

The female of *Clito trinidadensis* Cock (Lepidoptera: Hesperiidae: Pyrginae) identified in Trinidad, W. I.

On 22 January 2024, I spotted a pair of Hesperiid butterflies in flight, adjoined mating. I was near the top of Morne Catherine, in the open area opposite the entrance to the 'white ball' radar facility (UTM 20N 1184760N 649635E). As I didn't recognize the species, I netted and kept them as voucher specimens. (Figs 1 and 2).



Fig. 1. *Clito trinidadensis* male, dorsal view (left) ventral view (right).



Fig. 2. *Clito trinidadensis* female, dorsal view (left) ventral view (right).

I was able to identify the male by reference to Cock (1998). It was here that Matthew Cock first described *Clito trinidadensis*, currently only known from Trinidad. Although the images in the article are black and white, there is an excellent colour image of the same male Holotype on the Butterflies of America website (Warren *et al.* 2017). From these images, I was able to confirm that the species I had found was indeed *C. trinidadensis*. Cock (1998) stated that the female of this species was unknown, and pers. comm from . Matthew Cock and collectors Scott Alston Smith and Charles Degannes confirmed that none are aware of a female specimen or observation to date. This means that the female captured here (Fig 2) is the first such record.

It is worth noting that the first published record of this species was in Cock (1982), which incorrectly treated it as *Clito littera littera* (Mabille). This was corrected in Cock (2014).

When Matthew Cock described *C. trinidadensis* in 1998, he was only aware of 9 male specimens. Two specimens he collected himself, the first from Morne Catherine (treated as the Holotype and placed in the Natural History Museum, London), the second from Lalaja Ridge. A further four specimens are in the collection of Scott Alston Smith, one

from Morne Catherine, the others from El Tucuche. The latter five specimens were treated as paratypes (Scott confirmed that he has five further male records in the interim years, so nine in total).

There are also three mislabelled male specimens of *C. trinidadensis* in the Angostura-Barcant collection that were not included in Cock (1998). They can be found in case number 78, row 6, to the right of a specimen labelled *Udranomia orcinus* (C. Felder and R. Felder) (see Fig 3). Since the specimen of *U. orcinus* is actually *Cogia calchas* (Herrich-Schäffer) misplaced from the row above, it seems highly likely that it was actually the three *Clito* specimens that had been labelled *U. orcinus* by Barcant. Otherwise, he would presumably have placed them with the unidentified *Hesperiidae* in the final specimen case featuring that family, number 85. The localities given for the three in their data labels (Lalaja Ridge and Maracas Lookout) seem further support the identification, as all known specimens are from higher altitude localities. Given the relatively few known specimens, and only a single female, it is possible this species frequents treetops.

The remaining three specimens are those in the Angostura-Barcant collection.



Fig. 3. Three male specimens of *C. trinidadensis* in the Angostura-Barcant collection.

To further characterise this Trinidad endemic, a leg from each specimen was detached and sent for DNA barcoding at CABI. Both samples are members of Barcode Index Number BOLD:AFG2865. At this time, there are few sequences of *Clito* spp. in BOLD, and almost none are identified to species level, which makes it difficult to interpret this result further.

Footnote: Since writing up this observation, Scott Alston Smith found a further female *C. trinidadensis* at Lalaja Ridge on 21st July 2024.

I thank Matthew Cock, who arranged for the leg samples to be barcoded at the CABI laboratory, and Yuen Ting Yeap who did the sequencing. I also thank Scott Alston-Smith and Charles DeGannes who have shared their collecting experiences and records with me, and Angostura Ltd, Port of Spain for kindly allowing me to feature the image in Fig. 3.

REFERENCES

- Cock MJW 1982.** *The skipper butterflies (Hesperiidae) of Trinidad. Part II. A systematic list of the Trinidad and Tobago Hesperiidae.* Occasional Papers, Department of Zoology, UWI, St. Augustine, Trinidad 5: 1–49.
- Cock M 1998.** The skipper butterflies (Hesperiidae) of Trinidad. Part 9, Genera group E concluded (third section) with a description of a new species of *Clito*. *Living World, Journal of the Trinidad and Tobago Field Naturalists' Club 1997–1998*: 33–45.
- Cock MJW 2014.** An updated and annotated checklist of the Hedyliidae and Hesperiidae (Lepidoptera) of Trinidad, West Indies. *Insecta Mundi*, 393: 40 p.
- Warren AD, Davis KJ, Stangeland EM, Pelham JP, Willmott KR and Grishin NV 2017 .** *Illustrated Lists of American Butterflies (North and South America) 21-XI-2017.* Available at <https://www.butterfliesofamerica.com/L/Neotropical.htm> (Accessed 28th June 2024)
- John Morrall**
ridware@outlook.com