

RESEARCH PAPER

A new *Perichares* from the Cosñipata Valley, Cusco, Peru, and the revalidation of *Perichares lindigiana* stat. rev. (Lepidoptera: HesperIIDae)

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Abstract. A new *Perichares* Scudder, 1872, *Perichares cosnipata* Suênia-Bastos, O. Mielke & Casagrande sp. nov., is described from the Cosñipata Valley, Cusco, Peru, and *P. lindigiana* (C. Felder & R. Felder, 1867) stat. rev. from Venezuela, Colombia, Peru and Bolivia is revalidated. After this study, *Perichares* contains 24 species. In addition, lectotypes are designated for *Hesperia colenda* Hewitson, 1866 and *Hesperia lindigiana* C. Felder & R. Felder, 1867, and a key to the related species of *Perichares* is provided here.

Key words. Lepidoptera, Papilionoidea, HesperIIDae, HesperIIDae, Pericharini, Pericharina, taxonomy, new species, Neotropical Region

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Introduction

The Neotropical genus *Perichares* Scudder, 1872 was described to include four species, including a new one (SCUDDER 1872). Subsequently, EVANS (1955) revised the genus and recognized eight species, including two new species and three new subspecies. BIEZANKO & O. MIELKE (1973) included one more species and BURNS et al. (2008) described three more cryptic species using DNA barcoding. Pericharini Grishin, 2019 (in LI et al. 2019) was described to include seven genera: *Alera* Mabille, 1891, *Lycas* Godman, 1901, *Lychnuoides* Godman, 1901, *Orphe* Godman, 1901, *Orses* Godman, 1901, *Perichares* and *Pseudorphe* Warren & Dolibaina, 2015. CONG et al. (2019) synonymized *Alera* with *Perichares*, and revalidated *Oenides* Mabille, 1904. In subsequent studies, new taxonomic changes were proposed including *Lychnuoides* Godman, 1901 as a junior synonym of *Perichares*, the description of *Oz* Grishin, 2022, and the division of Pericharini in two subtribes (Orphina Grishin, 2022 and Pericharina Grishin, 2019) (ZHANG et al. 2022), as well as a description of a new species (ZHANG et al. 2023).

This genus, in general, can be divided into three groups based on the wing pattern with (see SUÊNIA-BASTOS et al. 2025): 1) irregular lilac, white, or grey markings ventrally, without longitudinal or transversal bands; 2) longitudinal or transversal bands ventrally, and without such lilac markings; and 3) lilac markings, but with orange coloration on the anal angle ventrally, with the addition of orange anal margin and anal angle on the dorsal hind wing. (the “*colenda* species group”). This study describes a new species of *Perichares* from Peru belonging to the “*colenda* species group”, which exhibits similar patterns to those of *P. colenda* (Hewitson, 1866), and *P. lindigiana* (C. Felder & R. Felder, 1867) stat. rev., is revalidated here. Diagnoses, illustrations, and a partial identification key are provided for these distinct *Perichares*.

Material and methods

Material from the following collections was examined:

DZUP Coleção Entomológica Padre Jesus Santiago Moure, Departamento de Zoologia, Universidade Federal do Paraná, Curitiba, Paraná, Brazil;



DZUP-OM Olaf Hermann Hendrik Mielke Private Collection, Curitiba, Paraná, Brazil, in DZUP;
 MUSM Museo de Historia Natural Universidad Nacional Mayor de San Marcos, Lima, Peru;
 NHMUK Natural History Museum, London, United Kingdom.

To study the genitalia morphology, the abdomens of nine specimens (8♂♂ 1♀) were detached from the body and boiled in 10% potassium hydroxide (KOH) to extract the genitalia, following the methods described in CARNEIRO et al. (2013). These genitalia were photographed using the equipment of self-assembly Leica M205 C equipped with a digital camera (Leica DMC4500) operated via Leica Application Suite version 4.12.0 (Build 86).

Morphological terminology, including veins and spaces follows CARNEIRO et al. (2013). A geographical distribution map was generated using QGIS Desktop version 3.32.1, based on the specimen label data and, when available, records in the literature with photographs.

Abbreviations used in this text: DFW – dorsal forewing; DHW – dorsal hind wing; FW – forewing; HW – hind wing; VFW – ventral forewing; VHW – ventral hind wing; sp. nov. – new species; stat. rev. – revalidated status.

Results and discussion

Perichares cosnipata Suênia-Bastos, O. Mielke & Casagrande sp. nov.

(Figs 1–3)

Type material. HOLOTYPE: ♂ (DZUP): / HOLOTYPUS / [Rocotal], Cosñipata [Valley], [Cusco], Peru, 2,000 m, iii-1995, M. Büche [leg.] / OM 60.010 / *Perichares cosnipata* Suênia-Bastos, O. Mielke & Casagrande det. 2025 /. PARATYPES: PERU: CUSCO: *Cosñipata Valley, Rocotal*, 13°06'54"S, 71°34'13"W, 2,000 m, 11.x.2024, 1 ♂, O. Mielke leg., OM 94.780 (DZUP-OM), 22.x.2024, 1 ♂, S. Kinyon leg., OM 95.267 (DZUP-OM), 13.x.2024, 1 ♂, W. Dempwolf leg. (MUSM), *Cosñipata Valley, Quebrada Union*, 1,600 m, 13°04'15"S, 71°34'09"W, 4.ii.2020, 1 ♂, O. Mielke leg., OM 90.560 (DZUP-OM).



Fig. 1. *Perichares cosnipata* Suênia-Bastos, O. Mielke & Casagrande sp. nov. male Holotype from Cosñipata Valley, Peru (OM 60.010). A – dorsal view; B – ventral view; C – male recorded on November 13th 2017, at 10:40 am, in Rocotal, Cosñipata Valley (Peru), between 2,000–2,200 m, by Andrew Neild. Scale bar = 10 mm.

Diagnosis. Only the male is known. This new species is dorsally similar to *P. colenda* and *P. lindigiana* stat. rev., but it is much larger and it is easily recognizable by the following characters: antenna dark brownish dorsally and ventrally except for the whitish club; thorax dorsally brownish mixed with blue iridescence; DHW with orange restricted to the anal margin and anal angle (Fig. 1A); and the pattern of the bluish spots on the VHW (Figs 1B, C).

Description. Male. Ground colour brownish. *Head.* Antenna with whitish club; nudum 13–15 segments. Palpus whitish laterally. Eye red.

Thorax dorsally with blue iridescence. Foreleg orange, externally yellowish; midleg and hindleg orange; mesotibia spined with pair of spurs; metatibia spined with two pairs of spurs. FW length 24–26 mm. DFW (Fig. 1A) with three large whitish hyaline spots in discal cell, M_3 – CuA_1 , and CuA_1 – CuA_2 ; marginal line and fringes not highlighted. DHW (Fig. 1A) with orange restricted to anal margin and anal angle, not extending to discal area; fringes creamish between $Sc+R_1$ and M_1 . VFW (Figs 1B, C) costa lilac at base; two bluish linear spots between C and discal cell spot; four apical compact bluish linear spots between R_2 and M_1 , and two more diffuse spots between M_1 and M_3 ;

four marginal apical bluish spots between R_3 and M_2 , first and last very small; apical area ferruginous between spots; marginal line and fringes not highlighted. VHW (Figs 1B, C) with dark veins; bluish discal band composed of five spots between base of C and lower half of CuA_2 –2A; bluish submarginal band with seven spots between apical area and lower half of CuA_2 –2A, large spot in M_1 – M_3 connected to lower half of discal spot; bluish marginal band with three spots between $Sc+R_1$ and M_3 ; anal angle orange between lower half of CuA_2 –2A and anal margin; marginal line dark brownish; fringes creamish in apical area up to below M_1 , then dark brownish up to upper half of CuA_2 –2A, and then orange at anal angle.

Abdomen orange ventrally. Male genitalia (Fig. 2) with tegumen shorter than uncus. Ventral arm of tegumen and dorsal arm of saccus curved anteriorly. Uncus bifid distally, with long setae; distolateral margins concave. Gnathos straight, directed ventrally. Valva rounded distally with slight division between costa and harpe; harpe bearing a few spines on distal margin. Fultura inferior truncate anteriorly. Aedeagus longer than valva, straight, and ventro-distally concave in U-shape; broader than in other two species of “*colenda* species group”; median region

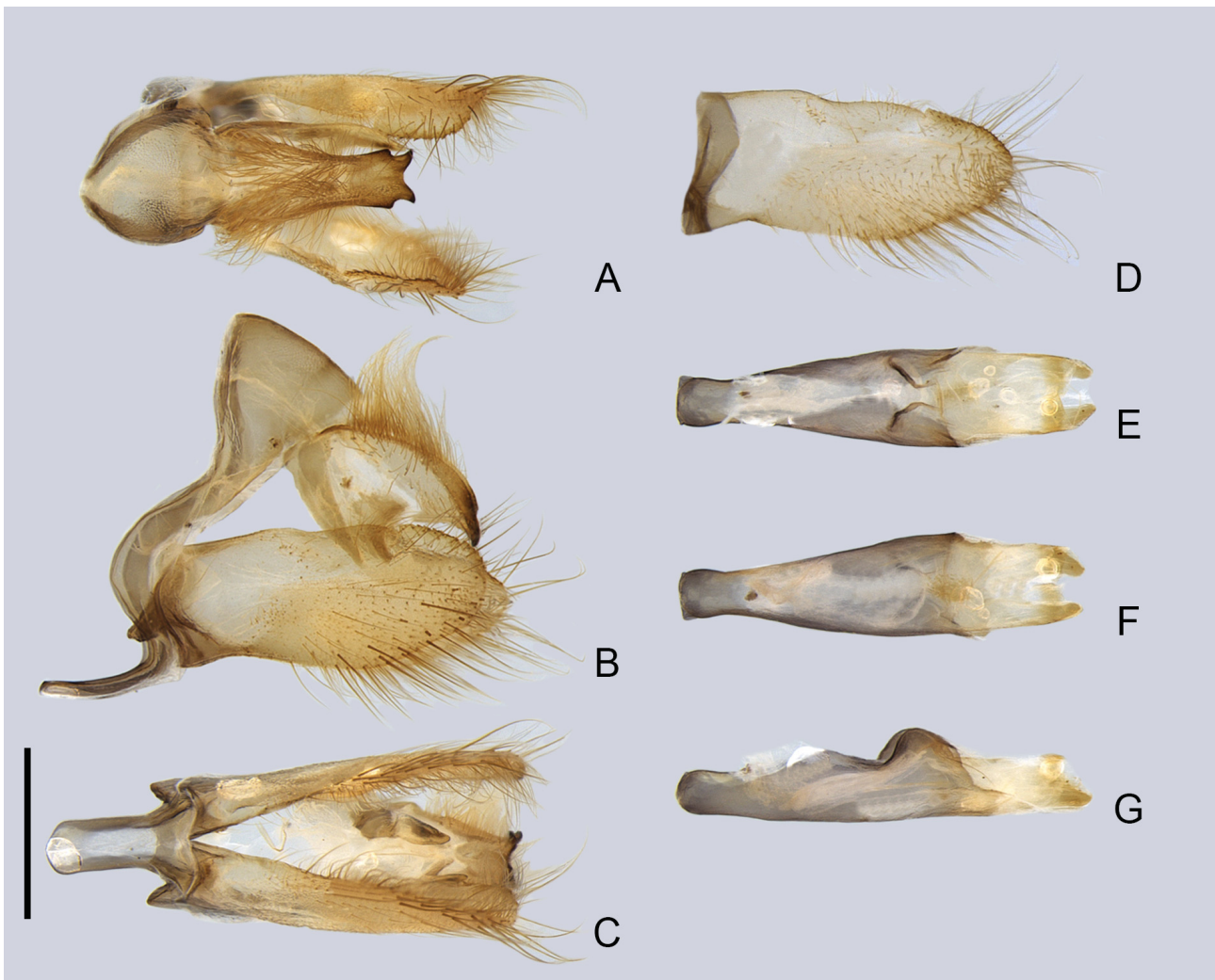


Fig. 2. Male genitalia of paratype of *Perichares cosnipata* Suênia-Bastos, O. Mielke & Casagrande sp. nov. from Quebrada Union, Cosñipata Valley, Cusco, Peru (OM 90.560). A – dorsal view; B – lateral view; C – ventral view; D – inner view of the valva; E–G – aedeagus: E – dorsal, F – ventral, G – left lateral views. Scale bar = 1 mm.

expanded dorsally; cornuti absent.

Etymology. The epithet refers to the type locality, Cosñipata Valley, Cusco, Peru. Noun in apposition.

Geographical distribution. This new species is only known from Peru (Cusco, Cosñipata Valley), flying at altitudes from 1,600 to 2,000 m, revealing sympatric distribution with *P. colenda* (Fig. 3).

***Perichares colenda* (Hewitson, 1866)**

(Figs 3, 4–5)

Hesperia colenda Hewitson, 1866: 493 (Venezuela, collection Hewitson).

Hesperia colenda: C. FELDER & R. FELDER (1867): 536 (syn.: *lindigiana*); PLÖTZ (1882): 328 (syn.: *lindigiana*).

Goniloba colenda: HERRICH-SCHÄFFER (1869): 191 (syn.: *lindigiana*).

Carystus colenda: KIRBY (1871): 592 (syn.: *lindigiana*).

Perichares colenda: WILLIAMS & HAYWARD (1944): 227 (syn.: *lindigiana*); BELL (1946): 183 (syn.: *lindigiana*); HAYWARD (1947): 370 (syn.: *lindigiana*); EVANS (1955): 258, pl. 71 (male gen.) (syn.: *lindigiana*); LAMAS (1979): 54–61 (addenda); SANDOVAL et al. (2007): 57; PULIDO-B. & PARRALES (2011): 195; BERTHET (2019): 50; HENAO-B. PÁEZ & RODRÍGUEZ-M. [2019]: 168; SUÊNIA-BASTOS et al. (2025): 110, fig. 55 (male, d, v); [fig. 56, female d, v, = *P. lindigiana*].

Type material. LECTOTYPE (here designated): ♂ (NHMUK), “Type / *colenda* / Venezuela, Hewitson Coll. 79-69. *Hesperia colenda*. 2. / red label without information / LECTOTYPUS / Lectotype *Hesperia colenda* Hewitson, 1866 Suênia-Bastos, O. Mielke & Casagrande det. 2025”.

Additional material examined. COLOMBIA: CUNDINAMARCA: Albán, *San Pablo*, 2,000 m, xii.1958, 1 ♂, Schmidt-Mumm leg., OM 91.730

(DZUP–OM). PERU: Cusco: Cosñipata Valley, [Morro Leguía], 2,100 m, iv.1995, 1 ♂, M. Büche leg., OM 59.874 (DZUP–OM).

Diagnosis. FW length 23–24 mm. Dorsally similar to *P. cosnipata* sp. nov.; however, the orange scales extend to discal area on DHW (Fig. 4A). It differs from *Perichares lindigiana* stat. rev. in the following characters: antenna entirely brownish, usually with inconspicuous whitish scales ventrally, club whitish; HW rounded and almost as broad as long (Fig. 4); VFW apical area with six faded lilac spots between R_2 and M_3 reaching the hyaline spot in M_3 – CuA_1 , two to three apical-marginal lilac spots separated from the apical spots by a broad brownish zigzag band (Fig. 4B); VHW with two inconspicuous lilac bands, one discal band between the base of C and lower half of CuA_2 –2A, and a slightly curved submarginal band between the apex and lower half of CuA_2 –2A (Fig. 4B); male genitalia (Fig. 5) with uncus bifid, with the tips curved ventrally; valva longer with more sclerotized spines in harpe dorsally, and a variable concavity between the harpe and costa; aedeagus longer than valva, and ventro-distally concave in U-shape.

Etymology. The author provided no explanation.

Comments on the taxonomic history. *Hesperia colenda* Hewitson, 1866 was described based on an unspecified number of specimens from Venezuela. In order to stabilize the identity of this species, the male syntype found in the NHMUK is designated herein as the lectotype. This species was subsequently transferred to *Goniloba* Westwood,

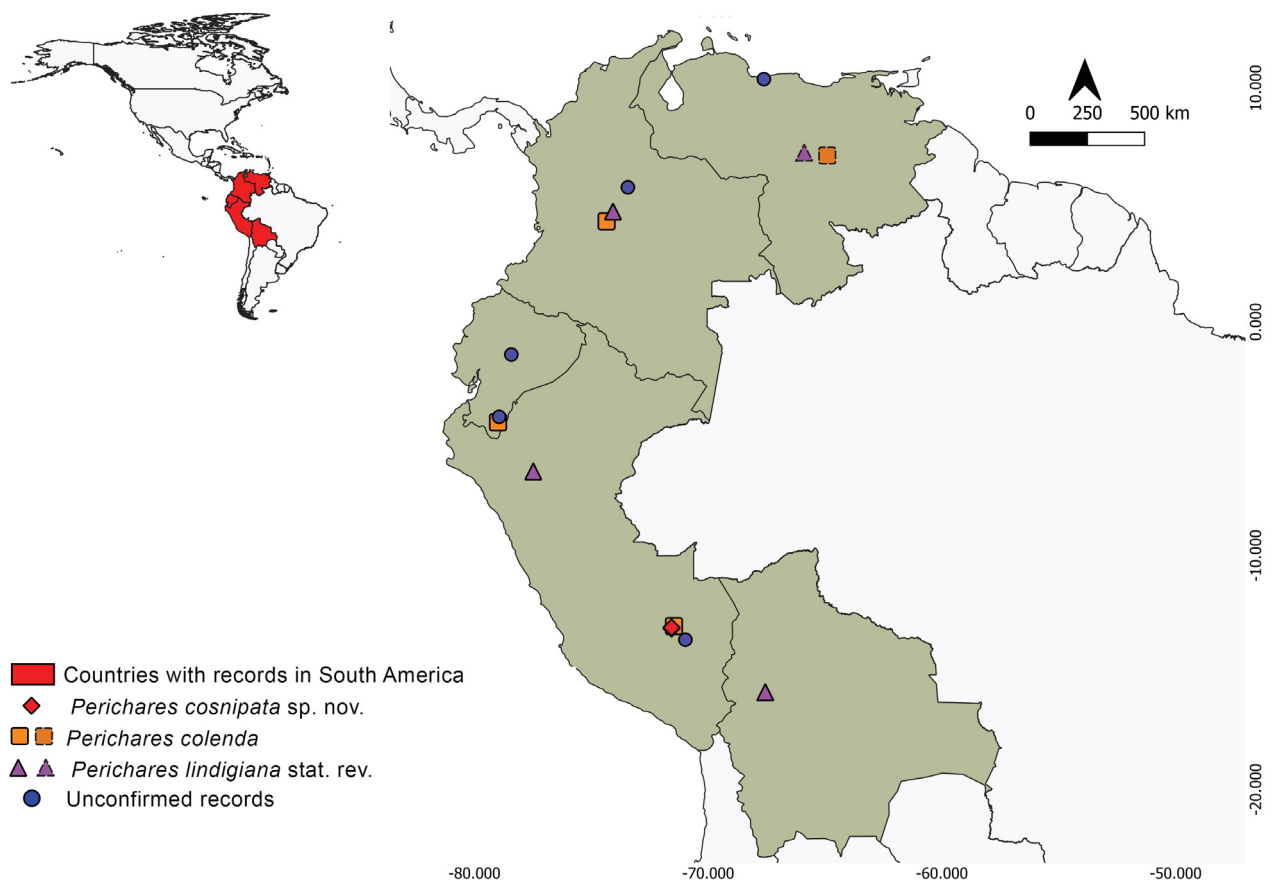


Fig. 3. Distribution map of *Perichares cosnipata* Suênia-Bastos, O. Mielke & Casagrande sp. nov., *P. colenda* (Hewitson, 1866), and *P. lindigiana* (C. Felder & R. Felder, 1867) stat. rev. The dashed symbols correspond to the lack of geographical locality inside Venezuela. Source of the map – Instituto Brasileiro de Geografia e Estatística (IBGE); Coordinate Reference System (CRS) – EPSG:4618 - SAD69.

1852 (HERRICH-SCHÄFFER 1869), *Carystus* Hübner, [1819] (KIRBY 1871), and *Perichares* (WILLIAM & HAYWARD 1944). Other authors mention this species in revisions, catalogues, and geographic distributions.

Geographical distribution. Based on collection data, *P. colenda* occurs in Colombia and Peru (Fig. 3), flying at altitudes from 2,000 to 2,100 m. HEWITSON (1866) recorded it from Venezuela, and BERTHET (2019) recorded from

Ecuador (Loja, Podocarpus National Park, Cajanuma Sector). *Perichares colenda* exhibits sympatric distribution with *P. lindigiana* and *P. cosnipata* sp. nov. (Fig. 3). Other authors have reported the distribution of *P. colenda*, but without illustrations to confirm the identity of the species, these are reported here as unconfirmed distribution (Fig. 3), such as: WILLIAMS & HAYWARD (1944) recorded it from Ecuador; BELL (1946) from Colombia and Venezuela;



Fig. 4. *Perichares colenda* (Hewitson, 1866) male from Cosñipata Valley, Cusco, Peru (OM 59.874). A – dorsal view; B – ventral view. Scale bar = 10 mm.

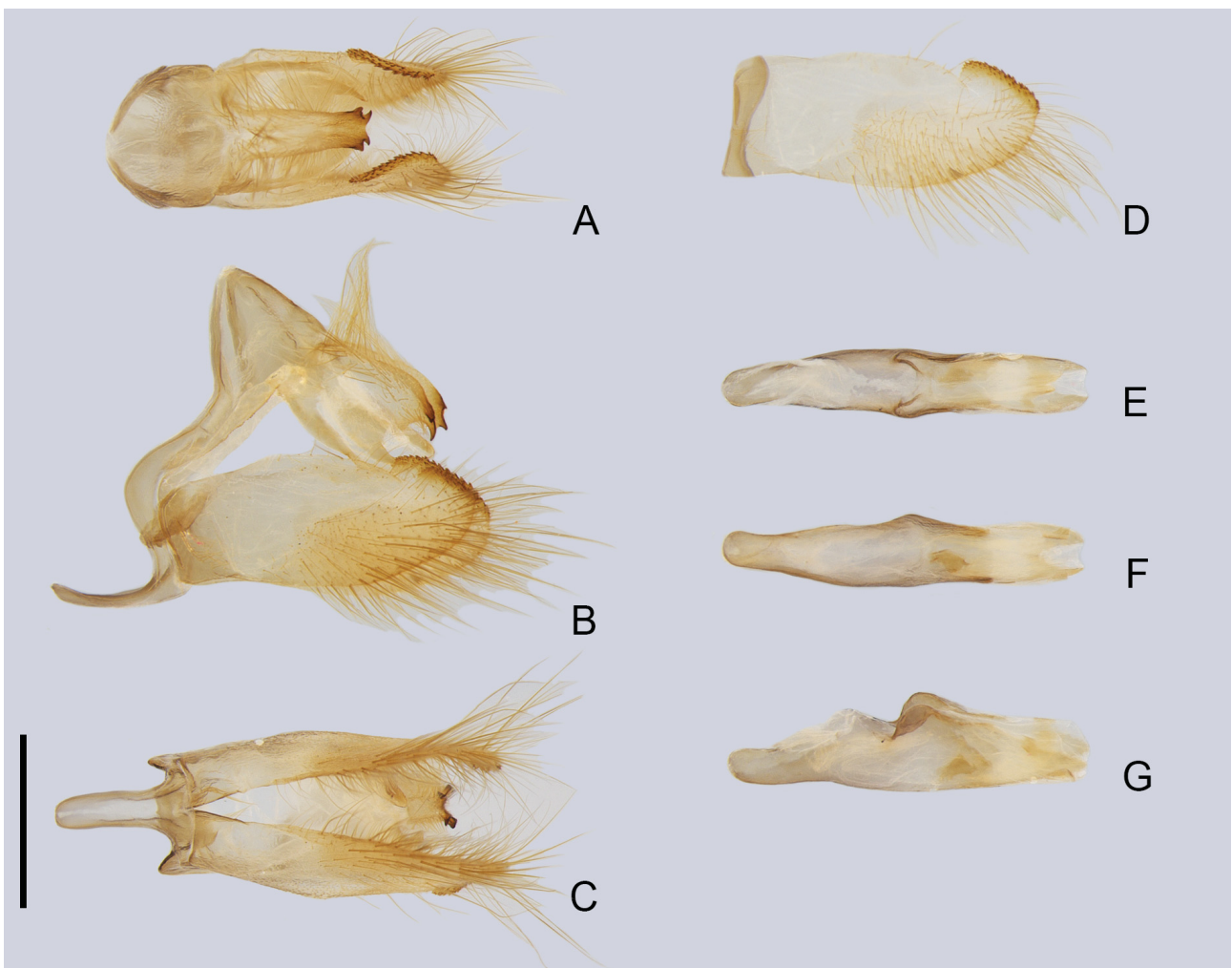


Fig. 5. Male genitalia of *Perichares colenda* (Hewitson, 1866) from Cosñipata Valley, Cusco, Peru (OM 59.874). A – dorsal view; B – lateral view; C – ventral view; D – inner view of the valva; E–G – aedeagus: E – dorsal, F – ventral, G – left lateral views. Scale bar = 1 mm.

HAYWARD (1947) from Colombia; EVANS (1955) examined specimens from Colombia, Venezuela, Ecuador (Baños and Zamora), Peru (Marcapata), and Bolivia (Farinas); LAMAS (1979) from Peru (Cajamarca); SANDOVAL et al. (2007) from Venezuela (Aragua, Parque Nacional Henri Pittier); PULIDO-B. & PARRALES (2011) from Colombia (Boyacá, Arcabuco); and HENAO-BAÑOL et al. (2018) from Colombia (Reserva Forestal Protectora-Productora Cuenca Alta del Río Bogotá).

***Perichares lindigiana* (C. Felder & R. Felder, 1867)**

stat. rev.

(Figs 3, 6–8)

Hesperia lindigiana C. Felder & R. Felder, 1867: 514, pl. 72, figs 3, 4 (dorsal, ventral); ♂ Venezuela, Monte leg. and Bogotá, Nova Granada [Colombia]; Lindig leg.; collection Felder.

Perichares lindigiana: DRAUDT (1923): 995, pl. 191f (dorsal, ventral; syn.: *colenda*).

Perichares colenda: EVANS (1955): 258 (syn.: *lindigiana*); SUÊNIA-BASTOS et al. (2025): 110, fig. 56 (female, dorsal, ventral); [fig. 55, male, dorsal, ventral, = *P. colenda*].

Type material. LECTOTYPE (here designated): ♂ (NHMUK), “Type / Venezuela / Felder Coll N. / Rothschild Bequest B. M. 1939-1. / [QR code] BMNH (E) 1716980 / LECTOTYPUS / Lectotype *Hesperia lindigiana* C. Felder & R. Felder, 1867 Suênia-Bastos, O. Mielke & Casagrande det. 2025”.

Additional material examined. PERU: AMAZONAS: Mendoza, 1,600–2,000 m, v.1997, 1 ♀, Büche leg., OM 48.660 (DZUP-OM). BOLIVIA: Caranavi, 1,000 m, i.2005, 1 ♂, C. Tello leg., OM 66.694 (DZUP-OM).

Diagnosis. FW length 22–23 mm. Dorsally similar to *P. cosnipata* sp. nov.; however, the orange scales extend to discal area (Figs 6A, C). It differs from *P. colenda* in the following characters: antenna entirely brownish dorsally, and usually fully yellowish ventrally, club yellowish; HW not rounded, longer than broad (Fig. 6); VFW apical area with six bright lilac spots between R_2 and M_3 , reaching the hyaline spot in M_3 - CuA_1 (Figs 6B, D); two or three apical-marginal lilac spots separated from the apical spots by a thin brownish zigzag band (Figs 6B, D); VHW with two lilac bands more conspicuous, one discal band between the base of C and lower CuA_2 -2A, and a straight submarginal band between the apex and lower half of CuA_2 -2A (Figs 6B, D). Male genitalia (Fig. 7) similar to the related species but there are differences, such as: uncus bifid, with the tips directed distally and not curved ventrally; valva shorter with a few spines in dorso-distal margin of harpe; aedeagus longer than valva with the coecum strongly directed to the right, and ventro-distally concave in V-shape. The only known female in this group is that of *P. lindigiana* and it is similar to the male except for the additional hyaline spot in CuA_2 -2A (Figs 6C, D). Here its genitalia is characterized (Fig. 8): lamella antevaginalis as a transverse bar, medially larger and projected distally, connected dorsally to the lamella postvaginalis; lamella postvaginalis as a transverse bar with lateral projections connected to the lamella antevaginalis and directed ventrally; corpus bursae distinct from ductus bursae.

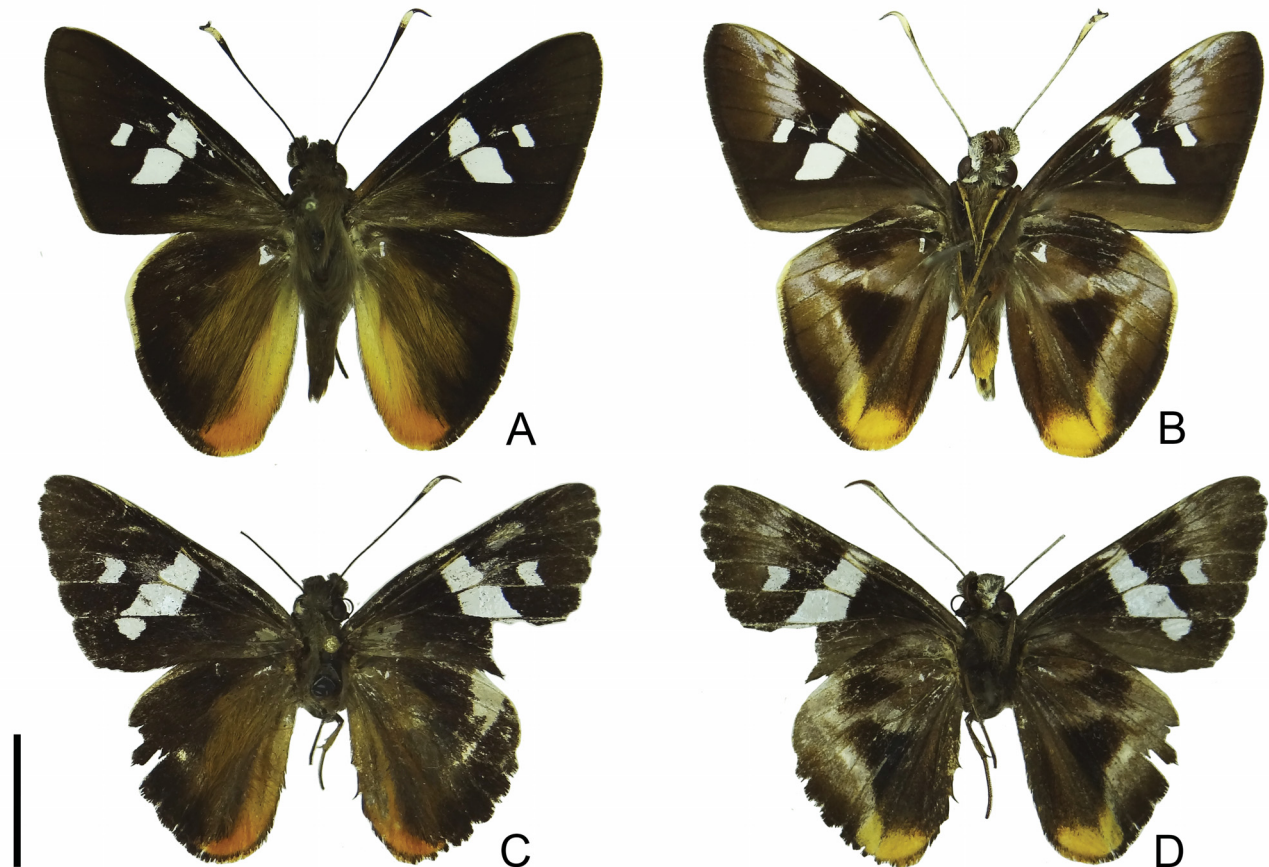


Fig. 6. *Perichares lindigiana* (C. Felder & R. Felder, 1867) stat. rev. A–B – male from Caranavi, La Paz, Bolivia (OM 66.694): A – dorsal view; B – ventral view. C–D – female from Mendoza, Amazonas, Peru (OM 48.660): C – dorsal view; D – ventral view. Scale bar = 10 mm.

Etymology. Although not mentioned, probably the name is in recognition of the collector of the specimens, Alexander Lindig.

Comments on the taxonomic history. *Hesperia lindigiana* C. Felder & R. Felder, 1867 was described based on specimens from Venezuela and Colombia (Cundinamarca, Bogotá). In order to stabilize the identity of this species, the male syntype found in the NHUMK is designated herein as the lectotype. This species was treated as a synonym of *H. colenda* by HERRICH-SCHÄFFER (1869). DRAUDT (1923) incorrectly synonymized *H. colenda* with *H. lindigiana*, referring erroneously to PLÖTZ (1882); and EVANS (1955) maintained *H. lindigiana* as junior synonym of *P. colenda*, as HERRICH-SCHÄFFER (1869) firstly proposed. However, after the examination of the syntype (now lectotype) and additional material, *P. lindigiana* stat. rev. is revalidated here.

Geographical distribution. Based on collection data, *P. lindigiana* occurs in Bolivia and Peru (Fig. 3), flying at altitudes from 1,000 to 2,000 m. The original description by C. FELDER & R. FELDER (1867) also includes Colombia and Venezuela. This species shows sympatric distribution with *P. colenda* (Fig. 3).

Key to the *Perichares colenda* species group

These three species now represent a very distinct group within *Perichares* as they are the only ones exhibiting orange anal margin and anal angle on the DHW, in addition to lilac or bluish markings, but with orange coloration solely on the anal angle of the VHW.

- 1 DHW without the orange scales extending to discal area (Fig. 1A). *P. cosnipata* Suênia-Bastos, O. Mielke & Casagrande **sp. nov.**
- DHW with orange scales extending to discal area (Figs 4A, 6A). 2
- 2 VFW with two to three apical-marginal lilac spots separated from the apical spots by a broad brownish zigzag band (Fig. 4B); VHW with two inconspicuous lilac bands, one discal band between the base of C and lower half of CuA₂-2A, and a slightly curved submarginal band between the apex and lower half of CuA₂-2A (Fig. 4B). *P. colenda* (Hewitson, 1866)
- VFW with two or three apical-marginal lilac spots separated from the apical spots by a thin brownish zigzag band (Figs 6B, C); VHW with two lilac bands more conspicuous, one discal band between the base of C

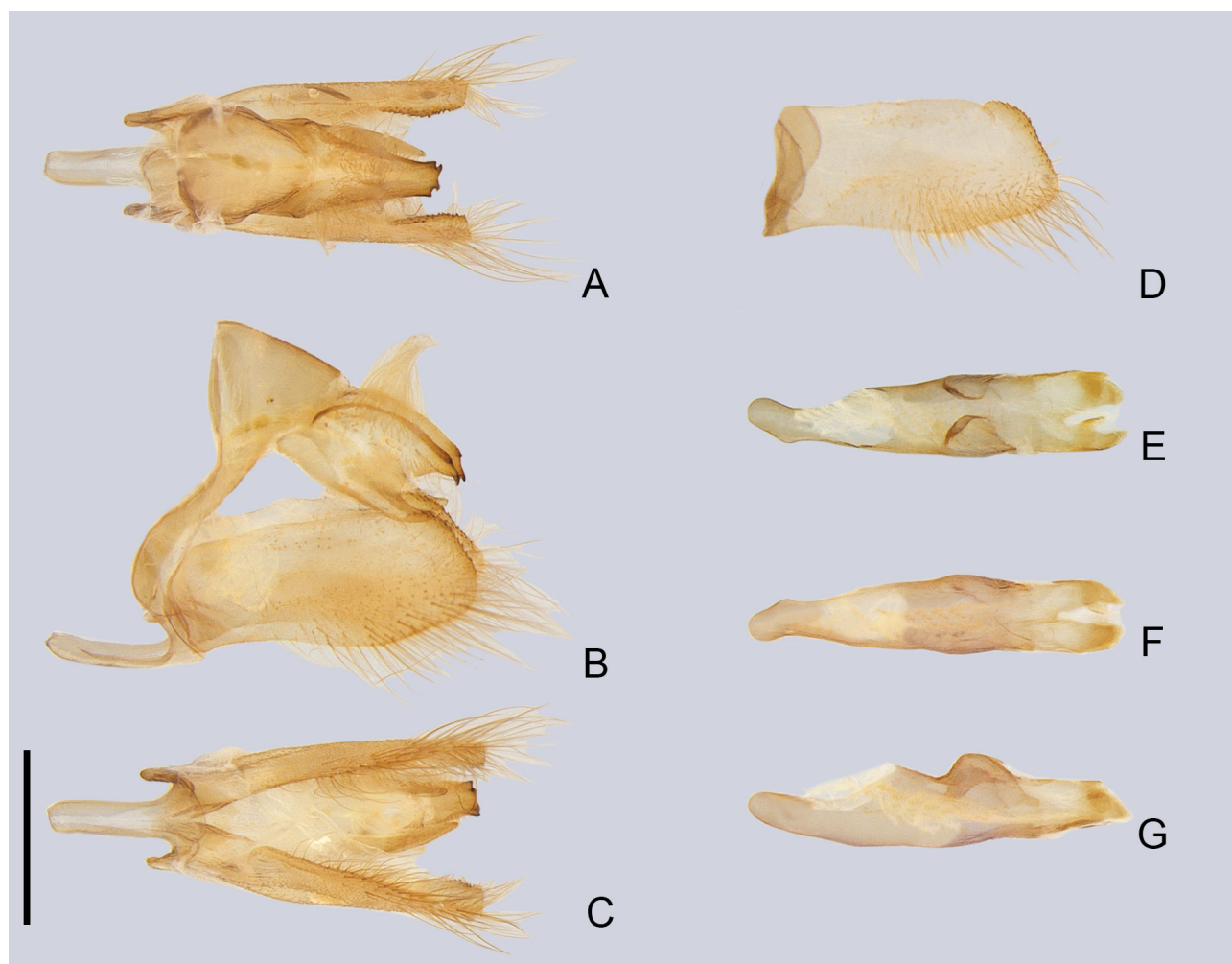


Fig. 7. Male genitalia of *Perichares lindigiana* (C. Felder & R. Felder, 1867) stat. rev. from Caranavi, La Paz, Bolivia (OM 66.694). A – dorsal view; B – lateral view; C – ventral view; D – inner view of the valva; E–G – aedeagus: E – dorsal, F – ventral, G – left lateral views. Scale bar = 1 mm.

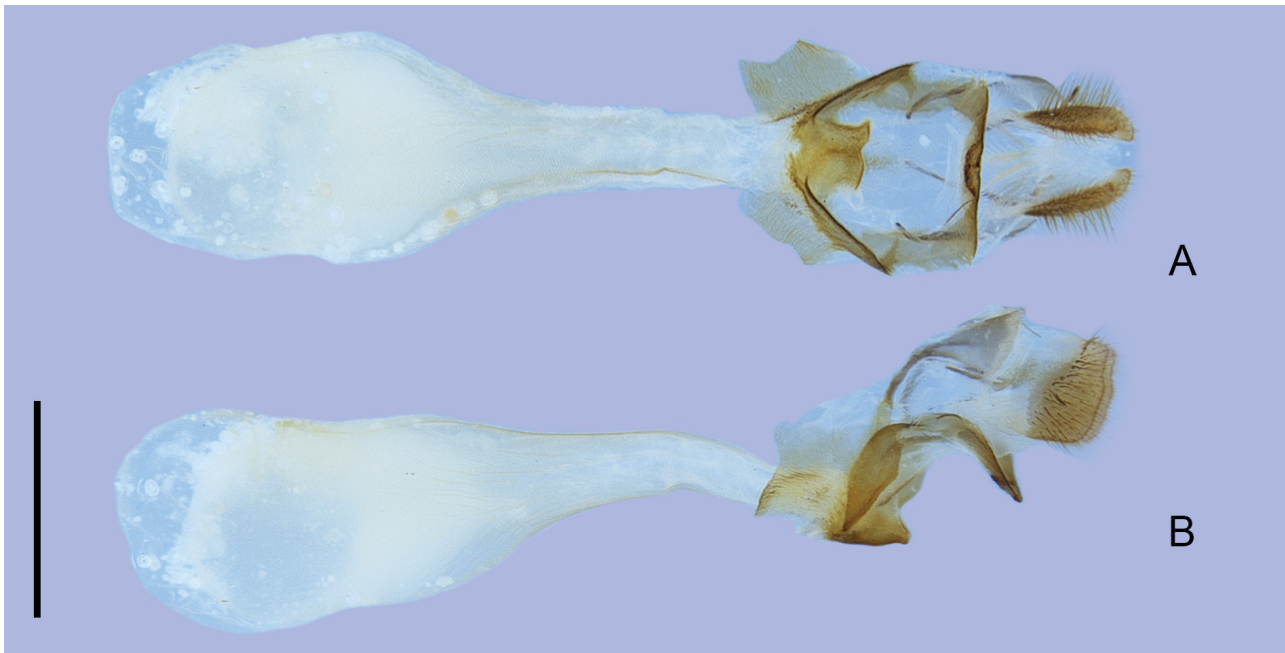


Fig. 8. Female genitalia of *Perichares lindigiana* (C. Felder & R. Felder, 1867) stat. rev. from Mendoza, Amazonas, Peru (OM 48.660). A – ventral view; B – lateral view. Scale bar = 2 mm.

and lower CuA_2-2A , and a straight submarginal band between the apex and lower half of CuA_2-2A (Figs 6B, D).
***P. lindigiana* (C. Felder & R. Felder, 1867) stat. rev.**

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References

- BIEZANKO C. M. & MIELKE O. H. H. 1973: Contribuição ao estudo faunístico dos Hesperinae Americanos. IV Espécies do Rio Grande do Sul, com notas taxonômicas e descrições de espécies novas (Lepidoptera). *Acta Biológica Paranaense* **2** (1–4): 51–102.
- BELL E. L. 1946: A catalogue of the Hesperioidea of Venezuela. *Boletín de Entomología Venezolana* **5** (3–4): 65–203.
- BERTHET B. 2019: Ecuador: Eastern slope to Amazonas. *News of the Lepidopterists' Society* **61** (1): 44–51.
- BURNS J. M., JANZEN D. H., HAJIBABAEI M., HALLWACHS W. & HEBERT P. D. N. 2008: DNA barcodes and cryptic species of skipper butterflies in the genus *Perichares* in Area de Conservación Guanacaste, Costa Rica. *Proceedings of the National Academy of Sciences of the United States of America* **105** (17): 6350–6355. <https://doi.org/10.1073/pnas.0712181105>
- CARNEIRO E., MIELKE, O. H. H. & CASAGRANDE M. M. 2013: Thorax and abdomen morphology of some Neotropical Hesperidae (Lepidoptera). *Insecta Mundi* **327**: 1–47.
- CONG Q., ZHANG J., SHEN J. & GRISHIN N. V. 2019: Fifty new genera of Hesperidae (Lepidoptera). *Insecta Mundi* **731**: 1–56.
- DRAUDT M. W. K. B. 1921–1924: Grypocera, breitköpfige Tagfalter. Pp. 105–999. In: SEITZ A. (ed.). *Die Gross-Schmetterlinge der Erde. Vol. 5.* Alfred Kernen, Stuttgart, 1139 pp.
- EVANS W. H. 1955: *A catalogue of the American Hesperidae indicating the classification and nomenclature adopted in the British Museum (Natural History). Part IV. Hesperinae and Megathyminae.* British Museum, London, v + 499 pp., pls. 54–88.
- FELDER C. & FELDER R. [1865]–1874: *Reise der österreichischen Fregatte Novara um die Erde in den Jahren 1857, 1858, 1859 unter den Befehlen des Commodore B. von Wüllerstorff-Urbair. Zoologischer Theil. Zweiter Band. Zweite Abtheilung: Lepidoptera.* Carl Gerold's Sohn, Wien, (1): [4] + 1–136, pls. 1–21 ([12 January 1865]), (2): [2] + 137–378, pls. 22–47 ([after October] 1865), (3): [2] + 379–536, pls. 48–74 ([25 April] 1867), (4): [6] + 1–9 [explanation of plates] ([31 December] 1874), [1865]–74.
- HAYWARD K. J. 1947: Catalogus Hesperidarum rei Publicae Colombianae. *Acta Zoológica Lilloana* **6**: 201–392.
- HENAO-BAÑOL E. R., PÁEZA A. & RODRÍGUEZ-M. J. V. 2018: Inventario de mariposas diurnas (Lepidoptera: Hesperioidea-Papilionoidea) de La Reserva Forestal Productora Protectora de la Cuenca Alta del Río Bogotá (RFPP-CARB). *Boletín Científico del Museo de Historia Natural de la Universidad de Caldas* **22** (2): 144–177.
- HERRICH-SCHÄFFER G. A. W. 1869: Prodrömus systematis lepidopterorum. Versuch einer systematischen Anordnung der Schmetterlinge. *Correspondenz-Blatt des Zoologisch-Mineralogischen Vereines in Regensburg* **23** (12): 184–204.
- HEWITSON W. C. 1866: Descriptions of new Hesperidae. *Transactions of the Entomological Society of London, Series 3* **2** (6): 479–501.
- KIRBY W. F. 1871: *A synonymic catalogue of diurnal Lepidoptera.* John Van Voorst, London, vii + 690 pp.
- LAMAS G. 1979: Additions and corrections to the check-list of Western Peru butterflies (Lepidoptera). *Revista de Ciencias, UNMSM* **71** (1): 54–61.
- LI W., CONG Q., SHEN J., ZHANG J., HALLWACHS W., JANZEN D. H. & GRISHIN N. V. 2019: Genomes of skipper butterflies reveal extensive convergence of wing patterns. *Proceedings of the National Academy of Sciences of the United States of America* **116** (13): 6232–6237. <https://doi.org/10.1073/pnas.1821304116>

- PLÖTZ C. 1882: Die Hesperiiinen-Gattung *Hesperia* Aut. und ihre Arten. *Stettiner Entomologische Zeitung* **43**: 314–344.
- PULIDO-B. H. & PARRALES D. A. 2011: Listado de especies de las mariposas diurnas (Hesperioidea y Papilionoidea) de Arcabuco (Boyacá, Colombia). *Boletín Científico del Museo de Historia Natural de la Universidad de Caldas* **15** (2): 191–200.
- SANDOVAL M. F., FERNANDEZ-BADILLO A. & GONZÁLES J. M. 2007: Mariposas (Insecta: Lepidoptera) del Parque Henri Pittier, Venezuela: lista, distribución y algunas notas sobre su historia natural. *Alcance* **70**: 1–140.
- SCUDDER S. H. 1872: A systematic revision of some of the American butterflies; with brief notes on those known to occur in Essex County, Mass. *Annual Report of the Trustees of the Peabody Academy of Science* **4**: 24–83.
- SUÊNIA-BASTOS A., MIELKE O. H. H. & CASAGRANDE M. M. 2025: What does the morphology tell us about it? Completing the reverse taxonomy of Pericharini Grishin, 2019 (Hesperinae). *Zootaxa* **5604** (2): 101–117.
- WILLIAMS R. C. & HAYWARD K. J. 1944: Hesperiidarum Rei Publicae Aequatoris Catalogus. *Acta Zoológica Lilloana* **2**: 63–246.
- ZHANG J., CONG Q., SHEN J. & GRISHIN N. V. 2022: Taxonomic changes suggested by the genomic analysis of Hesperidae (Lepidoptera). *Insecta Mundi* **921**: 1–135.
- ZHANG J., CONG Q. & GRISHIN N. V. 2023: Descriptions of one hundred new species of Hesperidae. *Insecta Mundi* **1026**: 1–115.

