aside from the apex which is concolorous with the greater portion of the plate; cerci ochraceous-buff. Median and cephalic coxæ with a number of piceous granulations; femora with several linear series of spots, the dorsal margin of the femora with a weak red brown edging; tibiæ with a piceous spot at the base of each spine, the latter with brownish tips; tarsal joints with their apices piceous.

*Measurements.*

Length of body . . . . .	17.5 mm.
Length of pronotum . . . . .	6. "
Greatest width of pronotum . . . . .	7.2 "
Length of tegmen . . . . .	21.5 "

The type is the only specimen of the species which has been examined. It is with great pleasure that I dedicate this species to its collector, Dr. William Morton Wheeler.

**Periplaneta australasiæ** (*Fabricius*).

Culebra Island, March 6, 1906. (Wheeler). [A. M. N. H.] One female.

**Periplaneta brunnea** *Burmeister* (*truncata* of Krauss and authors).

Culebra Island, March, 1906. (Wheeler.) [A. M. N. H.] Six males, one adult female, one immature female.

These specimens are very similar to individuals of the species from Sumatra (Batu Sangkar) and Bolivia (Caiza) in the collection of the Academy. Apparently this is the first record of the species from the West Indies.

**Leucophæa maderæ** (*Fabricius*).

Culebra Island, March, 1906. (Wheeler). [A. M. N. H.] Four males, three females, two immature individuals.

**Hemibladera manca** *Saussure*.

Culebra Island, March 5-9, 1906. (Wheeler.) [A. M. N. H.] One male, two females.

The specimens listed above have been compared with a male from Fajardo, Porto Rico. The males of this species have the tegmina subtruncate at the apex, while the females have the same region markedly oblique truncate, the sutural margin hardly more than half as long as the costal one in the last mentioned sex. The reddish median maculation on the pronotum described by Saussure is absent in two of the four specimens examined, very faintly indicated in another and well marked in the fourth. The Culebra male is larger than the Fajardo individual of the same sex.

## ACRIDIDÆ.

**Schistocerca ægyptia** (*Thunberg*).

San Juan, Porto Rico, February 12, 1900. (L. Stejneger.) [U. S. N. M.] One female.

Adjuntas, Porto Rico, 1400 feet elevation, April 13, 1900. (L. Stejneger.) [U. S. N. M.] One female.

These specimens have been compared with individuals of the species from Culebra and Vieques Islands.

## TETTIGONIDÆ.

**Neoconocephalus guttatus** (*Serville*).

El Yunque, Porto Rico, 800 feet elevation, February. (C. W. Richmond.) [U. S. N. M.] One female.

The present author has recorded this species from Bayamon, Porto Rico.

**Neoconocephalus macropterus** (*Redtenbacher*).

San Juan, Porto Rico, February 12, 1900. (L. Stejneger.) [U. S. N. M.] One female.

The comment made under the preceding species also applies to this one.

**Gonocephalus fasciatus** (*De Geer*). [*Xiphidium fasciatum* auct.]

Vieques Island, March 27, 1900. (C. W. Richmond.) [U. S. N. M.] One female.

## GRYLLIDÆ.

**Scapteriscus didactylus** (*Latreille*).

Luquillo, Porto Rico, March 5, 1900. (C. W. Richmond.) [U. S. N. M.] One male.

El Yunque, Porto Rico, 800 feet elevation, February, 1900. (C. W. Richmond.) [U. S. N. M.] Two females.

**Anurogryllus muticus** (*De Geer*).

Coamo Springs, Porto Rico, March 23, 1906. (Wheeler.) [A. M. N. H.] One male.

Culebra Island, March 5, 1906. (Wheeler.) [A. M. N. H.] One female.

**Amphiacusta caraibea** (*Saussure*).

Cave near Pueblo Viejo near San Juan, Porto Rico, February 17, 1900. (C. W. Richmond.) [U. S. N. M.] One adult male, one adult female, two immature males, three immature females.

Cueva di Fari near San Juan, Porto Rico, February 14, 1900. (L. Stejneger.) [U. S. N. M.] One immature female.

El Yunque, Porto Rico, 800 feet elev.; February 12, 1900. (C. W. Richmond.) [U. S. N. M.] One adult male.

Vieques Island, March 28. (L. Stejneger.) [U. S. N. M.] One adult male.

Culebra Island, March, 1906. (W. M. Wheeler.) [A. M. N. H.] Two immature males, one immature female.

The immature males are apparently in the stage before the adult condition as the tegmina are present as rounded lobes projecting caudad of the margin of the pronotum a distance about equal to two-thirds the pronotal length, the surface having the venation of the adult male faintly outlined.

As no measurements have been published of the adult female the following taken from the only adult female in the series will add to our knowledge of the species.

Length of body . . . . .	16. mm.
Length of pronotum . . . . .	4. "
Greatest width of pronotum . . . . .	5.5 "
Length of caudal femur . . . . .	19.5 "
Length of caudal tibia . . . . .	21 "
Length of ovipositor . . . . .	20 "

The species is now known from several of the Lesser Antilles, Vieques and Culebra Islands and Porto Rico.

