Catasticta cinerea ariadne REISSINGER, 1972, ♀ basking at Carpish Pass, 2500 m, Peru.
(Photo: T. RACHEL)
*Catasticta* studies
(Lepidoptera: Pieridae)
by
ULF EITSCHBERGER & TOMMASO RACHELI

I. Considerations for REISSINGER's and ROBERT's collections of *Catasticta*

Abstract

In the first part notes on systematics and evolution of *Catasticta* gathered from the extensive manuscripts and letters, which REISSINGER & ROBERT exchanged over the years, have been rearranged. The second part deals with an up-to-date systematic and synonymic list of *Catasticta* mainly according to ROBERT's & REISSINGER's view. Seventy-six species are recognized, synonymies as well as new combinations are proposed. In the absence of the preimaginal stages, we have tried to outline the status of the biological species mainly on the basis of the junior author's field observations. In the third part, many of REISSINGER's & ROBERT's undescribed taxa have been designated formally. Two new species and 51 new subspecies are described. The material is found in the collections of REISSINGER (coll. I and coll. II) in the Museum für Naturkunde of Stuttgart and in the collections of ROBERT, now in the Smithsonian Institution, as well as in other museums.

Preface

The premature death of our friends REISSINGER and ROBERT, amongst other things, left an unfinished manuscript which according to their epistolary correspondence ought to have been edited by EITSCHBERGER. After REISSINGER's death, ROBERT also wrote to EITSCHBERGER that he should now use all pre-manuscripts for publishing all that was worthwhile. He also wrote that he was in poor health and that he had finished all work on Lepidopterology. ROBERT's will was to send his collection to the Smithsonian Institution. In 1992, ROBERT donated several hundreds of unspread specimens, mainly of the genus *Catasticta*, to EITSCHBERGER (EMEM). When ROBERT was still alive, the Authorities of the Smithsonian took the initiative and declined to acquire the collection. Therefore, DIANA, ROBERT's wife, asked the junior author to find a European Museum where the collection could be safe and open to students. Museum Alexander Koenig (Bonn) was chosen but, at the sudden death of ROBERT the Smithsonian Authorities changed their minds and ROBERT's collection sailed to the USA. A full systematic and iconographic treatment of the genus *Catasticta* is in preparation, and in the meanwhile a systematic list and most of the new names proposed by REISSINGER & ROBERT are described herewith, mostly in the telegraphic style of these authors. As it was agreed by both REISSINGER & ROBERT, all the holotypes are selected in the proper museums, in order to fulfil their wills. Duplicates of specimens and manuscripts are in the Museum für Naturkunde, Stuttgart, and in the EITSCHBERGER and RACHELI collections.

The task left to the present authors was not without difficulty. The manuscripts, some 50 folders, are written in three languages: German, French and English. Therefore sometimes there are discrepancies in questions and replies between REISSINGER and ROBERT. Above all, the enormous list of new names proposed (these authors left about 100 in litteris-names, selecting HTs around the world) which have often been synonymised with other names, always in litteris, without description or photos! REISSINGER gave numbers to each typical specimen of *Catasticta* and added new numbers to ROBERT's numeration of his specimens. Unfortunately, there is not any cross-reference or list to check the typical material quickly. We deliberately did not describe new taxa without adequate material or according to our opinion, when the new names proposed were based on specimens which constitute only minor variants along the variability of the species. However, many doubts still remain, and we hope that the present arrangement will be improved.
Introduction

Indeed, *Catasticta* is one of the most difficult groups of butterflies in the Neotropics. Species are widely spread from Mexico to S Brasil. Most of the species were described in the past, and a recent classification is missing (Butler, 1896, 1897, 1901; Lathy & Rosenberg, 1912; Joicey & Rosenberg, 1915; Joicey & Talbot, 1918; Röber, 1908–1910, 1924; Brown, 1939; Brown & Gabriel, 1939; Brown & Goodson, 1940; Brown et al., 1940).

Although the taxon has been studied for the pattern designs intensively, unfortunately very little attention has been focussed on their preimaginal stages, behaviour and bionomics. This group of butterflies shows an apparent convergence of phenotypic diversity, of coloration, and of behaviour with the Indo-Australian genus *Delias* and the Afrotropical *Mylothris*. This is true for the larvae, too.

The arrangement of Röber (1908-1910, 1924), Reissinger (1972), D’Abrera (1981), and the very useful amendments by Robert (1987), confuse the matter. The great number of names, more than 250, applied to species, subspecies, forms, and varieties did tangle the thread. We only note that Reissinger (1972) recognizes 157 species in 5 subgenera. Except from a few easily identifiable species, there are some groups where the biological species status is unknown. Widespread groups of species are those of *C. flisa* H.-S., *C. sisamnus* E., *C. prioneris* Hopffer, *C. notha* Lucas and *C. eurigania* Hew. The several remaining taxa offer a fragmentary picture for various reasons. They have restricted ranges, most of the ♀♀ are unknown, and very few specimens are found in museums. Moreover, it is not unusual to find populations with phenotypically similar specimens separated by gaps of over 1000 km in the Andes. As almost all typical material bears labels with the indications such as “Ecuador”, “W Colombia”, “S Peru” the difficulties can be understood easily.

With these premises and with the very poor biological knowledge of the key-species living in cloud forests near the limit of the tree-line, we have tried to arrange all the “named species” with specimens recently collected. Many new records, and even species, are likely to be added especially from the Loja area in Ecuador or from other remote spots along the Ecuadorian-Colombian or Peruvian-Bolivian borders.

In the synonymic list, for each taxon the type-locality is given, which is the one reported in the original description or after the selection of lectotypes. Information on type(s) or data extracted from various sources are also mentioned.

Lamas (1993, 1995) has recently revised the collections in ZMB and has selected Lectotypes for all the nominal taxa described by Röber (1908-1910, 1924). Several of these were informally selected by Reissinger more than 10 years ago. Unfortunately, some of Röber’s syntypes were included for exchange in coll. Reissinger, now in Stuttgart.

The research on the material made at the collections of various museums has disclosed that nominal taxa are known only on the HT or on syntypic series, and they have never been collected again.

**History of the classification of *Catasticta* Butler, 1870**

Butler (1870) defined the new genus *Catasticta*, with type-species *Euterpe nimbice* Bd., as follows: "Frontwings. Second subcostal branch emitted at end of cell; third and fourth forming a short fork towards apex; upper discoidal springing from subcostal at some distance beyond cell. Hindwings. Second and third median branches emitted near together. Body hairy; palpi hairy; antennae long, terminating in a flattened club."

Klots (1933) re-analysed the characteristics of the taxon: "Antenna fairly long, with flattened, abrupt club; palpus with third joint slender, more than half as long as second; both primary and secondary
with discal cell long; primary with R1 and R2 from cell, the latter from the end, R3 and R4+5 long-stalked with free part of R4+5 less than half as long as distance from end of cell to its base, M1 stalked about a quarter to a third way from end of cell to fork of R3 and R4+5, mdc and ldc about equal in length, long straight; secondary with humeral long, slightly turned basad, often forked at tip; aedoeagus considerably longer than tegumen + uncus, fairly slender, with basal prong, strongly bent from base; saccus very short and thick; tegumen large and wide, with very small articulatory process; uncus short, pointed, free part about one-third of its ventral length; a slight chitinization beneath the anus (subscaphium); juxta small; harpe rounded, with no armature, its dorsal margin considerably swollen dorsal"

Dixey (1932), examining the morphology of the plume-scales of *Catasticta*, found differences in size, shape and structure on more than 30 species.

There was a re-appraisal of *Catasticta* after forty years by Reissinger (1972) who recognized several groups of species under the subgenera *Pierinoia, Archonoia, Catasticta, Leodontoia* and *Hesperochoia*.

Klots (1933) pointed out that the Pierine genera *Eucheira, Neophasia, Catasticta* and *Archonias* have in common an extreme development of the size of tegumen and a reduction of uncus. These genera are much more different from each other, more than the 5 subgenera of *Catasticta*.

**The classification of *Catasticta***

The criteria of classification followed here are based on the morphology of the designs on the underside of hindwings (UNHW) for these reasons:

1. The design is complex and it is unlikely that it may be sustained only by convergence.
2. The design is similar in both sexes even if there is sexual dimorphism.
3. There are many taxa with identical UNHW, while the pattern on the upperside is very different.

Therefore, the underside of HWs is chosen as the main character of identification. Broadly speaking, two taxa are considered as belonging to the same species when:

- the UNHW is identical;
- the UNHW corresponds to adjacent scheme (fig. 2), that is to say that they are different in a limited range or in case of elision. The upperside of wings changes in colouration from white to yellow or ochre, often with the parallel colouration from black to sepia.

If this phenomenon occurs in a population with identical UNHWs, it is regarded as a variation. If it happens in two different populations, it can be considered as characteristic of two subspecies.

**The designs of *Catasticta***

The designs on the underside of hindwings (UNHW) are analysed. Figure 1 represents the UNHW of *Catasticta susiana* Hopffer.

In 1b and 1c the elements of 1a are distinct in Interneural (IN) (b = elements lying between veins) and Neural (N) (c = elements centred on the veins). This distinction corresponds to the radial structure of wing design. This can also be analysed in its transversal pattern, as it is shown in figs 1d–1g. The elements of each transversal band can be analysed at their turn. Fig. 1d shows the submarginal zone (ZSM), and the plumes (P4) which are elements of the radial structure, limited by the plume-edges (BP3), among which the yellow marginal (M4) and submarginal (TSM6) wedges are found. In fig. 1e the post-discal band (BDP) is formed by interneural black spots (M7) which lie on a characteristically coloured background. In fig. 1f the discal band (BD) contains yellow discal stripes (SD) on a white background. The basal zone (ZB), usually of greyish colouration, with yellow basal spots (TB) and two red spots at the base of wing, one posterior (TRP), the other anterior. They are shown in fig. 1g.

Leaving aside the species belonging to *Leodontoia* and *Hesperochoia* (fig. 3) for the moment, the wing scheme of UNHW of all the species of *Catasticta* can be placed in a common trend of variability
Fig. 2: Possible modifications of plume 3 (UNHW) in Catasticta.
Fig. 3: UNHW.

Archonoia Catasticta

Hesperchoia

Leodontoia
shown in fig. 2. This figure represents all possible modifications of the plume 3, located in the space between the marginal area and the post-discal band. A1 represents the plume of *Catasticta susiana* Hopf., H3 shows the plume of *Catasticta sisamnus* F., where a distinction from the submarginal area and the postdiscal band has totally disappeared due to the characteristic colour of the post-discal band which has invaded the whole plume, thus shaping a monochrome club. Between these two extremes there are series of intermediate designs linking transversal structured designs as in *C. susiana* and radial designs as in *C. sisamnus* F.

One can move from one extreme to another according to two transformation processes as shown by the vertical arrows (progressive linking of the plume edge with the post-discal band, in its part of characteristic colour, outside the spots), and by the horizontal arrows (progressive invasion of the submarginal extreme of the plume with the characteristic colouration of the post-discal band).

Some species, the plumes of which are shown in H and I, undergo another type of variation for the elision or fading of the characteristic colour (i.e. *Catasticta nimbice* Bd., *C. notha* Lucas, *C. lycurgus* Godm. & Sal.). Other species show an extreme reduction of the designs (*C. corby C. & R. Feld., C. pieris* Hopf., *C. eurigania* Hew.). Applying this type of analysis, *Catasticta* and *Archonoina* appear much closer to each other rather than to *Leodontoia* and *Hesperochoia* (fig. 3). This latter taxon has a structure essentially transversal. The plume edge is fused with a continuous chevron along the margin of the wing. The variability is constituted by the progressive loss of a fragmented postdiscal band, the spots are linked forming a transversal series of arcs or thread-like festoons. The wing scheme of underside of FWs is much simpler resembling the submarginal area, but only near the apex. The upperside has a simple scheme with great variability. *Leodontoia* species show a rigid structure, mainly radial, except in the *rosea* group which shows some resemblance with *Catasticta*. The peculiarity of the black spots in the basal and post-discal bands has to be mentioned.

**Generic treatment**

Reissinger (1972) divided the genus *Catasticta* into five subgenera:

*Catasticta* Butler, 1870 (type-species *Euterpe nimbice* Boisduval, 1836)
*Archonoina* Reissinger, 1972 (type-species *Catasticta strigosa* Butler, 1896)
*Pierinoia* Reissinger, 1972 (type-species *Catasticta pieris* Hopffer, 1874)
*Leodontoia* Reissinger, 1972 (type-species *Catasticta cerberus* Godman & Salvin, 1889)
*Hesperochoia* Reissinger, 1972 (type-species *Catasticta clara* Rober, 1909)

*C. nimbice* Bd., the type species of *Catasticta*, shows obvious affinities of the patterns of UNHW with those of *C. flisa* H.-S. and *C. hegemon* Godm. & Salv., included by Reissinger (1972) in the
subgenus *Pierinoa*. This taxon is considered as a synonym of *Catasticta*. The homogeneity of the pattern in the species included in *Pierinoa* contrasts with many other groups of species. The species belonging to *Catasticta* (s.s.) are all those included in *Pierinoa* (*flisa* H.-S., *sisammus* F., *nimbic* Bo., *proneris* Hopf., *notha* Lucas, and *piers* Hopf. groups). Also *Archonnia* has a doubtful status because the species grouped by Reissinger (1972), such as *C. pharmakia* Fruhst., *C. teutamis* Hew., *C. ctemene* Hew., *C. hebra* Lucas and *C. grisea* do not show characters which can separate them from *C. aureomaculata* Lathy & Rosenb., *C. huancabambensis* Jocey & Rosenb., *C. suadela* Hopf., *C. pluvius* Tessm., and *C. modesta* Lucas.

Under *Archonnia* we retain all the species which have the plumes on UNHW of the type F to I (fig. 2), like *C. ctemene* Hew., leaving the remaining species in groups of species. The species of *Leodontoia* and *Hesperochoia* are more easily separable for the length and bending of the subcostal vein, for the presence or absence of a black stripe together with the yellow streak of the cell of HWs, and for the pattern in the submarginal area. *Catasticta* and *Archonnia* are much more similar than *Leodontoia* to *Hesperochoia*. All the elements of the wing scheme are found in the three genera. *Leodontoia* can be retained as the most primitive taxon because it shows the black spots in the basal area and in the postdiscal band. These spots are missing in all the other groups except in some species of *Hesperochoia*, like in *H. truncata* Lathy & Rosenb.

In order to emphasize these differences one can distinguish three genera: *Catasticta*, *Leodontoia* and *Hesperochoia*. *Hesperochoia* comprehends species, like *H. poujadei clara* Röe., which lost the postdiscal band, but retained the black spots as thread-like designs. *Catasticta* and *Archonnia* species have lost the five basal spots. *Leodontoia* and *Hesperochoia* are probably monophyletic, while all the other *Catasticta* are ranked in species-groups.

These have been, more or less, the ideas shared by Reissinger & Robert over the years. We would like to present an alternative hypothesis on the evolution of *Catasticta*.

1) *Catasticta* (s.s.), seems to be the more primitive for the scarce complexity of the designs and for the simple structure of ♀ genitalia. The subgenus *Pierinoa* is a synonym. *Archonnia* includes a little group of species, with sexual dimorphism due to selective pressure for mimetism. Those species retain simple designs and the ♀ genitalia are very similar to those of *Catasticta* species. All these species, with rare exceptions, are distributed between 700–1500 m above sea level.

2) Several species, with a common very complex design on UNHW, are mostly found between 1200–2000 m. The genital profiles and the designs, cryptic and disruptive, are very similar.

3) The genera *Hesperochoia* and *Leodontoia* include a limited number of species with highly complex designs, and are distributed in upper montane forests, some species extend to the Páramo (*H. chrysolopha* Koll., *L. soccorensis* Fassl). We consider these two genera as more specialized in the complexity of the designs and in the genital structure (valva broader and globe-like). They are spread along the Andes with an apparently fragmented distribution, and with populations phenotypically quite diverse. These phenomena can be linked to climatic factors which have shaped the distribution and diversification of these butterflies.

**Eco-ethology of *Catasticta***

Only very poor information on the eco-ethology of this taxon is given by Schultze-Rhonhof (1933, 1935), Woytkowski (1946), König (1972), de Vries (1983, 1986, 1987) and Lackie et al. (1988) for Colombia, Ecuador, Peru, and Costa Rica. Some species are abundant and common, ♀♂ congregate along creeks and water courses, preferably between 800 and 2500 m. Several authors share the hypothesis that the larvae feed exclusively on Loranthaceae. The larvae are characteristic of *Pierinae*, except they show long hair on segments, and they are gregarious, characters shared with the oriental genus of *Delias*.

Some groups of species are vividly coloured, with sexual dimorphism, the ♀♂ being with aposematic colouration and linked to mimetic rings (*Actinote*, *Phyciodes* etc.)
Other groups show faded colours, criptic or disruptive designs and with an apparent convergence of many species. Woytkowski (1946) reported that F. M. Brown observed some species in Ecuador at the ecotone between Páramo and upper montane forests in competition with Tatochila species perhaps for trophic resources or for selection of roosting sites. $\delta^{\varphi}$ are often seen on top of trees where they may find the $\varphi^{\varphi}$ around Loranthaceae plants. Other genera of Pierine feeding on Loranthaceae are Pereute and Leodontoia, but they differ in the structure of genitalia and nervulation. A scheme of the system of veins of Catasticta is shown in fig. 4.

**Abbreviations**

Distr. = Distribution; FW(s) = Forewing(s); HW(s) = Hindwing(s); TL = Type-locality; TM = Type material; HT = Holotype; ST(s) = Syntype(s); LT = Lectotype; PT(s) = Paratype(s); ISS = Incorrect subsequent spelling; ssp. = subspecies.

**Museums**

AME = Allyn Museum, Sarasota, U.S.A.
ANSP = Academy of Natural Sciences, Philadelphia, U.S.A..
CMNH = Carnegie Museum of Natural History, Pittsburgh, U.S.A.
EMEM = Entomologische Museum Eitschberger, Marktleuthen, Germany.
ER I, II = Coll. I & II of Dr. E. Reissinger, Kaufbeuren, now in SMNS.
ETH = Eidgenossische Technische Hochschule, Zürich, Switzerland.
FK = Coll. König, Saalfelden, Austria (since 1997 in NHMW).
JHR = Coll. Robert, in USNM, U.S.A.
MJP = Museo de Historia Natural, Lima, Peru.
MNCR = Museo Nacional de Costa Rica, San José, Costa Rica.
NHMW = Naturhistorisches Museum, Wien, Austria.
SMNS-1 = Staatssammlungen Museum für Naturkunde, Stuttgart, Germany (with coll. ER I)
SMNS-2 = idem (with coll. ER II).
TR = Coll. Racheli, Rome, Italy.
USNM = National Museum of Natural History, Smithsonian, Washington, U.S.A.
UNAM = Museo de la Universidad, Mexico City, Mexico.
ZMB = Zoologisches Museum der Humboldt Universität, Berlin, Germany.
ZSM = Zoologische Staatsammlung, München, Germany.
II. Annotated checklist of *Catasticta*

*Catasticta* (s.s.) **Butler**, 1870

*flisa* group

*nimbice* subgroup


ssp. *bryson** Godman & Salvin**, 1889. TL: Costa Rica [Cartago], Irazú; Panama, Veraguas; Chiriquí. TM: STs ♂♂ and ♀ in coll. BMNH-T.


*flisa* subgroup


= **Cat. flisa** f. *ana** Gonzalez & Velasquez**, 1977 TL: Mexico, Puebla, 7 Km before Xicotepec de Juarez. TM: STs 15 ♂♂, 1 ♀, leg. GONZALEZ & VELASQUEZ.

= **Cat. flisa** f. *maya** Brown**, 1939. TL: Guatemala Copan [= Honduras]. TM: HT ♂, in coll. MNHN.


ssp. *archoflisa* subspec. nov. HT ♂, Panama, Darién, nr Cana, 1000 m, 7.IX.[19]82, in coll. USNM.

ssp. *brisais* subspec. nov. HT ♂. Venezuela, Aragua, Maracay, 1000 m, VII.[19]70. leg. F. ROMERO, ex coll. JHR. In coll. SMNS-1 no 3600.


ssp. *postaurea** Brown**, 1933. TL: Colombia, [Magdalena], Vista Nieve. TM: HT ♀, PT ♂ in coll. ANSP.
ssp. dilutior AVINOFF, 1926. TL: Colombia Choachi. TM: HT ♂, in coll. CMNH.


= _flisina_ FRUHSTORFER, in lit. et auct. (MARTIN et al., 1924). nom. nud.


ssp. _flisoides_ subspec. nov. HT ♂. [Colombia], Valle, Pichinde, 1500 m, 9.VI.[19]74 leg. L. DEHNEZ, in coll. JHR. no 8211 ER.

ssp. _duna_ subspec. nov. HT ♂. Equateur cent., Guayabamba, 2150 m, 2.VI.1973, leg. N. VENEDICTOFF. In SMNS-1 no 8346 ER.

_Catasticta bithys_ HÜBNER, [1825]. TL: Brasilien, Ipanema. TM: STs ♂♀ and ♀♀ [apparently lost].


sisamnus group

superspecies _sisamnus_

_Catasticta sisamnus sisamnus_ (FABRICIUS, 1793). TL: Not stated. [Panama].

= _Euterpe pitana_ C. & R. FELDER, 1865. TL: Colombia, Nuova Granada, Bogota. in coll. BMNH.

= _pitana_ f. _flava_ RÖBER, 1908. TL: Colombia. LT ♀, in coll. ZMB, coll. RÖBER (LAMAS, 1993). 1 ST ♀, Bugaba, Chiriqui, in coll. SMNS.

= _flora_ APOLINAR-MARIA, 1926. TM: STs ♀♀, in coll. BMNH.

ssp. _smalli_ subspec. nov. HT ♂. Panama, Darién, Cana, 400 m, VII.81, leg. G. B. SMALL, in USNM.

ssp. _merida_ subspec. nov. HT ♂. Venezuela, Env. de Merida, 1901, BOURSEY [leg.] Museum de Paris. In coll. MHNP.


_Catasticta hegemon hegemon_ GODMAN & SALVIN, 1889. TL: Costa Rica; Panama, Veraguas, Chiriqui, Volcan de Chiriqui. TM: 2 STs ♂ and ♀, Costa Rica, VAN PATTEN, DRUCE, ex coll. GODMAN & SALVIN in coll. BMNH-T.


ssp. *tatae* BROWN, 1939. TL: Ecuador, Loja, Alamor. TM: HT ♂ in coll. AMNH, PTs 5 ♂♂, 1 ♀ in coll. BMNH.

*Catasticta prioneris prioneris* (HOPFFER, 1874). TL: Peru Chanchamayo. TM: ST ♂ in coll. ZMB.


ssp. *estancia* subspec. nov. HT ♂, Ecuador, Tungurahua, Rio Estanzias, Oriente, 1400 m, 10.VI. [19]73. Leg. VELASTEGUI. In SMNS-1 no 3382 ER.

ssp. *araguana* subspec. nov. HT ♂, Venezuela, Aragua, Maracay, 1000 m, IX.1971, leg. F. ROMERO, in SMNS-1, no 3606 ER.

notha group

*Catasticta notha notha* (LUCAS, 1852) [Euterpe]. TL: Venezuela. TM: ST ♂, in coll. MHNP.


= *pieridoides* C. & R. FELDER, 1865. TL: Colombia, Nova Granada Lindig., TM: STs ♂♂, in coll. BMNH.


ssp. *staudingeri* BUTLER, 1897. TL: “E. Peru” TM: HT ♂, in coll. BMNH.

*Catasticta prieris prieris* (HOPFFER, 1874). TL: Peru, Chanchamayo; Moxos. TM: STs 3 ♂♂, in coll. ZMB.

ssp. *intermedia* LATHY & ROSENBERG, 1912. TL: S-Peru, Uruhuasi. TM: STs 12 ♂♂, in coll. BMNH.


= *forbesia* BROWN, 1933. TL: Peru, Tambo Eneñas, Camino del Pichis. HT ♂ in coll. CMNH.
Archonoia REISSINGER, 1972

ctemene group


ssp. *grisella* subspec. nov. HT ♂, Peru, Puno, Umg. Sandia, 1500 m, Grenzgebiet zu Bolivien. 1.IX. 1973, leg. F. KÖNIG, in coll. SMNS-1 no 3194.


= *zebra* FRUHSTORFER, 1912. TL: Bolivia [La Paz, Coroico]. TM: ST ♂, in coll. ZMB.

*Catasticta hebra hebra* (LUCAS, 1852). TL: Colombia. TM: ST ♂, in coll. MHNP.


ssp. *crowleyi* BUTLER, 1901. TL: Venezuela (Merida), Monte Sierra and Culata. TM: HT ♂, Venezuela, Monte Sierra. CROWLEY bequest, in coll. BMNH-T.


teutamis group


= archoniaoides Röber, 1908. TL: “Peru” Nomem nudum (Lamas, 1993).

grisa group

Catasticta grisea Joicey & Rosenberg, 1915. TL. Peru, Pozuzo. TM: HT ♂, Peru, Pozuzo. 5000–6000 ft, native collectors, in coll. BMNH-R.

Catasticta pluvius pluvius Tëssmann, 1928. TL: Peru, Oxapampa, 1790 m. TM: HT ♂, in coll. ZMB.

ssp. doginni subspec. nov. HT ♂. Equateur, Aout 1885, Riviere Numbala, Abbé Gaujon, tres prés de suadela (STGR), Joicey bequest Brit. Mus. 1934-120, ex coll. Dognin 1921, 32.21, in BMNH.

huancabambensis

= phile Röber, 1924. TL: Peru, Chanchamayo. LT ♂, in coll. ZMB (Lamas, 1993).

colla group

Catasticta ludovici spec. nov. HT ♂, Ecuador m. or., Loja-Zamora, 1600–1700 m, 26.–28.X.1977 leg. L. E. Peña, ex JHR, SMNS-2 no 6090.

= f. philomelas Brown, 1939. TL. Bolivia, La Paz, Chaco. TM: HT ♂, 5 ♂♂ PTs in coll. ZMB.
ssp. obsoleta Reissinger, 1972. TL: Peru, [Puno], Carabaya, Limbani, 9500‘ TM: HT ♂, in coll. BMNH.
= obsoleta Brown & Goodson, 1940. Unavailable name.
ssp. punctata LATHY & ROSENBERG, 1912. TL: Peru, [Puno], Uruhuasi, 7000′ TM: STs 13 ♂♀, in coll. BMNH.

**Catasticta chelidonis chelidonis** (HOPFFER, 1874). TL: Bolivia. TM: STs ♂♂, in coll. ZMB.

ssp. taminoides subspec. nov. TL: Bolivia, La Paz, Inquisivi. TM: HT ♂. **Catasticta chelidonis taminoides**, Bolivia, Plazuela-Inquisivi, Circuata a Cajuata, 2400 m, 3.–5.XII.1984, leg. L. E. PEÑA, in coll. JHR.

ssp. jacinta BUTLER, 1901. TL: Bolivia. TM: STs 3 ♂♂, in coll. BMNH.
= chelidonis f. germainia BROWN, 1939. TL: Bolivia, Cochabamba, Yungas del Espíritu Santo. TM: HT ♂ (in coll. BMNH?).
= chelidonis f. teara BROWN, 1939 TL: Bolivia, San Jacinto, 2000 m. TM: HT ♂, in coll. ZMB.


**Catasticta** (s.l.)

**susiana group**


ssp. sebundoia subspec. nov. HT ♂. **Catasticta jacinta sebundoia**, Ecuador, Napo, Grenze Colombia, Sebundoi, Camino La Bonita, 11–15.IX.1977, 2600 m, legit L. E. PEÑA, in coll. SMNS-2 no 6125.

ssp. amba BROWN, GABRIEL & GOODSON, 1940. TL: Ecuador, Ambato. TM: HT ♂, in coll. BMNH.


ssp. tamboensis JOICEY & TALBOT, 1918. TL: Peru, [San Martin]. TM: HT ♂, Peru, coll. LE MOULT, JOICEY bequest, in coll. BMNH-T.


**Catasticta sinapina sinapina** BUTLER, 1896. TL: Peru, [Cuzco] P[a]ucartambo. TM: HT ♂, Peru, Pucartambo, 72. 3, in coll. BMNH-T.

ssp. subflava LATHY & ROSENBERG, 1912. TL: Peru, [Pasco], Huancabamba. TM: HT ♂, Ne Peru, Huancabamba, 8–10000 ft, in coll. BMNH-T.
Catasticta collina collina Brown, 1939. TL: Peru, Cuzco, Callanga 1500 m. TM: HT ♂, in coll. ZMB.
= calanga Röber, 1924. Nom. nud.


reducta

Catasticta reducta reducta Butler, 1896. TL: “Ecuador” TM: HT ♂, Ecuador, HEWITSON coll. 79.69, Euterpe colla Doubl. 1, reducta type, in coll. BMNH-T.

boliviana Butler, 1896. TL: Bolivia. TM: HT ♂, Bolivia, HEWITSON coll. 79.69, Euterpe colla Doubl. 5, C. boliviana type, in coll. BMNH-T.

radiata

Catasticta radiata radiata (KOLLAR, 1850). TL: Venezuela. TM: STs 2 ♂♂, in coll. NHMW.

philone group

frontina subgroup

Catasticta frontina frontina Brown & Gabriel, 1939. TL: Colombia, Antioquia, Frontino. TM: HT ♂, in coll. BMNH.

ssp. zamorana subspec. nov. HT ♂. Equateur, env. de Loja 1887, Paratype *C. frontina* Brown & Gabriel, Joycey bequest 1934-120, ex coll. Dognin 1921, photogr. by D'Abrera 77-78, in coll. BMNH-G.

*philone* subgroup


ssp. grossana Brown, 1939. TL: “Colomb.” HT ♀, Colombia, ex Grosé-Smith, in coll. BMNH-T.


*suasa* subgroup

*Catasticta suasa suasa* Röber, 1908. TL: Bolivia, [Yungas de La Paz, 1000 m]. LT ♂, in coll. ZMB (Lamas, 1993).

ssp. pacis subspec. nov. HT ♂. *Catasticta suasa pacis*, Bolivia, Cochabamba, San Jacinto Garl.[EPP leg.], coll. Staudinger, in coll. ZMB no 8056 ER.

*Catasticta nimbata nimbata* Joycey & Talbot, 1918. TL: “Peru” TM: HT ♂, Perou, coll. Le Moul, in coll. BMNH-T.

= *feldera* Brown, 1939. TL: Bolivia, between Cocopunco and Pararani, 10000 to 5200 ft. TM: HT ♂, in coll. AME.


*suadela* subgroup

Catasticta smithi Brown & Gabriel, 1939. TL: “Peru” TM: HT ♂, Peru, ex Grose-Smith, in coll. BMNH-T.

anaitis subgroup

Catasticta anaitis anaitis (Hewitson, 1869). TL: Ecuador, Rio Topo. TM: STs ♂, ♀, in coll. BMNH.


= tanoia Brown, 1939. TL: Bolivia, Coroico [sic], Yungas, 2000 m. TM: HT ♂, in coll. ZMB.


leucophaea


ssp. lathyi Joicey & Talbot, 1918. TL: Ecuador, Loja; Zamora, 3–4000 ft; Peru, Cushi, 1820 m. TM: HT ♂, Ecuador, Loja, Joicye bequest, in coll. BMNH-T.

aureomaculata group


= rileyi Brown, 1939. Incorrect Original Spelling.


= tamsa Reissinger, 1969. TM: HT ♂, Peru, Utcuyaco, 4800 ft [same HT specimen of tamsa Brown & Gabriel], Homonym.

ssp. yanganza subspec. nov. HT ♂ Catasticta rileyi yanganza, Ecuador or., Morona,Santiago, Gualeo Limon (General Plaza), 2100–2400 m, 21.–23.X.1977, legit L. E. Peña, in coll. SMNS-2 no 6269.
**Catasticta aureomaculata aureomaculata** LATHY & ROSENBERG, 1912. TL. S-Peru, Uruhuasi. TM: HT ♂, S Peru, Uruhuasi, 7000 ft, 3–4 '10 [= III.–IV.1910], H. & C. WATKINS, in coll. BMNH-T.


**Catasticta ferra ferra** BROWN, 1939. TL. Ecuador, Ambato. TM: HT ♂, Ecuador, Env. d’Ambato, R. P. IRENEÉ BLANC, in coll. BMNH-T.


ssp. *ferruginosa* subspec. nov. HT ♂, Env. de Loja Equateur, 1893, ex coll. DOGNIN, JOICEY bequest, in coll. BMNH-G.


ssp. *orcus* subspec. nov. HT ♂, **Catasticta ferra orcus**, Colombia, Finca Las Canarin, Mpio Salento, Quindio, 2600–2700 m, 3.VI.[19]87, leg J. VELEZ E., in coll. JHR.

**philais** subgroup


= **philonarche** C. & R. FELDER, 1865. TL: Colombia, Bogota. TM: HT ♂, in coll. BMNH.


= **variabilis** RÖBER, 1924. TL. Colombia. LT ♂, Columbien in coll. ZMB (LAMAS, 1993 species bona).


**Catasticta modesta modesta** (LUCAS, 1852). TL: Peru, Cuzco. TM: ST ♂, in coll. MNHN.


= **macropinava** REISSINGER, 1972. TL. Peru, Junin, Chanchamayo, “weg zur Mine” 1200–1600 m. TM: HT ♂, Peru, Chanchamayo, Umg. San Ramon, Weg. z. Mine (Bt. 3), X.[19]89, 12–1600 m, Ig. Fr. KÖNIG, in coll. SMNS-1 no 1242. **Syn. nov.**

**manco** subgroup


= **hopfferi** RÖBER, 1908. TL. Bolivia. TM: STs ♂♂, in colls of ZMB, BMNH. LT ♂, Bolivia, in coll. BMNH (LAMAS, 1993).

ssp. *lucida* subspec. nov. HT ♂. *Catasticta pinava lucida*, Peru, Cuzco, Vilcanota, 3000 m, O. Garlepp, in ZMB no 3455 ER.


*Catasticta manco manco* (Doublédoy, 1848). TL. Bolivia. TM: HT ♂, in coll. BMNH-T.


ssp. *reissingeri* subspec. nov. HT ♂. [Peru, Cuzco], Tinchoca, 7000 ft, 9 August 1911, Yale Peruv Exp; in USNM.

*incerta* subgroup


= *vapina* Butler, 1897 TL: Ecuador. TM: STs 2 ♂♂; in coll. BMNH-T.


*Catasticta fulva fulva* Joicy & Rosenberg, 1915. TL. Peru, Pozuzo. TM: HT ♂, Peru, Pozuzo, 5000–6000 ft, Native collectors, Joicy bequest, in coll. BMNH-T.

= *ganymedes* Tessman, 1928. TL. Peru, Oxapampa. TM: HT ♂, in coll. ZMB.

ssp. *kentae* Brown & Goodson, 1940. TL. Peru, [Amazonas, SE Chachapoyas], Rio Huayabamba. TM: HT ♂, Peru, Huayabamba river, SE of Chachapoyas, 3500 ft, O. T. Baron, in coll. BMNH-R.

*Catasticta lycurgus lycurgus* (Goddman & Salvin, 1880) [Euterpe]. TL. Colombia, on the road from San Sebastian to Atanquex. TM: HT ♂, in coll. BMNH-T.


ssp. *tolima* Fassl, 1915. TL: Colombia, Nevado Tolima, 3200 m. TM: STs 3 ♂♂, 1 ♀, STs C. *tolima*. Mt Tolima, Colombischen centralcordillere, 3200 m, in ETH.
troezene group

*Catasticta watkinsi watkinsi* LATHY & ROSENBERG, 1912. TL: S-Peru, Uruhuasi. TM: STs 7 ♂♂, in coll. BMNH. LT ♂ (LAMAS, 1993).


*Catasticta philodora philodora* BROWN, 1939. TL: E-Ecuador, Rio Pastaza, Rio Blanco. TM: HT ♂, in coll. BROWN, PTs in coll. AMNH and BMNH.

ssp. *maja* REISSINGER, 1972. TL: Ecuador, Pichincha, Calacali, 1900 m. TM: HT ♂, Ecuador, Pichincha, Calacali, 1900 m, 26.XI.1971, in coll. SMNS-1 no 2067


= *talboti* JOICEY & ROSENBERG, 1915. TL: Not Stated. HT ♂, ex GROSE-SMITH in coll. BMNH-T.


= *Euterpe zance* C. & R. FELDER, 1865. TL: Colombia, Nova Granada. STs ♂, ♀, in coll. BMNH-R.

= *latiplaga* RÖBER, 1924. TL: Colombia, E-Cordilliere, Pacho. TM: LT ♂, Colombia [Cundinamarca], Pacho, [2200 m], in coll. ZMB (LAMAS, 1993).

= *lactaea* AVINOFF, 1926. TL: Colombia, Choachi. TM: HT ♂ in coll. CMNH.


*Catasticta seitzi seitzi* LATHY & ROSENBERG, 1912. TL: W-Colombia, Rio Cauca, Guabinas. TM: HT ♂, in coll. BMNH-T.


ssp. *zana* Brown, 1939. TL: Colombia, Fusagasaga. TM: HT ♂, in coll. BROWN. PTs in colls of BMNH, MHNP, ZMB.
Hesperochoia REISSINGER, 1972

poujadei group

Catasticta poujadei poujadei (DOGNI, 1888) [Hesperocharis]. TL. Ecuador, Loja, San Francisco. TM: STs ♂♂, in coll. BMNH-T.


Catasticta revancha REY & PYRÇZ, 1996. TL. Fundo Piedra Blanca, San Vicente de la Revancha, Parque Nacional El Tamá, Táchira, Venezuela, 2350 m. TM: HT ♂, same data, in BMNH.

chrysolopha group

Catasticta chrysolopha chrysolopha (KOLLAR, 1850) [Euterpe]. TL. Venezuela. TM: HT ♂, in coll. NHMW.


ssp. adamsi subspec. nov. HT ♂. Hesperochoia chrysolopha adamsi, Nord Colombia, Sierra Nevada de Sta Marta, Exp. M. G. ADAMS & BERNARD WEST, End of Cebolleta E. above San Pedro, 2900 m, 7 VIII.[19]72, nin coll. BMNH.

ssp. quiroza BROWN, 1939. TL. Peru, Quiroz. TM: HT ♂, in coll. AME.


ssp. superba LATHY & ROSENBERG, 1912. TL. S-Peru, Uruhuasi. TM: STs 8 ♂♂, in coll. BMNH.

= similis LATHY & ROSENBERG, 1912. TL. S-Peru, Uruhuasi. TM: STs 2 ♂♂, in coll. BMNH. Syn. nov.

Catasticta cora cora (LUCAS, 1852) [Euterpe]. TL. Peru, environs de Cuzco. LT ♂, Cuzco, Perou, A. GAY, Type 357 C. cora det. F. M. BROWN, in coll. MHNP (LAMAS, 1993).


Catasticta truncata truncata LATHY & ROSENBERG, 1912. TL. Venezuela, Merida. TM: HT ♂, in coll. BMNH-T.

ssp. xanthotaenia RÖBER, 1924. TL. Ecuador. LT ♂, in coll. ZMB (LAMAS, 1993).
toca group

*Catasticta toca toca* (Doubleday, 1847) [*Euterpe*]. TL: Bolivia. TM: ST ♂, in coll. BMNH.


= *locata* Reissinger, 1972. TL: Peru, Junin, Chanchamayo, San Ramon, 1200 m. TM: ST ♂, Peru, Chanchamayo, Umg. San Ramon, Bt. 3, 1200 m, VII.1969, lg. Fr. König, in coll. SMNS-1 no 1257

Syn. nov.

*Catasticta apaturina apaturina* Butler, 1901. TL: Ecuador, [Cotopaxi] Angamarca. TM: STs 2 ♂♀, 1 ♀, in coll. BMNH-R.


teutila group

*Catasticta duida* Brown, 1932. TL: Venezuela, Mt. Duida. TM: HT ♂, in coll. AMNH.

*Catasticta teutila teutila* (Doubleday, 1847) [*Euterpe*]. TL: Mexico. TM: HT ♂, in coll. BMNH-T.

= *Euterpe sebennica* Lucas, 1852. TL: Mexico. TM: STs ♂♂ and ♀♀, in coll. MHNP.


= *flavifaciata* BEUTELSPACHER, 1986. TL: Mexico, Oaxaca. TM: HT ♂, in coll. UNAM.


= *reneda* FRUHSTORFER, 1915. TL: Costa Rica. TM: ST ♂ and ♀, in coll. BMNH?
Leodontoia Reissinger, 1972

cerberus group


Catasticta soccorensis soccorensis Fassl, 1915. TL: Colombia, W-Cordilliere, Socorroberg. TM: ST ♂, in coll. ETH.

ssp. cotopaxiensis subspec. nov. HT ♂. Catasticta vulnerata cotopaxiensis, Ecuador, Cotopaxi-Napo, Via Salcedo-Napo, Rio Mulatos, 2900 m, in coll. SMNS-2 no 6405.

amastris group


ssp. paucartambo subspec. nov. HT ♂. Catasticta paucartamba, Peru, Cuzco 15 Km NE Paucartambo, 3100 m, 3.11.[19]75, G. Lamas, in coll. MJ.

Catasticta semiramis semiramis (Lucas, 1852). TL: Colombia. TM: HT ♂, in coll. MHNP.

ssp. palla Brown, 1939. TL: Colombia, Cauca, Popayan. TM: HT ♀, in coll. ZMB.


ssp. dentata Lathy & Rosenberg, 1912. TL: S-Peru, Acopampa, 11500 ft. TM: STs ♂ and ♀, in coll. BMNH-T.

ssp. striata subspec. nov. HT ♂. Catasticta striata, Peru, Huanuco, Pachitea Alta, 2500 m, XI. 1972, legit M. Rojas, in coll. SMNS-1 no 3139.


= dusca Brown, 1939. TL: Bolivia, Chaco, La Paz. HT ♂, in coll. ZMB.

albofasciata group

Catasticta cinerea cinerea Butler, 1897 TL: [S-Peru] “Ecuador” TM: HT ♂, Ecuador, Hewitson coll. 79.69, Euterpe uricocheae Feld. 8. C. cinerea type Butler, in coll. BMNH-T.


= dasca Brown, 1939. TL: Bolivia, Chaco, La Paz. HT ♂, in coll. ZMB.
ssp. coerulescens subspec. nov. HT ♂. *Catasticta cinerea coerulescens*, E. Peru, Marcapata, 10800 ft, (OCKENDEN) in coll. BMNH-R.


ssp. *suprema* FASSL, 1915. TL: Colombia, Central-Cordilliere, Quindiu-Pass. TM: HT ♀, in coll. ETH.

ssp. *rochereai* LE CERF, 1924. TL: Colombia, Pamplona. TM: HT ♀, in coll. MHNP.

ssp. *hollandi* AVINOFF, 1926. TL: Colombia, Santader, PEÑA Blanca. TM: HT ♂, in coll. CMNH.

ssp. *laurentina* subspec. nov. HT ♂. *Catasticta hollandi laurentina*, Colombia (Sierra Nevada de Santa Marta), San Lorenzo (3000 m), Minca, leg. C. RODRIGUEZ, in SMNS-2 no 6231.

*Catasticta uricoecheae uricoecheae* (FELDER & FELDER, 1861). TL: Colombia, Muzo. TM: ST ♂, in coll. BMNH-R.


ssp. *koenigi* subspec. nov. HT ♂. *Catasticta koenigi*, Peru, Rodriguez de Mendoza, 1500 m, VII.[19]72, in coll. FK, no 3609 ER.

= *toppini* auct., nec SHARPE, 1915

*Catasticta albofasciata albofasciata* LATHY & ROSENBERG, 1912. TL: Colombia, Maganja, [Quindiu Pass], 9000 ft. TM: STs 2 ♂♂, in coll. BMNH.

= *lubentina* FASSL, 1915. TL: Colombia c., Quindiu-pass. TM: STs 3 ♂♂, in coll. ETH. 1 ♂ ST, Paso del Quindiu, Colombia, Centr. Cord., 3500 m, coll. FASSL, in coll. SMNS.


rosea group

*Catasticta rosea* JOICEY & ROSENBERG, 1915. TL: Colombia. TM: HT ♂, Colombia, ex GROSE-SMITH 1910, in coll. BMNH-T.

III. Description of new species and subspecies of *Catasticta* (s. l.)

* Catasticta* Butler, 1870

1. *Catasticta nimbice ligata* subspec. nov. (colour plate 1, figs. 1-4)


Paratypes: 1 ♀, Panama, Gatún, leg. D. E. Harrower, CMNH; 1 ♂, Panama, Chiriqui, F. M. Brown, AMNH; 1 ♀, same data, F. M. Brown, AMNH; 5 ♂♂, 5 ♀♀, same data, BMNH-G; 1 ♂, same data, 1911, Staudinger, MHNP; 1 ♂ same data, c. Erhardt, ZSM; 3 ♂♂, Chiriqui, Vulkan, Trotsch, coll. Staudinger, ZMB, nos 7971 ER, 7972 ER, 7973 ER; 1 ♀, Chir. Vulk., [1892]. TR., coll. Sautdinger, ZMB, n 7974 ER; 1 ♂, Volcan von Chiriqui, ZMB, n 7975 ER; 1 ♂, Alto Lino, 1200 m, li, III, G. B. Small, USNM; 1 ♂, same data, 3000 ft, 29.VIII.[19]64, USNM; 1 ♂, same data, 3800 ft., 24.VIII.[19]64, USNM; 2 ♂♂, same data, 4000 ft. 25 & 28.VI.[19]65, USNM; 1 ♀, Limo, 1800 m, Fassl, MHNP; 1 ♂, same data, 1600 m, BMNH; 1 ♂, Bogava [= Bugaba], BMNH-R; 1 ♀, Boquete, Vi.[19]62, R. Zweifel, AMNH; 1 ♂, same data, 3600 ft., 27.VII.[19]68, J. E. L., AME; 1 ♂, same data, 1000 m, li.VI, G. B. Small, USNM; 1 ♂, Cerro Colourado, 1350 m, VII, G. B. Small, USNM; 1 ♀, Cerro Hornito, 1200 m, 27.VII.[19]75, USNM; 1 ♀, Cerro Punta, 4.III.36, W. J. Gertsch, AMNH; 2 ♂♂, Lagunas de Volcan, 1300 m, 25.XII.[19]84, Sasso, JHR; 2 ♂♂, same data, 1350 m, 8.XII.[19]84, JHR; 1 ♂, same data, 7.XII.[19]84, JHR; 3 ♂♂, same data, 7,8.XII.[19]84, SMNS-2; 1 ♀, same data, 8.XII.[19]84, SMNS-2; 1 ♂, Potrerillos, 9.III.[19]70, AME; 1 ♂, Volcan, 1300–1450 m, II, III, VI, G. B. Small, USNM; 1 ♂, same data, 4800 ft. 23. VIII. [19]64, USNM; 1 ♂, El Volcan, 28.II.[19]36, W. J. Gertsch, AMNH; 1 ♂, Veraguas, BMNH-G; 4 ♂♂, Costa Rica, Puntarenas Tablas, 1800 m, IV.[19]85, N. Zakharevoff, JHR; 5 ♂♂, same data, III.[19]87, JHR; 1 ♂, Coton, 1400 m, XI.[19]84, N. Zakharevoff, JHR; 1 ♂, Rio Coton, 1450 m, 24.II.[19]77, G. B. Small, USNM; 4 ♂♂, Sitio Coto Brus, 2000 m, 8.VIII.[19]85, N. Zakharevoff, JHR; 1 ♂, San Vito de Coto Brus, 1200 m, MNCR.

Description

♂. Differs from other subspecies for the shape of the discoidal patch of the FWs joined to the marginal band by a large black band which covers the space between M2 and M3. Sometimes (20% of specimens) this is incomplete leaving a small square space between the discoidal spot and the marginal band. The underside is intermediate in colouration between *nimble* and *ochracea*. The spots of the marginal band on the FWs are rounded and irregular, and not triangular with outward apex as in bryson.

♀. The colour of the FWs is yellow with an orange tint on the HWs, generally stronger than in other subspecies.

2. *Catasticta flisandra melanisa* subspec. nov. (colour plate 1, figs. 5, 6)


Description

♂. Similar to *flisandra* from Guatemala, but it differs for the premarginal band of both wings upperside that are elongated and not rounded as in flisandra. The postdiscal greyish band on the underside of HWs is absent so that the yellow spots are more outstanding.
3. *Catasticta flisa archoflisa* subspec. nov. (colour plate 2, figs. 7–10)

HT♂. Panama, Darien, nr. Cana, 1000 m, 7.IX.1982, G. B. SMALL, coll. USNM, ER no 8220.

Paratypes: 2♂♂, Panama, Darien, Serrania de Pirre, above Cana, 1000 m, 26 & 31.I.[19]84, G. B. SMALL, JHR; 1♀, same data, 1150 m, 8.II.[19]84, JHR; 2♂♂, same data, 1500 m, 6.I.[19]84, JHR; 1♀, same data, Cana, 1000 m, 26.I.[19]84, JHR; 1♂, same data, 1000 m, 29.XII.[19]83, SMNS-2; 1♂, same data, 1200 m, 27.I.[19]84, SMNS-2; 2♂♂, same data, 1150 m, 3.II.[19]54?, 14.XI.[19]84, SMNS-2; 1♀, same data, 27.XII.[19]82, SMNS-2; Aη♀, same data, 1200 m, 20.IX.[19]82, USNM; 1♂, same data, 1538 m, 22.IX.[19]82, USNM.

Description

This new subspecies differs from all the other subspecies of *C. flisa* for the melanic aspect of both sexes. ♂♂. Background colouration jet black. All the designs reduced on both wings. Discal band on the upperside of FWs formed by small dots. On the HWs the discal band is absent. On the underside sexes, S♂♂, HT4. Description


Description

This new subspecies differs from all the other subspecies of *C. flisa* for the melanic aspect of both sexes. ♂♂. Background colouration jet black. All the designs reduced on both wings. Discal band on the upperside of FWs formed by small dots. On the HWs the discal band is absent. On the underside of the HWs more developed than those on the upperside. ♀♀ similar to ♂♂, spots on the underside of the HWs more yellowish.

4. *Catasticta flisa briseis* subspec. nov. (colour plate 2, figs. 11–14)

HT♂. Venezuela, Aragua, Maracay, 1000 m, VII.1970. leg. F. ROMERO, ex coll. JHR, coll. SMNS-1, ER no 3600.


Description

The ♂♂ differs from other subspecies in having the discal band of the upperside HWs more produced basally. Underside FWs discal spots larger, post discal spots reduced in comparison to those of *hermione*. The ♀♀ with large discal band on both wings for this character differing from the Tachira populations (*hermione*) where the discal band is reduced and similar to that of the ♂♂.

5. *Catasticta flisa flisoides* subspec. nov. (colour plate 3, figs. 15–18)


Paratypes: 1♂, Colombia, Cauca, 1911, ex BOULLET, ex Ribbe, MHNP; 1♂, Popayan, BMNH-G; 1♂, 1♀, Cauca Valley, BMNH-G; 4♂♂, Cali, 1000 m, 6.9.III.[19]79, II.[19]62, 26.VI., 14.VI.[19]74, SCHNEBLE, DENHEZ, ex ZENker, JHR; 1♂, same data, 1700 m, 30.VII.[19]71, DENHEZ, JHR; 4♂♂, 1♀, Torre TV, 25 Km W Cali, 2800 m, 5.X.71, 3.II.[19]72, 7.IV, 17.IX, 2.X.[19]71, JHR; 1♀, Rio Aguacatal,
The populations around Quito and in the Province of Imbabura are characterised by the submarginal spots of both wings transformed in thin streaks.

**Description**

♂. Distinguished for the broad FW discal band which is reduced in spaces 1–3. The spots of this band are larger than the corresponding in *dilution*. On the upperside HWs, wide discal band which invades basally, occupying one third of the wing. ♀ similar to ♂ but with a wider discal band of the HWs.

6. *Catasticta flisa duna* subspec. nov. (colour plate 3, figs. 19–22)

HT ♂. Equateur cent., Guayabamba, 2150 m, 2.VI.1973, leg. N. VENEDICTOFF, coll. SMNS-1, ER no 8346.


Description

The populations around Quito and in the Province of Imbabura are characterised by the submarginal spots of both wings transformed in thin streaks.

♂. Compared with *flisoides*, the submarginal spots of the wings long and directed outwards. FWs upperside discal band reduced for the strong suffusion of black scales on the white spots. Premarginal spots elongated in whitish streaks. HWs upperside: The discal band is also reduced in size and the premarginal spots elongated. On the underside of the HWs the white premarginal spots are elongated and confluent with the marginal yellow wedges. The ♀♀ have same pattern of the ♂♂. The preimaginal stages are described by SCHULTZE-RHONHOF (1935).

7. *Catasticta sisamnus smalli* subspec. nov. (colour plate 1, figs. 23, 24)

HT ♂. Panama, Darién, Cana, 400 m, VII.[19]81, leg. G. B. SMALL, coll. USNM, Er no 8088.
Paratypes: 2♂♂, 3♀♂, Panama, Darién, Cana, Serrania de Pirre, 1000 m, VII. [19]81, leg. G. B. SMALL, in JHR; 2♂♂, same data, SMNS-2.

Description

♂♂. Differs from the nominotypical subspecies by a larger black marginal band of the HW so that the white discal band appears narrower. The length of the FW 25–27 mm vs 27–30 mm of sisamnus.

8. Catasticta sisamnus merida subspec. nov. (colour plate 4, figs. 25–28)

HT ♂. Venezuela, Env. de Merida, 1901, BOURSEY [leg.], Museum de Paris, coll. MHNP, ER no 8089.

Paratypes: 1♀, Venezuela, Mts of Merida, Acc. 4281, CMNH; 2♂♂, Venezuela, Merida, Chamatal oberhalb Merida, 1580 m, 17.VII. [19]71, HUBER, ZSM n 6825 ER; 1♂, same data, 1590 m, SMNS-1 no 6750; 1♂, Kord. von Merida, Tal Rio Chama, 1580 m, 08.8. [19]70, HUBER, SMNS-1 no 6749; 1♂, Tachira, San Cristobal, Via Loma de Pio, Q. La Bermeja Estacion Inos, 1100 m, 22.VI. [19]83, C. BORGES, JHR; 1♂, San Cristobal, Via Chorro del Indio, 1100 m, IX. [19]82, F. ROMERO, JHR.

Description

Similar to C. sisamnus but the margins of the black and white bands of the HWs is almost rectilinear up to Cu1 where abruptly bends towards the anal angle. The discal area therefore is larger than in sisamnus.

9. Catasticta prioneris estancia subspec. nov. (colour plate 4, figs. 29–32)

HT ♂. Ecuador, Tungurahua, rio Estanzias, Oriente, 1400 m, 10.VI. [19]73, leg. VELASTEGUI, coll. SMNS-1, ER no 3382.


Description

♂: FWs. It differs from the nominate subspecies for the black marginal band somewhat wider, particularly near the tornus, and lacking any notch in space 1. The dark basal area also encroaches more into the white discal band so that this is narrower. Discoidal patch narrow and irregular, almost never joined to the marginal band taking into account its widening in this ssp. HWs. Black marginal band contours, rarely cut by the white marginal triangles of which there are rarely more than three. Undertow of HWs: discal band narrower. The plume colour has a somewhat darker shade of sepia.

♀: readily recognizable by the greyish area in the upperside of HW joining the marginal band which is due to the underside HW postdiscal area seen by transparency. The designation of paratypes are limited to specimens from the provinces of Napo, Tungurahua, Pastaza and Sucumbios, although it is possible that the range of this subspecies extends into Colombia and south Ecuador. The species is uncommon in Ecuador, although widespread, especially in the Pastaza valley above 1000 m.

10. Catasticta prioneris araguana subspec. nov. (colour plate 5, figs. 33–36)

HT ♂. Venezuela, Aragua, Maracay, 1000 m, IX. 1971, leg. F. ROMERO, coll. SMNS-1, ER no 3606.


Description

♂. Very similar to the Peruvian populations of prioneris, except that the FW upperside discoidal patch is usually rectangular, ca 2.5 mm thick, and rarely narrow and irregular as in prioneris. ♀ with narrow HW upperside marginal band, and FW discoidal patch often joined to the marginal band which makes her very similar to the ♀ of Colombian albescens. However, the FW marginal band of albescens presents a much wider angle between the outer margins of wing and discal band.

11. Catasticta ctemene grisella subspec. nov. (colour plate 5, figs. 37, 38)

HT ♂. Peru, Puno, Umg. Sandia 1500 m Grenzgebiet zu Bolivien, 1.IX.1973, leg. F. KÖNIG, coll. SMNS-1, ER no 3194.

Paratype: 1 ♂, same data, in coll FK no 3565 ER.

Description

Differs from the Bolivian alma for the enlargement of the discal spots on the upperside FWs so that the premarginal spots are almost joined. All the white designs are covered with greyish scales. Undertow FWs with marginal very long stripes which reaches and fuses with the discal band.
12. *Catasticta clemene mariae* subspec. nov. (colour plate 6, figs. 39, 42)
Paratypes: 6 ♀♂, same data, in coll. SMNS-1 nos 6391-6397; 1 ♂, 2 ♀♀, same data, in coll. JHR nos 14805, 17543, 21335; 1 ♀, Colombia Antioq. Envigado 1800 m, 18.XII.1975, leg. CARLOS RODRIGUEZ, coll. SMNS-1 no 3858; 2 ♀♂, Colombia, Antioquia, Alto de Las Palmas, IX.1989, in coll. EMEM.

Description

Differs from the Venezuelan *crowleyi* for the greatest suffusion of black scales over the whitish designs on the upperside of both wings. The discal and premarginal spots of the HWs appear to be joined together. On the underside the FWs have the discal band with larger rectangular spots and the yellow premarginal streaks elongated and joined with the marginal yellow wedges.

13. *Catasticta teutamis moyobamba* subspec. nov. (colour plate 6, figs. 43–46)
Paratypes: 1 ♀, Iquitos Omaguas, 150 m [false loc.], ex ZSB, SMNS-1 no 6840; 10 ♀♂, Peru, Moyobamba, M. de Mathan, 1 Sem. 1887, Ex OBERTHÜR Coll. Brit. Mus. 1927-3, in coll. BMNH-G; 1 ♂, Peru, Chachapoyas, in coll. BMNH-G; 2 ♀♂, Peru, Rio Seco, XII.1934, ex coll. CHURCH, in AMNH; 6 ♀♂, Peru, Jepelacio, VIII.1934, ex coll. CHURCH, in AMNH: 7 ♀♂, Peru, Amazonas, Rodriguez de Mendoza, leg. CALDERON, TR.

Description

♀♂ from north Peru are characterised for the broader black band on the upperside of HWs. The white elongated spots in the apical area of the upperside of FWs are reduced in size. The yellow spots on the underside of HWs are reduced in number but are prominent on the black background. The red band in the cell of FWs of the unique ♀ examined is reduced in size if compared with other ♀♀ of different subspecies.

14. *Catasticta pharnakia styx* subspec. nov. (colour plate 5, figs. 47, 48)

Description

*Catasticta pharnakia* is a rare western amazonian species which shows a remarkable sexual dimorphism, the red ♀♀♀ mimetic with *Actinote* and *Archonias* species. It was reported by STICHEL (STRAND, [1914]) from Macas but the whereabouts of this specimen is unknown. From Ecuador is known a single specimen in coll. ROBERT from the Mendez area at middle altitude.
♂. FWs completely black except a greyish patch in S6–S8. HWs completely black. Underside similar to upperside but on the HWs there are two red spots at the base of wings and a series of small yellow marginal dots as well as an incomplete submarginal band.

15. *Catasticta ludovici* spec. nov. (colour plate 7, figs. 49–52)
HT ♂. Ecuador m. or., Loja-Zamora, 1600–1700 m, 26.–28.X.1977, leg. L. E. PEÑA, ex JHR, coll. SMNS-2, ER no 6090.
Paratypes: 1 ♀, Rio Las Dantas, (1800 m), Zamora-Ch.[inchipe], Equador, 5.XII.1985, leg. M. VELAS-
Description

This is a very rare taxon known so far from south Ecuador only. The specimens examined show a resemblance with *C. discalba* with which it is sympatric.

♂. The designs are greyish with large submarginal round spots on the upperside of both wings. On the underside of the FWs, the submarginal spots are minute and punctiform if compared with those of *C. discalba* which are arrow-shaped. Also the yellow stripes are less developed than those of *C. discalba*.

♀. The underside of HWs is similar to that of the ♂. On the upperside all the greyish designs are replaced by white.

16. *Catasticta radiata julita* subspec. nov. (colour plate 7, figs. 53, 54)

HT ♂. *Catasticta julita*, Ecuador, Tungurahua or., Rio Estancias oriente, 1400 m, 11.VI.1973, leg. VELASTEGUI coll. SMNS-1, ER no 3176.

Paratypes: 1 ♂, Ecuador, Napo-Pastaza, Rio Pastaza, Julita, 1200 m JHR n.9708; 1 ♂, Ecuador, Tungurahua, Rio Estancias, 1400 m. JHR n. 18936; 1 ♂, Ecuador, El Rosario, Rio Pastaza, 4900 ft., M. G. PALMER, in BMNH-G; 2 ♂♂, Ecuador, coll. HEWITSON, in BMNH-G; 2 ♂♂, Ecuador, Gualaquiza, in BMNH-G; 1 ♂, Ecuador, San Francisco, 1250 m, 24.IX.[19]38; 1 ♂, same data, 1300 m, VIII.[19]38, in coll. AMNH.

Description

Ecuadorian populations differ from those of Venezuela and Colombia, especially for the dark suffusion of black scales on the yellowish background. It does not appear to be a common species and it has been collected recently only on the upper Pastaza valley in lower montane forests.

♂. Upperside of both wings duller for the blackish suffusion of scales. The premarginal spots of the HWs are more distinctly separated from the discal area. Underside as in typical radiata but FWs yellow marginal wedges are longer. Discal band with spots larger, premarginal spots smaller and V-shaped. HWs plumes smaller, for the extension of black scales.

17 *Catasticta sella* spec. nov. (colour plate 7, figs. 55, 56)

*C. suasella* RÖBER, 1909 sensu REISSINGER (1972)


Paratypes: ♂♂, same data as HT, nos 3473–3519 in SMNS-1; 1 ♀, Peru, Huanuco, Carpish, in coll. JHR no 8895 (3472 ER); 1 ♂, Peru, Huanuco, Acomayo, 2000 m, III.–IV.[19]75, leg. M. ROJAS, JHR, no 16802; 1 ♂, Peru, Huanuco, Monzon, Tazo Chico, 2000 m, VI.[19]73, leg. M. ROJAS, JHR, no 12749; 1 ♂ "Tingo Maria" in coll. SMNS-1 no 6792; 3 ♂♂, Chaupiyunca, in coll. SMNS-1 nos 6793–6795; 4 ♂♂, Rodríguez de Mendoza, in coll. SMNS-1.

A series from Chaupiyunca and Pachitea Alta in coll. JHR., 20 ♂♂, Peru, Amazonas, Rodriguez de Mendoza 1500 m, 1984–1992 leg. B. CALDERON, in coll. TR (2 ♂♂ are deposited in coll. EMEM).
Description
This taxon has been reported by Reissinger (1972) as C. _suaella_ Röber, 1909, and it might be related to _C. philone grossana_ Brown, 1939. The systematic status of _grossana_ is still opaque being the HT a ♀ from Colombia. ♂ specimens from Valle in coll. SMNS might belong to _grossana_.
We leave under the name _sella_ as proposed by Reissinger & Robert, three groups of disjunct populations, one in southern Ecuador, one in northern Peru and the third in central Peru. These two are very similar and different from southern Ecuadorian populations. For the time being we consider under the nominotypical subspecies the northern and central Peruvian populations.
♂. Upperside superficially similar to _C. pluvius_ but this species has orange stripes on the underside. The discal stripes are more heavy on the FWs, and on the HWs there is a broad basi-discal olive-grey area which is completely missing in _pluvius_. All the spots are more rounded instead of linear streaks.
The unique known ♀ is similar to the ♂ and different from the HT of _grossana_. The purplish sheen on the marginal design on HWs underside is characteristic.

18. _Catasticta sella_ dognini subspec. nov. (colour plate 9, figs. 57, 58)
_Catasticta_ sp. Racheli (1996)


Description
This taxon, according to Robert (1987), was figured by D'Abrera (1981) under the name of _C. aureomaculata_ Lathy & Rosenberg, 1912.
Although only four ♂♂ specimens were known (the two ♂♂ in the BMNH are somewhat faded) the long series collected by Jasiniski confirm the pattern of the populations of southern Ecuador. They differ from typical _sella_ for the spots on upperside of both wings larger, discal band more extended outwardly, and the submarginal spots more rounded. On the underside of the FWs the premarginal band is formed by arrow-shaped spots, which are round in typical _sella_. On the HWs the discal band of black stripes is more extended.

19. _Catasticta frontina_ muehlei subspec. nov. (colour plate 8, figs. 59–62)


Description
According to the point of view of Robert and Reissinger, _C. joiceyi_ was treated as a good species.
Later on, these authors combined this new taxon with *frontina*. Racheli (1996) considered *joiceyi* a synonym of *frontina*. *Catasticta joiceyi muehlei* subspec. nov., like it was proposed, was based on two♂ from Rio Tigre and Cordillera of Huacamayos.

♂. Distinct from the nominate subspecies for the following characters. The series of discal yellow spots on the underside are long in *frontina*, arrow-shaped in *muehlei*. The whitish postdiscal spots on the upperside of the HWs are clearly arrow-shaped.

The two ♀♀ from Sucumbios and Napo have a large whitish patch on the upperside of the wings and a distinct row of arrow-shaped spots on the HWs. On the underside of both sexes there is a contrasting and vivid yellow colouration.

The name of the new subspecies is dedicated to HANS MÜHLE, München, a close friend of the late Dr. E. J. REISSINGER, and of the authors.

20. *Catasticta frontina zamorana* subspec. nov. (colour plate 8, figs. 63–66)

HT ♂. Equateur, env. di Loja, 1887, Paratype *C. frontina* BROWN & GABRIEL, JOICEY bequest 1934-120, ex coll. DOGNIN 1921, photogr. by D'ABRERA 77-78, coll. BMNH-G, ER no 9394.


Description

The populations from the Loja area were included by BROWN & GABRIEL (1939) under their description of *C. frontina*. This species has been described on specimens from Frontino, Antioquia, Colombia, and to this area the nominotypical subspecies should be restricted.

ROBERT (1987) noted that the specimens figured by D'ABRERA (1981) might come from Ecuador. Although the HT of *zamorana* has been selected from early material, specimens from the eastern part of Cordillera de Loja are substantially similar with old material.

The ♂♂ show the submarginal spots on the upperside of HWs and on the underside of FWs clearly arrow-shaped.

♀. Upperside whitish areas smaller than in *muehlei* subspec. nov. Premarginal band with a row of small round dots on FWs, arrow-shaped on HWs. On the underside FWs the yellow marginal streaks, thin, and the upper ones touching the premarginal whitish dots.

21. *Catasticta philone patinoi* subspec. nov. (colour plate 9, figs. 67–70)


Paratypes: 1 ♀, Colombia, Caldas, Manizales, Bocatoma, 2300 m, IX.1982, leg. J. VELEZ E, in coll. JHR (no 9403 ER). Other paratypes, same data, in colls JHR, SMNS-2; 1 ♂, Cauca? Wallis, coll. STAUDINGER, philonarche, coll. RÖBER, in coll. ZMB (no 8050 ER); 1 ♀, Manizales, Cauca, coll. STAUDINGER, philonarche, *Catasticta philone* det. F. M. BROWN, in coll. ZMB (no 3714 ER).

Description

ROBERT (1987) pointed out that the specimen figured by D'ABRERA (1981: 133) under *Catasticta suasa suasella* RÖBER, 1908, is misidentified. The type of *suasella* is the same as *Catasticta minor* LATHY & ROSENBERG, 1912, and conspecific with *C. anaitis* Hew. The specimen figured in D'ABRERA is a representative of the populations of *C. philone* C. & R. FELDER from W Colombia, Caldas.

The ♂ differs for the shape of wings which is more rounded, for the melanic suffusion and the reduction of the light designs. ♀ similar to the ♂ and with the same designs of *C. frontina* BROWN & GABRIEL on the UNHW.
22. *Catasticta philonet* **stabilis** subsp. nov. (colour plate 9, figs. 71, 72)


Description

Central Peruvian populations are compared with *ecuadora* Brown, 1939, to notice the differences. ♂: Upperside of both wings duller for the blackish suffusion of scales. The premarginal spots of the HWs more distinctly separated from the discal area. Underside FWs yellow stripe in the cell shorter, and the spot at its end more triangular. Discal band with spots more rectangular, premarginal spots smaller and rounded. HWs plumes smaller, for the extension of black scales.

23. *Catasticta suasa pacis** subsp. nov. (colour plate 10, figs. 73, 74)


Paratypes: 3 ♂♂, Bolivia, Cochabamba, San Jacinto, Garl.[EPP leg.], coll. Staudinger, in coll ZMB; 1 ♂, Bolivia, Cochabamba, Chapare, Yungas del Espíritu Santo, San Jacinto, P. Germain, in coll. BMNH; PT ♂, Cochabamba, Carrasco, Siberia, 1850 m, X.1963, ex JHR in SMNS-1 no 3178.

A series in coll. JHR from: Bolivia, Cochabamba, Chapare, El Palmar 2100 m, leg. Peña; Bolivia, Cochabamba, Chapare, Yungas de Corani 2800 m, leg. Peña; Bolivia, Cochabamba, Chapare, Rio Ronquito 1900 m, leg. Peña; Bolivia, Cochabamba, Chapare, El Limbo, 2200 m; Bolivia, Cochabamba, Chapare, Locotal 2600 m; Bolivia, Cochabamba, Chapare, Paracito 2300 m.

Description

The series of specimens of *C. suasa* collected by Peña during 1984, revealed the existence of two distinct groups of populations in Bolivia. They are distributed respectively in the Department of La Paz and of Cochabamba. Lamas (1993) selected the LT of *C. suasa suasa* from Bolivia [La Paz, Yungas de La Paz, 1000 m]. Therefore the populations from Cochabamba are described herewith. ♂: Upperside FWs: grey discal band below Cu1 at least as wide as the black submarginal band; white spots in the latter closer to the discal band than to the outer margin. HWs with inner border of the submarginal band curved.

Underside FWs; white submarginal spots crescent-shaped. HW with edges of the white submarginal areas between yellow marginal triangles lightly underlined basad with scales of the same sepia colour as the postdiscal band.

♀♀ with ample white or yellowish white discal areas on the upperside of both wings.

24. *Catasticta nimbata pleione** subsp. nov. (colour plate 10, figs. 75, 76)

*Catasticta suadela* var. B. Hopffer, 1874


15.X.V71, in coll. SMNS; \( \Phi \), Peru, Junin, Chanchamayo, San Ramon, 1200 m, VII.[19]69, in coll. SMNS; 2 \( \Phi \), Peru, Huanuco, Umg. Acomayo, Chaupiynanca, 1950 m, l. 1972, in coll. SMNS; \( \Phi \), Peru, Huanuco, Monzon, Tazo Chico, 2000 m, VI. 1973, leg. M. ROJAS, in coll. JHR n 12698; \( \Phi \), Peru, Huanuco, Este R. Huallaga, Pachitea Alta, 2600 m, 1.-24.III.[19]72, leg. M. ROJAS, in coll. JHR n 09667; \( \Phi \), Catasticta microsuasa i.l., Peru, Junin, Chanchamayo, THAMM, coll. STAUDINGER, suadela suasa var. B HOPFF., in coll. ZMB; other PTs from the same localities but different data in coll. JHR & SMNS.

**Description**

The HT in BMNH-T of *Catasticta nimbata* JOICEY & TALBOT, 1918 only bears “Peru ex coll. LE MOULT” as data. It agrees with specimens from southern Peru and Bolivia. It was described as a subspecies of the Colombian species *philone* by JOICEY & TALBOT (1918), and as a subspecies of *suasa* by BROWN (1939). It is unrelated to either, as evidenced by a comparison of their HW undersides. *C. nimbata* is therefore a good species in its own right, with its typical subspecies flying in S. Peru and Bolivia, and other subspecies covering areas further north in Peru and S. Ecuador. The only known \( \Phi \) has a white background with ample sepia submarginal bands which occupy the outer third of the FW.

ROBERT & REISSINGER considered the populations of central Peru, from Junin and Huanuco, as two different subspecies. Unfortunately from Chanchamayo only a few specimens are known and for the time being we consider only one subspecies for both areas although specimens from Chanchamayo are less dark.

**Diagnostic characters.** These are compared with *suasa*.

\( \Phi \). Upperside: wings sepia coloured instead of black, with submarginal spots and discal bands yellowish ochre, resulting from a mixture of yellow and sepia scales. FW submarginal band wider, occupying the outer third of the wing. HW with a small yellowish spot at the end of the cell which contrasts with the sepia background.

Underside: FW discal band and submarginal spots pale yellowish ochre, with the latter of irregular shape, bearing a narrow yellow stripe through their centre. HW post-discal band sepia tending towards purplish, with the same colour invading the extremity of the clear submarginal areas between yellow marginal triangles.

**25. Catasticta nimbata philobata subspec. nov.** (colour plate 10, figs. 77, 78)

HT \( \Phi \). *Catasticta nimbata philobata*, Peru, Amazonas, Rodriguez de Mendoza, 1500 m, 5.XI.1973, coll. Fr. KÖNIG, coll. SMNS-1, ER no 3237

Paratypes: 1 \( \Phi \), Environs de Loja, Equateur 1886, Abbé GAUJON, 32-21, ex coll. DOGNIN 1921, JOICEY bequest, Brit. Mus. 1934-120, in coll. BMNH; 8 \( \Phi \), Peru, Amazonas, Rodriguez de Mendoza, various data, in coll. SMNS-1 nos 6781–6788; 11 \( \Phi \), same data, in coll. TR; 2 \( \Phi \), same data, in coll. JHR; 1 \( \Phi \), Ecuador, Loja-Zamora, Quebrada Molinos, 2200 m; 1 \( \Phi \), Ecuador, Loja-Zamora, Quebrada Tapichalaca, 2300 m, in coll. TR; 7 \( \Phi \), Ecuador, 2200 m, Zamora-Chinchipe, Quebrada Molinos, X.1989, in coll. EMEM.

**Description**

\( \Phi \) from North Peru and South Ecuador, although similar to *C. nimbata pleione* subspec. nov., are larger in size, and distinct for the narrower greyish discal band of the upperside FWs. The populations from Loja area show a more black underground of upper surface so as the spots appear more whitish.
26. *Catasticta anaitis felicitas* subspec. *nov.* (colour plate 10, figs. 79, 80)

HT ♂. *Catasticta suasella felicitas*. Rodríguez de Mendoza, 1500 m, M. N. Peru, V.1985, leg. CALDERON, coll. SMNS-2, ER no 6757

Paratypes: 7 ♂♂ ♀♀, N Peru, Amazonas, Rodríguez de Mendoza, 1500–1700 m, different dates, in coll. SMNS-2.

Description

Northern Peruvian populations were considered to belong to *Catasticta suasella* RÖBER by ROBERT & REISSINGER. Indeed, notwithstanding the impressive resemblance of the upperside of wings with this species, the underside is without doubt that of *Catasticta anaitis* HEW. These two species were considered hitherto distinct, but they constitute only one polytypic species spread from Ecuador to Bolivia.

♂ is distinct from the nominotypical subspecies for the designs of the upperside of HWs which bears on the dark submarginal band a series of greyish spots shaped as inverted V.

The name of the new subspecies is dedicated to FELICITAS, the wife of FRITZ KÖNIG.

27. *Catasticta rileyi* yanganza subspec. *nov.* (colour plate 11, figs. 81, 82)

HT ♂, *Catasticta rileyi* yanganza. Ecuador or., Morona, Santiago, Gualaceo Limón (General Plaza), 2100–2400 m, 21–23.X.1977, legit L. E. PEÑA, coll. SMNS-2, ER no 6269.

Paratypes: 2 ♂♂, Ecuador or., Morona, Santiago, Gualaceo Limón (General Plaza), 2100–2400 m, 21–23.X.1977, legit L. E. PEÑA, in coll. JHR nos 20160, 20162: 1 ♂, Ecuador, Zamora, Chinchipe, Loja-Zamora, 1600–1700 m, 26.–28. X.[1977], leg. L. E. Peña; coll. JHR no 20191

Description

♂ It differs from the northern Peruvian populations for the reduction of the light spots on both upper and underside. The colour of the spots is yellowish, not whitish as in the nominate subspecies and are elongated not rounded. On the underside of the HWs the pattern of the submarginal band is irregular.

28. *Catasticta susiana* sebundoia subspec. *nov.* (colour plate 11, figs. 83–86)


Paratypes: 1 ♀, same data, no 6126, 1 ♂, same data, nos 6127, 6128, 2 ♂♂, 2 ♀♀, same data, in coll. JHR, nos 20306, 20307, 20308, 20304.

Description

The ♂♂ specimens from the Ecuadorian-Colombian border show on the upperside of FWs the discal band pale brownish, while the underside is similar to *C. susiana* amba BROWN, GABRIEL & GOODSON, 1940.

♂ Upperside: all light areas brownish with a suffusion of black scales on the discal band of FWs. Underside as in typical susiana except that the discal area is yellowish white. Arrow-shaped premarginal designs joined to the marginal yellow streaks.

♀ It has white designs typical of susiana. On the upperside HWs, small white yellowish premarginal arrow-shaped spots largely covered by black scales.
29. *Catasticta susiana galbinea* subspec. nov. (colour plate 12, figs. 87–90)


Description

♂. Upperside: all light areas whitish yellow with a suffusion of black scales on the discal band of FWs. Underside as in typical susiana except that the discal area is white with a faint yellow tinge. The ♀ has white designs and underside of HWs typical of susiana. Three white spots next to the end of the cell of the FWs well developed. On the HWs, small white premarginal spots arrow-shaped and densely covered with black scales.

30. *Catasticta chelidonis taminoides* subspec. nov. (colour plate 11, figs. 91, 92)

HT♂. *C. chelidonis taminoides*, Bolivia, Plazuela-Inquisivi, Circuata a Cajuata, 2400 m, 3.–5.XII.1984, leg. L. E. PEÑA, coll. JHR.


Description

Bolivian populations, between *chelidonis* in the Dept. of La Paz and *jacinta* in the Dept. of Cochabamba, in Dept. of Inquisivi, are distinguished by having all the light areas white instead of ochre or orange.

By comparisons to *chelidonis* and *jacinta*.

♂. Upperside: all light areas white except for an occasional flush on the HWs (which does not show up sometimes). Dark suffusion of the FW varying between that of *chelidonis* and that of *jacinta*. Underside identical except that the discal area is white with a faint yellow tinge. ♀ unknown so far.

31 *Catasticta ferra ferruginosa* subspec. nov. (colour plate 12, figs. 93, 94)

HT♂. Env. de Loja, Equateur, 1893, ex coll. DOGNIN, JOICHEY bequest, coll. BMNH-G, ER no 6285.


Description

♂. Upperside is similar to that of typical *ferra* but darker, the underside with less orange colour. The plumes of the underside of the HWs are on the distal half covered with brownish scales. The marginal yellow wedges well developed.

32. *Catasticta ferra putumayo* subspec. nov. (colour plate 13, figs. 95–98)


Paratype: AT ♀, same data, coll. JHR, ER no 9399.
Description

Only one pair is known. ♂. Similar to Ecuadorian ferrra, but the premarginal spots larger and rounded on the upperside of both wings and with well developed marginal wedges. Underside similar to ferrra. ♀. Whitish yellow designs on the upperside of both wings. Premarginal spots rounded on the FWs, wedge-shaped with a proximal black chevron on the HWs. Wide discal band on both wings. A narrow, long streak in the cell of FWs.

33. Catasticta terra orcus subspec. nov. (colour plate 13, figs. 99–102)


Description

♂ strongly melanic with suffusion of grey scales. All the designs of the upperside reduced and contrasted with the dark background. Marginal wedges on the HWs neatly evident.
♀ with greyish designs on both surfaces, with pale yellow marks on the underside of HWs.

34. Catasticta philais borgesi subspec. nov. (colour plate 12, figs. 103, 104)

Paratypes: A series from Venezuela, Tachira, Via Delicia, Quebrada Agua Blanca; idem, Quebrada La Chiquita, El Reposo, 2100 m, 20.IV.1983, in coll. JHR; 22 ♂♂, Venezuela, Tachira, Delicias, Matamulas. 1950 m, 2.I.1983, in coll TR (2 ♂♂ deposited in coll. EMEM).

Description

♂. The upperside of both wings as in typical philais. Underside: A broad yellowish stripe in the cell of FWs joined with the apical spot. Post discal spots more arrow-shaped inwardly than in philais. Anterior yellow wedges more pointed. HWs with the median band pale grey. Plumes neatly outlined, chevron between plumes and yellow wedges thicker.

35. Catasticta pinava lucida subspec. nov. (colour plate 14, figs. 105, 106)

HT ♂. Catasticta pinava lucida, Peru, Cuzco, Vilcanota, 3000 m, O. GARLEPP, coll. ZMB, ER no 3455.
Paratypes: 1 ♂, same data as HT, Catasticta pinava f. ??, det. F. M. BROWN, “a very light phase” in coll. SMNS-1 no 3456; 1 ♂, Peru, Puno, Oconeque, Carabaya, 7000 ft, dry s., July 1904, G. OCKENDEN, in BMNH.

Description

This new taxon differs from the typical subspecies from Bolivia as follows.
♂. Upperside: submarginal bands, FW discocellular spot and almost all its cell as well as a small basal area in the HW dark sepia, leaving yellow discal bands, moderately suffused with sepia scales except the HW space between vein 2A and the inner margin which is mostly free of such scales. Submarginal spots of irregular shape in the FW, small and arrow-shaped in the HW.
Underside. FW discal area light ochre in colour with yellow space between veins 2A and 3A wedge-shaped, 2 or 3 times longer (radially) than wide (transversally). Postdiscal band purplish-sepia in colour. Discal band with spaces between veins crossed by wide yellow stripes, and only slightly restricted in width in the cell.
♀♀ unknown, but those of nominotypical subspecies similar to the ♂♂, polymorphic in the colour of the discal band, light orange or white with various densities of dark scales suffusion.

36. **Catasticta incerta concerta subspec. nov.** (colour plate 14, figs. 107–108)


Paratypes: 14 ♀♂, same data as HT, in SMNS-1 nos 6105–6118; 1 ♂, Santa Ana, 1200 m, 20.V.[19]74, in SMNS-1 no 6119; 1 ♂, Ecuador, Tungurahua, Rio Blanco, 1600 m, 2.V.[19]71, JHR no 7790; 1 ♂, same data, 8.VI.[19]71, JHR no 7992; 1 ♂, Las Minas, 1600 m, 29.IV.[19]71, JHR no 6120; 1 ♂, Ecuador, Baños; 1 ♂, Ecuador, Yungilla 1600 m; 1 ♂, Ecuador, San Francisco, 1300 m; 1 ♂, Ecuador, Rio Blanco; 1 ♂, Ecuador, Rio Pastaza, all specimens in AMNH; 4 ♂♂, Ecuador, Napo, Cuyuja, 8 km S, 2150–2250 m, 3.V.1993, in coll. TR; 1 ♂, same data, 4 km S, 29.IV.1993, in coll. TR; 1 ♂, Baños; 2 ♂♂, Rio Blanco; 1 ♂, Mera in coll. TR.

**Description**

The populations from eastern central areas of Ecuador (Tungurahua, Napo, Pastaza) have the upperside of HWs light brown for the suffusion of black scales over both wings, and not distinctly orange as those of southern Ecuador. The series of submarginal spots of FWs are white and not yellow as in the nominate subspecies.

37 **Catasticta manco capac subspec. nov.** (colour plate 14, figs. 109–112)


Paratypes: 8 ♂♂, 2 ♀♀, Peru, Huanuco, N W Acomayo, Carpish, 2600 m, XI.—XII.[19]72; 1 ♂, Peru, Huanuco, Tingo Maria, Puente Durand, 1500 m, 12.I.[19]72; 1 ♂, Peru, Huanuco, Chaupiyunca, 1900 m, 25.I.[19]72; 8 ♂♂, 1 ♀, Peru, Huanuco, Pachitea Alta, 2500 m, 1.—24.III.[19]72; 2 ♀♀, Peru, Huanuco, Acomayo, 1800–1900 m, VIII.[19]73, in SMNS-1; 2 ♂♂, Peru, Junin, Chanchamayo, 7–1100 m, 15.X.1971, Ig. F. König, coll. SMNS-1; 1 ♂, same data, V.1971, Ig. F. König, coll. SMNS-1, 9 ♂♂, 2 ♀♀, Peru, Huanuco, Carpish, in coll. JHR.

**Description**

Central Peruvian populations are distinct for the darker surfaces of wings, especially on ♂ upperside HWs where there is only a light colouration in the anal area of HWs and the postdiscal spots appear faded with blackish scales.

♂: Upperside: submarginal bands, base, FW discoidal spot and most of the FW cell black. Discal areas and arrow-shaped submarginal spots grey, of highly variable intensity, except for HW space between vein 2A and the inner margin which is usually white. HW submarginal spots of variable size. Outer margins with small white wedges between veins in the FW, small white triangles in the HW. Underside unmistakable, HW with post-discal band practically absent and its black marks reduced to thin V-shaped lines; yellow stripes between veins so pale that they almost do not show up. ♀♀: same designs as ♂♂ but with all grey areas substitute by pure white. On FW the cell is white with large black area at the end of the cell. The submarginal white spots on the upperside of HWs are delimited inwardly by a complete black chevron. Underside of both wings as in the ♂.

38. **Catasticta manco reissingeri subspec. nov.** (colour plate 15, figs. 113–116)

HT ♂. [Peru, Cuzco], Tincochaca, 7000 ft, 9 August, 1911, Yale Peruv Exp., coll USNM.

Paratypes: 2 ♂♂, same data as HT, 1 ♀, same data, in USNM.
Description

This new subspecies differs from Bolivian populations. ♂ ♀ with broad white discal band on upper-side of both wings. In the ♀ the post-discal black band on the upperside of the HWs is missing, leaving a black marginal chevron. The black spot at the end of the cell of the FWs is reduced in size. The underside of both sexes shows faint designs. These specimens were reported by DYAR (1913).

_Hesperochoia_ REISSINGER, 1972

39. _Hesperochoia poujadei_ lamasi subspec. nov. (colour plate 15, figs. 117, 118)


Description

This taxon was proposed by ROBERT & REISSINGER as a ssp. of _C. eximia_ RÖBER. We consider both taxa conspecific with _C. poujadei_ DOGNIN.

♂. Upperside FW: with black background and with submarginal band formed by rounded yellowish spots obscured by black scales. Most of the cell black, leaving a triangular pale yellow spot. Four discal spots of different size. HW more brilliant yellow with black basal patch covering 30% of the cell. Black triangles on outer margin pointing outwards, shaping marginal yellow wedges. Black suffusion along the veins.

Underside FW pale yellow, with base, part of the cell, and submarginal band below M3 black. Arrow-shaped marginal and submarginal spots, yellow above M3, pale yellow below it. HW pale yellow background but appearing brighter yellow because of widening of all yellow stripes between veins. An ondulating black line separating marginal and submarginal spots.

40. _Hesperochoia chrysolopha_ adamsi subspec. nov. (colour plate 16, figs. 119–122)

HT ♂. _Hesperochoia chrysolopha adamsi_, North Colombia, Sierra Nevada de Santa Marta, Exped. M. J. ADAMS & G. I. BERNARD, W.end of Cebolleta, E. above San Pedro, 2900 m, 7 VIII.1972, coll. BMNH, ER no 6739.

Paratypes: 1 ♀, Colombia, Sierra Nevada, coll. STAUDINGER, in coll. ZMB; 1 ♂, Sierra Nevada de Sta Marta, 10000', in coll. ZMB; 1 ♀, same data, SMNS-1 no 6742.

Description

♂. The whitish yellow and ochre spots of the upperside of wings are less developed with respect to the nominotypical subspecies or Ecuadorian populations. The two examined ♀♀ are especially very melanic.

TAKAHASHI (1976) reports _Catasticta chrysolopha_ KOLLAR at Melloaca (2800–3000 m) on the Sierra de Santa Marta which should be related to this new taxon. It has been seen flying very quickly over páramo vegetation.

41. _Hesperochoia cora_ atahualpa subspec. nov. (colour plate 15, figs. 123, 124)


Paratype: 1 ♂, N Peru, [W Cajamarca], Contumaza, 2500 m, 18.V.1972, leg. KÖNIG, in coll. FK.
Description

♂. Differs from the nominotypical subspecies for the reduction of the premarginal spots on the upper-side of wings, especially of the HWs, where are faintly developed. On the underside of HWs, premarginal orange lines connected with the marginal lunules.

42. *Hesperochoia tomyris myris* subspec. nov. (colour plate 16, figs. 125, 126)


Paratypes: 2 ♂♂, same data, coll. JHR nos 13.555, 13.562; 1 ♂, Ecuador, Env. d'Ambato, BMNH; 1 ♂, Ecuador, Rio Verde, BMNH; 1 ♂, Ecuador, Santa Inez, BMNH; 1 ♂, Ecuador, El Rosario, BMNH; 1 ♂, Ecuador, Env. de Loja, in BMNH; 1 ♂, Ecuador, Rio Topo, V.1993, in coll. TR.

Description

In comparison with those of other subspecies, ♂♂ from Ecuadorian eastern Andes are characterised for the reduction of the discal and submarginal spots on the FWs on both sides, the whitish colour of the HWs and the smaller size in comparison with *C. tomyris subtomyris* Reissinger from North Peru. It appears to be a very scarce species in Ecuador.

43. *Hesperochoia tomyris subtamina* subspec. nov. (colour plate 17, figs. 127–130)


Paratypes: 1 ♂, same data as HT, in coll JHR no 3537 ER; 1 ♂, Merida, coll. Röber, in coll. ZMB no 3538 ER; 1 ♂, Merida, Haehnel, coll. Staudinger, tomyris Felder, in coll. ZMB no 3539 ER; 1 ♀, Merida, coll. Röber, tomyris, Ernst A. Böttcher, Berlin, e coll. O. Thieme, in coll ZMB no 3540 ER; 1 ♂, Merida, in BMNH; 1 ♂, Venezuela, Culata. 4000 m, in BMNH; 1 ♂, Venezuela, Pedregosa, in BMNH.

Description

♂ ♂ show the discal band of the HWs yellowish. The underside of HWs is typical with brilliant yellow. ♀ similar to ♂ with broader and white discal band of the HWs.

♂. Upperside. Black with white spots above discocellular patch, vestigial submarginal points, and a narrow discal band on FW. HW with wide submarginal band with vestigial spots, and a black basal area, leaving a wider white discal band with a constriction below the cell. This character is distinctive from other subspecies where such constriction is not so pronounced.

Underside. FW with white discocellular patch near its extremity and black submarginal band with white arrow-shaped submarginal spots below M3. Above it black on its inner border with four yellow marginal wedges and three yellow arrow-shaped submarginal spots. Discal band white. HW with yellow background colour, due mostly to the enlargement of yellow stripes between veins. Basal network underlined in black, postdiscal band reduced to black triangular marks pointing outwards, centred on the veins. Ondulating submarginal line with thickening where it touches the outer margin. ♀ similar to ♂♂, with more rounded apex of FW, wider white discal band in both wings.

*Leodontoia* Reissinger, 1972

44. *Leodontoia soccorensis cotopaxiensis* subspec. nov. (colour plate 17 figs. 131–134)

HT ♀. *Catasticta vulnerata cotopaxiensis*, Ecuador, Cotopaxi-Napo, Via Salcedo-Napo, Rio Mulatos, 2900 m, coll. SMNS-2, ER no 6405.

Description

*C. soccorensis* was described by Fassl (1915) who collected a single ♂ specimen on the summit of Mt. Socorro, 4000 m, western Colombian Cordillera. It is superficially similar on the upperside to *C. semiramis* Lucas and it was identified as such by D’Aubern (1981) as pointed out by Robert (1987). The underside is different from that of *semiramis* and approaching that of *C. cerberus* Goeman & Salvin. Both, *C. soccorensis* and *C. semiramis* are syntopic in Colombia and Ecuador. ♂♂ of this new subspecies differ from those of typical *soccorensis* in having the bands on upperside FWs reduced in size and with different shape. Also the markings on upperside HWs are reduced for the strong black suffusion over the spots.

One pair from Nariño, Colombia is considered to belong to this subspecies.

The hitherto unknown ♂ shows a background whitish colouration. On the upperside of FWs a series of submarginal triangular spots, a complete discal band and a square white spot at the end of the cell. A wide discal band on the HWs separated by a heavy black fascia from a series of submarginal spots. Triangular internervular yellowish marginal spots. Underside as in typical *soccorensis*.

45. *Leodontoia marcapita paucartambo subspec. nov.* (colour plate 18, figs. 133–138)

HT ♂. *Catasticta paucartamba*, Peru, Cu[zco], 15 Km NE Paucartambo, 3100 m, 3.11.[19]75, G. LAMAS, in coll. MJP, ER no 7015.

Paratype: 1 ♂, Bolivia, Yungas de La Paz, 1000 m, 16. September 1899. LEVICK bequest 1941-83, in coll. BMNH-L

Description

Only two specimens are known so far of this new taxon, one caught more than 10 years ago near Paucartambo, and another found in the BMNH.

In view of the close identity of the underside designs this was by Robert assigned to *roberti* which we consider as a ssp. of *C. marcapita* Robert.

♂ Upperside FWs dark brown with a full series of both triangular submarginal spots and marginal wedges between veins, both very light ochre in colour; a discal band occupying 20% of wing width, interrupted by veins and a dark basal area covering the cell except for a light spot at the end.

HW also dark brown with ochre semi-circular marginal spots between veins, a series of ochre sagittal markings occupying the submarginal area, between dark marginal arcs between veins, and a dark brown postdiscal band bounded by a light ochre zigzag line on the distal boundary which covers part of the cell, leaving an ochre discal band of about the same width as in the FW. Finally a dark basal area. Underside very similar to marcapita except for wing shape.

46. *Leodontoia semiramis salomon subspec. nov.* (colour plate 16, figs. 137, 138)


Paratype: 1 ♂, Ecuador, Gualaquiza, in BMNH

Description

Only two ♂♂ are available from southern Ecuador. They differ from Colombian *palla* for the duller colour of the upperside of the wings. On the upperside of FWs the discal band is composed by longer, rectangular spots. In the cell there is a long streak. On the HWs the premarginal spots are thinner and longer than in *palla*. 
47. Leodontoia amastris striata subspec. nov. (colour plate 18, figs. 139, 140)

HT ♂. Catasticta striata, Peru, Huanuco, Pachitea Alta, 2500 m, XI.1972, legit M. Rojas, coll. SMNS-1, ER no 3139.


Description

This taxon was considered by REISSINGER & ROBERT as a good species. We consider it conspecific with C. amastris Hew. for the very similar UNHW and for the vicariant distribution. Central Peruvian populations are different from the Bolivian amastris for the smaller size, apex of FWs more produced, larger and complete discal and premarginal bands on the upperside of both wings. On the underside of the HWs the discal band is more black so as the yellow post discal band is reduced in width.

♂. Upperside FW black except for greyish, triangular small submarginal spots, and a narrow greyish-white discal band, divided into separate spots by black veins, and dusted with black scales. HW with a very wide submarginal black band bearing barely visible grey dashes as submarginal marks; white discal band expanding in width at the inner margin, between the submarginal band and a black basal area.

Underside FW reproducing the design of the upperside but in dark grey and white, and a submarginal band bearing 5 yellow marginal rounded wedges, and 7 or 8 submarginal spots, generally triangular, coloured yellow near the apex and white in the rest of the series. HW yellow in the submarginal area, the discal band and in front of the subcostal vein; discal band fairly straight and regular in shape, between a dark basal area and an equally dark postdiscal area. This latter includes darker sagittal marks which cradles deeper yellow stripes, prolonged into the yellow submarginal area. Boundary between postdiscal and submarginal areas very clear and parallel to the outer margin; dark arcs between veins at the outer margin.

48. Leodontoia amastris batesi subspec. nov. (colour plate 18, fig. 141)


Description

Only one ♂ specimen in BMNH is known but it is so strikingly different that deserves separation. The locality “Tarapoto” is obviously wrong, being an Amazonian locality, but it may come from the mountains northwest of Tarapoto. It was proposed by REISSINGER & ROBERT under this name, but we changed it to avoid ambiguity on its type-locality.

♂. Same size of striata, apex of FWs not so produced, larger premarginal band on the upperside of FWs. On the upperside of HWs the discal white band is totally missing, and the greyish internervular premarginal streaks hardly visible. The underside of the HWs as in striata.

49. Leodontoia cinerea substituta subspec. nov. (colour plate 19, figs. 142, 143, 146,147)


Paratypes: 1 ♂. Equateur, 1885, Environs de Loja, Abbé Gaujon, 32. 21, ex coll. DOGNIN, 1921, Joicey Bequest, Brit. Mus. 1934-1201, BMNH; 1 ♀., Equateur, 1893, Environs de Loja, 32. 21, ex coll. DOGNIN 1921, Joicey bequest, Brit. Mus. 1934-1201, BMNH; 1 ♂, Env. d’Ambato, BMNH; 1 ♂, Ecuador, arialis Bov., BMNH; 1 ♂, Ecuador, Tungruahua, Sants, 1900 m, 12.V.1971, in coll. JHR no 8043; AT 1 ♀, Canelos, Ecuador, 800 m, in NHMW.
Description

The type-locality of C. cinerea Btl. claimed to be Ecuador is apparently erroneous and should be restricted to South Peru. ROBERT (1987) pointed out that all populations of cinerea can be distinguished from those of uricoecheae upon examination of UNHW. In uricoecheae the dark markings end on the margin of the wing in points, while in cinerea their marginal ending is blunt or rounded. Populations from southern Ecuador are distinct from other subspecies for the submarginal lunules which are sagittate, and rather vanished, more yellowish and elongated especially those near the anal angle which reach the same cell at the base of the wings.

♂♂ superfluously similar to those of C. semiramis but with wider greyish designs on the upperside of the wings and the submarginal spots of the HWs sagittate and longer. ♀♀ with bright discal red markings and submarginal yellow spots differing substantially from those of Peruvian ariadne for the broader discal band of the HWs, and larger premarginal and marginal yellow spots.

50. Leodontoia cinerea coerulescens subspec. nov. (colour plate 19, figs. 148, 149)

HT ♂. Catasticta cinerea coerulescens, E. Peru, Marcapata, 10800 ft, (OCKENDEN), coll. BMNH-R, ER no 6291.
Paratypes: 2 ♂♂, same data, in coll. BMNH-R.

Description

Although only three ♂♂ are available, this is a very highly characterized subspecies. The discal band is devoid of the dark grey suffusion of scales on the upperside of the wings so as all the designs are light on a dark background.

♂. Upperside FW with black submarginal bands bearing six grey submarginal spots, the last one joined with the discal band. Rest of wing grey, crossed by veins all heavily underlined in black, although the intermediary grey spaces remain at least as wide as the black vein underlining.

HW seven grey submarginal spots which form a band of irregular contours, crossed by cell veins underlined in black, and a grey round spot which occupies 2/3 of the cell. The inner boundary of the black submarginal band is almost straight on its upper part and curved inwards below the apex of the cell.

Underside: identical as in other subspecies of cinerea. FW dark sepia except for greyish-ochre arrow-shaped submarginal marks with yellow shafts, a narrow discal band made up of triangular spots and a light-coloured spot at the end of the cell, both greyish-ochre. HW discal band very narrow with very irregular boundaries; a very extensive dark basal area, dark purplish-grey in colour; postdiscal band of the same colour, with black marks between veins which cradle long, narrow yellow stripes running into the submarginal area. The latter is of a lighter shade of purplish-grey, limited externally by a black undulating marginal line. A pale grey line separates postdiscal and submarginal areas.

51. Leodontoia cinerea laurentina subspec. nov. (colour plate 20, figs. 150, 151)

HT ♂. Catasticta hollandi laurentina, Colombia (Sierra Nevada de Santa Marta), San Lorenzo (3000 m), Minca, leg. C. RODRIGUEZ, coll. SMNS-2, ER no 6231.
Paratypes: 1 ♂, same data as HT, in SMNS-2; 2 ♂♂, same data, in coll. JHR nos 22319, 22320.

Description

This is an isolated taxon in the Sierra Nevada de Santa Marta, quite diverse from other ssp. of C. cinerea Btl. but with a typical HWs underside.

The taxon hollandi AVINOFF, 1926, from Peña Blanca, Santander, Colombia, was considered by REISSINGER (1972) as a ssp. of C. cerberus GODMAN & SALVIN but this latter species has a shape of
wings totally different from that of *hollandi*. On the underside of the HWs the plumes end with a sharp point in *cerberus*, while in *hollandi* the plumes are rounded as in *C. cinerea*. For these reasons we treat *hollandi* as a subspecies of *C. cinerea* BTL.

♂️ Upperside FWs: black with light greyish spots. A row of sagittate grey premarginal spots parallel to the border. A series of discal grey spots smaller than those of *hollandi* and shaded with black scales. A small spot at the end of the cell. On the HWs discal band much narrower than in *hollandi*, yellowish white. A row of sagittate premarginal spots and small marginal dots.

Underside FW: brown-black with white and yellow spots, similar in pattern to those of *hollandi* but the band of premarginal greyish sagittate spots faded with the superimposition of yellow streaks. While the postdiscal area is similar as *hollandi*, the discal band is reduced in a series of longitudinal spots. The transverse yellow pattern is evident. Specimens have been seen flying on top of trees showing territorial behaviour.

52. *Leodontoia uricoecheae* *rodriquezi* subspec. nov. (colour plate 20, figs. 153, 154)


Paratypes: 1 ♂, same data as HT, in coll. SMNS-2 no 6341; 2 ♀♂, same data, in coll. JHR nos 23.017 23.015.

Description

These Colombian populations are easily distinguishable for the yellow spots.

♂️ Upperside FWs with a series of seven small submarginal spots. A series of discal spots of equal size and a large rectangular spot at the end of the cell. On the HWs all the designs are disappeared except in some specimens a faint series of very minute submarginal spots is present.

The underside of HWs are with greyish designs with superimposed yellow stripes, typical of *C. uricoecheae* C. & R. Felder.

53. *Leodontoia uricoecheae* *koenigi* subspec. nov. (colour plate 20, figs. 155, 156)

HT ♂. *Catasticta koenigi*, Peru, Rodriguez de Mendoza, 1500 m, VII.1972, coll. FK, ER no 3609.

Paratypes: 2 ♂♂, “Peru” in BMNH.

Description

There has been confusion in the past in the identification of specimens of *C. uricoecheae* and of the ♀♀ of *C. cinerea* BTL. In fact, this new taxon has been figured by D’ABRERA (1981) as *C. toppini*. Also the status of *C. vulnerata* was obscure. RACHELI (1996) compared a series of 12 ♂♂ from the neighborhood of Loja, and other 11 specimens from Ecuador with the HT of *vulnerata* in BMNH, and found that the populations from south Ecuador were conspecific with *C. uricoecheae*. This taxon, i. e. *vulnerata*, is characterised by the red basal area of the upperside of FWs, discal and submarginal spots yellow as well as the spot in the cell. It differs from *koenigi* which shows only the series of submarginal spots yellow, while all the other designs are red.

Although only one ♂ is known with reliable locality, *koenigi* is very characteristic among the several *uricoecheae* subspecies.

♂️ Upperside FWs with a series of submarginal yellow spots, a wide discal band which is extended to the basal area. Two small red spots at the end of the cell. Underside FWs with light red discal area differing from other subspecies where it is white or yellow. On the upperside of HWs the red designs are restricted to the base, to the middle of the cell and to the series of submarginal spots.
References


Colour plate 1

Fig. 1–4) *Catasticta nimbice ligata* subspec. nov.
Fig. 1, 2) HT ♀ (ER no 8157), Panama, Boquete, Oct. 1931, coll. CMNH.
Fig. 3, 4) AT ♂ (ER no 8158), Panama, Gatún, 19??, Dr. E. Harrower, coll. CMNH.

Fig. 5, 6) *Catasticta flisa melanisa* subspec. nov., HT ♂ (ER no 8219), Costa Rica, Turrialba, 27 V. [19]51, O. L. Cartwright, coll. USNM.

Fig. 23, 24) *Catasticta sisamnus smalli* subspec. nov., HT ♂ (ER no 8088), Panama, Darien, Cana, 400 m, VII.1981, G. D. Small, coll. USNM.
Colour plate 2

Fig. 7–10) *Catasticta flisa archoflisa* subspec. nov.
Fig. 7, 8) HT ♂ (ER no 8220), Panama, Darién, nr. Cana, 1000 m, 7.IX.1982, G. B. Small, coll. USNM.
Fig. 9, 10) AT ♀ (ER no 8221), Panama, Darién, nr. Cana, 1200 m, 20.IX.[19]82, G. B. Small, coll. USNM.

Fig. 11–14) *Catasticta flisa briseis* subspec. nov.
Fig. 11, 12) HT ♂ (ER no 3600), Venezuela, Aragua, Maracay, 1000 m, VII.1970, leg. F. Romero, coll. SMNS-1.
Fig. 13, 14) AT ♀ (ER no 3601), Venezuela, Maracay, Rancho Grande, 900 m, I.1964, leg. F. Romero, coll. SMNS-1.
Fig. 15–18) *Catasticta flisa flisoides* subspec. nov.
Fig. 15, 16) HT ♂ (ER no 8211), Colombia, Valle, Pichinde, 9.VI.[19]74, leg. L. Denhez, coll. USNM.
Fig. 17, 18) AT ♀ (ER no 8212), Colombia, Cali, Pichinde, 1500 m, 9.IX.[19]72, leg. L. Denhez, coll. USNM.

Fig. 19–22) *Catasticta flisa duna* subspec. nov.
Fig. 19, 20) HT ♂ (ER no 8346), Ecuador centr., Guayllabamba, 2150 m, 2.VI.1973, leg. N. Venedic-Toff, coll. SMNS-1.
Fig. 21, 22) AT ♀ (ER no 8216), Ecuador, Pichincha, La Kennedy, 2800 m, V.1969, R. De Lafebre, coll. AME.

<table>
<thead>
<tr>
<th>15</th>
<th>16</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>21</td>
<td>22</td>
</tr>
</tbody>
</table>
Fig. 25-28) *Catasticta sisamnus merida* subspec. nov.
Fig. 25, 26) HT ♂ (ER no 8089), Venezuela, Env. de Merida, 1901, BOURSEY, coll. MHNP.
Fig. 27, 28) AT ♀ (ER no 8090), Venezuela, Mts. of Merida, C. M. Acc. 4281, coll. CMNH.

Fig. 29-32) *Catasticta prioneris estancia* subspec. nov.
Fig. 29, 30) HT ♂ (ER no 3382), Ecuador, Tungurahua, Rio Estancias Oriente, 1400 m, 10.VI.1973, Lg. VELASTEGUI, coll. SMNS-1.
Fig. 31, 32) AT ♀ (ER no 3383), Ecuador, Tungurahua, Rio Blanco, 2200 m, V.1967, coll. SMNS-1.
Colour plate 5

Fig. 33-36) *Catasticta prioneris araguana* subspec. nov.
Fig. 33, 34) HT ♂ (ER no 3606), Venezuela, Aragua, Maracay, 1000 m, IX.1971, leg. F. ROMERO, coll. SMNS-1.
Fig. 35, 36) AT ♀ (ER no 3607), Venezuela, Aragua, Maracay, 1400 m, VII.1970. leg. F. ROMERO, coll. SMNS-1.

Fig. 37, 38) *Catasticta ctemene grisella* subspec. nov., HT ♂ (ER no 3194), Peru, Puno, Umg. Sandia, 1500 m, Grenzgebiet zu Bolivien, 1.IX.1973, leg. F. KÖNIG, SMNS-1

Fig. 47, 48) *Catasticta pharnakia styx* subspec. nov., HT ♂ (ER no 6092), Ecuador, Prov. Morona Santiago, 30 Km S. Mendez, (700–900 m), 19/21.X.1977, leg. L. E. PEÑA, coll. JHR.
Colour plate 6

Fig. 39–42) *Catasticta ctemene mariae* subspec. nov.
Fig. 39, 40) HT ♂ (ER no 6391), Colombia, Antioq., Rio Medellin, Caldas, 17.III.[19]74, lg. CARLOS E. RODRIGUEZ, coll. SMNS-1.
Fig. 41, 42) AT ♀ (ER no 3858), Colombia, Antioq., Envigado, 1800 m, 18.XII.1975, leg. CARLOS RODRIGUEZ, coll. SMNS-1.

Fig. 43–46) *Catasticta teutamis moyobamba* subspec. nov.
Fig. 43, 44) HT ♂ (ER no 8403), Peru, Amazonas, Rodriguez de Mendoza, VI.[19]83, leg. CALDERON, coll. SMNS-2.
Fig. 45, 46) AT ♀ (ER no 6840), Iquitos, Omaguas, 150 m, coll. SMNS-1.
Fig. 49–52) *Catasticta ludovici* spec. nov.
Fig. 49, 50) HT ♂ (ER no 6090), Ecuador m. or., Loja-Zamora, 1600–1700 m, 26.–28.X.1977, leg. L. E. Peña, coll. SMNS-2.
Fig. 51, 52) AT ♀ (ER no 9397), Equador, Zamora-Ch., Rio Las Dantas, (1800 m), 5.XII.[19]85, leg. M. Velastegui, coll. JHR.

Fig. 53, 54) *Catasticta radiata julita* subspec. nov., HT ♀ (ER no 3176), Ecuador, Tungurahua or., Rio Estancias oriente, 1400 m, 11.VI.1973, leg. Velastegui, coll. SMNS-1.

Fig. 55, 56) *Catasticta sella* spec. nov., HT ♂ (ER no 3471), Peru, Huanuco, Umg. Acomayo, Chuaypunca, 1950 m, 3.XII.971, leg. M. Rojas, coll. SMNS-1.
Colour plate 8

Fig. 59–62) *Catasticta frontina muehlei* subspec. nov.
Fig. 59, 60) HT ♂ (ER no 3715), Ecuador, Napo, Rio Azuela am Reventador, 1600 m, 8.I.976, leg. H. MÜHLE, coll. SMNS-1.  
Fig. 61, 62) AT ♀ (ER no 3716), Ecuador, Napo, Rio Azuela am Reventador, 1600 m, 8.I.[19]76, lg. REISSINGER, coll. SMNS-1.

Fig. 63–66) *Catasticta frontina zamorana* subspec. nov.
Fig. 63, 64) PT ♂ (ER no 9394), Equador, Zamora-Ch., Rio Esperanza, (1700 m), 2.XII.[19]85, leg. M. VELASTEGUI, coll. JHR.  
Fig. 65, 66) PT ♀ (ER no 9395), same data as in fig. 63, 64, coll. JHR.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>59</td>
<td>60</td>
</tr>
<tr>
<td>61</td>
<td>62</td>
</tr>
<tr>
<td>63</td>
<td>64</td>
</tr>
<tr>
<td>65</td>
<td>66</td>
</tr>
</tbody>
</table>
Fig. 67–70) *Catasticta philone patinoi* subspec. nov.

Fig. 67, 68) PT♂ (ER no 9402), Columbia, Caldas, Manizales, Monte Leon, 26.VI.1985, leg. SALAZAR, coll. JHR.

Fig. 69, 70) PT♀ (ER no 9403), Colombia, Caldas, Manizales, Bocatoma, (2300 m), leg. J. VELEZ E., coll. JHR.

Fig. 71–72) *Catasticta philone stabilis* subspec. nov. (ER no 3440), HT♂ (ER no 3440), Peru. Huanuco, Umg. Acomayo, Chaupiyunqua, 2000 m, 10.–15.XI.1971, leg. M. ROJAS, coll. SMNS-1

Fig. 57, 58) *Catasticta sella dognini* subspec. nov.

Fig. 57) PT♂ (ER no 6287), Equateur, Loja, San-Francisco, Aout [18]86, coll. BMNH (Photographed by B. D'ABRERA 77/78).

Fig. 58) HT♂ underside (ER no 6286), Equateur, Rivière Numbala, Aout 1885, Abbé GAUJON, coll. BMNH.
Fig. 73, 74) *Catasticta suasa pacis* subspec. nov., HT ♂ (ER no 8056), Bolivia, S. Jacinto, GARL., coll. ZMB.

Fig. 75, 76) *Catasticta nimbata pleione* subspec. nov.

Fig. 75) PT ♂ (ER no 6335), Peru, (Huanuco), Monzón, Tazo Chico, (2000 m), VI.1973. leg. M. ROJAS, coll. JHR.

Fig. 76) PT ♂ (ER no 6336), Peru, (Huanuco), Este R. Huallaga, Pachilea Alta,(2600 m), 1/24.III. [19]72, leg. M. ROJAS, coll. JHR.

Fig. 77, 78) *Catasticta nimbata philobata* subspec. nov., HT ♂ (ER no 3237), Peru, Amazonas, Rodriguez de Mendoza, 1500 m, 5.XI.1973, coll. F. KÖNIG, coll. SMNS-1.

Fig. 79, 80) *Catasticta anaitis felicitas* subspec. nov., HT ♂ (ER no 6757), M. N. Peru, Rodriguez-de-Mendoza, 1500 m, V. 1985, leg. KÖNIG, coll. SMNS-2.
Fig. 81, 82) *Catasticta rileyi yanganza* subspec. nov., HT ♂ (ER no 6269), Ecuador or., Morona/Santiago, Gualaceo-Limón, (General Plaza), 2100–2400 m, 21.–23.X.1977, legit L. E. Peña, coll. SMNS-2.

Fig. 83–86) *Catasticta susiana sebundoia* subspec. nov.
Fig. 83, 84) HT ♂ (ER no 6125), Ecuador, Napo, Sebundoí, 2600 m, Grenze Colomb., 11.–15.IX.1977, legit L. E. Peña, coll. SMNS-2.
Fig. 85, 86) AT ♀ (ER no 6126), the same data as in the HT ♂, coll. SMNS-2.

Fig. 91, 92) *Catasticta chelidonis taminoides* subspec. nov., PTs ♂♂, Bolivia, 2300 m, Plazuela, Inquisivi, Circuata a Cajuata, 3.–5. XII.1984, ex coll. J. Robert in EMEM, 2.VIII.1992, coll. EMEM.
Colour plate 11
Colour plate 12

Fig. 87–90) *Catasticta susiana galbinea* subspec. nov.
Fig. 87, 88) HT ♂ (ER no 6224), Peru, CU, 0–7 km E Buenos Aires, Rio Cosñipata, 2–2300 m, 6.XII.[19]79, G. LAMAS, coll. SMNS-2.
Fig. 89, 90) AT ♀ (ER no 6225), the same data as in the HT ♂, only 4.XII.[19]79, coll. SMNS-2.

Fig. 93, 94) *Catasticta terra ferruginosa* subspec. nov., PT ♂ (ER no 3255), Peru sept., Pedro Ruiz Gallo. 1500 m, XI.1973, FRITZ KÖNIG, coll. SMNS-1.

Fig. 103, 104) *Catasticta philais borgesi* subspec. nov. (ER no 6545), Venezuela, Táchira, Via Delicias, Quebr. Agua Blanca, 1900 m, 23.IV.1983, leg. G. BORGES, coll. SMNS-2.
Fig. 95–98) *Catasticta ferra putumayo* subspec. nov.
Fig. 95, 96) HT ♂ (ER no 9398), Columbia, Putumayo, Cabecera Río Putumayo, San Farancisco, Valle Sebundoy, (2300 m), 31.XII.[19]85, leg. J. VELEZ E., coll. JHR.
Fig. 97, 98) AT ♀ (ER no 9399), the same data as in the HT ♂, coll. JHR.

Fig. 99–102) *Catasticta ferra orcus* subspec. nov.
Fig. 99, 100) HT ♂ (ER no 9400), Columbia, Quindio, Mpio Salento, Finca Las Canarin, (2600–2700 m), 3.VI.[19]87, leg. J. VELEZ E., coll. JHR.
Fig. 101, 102) AT ♀ (ER no 9401), Columbia, Quindio, Mpio Salento, Cañon Río Quindio, (2700 m), 11.IV.[19]87, leg. J. VELEZ E, coll. JHR.
Colour plate 13

GO-5
3-VII-82 (2300 m)
San Francisco, Valle del Cauca
Euphydryas, COLUMBIA
leg. J. Velez E.

SUP
GO-6
3-VII-82 (2300 m)
San Francisco, Valle del Cauca
Euphydryas, COLUMBIA
leg. J. Velez E.

AR
GO-7
3-VI-87 (1400-2100 m)
Pintia L. Canarum
Myco. Selichira, Quindio
COLUMBIA
leg. J. Velez E.

SUP
GO-8
3-VI-87 (1400-2100 m)
Pintia L. Canarum
Myco. Selichira, Quindio
COLUMBIA
leg. J. Velez E.

INF
GO-9
3-VII-82 (2300 m)
San Francisco, Valle del Cauca
Euphydryas, COLUMBIA
leg. J. Velez E.

SUP
GO-10
3-VII-82 (2300 m)
San Francisco, Valle del Cauca
Euphydryas, COLUMBIA
leg. J. Velez E.

INF
GO-11
3-VI-87 (1400-2100 m)
Pintia L. Canarum
Myco. Selichira, Quindio
COLUMBIA
leg. J. Velez E.

SUP
GO-12
3-VI-87 (1400-2100 m)
Pintia L. Canarum
Myco. Selichira, Quindio
COLUMBIA
leg. J. Velez E.
Colour plate 14

Fig. 105, 106) *Catasticta pinava lucida* subspec. nov., HT ♂ (ER no 3455), Perú, (Pr. Cuzco), Vilcanota, 3000 M, 1898, O. Gärlepp, coll. ZMB.

Fig. 107, 108) *Catasticta incerta concerta* subspec. nov., HT ♂ (ER no 6104), Ecuador, “Tungo” [= Tungurahua], Rio Blanco, (1700 m), 5.V.[19]71, Coll: S. Velastegui, coll. SMNS-1.

Fig. 109–112) *Catasticta manco capac* subspec. nov.

Fig. 109, 110) HT ♂ (ER no 3574), Peru, Huanuco, Umg. Acomayo, Carpish, 2600 m, 19.–25.XII. [19]71, leg. M. Rojas, coll. SMNS-1.

Fig. 111, 112) AT ♀ (ER no 3575), Peru, Huanuco, Umg. Acomayo, Carpis, 2500 m, 10.II.1972, leg. M. Rojas, coll. SMNS-1.
Colour plate 15

Fig. 113–116) *Catasticta manco reissingeri* subspec. nov.
Fig. 113, 114) HT ♂, [Peru, Cuzco], Tincochaca, 7000 ft, 9 August, 1911, Yale Peruv Exp, coll. USNM.
Fig. 115, 116) AT ♀, the same data as in the HT ♂, coll. USNM.

Fig. 117, 118) *Hesperochoia poujadei lamasi* subspec. nov., HT ♂ (ER no 6139), Peru, Cuzco, Rio Cosnipata, Yanamayo, 2000 m, 4.–11.II.[19]75, G. LAMAS, coll. JHR.

Fig. 123, 124) *Hesperochoia cora atahuallpa* subspec. nov., HT ♂ (ER no 6993), Peru, Hda. Llaguen, ca. 2500 m, 13.XII.1952, leg. H. W. KOEPCKE, coll. ZSM.
Colour plate 16

Fig. 119–122) *Hesperochoia chrysolopha adamsi* subspec. nov.
Fig. 119) HT ♂ (ER no 6739), North Colombia, Sierra Nevada de Santa Marta, Exped. M. J. Adams & G. I. Bernard, W. end of Cebolleta, E. above San Pedro, 2900 m, 7 VIII.1972, coll. BMNH.
Fig. 120) PT ♂ (ER no 6740), Sierra Nevada de Sta Marta, 10000’, coll ZMB.
Fig. 121, 122) PT ♀ (ER no 6741), Columbia, S. Nevada, coll. ZMB.

Fig. 125, 126) *Hesperochoia tomyris myris* subspec. nov., HT ♂ (ER no 3355), Ecuador, Napo-Pastaza, Rio Oyacachi, Chaco. 1700 m, 11 XI.1973, Ig. Velastegui, coll. SMNS-1.

Fig. 137, 138) *Leodontoia semiramis salomon* subspec. nov., HT ♂ (ER no 6135), Ecuador, Pro. Santiago-Morona, Gualaceo-Limón (3000 m), 23 X.[119]77, leg. L. E. Peña, coll. JHR.

<table>
<thead>
<tr>
<th>119</th>
<th>120</th>
</tr>
</thead>
<tbody>
<tr>
<td>121</td>
<td>122</td>
</tr>
<tr>
<td>125</td>
<td>126</td>
</tr>
<tr>
<td>137</td>
<td>138</td>
</tr>
</tbody>
</table>
Fig. 127–130) *Hesperochoia tomyris subtamina* subspec. nov.
Fig. 127, 128) HT ♂ (ER no 3536), Venezuela, Edo Merida, Tal des Rio Albarregas, 2180 m, 15.I. 1971, H. HUBER, coll. SMNS-1
Fig. 129, 130) AT ♀ (ER no 3540), [Venezuela], Merida, coll. ZMB

Fig. 131–134) *Leodontoia soccorensis cotopaxiensis* subspec. nov.
Fig. 131, 132) PT ♂ (ER no 9416), Columbia, Nariño, El Rosal, 7 km de Puerres hacia Monopampa, 3100 m, 13.–14.IX.[19]87, leg. J. VELEZ E., coll. JHR.
Fig. 133, 134) PT ♀ (ER no 9417), the same data as in the PT ♂, coll. JHR.
Colour plate 18

Fig. 133–138) *Leodontoia marcapita paucartambo* subspec. nov.  
Fig. 133, 134) HT ♂ (ER no 7015), Peru, Cu[zco], 15 Km NE de Paucartambo, 3100 m, 3.11.[19]75. G. LAMAS, coll. MJP.  
Fig. 135, 136) PT ♂ (ER no 6294), Bolivia, Yungas de La Paz, 1000 m, 16. September 1899, coll. BMNH-L.

Fig. 139, 140) *Leodontoia amastris striata* subspec. nov., HT ♂ (ER no 3139), Peru, Huanuco, Pachitea Alta, 2500 m, Xi.1972, legit M. ROJAS, coll. SMNS-1.

Fig. 141) *Leodontoia amastris batesi* subspec. nov., HT ♂ (ER no 6293), Peru, Tarapoto, BATES, coll. BMNH-G.
Fig. 142, 143, 146, 147) *Leodontoia cinerea substituta* subspec. nov.
Fig. 142, 143) HT ♂ (ER no 6290), Ecuador, Tungurahua, San Antonio, coll. AMNH.
Fig. 146, 147) AT ♀ (ER no 6820), Ecuador, Canelos, 800 m, coll. NHMW.

Fig. 144, 145) *Leodontoia cinerea suprema* FASSL., 1915, ♂, Colombia, Antioquia, Oeste Medellin, Alto de Padre Amaya, (2800 m), 29.VIII.[19]76, leg. C. RODRIGUEZ, coll. JHR.

Fig. 148, 149) *Leodontoia cinerea coerulescens* subspec. nov., HT ♂ (ER no 6291), E. Peru, Marcapata, 10800 ft., (OCKENDEN), coll. BMNH-R.

<table>
<thead>
<tr>
<th>142</th>
<th>143</th>
</tr>
</thead>
<tbody>
<tr>
<td>144</td>
<td>145</td>
</tr>
<tr>
<td>146</td>
<td>147</td>
</tr>
<tr>
<td>148</td>
<td>149</td>
</tr>
</tbody>
</table>
Colour plate 20

Fig. 150, 151) *Leodontoia cinerea laurentina* subspec. nov.
Fig. 150) PT ♂ (ER no 6229), Colombia, Sa Nevada de Sta Marta, San Lorenzo, Minca, (3000 m), 6.I.[19]80, leg. C. RODRIGUEZ, coll. JHR.
Fig. 151) PT ♂ (ER no 6230), the same data as in fig. 150, coll. JHR.
Fig. 153, 154) *Leodontoia uricoecheae rodriguezi* subspec. nov., PT ♂ (ER no 6342), Colombia, Antioquia, Paramo de Belmira, (3000? m), 26.X.[19]80, leg. C. RODRIGUEZ, coll. JHR.
Fig. 155, 156) *Leodontoia uricoecheae koenigi* subspec. nov., HT ♂ (ER no 3609), Peru, Amazonas, Rodriguez de Mendoza, 1500 m, VII.1972. coll. FR. KÖNIG.
Addresses of the authors:

ULF EITSCHBERGER
Humboldtstr. 13a
D-95168 Marktleuthen

TOMMASO RACHELI
Department of Animal and Human Biology
University of Rome
Rome, Italy