

# Lepidoptera, Nymphalidae, Morphinae, *Dynastor macrosiris strix* (Bates, 1864): A new report for Costa Rican butterflies

José Joaquín Montero-Ramírez

Instituto Nacional de Biodiversidad (INBio), Apartado 22-3100. Santo Domingo, Heredia, Costa Rica.  
E-mail: [jmontero@inbio.ac.cr](mailto:jmontero@inbio.ac.cr)

**ABSTRACT:** This is the first reported Costa Rican record of *Dynastor macrosiris strix* (Bates, 1864), extending the known distribution (Chiapas, Mexico, and Guatemala) southeast to the Costa Rica Caribbean Lowland, expanding the subspecies range about 900 km from previously known localities.

The genus *Dynastor* Doubleday, [1849] contains three species (Casagrande 2004; Garzón and Penz 2009) and DeVries (1987) reported only one to occur in Costa Rica, represented by the subspecies *D. darius stygianus* Butler, 1872. The geographical distribution of the three species of *Dynastor* spans South and Central America to Mexico (Garzón and Penz 2009). Species of *Dynastor* are the only members of Brassolini known to use bromeliads (Bromeliaceae) as larval host plants (Garzón and Penz 2009; Penz *et al.* 1999), and Beccaloni *et al.* (2008) also reported *Musa* (Musaceae) as larval host plant for the genus. Garzón and Penz (2009) studied the phylogenetic relationships among the species of *Dynastor* and *Brassolis*, and provide diagnoses for all species included in these genera.

Casagrande (2004) listed four subspecies for the species *D. macrosiris* (Westwood, 1851): nominal *macrosiris* (Westwood, 1851) (type locality: French Guiana), *hannibal* Oberthür, 1881 (Colombia), *pharnaces* Stichel, 1908 (Bolivia), and *strix* (Bates, 1864) (Guatemala).

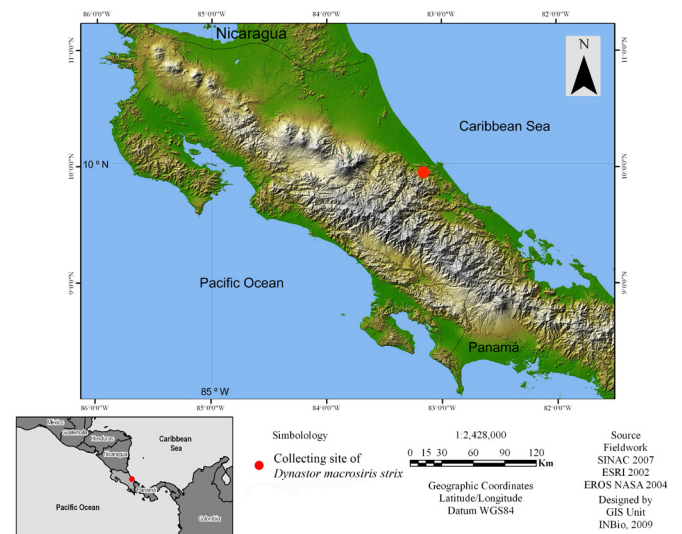
In this paper I report the first Costa Rican record of *D. macrosiris strix* (male, forewing length: 46.56 mm; Figure 1), extending the distribution from Chiapas, Mexico (Warren *et al.* 2006; Garzón and Penz 2009) southeast to the Costa Rica Caribbean Lowland. The individual was collected manually from the ground, probably after eclosion, on April 22 of 2009 in an open area contiguous to forest edge. The specimen is housed in the INBio Lepidoptera collection (INBio barcode number: INB0004225754) and was determined according to D'Abbrera (1987) and Garzón and Penz (2009). The exact location of the site is 9°55'36" N, 83°11'27" W at 429 m elevation in the Cantón de Limón, Limón Province, in the upper Victoria River basin (Figure 2). Based on the Holdridge's Life Zone classification system and according to Tosi (1969) the study area is a Tropical wet forest (bmh-T).

DeVries (1987) observation that *D. darius* adults do not visit rotting fruits is also valid for *D. macrosiris strix*. This butterfly was never collected in 20 fruit-baited traps located near the study site (Figure 2), in which fruit-feeding butterfly

sampling has been carried out during the first seven days of every month from January to December 2009. Additional specimens of *D. macrosiris strix* might be obtained by checking terrestrial and epiphytic bromeliads for larva and collecting with entomological nets at dusk or dawn near bromeliads.



**FIGURE 1.** Male *Dynastor macrosiris strix* (forewing length: 46.56 mm, INBio barcode number: INB0004225754). A: dorsal; B: ventral.



**FIGURE 2.** Study site showing collecting point (red circle) in Veragua Rainforest Research and Adventure Park, Río Blanco, Limón, Costa Rica.

**ACKNOWLEDGMENTS:** Thanks are due to Allan Alemán for collecting the first individual and to Veragua Rainforest Research and Adventure Park for giving us the opportunity to do research with butterflies and moths on this property. Jim Lewis and Carla Penz provided comments and review of the manuscript and Isidro Chacón kindly provided literature.

#### LITERATURE CITED

- Beccaloni, G.W., A.L. Vilorio, S.K. Hall and G.S. Robinson. 2008. *Catalogue of the hostplants of the Neotropical butterflies/Catálogo de las plantas huésped de las mariposas neotropicales*. Vol. 8. Zaragoza: Monografías 3er Milenio. 536 p.
- D'Abreu, B. 1987. *Butterflies of the Neotropical Region. Part III Brassolidae, Acraeidae, Nymphalidae* (partim). Melbourne: Hill House. 139 p.
- DeVries, P.J. 1987. *The Butterflies of Costa Rica and Their Natural History: Papilionidae, Pieridae, Nymphalidae*. New Jersey: Princeton University Press. 327 p.
- Garzón, I.J. and C.M. Penz. 2009. Phylogeny of *Dynastor* and *Brassolis* (Lepidoptera: Nymphalidae): a tough nut to crack. *Zootaxa* 2134: 1-22.
- Casagrande, M.M. 2004. Brassolini; p. 201-205 In G. Lamas (ed.). *Atlas of the Neotropical Lepidoptera, Checklist: Vol. 5A, Part 4A, Hesperioidea-Papilionoidea*. Florida: Scientific Publishers.
- Penz, C.M., A. Aiello and R.B., Srygley. 1999. Early stages of *Caligo illioneus* and *C. idomeneus* (Nymphalidae, Brassolini) from Panama, with remarks on larval food plants for the subfamily. *Journal of the Lepidopterist's Society* 53(4): 142-152.
- Tosi, J.A. 1969. *Mapa ecológico, República de Costa Rica: según la clasificación de zonas de vida del mundo de L. R. Holdridge. Scale: 1:750.000*. San José: Centro Científico Tropical. 1 map; 48.5 x 65 cm
- Warren, A.D., J.E. Llorente-Bousquets, A. Luis-Martinez and I. Vargas-Fernández. 2006. *Interactive Listing of Mexican Butterflies*. Electronic database accessible at <http://www.mariposasmexicanas.com/intro.htm>. Captured on 24 April 2009.

RECEIVED: December 2009

REVISED: June 2010

ACCEPTED: October 2010

PUBLISHED ONLINE: December 2010

EDITORIAL RESPONSIBILITY: Cristiano Lopes-Andrade