

A NEW SPECIES OF *POLYTHRIX*
AND TWO NEW RECORDS OF HESPERIIDAE
FOR NICARAGUA, CENTRAL AMERICA
(HESPERIIDAE : PYRGINAE).

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ABSTRACT

Polythrix maizae is described as a new species. It is compared with its closest relative *P. octomaculata* (Sepp). *P. octomaculata* (Sepp) and *Urbanus belli* (Hayward) are reported here as new records for the country.

RESUMEN

Polythrix maizae es descrito por primera vez. Es comparado con su relativo más cercano *P. octomaculata* (Sepp). *P. octomaculata* (Sepp) y *Urbanus belli* (Hayward) son reportados aquí como nuevos reportes para el país.

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On April 1995, a collecting trip was made to the Atlantic slope of Nicaragua. The aim of the trip was to get familiar with the butterfly fauna of that region. A short visit to Greater Corn Island yielded some new records for the country and a new species of *Polythrix* was collected. The new *Polythrix* is described below. The *Polythrix* complex has been studied by several authors: Williams (1926), Evans (1952), Freeman (1979), and more recently Shuey (1989) and Burns (1996) who both described new species. The genus *Polythrix* is a tropical group of skippers with a distribution that ranges from the southern U.S., through Central America and northern South America (Evans, 1952).

***Polythrix maizae* HELLEBUYCK, new species.**

Diagnosis of male : Superficially (Figures 1-4) *P. maizae* resembles *P. octomaculata* (Sepp) (Figure 7) in having the fore wing produced apically, no costal fold, and similar coloration. The following differences easily separate *P. maizae* from *P. octomaculata* :
(1) lack of hyaline apical spots in fore wing;
(2) the central hyaline band of spots absent, except small upper and lower cell spots;
(3) hind wing dorsal post-discal band faint.

Diagnosis of female : Wings as in male. White patch in female *P. maizae* under-hind wing discal area larger and rounded; female *P. octomaculata* has smaller patch and distal side of patch straight. A photograph of a female of *P. octomaculata* showing the underside of wing can be found in Scott (1986, plate 62, fig. 582).

Description of male : Figures 1-4.

Upper side. Fore wing ground color light brown with some coppery reflection specially in discal area. Costal and outer margin, dark brown. Subapical area in basal half of spaces R4, R5, M1, M2 and M3 dark brown. Two hyaline white cell spots: the upper oval and the lower spurish and surrounded by dark scales. Two basal faint dark spots in space Cu2 and Cu1. No costal fold present. Fringes lighter than ground color. Hind wing ground color light brown with some coppery reflection in discal area and a faint post-discal dark band. Discal cell covered by yellow brown small hairs and purple scales. Basal half of space Cu1, three fourths of space 2A, and anal space covered by a long pale and brown hair-like scales. Distal border dark brown 2-3 mm wide. Fringe of outer margin white. Inner fringe long, dark brown. Tail dark brown with a violet cast.

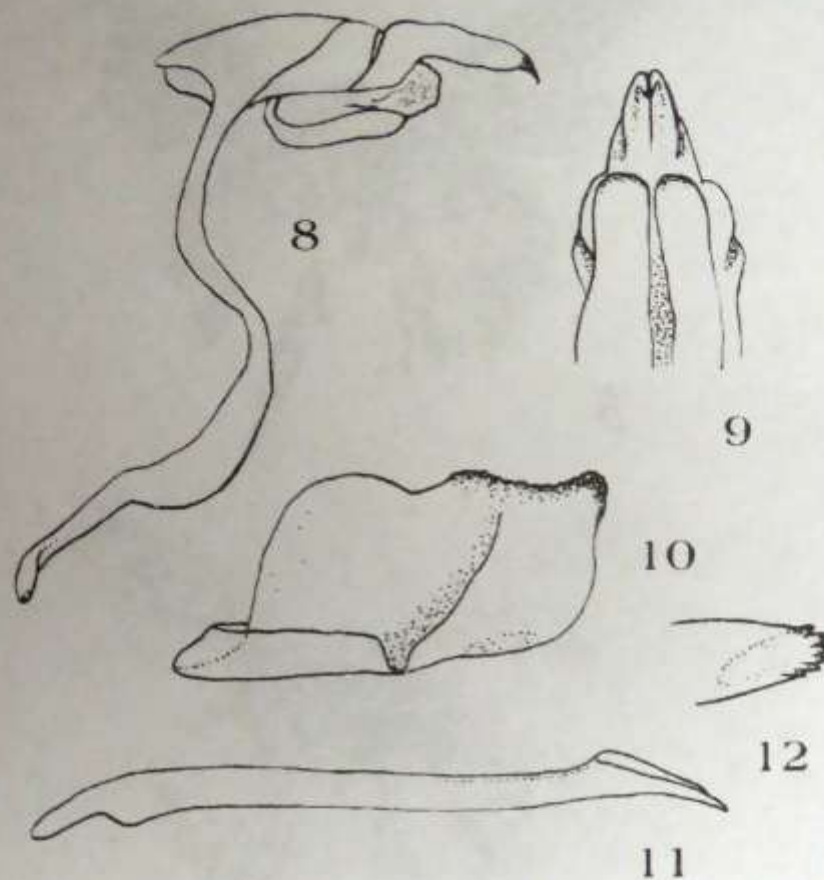
LAM. 4. *Polythrix maizae* new species. Holotype male. 1. Dorsal view. 2. Ventral view.



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Figs. 8-12. *Polythrix maizae*, n. sp. 8. Lateral view of holotype male genitalia. 9. Ventral view of uncus and gnathos. 10. Valve. 11. Lateral view of aedeagus. 12. Tip of aedeagus showing denticles. Genital preparation H-1970. H.A. Freeman.

Under side. Wings similar to upper side but darker with a violet hue. Spots visible. Cell spot larger, shadowed by pale translucent and dark scales, lower side of spot almost touching opposite side of cell. Dark scales surround cell spot. Base of cell heavy scaled. A dark spot below of that cell in space Cu1. Space Cu2 pale at middle outer margin dark brown. Space 1A pale, distal border dark. Hindwing similar to upper side with dark base. The post discal dark band visible and irregular in shape. Some purple reflection along vein 2A and in neighboring spaces.

LAM. 5 : *Polythrix maizae*, n. sp. Paratype male. 3. Dorsal view. 4. Ventral view.



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Wing measurement : Holotype male, forewing: base to apex 21 mm; apex to outer angle 15 mm; outer angle to base 13 mm. Hind wing: base to end of vein 2A, 22 mm. Wing span : 40 mm.

Thorax : Upperside brown with yellow-brown hairs and purple scales. Below darker. Legs brown. Abdomen brown with long yellow-brown hair-like scales, cilia of end abdomen pale gray-brown.

Head : Antennal shaft dark brown above, below, basal half dark brown, distal half pale yellow. Palpi white with apical inner edge yellow-orange, third segment above dark brown, below gray-white. Pectus yellow buff.

Male genitalia : Similar to that of *P. octomaculata*, but uncus (Fig. 8) thicker, the points sharper, and the tips recurved downwards. Gnathos (Fig. 9) rounded at tip with small rounded tubercles; in *octomaculata* these tubercles are sharp and pointed. Valve (Fig. 10) finely denticulated at costal side and at tip of cuiller; in *P. octomaculata* larger. Cuccullus very short, rounded and valve more robust and rounded at outer margin. Excavation of costal side of valve less deep. Sacculus shorter; long in *P. octomaculata*. Aedeagus (Fig. 11) outer end pointed and with 6-7 denticles at tip (Fig. 12); 4-5 in *P. octomaculata*. Juxta in *P. maizae* U shaped. In *P. octomaculata* more V shaped.

Description of female : Figures 5-6.

Upper side. Wings similar to male but fore wing without the midcosta spot in Sc and the cell spot larger and square shaped.

Under side. Fore wing similar to male. Cell spot visible, surrounded by dark scales. Hind wing darker with a prominent post-discal round white patch bordered by the dark post-discal band. Post discal band and rest of terminal area washed with white scales. Outer border 2-3 mm wide dark brown. Between white patch and border light brown. Hind wings with a purple hue.

Wing measurement : Fore wing : base to apex, 24 mm; apex to outer angle, 17 mm; outer angle to base, 15 mm. Hind wing : base to end of vein 2A, 25 mm. Total expanse: 45 mm.

LAM. 6. *Polythrix maizae*, n. sp. Allotype female. 5. Dorsal view. 6. Ventral view. *Polythrix octomaculata* Sepp, male, dorsal view, from El Salvador: El Refugio, near Bosque El Imposible, San Francisco Menendez, Dept. de Ahuachapan, 13 July 1991, V.H. col.

Paratype male : Similar to type specimen but larger (Wing span : 45 mm) and cell spot larger and square shaped surrounded by dark scales. It also lacks the oval spot in space Sc.

Wing measurement : Fore wing, base to apex, 22 mm; apex to outer angle, 16 mm; outer angle to base, 14 mm. Hind wing : base to end of vein 2A, 23 mm. Total expanse: 45 mm.

Type material : Holotype, male, NICARAGUA : Depto. de Zelaya, Great Corn Island, ca. 50 mi. North East of the town of Bluefields (12°15' N - 83°00' W), 27 April 1995, V. Hellebuyck (Holotype presently in VH collection). Allotype female, same locality, date and collector, in VH collection. Paratype male, same locality and date as holotype, J. Puig collector, deposited in the J. Puig collection. Distribution : known only from the type locality. There is another specimen at the Carnegie Museum of Natural History (H.A. Freeman, pers. com.) that I have not seen.

Ethymology : *P. maizae*, from the spanish "maíz" which means corn, is named for Corn Island.

Remarks : *P. maizae* was collected while nectaring on red blossoms of a small unidentified tree in the backyard of a school. Other species collected with *P. maizae* nectaring in the same tree were : *Polythrix octomaculata* (Sepp), *Urbanus belli* (Hayward), *U. d. dorantes* Stoll and *U. p. proteus* (Linné). *P. octomaculata* and *U. belli* are new records to the fauna of Nicaragua. Both males and the female *P. maizae* were worn and the left side of the tail of the female is partially missing. The female was dissected to check upon its reproductive state : some pale yellow eggs were found suggesting that it was reproductively active.

Discussion : *P. maizae* differs from all other members of the genus *Polythrix* by the lack of wing fold and apical and central band of hyaline spots. The lack of wing fold in *P. maizae* and similarities in genitalia with *P. octomaculata* place both species in a separate group of species. The illustrations of the genitalia of *P. octomaculata* made by Evans (1952) and Freeman (1979) greatly differ from that of *P. maizae* in having the culler produced and by other characters in the description of the species (see genitalia). The illustration by Williams (1926, p. 83) of *P. octomaculata* more closely resembles that of *P. maizae*. Burns (1996) called the genus *Polythrix* polyphyletic partly because two of the thirteen species Evans (1952) included are long-tailed species of *Cephise*.

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LITERATURE CITED

- BURNS J.M.** (1996) Genitalia and the proper Genus : *Codattractus* gets *Myse* and *Uvydixa* – in a compact *Cyda* group -- as well as a *Hysterectomy*, while *Cephise* gets part of *Polythrix* (Hesperiidae : Pyrginae). *J. Lepid. Soc.*, 50(3):173-215.
- EVANS W.H.** (1952) A catalogue of the American Hesperiidae indicating the classification and nomenclature adopted in the British Museum (Natural History). Part II. Pyrginae. Section 1. British Museum, London, 178 pp., pls. 10-25.
- FREEMAN H.A.** (1979) Review of Mexican *Polythrix* Watson 1893 (Hesperiidae). *J. Lepid. Soc.*, 33:124-128.
- SCOTT J.A.** (1986) *The Butterflies of North America, A Natural History and Field Guide*. Stanford CA, Stanford University Press, i-xiii, 583 pp.
- SHUEY J.A.** (1989) A new *Polythrix* from Central America (Lepidoptera : Hesperidae). *J. Res. Lepid.*, 28:277-282.
- WILLIAMS R.C. Jr.** (1926) Studies in the Neotropical Hesperioidea (Lepidoptera) Paper I. *Trans. Am. Ent. Soc.*, Philadelphia, 887:61-88.