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Description of a new species of *Catasticta* from Ecuador (*Lepidoptera: Pieridae*)

ARTUR JASIŃSKI

ul. Wierzbowa 1; 05-820 Piastów, Poland; e-mail: grafix@cdprojekt.com.pl

ABSTRACT. A new species of *Catasticta* (*Pieridae*), *C. thomasorum* is described from the Cordillera Lagunillas in South Ecuador. The inclusion of the Cordillera de Lagunillas within a national park is suggested.

Key words: entomology, taxonomy, new species, Cordillera de Lagunillas, Ecuador, Neotropics, *Lepidoptera*, *Pieridae*, *Catasticta*, behaviour, endemic, nature conservation

ABBREVIATIONS AND ACRONYMS

R - Wing recto; **V** - Wing verso;
FWR - Forewing recto; **HWR** - Hindwing recto;
FWV - Forewing verso; **HWV** - Hindwing verso.

INTRODUCTION

The Cordillera de Lagunillas is the highest mountainous chain in Southern Ecuador (the highest summits reach above 3900 m) with wide areas of paramo grassland vegetation above the tree line. The mountains are parallel to the Andean backbone on the Peru-Ecuador border. The Cordillera de Lagunillas is a blank on the lepidopterological map of the Neotropical Region (no records of butterflies). From the zoogeographical viewpoint these mountains are situated between well sampled (often back in the 19th c.) areas of Northern Peru (e. g. Tabaconas Valley) and Southern Ecuador (the road from Loja to Zamora).

Notwithstanding numerous faunal affinities with the latter regions, the Cordillera de Lagunillas harbours its own endemic subspecies and species. This article is the first of a series of descriptive papers on new species and subspecies of butterflies. Taking into account the unique character of the local entomofauna and the extremely fast rate of habitat destruction in Southern Ecuador, it is necessary to consider the best measures to protect this area, for example the creation of a National Park.

The new species described herein, according to REISSINGER (1972) belongs to the subgenus *Hesperochoia* and *chrysolopha* group within the genus *Catasticta*. REY & PYRCZ (1996) regard the subgenus *Hesperochoia* as not valid, whereas other authors (BRIDGES 1988; RACHELI 1996) accept it. REISSINGER does not give any characters defining the species groups and only lists the species included in each. It is noteworthy that that author placed in different species groups some taxa, which were later identified as conspecific or synonymous. For example *susiana* was placed in the *trozeane* group whereas its synonym (ROBERT 1987; LAMAS 1993) *plesseni* was included in the *plesseni* group. Nevertheless, REISSINGER's work was the first to treat almost all the taxa described until 1972 and was the only attempt at subdivision of *Catasticta* into lower level taxa.

The new species described herein differs clearly from any other known member of *Catasticta* and was not recognised earlier as yet undescribed (D'ABRERA 1981; ROBERT 1987; RACHELI 1996). The most closely related species is *C. superba* (LATHY et ROSENBERG, 1912) described from Uruhausi in Southern Peru. This apparent disjunction in the distribution patterns of this group of *Catasticta* is somewhat similar to the case of *C. revancha* found in El Tama range (south-western Venezuela) and *C. poujadei* (southern Ecuador) described by REY & PYRCZ (1996).

Catasticta thomasorum n. sp.

DIAGNOSIS

This species on upperside is most similar to *C. superba*, which shares similar size and pattern but differs consistently by the colour of the light median patch on the hindwings, which in *C. thomasorum* is pale white lemon yellowish and ochraceous yellow in *C. superba* (and in other related species: *C. similis* and *C. chrysolopha*). Basal 1/3 part of FWV is less suffused with blackish scales. Another difference is the presence in both sexes of *C. thomasorum* a zigzag-shaped band on the outer margin of the HWR (like in the female of *C. chrysolopha*). Inner half of HWV is most similar to *C. superba* but black patterns are wider and consequently light elements are reduced. Outer half of the HWV is most similar to *C. chrysolopha*.



1A



1B



2A



2B



3

1-2. *Catasticta tomasorum* n. sp.: 1 - male: A - dorsal, B - ventral; 2 - female: A - dorsal, B - ventral; 3. Cordillera de Lagunillas

DESCRIPTION

MALE: (Figs 1A, B) **Head:** Eyes chestnut, naked. Palpi with long black hairs and sparse white hairs, white lemon yellowish, only dorsally black. Antennae reaching to 2/3 costa, black with whitish rather dense scales, club concave (spoon-shaped). **Thorax:** black, dorsally covered with dense grey hair; ventrally covered with dense white lemon yellowish hairs. Tibia and femur black, with white dorsal side and a suffusion of light scales laterally, except hind femur which is whitish and with a dorsal black line. **Abdomen:** black, ventrally with white suffusion mainly in terminal 1/3, slightly hairy. **Wings:** wing span 40 mm. Forewing (FW): length 26 mm. Wings triangular. Subapical outer margin not or very slightly protruding. Fringes short, black. Upperside ground colour whitish. Dark pattern as vertical marginal and postmedian band, blackish area extending from base to 1/4 wing, black veins and blackish mark at end of discal cell. Underside ground colour ivory white, gradually turning pale yellowish. Light grey areas between blackish and white pattern, particularly a vertical patch in the postmedian area on the inner side of the black one. Hindwing (HW): Fringes short whitish, black at veins. Upperside: Ground colour richer and more lemon yellowish. Ground area contiguous to the submarginal zigzag-shaped line suffused with black scales. One-third of the basal area with dense grey hairs, hairs extending to black patch in the median area. Underside: Ground colour of two hues, light lemon yellowish with richest (more yellow) areas: base and a band contiguous to the submarginal zigzag.

Male genitalia: not examined

FEMALE: (Figs 2A, B) Sexual dimorphism slight. Female slightly bigger. Wing span 41.5 mm. Black postmedian patch thicker and narrowing toward inner margin (in the male it is distinctly brighter). White median patch of the FWR approximately 40% brighter. White area on the FWV reduced. No difference in ground colour between the upper and underside.

TYPES

Holotype male: Cordillera de Lagunillas, 10 km. East of Jimbura, 3400 m., 15.V.1998, leg. A. JASIŃSKI, temporarily deposited in the author's collection (Piaśtów, Poland).

Allotype female, same data.

ETYMOLOGY

This species is dedicated to two lepidopterists studying Neotropical butterflies: my friend Tomasz PYRCZ (Warsaw, Poland) and Tommaso RACHELI (Rome, Italy). The Polish name Tomasz and Italian Tommaso, in Latin and English is Thomas.

IMMATURE STAGES AND HOST PLANT

Unknown. All the host plants of *Catasticta* belong to the *Loranthaceae* (DE VRIES 1987).

BEHAVIOUR

The flight is rather quick. A pair was observed about 1.00 a.m. after a rainfall, flying on the edge of the forest and paramo. They were observed to initiate courtship behaviour consisting in wire flight around each other. Both collected specimens were very fresh and most probably recently emerged.

DISTRIBUTION

So far known exclusively from one site near the lower limit of paramo on the western slopes of the Cordillera de Lagunillas (10 km E of Jimbura) at 3400 m a.s.l.

REMARKS

The newly described species belongs to a high-altitude group of *Catasticta*. Its clear affinity with a group of species known otherwise from Southern Peru is either an evidence of a great disjunction in the distribution pattern of these *Catasticta*, or it may reflect merely the lack of adequate sampling for butterflies at the highest altitudes in the Andes. The need for establishing a protected area in this part of Ecuador was pointed out elsewhere by JASIŃSKI (in press).

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