

---

# SYSTEMATIC AND TAXONOMIC NOTES ON NEOTROPICAL HAIRSTREAK LYCAENIDS IN CONNECTION TO THE GENUS *MEGATHECLA* (LYCAENIDAE: THECLINAE: EUMAEINI)\*



Zsolt Bálint<sup>1</sup>

## Resumen

Se revisa el género *Megathecla* ROBBINS, 2002 (un reemplazo no ético de *Gulliveria* BALINT, 2002). Se demuestra que el taxón *Papilio cupentus* STOLL (1780), asignado al género *Megathecla* por ROBBINS, no puede considerarse como una especie hermana de *Thecla gigantea* HEWITSON, 1867 (la especie típica de *Gullicena*). Se describe un nuevo género monobásico *Cupathecla* BALINT, gen. n. para *Papilio cupentus*. Se describe *Thereus wojtusiaki* BALINT, sp. n., demostrando que el color azul iridescente de la cara dorsal de las alas no es un carácter exclusivo del género "Megathecla".

## Palabras clave

Caracteres, *Cupathecla*, ética, Eumaeini, *Gullicena*, *Megathecla*, monofilia, Neotrópico.

## Abstract

The genus *Megathecla* ROBBINS, 2002 (an unethical replacement of *Gulliveria* BALINT, 2002) is reviewed. It is demonstrated that the taxon *Papilio cupentus* STOLL (1780), associated with *Megathecla* by ROBBINS cannot be considered as a sister-species of *Thecla gigantea* HEWITSON (1867), the type species of *Gullicena*. It is placed in a new, monobasic genus *Cupathecla* BALINT gen. n. *Thereus wojtusiaki* BALINT, sp. n. is described, to demonstrate that the iridescent "chalky blue" wing dorsum is not an exclusive character of "Megathecla".

## Key words

Characters, *Cupathecla*, Ethics, Eumaeini, *Gullicena*, *Megathecla*, monophyly, Neotropical.

\* Recibido el 30 de agosto de 2005, aceptado el 28 de septiembre de 2005.

<sup>1</sup> Department of Zoology, Hungarian Natural History Museum, Hungary.

"*Theca gigantea*", giant tree (type locality): Para, Brazil has been reported only from the Amazonian lowlands (Ecuador and Peru). According to LAMAS et al. (2004) it is known from "fewer than eight male" specimens. This report does not take into account three perfectly preserved male individuals from "Belém/Pará", deposited in the Formicier Collection of the Museum National d'Histoire Naturelle, Paris (Fig. 1). These specimens were purchased from Martin Braun, alias Hugo Charles Boy (1890-1937), a German naturalist who lived in Manaus, alias Charles Boy (1920-30s) (MOLNAR 1957: 72-73), plus many other collections on boy), and has been providing various European museums and individual collectors with natural history items directly or via the Staudinger Bang-Has film (HORN et al. 1990: 52). LAMAS et al. (op. cit.) also indicated that "the first known female of the extremely rare Amazonian species" was described from Peru, and that "many putative males were also seen, but only a single female was collected". The lectotype of *Theca gigantea* was designated from the symphytic material, also by LAMAS et al. (2004), who mentioned that *Megatheca* is not monotypic and includes *Theca cupreatus* (STOLL 1780); "even though it has distinct ventral wing patterns - because males of both species share a secret pad, sensu ROBBINS 1991", within the discal cell, similar genitalia . . . , and a similar hue of blue

The genus *Gulliveria* D'ABREIRA & BALINT, 2001 was described for this beautiful species in order to underline its status (D'ABREIRA 2001). It later appeared that *Gulliveria* was homonymous with a name used previously for fishes (Vertebrata: Apogonidae), therefore a replacement name - *Gullicacena* - was introduced by BALINT (November 2002). A lectotype was designated for the type species of the genus. The male genital structure of *Gullicacena gigantea* was briefly discussed. It was also pointed out that the female was found in Ecuador but remained undescribed (BALINT 2002).

Earlier the same year, ROBBINS (June 2002), proposed, without consulting the Commission of Zootaxonomical Nomenclature 1999: 124, The clauses of the Code of Zoological Nomenclature, Appendix A: Code of Ethics, point 3 (INTERNATIONAL CODE OF ZOOLOGICAL NOMENCLATURE, 1999) which no power for ruling, Ethics are however recommendations only with the Code of the International Commission of Zootaxonomical Nomenclature 1999: 124), The clauses of the Code of Ethics are however recommendations only with the power for ruling, consequently the genus *Megatheda* has priority over *Gullicacena* n. syn.

The butterfly described by HEWITSON (1867) as "*Thecla gigantea*", on the basis of (at least) two male syntypes, is a little known, exceptional species with apparently no closer relatives among Neotropical Lycaenidae.

## INTRODUCTION

Most recently, *Megathecla* was placed in the *Thestius* section by Robbins in LAMAS (2004: 126), as a genus closely related to *Bistonina* ROBBINS (2004) (type species *Thecla biston* MÖSCHLER, 1887). The basal taxon of the section is *Bistonina erema* (HEWITSON 1874) according to ROBBINS (2004), whereas the terminal species is an undescribed species of the genus *Lathecla* ROBBINS (2004) (type species *Thecla latagus* GODMAN & SALVIN, 1887) occurring, as indicated, in Brazil, in the State of Rio de Janeiro.

The present article has the following aims:

- (1) Notes on *Megathecla*, with the remark that that the lectotype designation of LAMAS *et al.* (2004) is invalid and the placement of *Papilio cupentus* in *Megathecla* is erroneous in the light of presented evidence, and that *cupentus* and *gigantea* are not sister-species.
- (2) Description of *Cupathecla* gen. n., a new monotypic genus with the type species *Papilio cupentus* STOLL (1780), as already proposed (*cf.* VANE-WRIGHT, 1975: 48) (Fig. 2), suggesting its closer relations to several species placed by Robbins in his genus *Bistonina*.
- (3) Description of a species characterised by „chalky iridescent blue” wing dorsum belonging to the *Thereus* section *sensu* ROBBINS (2004), proving by the same that the “similar hue of blue on the dorsal wings” is not a exclusive generic character for the lineages of *Cupathecla* and *Megathecla*.

In the forthcoming parts I cite only the authors of the species and genus-group names discussed in detail. In other, more general cases, the “Checklist of Neotropical Butterflies” edited by LAMAS (2004) can be consulted.

## 1. NOTES ON *MEGATHECLA*

The designation of the lectotype of “*Thecla gigantea*” by BÁLINT (2002) is valid, therefore the posterior designation of a “lectotype” by LAMAS *et al.* (*op. cit.*) was not justified. Interestingly, in both cases the same individual had been chosen as the lectotype, primarily because of the same reason: the selected syntype specimen possesses an abdomen! LAMAS *et al.* (*op. cit.*) published a drawing of *M. gigantea* male genitalia, unfortunately without offering any data about the dissected specimen. Considered that the genitalia were drawn by George Venable, a professional artist of the National Museum of Natural History of the Smithsonian Institution (Washington DC, USA), this is where the dissected specimen is probably deposited, or otherwise in the Museo de Historia Natural de la Universidad Nacional Mayor de San Marcos (Lima, Peru) (LAMAS *et al.*, *op. cit.*, p. 102).

The genitalia drawing of *M. gigantea* is correct, but it fails to show some details, such as the sclerotised *fultura inferior*, probably supporting

(c) "a similar hue of blue on the dorsal wings". I believe that this is the chalky tridescant blue, considered as typical for the genus *Bistonina* (ROBBINS 2004: 277). However, the same shade of blue can be found in a wide array of species representing not only the genera *Bistonina* and *Strymon* (examples given by Robbins) but also in other "genera" distantly related "sections". I did not examine the scale macrostructures of most of the mentioned taxa, but it seems very likely that this trait is

(b) „similar genitalia“. It is well documented how uniform the eumale/male genitalia are (NICOLAY 1971; 88; EJOT 1973: 440). The male genitalia of cupenatus and *Gigantaea* are nevertheless qualitatively different in the following respects: *Gigantaea* has a sclerotised inferior flitura, contrary to cupenatus, *Gigantaea* has a small adedagal dorsal cornutus, contrary to cupenatus, in *Gigantaea ventral cornutus reaches the adedagal opening, whereas in cupenatus ventral cornutus is restricted to the basal part.* (Fig. 3b). Consequently, the similarity of their male genital structures is very superficial and does not support any sister-species relationship.

(a) males of both species share a scutell pad, *sensu* ROBBINS (1991), within the discal cell". This generalised statement is not a valid taxonomic argument, as there are several emarginate genera with similar, large scutell pads "sensu Robbins", in the forewing discal cell (just to mention a few in alphabetical order: *Bistonina*, *Contracaria*, *Magnastigma*, *Mouus*, *Ocata*, *Rekoa*, etc.). The cupellatus and gigantula scutell pads are covered with differentially pigmented and arranged scutell pads, whereas congeneric or monophyletic taxa generally have qualitatively similar scales in their scutell pads (*cf.* *Penninopsis* genus group), with some exceptions (*cf.* ROBBINS 1991; *Rekoa*, *BALINT*, *CONSTANTINO* & JOHNSON: *Aulides*). *M. gigantula* has uniform black scutell scales in its scutell pad, and additonally, large postdiscal intercellular scutell patches made up by structurally similar scales (*cf.* Fig. 1). These characters are qualitatively different from cupellatus, which lacks any scutell patches, and instead has a large disco-cellar scutell pad covered with brown scales (cf. Fig. 2), thus the *cupellatus* and *gigantula* scutell pads are not sympomorphic.

The aedeagus from the ventral side of medial vinctulum, I present here a digital documentation of the ectotype male genitalia (Fig. 3). As already stated, *Papilio cupreus* STOLL (1780) was transferred to *Megatheda* without any explanation by ROBBINS (2002). LAMAS et al. (op. cit.) also used the combination *Megatheda cupreus* and presented three arguments that I cite below in quotation marks. None of them supports the monophyly of *cupreus* and *gigantea*.

a simple convergence. It has to be pointed out that *cupentus* and *gigantea* have different blue shades, differing from *Thereus gabathuna*, given as an example (see below). Moreover, the dorsal wing colour of *cupentus* females is somewhat variable. I examined several specimens with intense metallic hue, and others with approximately the same dorsal blue as their males.

- (d) Ventral wing patterns of *cupentus* and *gigantea* are qualitatively distinct, as pointed out by LAMAS *et al.* (*op. cit.*). There are some superficial similarities: *cupentus* possesses a ventral forewing medial line extending to the tornal area where it joins the submarginal white line: *gigantea* lacks this pattern, and instead has a discoidal patch (not apparent in *cupentus*) and a submedial line comprised within black intercellular lines running to the anal margin, more or less parallel, broken basally in cell Cu-A2. The hindwing ventral pattern of the two taxa is also totally different: *cupentus* (which has a typical pattern for the eumaeines) has a white transverse medial line, which can be divided into an upper and a lower part, forming a discoidal oval pattern, as the two parts run parallel in that area but not merge; *gigantea* hindwing venter has the same medial pattern as in its forewing; *cupentus* hindwing pattern in submarginal and marginal areas are also typical eumaeine with white intercellular blotches plus the tornal "Thecla spot" in the cell CuA2; *gigantea* is poorly patterned with only a row of submarginal black lines, but the tornal "Thecla spot" is also developed. Similar wing shape, venation and pattern in many cases are reliable indicators for close relationship in eumaeines (cf. *Arcas*, *Calycopis*, *Ipocia*, *Macusia*, *Thecloxurina*, etc.). The wing shape and venation of *cupentus* and *gigantea* are qualitatively different. The ventral wing pattern of *cupentus* and *gigantea* are also qualitatively distinct, therefore these traits are also indicating that the two taxa are not closely related.

Consequently, I consider the combination *Megathecla cupentus* (STOLL, 1780) LAMAS, RAMÍREZ & ROBBINS (2004) to be erroneous, and I transfer the taxon *cupentus* to a new monobasic genus described below.

## 2. Description of *CUPATHECLA* Bálint, GEN. N.

Type species: *Papilio cupentus* STOLL, 1780

Diagnosis and characters: Medium sized (most examined individuals are medium sized; fore wing length from erection of the cubital vein to radial vein R5 less than 17 mm (n = 20), but two individuals are considerably smaller (fore wing length less than 12 mm); dorsally typical eumaeine lycaenid pattern with structural blue colour and large scent pad in male forewing

The systematic position of *Megatheda* is unresolved because of its particular androconia, male genitalia and wing pattern. I doubt that *Megatheda* is a sister-group of *Bistonina* as indicated by Robbins, it belongs to the "Thesitina section". The monophyly of *Thesitina sensu* Robbins is also questionable, if *Th. pholeusis* the basal taxon. *Papilio lycidas* and its undescribed sister species have some traits resembling *Cupatheda* (scut pad and ventral wing markings). I argue that the genus *Thesitina* must

Previous placement of cupenatus in *Thecda* (WESTWOOD 1852 and other workers) and *Theretus* (D'ABREU 2001) were based on homoplasious wing character states. Interestingly, ROBBINS (2004: 277) stated that he had problems with the placement of *Bistonina*, but he temporarily classified *Bistonina* within the genus *Thesitius* section genera (ROBBINS 2004: 126). A thorough character analysis of *Bistonina* have closer relationship to *Theretus*'s, that *Cupathecla* and *Bistonina* have male legs are *Bistonina*-like hairy, however, considered that the *Cupenatus* male genital duct, the placement of *Bistonina* and the female has a *Bistonina*-like genital duct, the placement of *Bistonina* and *Cupenatus* in the *Thesitius*-genus group is well supported.

Remarks. On the basis of the female genital duct, which is a short simple plate-like tube with heavily sclerotised margins extending from the ventral part of the 9<sup>th</sup> abdominal segment (genital opening) to the 8<sup>th</sup> in a unique position (the seminal duct is almost reaching the inner dorsal side of the 8<sup>th</sup> segment), plus the male legs with fur-like specialised long scales, I argue that *Cupatoceras* is closely related to *Bistonina*, which has an unsoved placement in the *Thestini* section (ROBBINS 2004: 277). This putative affinity is also supported by the *open-tus*-like scutal pad of *Bistonina*, which is surrounded by black scutal scales in the discal cell (Fig. 7).

discal cell and lacking postdiscal secret patches; ventral wing pattern and shape also typical emarginate with vertical and transverse, roughly linear white median line, and undulate, white submarginal line; hindwing vein CuA2 terminus with a long, whereas vein CuA1 with short terminal tail-like extension, tornal area with large typical emarginate "Hecala spot" in intercellular space flattened tube giving, laterally apperaring as a simple, elongate upcurving plate (Fig. 4); (2) a circular secret pad covering 2/3 of the apical discal cell, placed in a cavity, with very small and tuft sided, rufous scales; basal part of the discal cell covered with scales generates gennarating pale, not gennating blue structural colour (Fig. 5); (3) unusual pattern of the hindwing venation in the discal cell (Fig. 6). Vein M<sub>1</sub> in the discal cell and running to the tornal area, these two lines create an oval but open pattern in the apex of the hindwing discal cell (Fig. 6).

be restricted to the species *meridionalis*, *pholeus*, *selina* plus *feminalis* (the latter considered as an individual form by Robbins).

*C. cupeatus* has a wide distribution in South America, extending from southern Mexico to Paraguay and south-eastern Brazil in subtropical and tropical areas.

### 3. Description of *Thereus wojtusiaki* Bálint sp. n. (Figs. 8-12)

**TYPE MATERIAL:** Holotype, male, deposited in the Zoological Museum of the Jagiellonian University. The specimen is in moderate condition, set dorsally, both hindwings damaged near tornus; the abdomen has been dissected and is stored apart, pinned to the specimen in a plastic microvial. Forewing length from the base of cubital vein to vein R5 end is 18 mm. The specimen is labelled: (1) "ECUADOR // Prov. Pichincha; (vía) Tandapi / / 2800 m; 02.2002. // coll. J. Wojtusiak." (white paper, printed letters); (2) gen. prep. no. 1081, Zs. Bálint, Budapest (white paper, printed letters); (3) "Holotype // *Thereus* // *wjtusiaki* Bálint" (red paper, printed and/or hand written letters).

**DIAGNOSIS AND DESCRIPTION:** The phenotype is typical for *Thereus* genus group of the eumaeines (*cf.* JOHNSON 1989 and 1990; ROBBINS 1991) with a wide dorsal fore wing shape (margins are almost equal in size), most of the costal and marginal areas are covered with black scales but basal, medial and submedial areas possess an unusual iridescent chalky blue colour. The male possesses a large scent pad situated in a cavity and also a large postdiscal flat scent patch. The scent pad and the patch scales are different in their structure and pigmentation. Hind wing shape is also typical for an eumaeine with filamentous tail like extension at vein termini Cu1 and Cu-A2, with the eumaeine tornal "Thecla spot", otherwise similarly coloured as that of fore wing. Ventrally, the species possesses a typical chocolate brown ground colour and a reduced pattern in both of the wings, but the typical "*Thereus*" elements (white transverse median line and submarginal line with hind wing tornal orange coloured and black pupilled "Thecla spot") are present. The male genitalia is also typical for the "*Thereus*-section" as defined by Johnson and Robbins (*J.c.*).

Superficially, the closest taxon seems to be *Thereus gabathana* (STRAND, 1918) ROBBINS, 2004 [unsupported combination] (BMNH no. 701320, holotype: "Colombien"; examined, The Natural History Museum, London), but it differs from *Th. wojtusiaki* by the following traits: (1) dorsal wing ground colour is deep but chalky blue (lighter in *Th. gabathana*) (Fig. 8); (2) sides of the male forewing dorsal scent pad cavity are also covered with black scales (brown in *Th. gabathana*) (Fig. 10); (3) fore wing outer margin is slightly convex (straight in *Th. gabathana*); (4) ventral wing ground colour is

of this paper, were supported by projects co-ordinated in Hungary (OTKA 49972) and the European Community (Workpackage I, FP6-2003-Nest-A, Biophor 31810).

I wish to thank an anonymous reviewer for pointing out and correcting some superfluous statements of an early version of the manuscript. I thank also my Austrian, English, French and Polish colleagues of the International Association of Museums and Institutions for their relentless support. My cordial thanks are due to Julian Salazar, the editor of the bulletin, who took the burden to edit my paper.

## ACKNOWLEDGMENTS

REMARKS: I place the new species in the genus *Thereus sensu ROBBINS (1991)* based on the male the genital brush organ supported by a sclerotised (1991) base of the dorsal edge of the viculum. The systematics of the genus *Thereus* proposed by Robbins is not satisfactory. In this vast assemblage of taxa there are megaeages worth recognising as separate genera, some of them already named by K. Johnson. Moreover, several taxonomic statements are grossly incorrect, for example concerning *Papilio ismarus* and *P. phalaenoides* considered to be synonyms (Baillet, in prep.).

ETYMOLOGY: The species is dedicated to Dr. Janusz Wojsniewski, head of the Zoological Museum of the Jagiellonian University, Kraków, Poland.

and more sclerotised, apparently fused basally (Fig. 10).  
long dorsal cornutus which is slender and curved; ventral cornutus is shorter and more sclerotised, apparently fused basally (Fig. 10).  
*Th. gabathuna*). Male genitalia are typical of the genus *Thereus* (cf. ROBBINS 1991) with a heavily sclerotised dorsal vicellarium supporting the brush organ; appendix angularis is also sclerotised and large; aedeagus with a very wide pattern with parallel white submedian and submarginal lines (merging in chocolate brown (greyish brown in *Th. gabathuna*) (Fig. 9); (5) ventral fore

## BIBLIOGRAPHY

- BÁLINT, Zs., 2002.- *Gullicaena* nom. n. for *Gulliveria* d' Abrera et Bálint, 2001 (Lepidoptera: Lycaenidae), with notes on the type species of the genus.  
- *Folia entomologica hungarica*, 63: 135-138.
- BÁLINT, Zs., 2005.- Seven Words, Another "Author's Note" and Two Questions on the Neotropical Butterfly Checklist. - *Lepidoptera News* 2005, in press.
- BÁLINT, Zs., CONSTANTINO, L. & K. JOHNSON, 2003.- *Atlides dahnersi* sp. n. from Colombia (Lepidoptera: Lycaenidae). - *Folia entomologica hungarica*, 64: 251-266.
- D'ABRERA, B., 2001.- *The Concise Atlas of Butterflies of the World*. - Melbourne/London: Hill House Publishers, 353 pp.
- ELIOT, J. N., 1973.- The higher classification of the Lycaenidae (Lepidoptera): a tentative arrangement. - *Bulletin of the British Museum (Natural History), Entomology*, 28: 371-505.
- HEWITSON, W. CH., 1867.- *Illustrations of diurnal Lepidoptera. Lycaenidae*. - London: John Van Voorst, (3): 77-114, pls 31-46.
- HORN, W., KAHLE, I., FIRESE, G. & GAEDIKE, R., 1990.- *Collectiones entomologicae*. - Berlin: Akademie der Landwirtschaftswissenschaften der Deutschen Demokratischen Republik, pp 1-220 (Teil I), 221-573 (Teil II).
- JOHNSON, K. 1989.- A Revisionary Study of the Neotropical Hairstreak Butterfly Genus *Noreena* and Its New Sister Genus *Contrafacia* (Lepidoptera: Lycaenidae). - *Journal of the New York Entomological Society*, 97: 11-46.
- JOHNSON, K. 1990.- A New Hairstreak Butterfly Genus *Orcya*, A Revision of the Neotropical "Thecla" "orcyna" Assemblage (Lepidoptera: Lycaenidae). - *Journal of the New York Entomological Society*, 98: 50-87.
- INTERNATIONAL COMMISSION OF ZOOLOGICAL NOMENCLATURE, 1999.- *International Code of Zoological Nomenclature. Fourth edition, adopted by the International Union of Biological Sciences*. - London: International Trust for Zoological Nomenclature, c/o The Natural History Museum, xxx + 306 pp.
- LAMAS, G., 2004.- *Checklist of Neotropical Lepidoptera, Part 4A, Hesperioidea - Papilioidea*. In: Heppner, J. (ed.), *Atlas of Neotropical Lepidoptera*. - Florida, Gainesville: Association for Tropical Lepidoptera, xxiv + 439 pp.
- LAMAS, G., RAMÍREZ, J.-J., & ROBBINS, R. K., 2004.- The first known female of *Megathecla gigantea* (Hewitson, 1867) (Lepidoptera: Lycaenidae: Eumaeini). - *Revista peruana biológicas*, 11: 99-102.
- MOLNÁR, G., 1957.- *Kalandok a brazíliai öserdőben* [Adventures in the Brazilian jungles]. - Budapest: Gondolat, 323 pp.
- NICOLAY, S., 1971.- A review of the genus *Arcas* with descriptions of new species (Lycaenidae, Strymonini). - *Journal of the Lepidopterists' Society*, 25: 87-108.
- ROBBINS, R. K., 1991.- Evolution, comparative morphology, and identification of the eumaeine butterfly genus *Rekoa* Kaye (Lycaenidae,



- Theclinae). - *Sminthosian Contributions to Zoology* 498, 1-64.
- ROBBINS, R. K., 2002. Replacement Names in the Eumaeini (Lepidoptera: Lycaenidae: Theclinae). - *Proceedings of the Entomological Society of Washington*, 104: 820-821.
- ROBBINS, R. K., 2004. Tribe Eumaeini, pp 118-137. In: Lamas, G. (ed.), 2004. Checklist of Neotropical Lepidoptera, Part 4A, Hesperioidae - Papilionoidea. In: Heppner, J. (ed.), *Atlas of Neotropical Lepidoptera*. - Florida, Gainesville: Association for Tropical Lepidoptera, xxxiv + 439 pp.
- VANE-WRIGHT, R. I., 1975. The butterflies named by J. F. Gmelin. (*Lepidoptera: Rhopalocera*). - *Bulletin of the British Museum (Natural History)*, Entomology, 32: 17-64.
- WESTWOOD, J. O., 1852. *The Genera of diurnal Lepidoptera: comprising their generic characters, a notice of their habitats and transformations, and a catalogue of the species of each genus* (2) [with illustrations of W. C. Hewitson], pp 251-534, 51 pls. In: Doubleday, E.: *The Genera of diurnal Lepidoptera*. - London: Longham, Brown, Green & Longmans.

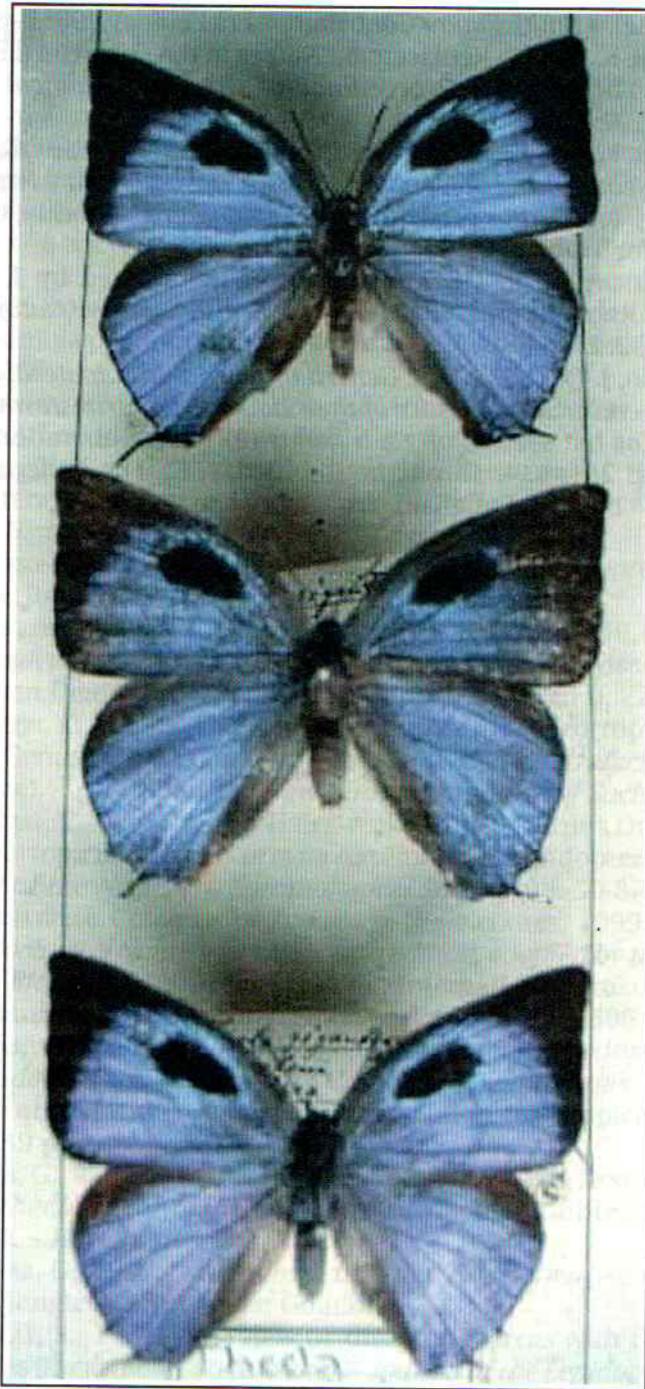


Fig. 1. Males of "Tecla" gigantea Hew. Paris Museum, N.H. Belém Para.  
Brasil. (Color)



Fig. 2. Example of *Cupathecla gen. n* Type species: *Cupathecla cupentus* STOLL loc.

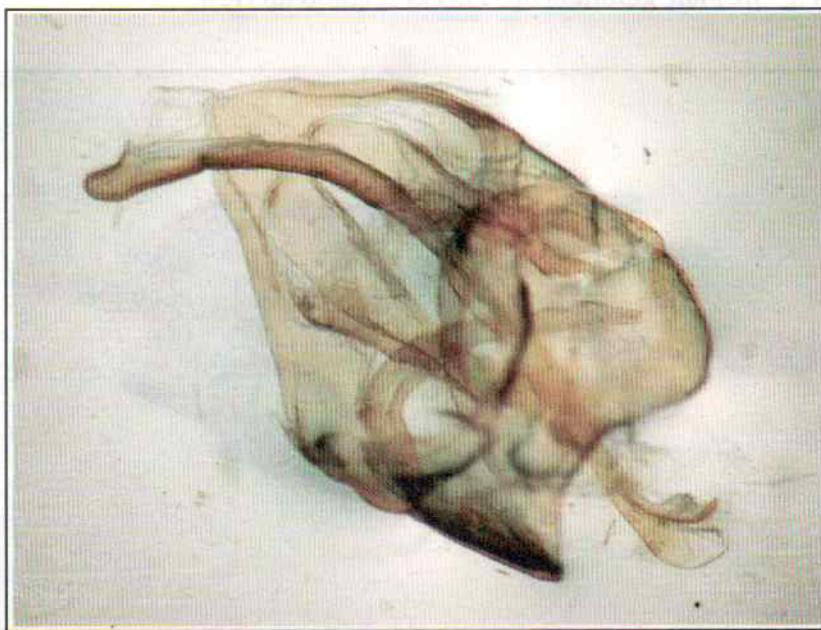


Fig. 3. Male genitalia of "Thecla" gigantean Hew.

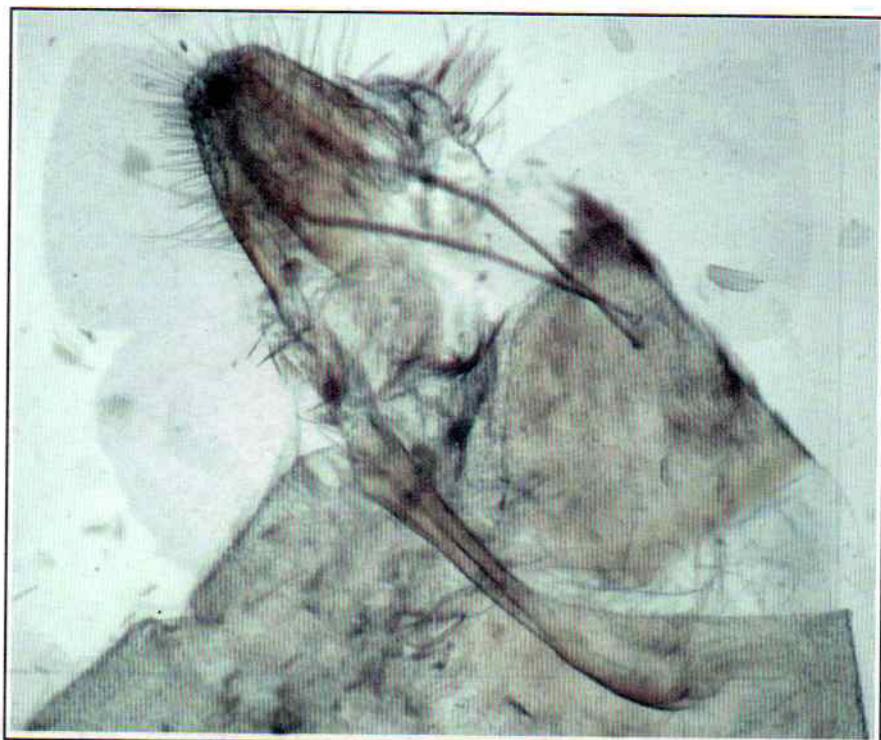


Fig. 3B. Male genitalia of "*Thecla*" gigantean Hew.

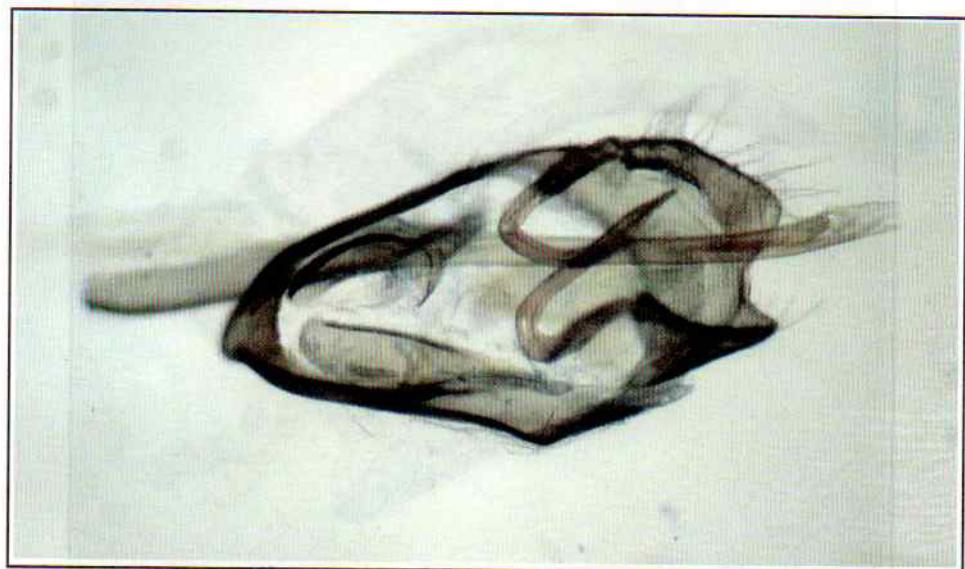


Fig. 4. Female genitalia of *Cupathecla* gen. n



Fig. 5. Discal Cell of *Cupathecla gen. n*

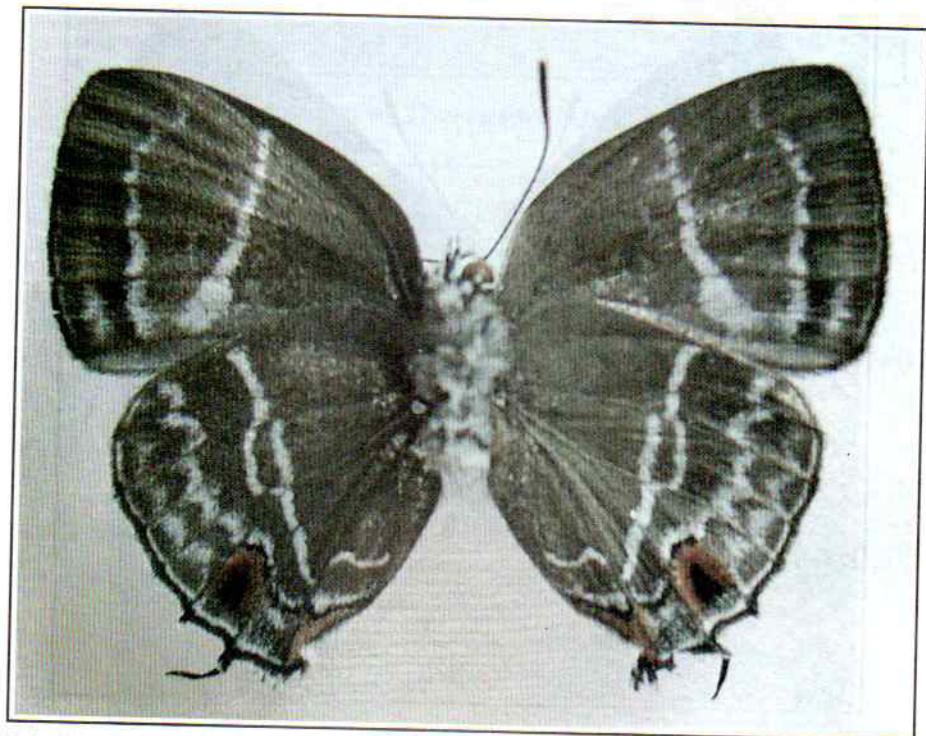


Fig. 5. Ventral Pattern of *Cupathecla gen. n*



Fig. 7. Scent Scales of *Bistonina*

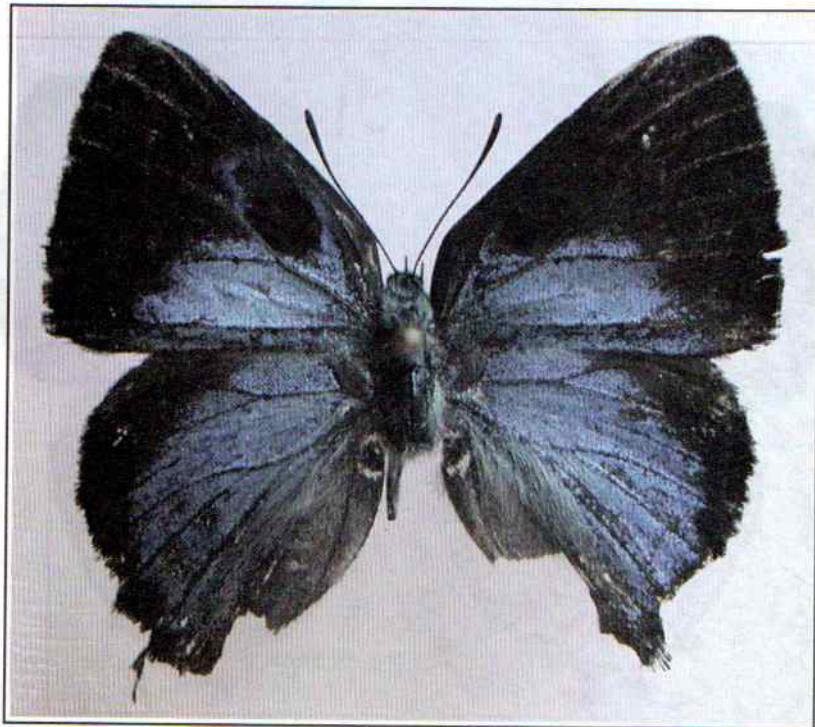


Fig. 8. Example of *Thereus wojtusiaki* Balint sp.n Type species: Loc  
Tandapi Prov Pichincha Ecuador

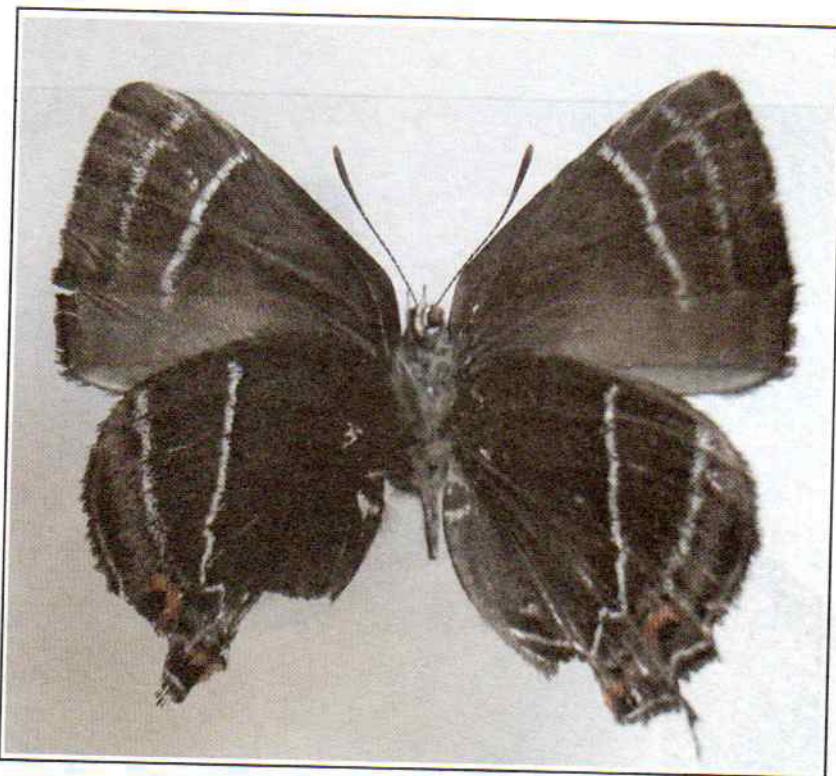


Fig. 9. Ventral Pattern of *Thereus wojtusiaki* Balint sp. n



Fig. 10. Male forewing dorsalscent of *Thereus wojtusiaki* Balint sp. n

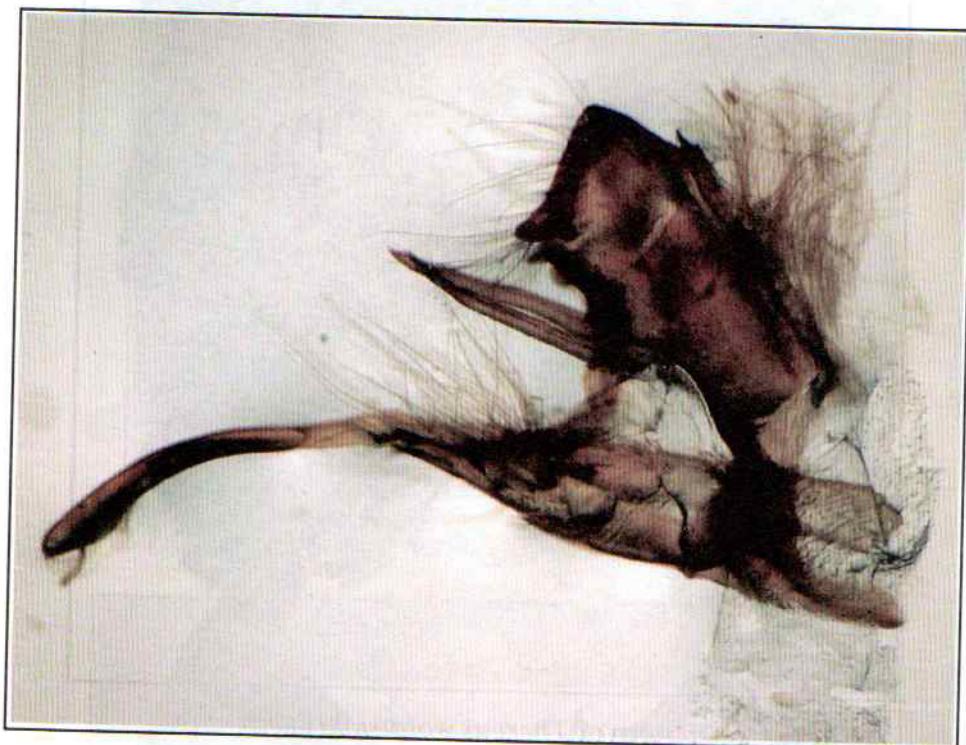


Fig. 10. Male genitalia of *Thereus wojtusiaki* Balint sp. n

