ISSN 0123 - 3068 bol.cient.mus.hist.nat. 15 (1): 224 - 230

BOLETÍN CIENTÍFICO
CENTRO DE MUSEOS
MUSEO DE HISTORIA NATURAL

IANUSANTA IANUSI, A NEW GENUS AND NEW SPECIES OF EUMAEINE LYCAENID BUTTERFLIES FROM THE ANDES (LEPIDOPTERA: LYCAENIDAE, THECLINAE)*

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Abstract

The new genus *Ianusanta* and the new species *Ianusanta ianusi* are described from the cloud forests of central Ecuador and northern Peru. The new genus is placed in the *Micandra* geneeric group based on its wing venation trait. The closest relatives of *Ianusanta* are those belonging to the *Brevianta* and *Micandra* genera, from which the new genus differs because of their dorsal wing coloration , androconia, and internal structures.

Key words: *Micandra* genus group, *Ianusanta ianusi*, new genus, new species, Ecuador, Peru, Andes.

IANUSANTA IANUSI, UN NUEVO GÉNERO Y NUEVA ESPECIE DE MARIPOSAS LICENIDAS EUMAEINI DE LOS ANDES (LEPIDOPTERA:LYCAENIDAE,THECLINAE)

Resumen

El nuevo género *Ianusanta* y la nueva especie *Ianusanta ianusi* se describe del bosque humedo nublado de Ecuador central y norte del Peru. Este nuevo género se encuentra ubicado en el grupo génerico de *Micandra* basado en su venación alar. Los parientes más próximos de *Ianusanta* son los pertenecientes a los géneros *Brevianta* y *Micandra*, de los que difiere por su patrón de coloración dorsal, androconia y estructura internas

Palabras clave: grupo genérico *Micandra*, *Ianusanta ianusi*, nuevo género, nueva especie, Ecuador, Peru, Andes

INTRODUCTION

The *Micandra* genus group is a diverse assemblage of neotropical Eumaeine lycaenid butterflies having the trait that the vein subcosta is very long and it ends almost in the same place as the vein radius 1, and this latter vein erects especially close to the wing basis. Beside other characteristics of the venation this peculiarity has been recorded for the species *Pseudolycaena platyptera* (Felder & Felder, 1865), selected as type species of *Micandra* (SCHATZ & RÖBER, 1892: 265). This curious venation was also remarked and figured in the study of ELIOT (1973), who created the "*Trichonis* section" for the genera *Micandra* and *Trichonis* Hewitson,

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1865 (type species: *Papilio theanus* Cramer, 1777). Partly on the basis of results published by CLENCH (1971) the tight relationship of *Micandra* and *Trichonis* was falsified by ROBBINS (1987) and later the "*Micandra* section" has been proposed for twelve genera (ROBBINS, 2004).

The *Micandra* genus group is relatively diverse having 149 species according to ROBBINS (2004), but the diversity is obviously higher (cf. BÁLINT & WOJTUSIAK, 2006; PRIETO *et al.*, 2008; BÁLINT *et al.*, 2010; SALAZAR, 2010). Most of the species dwell cloud forests in mountainous regions from México to Bolivia. Although sometimes it is easy to collect the imagines using bait traps, the *Micandra* genus group diversity has been revealed only recently in the Andes when new trails or tracks became available to reach unexplored areas. On the other hand there are genera or species which descend to lowlands or inhabit high altitude paramos and puna, therefore they are in need for different collecting methods. Probably these are the reasons why certain genera remained under represented or very rare in scientific collections up to the recent times. Hence many genera became monographed only just in the last decades (JOHNSON, 1992; PRIETO, 2008; PRIETO *et al.*, 2008; ROBBINS & BUSBY, 2008).

Here in this paper I describe a magnificent cloud forest species representing the *Micandra* genus group, which in male genital configurations, seems to be superficially close to *Micandra.* The species can be distinguished immediately from all the known *Micandra* species on the basis of male dorsal structural colouration and androconia, plus ventral wing pattern. Another genus is *Brevianta*, which seems to be even more closely related, because it has some superficially similar species; but representatives of *Brevianta* are markedly different in their genitalia and also in male androconia.

IANUSANTA Bálint, gen. n.

Type species: *Ianusanta ianusi* sp. n.

Diagnosis: Male foreleg used for walking with fused foretarsus (Lycaenidae), ten forewing veins, in lateral view "greyhound shaped" male genitalia without juxta (Eumaeini), veins subcosta and radius 1 are approximating each other at their termini (*Micandra* genus group), a forewing dorsal scent pad trapezoid in shape present in discalis apex without any additional androconial cluster (*Ianusanta*). Male wings dorsally blue with wide black margin, hindwing vein cubitus 2 terminus with short tail, tornus lobed. Wings ventrally brown with white submedian and postmedian lines running parallel from costa to anal margin in forewing, and with thin submedian and postmedian V-shaped pattern in hindwing; male genitalia flat in lateral aspect, valval terminal process with strong setae, adeagus with two cornutii, terminal dorsad-caudad one larger with bristles.

Diversity: Monotypic.

Etymology: The genus group name "Ianusanta" is composed from the Latin transliteration variant of the Polish name Janusz with the suffix "anta" making the name in rhyme with *Brevianta* and *Micandra*, genera in supposedly close

relationship. The species group name is similarly derived from Janusz; being Latinized and placed in genitive. The specific epithet is dedicated to Professor Janusz Wojtusiak (Jagiellonian University, Krakow, Poland) specialist of Neotropical erateine and tortricid moths, long time friend and collaborator of mine working in Neotropical lycaenid butterflies.

Notes: The genus *Ianusanta* intermediates the genera *Brevianta* and *Micandra* both in facies and anatomical details. The most conspicuous trait is the trapezioid shape of the forewing discal scent pad, which does not occur in any of the mentioned genera, but well recorded in the case of "Penaincisalia" (PRIETO, 2008). The genus *Penaincisalia* Johnson, 1990 (type species: *Thecla culminicola* Staudinger, 1894) belongs also to the relatives of *Micandra*, but in those species where trapezoid scent pad occurs there is always an additional scent patch at the erection of vein media 3 (BÁLINT & WOJTUSIAK, 2006). The genital capsula in lateral view is flat in *Ianusanta*, like in *Egides* Johnson, Kruse & Kroenlein, 1997 (type species: *Thecla aegides* Felder & Felder, 1865) but this latter genus posseses brush organ. *Egides* is considered to be a junior synonym of *Micandra* by ROBBINS (2004).

I do not speculate about the "phylogenetic" position of the genus, only I would like to point out that the type species has most probable a remarkable life history or it has a peculiar position in a community of lycaenids testified by the unique combination of the characteristic structural colour and androconia.

***Ianusanta ianusi* Bálint, sp. n.** (Figs. 1-4)

Type: HOLOTYPE male (ex collection König II, will be deposited in Naturhistorisches Museum, Wien), forewing length 20 mm, in moderate condition, set dorsally, left antenna and abdomen missing (abdomen dissected, and placed under the specimen on its pin in plastic microvial containing glycerin), labelled as (1) "Jorge Chavez [//], 1600 m, N. Peru [//], 200*3. XII.* [//] Coll. F. König (white paper, printed; characters in italics written with black ink by hand); (2) *Gen. n.* [//] *sp. n.* [//] gen. prep. No. *1096* [//] det. Zs. Bálint" (white label with black frame, printed; characters in italics written with blue ink by hand); the label "Ianusanta ianusi, February 2011, det. Zs. Bálint, Budapest" printed in red paper will be provided to the specimen.

Diagnosis: The species intermediates *Brevianta* and *Micandra*. Males can be immediately recognized on the basis of blue dorsal colouration (somewhat deeper or more vivid blue both in *Brevianta* and *Micandra*), the dorsal forewing scent pad in the discalis apex trapezoidal in shape and formed by minute brown androconia (no similar scent pad in *Brevianta* nor in *Micandra*), and the straight median and postmedian white tranverse lines running parallel (these are approximating and/or bent in *Brevianta* and *Micandra*).

Description – Male: Wings (Figs. 1-3): forewing length 20 mm measured from the erection of main veins to terminus of vein radius 3. **Shape** (Figs. 1-2): forewing costal margin slightly convex, distal and innner margin straight; hindwing costa, apex rounded, distal margin straight, vein cubitus 2 tailed, tornus with large lobe formed by elongated veins cubitus 2 and vannal 2; fringes on both wings formed by long white scales. **Dorsal surface** (Fig. 1): both wings with bright greenish blue colour strongly angle dependent; forewing discalis apex with scent pad trapezioid in shape

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and flat grey; hindwing anal area below vein cubitus 1 covered by long hairs. **Ventral surface** (Fig. 2): forewing ground colour reddish brown with straight transverse median and postmedian white line running parallel from costa to vein cubitus 2, intervenial area between veins cubitus 2 and vannal 2 grey with obsolete and oblique white median mark running basad from median line end to costa, submargin with white scale suffusion, margin darker brown with white antemarginal line very thin; hindwing similar in colouration to forewing but with thinner submedian and postmedian white V shaped line running from costa to anal margin with sharp angle break at vein cubitus 2, tornal lobe anally black otherwise reddish brown as ground colour. **Androconia** (Fig. 3): comprised by scent scales much smaller than ordinary colour generating scales, densely arranged and standing almost perpendicularly to wing membrane, long and narrow in shape with rounded apex, reddish brown in colour under larger magnification. **Body**: head with black scape and white pedicel, antennal club light brown, vertex with a tuft of long reddish brown and white scales, sclerite with brown and projecting scales, paraocular area white, labial palp also white; thorax and abdomen dorsally blue, ventrally reddish brown, legs inner side white. **Genitalia** (Fig. 4): aedeagus almost two times longer than genital capsule in lateral view, subzonal part with 1/3 entire aedeagus length, terminus with two cornutii: with larger and serrated dorsad-caudad cornutus and smaller and plain ventrad-cephalad cornutus; uncus strong with dorsad-cephalad scerotized rim; gnathos with thin terminal apiculus; tegumen with sclerotized lower edge and membranous process supporting aedeagus; vinculum sclerotized and narrow; saccus as long as its widest caudual edge; valva with subzonal aedeagus length, dorsal edge projecting dorsad with pointed sclerotized process approximately at middle and folding cephalad forming a pocket or deep rim, terminus with thin process projecting caudad and possesing strong setae.

Distribution: Geographical: known from central Ecuador (Macas, Morona-Santiago) and northern Peru (Jorge Chávez, Amazonas); spatial: collected at elevations 1440 m (Ecuador) and 1600 m (Peru); temporal: collected in January (Ecuador) and December (Peru).

Notes: The specimen selected here as *Ianusanta ianusi* holotype was sent to me in 2004 by Fritz König (Saalfelden, Austria) from his "Sammlung König II". I was also informed via having the images of the Sammlung König II Lycaenidae drawers that there were further two male *I. ianusi* specimens. I was unable to collect more information about these specimens as the correspondance between me and Herr König became disrupted by his illness.

The holotype is at present in the Hungarian Natural History Museum, but will be transferred to the Naturhistorisches Museum with the return of the Lycaenidae part of König Sammlung I, which is in loan in Budapest due to the colleagic support and generosity of the curator Dr Martin Lödl.

The species was collected recently and photographed also alive by the French lepidoptersist Pierre Boyer in central Ecuador.

Fig. 1. Holotype of *Ianusanta ianusi* Bálint, sp. n. in dorsal view.

Fig. 2. Holotype of *Ianusanta ianusi* Bálint, sp. n. in ventral view.

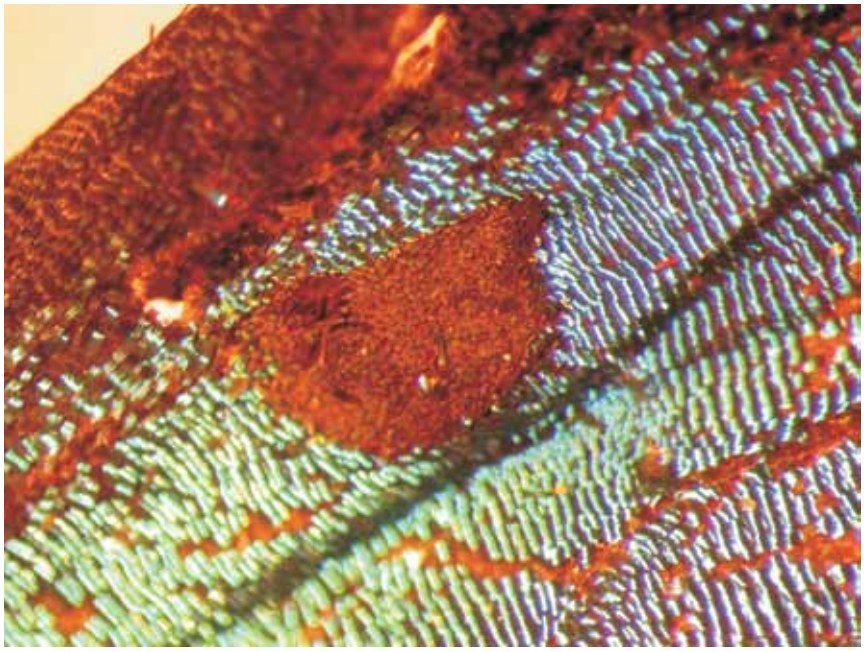

Fig. 3. Dorsal forewing scent pad of *Ianusanta ianusi* Bálint, sp. n. in the discalis apex comprised by androconia, surrounded by larger colour producing ordinary scales.

Fig. 4. Male genitalia of *Ianusanta ianusi* Bálint, sp. n. holotype in dorsal view.

ACKNOWLEDGEMENTS

I thank to Mr. Julián A. Salazar and to an anonymous reviewer for their comments on the manuscript. I express also my sincere thank to Mr. Pierre Boyer, who shared his knowledge about this magnificent species.

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