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An elusive Eurytides from Venezuela

(Lepidoptera: Papilionidae)

by

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Abstract: A new subspecies of *Eurytides dioxippus* (HEWITSON, 1855) from western Venezuela is described and named *marae*. Some notes about its venezuelan distribution and ecology are given.

Introduction

A series of *Eurytides dioxippus* (HEWITSON, 1855) was collected in the mountain ridge surrounding Barinitas, Edo Barinas, during a field trip of the junior author in western Venezuela in May 1988 along with ENZO GIACOMAZZO and his wife ANNA. The venezuelan specimens appeared distinctive from the typical *dioxippus* from Colombia. A comparative study of the population of *E. dioxippus* both from western and eastern Colombia and Venezuela, and of the vicariant species *E. lacandones* (BATES, 1864), confirmed that the populations from Venezuela belong to a new subspecies.

Description

Eurytides dioxippus **m a r a e** subspec. nov. (fig. 1, page 107)

Holotype ♂: Venezuela, Estado Barinas, Barinitas, Rio El Celoso, 1650m, 9.V.1988, leg. et coll. BOLLINO, Lecce, Italy.

External characteristics. Head: Hair on frons black, palpi yellow. Antennae: Black. Yellow tufts of scales from prothorax to metathorax. Abdomen black dorsally, and laterally with a line of yellow scales, and two meso-medial longitudinal stripes reaching the tips of the valvae. A black medial ventral line. Forewing length: 49 mm.
Upperside forewings: Ground colour deep brownish black. Yellowish discal area triangular, with apex reching the median portion of S4, but not touching R2; outer edge straight, or slightly produced; the two distal posterior yellowish spots in the cell are separated, the first between base of M1 and R3, the second at the base of R3. A third small dot near the base of M2.
The brown excision of the yellowish discal area between base of M2 and M1 is well marked. Two well defined yellow subapical dots in S5-S6, two smaller in S7-S8. Three yellow dots along the costa, the upper one crossing SC3, the lower at the projected position of R3 on the costa, the third in-between. Underside forewings: Ground colour more matt brown. Subapical spots merged together to form a line from R2 to the costal

edge. Discal area like upperside. A fourth costal yellowish dot in front of the brown excision of the discal area.
Upperside hindwings: Ground colour and discal area yellowish as in forewings, coarsely triangular, with apex at S1b, the outer edge touching the apex of the cell, the inner edge is extended along the median half of the anal fold, then entering the discal area up to S1b. Yellowish submarginal streaks vestigial, that in S3 with a yellow and blue crescent, which is present also in S2; a few bluish scales in S1b. Two red stripes in S1a-S1b, that in S1a, which is approx. three times larger than the latter, near the edge of the anal fold; the small stripe in S1b about 3mm far from the apex of the discal area. A yellow marginal spot at the anal incision. Tails deep brown with yellow apex. Along the anal margin is present a dense deep brown pilosity which constitute the hair pouch. Underside hindwings: Similar to upperside, but ground colour more matt; discal area like upperside; submarginal spots more yellow, well defined with bluish outer streaks in S2-S3. A series of postdiscal brownish red spots from S1a to S6.
Genitalia: Outline of valva very similar to that of *E. dioxippus* from Colombia. The mesial process is less errated and restricted resembling more that of *E. lacandones diores* (ROTHSCHILD & JORDAN, 1906) and *lacandones lacandones* (*Bates*, 1864), rather than that of *E. dioxippus*. The harpa otherwise is not unlike that of *E. dioxippus* (figs 2A, B, C, D).
Material examined. Paratypes: A series of 17 ♂♂ with the following data: 4 ♂♂ Venezuela, Edo. Barinas, Rio El Celoso, 1650m, 9.V.1988, leg. BOLLINO; 3 ♂♂, same data, leg. ENZO & ANNA GIACOMAZZO, in coll. BOLLINO, Lecce; 5 ♂♂, same data, leg ENZO & ANNA GIACOMAZZO, in coll. GIACOMAZZO, Venice; 2 ♂♂, same data, in coll. SALA, Salo; 1 ♂, Venezuela, Tachira, S. Cristobal, 1000m, Loma del Pio, 23.VI.1982, leg. MANRIQUE; 1 ♂, (Venezuela), Tachira, Rio Negro, 14.IX.1980, leg. J. BLANCO; 1 ♂, Venezuela, Barinas, Barinitas, 1200m, 15.VIII. 1979, leg. D. BAIOCCHI, in coll. RACHELI, Rome.

Description of the male paratypes: Forewing length ranging from 45.7 to 49 mm, mean value 46.8 mm on the basis of eighteen specimens. The cjaracteristics of the series are quite constant, with the apex of the discal area of the forewing always over R3 to a position in-between R3 and R2, but never touching R2. The two distal posterior yellowish spots in the cell of the forewing usually separated, merged together with few yellowish scales in two specimens only.

Female unknown.

Derivatio nominis. The name *marae* is dedicated to Mrs MARA PERRONE for her encouragement and kind help in the study of butterflies.

Discussion

Taxonomic and distributional notes

This taxon is strictly related in pattern to *E. dioxippus dioxippus* (HEWITSON, 1855), where the discal area of the forewings is reduced, rarely getting over R3, the outer edge frequently scallopped by incisions in the veins. Moreover, there are almost always four well marked subapical spots. On the contrary, *E. dioxippus marae* has the discal area constantly extending over R3 but never touching R2 with the apex of the discal area, the two

distal posterior yellowish spots in the cell are almost invariably separated and only two of the subapical spots are well defined.

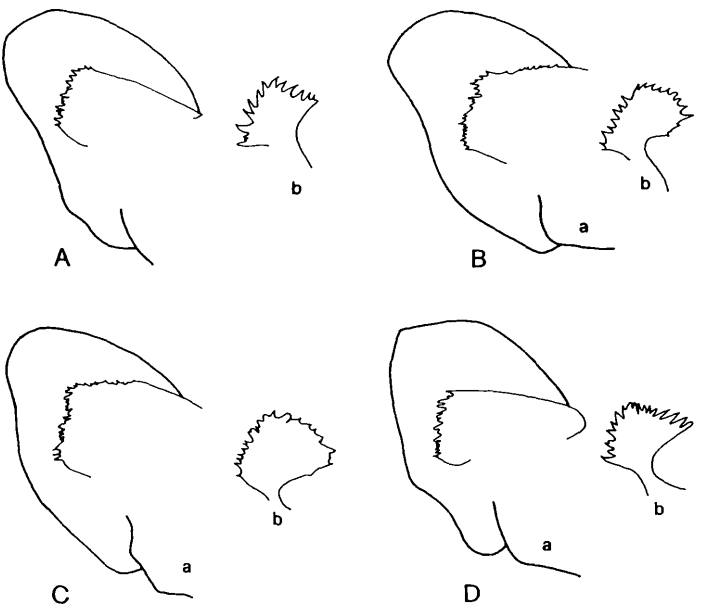

Fig. 2: Left valva, harpe (a) and mesial process (b) of:
E. lacandones lacandones, Mexico, Chiapas, San Quintin (A);
E. dioxippus marae, Venezuela, Barinas, Rio El Celoso (B);
E. dioxippus dioxippus, Colombia, Muzo (C);
E. lacandones diores, Peru, Junin, Chanchamayo (D).

The range of the new subspecies covers the eastern slopes of the venezuelan Andes, from Tachira to Barinas, and fits well with the delimination of Apure refuge (sensu BROWN, 1975). BROWN & YEPEZ (1985) report on venezuelan Heliconiids and many colombian-derived species reach their eastern limits in Barinas. However, the distribution of *E. dioxippus* in Venezuela is still unperfectly known. RAYMOND (1934) reports its occurring along Rio Meta at low altitude, but probably only on the basis of JORDAN's citation (1908-1909), and since then the soecies was not collected in Venezuela anymore. MASTERS (1967) merely lists *dioxippus* from Venezuela, but no more reference to *dioxippus* from Venezuela were added (D'ABRERA, 1981; D'ALMEIDA, 1966). As neither *dioxippus*, nor its related species *lacandones* occur in eastern Venezuela, and no specimens of *dioxippus* are known from northern coastal areas, it is likely to assume that the distribution of *dioxippus* in Venezuela coincides with that of *marae* subspec. nov.

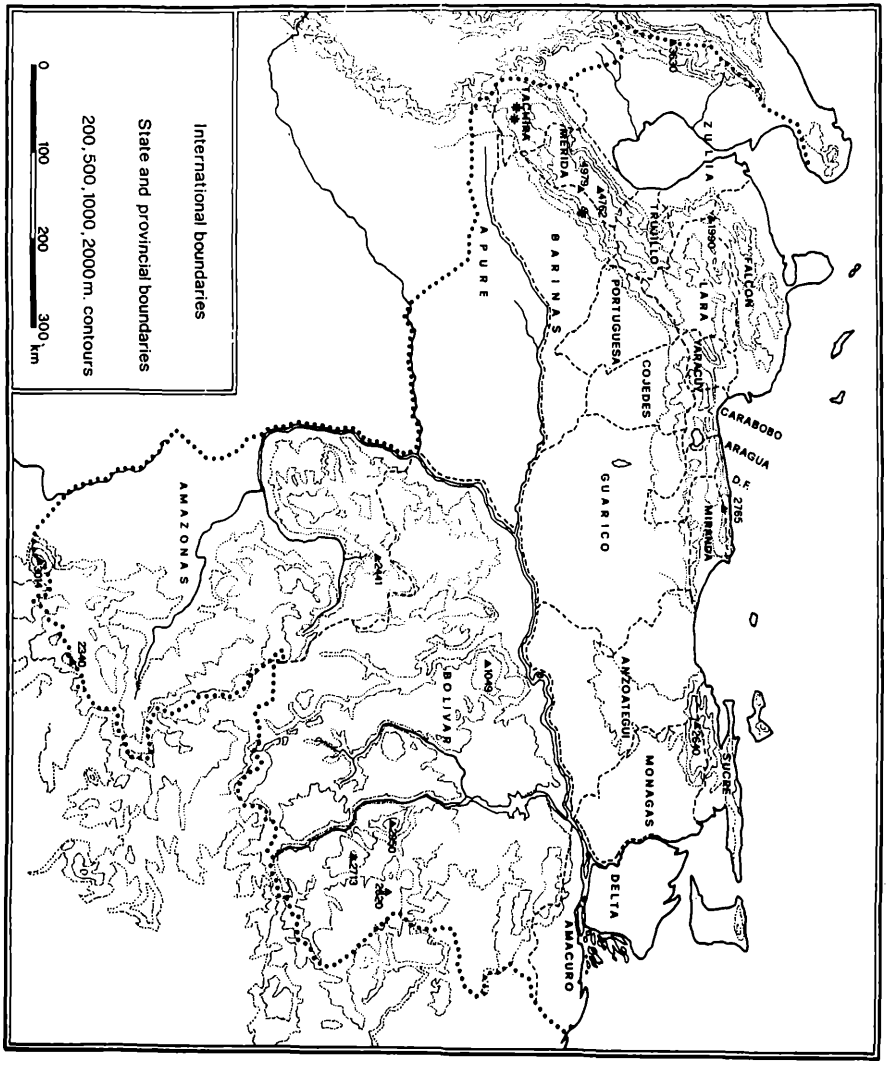

Fig. 3: Map of Venezuela showing the distribution of *E. dioxippus marae* (asterisks).

Field notes

All the specimens from Rio El Celoso were collected at wet sand or mud, and no females were seen. The habitat is a typical submontane cloud forest (selva de neblina), and other butterflies observed in the area are *Eurytides serville acritus* (ROTHSCHILD & JORDAN, 1906), *Parides lycimenes erythrus* (ROTHSCHILD & JORDAN, 1906), *Heliconius cydno barinasensis* BROWN & YEPEZ, [1985], *Consul panariste* (HEWITSON, 1856), *Morpho menelaus* ssp., etc. As far as the flight period is concerned, BOLLINO found the species quite common, collecting 15 specimens in one day, but in the same spot ROGER MANRIQUE (pers. comm.) did not find the species in July, DANIELE BAIOCCHI (pers. comm.) did not find any *dioxippus* in October. According to these datas, it appears that *Eurytides dioxippus marae* has a peak of flight which coincides with the end of the dry season and the beginning of the rainy season.

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Die Originalbeschreibung der Art durch BUTLER (1898) lautet (Faksimiledruck):

63. CACYREUS MARSHALLI, sp. n. (Plate L. fig. 5.)

Differs from *C. palaemon* in its squarer form, the costa of the primaries being shorter and the secondaries with shorter abdominal margin. Owing to the bronze-brown colouring of the upper surface, the white spots on the fringe appear more conspicuously: the primaries below have larger but less sharply defined white spots on the outer border; the secondaries have narrower bands, that from the middle of the cell to the abdominal margin being more interrupted but grey and indistinct (so that the wing appears to be crossed by a broad belt of greyish white), the dark discal band curves upwards at its abdominal extremity, the last spot composing it being small and heart-shaped; the anal area is filled with a quadrate patch of pale sandy brown, forming the outer part of the usual whitish irregular blotch, which is more acutely indented on its outer margin; lastly, the two usual black spots show little (often no) metallic green scaling. Expanse of wings 20–28 millimetres.

Estcourt, 4000 feet, 2nd, 14th, 15th, and 18th October, 22nd, 23rd, 28th, and 29th November, and 13th December; Frere, 3800 feet, 2nd and 4th December, 1896.

Two other examples previously in the Museum bring our present series up to seventeen examples: none of these are in the least degree intermediate.

Unseres Wissens wurden die männlichen Genitalien bisher nur von STEMPFFER (1967) abgebildet. Wir wollen dies hier nochmals mit beiden Geschlechtern tun - nicht als Strichzeichnung, sondern als Fotografien, die beim ♂ auch das ungepreßte Naßpräparat zeigen, um eine bessere Vorstellung von dessen Form zu vermitteln.

Gesammeltes Material: 5 ♂♂, 8 ♀♀, Mallorca, Paguera, 20m, 15. und 20. November 1989, P. STAMER leg., in Ent. Mus. EITSCHBERGER, Marktleuthen und coll. STAMER, München.

Herrn GUNNAR BREHM sei an dieser Stelle für die Anfertigung der Farbaquarelle ganz herzlich gedankt.

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Fig. 1: Holotype male, *Eurytides dioxippus marae* subspec. nov. (to pp.87-91)
Ober- und Unterseite beider Geschlechter von *Cacyreus marshalli* (oben: ♂, unten: ♀)