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# Notes on Lycaenidae (Lepidoptera) Including a New Record for Trinidad, West Indies

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## Notes on Lycaenidae (Lepidoptera) Including a New Record for Trinidad, West Indies

The butterflies of Trinidad are fairly well documented and by the time Malcolm Barcant published "The Butterflies of Trinidad and Tobago" in 1970, he had recorded 92 species of the family Lycaenidae for the island. This number has since increased to at least 130 species (Alston-Smith and Cock 2011).

On 14 March, 2010, a lycaenid (Fig. 1) was photographed at 511 Clarke Road, Penal which was later identified by Dr. R.K. Robbins of the Smithsonian Institution as "most likely" a male Badecla quadramacula (Austin and Johnson 1997), an "exceedingly rare" species not previously recorded for the island. This species has been rarely collected elsewhere with documented locations limited to Rondonia, Brazil (type locality), Guyane (French Guiana) and Peru (R.K. Robbins, personal communication to M. J.W. Cock 2011). Since B. quadramacula is a distinctive species, with no known closely similar species, the name is being used here, although it is possible that when more specimens become available for study there may be some name changes in this group of rare species. The genus *Badecla* is placed in the subtribe Calycopodina. Species for which the biology is known are mostly facultative detritivors (Duarte and Robbins 2010).

At the time it was observed and photographed, the specimen of *B. quadramacula* was amongst a much larger assembly of at least 16 different species of Lycaenidae butterflies in a shed in an ornamental plant nursery between 13 February, 2010 and 20 March, 2010. The shed measured about 3 m x 12 m and housed plants of double chaconier, *Warszewiczia coccinea* var. "David Ayoung", hydrangea, *Hydrangea macrophylla* and a few bromeliads. Adjacent to the shed was a weed-choked ditch where several Lycaenidae rested during the day.

Lycaenidae species present during the gathering were recorded by photographs, so not all can be identified with confidence with the exception of *Electrostrymon hugon*, which was captured. In addition to *B. quadramacula*, the following were observed: *Calycopis cinniana* (Hewitson) (Fig. 2), *C. demonassa* (Hewitson) (Fig. 3) and another *Calycopis* sp. which may have been *C. origo* (Godman and Salvin) or near (Fig. 4), *Celmia celmus* (Cramer) (Fig. 5), *Electrostrymon hugon* (Godart) (= *sangala* Hewitson, =*cyphara* Hewitson) (Fig. 6), *Lamprospilus collucia* (Hewitson) (Fig. 7), *Leptotes cassius* (Cramer), *Panthiades bitias* (Cramer) (Fig. 8), *Parrhasius polibetes* (Stoll) (Fig. 9), *Rekoa stagira* (Hewitson) (Fig. 10), *Tmolus echion* (Linnaeus) (Fig. 11), *Ziegleria hesperitis* (Butler and Druce) (Fig. 12) and an unidentified species probably in the genus *Nicolaea* (Fig. 13). In addition to these, two unidentified species were seen but not photographed. The unidentified probable *Nicolaea* sp. has not been matched to any known Trinidad species. *Calycopis origo* has not previously been recorded from Trinidad but it is a common species, one of several lumped under the name *Thecla beon* by earlier workers (M.J.W. Cock, unpublished). *Lamprospilus collucia* is a common Trinidad species which appeared in earlier lists misidentified as *Calycopis orcidia* (Hewitson) (Robbins *et al.* 2010). *Electrostrymon joya* (Dognin) (*=nubes* H. Druce) is also suspected to have been present but because of its close similarity to *Electrostrymon hugon*, differentiation of the two species necessitates the study of captured specimens (Fig. 14).

While no egg laying was observed, two pairs of *Z. hesperitis* were observed mating on 27 February, 2010 and 28 February, 2010 (Fig. 15). The butterflies were not observed in the following year (2011) despite a careful search. Given that it was the height of the dry season, the most likely reason for the lycaenid butterflies to have aggregated in the shed is seeking moisture or humidity.

On 27 September, 2011, a lycaenid (Fig. 16) was photographed at Columbus Bay, Icacos. It was resting on the underside of a leaf of Seaside Grape (*Coccoloba uvifera*). The butterfly was subsequently identified by Dr. Matthew Cock as *Panthiades bathildis* (C. Felder and R. Felder). While this species has been recorded twice from the island (Nicolay 1976; S. Alston-Smith, unpublished), this individual represents the first male of this species recorded in Trinidad. A search of nearby vegetation revealed no other specimens.

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**Fig. 1.** *A Badecla quadramacula.* 



Fig. 3. Calycopis demonassa.



Fig. 5. Celmia celmus.



Fig. 2. Calycopis cinniana.



Fig. 4. Calycopis sp. possibly C. origo.



Fig. 6.  $\Im$  Electrostrymon hugon.



Fig. 7. *A Lamprospilus collucia.* 



Fig. 9. Parrhasius polibetes.



Fig. 11. Tmolus echion.



Fig. 8. Panthiades bitias.



**Fig. 10.**  $\bigcirc$  *Rekoa stagira*.



Fig. 12. Ziegleria hesperitis.



Fig. 13. Unidentified Nicolaea sp.



Fig. 15. Ziegleria hesperitis mating.

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**Fig. 14.**  $\bigcirc$  *Electrostrymon hugon* or  $\bigcirc$  *E. joya.* 



**Fig. 16.** *A Panthiades bathildis.* 

**A., Busby, R.C.** and **Duarte, M.** 2010. A tale of two species: detritivory, parapatry, and sexual dimorphism in *Lamprospilus collucia* and *L. orcidia* (Lycaenidae: Theclinae: Eumaeini). *Journal of Research on the Lepidoptera*, 42: 64-73.

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