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First identified “wild shot” photographs of *Erinnyis yucatana* (Druce, 1888) (Lepidoptera: Sphingidae: Macroglossinae: Dilophonotini) on the Internet
 Primeras fotografías de campo identificadas en la red de *Erinnyis yucatana* (Druce, 1888) (Lepidoptera: Sphingidae: Macroglossinae: Dilophonotini)

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ABSTRACT: *Erinnyis yucatana* (Lepidoptera: Sphingidae: Macroglossinae: Dilophonotini) is present only in Central America from the Yucatan Peninsula (Mexico), Belize, to Costa Rica. This note presents the first ‘wild shot’ photographs of this species on the Internet, (there are photographs of imagos of this species from a collection), and provides a data held on distribution, habitat and biology of this species, although it should be noted that very little information is available.

KEY WORDS: Lepidoptera, Sphingidae, Macroglossinae, Dilophonotini, *Erinnyis yucatana*, Yucatán Peninsula, Belize, Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, *Cascabela thevetia* (larval hostplant), Apocynaceae.

RESUMEN: *Erinnyis yucatana* (Lepidoptera: Sphingidae: Macroglossinae: Dilophonotini) está presente en América central desde la Península del Yucatán (México), Belice, hasta Costa Rica. La presente nota muestra las primeras fotografías de campo identificadas de esta especie en Internet, (hay fotografías de imagos de esta especie en una colección), y proporciona una recopilación de los datos que se tienen sobre esta especie en cuanto a distribución, hábitat y biología, aunque hay que precisar que está muy poco estudiada.

PALABRAS CLAVE: Lepidoptera, Sphingidae, Macroglossinae, Dilophonotini, *Erinnyis yucatana*, Península del Yucatán, Belice, Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, *Cascabela thevetia* (planta nutricia de la larva), Apocynaceae.



Figs. 1, 2: *Erinnyis yucatana* imago (female), 19-IV-2012, (TROTT, 2012).

<http://www.biodiversidadvirtual.org/insectarium/Erinnyis-yucatana-img329906.html>

<http://www.biodiversidadvirtual.org/insectarium/Erinnyis-yucatana-img329904.html>

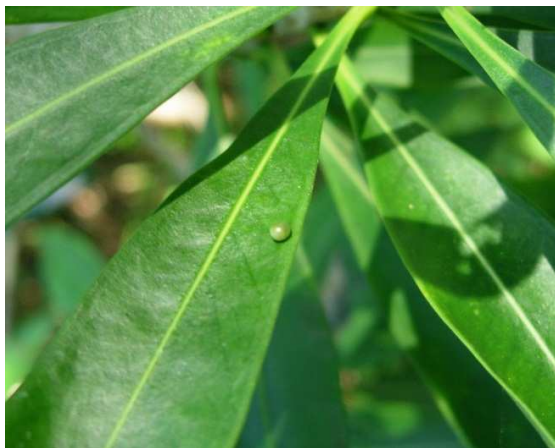


Fig. 3: *E. yucatana* egg on *Cascabela thevetia*, 26-I-2012, (TROTT, 2012).

<http://www.biodiversidadvirtual.org/insectarium/Erinnyis-yucatana-img323826.html>



Fig. 4: The larval hostplant, *Cascabela thevetia*, 20-III-2012, (TROTT, 2012).

Introduction

During March of 2012, I uploaded photographs to the BiodiversidadVirtual.org website of the larvae of a moth belonging to the *Sphingidae* family and *Dilophonotini* subfamily, found on *Cascabela thevetia* (Apocynaceae family, with the common names Yellow Oleander, Cook Tree, Be-Still Tree, Lucky Nut, and Dicky Plant). Except for imago photos by Dan Janzen (author of “The Known Sphingidae of Costa Rica”, <http://janzen.sas.upenn.edu/caterpillars/checklists/sphingidaelist.htm>) there are no other existing photographs.

Comparing my photographs to Dan Janzen's, I considered the possibility that it could have been the larva of *Erinnyis oenotrus*, or a subspecies, but after contacting Jean Haxaire, another expert on American Sphingidae, I was told that the larva of *Erinnyis yucatana* (Druce, 1888) remained unknown. I contacted Bill Oehlke (expert on American Saturniidae and Sphingidae), who made a tentative identification and uploaded the photographs to his website "Sphingidae of Mexico", <http://www.silkmoths.bizland.com/Mexsphinx.htm>.

There was no other way to identify the larva but to wait for the imago to hatch, which happened on the 19th April of 2012. This confirmed that the species was *E. yucatana*. After checking that the larval photos were indeed the first on the internet, I, José Manuel Sesma and Antonio Ordóñez from BiodiversidadVirtual.org decided to gather all the information available on this species and write this article.



Fig. 5: Dorsal view of the 4th instar/moult larva of *E. yucatana* showing the small black dot on the thorax, 11-III-2012, (TROTT, 2012).

<http://www.biodiversidadvirtual.org/insectarium/Erinnyis-yucatana-img318322.html>



Fig. 6: Dorso-lateral view of the 4th instar/moult larva of *E. yucatana*, 11-III-2012, (TROTT, 2012).

<http://www.biodiversidadvirtual.org/insectarium/Erinnyis-yucatana-img318321.html>

Material and methods

MEXICO: Playa del Carmen, 26-I-2012, 9-III-2012, 11-III-2012, 18-III-2012, 12-IV-2012, 19-IV-2012, Alt. 10 m, Ben Trott.

Photographs of the egg (Fig. 3), three larvae [one in its fourth instar/moult (Figs. 5, 6), and two in their fifth instar/moult (Figs.7-14)] on the plant *Cascabela thevetia* (Fig. 4), of the pupa (Fig. 15) and of a female imago (Figs. 1, 2).

Erinnyis yucatana

This species described by Druce as a member of the genus *Erinnyis* Hübner, 1819 (*E. yucatana*, Druce, 1888).



Fig. 7: Dorso-lateral view of a 5th instar/moult *E. yucatanana* larva, showing the “false eye”, 9-III-2012, (TROTT, 2012).

<http://www.biodiversidadvirtual.org/insectarium/Erinnyis-yucatanana-img318320.html>

Description

IMAGO: Wingspan: 92-110mm. Sexually dimorphic: female and male more or less the same size, though females are larger and lighter in colour. Forewing base colour is light grey and beige with dark markings and spots that can be extensive or absent. The hindwings are dark orange or rusty orange, with grey borders, black and beige areas, with black veins. This hawkmoth cannot be confused with any other species of the region. Species of the same genus, *Erinnyis ello* and *Erinnyis lassauxi*, have horizontal black stripes on the abdomen, and *Erinnyis obscura* and *Erinnyis obscura socorroensis* are generally much smaller in size. *Erinnyis oenotrus* has much darker forewings.

LARVA: Fourth instar/moult; 45-50 mm, light green, with two dorso-lateral lines which can range from white to yellow, the horn is granulose and of the same colour as the dorso-lateral lines. The “false eye” will not be present until the fifth instar/moult, and is represented by a small black spot (Figs. 5 and 6). Fifth instar/moult; 90-115 mm, very variable, with diagonal undefined black lines that separate the superior and inferior part of the body. The anal horn is dramatically reduced and measures 1-3mm. There are two brown and white dorso-lateral lines. The lateral and underside of the body can vary from white to grey. There are four beige dorsal spots per segment up to the thorax, two black dorsal patches per segment and a dorsal beige triangle per segment. Like in other species from the same genus, there is a “false eye” on the thorax, which isn’t used as a defence mechanism like *Erinnyis ello*, for example. If the larva is disturbed, it will fall to the ground and thrash violently from side to side, imitating a snake.



Fig. 8: Lateral view of a 5th instar *E. yucatanana* larva, 9-III-2012.



Figs. 9, 10: Dorsal view of two 5th instar/moult *E. yucatana* larvae, showing colour variation, 9-III-2012 and 18-III-2012, (TROTT, 2012).

<http://www.biodiversidadvirtual.org/insectarium/Erinnyis-yucatana-img318319.html>



Figs. 11, 12: Head and thorax detail of two different *E. yucatana* larvae, 9-III-2012 and 18-III-2012, (TROTT, 2012).

<http://www.biodiversidadvirtual.org/insectarium/Erinnyis-yucatana-img318318.html>



Figs. 13, 14: Close up of the anal horn of the same two larvae, 9-III-2012 and 18-III-2012, (TROTT, 2012).

<http://www.biodiversidadvirtual.org/insectarium/Erinnyis-yucatana-img318317.html>

Biology

E. yucatana is found where its larval foodplant *Cascabela thevetia* is found, mostly in dry forests. This plant prefers an open habitat, clearings and along trails, etc. Like the majority of Sphingidae, the larvae most probably feed on other plants from the same family, Apocynaceae, a Dicotyledonea family which includes trees, shrubs, grasses or vines.

Distribution

There is very little information on the distribution of *E. yucatana*, all that can be said is that I have found this species in the forests of the Yucatan Peninsula (in Playa del Carmen, Quintana Roo), Mexico, and Dan Janzen has found it in Costa Rica. This confirms that it will be present in Belize, Guatemala, Honduras, El Salvador, and Nicaragua (unless these are two distinct populations).



Fig. 15: *E. yucatana* pupa (female), 12-III-2012.

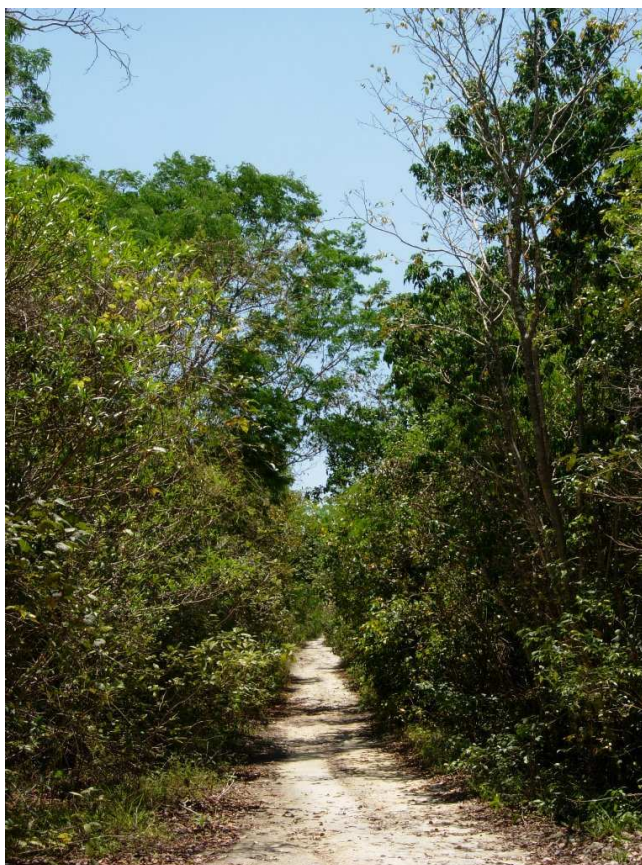


Fig. 16: Habitat of *E. yucatanana*, Playa del Carmen, Mexico.

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