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On the taxonomy of the Neotropical Polyommatine Lycaenids (Lepidoptera: Lycaenidae, Polyommatini)*

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Abstract – The descriptions of three new *Madeleinea* Bálint, 1993 species are given: *M. ardisensis* sp. n., *M. colca* sp. n. and M. *bella* sp. n. An additional Thecline-like polyommatine species is also described: *Nabokovia cuzquenha* sp. n. *Madeleinea mashenka* Bálint, 1993 is transferred to *Itylos* Draudt, 1921. Female genital structure of *Eldoradina cyanea* Balletto (1993) (= *Polytheclus cincinnatus* Bálint et Johnson, 1993) is described for the first time. With 47 figures.

INTRODUCTION

The present paper is the eleventh article of a series on the high Andean and Austral polyommatine lycaenids of Latin America. Based on intensive taxonomic studies, several new species were described and the higher classification of the Neotropical polyommatine lycaenids has been briefly outlined (Bálint & Johnson 1995*c*) very recently.

First of all the present paper contains the descriptions of some taxa, belonging to the endemic genera *Madeleinea* Bálint, 1993 (*Polyommatus* genus-group) and *Nabokovia* Hemming, 1960 (*Nabokovia* genus-group) already mentioned by Bálint & Johnson (1995*c*) as "n. sp.". Secondly, the male genitalia of the taxon *mashenka* Bálint, 1993 (*Itylos* genus-group) is described and according to the investigated structures the species is transferred to the genus *Itylos* Draudt, 1921. Finally, the hitherto unknown female genital of *Eldoradina cyanea* (Balletto, 1993) (= *Polytheclus cincinnatus* Bálint et Johnson, 1993) (*Cyclargus* genus-group) is described.

MATERIALS AND METHODS

C o l l e c t i o n s – The most important material examined is preserved in the butterfly collections of the Museo de Historia Natural, Universidad Nacional Mayor de San Marcos (Lima,

* Polyommatine lycaenids of the oreal biome in the Neotropics, part XI.

Peru) [MUSM]. For comparative purposes, materials loaned or received from different sources (mainly American Museum of Natural History, New York, USA; The Natural History Museum, London, UK and Naturhistorisches Museum, Basel [NHMB], Switzerland, for the systematic studies of the senior author (cf. BÁLINT & JOHNSON 1995*b*) at the Hungarian Natural History Museum, Budapest [HNHM] have been examined.

Genitalia dissections – Drawings of genital structures were prepared using conventional binocular microscopy. Dissections are stored in glycerin vials deposited at the relevant institutions based on the number sequence of the senior author.

Terminology – Morphological terminology follows the previous papers of the series containing descriptions of new polyommatine lycaenids from the discussed genera (*Eldoradina* and *Nabokovia*: BÁLINT & JOHNSON 1994*a*; *Itylos*: BÁLINT & JOHNSON 1994*b*, BÁLINT & LAMAS 1994; *Madeleinea*: BÁLINT & JOHNSON 1995*a*, 1995*b*, BÁLINT & LAMAS 1994).

THREE NEW *MADELEINEA* SPECIES FROM THE HIGH-ANDEAN PART OF CENTRAL PERU (*POLYOMMATUS* GENUS-GROUP)

Madeleinea ardisensis sp. n.

Figures – Wings: 1–2, female genital henia: 19, tergal morphology: 27.

Diagnosis – Superficially resembling *M. pacis* DRAUDT, 1921 and *M. cobaltana* BÁLINT & LAMAS, 1994 but smaller, with slightly convex FW costal edge. VHW pattern typical of *moza*-group and most resembling those of *M. pacis* and *M. cobaltana* with wide postmedian band but submarginal area darker; female genital fibula showing sclerotized henia with very long edges. Wing shape, pattern and morphological characters distinguishing the new species are summarized in Table 1.

Description – Male: FW margin slightly convex, outer margin relatively long, apex pointed. DFW, DHW ground ultramarine blue; black margin widened at apex; DFW showing very pale discoidal line. Fringes checkered. VFW ground colour light brown, strongly suffused with bluish-gray scales at base, discoidal spot small, postmedian spots very large and darker brown, halos white; submarginal and marginal areas brown with antemarginal spots and marginal line; VHW pattern elements very dark brown; apical postbasal spots large and merged, pseudovitta present up to postmedian area; postmedian spots merged in a very wide wavy band; subbasal area brown; margin with suffused whitish spots in each cell end. Female: similar to male, but DW ground lighter ultramarine blue. FW length: 9.0 mm (holotype); male: 10.0 mm (paratypes, n = 3), female: 10.0 mm (paratypes, n = 2). Male genitalia not examined. Female genitalia: ductus bursae strongly corrugate and eversible; henia strong, quadrant shaped in dorsal view; fibula with pointed apex in lateral view but flattened in dorsal view with anally curved edges; eight tergite with relatively long apodeme.

Type material – Holotype female and one female paratype labelled as: "Peru, LI, Río Rímac, Quebrada Chinchán, 4250 m, 11°37'S / 76°14'W, 3.II.95, Z. Bálint and G. Lamas". Three males, one female paratypes, labelled as "Peru, LI, Río Rímac, Quebrada Santa Rosa, 3950

m, 11°41'S / 76°16'W, 3.II.95, G. Lamas and Z. Bálint". All the type specimens are deposited in MUSM. Genitalia dissections (gen. prep. no. Bálint): 561 (Holotype).

T y p e l o c a l i t y – Río Rímac, 4250 m, Quebrada Chinchán, department Lima, Peru (Fig. 46).

B i o n o m i c s – The type specimens were collected at high elevation between 3950–4250 m a.s.l. Known from the beginnings of February.

R e m a r k s – Phylogenetically, *M. cobaltana* and *M. pacis* appear to form a tight group in *Madeleinea*. The immediate sister taxa of this assemblage are partly sympatric and synchronic, containing the sympatric *M. colca* sp. n. (see its description below) and *M. huascarana*. The latter one is known to be endemic for *Polylepis* shrub forest habitats in Cordillera Blanca, northern Peru (LAMAS & PÉREZ 1983).

E t y m o l o g y – A noun, gender feminine, deriving from "pARaDISe" (cf. BÁLINT 1996).

Table 1. Diagnostic characters of the taxa *M. pacis*, *M. cobaltana* and *M. ardisensis*

	M. pacis	*M. cobaltana*	*M. ardisensis*
Male DW ground	deep violet blue	gleaming cobalt blue	clear blue
FW length	10–12 mm	11 mm	9–10 mm
VHW postmedian spots in ce M1–M2	equal in size or spot in M2 somewhat larger, both rounded	spot in M2 always larger, both quadrant	equal in size, both rounded
Female genital henia in ventral view (Figs 19–21)	edges short, bent twice	edges short, deeply curved	edges long, gently curved

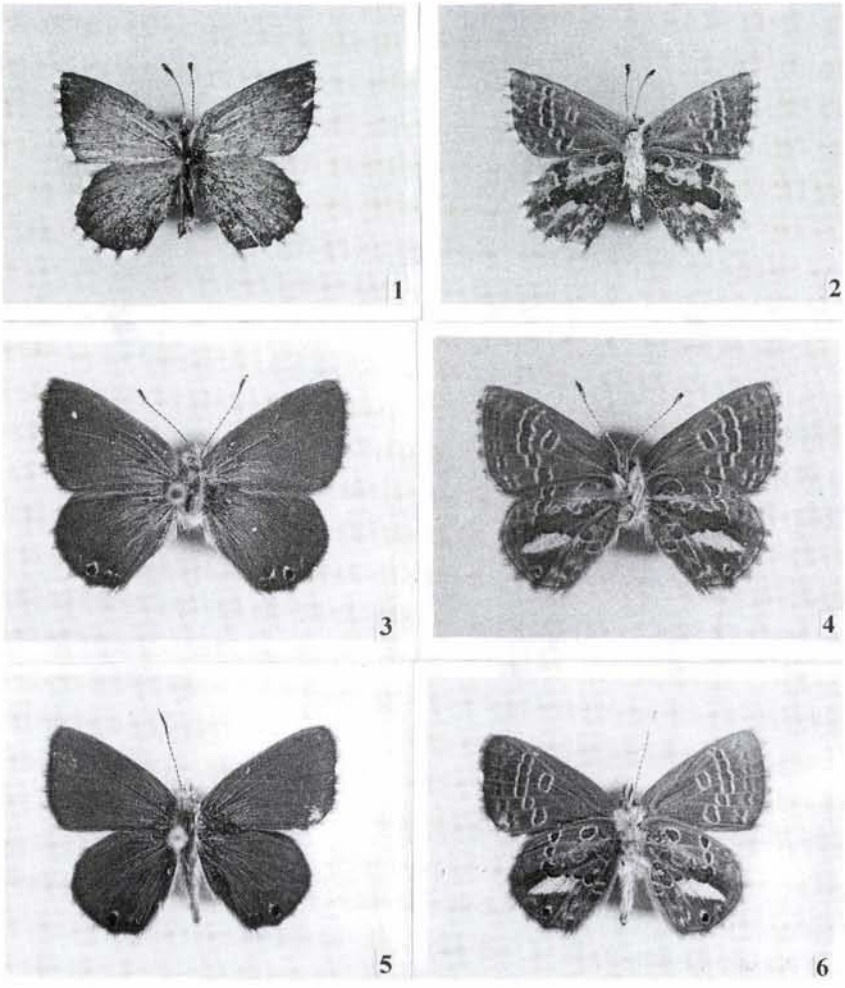
Madeleinea colca sp. n.

F i g u r e s – Wings: 7–12; male genital uncus and gnathos: 35; female genital henia: 22, tergal morphology: 25.

D i a g n o s i s – DW resembling *M. huascarana* BÁLINT et LAMAS, 1994 but with lighter blue ground colour on both sexes; VW also resembling *M. huascarana* but with pale, goldish-coloured markings and larger postmedian spots on VFW. Male genitalia similar to *M. huascarana* but with larger uncus lobe in dorsal view and shorter subzonal element of aedeagus. Female genitalia with large and closed henia less sclerotized than in *M. huascarana*, tergal apophysis short and pointed. Wing shape, pattern and morphological characters distinguishing the new species are summarized in Table 2.

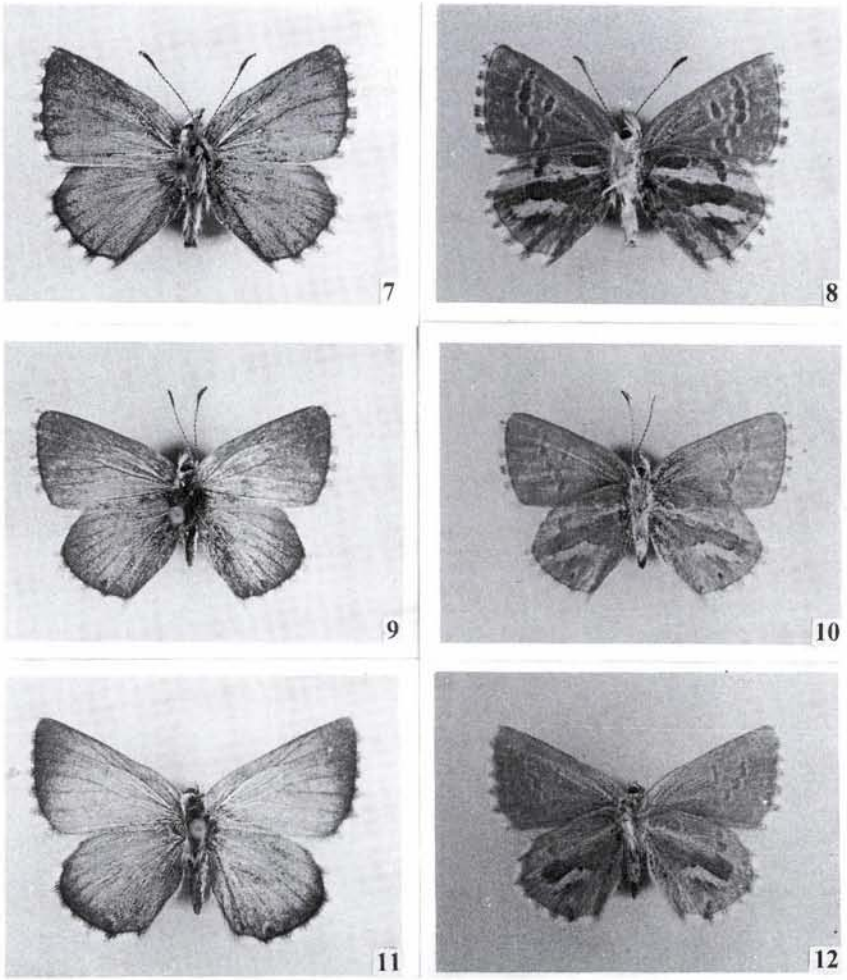
D e s c r i p t i o n – Male: FW costal margin slightly convex, outer margin relatively long. DFW, DHW ground light violet blue with indistinct black marginal border, slightly wider at FW apex; veins luminous, fringes long, checkered. VFW yellowish

brown. Discoidal and postmedian spots large, brown with grayish white halos. Submarginal area almost with no pattern. VHW pattern resembling *M. huascarana;* DW ground colour between M2 and M3 goldish, large silvery spot present in ce M3–ce CuA2; basal and postmedian spots close to costa suffused and not merged; postmedian spots suffused creating dark central pattern; marginal area silvery, end of veins heavily suffused with goldish scales; cell Cu2 with pale antemarginal spot. Female: Similar to male but with lighter verbena blue ground colour and somewhat wider marginal border widened at apex on DFW; HW pattern very pale on DFW, DHW. FW length: 11 mm (holotype, allotype



Figs 1–6. *Madeleinea* spp. 1 = *M. ardisensis* sp. n., holotype (MUSM), 2 = ditto, ventral, 3 = *M. bella* sp. n., holotype (MUSM), 4 = ditto, ventral, 5 = *M. bella*, paratype (MUSM), 6 = ditto, ventral

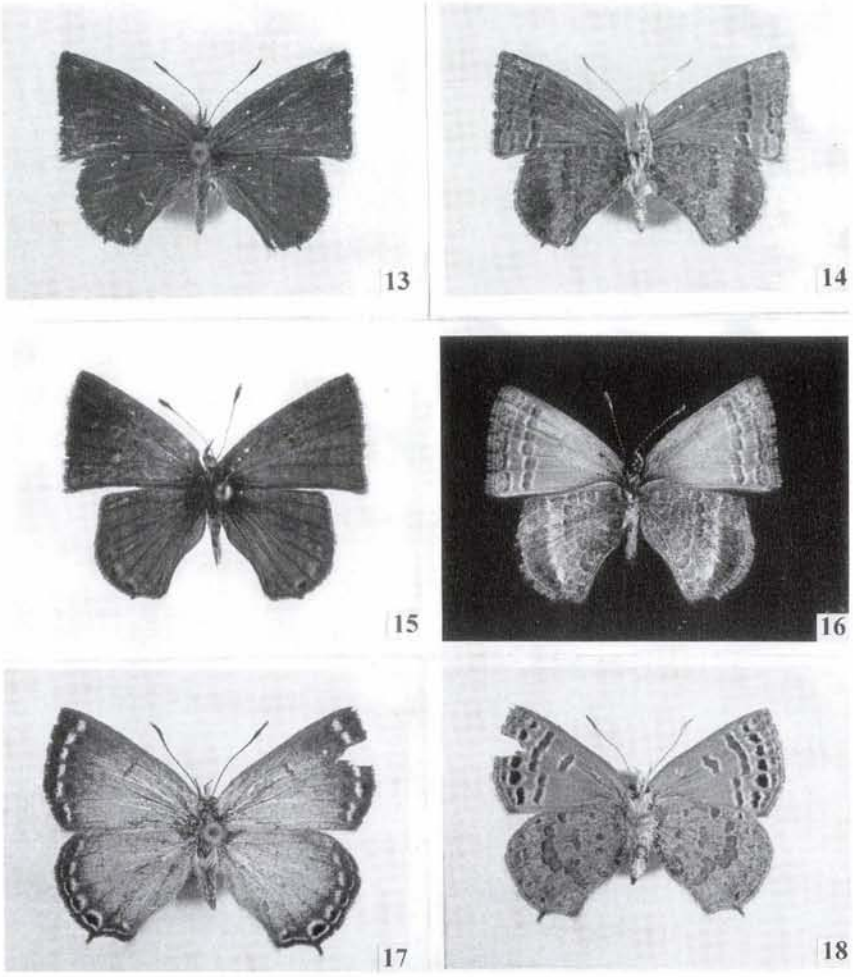
and two male paratypes [MUSM]); 12 mm (paratype female [MUSM], "Hacienda Quichas"). Male genitalia: uncus long and bulbous in dorsal view, gnathos long (3/4 length of uncus), slender and pointed with weak humerulus; tegumen, vinculum, juxta and valva as typical in the subclade (see BÁLINT & JOHNSON 1995*b*); aedeagus long and subzonal element shorter than suprazonal one with pointed apex. Female genitalia: ductus bursae corrugate and eversible; henia strong, fibula pointed in lateral view but wide and flat-



Figs 7–12. *Madeleinea colca* sp. n. 7 = holotype (MUSM), 8 = ditto, ventral, 9 = allotype (MUSM), 10 = ditto, ventral, 11 = paratype, female, Hacienda Quichas (MUSM), 12 = ditto, ventral

tened in dorsal aspect with long and slightly sigmoidal anterior lamella; eight tergite with pointed apodeme.

T y p e m a t e r i a l – Holotype male, labelled as: "Chicla, Lima, Peru, 3800 m 22.VI.74, G. Lamas and N. Medina" (deposited in MUSM). Allotype female, labelled as: "PERU, LI, Chicla, 3800 m, 1142/7616, 22.VI.74, G. Lamas" (deposited in MUSM). Paratype, male, with holotype data (deposited in MUSM). Paratype, male, same data as "Bellavista, Río Rímac, Lima, Peru, 4000 m,



Figs 13–18. Thecline-like polyommatines. 13 = *Nabokovia cuzquenha* sp. n., holotype (MUSM), 14 = ditto, ventral, 15 = *N. cuzquenha* sp. n., paratype (HNHM), 16 = ditto, ventral, 17 = *Eldoradina cyanea* BALLETTO, female, Churín (MUSM); 18 = ditto, ventral

7.VII.1974, G. Lamas" (deposited in MUSM). Paratype female: "PERU, LI, Hacienda Quichas, 10 km N Oyón, 4000 m, 1034/7647, 24–26.II.87, O. Karsholt" (deposited in MUSM). Paratypes, 3 males, 5 females: "PERU, Prov. Arequipa, Cañón del Colca, 3600 m, 1994. XI. 17–19, leg. Hácz T.-Juhász I." (deposited in HNHM). Genital dissections (gen. prep. nos Bálint): 562 (allotype), 573 (paratype male, Bellavista), 564 (paratype female, Hacienda Quichas).

T y p e l o c a l i t y – Chicla, 3800 m, department Lima, Peru (Fig. 46).

B i o n o m i c s – Specimens were collected in high elevations between 3600 and 4000 m. Known from February, June, July and November.

R e m a r k s – Phylogenetically, *M. colca*, *M. huascarana* and the very recently described *M. lea* BENYAMINI, BÁLINT et JOHNSON, 1995, appear to form a tight group in *Madeleinea*. *M. lolita* BÁLINT, 1993 is an obviously different taxon and not a sister of *M. huascarana* as we thought previously, cf. BÁLINT & LAMAS (1994: 235) and BÁLINT & JOHNSON (1995*a*: 32). Their immediate sister group is sympatric and synchronic, containing *M. koa* (DRUCE, 1876) and a new Peruvian species described below and four Ecuadorian species described also very recently (BÁLINT & JOHNSON 1995*a*).

E t y m o l o g y – A noun, gender feminine, from the locality of some of the paratypes.

Table 2. Diagnostic characters of the taxa *M. huascarana* and *M. colca*

	M. huascarana	*M. colca*
DW ground	luminous deep violet blue	luminous light violet blue
Female FW marginal border	wide	narrow
Male genital uncus in ventral view (Figs 34–35)	long, strongly curved and pointed	long, slightly curved and bulbous
Female genital henia (Figs 22–23)	anal lamella strongly sclerotized and open with central tube	anal lamella strongly sclerotized and closed without central tube
Female 8th tergite apodeme (Figs 24–25)	short and bulbous	short and slightly pointed

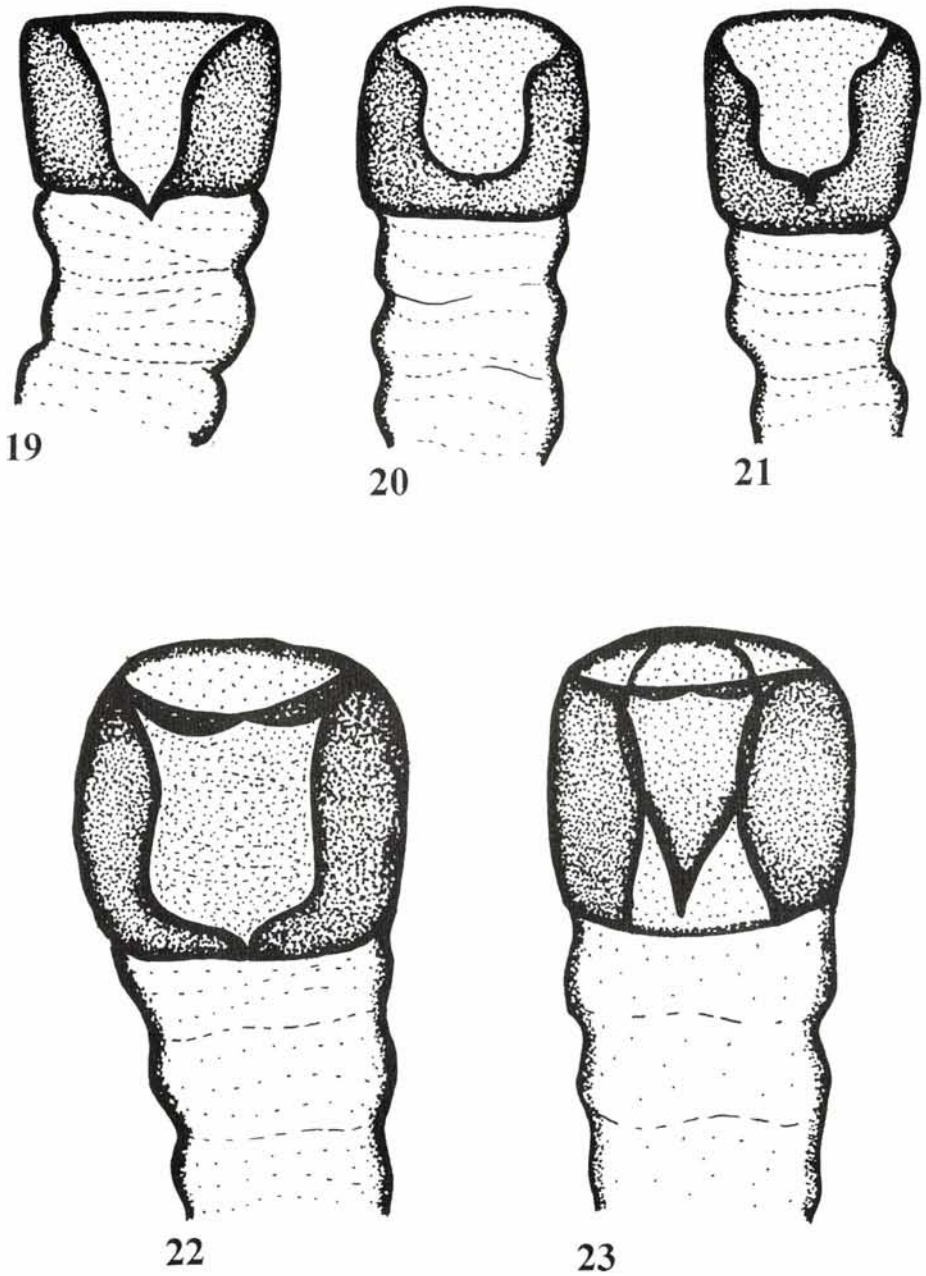
Madeleinea bella sp. n.

F i g u r e s – Wings: 3–6; male genital uncus and gnathos: 38.

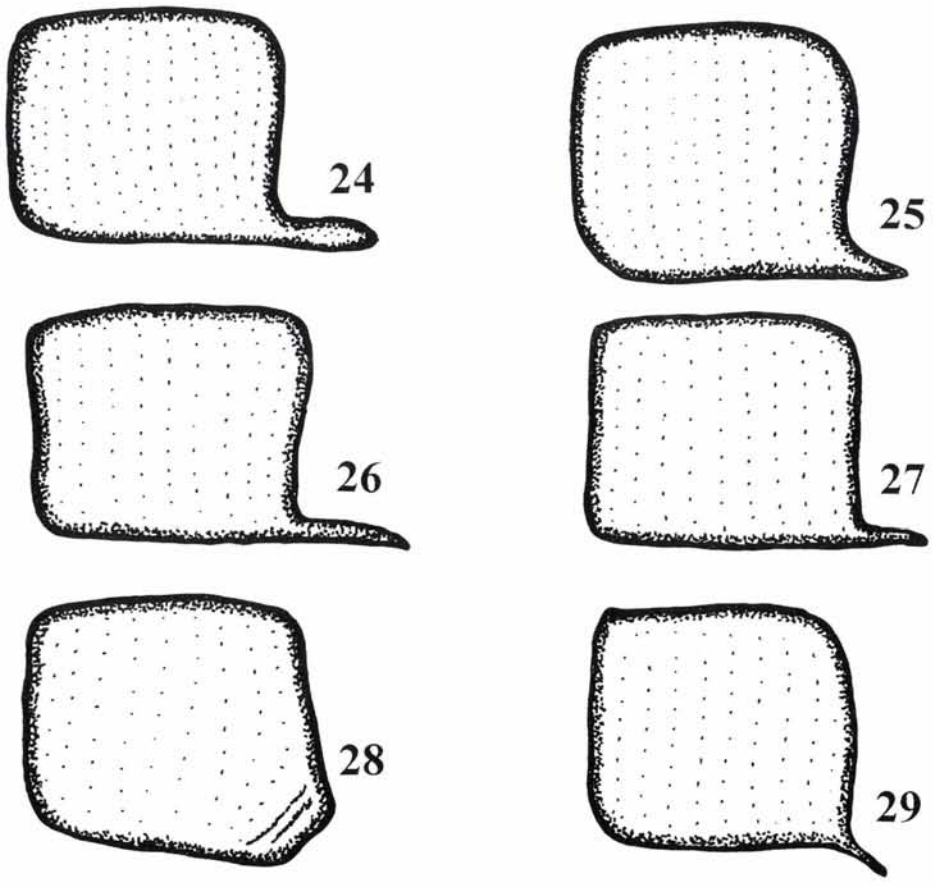
D i a g n o s i s – Externally very similar to *M. moza* (STAUDINGER, 1894) but with male genital structure typical for the *koa*-subclade. Male genitalia resembling those of *M. koa* but with extremely long subzonal element (subzonal and suprazonal elements with same length) and conspicuously short and bulbous uncus with covergent edges. Wing shape, pattern and morphological characters distinguishing the new species are summarized in Table 3.

D e s c r i p t i o n – Male: DW ground colour brown with bronze basal suffusion; DFW discoidal line very small, inconspicuous, DHW with small blue, black eyed margi-

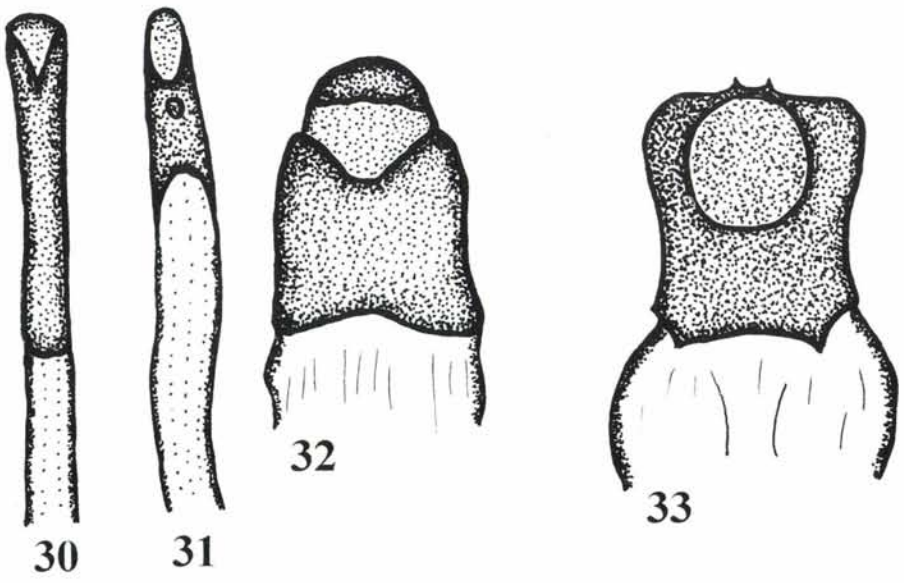
Figs 19–23. Female genital terminalia of *Madeleinea* taxa in lateral view. 19 = *M. ardisensis* sp. n., 20 = *M. pacis* (DRAUDT), 21 = *M. cobaltana* BÁLINT et LAMAS, 22 = *M. colca* sp. n., 23 = *M. huascarana* BÁLINT et LAMAS



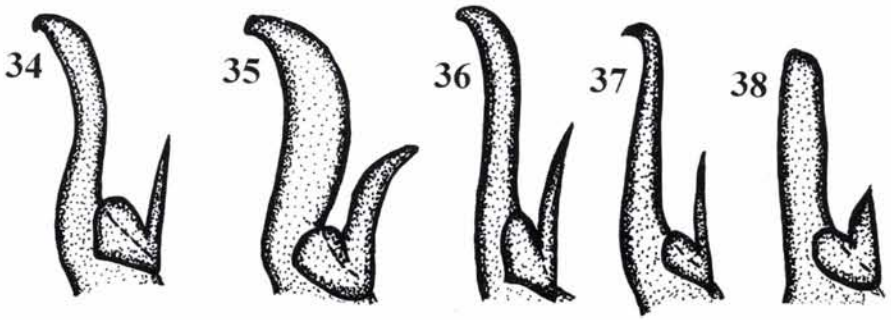
Figs 24–29. Female terminal tergite and anterior apodemes of Neotropical polyommatine lycaenids in lateral view. 24 = *Madeleinea huascarana* BÁLINT et LAMAS, 25 = *M. colca* sp. n., 26 = *M. cobaltana* BÁLINT et LAMAS, 27 = *M. ardisensis* sp. n., 28 = *Eldoradina cyanea* BALLETTO, 29 = *Cyclargus ammon* (LUCAS)



Figs 30–33. Female genital terminalia of Neotropical polyommatine lycaenids in dorsal view. 30 = *Echinargus isola* (REAKIRT), 31 = *Nabokovia* sp. n. pr. *faga* (N-Chile), 32 = *Cyclargus ammon* (LUCAS), 33 = *Eldoradina cyanea* BALLETTO



Figs 34–38. Male genital uncus and gnathos of *Madeleinea* in dorsal view. 34 = *M. huascarana* BÁLINT & LAMAS, 35 = *M. colca* sp. n., 36 = *M. moza* (STAUDINGER), 37 = *M. koa* (DRUCE), 38 = *M. bella* sp. n.



nal spot in cell CuA2 and further two very small anal spots. Fringes checkered. VFW ground colour light brown, delicately suffused with gray scales at base, discoidal and postmedian spots very large and darker brown, halos shiny white and narrow; submarginal area with small darker brown polyommatine spot row; VHW pattern typical of *Madeleinea* and mostly resembling that of *M. koa*; dark elements darker brown; apical postbasal spots merged, pseudovitta very pale and almost inconspicuous; postmedian spots merged in a wide wavy band; margin darker with small spot in ce CuA2. Female: unknown. FW length: 9.0 mm (holotype and paratypes). Male genitalia: Uncus shorter than in *M. koa*, gnathos strong with large humerulus; aedeagus with slender suprazonal element as long as subzonal; valvae long and narrow with low Baird's angulation and medium sized anal lobe.

Type material – Holotype, male, labelled as: "PERU, LI, Huarochirí, 3150 m, 2.V.81, P. Hocking." Paratype, male, labelled as: "PERU, AY, 30 km W Puquio, 3375 m, ca. 1444/7436, 12.III.1987, O. Karsholt". Paratype, male, labelled as: "PERU, AY, 3 km S Incuyo, 1517/7334, 3300 m, 12.II.95, G. Lamas". All, are deposited in MUSM. Genital dissections (gen. prep. no. Bálint): 574 (holotype).

Type locality – Department Lima, Huarochirí, 3150 m, Peru (Fig. 47).

Bionomics – Known from Peru at high elevations between 3150–3375 m. Found in February, March and May.

Remarks – Phylogenetically, *M. bella* appears to be the sister species of *M. koa*, forming with *M. carolityla* BÁLINT & JOHNSON, 1995, *M. vocoban* BÁLINT & JOHNSON, 1995, *M. odon* BÁLINT & JOHNSON, 1995 and *M. nodo* BÁLINT & JOHNSON, 1995, a monophyletic group in the genus. The sister group in *Madeleinea* is comprised of the mainly Austral *M. moza* with several sister species in the high Andean region of Peru, Bolivia and NE Chile.

Etymology – A noun, gender feminine with the meaning "pretty".

Table 3. Diagnostic characters of the taxa *M. moza*, *M. koa* and *M. bella*

	M. moza	*M. koa*	*M. bella*
DW ground	brown	violet blue	brown
VHW ground	grayish with pale pattern	colourful with vestigial pattern	brown with sharp pattern
Male genital uncus in ventral view (Figs 36–38)	bulbous, wide with accused apex	narrow with relatively parallel edges and pointed apex	narrow with convergent edges and bulbous apex

DESCRIPTION OF A NEW *NABOKOVIA* SPECIES FROM SOUTHERN HIGH ANDEAN PERU (*NABOKOVIA* GENUS-GROUP)

Nabokovia cuzquenha sp. n.

F i g u r e s – Wings: 13–16, male genital valva: 39, male genital aedeagus: 41.

D i a g n o s i s – Superficially resembling *N. faga* (DOGNIN, 1895) with conspicuous row of large quadrant postmedian spots; VHW less mottled, basal and submedian pattern inconspicuous, postmedial white stripe strongly reduced or absent, antemarginal area very dark. Male genitalia also resembling those of *N. faga* with more convex valval costa and pointed apex but aedeagus long, more like in *N. ada* BÁLINT & JOHNSON, 1994 like. Valval shape and male genital organ (aedeagus) characters distinguishing the new species are summarized in Table 4.

D e s c r i p t i o n – Male: Antennae and wingshape as typical for *Nabokovia* (cf. BÁLINT & JOHNSON 1994*a*). DFW, DHW ground colour brown with very small black anal spot in Cu2, HW tailed. Fringes lighter brown. VFW ground colour yellow-orange basad with large, quadrant shaped brown postmedial spots, submarginal markings vestigial; VHW ground colour gray with paler brown subbasal and submedian row of spots, submedian white band strongly reduced or absent, submarginal area dark unicoloured brown. Male genitalia with convex costal edge and long process ("rostellum"), anal apex pointed; aedeagus long and slender with pointed suprazonal element about 1/3 times length of subzonal element. Female similar to male with orange submedian suffusion on DFW. Female genitalia not examined. FW length: 11 mm (holotype), male: 10-11 mm (paratypes, n = 5), female: 10–11 mm (paratypes, n = 2).

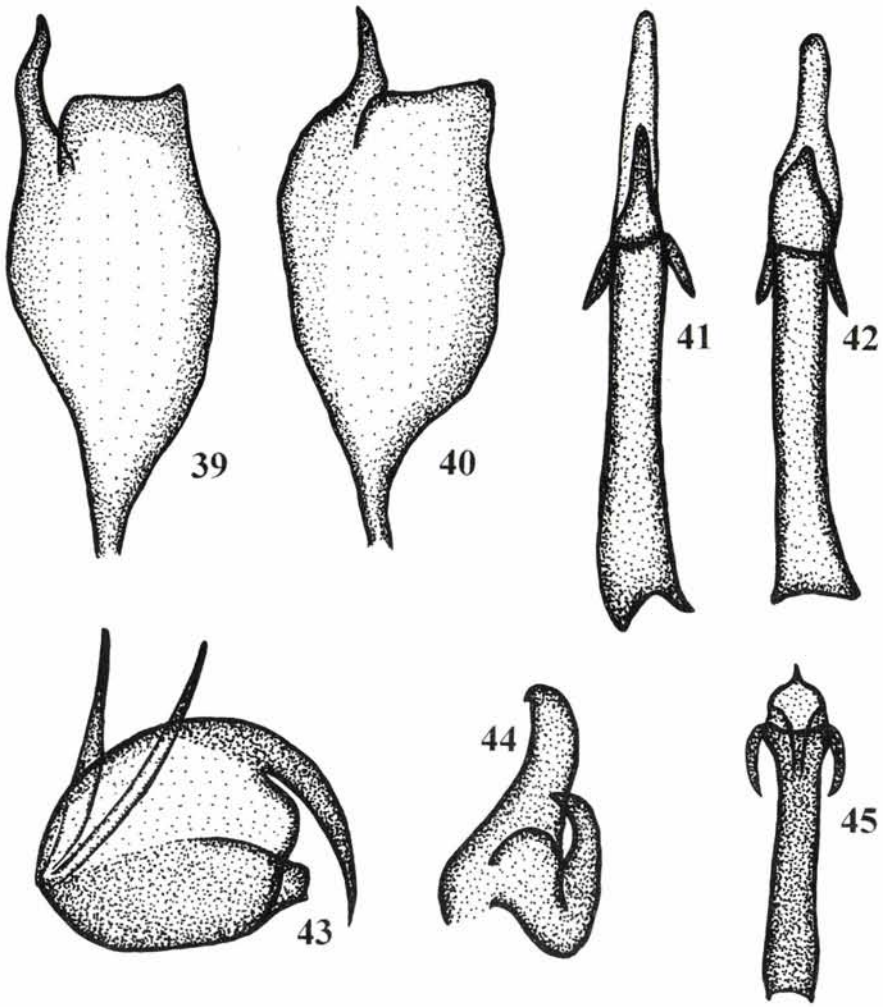
T y p e m a t e r i a l – Holotype male, labelled as: "PERU, AP, Kuchiwa, Pachaconas, 3200 m, 8.VII.79, V. Pacheco" (deposited in MUSM). Paratype, male, labelled as: "PERU, CU, Piste, 2 km Calca, 8.iii.85, J. L. Venero" (deposited in MUSM). Paratype, male, labelled as: "PERU, HV, 3 km NNE Colcabamba, 2500 m, 1224/7440, 26.iv.95, G. Lamas" (deposited in MUSM). Paratype, male, labelled as: "Cuzco, 1906, Fa" [="Fassl"] (deposited in HNHM); paratype male, labelled as "Cuzco, Peru, 4200 M, 1906, Fa" (deposited in NHMB), paratype male, labelled as "Cuzco", paratype female, labelled as "Cuzco, 1906, Fa" (deposited in NHMB) and paratype, female, labelled as "Cuzco, 1906" (deposited in NHMB). Genitalia dissections (gen. prep. nos Bálint): 563 (holotype), 417 (HNHM paratype).

T y p e l o c a l i t y – Pachaconas, 3200 m, Kuchiwa, department Apurímac, Peru (Fig. 47).

B i o n o m i c s – The holotype was collected in relatively high elevation, at 3200 m, while one paratype was found at 2500 m. Specimens known from March, April and July, probably flying all year round as *N. faga*.

R e m a r k s – The material examined section of BÁLINT & JOHNSON (1994: 113–114) for *N. faga* listed several specimens collected in southern Peruvian localities. Most probably many of them represent this new taxon. The only "*N. faga*" specimen available

Figs 39–45. Male genital structures of *Nabokovia*. 39 = Valva of *N. cuzquenha* sp. n., 40 = Valva of *N. faga* (DOGNIN), 41 = Aedeagus of *N. cuzquenha* sp. n., 42 = Aedeagus of *N. faga* (DOGNIN). Male genital structures of *Itylos mashenka* (BÁLINT). 43 = Valva and furca in lateral view, 44 = Uncus and gnathos in dorsal view, 45 = aedeagus in ventral view



to NABOKOV and studied by him obviously represents this new taxon (cf. NABOKOV 1945, Pl. 2, FAG).

Etymology – a noun, gender feminine, from the Spanish "cuzqueña", meaning an inhabitant of Cuzco, the geographical area in which some of the paratypes were collected.

Table 4. Male genital diagnostic characters of the taxa *N. faga*, *N. ada* and *N. cuzquenha*

	N. faga	*N. ada*	*N. cuzquenha*
Valval shape (Figs 39–40)	wide, costa convex	narrow and long, not convex	not so wide, longer with slightly convex costa
Aedeagus (Figs 41–42)	suprazonal portion shorter than subzonal portion, apex stout	suprazonal and subzonal portions equal in length, apex pointed	suprazonal portion shorter than subzonal, apex slightly pointed

Itylos mashenka (BÁLINT, 1993), comb. n. (*Itylos* genus-group)

Figures – male genital structures: 43–45.

Description of male genitalia – Uncus strong but short (1/3 valval length), gnathos shorter than uncus and broken in right angle at half length with large and widened basal part, juxta V-shaped with very long and relatively strong arms; valval shape rounded with strongly developed and pointed costal process, anal process shorter but heavily sclerotized and bristled quadrant apex; aedeagus long with short and pointed suprazonal element (1/5 length of subzonal).

Material examined – 1 male, labelled as "Peru, Río Rímac, Bellavista, 4000 m, 7.VII.1974, G. Lamas", deposited in MUSM. Genital dissection (gen. prep. no. Bálint): 578.

Remarks – The male genital structures obviously show that the taxon was described as *Madeleinea* (the holotype has no abdomen) by mistake and it has to be transferred to the genus *Itylos* DRAUDT, 1921. Therefore, we present here *Itylos mashenka* (BÁLINT, 1993) as comb. n. As was pointed out by BÁLINT & JOHNSON (1994*b*), the male genitalia of all known *Itylos* species is unique. The taxon *mashenka* repeats this situation with characters, like the aedeagus with very long subzonal and short but bulbous suprazonal portions (see BÁLINT & JOHNSON 1994*b*: figs 34–57).

The female genital structure of *Eldoradina cyanea* BALLETTO, 1993 (*Cyclargus* genus-group)

Figures – Wings: 17–18, female genital henia: 33, tergal morphology: 28.

Description of female genitalia – Henia very strong and sclerotized, wide and shovel-shaped with rounded opening in dorsal view (distal and proximal length almost equal); apical edge with two sclerotized thorn-like formations; everted ductus bursae very short and stumpy; 8th tergal anterior apophysis missing.

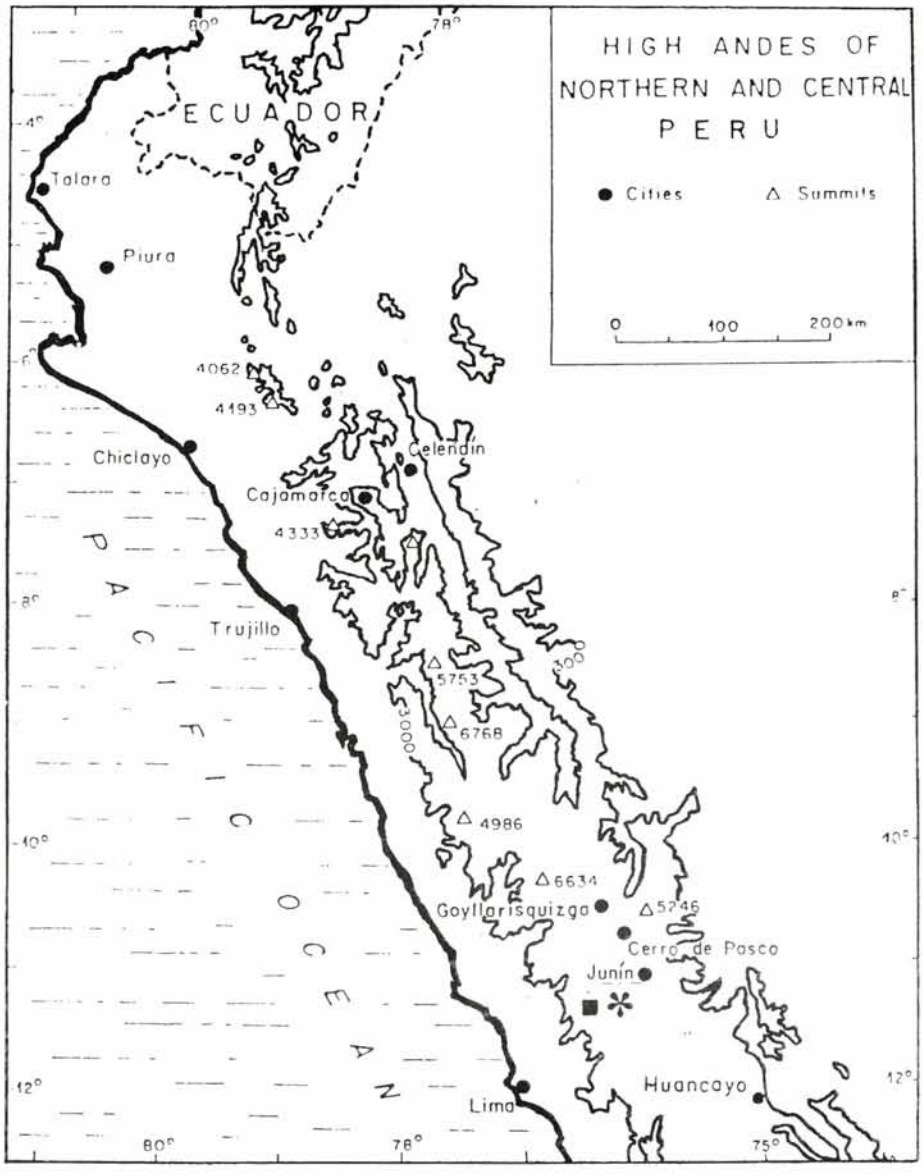
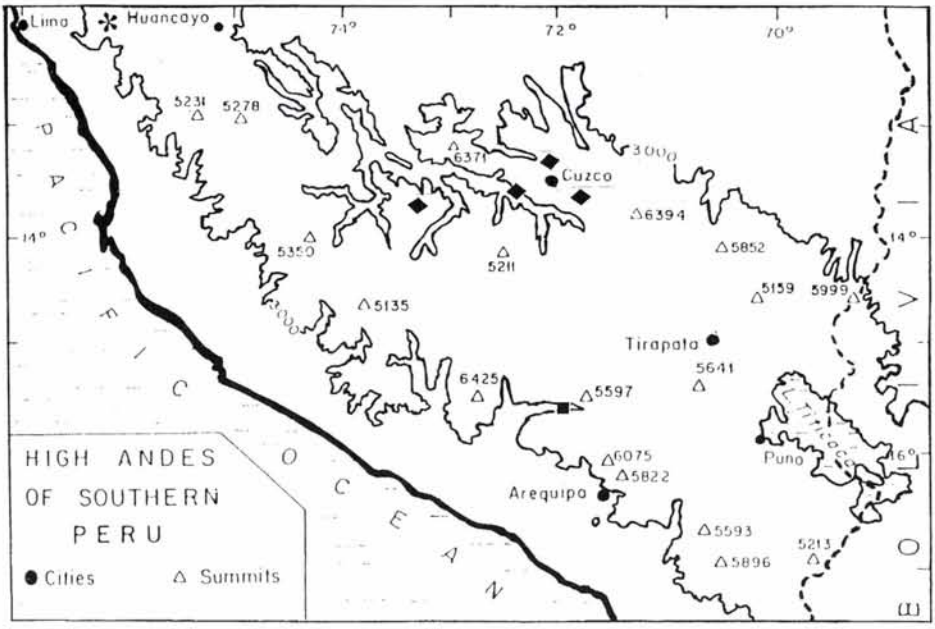


Fig. 46. Distribution of *Madeleinea colca* sp. n. (square), *M. ardisensis* sp. n. (asterisk)

Fig. 47. Distribution of *Nabokovia cuzquenha* sp. n. (diamond), *Madeleinea bella* sp. n. (asterisk) and *M. colca* (square) in southern Peru.



Material examined – One female, labelled as "Peru, LI, Churín, 2000 m, 29.VII.75, G. Lamas", deposited in MUSM. Genital dissection (gen. prep. no. Bálint): 577.

Remarks – The very short ductus bursae and the heavily sclerotized shovel-shaped fibula strongly differ from *Echinargus* NABOKOV, 1945 and *Nabokovia*. Both genera possess very long and slender, evertable ductus bursae with sclerotized apical parts (see Figs 30–31). *Eldoradina* structures obviously recall in the genera *Cyclargus* NABOKOV, 1945 and *Pseudochrysops* NABOKOV, 1945 (see Fig. 32 and NABOKOV 1945, Plate 7, figs AMN 2, BOR 2), but the male genital characters do not support unambiguously this astonishing similarity as well as tergal morphology (cf. Fig. 29). Nevertheless the results of the study of *Eldoradina* female genitalia support BÁLINT & JOHNSON's view (1994*a*) who distinguished *Nabokovia* and *Eldoradina* as distinct genera (see BALLETTO 1993).

* * *

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