THE FIRST OCCURRENCE OF *OZOPHORA HEYDONI* IN FLORIDA WITH THE DESCRIPTION OF A NEW SPECIES OF *OZOPHORA* FROM THE NEOTROPICS (LYGAEIDAE: HEMIPTERA)

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ABSTRACT

The discovery of a species of *Ozophora* not previously reported for Florida led to a re-examination of the *Ozophora atropicta* complex. This examination showed that *O. heydoni* had been incorrectly synonymized and is resurrected from synonymy and reported from Florida for the first time. A new species, *Ozophora atropictoides*, is described from Trinidad.

Key Words: *Ozophora*, Florida, synonymy, *atropictoides*.

RESUMEN

El descubrimiento de una especie de *Ozophora* no previamente reportada de la Florida condujo a un reexamen del complejo de *Ozophora atropicta*. Este examen mostró que *O. heydoni* habia sido incorrectamente sinonimizada y es resucitada de la sinonimia y reportada de la Florida por primera vez. Una nueva especie, *Ozophora atropictoides*, es descrita de Trinidad.

The discovery of a species of *Ozophora* not previously reported for Florida led to re-examination of the *Ozophora atropicta* complex. Recently the junior author and Mrs. Holly Glenn, Biological Scientist II, Tropical Research and Education Center, collected a number of specimens of a species of *Ozophora* on the grounds of the Tropical Research and Education Center (TREC) under a large *Ficus* tree. This *Ozophora* was determined to be a species not known from Florida, either *O. atropicta* or a closely related species. A comparison of the male genital capsule, parameres and cuplike sclerite (Schaefer, 1977) of *O. atropicta* from the Dominican Republic with those of specimens collected at TREC showed distinct differences.

Slater & Hassey (1981) discussed the status of *O. atropicta* Barber in detail. They pointed out that the type series was mixed. Material not conspecific with the holotype was subsequently described as *O. levis* by Slater & Baranowski (1983). Slater & Hassey (ibid) also synonymized *O. heydoni* Barber & Ashlock with *O. atropicta*. They discussed variation in, and distribution of *O. atropicta*, hypothesizing the origin and dispersal of West Indian populations from a mainland source area.

It is now apparent that Slater & Hassey (1981) were incorrect in synonymizing *O. heydoni* and *O. atropicta* and in believing that the genitalia do not differ significantly. These taxa, which we now believe is a complex of species, are very similar externally, differing externally chiefly by characters discussed by Slater & Hassey in their discussion of "variation" between Bahamian and Greater Antillean populations. However, we now find the shape of the genital capsule to be consistently different. This structure has proven to be diagnostic for many closely related species of *Ozophora*. Furthermore, mainland populations of what Slater & Hassey believed to be *O. atropicta* also have a distinctly different genital capsule.

Three distinct species are thus involved:

1. *Ozophora heydoni* Barber & Ashlock NEW STATUS, occurs in extreme southern Florida (Homestead, Fla. I-31-1991 R. M. Baranowski, light trap and under *Ficus*) and probably throughout the Bahamas. The holotype is from New Providence, paratypes from Abaco Cays, Great Abaco I. and Andros I. Slater & Hassey (1981) also report it (as *O. atropicta*) from Eleuthera Is. (Current Cut, Powell Pt.), Arthur's Town Cat Is.

In *O. heydoni* the posterior margin of the genital capsule has a slight mesal protrusion when viewed dorsally (Fig. 3) and in lateral view this protrusion can be seen as a caudal projection of the capsule (Fig. 2). The arms of the cuplike sclerite are widely separated and evenly conical with heavily sclerotized distal ends (Fig. 1).

The paramere of *O. heydoni* (Fig. 11) has a large toothlike inner projection that extends over the base of the outer projection. There is no minute secondary tooth.

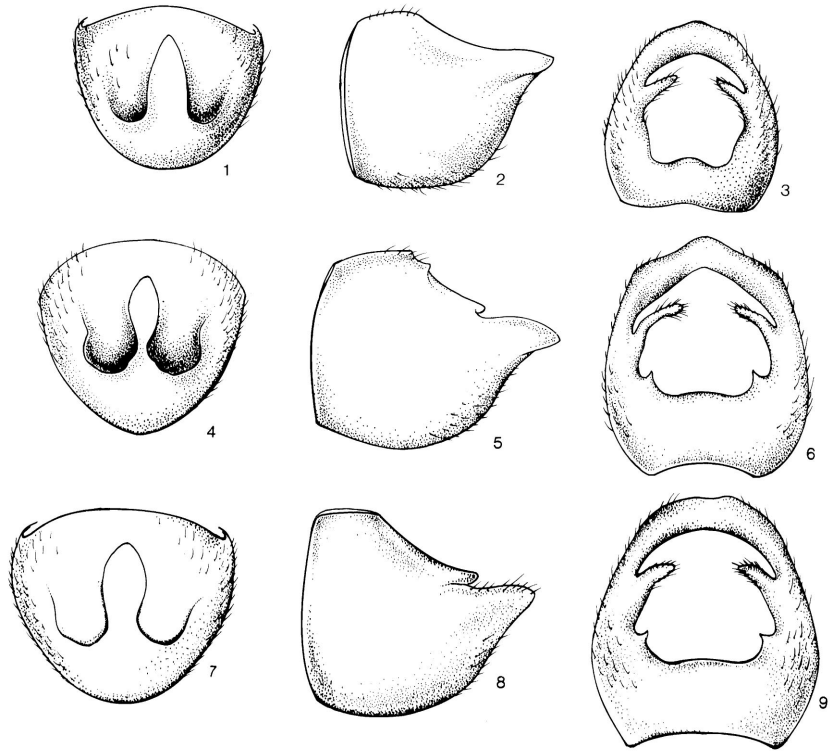
Ozophora heydoni keys to couplet four in Slater & Baranowski (1983, 1990). It can be separated from *O. levis* by the pale apex of the membrane, and the variegated hemelytra. In some specimens, the pale membrane apex is obscure. In such cases, *O. heydoni* may be distinguished from *O. levis* by having the lateral corial margins entirely pale and in contact with the pale subapical macula, whereas in *O. heydoni* the lateral corial margins are separated from the subapical pale macula by a large dark transverse band. In *O. levis,* the posterior pronotal lobe is, for the most part, concolorous with the anterior lobe, whereas in *O. heydoni* the posterior lobe is sometimes pale and contrasts markedly with the dark anterior lobe. Such specimens of *O. heydoni* key to couplet seven where they can be separated from *O. caroli* by lacking a yellow scalloped posterior pronotal margin and from *O. floridana* by having one or more dark bars on the clavus and anterior one-half of the corium.

2. *Ozophora atropicta* Barber as here restricted appears to be confined to the Greater Antilles. Slater & Hassey (1981) reported numerous records from Cuba (misspelled as Cubra in text) and the Dominican Republic. The holotype is from Puerto Rico.

In nominal *O. atropicta*, the posterior margin of the genital capsule is conspicuously produced (Fig. 6), resulting from a strong, almost fingerlike projection backward of the posterior margin of the capsule (Fig. 5). The arms of the cuplike sclerite are divergent, but almost in contact along the midline at their inner angles and are strongly bent and heavily sclerotized distally (Fig. 4).

The paramere (Fig. 10) has a much smaller, less toothlike inner projection that does not extend over the base of the outer projection, and also has a minute secondary tooth.

3. *Ozophora atropictoides* **New Species**. The restriction of *O. atropicta* to the West Indies and *O. heydoni* to the Bahamas and extreme southern Florida leaves mainland populations that have previously been referred to *O. atropicta* without a name; these are described below as a new species. We have examined the genital capsules of spec-



Figures 1-9. Male genital capsule showing cup-like sclerite. Posterior view. Fig. 1 *O. heydoni*; Fig. 4 *O. atropicta*; Fig. 7 *O. atropictoides*; Male genital capsule lateral view. Fig. 2 *O. heydoni*; Fig. 5 *O. atropicta*; Fig. 8 *O. atropictoides*; Male genital capsule dorsal view. Fig. 3 *O. heydoni*; Fig. 6 *O. atropicta*; Fig. 9 *O. atropictoides*.

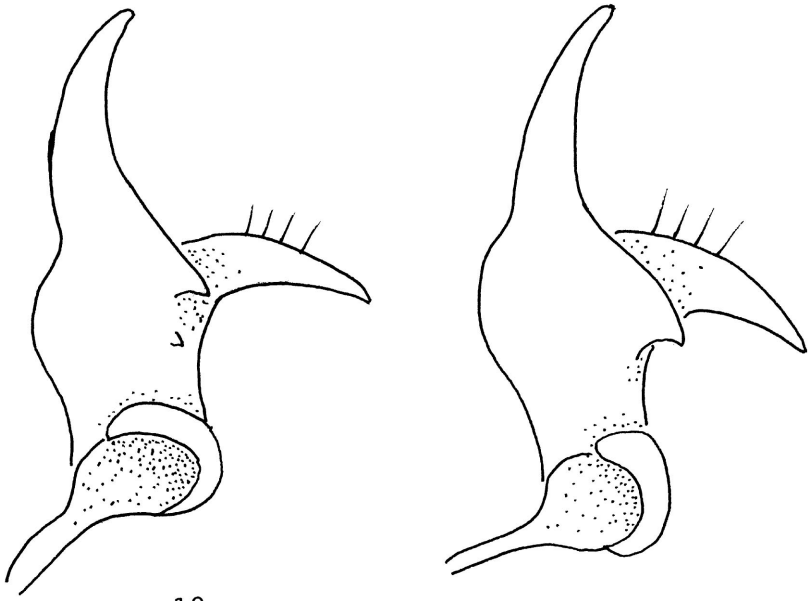
imens from Mexico, Central America, and Trinidad and all show characteristics described below.

In *O. atropictoides*, the posterior margin of the genital capsule lacks a caudal projection (Figs. 7, 9) and, in lateral view, the capsule can be seen to slope evenly posteriorly from the ventral to dorsal margins and thus has a less noticeable backward protrusion dorsally (Fig. 8). The arms of the cuplike sclerite are strongly divergent and not heavily sclerotized at their distal ends (Fig. 7).

Slater & Hassey's (1981) discussion of the dispersal vs. vicariance hypothesis for the populations of these species still has relevance despite their mistaken view that a single species was involved. It suggests, however, that a longer time period was involved and makes the absence of the complex from Jamaica less puzzling.

Ozophora atropictoides Slater & Baranowski, **New Species**

Head and anterior pronotal lobe dark red-brown. Anterior and lateral pronotal margins and entire posterior pronotal lobe strongly and contrastingly pale yellow. Scutellum chocolate brown with two divergent yellow vittae on distal one-third, these not attaining base of scutellum. Hemelytra chiefly pale yellow, with large dark macula present laterad of radial vein with anterior margin at level of distal end of claval



Figures 10-11. Parameres lateral view: Fig. 10 *O. atropicta*: Fig. 11 *O. heydoni*.

commissure, second large macula at apex of corium. Membrane fumose. Legs, first and second antennal segments pale yellow. Third antennal segment also yellow, but darkened near distal end. Fourth segment fuscous with conspicuous large white subbasal annulus on proximal third. Punctures dark brown, small and well separated from one another. Body nearly glabrous above (few very short inconspicuous hairs present when viewed laterally).

Head slightly declivent anteriorly, reaching over basal one-third of first antennal segment. Eyes very large, sessile, occupying most of lateral head surface. Length head 0.90, width 1.00, interocular space 0.30. Lateral pronotal margins carinate; calli granulose, well separated from one another mesally, very sparsely punctate. Length pronotum 1.02, width 1.56. Length scutellum 1.04, width 0.88. Lateral corial margins evenly but shallowly concave. Length claval commissure 0.80. Midline distance apex clavus-apex corium 1.32. Midline distance apex corium-apex abdomen 0.92. Metathoracic scent gland auricle short, bent slightly caudolaterally; evaporative area occupying inner 2/3 of anterior lobe of metapleuron, outer margin straight. Forefemora moderately incrassate, armed below with three major spines followed proximally by 4-5 hair spines. Labium extending posteriorly well between metacoxae, first segment attaining or slightly exceeding base of head. Length labial segments I 0.90, II 0.94, III 0.64, IV 0.40. Antennae elongate, terete, fourth segment narrowly fusiform. Length antennal segments I 0.66, II 1.80, III 1.40, IV 1.52. Total body length 5.88.

Male genital capsule as in figures 7-9.

TYPES. Holotype. Male. TRINIDAD: Simla, Arima-Blanchisseuse Rd. 600 ft. VII-20-1975 (J. Price) (blacklight trap). In American Museum of Natural History. Paratypes: TRINIDAD: 15 males, 15 females same data as holotype. 1 male same ex-

cept VII-14-1975. 1 female Simla Arima Valley II-4-1965 (J. A. Slater & N. T. Davis. 1 male, 1 female St. Augustine VI-14-1973 (R. Baranowski, F. O'Rourke, V. Picchi, J. Slater) (light trap). In National Museum of Natural History (USNM), R. M. Baranowski and J. A. Slater collections.

Although the posterior lobe of the pronotum in the holotype is entirely pale, and the hemelytra chiefly so, this is not true of most of the type series. This species appears to be sexually dimorphic. Females, in addition to being larger, are usually very dark with the hemelytra predominately dark chocolate brown. Many males also are much darker than the holotype. Specimens of both sexes usually have a dark stripe on the meson of the posterior pronotal lobe. They frequently have additional dark striping on the posterior pronotal lobe and have the anterior third of the corium with a dark macula. The darker coloration is found in most Central American specimens as well.

Specimens listed by Slater & Hassey (1981) from Mexico, Honduras, Costa Rica, Panama and Venezuela have been reexamined and appear to be *O. atropictoides*. The Brazilian material listed by Slater & Hassey also appears to represent this species with the exception of the male and female from "Corupa (Hans Humbolt) S. Cat. XI-1944" which we believe represents neither *O. atropictoides* nor *O. atropicta*.

ETYMOLOGY. Referring to a similarity to *O. atropicta*.

ACKNOWLEDGMENTS

Florida Agricultural Experiment Station Journal Series No. R-03607.

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