Nature Notes

Trinidad's Leaf Shoemaker is *Zaretis ellops* (Ménétriés), not *Z. itys* (Cramer) (Nymphalidae)

Willmott and Hall (2004) examined museum material from several major collections, and concluded that the genus *Zaretis* comprises six species, four of which are very similar. This group of four similar species includes that known in Trinidad as the leaf shoemaker, *Zaretes* (a mis-spelling of *Zaretis*) *isadora* (Cramer) (Kaye 1921) or *Anaea itys* (Cramer) (Barcant 1970). Barcant (1970) followed the treatment current at that time, i.e. *isadora* is a synonym of *itys*. Willmott and Hall (2004) include Trinidad in the distribution of only one of these four similar *Zaretis* spp.: i.e. *Z. ellops* Ménétriés. I have examined the material in my collection (2 males and 2 females) and A. Hall's collection at the Booth Museum, Brighton (4 males, 6 females, treated as *Z. isadora ellops* and *Z. isadora strigosa*) and consider that all represent *Z. ellops* as characterized by Willmott and Hall (2004).

Zaretis ellops; above female, Symonds Valley, x-xii.1920, A. Hall.; below male, St Anns, xi-xii.1931, A. Hall (For each figure: UPS left, UNS right. Specimens in Booth Museum).

Nevertheless, two other species of the group could occur in Trinidad, *Z. itys itys* and *Z. isadora*. In addition to small differences in wing shape, in both these species, the apical markings forewing UPS are darker, and the basal part of the wings UPS and UNS contrast more with the discal areas. However, these differences are much more marked in *Z. itys*, and I think it most unlikely that this species could have been overlooked by Trinidad collectors.

The detailed biology of the different species needs clarification in light of Willmott and Hall's (2004) treatment of species, i.e. which larval descriptions, illustrations and food plants match which species. Barcant (1970) does not record any food plant for the leaf shoemaker in Trinidad (but see below). However, Margaret E. Fountaine did rear this species (as *Z. isadora*) while in Trinidad (Cock 2004). Unfortunately this is not one of the species which she included in her sketches of early stages from Trinidad (M. E. Fountaine unpublished; M. J. W. Cock in prep.), but she does illustrate a larva (p. 65, No. 235, June 18th 1929) and pupa (p. 66, No. 235a, July 10th 1929) on *Casearia* sp. (as *Casearea* sp.; Flacourtaceae) collected at Belem, Brazil. Since she normally only illustrated each species once in her sketchbooks, by implication she considered the material which she reared in Trinidad to be the same. Local collectors in Trinidad are aware that *Casearia sylvestris* (wild coffee) and perhaps other *Casearia* spp. are food plants (J. O. Boos pers. comm. 2005), but this has not been documented.

Janzen and Hallwachs (2006) have reared *Z. ellops*, *Z. isadora* and *Z. itys* in Costa Rica, and show the early stages of *Z. ellops* and *Z. itys*. All three species feed on *Casearia* spp.: *Z. ellops* prefers *C. arguta* and *C. Nitida,* whereas *Z. isadora* and *Z. itys* prefer *C. arborea.* The larvae and pupae of these two species and those painted by M.E. Fountaine (unpublished) are all similar. Miss Fountaine's paintings are closer to those of *Z. itys* than *Z. ellops*, but the posterier end of Miss Fountaine's caterpillar is more deeply divided and widely flared than for either

species illustrated by Janzen and Hallwachs (2006), and so may represent *Z. isadora* as Miss Fountaine labelled them."

Barcant (1970, p.107) gives no food plant for the leaf shoemaker (his "*Anaea itys*"). However, in the previous entry for the flamingo, *Fountainea ryphea ryphea* (Cramer), (Barcant's "*Anaea ryphea ryphea*"), he lists *Casearia ramiflora* (a synonym of *C. guianensis*, pipe wood), which as I have pointed out (Cock 2004) is an error since the normal food plant for the flamingo is *Croton gossypifolius* (Euphorbiaeae). It seems clear now that Barcant's reference to *Casearia ramiflora* was misplaced in his text, and should have referred to the leaf shoemaker.

Willmott and Hall (2004) do not rule out the possibility that *Z. ellops* may be a synonym of *Z. isadora*, recognising that wing shape, colour and markings are variable in these species, and the importance of seasonal variation is far from clear. The fact that only *Z. ellops* seems to occur in Trinidad, supports their separation of this species. Furthermore, detailed observations on life history and field biology may throw more light on relationships within this confusingly similar group of species. For this reason, detailed observations of the life history of *Z. ellops* in Trinidad would be a useful contribution.

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