
A NEW SPECIES OF *ARCAS* SWAINSON FROM COLOMBIA
(*LYCAENIDAE*)

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ABSTRACT

The Eumaeini Lycaenid *Arcas katia* sp.n. (Colombia, Chocó) is described. Its intraspecific relationships with other species of the genus are discussed.

Key words: Colombia, Neotropics, *Arcas*, speciation, new species.

INTRODUCTION

During comparative studies made on colombian Eumaeini for the Revista of Theclinae Colombianos, vol. 3, capture of some new material has been available through 1998-2000 from several places of this country. Among taxa, a distinctive species of *Arcas* is proposed herein.

NICOLAY (1971) first revised *Arcas*, recognizing seven species, five of which had been previously described in *Thecla*. Most Neotropical workers have been aware of other undescribed species of *Arcas* and, recently, various authors have added to our knowledge of diversity in this extremely handsome group of hairstreak butterflies. AUSTIN & JOHNSON (1995) treated species of *Arcas* from the Rondonia rain forest, Brazil, recognizing five species, three of which were described as new. SALAZAR & CONSTANTINO (1995a) and SALAZAR & CONSTANTINO (1995b) described two new *Arcas* species from Colombia.

Recently, Salazar discovered another divergent species of *Arcas* from San José del Palmar in the restricted and hydric Chocó area of endemism in Colombia. Interestingly, the only species close to this one is *Arcas delphia* Nicolay, 1971 of Costa Rica and Colombia which resembles the new Colombian entity in the small and distally detached forewing scent brand. However, aside from the distal location of this brand, its demeanor, that of the rest of the wing pattern, and the genitalia all are distinctive from *A. delphia* (the reduced dorsal iridescence, for instance, resembling only *Arcas cypria* (Geyer, 1837). Thus, to continue recognition of a new *Arcas* species from Colombia, we describe this new entity as follows:

DIAGNOSIS

Wings. Immediately recognized by reduced dorsal iridescence in male. FW with wide black borders in distal one-third surrounding blue green iridescence marked with a bold black ovate scent brand detached some 2-3 mm. distal the transverse vein of the discal cell (similarly located spot in *A. delphia* is obscure and grayish); HW with blue iridescence reduced to the basal one-half of the wing and bordered widely by black, including the surfaces of the elongate HW tails. Venter typical of the "tuneta Group" of *Arcas*, with medial band wholly black, basal edge showing little, if any, lighter basal border compared to golden-green basal iridescence; limbal area strewn with black overscaling much as in *Arcas jivaro* Nicolay, 1971 and *Arcas tuneta* (Hewitson, 1865).

DESCRIPTION

Holotype Male. Forewing = 20 mm., Upper surface of wings iridescent reduced green, hindwing with green highlights especially anteriorly., forewing with termen convex, margin black, broad at tornus expanding anteriorly and curving to costal margin. Androconial brand small, dark and with tear form, limited in their posterior border for a small skyblue spot. Between proximal spaces of C2, Cu1, M3,M2, M1, R3,R2 and R1+ Sc near to FW discal cell, a vestigious but refulgent "wax" brand is defined in this region and part of discal cell with mixed dark and green scales. Apex and subapex broad of black. Hindwing with very narrow black margin, no black submarginal lunules in CuA1-CuA2 and CuA2-2^a and only a very small spot scales of black are distinctive in CuA2. Long tail from end of CuA2 and shorter tail at end of CuA1 blacks, ribeted each of long green blue scales. Ventral surface of wings, apple iridescent green with a medial band wholly black, in the hindwing like "tuneta group", except its anterior and upper border with green-blue clear scales. Medial area spattered of black scales as a diffuse brand or isolated black scales scattered in the postmedial area. Zones of 3A, 1A + 2A venation and torax highly pilose with white hairs. Dorsal view of torax and abdomen like the wing colour pattern. Antennae black.

Holotype female. Forewing: 20 mm. Upper surface of wings as in *Arcas marginata* Austin & Johnson, 1995 but with broad black margins and some submarginal lunules in CuA2. Basal CuA2 lobe with iridescent blue green scales. Ventral surface of wings as the "tuneta groups" but in hindwing the medial band wholly black is more large and ribeted of a slender band of green-blue clear scales. Ventral surface of FW with the iridescence

limited only to subcostal margin and subapex. Tornus and lower medial area in greyish scales without iridescence.

Genitalia: The most obvious characters are in the unique shape of the valvae: which are only somewhat like *delphia* but with (1) a much more narrowly conical shape (narrowly cone-shape) at the valval base; (2) very narrow, somewhat elongate, caudal extensions, and (3) 1 and 2 above separated by an extremely indented, actually quite invaginated, angle.

TYPES: Holotype male, COLOMBIA, San José del Palmar, Chocó, 1000 m., 10 May 1990, leg. J. Salazar, deposited in coll. Salazar (CJASE), Manizales. Paratype male, Colombia, same data, 15 April 1995, deposited in AMNH. Paratype male, COLOMBIA, Santa Cecilia, Risaralda, 380 m., 4 April 1985, J. Vélez led. deposited in MHN-UC (No 151), Manizales. Paratype male, COLOMBIA, Dovio-upper Garrapatas river, Valle del Cauca, 700 m., 11 May 1997, J. Salazar leg. in coll. Salazar (CJASE), Manizales.

Paratype female, COLOMBIA, San José del Palmar, Chocó, 1000 m., 15 April 95. J. Salazar & E. Henao leg. deposited in coll. E. W. Schmidt-Mumm, Bogotá. Paratype female, COLOMBIA: San Juan river, 320 m., Jun 1980, C. Jaramillo leg. col. Salazar (CJASE), Manizales. Paratype female, same data, J. Salazar leg. Dec. 1982. col. Salazar (CJASE), Manizales.

ETYMOLOGY

The name *katia* referring to the native people of Katios that inhabit the forest areas of Chocó - Valle, and including also to Emberas and Cunas among others.

DISTRIBUTION

The species is known of region of Chocó and the Western slopes of Occidental Cordillera from Colombia.

HABITAT

Recorded in the tropical rain forest, flying in hilltop areas. A female was seen in the urban vicinity of San José del Palmar in early morning.

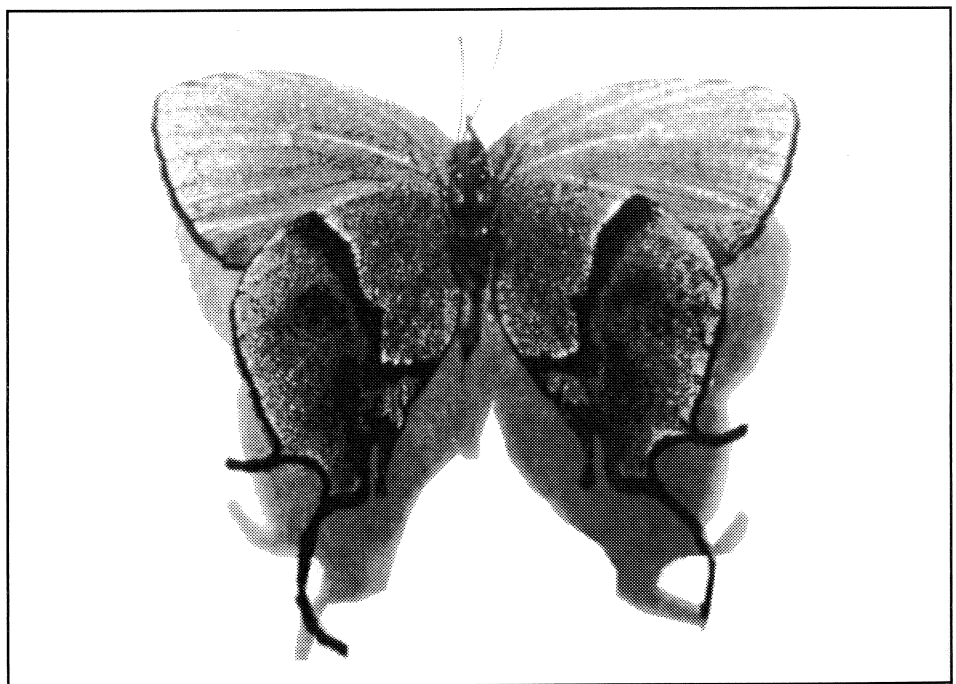
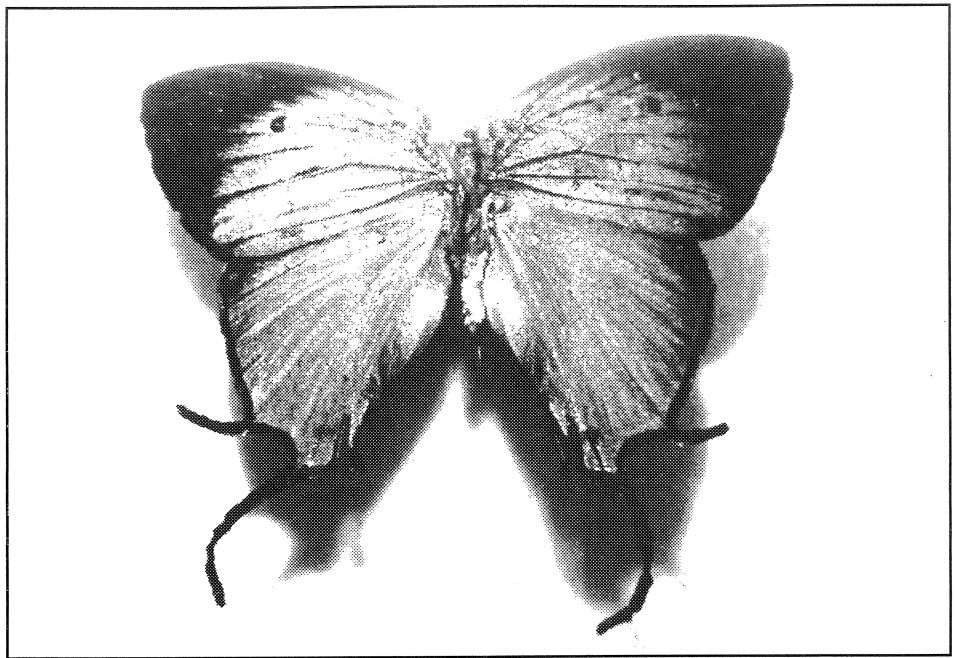
REMARKS

Arcas katia was placed by SALAZAR & CONSTANTINO (1995^a) like *Arcas jivaro* through the same material cited herein. Obviously *A. katia* belong to the "tuneta group"

but is isolated of *A. jivaro* recorded from Macas, southeastern Ecuador (NICOLAY, 1971; D'ABRERA, 1995), for the description and diagnosis cited above. *A. katia* is closely related to *Arcas delphia*, but its androconial brand and the reduced dorsal iridescence are different of *delphia* that occur in Colombia (Magdalena valley). *A. katia* is restricted to the Chocó region. Of the twelve species known of *Arcas* in the neotropics, in Colombia occurring seven, with this new species. According with AUSTIN & JOHNSON (1995) the distribution of *Arcas* from Mexico to southern Brazil (NICOLAY, 1971) consists of one widespread species (*A. imperialis* (Cramer, 1775)) encompassing nearly the entirety of this distribution, three additional species (*A. cypria*, *A. delphia*, and *A. splendor* (Druce, 1907)) occurring variably from central Mexico to Colombia, one species (*A. jivaro*) known only from Ecuador, and two species (*A. tuneta* and *A. ducalis* [Westwood, 1852]) in southeastern Brazil with *A. tuneta* extending northward in western South America to northern Peru. Five species occurring in Central Rondonia, Brazil and in Colombia seven, some of them with certain endemism: *A. nicolayi* Salazar & Constantino, 1995 and *A. katia* at western cordillera; *A. lecromi* Salazar & Constantino, 1995 at central cordillera; *A. delphia* and *A. cypria* at Magdalena Valley; *A. tuneta* at eastern slopes of east cordillera and the Amazon; and the widespread *A. imperialis* that occur in the tropical forest and the coffee belt of the Colombian Andean region. According with NICOLAY (1971) another species, *A. splendor* is limited to Panama and Costa Rica and no records are known for Colombia, except the type locality doubt. AUSTIN & JOHNSON (1995) have recently emphasized the importance of carefully examining all Theclinae for cryptic species, even among well-studied and well-marked groups like *Arcas* species, its possible have produced still additional species of the genus from that country.

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Figuras 1 y 2. Upperside and Underside of *Arcas katia* sp.n. Male. Upper Garrapatos River, Valle.

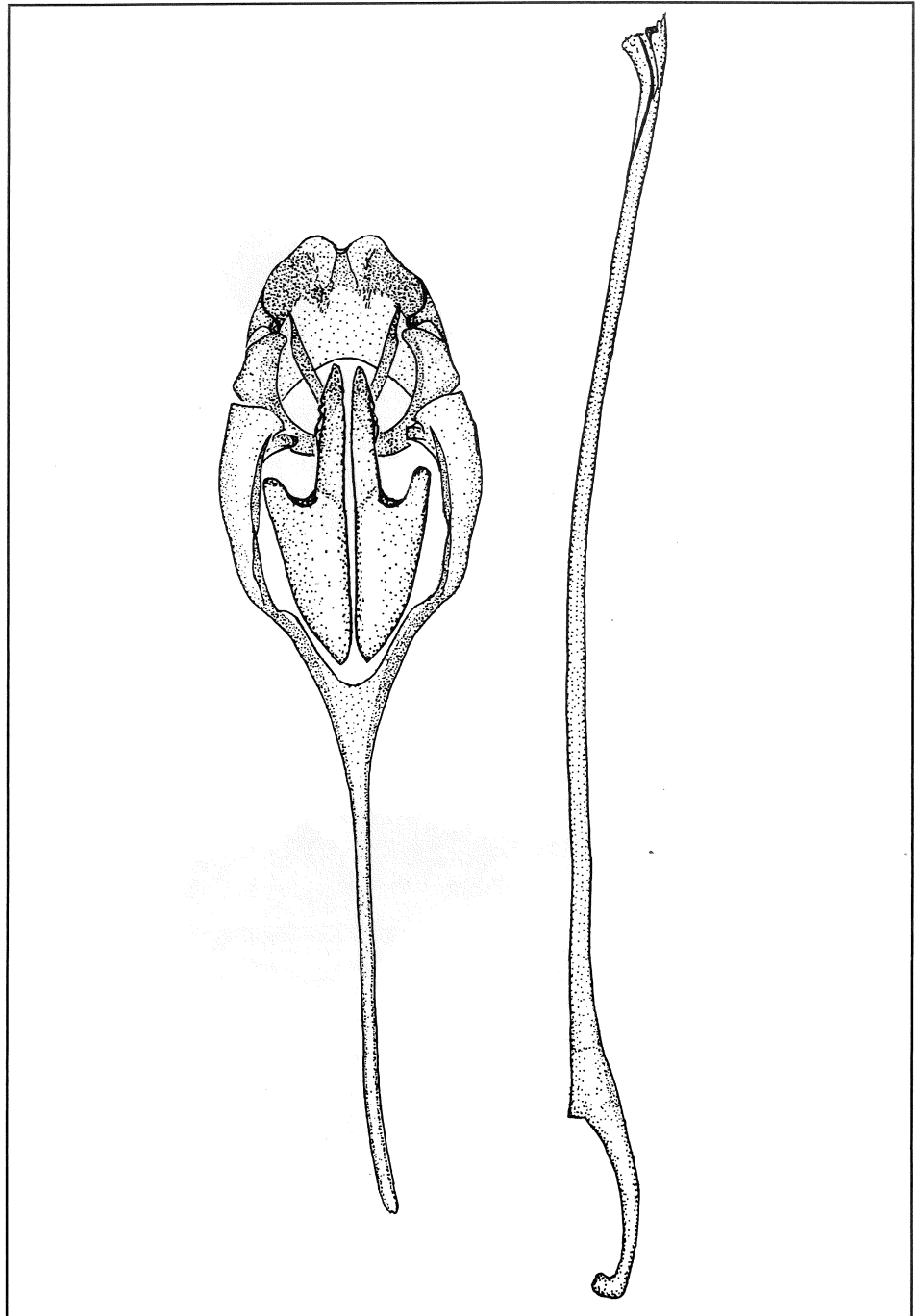


Figura 3. *Arcas katia* sp.n. Male genitalia ventral view with Aedeagus removed.