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A new genus in the neotropical lycaenid butterfly tribe Eumaeini (Lepidoptera: Lycaenidae)

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Abstract: The eumaeine lycaenid genus *Margaritheclus*, new genus, is described. The type species is *Pseudolycaena danaus* Felder & Felder, 1865. A lectotype for *Pseudolycaena danaus* Felder & Felder, 1865 is designated. Two additional species, both new to science, are placed in the genus: *Margaritheclus belus* sp. n. and *M. dabrerus* sp. n. The phylogenetic relationships of *Margaritheclus* are discussed. The genus *Laothus* Johnson, Kruse et Kroenlien, 1997 is the senior subjective synonym of *Gibbossa* Salazar, 2001, new synonym. The following new combinations are established: *Atlides havila* (Hewitson, 1865), comb. n.; *Denivia adamsi* (Druce, 1907), comb. n.; *Gibbossa barajo* (Reakirt, 1867), comb. n.; *G. erybathis* (Hewitson, 1867), comb. n.; *G. oceia* (Godman et Salvin, 1887), comb. n.; *G. viridicans* (Felder et Felder, 1865), comb. n.; *Margaritechlus danaus* (Felder et Felder, 1865), comb. n. and *Micandra celelata* (Hewitson, 1874), comb. n.

Key words: Lycaenidae, genus groups, new genus, new species, new combinations, South America

INTRODUCTION

The influential Austrian politician Cajetan Felder and his son Rudolf (who, tragically, preceded his father in death) named 132 lycaenid and riodinid butterflies in their lepidopterologic magnus opus (Felder & Felder 1865). Amongst them there is the descripiton of a large showy eumaeine species from Venezuela under the name *Pseudolycanea danaus* (Felder & Felder 1865: 248). This species was later transferred by Draudt (1919: 753) to the genus *Thecla* Fabricius, 1807 (type species: *Papilio betulae* Linnaeus, 1758) and placed in the newly formed "*Tolmides*-Gruppe" with the remarks "er auch vielleicht besser eine Gruppe für sich bildete." The male of *P. danaus* was described under the name *Thecla margaritacea* Draudt, 1919 from Colombia (Goodson 1946: 270) and was placed in the "*Havila*-Gruppe" by Draudt himself (Draudt 1919: 755). More recently Johnson *et al.* (1997: 23) placed the species in the newly erected genus *Laothus* Johnson, Kruse et Kroenlein, 1997 (type species: *Thecla barajo* Reakirt, 1867, by original

designation). Also, "*Thecla danaus*" was briefly annotated and figured by d'Abrera (1995: 1128–1129) who selected specimens from Venezuela and Peru from material curated as *Thecla danaus* in The Natural History Museum, London (BMNH). He mentioned the probable relationship of an undescribed eumaeine lycaenid to *danaus* (d'Abrera 1995: 1130–1131).

In light of these additional species, the original combination, and all of the subsequent placements of the species *danaus,* now appear erroneous from a phylogenetic point of view since none of the combinations reflect monophyly. I have studied the BMNH material and discovered that two female phenotypes are represented in their samples, having different wingshape, ventral pattern, and genital structures. The larger phenotype is identical with *P. danaus*, whilst the other one is smaller and represents a hitherto undescribed species whose male also differs from "*Th. margaritacea*" in the shape of dorsal wing androconial cluster. The smaller phenotype was also represented in the König material I received as a loan for study from the Naturhistorisches Museum, Wien (NHW). According to the ranges of specimen data, the two taxa occur in Ecuador. These entities also appear to be monophyletic with the undescribed species mentioned by d'Abrera, forming a cluster of species most of which have been hitherto unnamed.

The present paper thus has the following aims: 1) describing a new genus with type species *Pseudolycaena danaus* Felder et Felder, 1865; 2) restricting the name *Pseudolycaena danaus* via Lectotype designation for the larger phenotype among these entities; 3) describing the smaller phenotype as a distinct species; 4) describing a taxon for the entity represented by a single female specimen and 5) discussing the systematic position of these taxa within the genus and among the Eumaeini.

SYSTEMATICS

Margaritheclus gen. n.

Type species – *Pseudolycaena danaus* Felder et Felder, 1865

Diagnosis – The three known members of the genus represent a unique cluster of taxa in the tribe, sharing the combination of the following features: large size, lobate hind wing inner margin and ventral pattern resembling species of *Micandra* Schatz, 1888 (type species: *Pseudolycaena platyptera* Felder et Felder, 1865, by monotypy) but without subbasal series of gleaming intercellular lines. In morphology they resemble *Gibbossa* Salazar, 2001 and related genera but males have a conspicuous projection directed from the anal-lateral surface of the valva and a large, heavily sclerotized, pouch-like posterior lamella in the female associated with a long tubular ductus.

Description – Moderately sized lycaenids with typical fore wing length (from base of radial vein to terminus of vein R3) more than 20 mm; sexual dimorphism strong. Male: Wing shape: fore wing costa convex, apex pointed, distal and anal margin straight; hind wing costa convex, apex rounded, distal margin highly convex, lobate, inner margin convex and also with lobe, vein CuA1 terminus arched, vein CuA2 terminus tailed. Venation: four fore wing radial veins. Basally and distally pointed or rounded androconial cluster present in the apex of discal cell. Dorsal surface: fore wing ground colour blue with very narrow outer margin and distal fringe brown; hind wing similar to fore wing but with black tail at vein CuA2 terminus, plus tornal and anal marginal lobes. Ventral surface: fore wing ground colour as on dorsum but with suffusion of brown scaling, androconial cluster visible, hind wing ground colour warm brown with vivid submedian intercellular green lines below, extending from costal cell to inner margin but covered with long brown hairs; postmedian pattern vertical with a vivid continuous green line and a lighter submarginal line; tornal area, wing lobes and tail dark brown. Body gleaming green dorsally, brown ventrally. Genitalia: uncus heavily sclerotized and broad, gnathos long and pointed, tegumen separated from vinculum by sclerotized dorsal rim, vinculum weakly sclerotized and widest where fused to tegumen, vincular saccus long, valval posterior part heavily sclerotized, anteriorly membranous with a conspicuous pointed distal projection the length of saccus; aedeagus very long and laterally curvate with the caecum comprising about 1/3 of the aedeagus length, vesica with a single cornutus. Female: wings differ from male in following ways: fore wing distal margin convex, hind wing veins on dorsal surface blackened and wing with wide black marginal border, vein CuA1 with short filamental tail, hind wing with ventral submedian line more conspicuous. Genitalia: bursa membranous, signa absent, cervix bursae unsclerotized, ductus bursae tubular with a pair of anterior flaps and a large, heavily sclerotized, posterior lamella.

Etymology – A noun, gender considered to be masculine, from arbitrary combination of "*margarita*" (junior synonymic name of the type species, see below) and "*Thecla*", a generic name traditionally but erroneously used in the neotropics since [Doubleday] (1847: 30–40) and particularly, for one and a half decades, for such large and tailed eumaeines as *danaus et al.* (see Eliot 1973: 429–430 and 439–440).

Systematic position – The genus belongs to a group of eumaeine genera with strong sexual dimorphism, a prominently striped vertical hind wing pattern and females possessing a tubular ductus bursae with a large sclerotized pouch-like lamella antevaginalis (see Discussion).

Biology – Museum label data indicate that these uncommon insects occur in montane Andean cloud forest ecotones at elevations of 1800–1900 m. Ecuadorian

specimens were recorded in October and November between 1550–1700 m (Raguso & Closter 1995: 158). The foodplants and early stages remain undiscovered.

Distribution and diversity – The known range of the genus extends from Venezuela through Colombia and Ecuador to Peru (based on the few specimens available for examination). At present three species are known. One species is distributed from the Venezuelan Cordilleras through the western chain of the Andes in Colombia (Rio Aguacatal) to Quito, Ecuador. These data are old and perhaps not wholly reliable. One of the species I distinguish in the present paper is known only from the eastern side of the Ecuadorian and Peruvian Andes. The locality of the third species is unknown as the only known specimen, the holotype, lacks specific data as to place of origin.

Identification – All the *Margaritheclus* species can be easily distinguished by wing characters. The female genital configuration and male dorsal androconial cluster of two of the species quantitatively differ. The opposite sex of the third species is unknown as well as its female genital confirguration since its holotype lacked an extant abdomen.

KEY FOR MARGARITHECLUS SPECIES

1a Dorsal surface bluish green — 2 (*danaus* species group)

1b Dorsal surface tint blue, not green — *M. dabrerus* sp. n.

2a Male dorsal androconial cluster pointed basally and distally; female ventral surface of hind wing with lineal submarginal intercellular pattern, genital ductus bursae anterior part with two times length of that of posterior part — *M. danaus*

2b Male dorsal androconial cluster rounded basally and pointed distally; female ventral surface of hind wing with crescent-like submarginal intercellular pattern, female genital ductus bursae anterior part with four times length of that of posterior part — *M. belus* sp. n.

Margaritheclus danaus (Felder et Felder, 1865) **comb. n.**
(Figs 1–2, 12)

Pseudolycaena danaus Felder et Felder – Felder & Felder 1865: 248, BMNH lectotype female, designated here (see below), type locality: "Venezuela", Pl. 31, fig. 6 (dorsal surface), fig. 7 (ventral surface).

Thecla danaus (Felder et Fedler) – Draudt 1919: 753 (new combination), Pl . 149, row b, fig. "danaus".

Thecla margaritacea Draudt – Draudt 1919: 755, holotype male, coll. Fassl, type locality: "Muzo, Columbien", Pl. 53, row b, fig. "margaritacea" (synonymized by Goodson 1946: 267).

Material examined – Venezuela: no locality, Druce coll. (female); no locality, BMNH coll. (female). Colombia: Rio Aguacatal, 1800 m, Brabant coll. (1 female); Lectotype female, designated here (see below), BMNH(E) 265878. Ecuador: Quito, Hewitson coll. (female). Genital dissections: B.M. Rhopalocera vial. no 3484 (lectotype); 5837 (Venezuela, female).

Diagnosis – The species can be distinguished from the sister species *M. belus* sp. n. by the pointed shape of the male androconial cluster (rounded on *M. belus*) and by the submarginal rows formed by the lineal intercellular pattern on the female ventrum (these occur as crescents in the sister species).

Note – Lectotype designation. The description of *Pseudolycaena danaus* was based on an unstated number of female specimens originating from Venezuela, purchased by Kaden via Moritz (Felder & Felder 1865: 248). There is a single female specimen in the BMNH which originates from the Kaden collection and was deposited in the BMNH via Druce. This certainly was the specimen, or one of the specimens, that served as the basis of the original description provided by the Felders. This specimen was subsequently labelled and segregated by Goodson in the Lycaenidae Type Collection of the BMNH with serial number 560 as the "type" of *Pseudolycaena danaus*. And again, this individual was erroneously considered by d'Abrera (1995: 1128) as holotype female or as holotype male by Johnson *et al.* (1997: 23). I examined and databased this specimen in the BMNH. Hereby I designate this female individual as lectotype of *Pseudolycaena danaus* (Figs 1–3). This action is necessary because the name was also applied to the sister species of *M. danaus* which will be described subsequently. The taxa can be distinguished by the key previously presented herein.

Distribution – The species was mentioned by Hewitson (1865: 80) as occurring in Venezuela and Ecuador (Quito). Draudt (1919: 753) recorded it from Colombia, Bolivia and Peru. The distribution of the species according to d'Abrera (1995: 1128) was Venezuela, Colombia and Peru. I suspect that the Peruvian records pertain to the sister species of *M. danaus*, and most probably also Bolivian records, although I myself have not seen any *Margaritheclus* specimens from Bolivia.

Margaritheclus belus sp. n.
(Figs 4–9)

Thecla danaus (Felder et Felder). – d'Abrera 1995: 1128, fig. "*T. danaus* ♂ R" and "*T. danaus* ♀ R", "*T. danaus* ♂ V" and "*T. danaus* ♂ V", misidentifications.

Type material – Holotype male, deposited in BMNH, labelled as: "Marcapata, / E. Peru, 4500 ft" (printed), "Rothschild / Bequest / B.M.1939–I." (printed). The specimen is in moderately good condition: half of both antennae missing, wings slightly worn and broken. The specimen was dissected by me and databased as B.M.N.H. Rhopalocera vial number 5836. Allotype female, fore wing costa length: 20 mm, deposited in the BMNH, labelled as: "Cushi, / Prov. Huanuco. / Peru, 1900 m / (W. Hoffmanns)" (printed), "Rothschild / Bequest / B.M.1939–I." (printed), "Bálint 8 / 28A 106" (handwritten). The specimen is in moderately good condition: left antenna missing, half of right antenna missing, wings slightly worn. The specimen is dissected by me and databased as B.M.N.H. Rhopalocera vial number 5838. Paratypes: Marcapata, E. Peru, Rothschild Bequest (BMNH, 1 female); El Topo, Rio Pastaza, E. Ecuador, M.G. Palmer (BMNH, 1 female) Chanchamayo, M. Peru, König coll., no. 459 (NMW, 1 female).

Diagnosis – Comparing the new species to *M. danaus*, the former is slightly smaller in size, the male fore wing dorsal androconial cluster rounded (pointed in *M. danaus*), female dorsal wing surface is blue (bluish green in *M. danaus*) and the submedian line of the ventral surface shows gleaming intercellular crescents on the fore wing in cells CuA1 and CuA2 and across the entire hind wing (these intercellular patterns are lineal in *M. danaus*); the genital ductus bursae is slender and longer in the new species, with smaller posterior lamellae (cf. Figs 9, 12).

Description – Male (Figs 4–5). Size: fore wing length 21 mm (= holotype). Wing shape: fore wing costa convex, apex pointed, distal margin straight, anal margin straight; hind wing costa convex, apex rounded, distal margin with convex lobe, inner margin convex and also with lobe, vein CuA2 distal terminus tailed. Dorsal surface: fore wing ground colour gleaming azure with very narrow outer margin and distal fringe brown, androconial cluster present in the apex of discal cell, basally and distally rounded; hind wing similar to fore wing but with black tail at vein CuA2 distal terminus, plus tornal and anal marginal lobes. Ventral surface: fore wing ground colour as on dorsum but with suffusion of brown scales, androconial cluster visible; hind wing ground colour warm brown with submedian vivid green vertical intercellular lines from below the costal cell to the inner margin and covered with long brown hairs, postmedian pattern with continuous vivid green vertical line and a lighter submarginal line running parallel; outer margin, tornal area, lobes and tail all black. Body gleaming green dorsally, brown ventrally. Genitalia: typical of genus (Fig. 6).

Female (Figs 7–8). Size: fore wing length 20 mm (= allotype). Wing shape: fore wing costa convex with apex pointed, distal margin slightly convex, tornus rounded, anal margin straight; hind wing costa convex with apex rounded, distal margin slightly convex, lobate at tornus, inner margin convex with a lobe, vein CuA1 terminus with a shorter filamentous tail and, at vein CuA2 terminus, a longer filamentous tail; tornus and inner margin lobate. Dorsal surface: fore wing ground colour bluish with wide black submarginal broder and distal fringe brown; hind

wing similar to fore wing but with black tails, black tornal and anal marginal lobes, and gleaming blue antemarginal lines along the tornus. Ventral surface: fore wing ground colour as on dorsum but with median pattern of gleaming blue intercellular lines from cell R2 to M3, crescent-like markings in cells CuA1 and CuA2, and the entire submargin with a row of dull greenish spots. Hind wing similar to fore wing but with gleaming submedian pattern of intercellular lines from cell Sc+R1 to cell CuA1, a vertical postmedian line of crescent-shaped intercellular markings, a submarginal row of dull antemarginal intercellular lines from cell M1 to tornus, a vivid marginal blue line, and black tornal and inner marginal lobes. Body gleaming bluish green dorsally, brown ventrally. Genitalia (Fig. 9): typical of genus, ductus bursae with long and tubular anterior element and heavily sclerotized, pocket-like, posterior element some one-fourth the length of the anterior.

Etymology – Belus is the son of Danaus in Egyptian mythology; it is used here to signify the sister species relationship with the type species of the genus.

Note – The holotype and allotype were figured d'Abrera (1995, l.c.) and have been misidentified as "*Thecla danaus*" male and female, respectively.

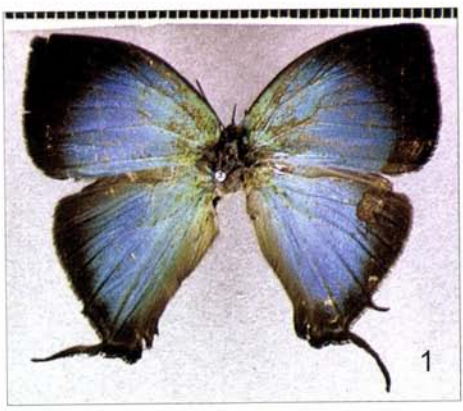
Margaritheclus dabrerus sp. n.
(Figs 10–11)

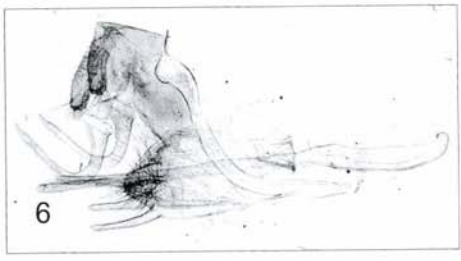
Thecla ? sp. – d'Abrera 1995: 1131, fig. "T. ? sp. ♂ R" (dorsal surface) and fig. "T. ? sp. ♂ V" (ventral surface).

Type – Holotype female, deposited in the Natural History Museum, London (BMNH), labelled as "15." (black ink, handwritten); 67.20 / Ex Coll. / Ed. Brabant / 1920" (printed); "J. J. Joicey Coll. / B.M. 1929–435" (printed); "Bálint 7, / 28A 106" (handwritten "Rothschild / Bequest B.M.1939–I." (printed)". The specimen is in moderately good condition: apex of left fore wing missing, wings slightly worn, abdomen missing.

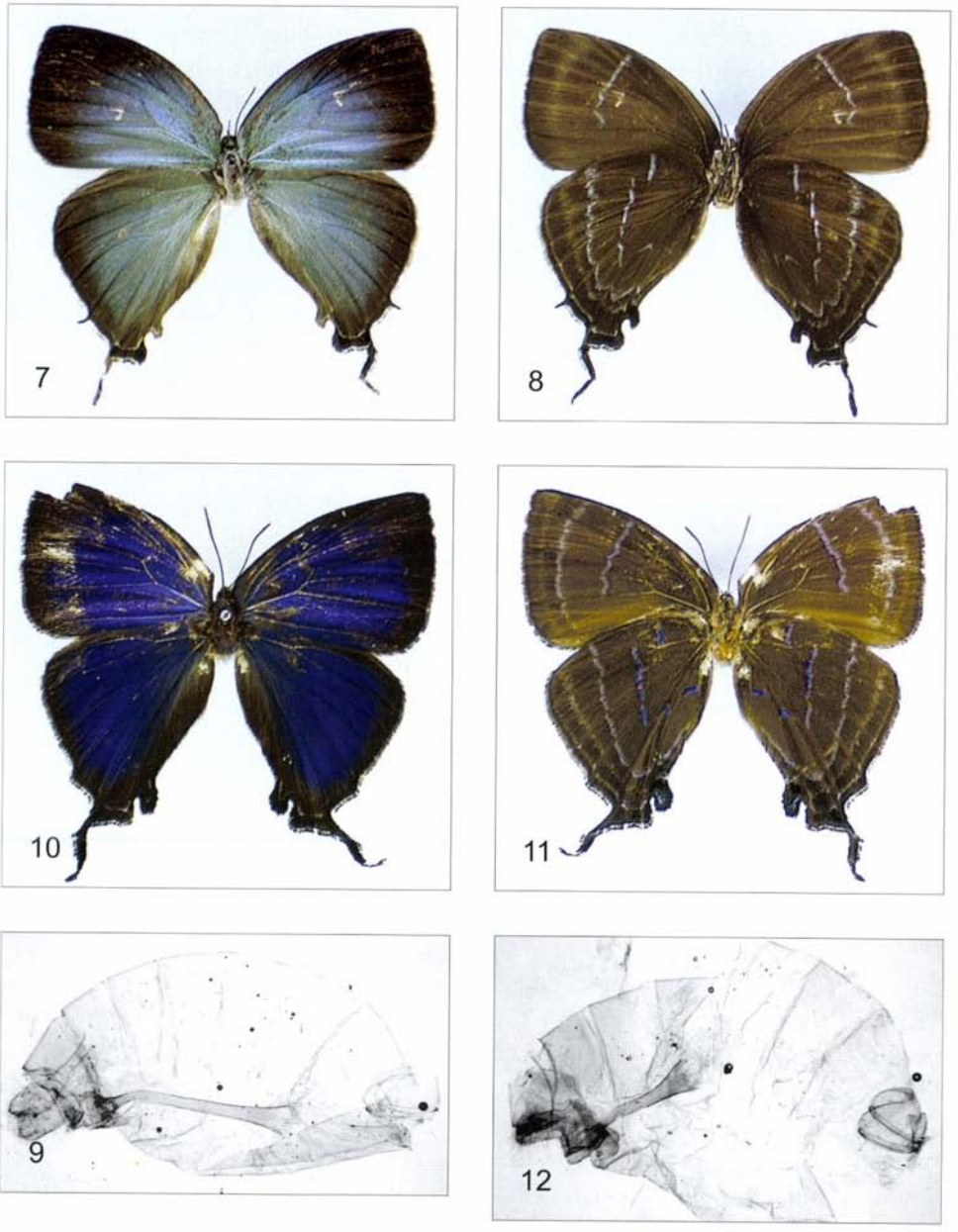
Diagnosis – Similar to *M. danaus* in size, wingshape, and ventral pattern but female hind wing vein CuA1 just slightly convex at its distal terminus (tailed in *M. danaus*) and with the dorsal surface of the wings tinted blue (green in *M. danaus*); there is no wide black submarginal border (this border is wide and black on the dorsal surface of *M. danaus*), the submarginal area of the ventral surface shows a continous line of gleaming blue intercellular stripes from costa to vein 1A+2A.

Description – Female (Figs 10–11). Size: fore wing length 22 mm (= holotype). Wing shape: fore wing costa convex, apex pointed, distal margin slightly convex, tornus rounded, anal margin straight; hind wing costa convex, apex rounded, distal margin straight, lobate at tornus, inner margin convex also with





Figs 1–6. 1–3 = *Pseudolycaena danaus*, lectotype: 1 = dorsum, 2 = venter, 3 = labels (bottom left). 4–6 = *Margaritheclus belus* sp. n., holotype: 4 = dorsum, 5 = venter, 6 = genitalia (Nos 1–5 © BMNH)



Figs 7–12. 7–9 = *Margaritheclus belus* sp. n., allotype: 7 = dorsum, 8 = venter, 9 = genitalia. 10–11 = *Margaritheclus dabrerus* sp. n., holotype: 10 = dorsum, 11 = ventrum. 12 = *Margaritheclus danaus*, female genitalia (Nos 7–8, 10–11 © BMNH)

lobe, vein CuA1 terminus lobate, vein CuA2 terminus tailed. Dorsal surface: fore wing ground colour marine blue with very narrow black outer margin and brown distal fringes, hind wing similar to fore wing but with black tail at vein CuA2 terminus plus tornal and anal margin lobes and gleaming blue antemarginal stripes. Ventral surface: fore wing ground colour warm brown with median and submarginal vertical row of gleaming blue intercellular lines, antemarginal area with faint lighter blue vertical stripe; hind wing colouration as on fore wing but with submedian pattern of intercellular lines from cell Sc+R1 to cell CuA1, a postmedian line formed by lineal intercellular pattern, a submarginal row of shiny antemarginal intercellular lines from cell M1 to tornus, a vivid blue marginal line, and tornal and inner marginal lobes black. Body gleaming blue dorsally, brown ventrally. Genitalia: Not available for study (abdomen lacking). Male: Not known.

Etymology – A freely formed noun, gender masculine, from the name of lepidopterist Bernard d'Abrera, who was the first to recognize the species and point out its relationship.

Note – d'Abrera (1995, l. c.) noted that the specimen herein selected as holotype was related to *M. danaus* and figured its dorsal and ventral surfaces. He also indicated that the specimen is a male. Knowing the congeners well, I consider the specimen to be a female because the distal margins of the fore wings of male *Margaritheclus* are straight and possess an androconial cluster, and their fore wing ventral surface do not show pattern or have different ground colours from those of the hind wing.

DISCUSSION

Placement in *Pseudolycaena* Wallengren – The original placement of the genus's type species is erroneous as the type species of *Pseudolycaena* Wallengren, 1858 is *Papilio marsyas* Linnaeus, 1758 by original designation. *P. marsyas* possesses qualitatively different wingshape, dorsal wing colouration, and ventral pattern (cf. d'Abrera 1995: 1112–1113), as well as distinct male genitalia (cf. Clench 1964: fig. 2) and female genitalia (a long tube with a flat posterior plate showing two pointed symmetrical lateral processes). Moreover *Pseudolycaena* males possess a ventral androconial pouch in the middle of the cell CuA2 of the hind wings, what I consider as a homolgous trait of the ventral androconial pouch of *Denivia* and certain species of *Theritas* Hübner, 1819 (Bálint in prep.). It is thus not possible to lump *P. marsyas* and *M. danaus* (and its congeners described herein) in the same cluster of taxa as they are not even close sister lineages within the Eumaeini; therefore the original placement of the Felders did not reflect monophyly.

Placement in *Tolmides* Group of *Thecla* sensu Draudt – This group was formed for the nominal taxa *Thecla tolmides* (Felder et Felder, 1865), *Th. tityrus* (Felder et Felder, 1865), *Th. appula* (Hewitson, 1867) and *Th. danaus*. This cluster of taxa is also not monophyletic. All its members possess quantitatively distinct wingshape, qualitatively different male dorsal androconia (if present), ventral wing pattern, and genital structures. The taxon *tolmides* was transferred to genus *Egides* Johnson, Kruse et Kroenlein, 1997 (type species: *Pseudolycaena aegides* Felder et Felder, 1865, by original designation), which is erroneous as the type species of the genus basically differs from *tolmides* in wingshape, colouration and pattern. The taxon *tolmides* is closely related to *Laothus*, but its ventral wing pattern and female genitalia are supralimital. It has been already placed in a distinct group within Eumaeini (Luis-Martinez *et al.* 1995: 127). Additionally, *Egides* can be considered monophyletic with *Micandra* Schatz, 1888 (type species: *Pseudolycaena platyptera* Felder et Felder, 1865, by monotypy) and *tolmides* was regarded as a species of *Micandra* by Clench (1971: 2) and Robbins (1986: 150). *Pseudolycaena tityrus* Felder et Felder, 1865 cannot be monophyletic with *M. danaus*; its males possess a dorsal androconial cluster filling the discal cell completely, the wingshape is different, as is the ventral wing pattern. The male possesses genital brush organ, and lacks a lateral projection on the valva, while in the female the genital ductus is a very long simple tube, reminiscent of *Pseudolycanea*. The species *tityrus* was selected as type species of *Balintus* d'Abrera, 2001 (p. 195), a genus he considered as monotypic. I have found a sister species of *B. tityrus* from Colombia in recently collected material. Regarding *Thecla appula*, this taxon was transferred to *Parrhasius* Hübner, 1819 (type species: *Papilio polibetes* Stoll, 1781) by Nicolay (1979: 27) and belongs to the cluster of genera including *Iaspis* Kaye, 1904, *Michaelus* Nicolay, 1979 and *Panthiades* Hübner, 1819, therefore *M. danaus* cannot be monophyletic with *P. appula*.

Placement in *Havila* Group of *Thecla* sensu Draudt – This group was formed for the nominal taxa *Thecla adamsi* (Druce, 1907), *Th. havila* (Hewitson, 1867), *Th. celelata* (Hewitson, 1867) and *Th. margaritacea* (Draudt, 1919). It has been already mentioned that the last taxon is the male of *M. danaus* according to Goodson (1946: 270). I here transfer the taxon *adamsi* to *Denivia* Johnson, 1992 (type species *Thecla deniva* Hewitson, 1877) thus, *Denivia adamsi* (Druce, 1907), **new combination**, since the holotype male possesses the ventral androconial pouch along hind wing vein 1A+2A. I consider this trait as an apomorphic for *Denivia* (Bálint in prep.). *Th. havila* is a supralimital member of the genus *Atlides* Hübner, 1819 (type species: *Papilio halesus* Cramer, 1777) as its male has the wingshape, androconial cluster, and ventral abdominal colouration typical of *Atlides*; therefore I transfer the species to that genus: *Atlides havila* (Hewitson, 1865), **new combi-**

nation. *Th. celelata* is a supralimital member of *Micandra*; its female has female genitalia qualitatively identical with *Micandra* species and wings in both sexes showing the typical *Micandra* venation (Röber 1892: 265, Pl. 146, fig. "Micandra Schatz Platyptera Feld."), the latter being stressed as an important character by Robbins (1986: 154); I therefore transfer the species from *Thecla* to *Micandra*, thus, *Micandra celelata* (Hewitson, 1874), **new combination**.

Placement in *Laothus* – Besides *Thecla barajo* Reakirt, 1867 and *Thecla laothoe* Godman et Salvin, 1887, Johnson *et al.* (1997: 23) placed *Pseudolycaena danaus* in *Laothus* Johnson, Kruse et Kroenlein, 1997 (type species: *Thecla barajo*, by original designation) but they remarked that the species composition of the genus was based primarily on wing pattern and morphological characters. I have dissected female specimens of the type species of *Laothus* along with superficially similar taxa *Pseudolycaena viridicans* Felder et Felder, 1865, *Thecla erybathis* Hewitson, 1867 and *Thecla oceia* Godman et Salvin, 1887, and discovered that they possess almost identical female and male genital structures and differ from *Margaritheclus*; females of the former species have the female ductus bursae sclerotized equally everywhere along the tube; males lack the lateral projection of the valva. In addition, they also differ strongly in wingshape, colouration, and ventral pattern. Additionally, *Laothus* and *Gibbossa* Salazar, 2001 (replacement name of the homonym *Gibbonota* Salazar et López, 1996, type species: *Thecla gibberosa* Hewitson, 1867, by original designation, cf. Salazar 2001) now appear to be monophyletic, if not synonymous, as male and female genital structures, along with ventral wing markings of these "genera" are qualitatively not distinct. The type species of the two genera represent two extremes within a uniform monophyletic group since the taxa *erybathis* and *phydela* are intermediate, filling the morphological gap between *barajo* and *gibberosa*. This monophyly has already been expressed by Luis-Martinez *et al.* (1995: 127) as well as by d'Abrera (2001: 195) who placed all the taxa mentioned above under "Gibbonota". His action was actually based on my studies (cf. d'Abrera 2001: 194) which is why evidence was not given by d'Abrera supporting such synonymy. Accordingly, I here formalize all these taxonomic changes and place *Laothus* and *Gibbossa* as synonyms; therefore *Gibbossa* Salazar, 2001 = *Laothus* Johnson, Kruse et Kroenlein, 1997, **new synonym**, thus, *Gibbossa viridicans* (Felder et Felder, 1865), **new combination**, *Gibbossa erybathis* (Hewitson, 1867), **new combination**, and *Gibossa barajo* (Reakirt, 1867), **new combination** and *Gibbossa oceia* (Godman et Salvin, 1887) **new combination**.

Relationships of *Margaritheclus* – Wingshape of *Margaritheclus* amongst eumaeine lycaenids is not peculiar. The male androconial cluster, what I suspect is an androconial patch, indicates a closer relationship with *Arcas* Swainson, 1832

(type species: *Papilio imperialis* Cramer, 1775, by monotypy) and *Paiwarria* Kaye, 1904 (type species: *Papilio venulius* Cramer, 1779, by original designation); however, wing pattern and genital characters do not support this context. The ventral wing pattern of *Margaritheclus* is also not unique qualitatively. There are several genera with vertical patterns of ruptive gleaming lines or streaks reminiscent, or nearly identical with, *Margaritheclus*. These include *Salazaria* d'Abrera et Bálint, 2001 (type species: *Thecla sala* Hewitson, 1867, by original designation), *Timaeta* Johnson, Kruse et Kroenlein, 1997: 23 (type species; *Pseudolycaena timaeus* Felder et Felder, 1865, by original designation) and *Janthecla* Venables et Robbins, 1991 (type species: *Thecla janthina* Hewitson, 1867, by original designation). Characters of male androconia do not support the relationship of *Timaeta* and *Janthecla* but *Salazaria*, which lacks male dorsal androconia, *is closer to Margaritheclus*, a situation also supported by the female genitalia. All of these genera possess a more or less sclerotized posterior lamella in the female. However, it is difficult to judge at the current state of knowledge concerning eumaeine lycaenids, whether the similarities in these structures indicate monophyly or homoplasy. The male genital configurations of *Margaritheclus* are typical eumaeine with a thin tegumen, loose manica, thin and long penis, and long saccus typical of a cluster of genera (cf. Robbins 1986: 153). Morever, *Margaritheclus* valvae possess a laterally occurring, posteriorly pointed process which is almost as long as the genital's saccus. This process seems to be unique amongst eumaeines. This male genital configuration, associated with a long female ductus bursae, simple cervix, and large posterior lamella also apparent in *Margaritheclus* may well suggest that *Margaritheclus* is one of the most conspicuous eumaeine lycaenid genera.

SUMMARY

I have demonstrated that the original combination, and all subsequent placements of *Pseudolycaena danaus* Felder et Felder, 1865, were erroneous from a phylogenetic point of view. All taxa previously clustered with the *danaus* species have to be placed in other genera, resulting in various new combinations (in alphabetical order): *Atlides havila*, *Denivia adamsi*, *Gibbossa erybathis*, *G. oceia*, *G. viridicans* and *Micandra celelata* along with the synonymization of the genus *Laothus* with *Gibbossa*. I have erected the genus *Margaritheclus* with the type species *Pseudolycaena danaus* and also described the sister species of *P. danaus*, each differing in characters of the ventral wing pattern, male dorsal androconial cluster, and female genital structures. In addition I have described another species, *M. dabrerus* (whose extant material lacked abdomen) placing it in *Margaritheclus* on

the basis of female ventral wing colouration and pattern. I have discussed wing and genital characters of *Margaritheclus* and several other eumaeine genera and come to the conclusion that although current knowledge of eumaeines does not allow precise elaboration of the exact lineage in which the new genus belongs, it certain belongs among a broad monophyly uniting all the large "showy" eumaeine genera.

*

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