Insecta Mundi
Center for Systematic Entomology, Gainesville, Florida

2-25-2022

Taxonomic changes suggested by the genomic analysis of Hesperiidae (Lepidoptera)

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Zhang, Jing; Cong, Qian; Shen, Jinhui; and Grishin, Nick V., "Taxonomic changes suggested by the genomic analysis of Hesperiidae (Lepidoptera)" (2022). *Insecta Mundi*. 1409.
https://digitalcommons.unl.edu/insectamundi/1409

A journal of world insect systematics
INSECTA MUNDI

0921

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Date of issue: February 25, 2022

Center for Systematic Entomology, Inc., Gainesville, FL

Zhang J, Cong Q, Shen J, Grishin NV. 2022. Taxonomic changes suggested by the genomic analysis of Hesperiidae (Lepidoptera). Insecta Mundi 0921: 1–135.

Published on February 25, 2022 by
Center for Systematic Entomology, Inc.
P.O. Box 141874
Gainesville, FL 32614-1874 USA
http://centerforsystematicentomology.org/

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Guidelines and requirements for the preparation of manuscripts are available on the Insecta Mundi website at http://centerforsystematicentomology.org/insectamundi/

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Printed copies (ISSN 0749-6737) annually deposited in libraries

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Electronic copies (Online ISSN 1942-1354) in PDF format

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0921: 1–135 **INSECTA MUNDI** 2022

Taxonomic changes suggested by the genomic analysis of Hesperiidae (Lepidoptera)

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Abstract. Our expanded efforts in genomic sequencing to cover additional skipper butterfly (Lepidoptera: Hesperiidae) species and populations, including primary type specimens, call for taxonomic changes to restore monophyly and correct misidentifications by moving taxa between genera and proposing new names. Reconciliation between phenotypic characters and genomic trees suggests three new tribes, two new subtribes, 23 new genera, 17 new subgenera and 10 new species that are proposed here: Psolosini Grishin, **new tribe** (type genus *Psolos* Staudinger, 1889), Ismini Grishin, **new tribe** (type genus *Isma* Distant, 1886), Eetionini Grishin, **new tribe** (type genus *Eetion* de Nicéville, 1895), Orphina Grishin, **new subtribe** (type genus *Orphe* Godman, 1901), Carystoidina Grishin, **new subtribe** (type genus *Carystoides* Godman, 1901), *Fulvatis* Grishin, **new genus** (type species *Telegonus fulvius* Plötz, 1882), *Adina* Grishin, **new genus** (type species *Nascus adrastor* Mabille and Boullet, 1912), *Ornilius* Grishin, **new genus** (type species *Ornilius rotundus* Grishin, **new species**), *Tolius* Grishin, **new genus** (type species *Antigonus tolimus* Plötz, 1884), *Lennia* Grishin, **new genus** (type species *Leona lena* Evans, 1937), *Trida* Grishin, **new genus** (type species *Cyclopides barberae* Trimen, 1873), *Noxys* Grishin, **new genus** (type species *Oxynthes viricuculla* Hayward, 1951), *Gracilata* Grishin, **new genus** (type species *Enosis quadrinotata* Mabille, 1889), *Hermio* Grishin, **new genus** (type species *Falga* ? *hermione* Schaus, 1913), *Eutus* Grishin, **new genus** (type species *Cobalus rastaca* Schaus, 1902), *Gufa* Grishin, **new genus** (type species *Phlebodes gulala* Schaus, 1902), *Godmia* Grishin, **new genus** (type species *Euroto chlorocephala* Godman, 1900), *Rhomba* Grishin, **new genus** (type species *Eutychide gertschi* Bell, 1937), *Rectava* Grishin, **new genus** (type species *Megistias ignarus* Bell, 1932), *Contrastia* Grishin, **new genus** (type species *Hesperia distigma* Plötz, 1882), *Mit* Grishin, **new genus** (type species *Mnasitheus badius* Bell, 1930), *Picova* Grishin, **new genus** (type species *Vorates steinbachi* Bell, 1930), *Lattus* Grishin, **new genus** (type species *Eutocus arabupuana* Bell, 1932), *Gubrus* Grishin, **new genus** (type species *Vehilius lugubris* Lindsey, 1925), *Koria* Grishin, **new genus** (type species *Hesperia kora* Hewitson, 1877), *Corta* Grishin, **new genus** (type species *Eutychide lycortas* Godman, 1900), *Calvetta* Grishin, **new genus** (type species *Hesperia calvina* Hewitson, 1866), *Oz* Grishin, **new genus** (type species *Astictopterus ozias* Hewitson, 1878), *Praxa* Grishin, **new subgenus** (type species *Nascus prax* Evans, 1952), *Bron* Grishin, **new subgenus** (type species *Papilio broteas* Cramer, 1780), *Turis* Grishin, **new subgenus** (type species *Pyrgus*

(Scelothrix) veturius Plötz, 1884), *Tiges* Grishin, **new subgenus** (type species *Antigonus liborius* Plötz, 1884), *Ocrypta* Grishin, **new subgenus** (type species *Notocrypta caerulea* Evans, 1928), *Tixe* Grishin, **new subgenus** (type species *Cobalus quadrata* Herrich-Schäffer, 1869), *Nycea* Grishin, **new subgenus** (type species *Pamphila hycsos* Mabille, 1891), *Nausia* Grishin, **new subgenus** (type species *Oenus* [sic] *nausiphanes* Schaus, 1913), *Flor* Grishin, **new subgenus** (type species *Stomyles florus* Godman, 1900), *Geia* Grishin, **new subgenus** (type species *Pamphila geisa* Möschler, 1879), *Rotundia* Grishin, **new subgenus** (type species *Enosis schausi* Mielke and Casagrande, 2002), *Volus* Grishin, **new subgenus** (type species *Eutocus volasus* Godman, 1901), *Pseudopapias* Grishin, **new subgenus** (type species *Papias tristissimus* Schaus, 1902), *Septia* Grishin, **new subgenus** (type species *Justinia septa* Evans, 1955), *Brasta* Grishin, **new subgenus** (type species *Lychnuchus brasta* Evans, 1955), *Bina* Grishin, **new subgenus** (type species *Cobalus gabina* Godman, 1900), *Balma* Grishin, **new subgenus** (type species *Carystoides balza* Evans, 1955), *Ornilius rotundus* Grishin, **new species** (type locality in Brazil: Santa Catarina), *Salantoia metallica* Grishin, **new species** (type locality in Guyana: Acarai Mts.), *Dyscophellus australis* Grishin, **new species** (type locality in Paraguay: Sapucay), *Dyscophellus basialbus* Grishin, **new species** (type locality in Brazil: Rondônia), *Telegonus subflavus* Grishin, **new species** (type locality in Ecuador: Riobamba), *Decinea colombiana* Grishin, **new species** (type locality in Colombia: Bogota), *Lerema lucius* Grishin, **new species** (type locality in Panama: Colón), *Cynea rope* Grishin, **new species** (type locality in Nicaragua: Chontales), *Lerodea sonex* Grishin, **new species** (type locality in Peru: Cuzco), and *Metiscus goth* Grishin, **new species** (type locality in Costa Rica). **Lectotypes** are designated for the following 17 taxa: *Telegonus gildo* Mabille, 1888, *Netrocoryne damias* Plötz, 1882, *Telegonus erythras* Mabille, 1888, *Telegonus galesus* Mabille, 1888, *Eudamus cretellus* Herrich-Schäffer, 1869, *Leucochitonea chaeremon* Mabille, 1891, *Antigonus aura* Plötz, 1884, *Pamphila voranus* Mabille, 1891, *Hesperia pupillus* Plötz, 1882, *Cobalus lumina* Herrich-Schäffer, 1869, *Cobalus stigmula* Mabille, 1891, *Megistias isus* Godman, 1900, *Cobalopsis latonia* Schaus, 1913, *Pamphila nubila* Mabille, 1891, *Metiscus atheas* Godman, 1900, *Mnasalcas amatala* Schaus, 1902, and *Hesperia ina* Plötz, 1882. The lectotype of *Hesperia infuscata* Plötz, 1882 is **invalid** because it does not agree with the original description and illustration by Plötz, is not from the locality listed in the original description, and therefore is not a syntype. **Neotypes** are designated for the following five taxa: *Telegonus corentinus* Plötz, 1882, *Hesperia dido* Plötz, 1882, *Hesperia distigma* Plötz, 1882, *Hesperia infuscata* Plötz, 1882, and *Hesperia pruinosa* Plötz, 1882. As a result, the following five taxa are **junior objective synonyms**: *Telegonus diophorus* Möschler, 1883 of *Telegonus corentinus* Plötz, 1882, *Pamphila puxillius* Mabille, 1891 of *Hesperia pupillus* Plötz, 1882, *Cobalus stigmula* Mabille, 1891 of *Hesperia distigma* Plötz, 1882, *Mnasalcas amatala* Schaus, 1902 of *Hesperia infuscata* Plötz, 1882, and *Hesperia pruinosa* Plötz, 1882 of *Hesperia uza* Hewitson, 1877. *Morys valerius valda* Evans, 1955 is fixed as the **type species** of *Morys* Godman, 1900, and *Pamphila compta* Butler, 1877 is reaffirmed as the **type species** of *Euroto* Godman, 1900. Furthermore, the following **taxonomic changes** are suggested. *Prosopalpus* Holland, 1896, *Lepella* Evans, 1937, and *Creteus* de Nicéville, 1895 are placed in Aeromachini Tutt, 1906. *Triskelionia* Larsen and Congdon, 2011 is transferred from Celaenorrhinini Swinhoe, 1912 to Tagiadini Mabille, 1878. *Kobelana* Larsen and Collins, 2013 is transferred from Tagiadini Mabille, 1878 to Celaenorrhinini Swinhoe, 1912. The following nine genus-group names are **resurrected from synonymy** and treated as valid genera: *Abaratha* Moore, 1881 (not in *Caprona* Wallengren, 1857), *Bibla* Mabille, 1904 (not in *Taractrocera* Butler, 1870), *Kerana* Distant, 1886 and *Tamela* Swinhoe, 1913 (not in *Ancistroides* Butler, 1874), *Metrocles* Godman, 1900 (not in *Metron* Godman, 1900), *Alerema* Hayward, 1942 (not in *Tigasis* Godman, 1900), *Metiscus* Godman, 1900 (not in *Enosis* Mabille, 1889), *Vistigma* Hayward, 1939 (not in *Phlebodes* Hübner, [1819]), and *Mnasalcas* Godman, 1900 (not in *Mnasitheus* Godman, 1900). The genus-group names *Daimio* Murray, 1875 and *Pterygospidea* Wallengren, 1857 are **resurrected from synonymy** and treated as valid subgenera of *Tagiades* Hübner, [1819]. We confirm *Apallaga* Strand, 1911 as a valid genus. The following 24 genera are placed as subgenera, **new status**: *Pseudonascus* Austin, 2008 of *Nascus* Watson, 1893; *Albiphasma* Huang, Chiba, Wang and Fan, 2016 of *Pintara* Evans, 1932; *Ctenoptilum* de Nicéville, 1890 of *Tapena* Moore, [1881]; *Odontoptilum* de Nicéville, 1890 of *Abaratha* Moore, 1881; *Caprona* Wallengren, 1857 of *Abantis* Hopffer, 1855; *Timochreon* Godman and Salvin, 1896 of *Zopyrion* Godman and Salvin, 1896; *Pulchroptera* Hou, Fan and Chiba, 2021 of *Heteropterus* Duméril, 1806; *Stimula* de Nicéville, 1898 of *Koruthaialos* Watson, 1893; *Udaspes* Moore, [1881] and *Notocrypta* de Nicéville, 1889 of *Ancistroides* Butler, 1874; *Cravera* de Jong, 1983 of *Xeniades* Godman, 1900; *Cobaloides* Hayward, 1939 of *Oligoria* Scudder, 1872; *Saniba* O. Mielke and Casagrande, 2003 of *Psoralis* Mabille, 1904; *Quinta* Evans, 1955 of *Cynea* Evans, 1955; *Styriodes* Schaus, 1913 and *Remella* Hemming, 1939 of *Mnasicles* Godman, 1901; *Repens* Evans, 1955 of *Eprius* Godman, 1901; *Morys* Godman, 1900 of *Lerema* Scudder, 1872; *Enosis* Mabille, 1889 of *Lychnuchus* Hübner, [1831]; *Penicula* Evans, 1955 of *Vistigma* Hayward, 1939; *Mnasinous* Godman, 1900 of *Methionopsis* Godman, 1901; and *Moeros* Evans, 1955, *Argon* Evans,

1955, and *Synale* Mabille, 1904 of *Carystus* Hübner, [1819]. The following 20 genera are treated as junior subjective synonyms: *Leucochitonea* Wallengren, 1857 of *Abantis* Hopffer, 1855; *Sapaea* Plötz, 1879 and *Netrobalane* Mabille, 1903 of *Caprona* Wallengren, 1857; *Parasovia* Devyatkin, 1996 of *Sebastonyma* Watson, 1893; *Pemara* Eliot, 1978 of *Oerane* Elwes and Edwards, 1897; *Ankola* Evans, 1937 of *Pardaleodes* Butler, 1870; *Arotis* Mabille, 1904 of *Mnaseas* Godman, 1901; *Chalcone* Evans, 1955, *Hansa* Evans, 1955, and *Propertius* Evans, 1955 of *Metrocles* Godman, 1900; *Jongiana* O. Mielke and Casagrande, 2002 of *Cobaloides* Hayward, 1939; *Pamba* Evans, 1955 of *Psoralis* Mabille, 1904; *Brownus* Grishin, 2019 of *Styriodes* Schaus, 1913; *Mnasilus* Godman, 1900 of *Papias* Godman, 1900; *Sucova* Evans, 1955 of *Mnasitheus* Godman, 1900; *Pyrrhocalles* Mabille, 1904 and *Asbolis* Mabille, 1904 of *Choranthus* Scudder, 1872; *Miltomiges* Mabille, 1903 of *Methionopsis* Godman, 1901; *Sacrator* Evans, 1955 of *Thracides* Hübner, [1819]; and *Lychnuchoides* Godman, 1901 of *Perichares* Scudder, 1872. *Arunena* Swinhoe, 1919 is a **junior subjective synonym** of *Stimula* de Nicéville, 1898 (not of *Koruthaialos* Watson, 1893). The following 27 names are species-level taxa (some in new combinations) **reinstated from synonymy**: *Salantoia gildo* (Mabille, 1888) (not *Salatis cebrenus* (Cramer, 1777)), *Bungalotis corentinus* (Plötz, 1882) (not *Bungalotis midas* (Cramer, 1775)), *Telegonus cretellus* (Herrich-Schäffer, 1869) (not *Telegonus cassander* (Fabricius, 1793)), *Santa palica* (Mabille, 1888) (not *Chiothion asychis* (Stoll, 1780)), *Camptopleura cincta* Mabille and Boullet, 1917 (not *Camptopleura auxo* (Möschler, 1879)), *Camptopleura orsus* (Mabille, 1889) (not *Nisoniades mimas* (Cramer, 1775)), *Metron voranus* (Mabille, 1891) and *Metron fasciata* (Möschler, 1877) (not *Metron zimra* (Hewitson, 1877)), *Limochores catahorma* (Dyar, 1916) (not *Limochores pupillus* (Plötz, 1882)), *Pares viridiceps* (Mabille, 1889) (not *Thoon modius* (Mabille, 1889)), *Tigasis wellingi* (Freeman, 1969) (not *Tigasis arita* (Schaus, 1902)), *Rectava sobrinus* (Schaus, 1902) (not *Papias phainis* Godman, 1900), *Nastra subsordida* (Mabille, 1891) (not *Adlerodea asema* (Mabille, 1891), previously in *Eutychide* Godman, 1900), *Lerema pattenii* Scudder, 1872 (not *Lerema accius* (J. E. Smith, 1797)), *Lerema (Morys) ancus* (Möschler, 1879) (not *Cymaenes tripunctus theogenis* (Capronnier, 1874)), *Cobalopsis zetus* (Bell, 1942) (not *Cobalopsis nero* (Herrich-Schäffer, 1869)), *Lerema (Geia) etelka* (Schaus, 1902) (not *Lerema (Geia) geisa* (Möschler, 1879), previously in *Morys* Godman, 1900), *Cymaenes isus* (Godman, 1900) (not *Cymaenes trebius* (Mabille, 1891)), *Vehilius labdacus* (Godman, 1900) (not *Vehilius inca* (Scudder, 1872)), *Papias amyrna* (Mabille, 1891) (not *Papias allubita* (Butler, 1877), previously in *Mnasilus* Godman, 1900), *Papias integra* (Mabille, 1891) (not *Papias subcostulata* (Herrich-Schäffer, 1870)), *Metiscus atheas* Godman, 1900 (not *Hesperia achelous* Plötz, 1882), *Dion agassus* (Mabille, 1891) (not *Dion uza* (Hewitson, 1877), previously in *Enosis* Mabille, 1889), *Picova incompta* (Hayward, 1942) (not *Lerema (Morys) micythus* (Godman, 1900), previously in *Morys* Godman, 1900), *Lucida melitaea* (Draudt, 1923) (not *Lucida lucia* (Capronnier, 1874)), *Methionopsis modestus* Godman, 1901 (not *Methionopsis ina* (Plötz, 1882)), and *Thargella (Volus) volasus* (Godman, 1901) (not *Eutocus facilis* (Plötz, 1884)). The following 57 taxa are elevated from subspecies to species, **new status** (some in **new combinations**): *Dyscophellus doriscus* (Hewitson, 1867) (not *Dyscophellus porcius* (C. Felder and R. Felder, 1862), *Phocides vida* (A. Butler, 1872) (not *Phocides urania* (Westwood, 1852)), *Tagiades (Daimio) ceylonica* Evans, 1932 (not *Tagiades litigiosa* Möschler, 1878), *Tagiades (Daimio) tubulus* Fruhstorfer, 1910 (not *Tagiades sambavana* Elwes and Edwards, 1897), *Tagiades (Daimio) kina* Evans, 1934, *Tagiades (Daimio) sheba* Evans, 1934, *Tagiades (Daimio) martinus* Plötz, 1884, *Tagiades (Daimio) sem* Mabille, 1883, and *Tagiades (Daimio) neira* Plötz, 1885 (not *Tagiades trebellius* (Hopffer, 1874)), *Tagiades (Daimio) korela* Mabille, 1891 and *Tagiades (Daimio) presbyter* Butler, 1882 (not *Tagiades nestus* (C. Felder, 1860)), *Tagiades obscurus* Mabille, 1876, *Tagiades ravi* (Moore, [1866]), *Tagiades atticus* (Fabricius, 1793), *Tagiades titus* Plötz, 1884, *Tagiades janetta* Butler, 1870, *Tagiades inconspicua* Rothschild, 1915, and *Tagiades hovia* Swinhoe, 1904 (not *Tagiades japetus* (Stoll, [1781])), *Tagiades silvia* Evans, 1934 and *Tagiades elegans* Mabille, 1877 (not *Tagiades gana* (Moore, [1866])), *Tapena bornea* Evans, 1941 and *Tapena minuscula* Elwes and Edwards, 1897 (not *Tapena thwaitesi* Moore, [1881]), *Darpa dealbata* (Distant, 1886) (not *Darpa pteria* (Hewitson, 1868)), *Perus manx* (Evans, 1953) (not *Perus minor* (Schaus, 1902)), *Canesia pallida* (Röber, 1925) (not *Carrhenes canescens* (R. Felder, 1869)), *Carrhenes conia* Evans, 1953 (not *Carrhenes fuscescens* (Mabille, 1891)), *Anisochoria extincta* Hayward, 1933 and *Anisochoria polysticta* Mabille, 1876 (not *Anisochoria pedaliodina* (Butler, 1870)), *Anisochoria verda* Evans, 1953 (not *Anisochoria minorella* Mabille, 1898), *Bralus alco* (Evans, 1953) (not *Bralus albida* (Mabille, 1888)), *Ephyriades jamaicensis* (Möschler, 1879) (not *Ephyriades brunnea* (Herrich-Schäffer, 1865)), *Koruthaialos (Stimula) frena* Evans, 1949 (not *Koruthaialos focula* (Plötz, 1882)), *Euphyes kiowah* (Reakirt, 1866) (not *Euphyes vestris* (Boisduval, 1852)), *Mnaseas inca* Bell, 1930 (not *Mnaseas bicolor* (Mabille, 1889)), *Metron hypochlora* (Draudt, 1923) (not *Metrocles schrottkyi* (Giacomelli, 1911), previously in *Metron* Godman, 1900), *Decinea huasteca* (H. Freeman, 1969), *Decinea denta* Evans, 1955, and *Decinea antus* (Mabille, 1895) (not *Decinea decinea* (Hewitson, 1876)), *Xeniades pteras* Godman, 1900 (not *Xeniades chalestra* (Hewitson, 1866)), *Xeniades difficilis* Draudt, 1923 (not *Xeniades orchamus* (Cramer, 1777)), *Xeniades hermoda* (Hewitson, 1870) (not *Tisias quadrata* (Herrich-Schäffer, 1869)), *Hermio vina* (Evans, 1955) (not *Hermio hermione* (Schaus, 1913), previously in *Lento* Evans, 1955), *Cymaenes loxa* Evans, 1955, (not *Cymaenes laureolus* (Schaus, 1913)), *Niconiades peri* (Evans, 1955) (not *Rhinthon bajula* (Schaus, 1902), previously in *Neoxeniades* Hayward, 1938), *Gallio danius* (Bell, 1941) (not *Vehilius seriatus* (Mabille, 1891)), *Gallio massarus* (E. Bell, 1940) (not *Gallio garima* (Schaus, 1902) previously in *Tigasis* Godman, 1900), *Cymaenes edata* (Plötz, 1882), *Cymaenes miqua* (Dyar, 1913) and *Cymaenes aequatoria* (Hayward, 1940) (not *Cymaenes odilia* (Burmeister, 1878)), *Lychnuchus (Enosis) demon* (Evans, 1955) (not *Lychnuchus (Enosis) immaculata* (Hewitson, 1868), previously in *Enosis* Mabille, 1889), *Naevolus naevus* Evans, 1955 (not *Naevolus orius* (Mabille, 1883)), *Lucida scopas* (Mabille, 1891), *Lucida oebasus* (Godman, 1900), and *Lucida leopardus* (Weeks, 1901) (not *Lucida lucia* (Capronnier, 1874)), *Corticea schwarzi* (E. Bell, 1941) and *Corticea sylva* (Hayward, 1942) (not *Corticea mendica* (Mabille, 1898)), and *Choranthus orientis* (Skinner, 1920) (not *Choranthus antiqua* (Herrich-Schäffer, 1863), previously in *Pyrrhocalles* Mabille, 1904). *Borbo impar bipunctata* (Elwes and J. Edwards, 1897) is a valid subspecies, not a synonym of *Borbo impar tetragraphus* (Mabille, 1891), here placed in synonymy with *Lotongus calathus* (Hewitson, 1876), **new synonym**. We confirm the species status of *Telegonus cassius* (Evans, 1952) and *Lerema (Morys) valda* Evans, 1955. *Euphyes chamuli* Freeman, 1969 is placed as a subspecies of *Euphyes kiowah* (Reakirt, 1866), **new status**. The following 41 taxa are **junior subjective synonyms**, either newly proposed or transferred from synonymy with other species or subspecies: *Telegonus mutius* Plötz, 1882 of *Euriphellus phraxanor* (Hewitson, 1876), *Telegonus erythras* Mabille, 1888 of *Dyscophellus damias* (Plötz, 1882), *Aethilla jaira* Butler, 1870 of *Telegonus cretellus* (Herrich-Schäffer, 1869), *Paches era* Evans, 1953 of *Santa palica* (Mabille, 1888), *Antigonus alburnea* Plötz, 1884 of *Tolius tolimus robigus* (Plötz, 1884) (not of *Echelatus sempiternus simplicior* (Möschler, 1877)), *Echelatus depenicillus* Strand, 1921 of *E. sempiternus simplicior* (not of *T. tolimus robigus*), *Antigonus aura* Plötz, 1884 of *Theagenes dichrous* (Mabille, 1878) (not of *Helias phalaenoides palpalis* (Latreille, [1824])), *Achlyodes impressus* Mabille, 1889 of *Camptopleura orsus* (Mabille, 1889), *Augiades tania* Schaus, 1902 of *Metron voranus* (Mabille, 1891), *Pamphila verdanta* Weeks, 1906 of *Metron fasciata* (Möschler, 1877), *Niconiades viridis vista* Evans, 1955 of *Niconiades derisor* (Mabille, 1891), *Pamphila binaria* Mabille, 1891 of *Conga chydaea* (A. Butler, 1877) (not of *Cynea cynea* (Hewitson, 1876)), *Psoralis concolor* Nicolay, 1980 of *Ralis immaculatus* (Hayward, 1940), *Hesperia dido* Plötz, 1882 of *Cynea (Quinta) cannae* (Herrich-Schäffer, 1869) (not of *Lerema lochius* (Plötz, 1882)), *Proteides osembo* Möschler, 1883 of *Cynea (Cynea) diluta* (Herrich-Schäffer, 1869) (not of *Cynea (Quinta) cannae* (Herrich-Schäffer, 1869)), *Cobalopsis brema* E. Bell, 1959 of *Eutus rastaca* (Schaus, 1902), *Psoralis panamensis* Anderson and Nakamura, 2019 of *Rhomba gertschi* (Bell, 1937), *Cobalus asella* Herrich-Schäffer, 1869 of *Amblyscirtes alternata* (Grote and Robinson, 1867) (not of *Amblyscirtes vialis* (W. H. Edwards, 1862)), *Papias trimacula* Nicolay, 1973 of *Nastra subsordida* (Mabille, 1891), *Pamphila bipunctata* Mabille, 1889 and *Sarega staurus* Mabille, 1904 of *Lerema pattenii* Scudder, 1872 (not of *Cymaenes lumina* (Herrich-Schäffer, 1869), previously in *Lerema* Scudder, 1872), *Hesperia aethra* Plötz, 1886 of *Lerema lineosa* (Herrich-Schäffer, 1865) (not of *Lerema (Morys) compta* Butler, 1877), *Megistias miaba* Schaus, 1902 of *Cobalopsis valerius* (Möschler, 1879), *Phanis sylvia* Kaye, 1914 of *Lerema etelka* (Schaus, 1902) (not of *Lerema (Geia) geisa* (Möschler, 1879), previously in *Morys* Godman, 1900), *Carystus odilia* Burmeister, 1878, *Pamphila trebius* Mabille, 1891 and *Megistias corescene* Schaus, 1902 of *Cymaenes lumina* (Herrich-Schäffer, 1869), *Hesperia phocylides* Plötz, 1882 of *Cymaenes edata* (Plötz, 1882) (not of *Lerema accius* (J. E. Smith, 1797)), *Pamphila xenos* Mabille, 1898 of *Vehilius inca* (Scudder, 1872), *Mnasilus guianae* Lindsey, 1925 of *Papias amyrna* (Mabille, 1891), *Pamphila nubila* Mabille, 1891 of *Papias integra* (Mabille, 1891) (not of *Cynea corisana* (Plötz, 1882)), *Enosis matheri* H. Freeman, 1969 of *Metiscus atheas* Godman, 1900 (previously in *Enosis* Mabille, 1889), *Hesperia infuscata* Plötz, 1882 of *Mnaseas derasa derasa* (Herrich-Schäffer, 1870) (previously *Arotis* Mabille, 1904), (not of *Papias subcostulata* (Herrich-Schäffer, 1870)), *Pamphila astur* Mabille, 1891 of *Metiscus angularis* (Möschler, 1877) (not of *Cymaenes tripunctus theogenis* (Capronnier, 1874)), *Anthoptus macalpinei* H. Freeman, 1969 of *Anthoptus inculta* (Dyar, 1918), *Methionopsis typhon* Godman, 1901 of *Methionopsis ina* (Plötz, 1882), *Methionopsis dolor* Evans, 1955 of *Thargella volasus* (Godman, 1901), *Hesperia cinica* Plötz, 1882 of *Dubiella dubius* (Stoll, 1781), *Cobalus disjuncta* Herrich-Schäffer, 1869 of *Dubiella dubius* (Stoll, 1781) (not of *Vettius lafrenaye* (Latreille, [1824])), and *Saliana vixen* Evans, 1955 of *Neoxeniades parna* (Evans, 1955). The following are **new and revised genus-species combinations**: *Euriphellus cebrenus* (Cramer, 1777) (not *Salatis* Evans, 1952), *Gorgopas extensa* (Mabille, 1891) (not *Polyctor* Evans, 1953), *Clytius shola* (Evans, 1953) (not *Staphylus* Godman and Salvin, 1896), *Perus narycus* (Mabille, 1889) (not *Ouleus* Lindsey, 1925), *Perus parvus* (Steinhauser and Austin, 1993) (not *Staphylus* Godman and Salvin, 1896), *Pholisora litus* (Dyar, 1912) (not *Bolla* Mabille, 1903), *Carrhenes decens* (A. Butler, 1874) (not *Antigonus* Hübner, [1819]), *Santa palica* (Mabille, 1888) (not *Chiothion* Grishin, 2019), *Bralus nadia* (Nicolay, 1980) (not *Anisochoria* Mabille, 1876), *Acerbas sarala* (de Nicéville, 1889) (not *Lotongus* Distant, 1886), *Caenides sophia* (Evans, 1937) (not *Hypoleucis* Mabille, 1891), *Hypoleucis dacena* (Hewitson, 1876) (not *Caenides* Holland, 1896), *Dotta tura* (Evans, 1951) (not *Astictopterus* C. Felder and R. Felder, 1860), *Nervia wallengrenii* (Trimen, 1883) (not *Kedestes* Watson, 1893), *Testia mammaea* (Hewitson, 1876) (not *Decinea* Evans, 1955), *Oxynthes trinka* (Evans, 1955) (not *Orthos* Evans, 1955), *Metrocles argentea* (Weeks, 1901) (not *Paratrytone* Godman, 1900), *Metrocles scitula* (Hayward, 1951) (not *Mucia* Godman, 1900), *Metrocles schrottkyi* (Giacomelli, 1911) (not *Metron* Godman, 1900), *Niconiades derisor* (Mabille, 1891) (not *Decinea* Evans, 1955), *Paratrytone samenta* (Dyar, 1914) (not *Ochlodes* Scudder, 1872), *Oligoria (Cobaloides) locutia* (Hewitson, 1876) (not *Quinta* Evans, 1955), *Psoralis (Saniba) laska* (Evans, 1955) (not *Vidius* Evans, 1955), *Psoralis (Saniba) arva* (Evans, 1955) and *Psoralis (Saniba) umbrata* (Erschoff, 1876) (not *Vettius* Godman, 1901), *Psoralis (Saniba) calcarea* (Schaus, 1902) and *Psoralis (Saniba) visendus* (E. Bell, 1942) (not *Molo* Godman, 1900), *Alychna gota* (Evans, 1955) (not *Psoralis* Mabille, 1904), *Adlerodea asema* (Mabille, 1891) and *Adlerodea subpunctata* (Hayward, 1940) (not *Eutychide* Godman, 1900), *Ralis immaculatus* (Hayward, 1940) (not *Mucia* Godman, 1900), *Rhinthon braesia* (Hewitson, 1867) and *Rhinthon bajula* (Schaus, 1902) (not *Neoxeniades* Hayward, 1938), *Cymaenes lochius* Plötz, 1882 (not *Lerema* Scudder, 1872), *Paracarystus ranka* (Evans, 1955) (not *Thoon* Godman, 1900), *Tricrista aethus* (Hayward, 1951), *Tricrista canta* (Evans, 1955), *Tricrista slopa* (Evans, 1955), *Tricrista circellata* (Plötz, 1882), and *Tricrista taxes* (Godman, 1900) (not *Thoon* Godman, 1900), *Gallio madius* (E. Bell, 1941) and *Gallio seriatus* (Mabille, 1891) (not *Vehilius* Godman, 1900), *Gallio garima* (Schaus, 1902) (not *Tigasis* Godman, 1900), *Tigasis corope* (Herrich-Schäffer, 1869) (not *Cynea* Evans, 1955), *Tigasis perloides* (Plötz, 1882) (not *Cymaenes* Scudder, 1872), *Amblyscirtes (Flor) florus* (Godman, 1900) (not *Repens* Evans, 1955), *Vidius fraus* (Godman, 1900) (not *Cymaenes* Scudder, 1872), *Nastra celeus* (Mabille, 1891) (not *Vehilius* Godman, 1900), *Nastra nappa* (Evans, 1955) (not *Vidius* Evans, 1955), *Vehilius warreni* (Weeks, 1901) and *Vehilius limae* (Lindsey, 1925) (not *Cymaenes* Scudder, 1872), *Cymaenes lumina* (Herrich-Schäffer, 1869) (not *Lerema* Scudder, 1872), *Cobalopsis valerius* (Möschler, 1879) (not *Cobalopsis* Godman, 1900), *Cobalopsis dictys* (Godman, 1900) (not *Papias* Godman, 1900), *Lerema (Morys) venias* (Bell, 1942) (not *Cobalopsis* Godman, 1900), *Papias latonia* (Schaus, 1913) (not *Cobalopsis* Godman, 1900), *Dion iccius* (Evans, 1955) and *Dion uza* (Hewitson, 1877) (not *Enosis* Mabille, 1889), *Vistigma (Vistigma) opus* (Steinhauser, 2008) (not *Thoon* Godman, 1900), *Saturnus fartuga* (Schaus, 1902) (not *Parphorus* Godman, 1900), *Phlebodes fuldai* (E. Bell, 1930) (not *Vettius* Godman, 1901), *Mnasitheus padus* (Evans, 1955) (not *Moeris* Godman, 1900), *Naevolus brunnescens* (Hayward, 1939) (not *Psoralis* Mabille, 1904), *Lamponia ploetzii* (Capronnier, 1874) (not *Vettius* Godman, 1901), *Mnestheus silvaticus* Hayward, 1940 (not *Ludens* Evans, 1955), *Rigga spangla* (Evans, 1955) (not *Sodalia* Evans, 1955), *Corticea vicinus* (Plötz, 1884) (not *Lento* Evans, 1955), *Mnasalcas thymoetes* (Hayward, 1942) (not *Mnasicles* Godman, 1901), *Mnasalcas boyaca* (Nicolay, 1973) (not *Pamba* Evans, 1955), *Vertica brasta* (Evans, 1955) (not *Lychnuchus* Hübner, [1831]), *Carystina discors* Plötz, 1882 (not *Cobalus* Hübner, [1819]), *Zetka irena* (Evans, 1955) (not *Neoxeniades* Hayward, 1938), and *Neoxeniades parna* (Evans, 1955) (not *Niconiades* Hübner, [1821]). The following are **new or revised species-subspecies combinations**: *Tagiades neira moti* Evans, 1934, *Tagiades neira canonicus* Fruhstorfer, 1910, *Tagiades sheba vella* Evans, 1934, *Tagiades sheba lola* Evans, 1945, *Tagiades korela biakana* Evans, 1934, *Tagiades korela mefora* Evans, 1934, *Tagiades korela suffusus* Rothschild, 1915, *Tagiades korela brunta* Evans, 1949, *Tagiades ravi ravina* Fruhstorfer, 1910, *Tagiades atticus carnica* Evans, 1934, *Tagiades atticus nankowra* Evans, 1934, *Tagiades atticus helferi* C. Felder, 1862, *Tagiades atticus balana* Fruhstorfer, 1910, *Tagiades inconspicua mathias* Evans, 1934, *Tagiades hovia kazana* Evans, 1934, *Tagiades elegans fuscata* de Jong and Treadaway, 2007, *Tagiades elegans semperi* Fruhstorfer, 1910, *Metron hypochlora tomba* Evans, 1955, *Decinea denta pruda* Evans, 1955, and *Choranthus orientis eleutherae* (Bates, 1934) (previously in *Pyrrhocalles* Mabille, 1904). In addition to the abovementioned changes, the following **new combinations** involve newly proposed genus group names: *Fulvatis fulvius* (Plötz, 1882) and *Fulvatis scyrus* (E. Bell, 1934) (not *Salatis* Evans, 1952); *Adina adrastor* (Mabille and Boullet, 1912) (not *Bungalotis* Watson, 1893); *Nascus (Praxa) prax* Evans, 1952, *Nascus (Bron) broteas* (Cramer, 1780), and *Nascus (Bron) solon* (Plötz, 1882) (not *Pseudonascus* Austin, 2008); *Chirgus (Turis) veturius* (Plötz, 1884); *Paches (Tiges) liborius* (Plötz, 1884), and *Paches (Tiges) mutilatus* (Hopffer, 1874) (not *Antigonus* Hübner, [1819]); *Paches (Tiges) exosa* (A. Butler, 1877); *Tolius tolimus* (Plötz, 1884) and *Tolius luctuosus* (Godman & Salvin, 1894) (not *Echelatus* Godman and Salvin, 1894); *Ancistroides (Ocrypta) caerulea* (Evans, 1928), *Ancistroides (Ocrypta) renardi* (Oberthür, 1878), *Ancistroides (Ocrypta) waigensis* (Plötz, 1882), *Ancistroides (Ocrypta) aluensis* (Swinhoe, 1907), *Ancistroides (Ocrypta) flavipes* (Janson, 1886), and *Ancistroides (Ocrypta) maria* (Evans, 1949) (not *Notocrypta* de Nicéville, 1889); *Lennia lena* (Evans, 1937), *Lennia binoevatus* (Mabille, 1891), *Lennia maracanda* (Hewitson, 1876), and *Lennia lota* (Evans, 1937) (not *Leona* Evans, 1937); *Trida barberae*

(Trimen, 1873) and *Trida sarahae* (Henning and Henning, 1998) (not *Kedestes* Watson, 1893); *Noxys viricuculla* (Hayward, 1951) (not *Oxynthes* Godman, 1900); *Xeniades (Tixe) quadrata* (Herrich-Schäffer, 1869), *Xeniades (Tixe) rinda* (Evans, 1955), *Xeniades (Tixe) putumayo* (Constantino and Salazar, 2013) (not *Tisias* Godman, 1901); *Gracilata quadrinotata* (Mabille, 1889) (not *Styriodes* Schaus, 1913); *Hermio hermione* (Schaus, 1913) (not *Lento* Evans, 1955); *Cynea (Nycea) hycsos* (Mabille, 1891), *Cynea (Nycea) corisana* (Plötz, 1882), *Cynea (Nycea) popla* Evans, 1955, *Cynea (Nycea) iquita* (E. Bell, 1941), *Cynea (Nycea) robba* Evans, 1955, *Cynea (Nycea) melius* (Geyer, 1832), and *Cynea (Nycea) irma* (Möschler, 1879); *Eutus rastaca* (Schaus, 1902) (not *Eutychide* Godman, 1900); *Eutus yesta* (Evans, 1955) (not *Thoon* Godman, 1900); *Eutus mubevensis* (E. Bell, 1932) (not *Tigasis* Godman, 1900); *Gufa gulala* (Schaus, 1902) (not *Mucia* Godman, 1900); *Gufa fusca* (Hayward, 1940) (not *Tigasis* Godman, 1900); *Godmia chlorocephala* (Godman, 1900) (not *Onophas* Godman, 1900); *Rhomba gertschi* (E. Bell, 1937) (not *Justinia* Evans, 1955); *Mnasicles (Nausia) nausiphanes* (Schaus, 1913) (not *Tigasis* Godman, 1900); *Amblyscirtes (Flor) florus* (Godman, 1900) (not *Repens* Evans, 1955); *Rectava ignarus* (E. Bell, 1932) (not *Papias* Godman, 1900); *Rectava vorgia* (Schaus, 1902) (not *Cobalopsis* Godman, 1900); *Rectava nostra* (Evans, 1955) (not not *Vidius* Evans, 1955); *Lerema (Geia) geisa* (Möschler, 1879) and *Lerema (Geia) lyde* (Godman, 1900) (not *Morys* Godman, 1900); *Contrastia distigma* (Plötz, 1882) (not *Cymaenes* Scudder, 1872); *Mit (Mit) badius* (E. Bell, 1930) (not *Styriodes* Schaus, 1913); *Mit (Mit) gemignanii* (Hayward, 1940), (not *Mnasitheus* Godman, 1900); *Mit (Rotundia) schausi* (Mielke and Casagrande, 2002), (not *Enosis* Mabille, 1889); *Picova steinbachi* (E. Bell, 1930) (not *Saturnus* Evans, 1955); *Lattus arabupuana* (E. Bell, 1932) (not *Eutocus* Godman, 1901); *Gubrus lugubris* (Lindsey, 1925) (not *Vehilius* Godman, 1900); *Thargella (Pseudopapias) tristissimus* (Schaus, 1902) (not *Papias* Godman, 1900); *Koria kora* (Hewitson, 1877) (not *Justinia* Evans, 1955); *Justinia (Septia) septa* Evans, 1955; *Corta lycortas* (Godman, 1900) (not *Orthos* Evans, 1955); *Vertica (Brasta) brasta* (Evans, 1955) (not *Lychnuchus* Hübner, [1831]); *Calvetta calvina* (Hewitson, 1866) (not *Cobalus* Hübner, [1819]); *Neoxeniades (Bina) gabina* (Godman, 1900) (not *Orthos* Evans, 1955); *Oz ozias* (Hewitson, 1878) and *Oz sebastiani* Salazar and Constantino, 2013 (not *Lychnuchoides* Godman, 1901); and *Carystoides (Balma) balza* Evans, 1955 and *Carystoides (Balma) maroma* (Möschler, 1877). Finally, unless stated otherwise, all subgenera, species, subspecies and synonyms of mentioned genera and species are transferred together with their parent taxa, and taxa not mentioned in this work remain as previously classified.

Key words. Genomics, museomics, higher classification, taxonomy, biodiversity, phylogeny.

Zoobank registration. http://zoobank.org/12AEE4A5-93AC-424B-A6E7-1271E73BB447

Introduction

The skipper butterflies (Hesperiidae) are unusual due to their moth-like appearance caused by robust bodies (Watson 1893), fast wing beats and frequently dark colors and simple wing patterns. A number of Hesperiidae are crepuscular and could be attracted to light (Austin 2008). Nevertheless, DNA-based phylogenies suggest that they originated within the butterfly radiation, and it is the swallowtails (Papilionidae) not the skippers, which are a sister taxon to all other butterflies (Wahlberg et al. 2005; Kawahara and Breinholt 2014; Espeland et al. 2018; Kawahara et al. 2019).

Distributed worldwide, Hesperiidae diversified into more than 3500 described species, a number that may double with time, considering how recent work increases the known species richness of genera being revised (Austin and Mielke 1998; Henao et al. 2015; Medeiros et al. 2019; Siewert et al. 2020). Generally, Hesperiidae attracted less attention compared to other butterfly families. As of today, the latest comprehensive taxonomic account of worldwide fauna remains that of Evans, who developed identification keys to all known Hesperiidae species in six volumes (Evans 1937, 1949, 1951, 1952, 1953, 1955). Revision of Evans' classification was stimulated by DNA sequencing and phylogenetic analysis. The pioneering work of Warren et al. (2008, 2009) put the higher classification of Hesperiidae on solid footing with revolutionary methodology to combine DNA sequences of several genes with traditionally scored morphological characters. A number of subsequent studies used many more genes in their analyses, ranging from dozens to hundreds (Sahoo et al. 2016, 2017; Toussaint et al. 2018). Then, genome-scale revisionary and phylogenetic work has followed (Cong et al. 2019b; Li et al. 2019; Zhang et al. 2019b,c; Toussaint et al. 2021a,b).

Genomic analyses reveal phylogenetic relationships that were either missed or not apparent from the perspective of morphology. Nevertheless, phenotypic characters can be retrospectively understood in the light of genomic phylogenies, thus yielding internally consistent classification guided largely by the analysis of genome-scale phylogenetic trees (Li et al. 2019; Zhang et al. 2019c). Recently, we carried out genomic sequencing of representative Hesperiidae species from all known genera (Cong et al. 2019b). Then, we expanded this work to cover nearly all Neotropical and a large number of Old World species. As in our previous study, we found a number of issues with placing species into genera and species misidentifications, and detected that some genera and tribes were not monophyletic. While the comprehensive phylogenetic analysis of Hesperiidae phylogenetic analysis based on genomic data and a more detailed revision of the family will be presented elsewhere, we take this opportunity to correct a large number of small classification errors and inconsistencies. Among other changes, 55 new taxa of Hesperiidae are proposed: three tribes, two subtribes, 23 genera, 17 subgenera, and ten species, supported by genome-scale phylogenetic trees combined with morphological considerations. The changes we propose are summarized in Table 1.

Materials and Methods

All methods employed in this work follow our previously published protocols (Cong et al. 2015a,b, 2016a,b, 2017a,b, 2018, 2019a, 2021; Shen et al. 2015, 2016a,b, 2017; Zhang et al. 2017a,b, 2019a,b,e,f, 2020, 2021; Li et al. 2019). In particular, they are the same as used in the work of Cong et al. (2019b) that was quite similar in spirit. In brief, this study is mostly based on pinned specimens from museum collections (listed at the end of this section and in the Acknowledgments) that were used for DNA extraction. While more recently collected specimens were preferred, we made use of our protocols to extract and sequence whole genomic DNA of century-old specimens (Cong et al. 2021), most of which were primary types essential to justify our taxonomic conclusions. Data for sequenced specimens are provided in Table 2 and detailed in Table S1 in the supplemental file deposited at <https://osf.io/aesvy/>. For DNA extraction, we mostly used legs or pieces of muscle tissue pulled out from the thorax (using fine tweezers) through the abdomen attachment site (for previously dissected specimens). Muscle tissue is a viable alternative to legs when leg material is not sufficient or using a leg is not possible. The abdomen is utilized when genitalic dissection is needed. The details of protocols for DNA extraction, genomic library preparation, sequencing and analysis are identical to that of Li et al. (2019), Cong et al. (2019b) and Cong et al. (2021).

We use all protein-coding genes as annotated in our reference genome of *Cecropterus lyciades* (Geyer, 1832) (Shen et al. 2017), nearly 16,000 genes covering about 18,000,000 base pairs. Because a large number of specimens were sequenced, the phylogenetic trees were constructed for smaller phylogenetic groups such as subfamilies, tribes and subtribes (Fig. 1, 3–11, 13–17). First, whole-genome shotgun datasets of each specimen included in the tree were mapped to the protein set of the reference genome, and positions in the resulting alignments were used in further analyses. Second, we removed codons present in less than 30% of the specimens. Due to low sequence coverage and DNA degradation in older specimens, certain sequence regions were not present in some specimens. Therefore, the poorly covered codons were removed from the analysis. Even after this removal, which discards about 20% of codons, the datasets were still very large to analyze time-efficiently, ranging from 13 to 17 million base pairs. Third, for the tree construction, we randomly sampled 100,000 codons (0.3 million bp, about 2% of the total) from the set of all available codons. The sampling was done by codon rather than by gene, so that all genes had a chance to be sampled to generate a balanced and representative dataset. Fourth, the maximum-likelihood tree was constructed using IQ-TREE v1.6.12 under a GTR+GAMMA model (Nguyen et al. 2015). To estimate the confidence of each node, we generated 100 replicates of 10,000 codons randomly sampled from the total set of codons and constructed maximum-likelihood trees for each replicate. The support values of each node were summarized from these replicate trees using the sumtrees routine in the dendropy package (Sukumaran and Holder 2010).

Type species, or their close relatives, of all available genus-group names were used in the trees to ensure that the names are applied correctly. Statistical support values and branch lengths were taken into consideration to judge the validity of each observed clade. When a strongly supported clade without an available name was found, identification of specimens in the clade was confirmed by the analysis of their wing patterns and genitalia. These new clades were rationalized in terms of genitalic morphology and wing patterns to search for diagnostic characters in phenotype. Finally, genitalia and wing patterns were used to determine generic placement of species for which DNA sequences were not available.

DNA characters listed in diagnoses of new taxa were found in nuclear genomic sequences using the procedure that we have developed previously (see SI Appendix to Li et al. 2019). The logic of how the characters were found was also explained in Cong et. al (Cong et al. 2019b). The character states are provided in diagnoses below as abbreviations. For example, aly728.44.1:G672C means position 672 in exon 1 of gene 44 from scaffold 728 of *Cecropterus lyciades* (Geyer, 1832) (formerly in *Achalarus* Scudder, 1872, thus aly) reference genome (Shen et al. 2017) is C, changed from G in the ancestor. When characters were found for the sister clade of the diagnosed taxon, the following statement was used: aly5294.20.2:A548A (not C), which means that position 547 in exon 2 of gene 20 on scaffold 5294 is occupied by the ancestral base pair A, which was changed to C in the sister clade (so it is not C in the diagnosed taxon). The sequences of exons from the reference genome with the positions used as character states highlighted in green are given in the supplemental file deposited at <https://osf.io/aesvy/>. Linking to these DNA sequences from this publication ensures that the numbers given in the diagnoses can be readily associated with actual sequences. All new names have been registered with ZooBank.

Specimens were obtained from the following collections: American Museum of Natural History, New York, NY, USA (AMNH), Natural History Museum, London, UK (BMNH), Burke Museum of Natural History and Culture, Seattle, WA, USA (BMUW), Carnegie Museum of Natural History, Pittsburgh, PA, USA (CMNH), Colorado State University Collection, Fort Collins, CO, USA (CSUC), Field Museum of Natural History, Chicago, FL, USA (FMNH), Los Angeles County Museum of Natural History, Los Angeles, CA, USA (LACM), Mississippi Entomological Museum, Starkville, MS, USA (MEM), McGuire Center for Lepidoptera and Biodiversity, Gainesville, FL, USA (MGCL), Muséum National d'Histoire Naturelle, Paris, France (MNHP), Museum für Tierkunde, Dresden, Germany (MTD), Museo de Historia Natural, Universidad Nacional Mayor de San Marcos, Lima, Peru (MUSM), Peabody Museum of Natural History, Yale University, New Haven, CT, USA (PMNH), Natural History Museum, Frankfurt, Germany (SMF), Texas A&M University Insect Collection, College Station, TX, USA (TAMU), Biodiversity Center, University of Texas at Austin, Austin, TX, USA (TMMC), Bohart Museum of Entomology, University of California, Davis, CA, USA (UCDC), National Museum of Natural History, Smithsonian Institution, Washington, DC, USA (USNM), University of Texas Southwestern, freezers of the Grishin lab, Dallas, TX, USA (UTSW), Zentrum fur Biodokumentation des Saarlandes, Schiffweiler, Germany (ZfBS), Museum für Naturkunde, Berlin, Germany (ZMHB), Zoologische Staatssammlung München, Germany (ZSMC), and research collections of Ernst Brockmann, Germany (EBrockmann), Bill Dempwolf, USA (WDempwolf), Nick V. Grishin, USA (NGrishin), Bernard Hermier, French Guiana (BHermier), Kiyoshi Maruyama, Japan (KMaruyama), Kojiro Shiraiwa, USA (KShiraiwa), John A. Shuey, USA (JShuey), Texas Lepidoptera Survey, Houston, TX, USA (TLS, subsequently acquired by the MGCL), and Mark Walker, USA (MWalker).

Results and Discussion

Inspection of Hesperiidae genomic trees reveals a large number of inconsistencies with the currently adopted classification. Most importantly, after sequencing additional species, many genera were still found to be para- and polyphyletic, despite our previous effort to restore monophyly (Cong et al. 2019b). Additional research into type specimens, original descriptions and illustrations suggests a number of misidentifications made by Evans (1952, 1955). We correct these problems by proposing new names for the taxa that do not have them. Our logic about the taxonomic ranks (genus vs. subgenus) is discussed elsewhere (Cong et al. 2019b; Li et al. 2019; Zhang et al. 2019d, 2020, 2021) and is adopted here. In brief, a genus corresponds to a prominent monophyletic group similar in genetic diversification within this group to other genera of its relatives. Less prominent groups that originated more recently are defined as subgenera.

This work gives standardized descriptions of new taxa found during this analysis. The genus-group names were chosen to be short, and frequently either reflect names or properties of their type species to facilitate memorization, or are fusions of other names, euphonized and shortened. The type species name is listed in its original genus combination and spelling, followed by the author and year the name was made available (not a bibliographic reference, but part of the name). The definition section indicates closest genera, states the generic placements prior to this study (type species are given where appropriate to help assign a clade to a genus), gives reference to diagnostic characters as they are given in previous publications, mostly in Evans (1937, 1949, 1951, 1952, 1953, 1955). It was almost always possible to trace the genus observed in the phylogenetic trees to the morphological characters given in Evans' identification keys. We believe that referencing the keys rather than comprehensively listing all the characters would facilitate identification. Nevertheless, a brief morphological diagnosis for each genus is provided, summarizing the most indicative phenotypic traits. DNA characters found by our recently described method to maximize the chance that they would withstand addition of the new species (Zhang et al. 2019c) are given at the end of the definition. Then the gender of the name and an explanation about its origin is provided, species placed in the genus are listed (in their original genus-species name combinations with authors and dates), a parent taxon (a genus, subtribe, tribe, or subfamily) is given, at times followed by comments about species involved.

All proposed changes to taxonomic status are propagated to all names currently treated as subspecies (for species), subgenera (for genera) and synonyms of mentioned taxa; for example, if a species is placed in a genus, it means that all the subspecies and their synonymic names are placed together with their parent species. Finally, taxa not mentioned in this work are considered to remain at the ranks and in the taxonomic groups they have been previously assigned to (Evans 1937, 1949, 1951, 1952, 1953, 1955; Mielke 2005; Cong et al. 2019b; Li et al. 2019; Zhang et al. 2019b,d, 2020, 2021). The following sections are standardized in format and are either new taxon descriptions or taxonomic changes to existing taxa, as stated in the titles of these sections. These sections are mostly arranged in the taxonomic order of taxa mentioned in them with some exceptions dictated by the logic of presentation.

Fulvatis Grishin, new genus

http://zoobank.org/392495C5-8B7F-43BB-84BB-E759562E2B86

Type species. *Telegonus fulvius* Plötz, 1882.

Definition. Species in this genus were previously placed in *Salatis* Evans, 1952 (type species *Papilio salatis* Stoll, 1782), but are not monophyletic with it and instead form a clade sister to *Bungalotis* Watson, 1893 (type species *Papilio midas* Cramer, 1775) (Fig. 1). Keys to D.2.4a in Evans (1952). Distinguished from its relatives by the following characters: cheeks and palpi below tawny, not white, wings in males fulvous above; compared to *Salatis*: more produced forewings, costal fold either absent or shorter than half of costal margin, broader and rounder uncus in ventral view, more elongated and gracile valva. In DNA, a combination of the following base pairs is diagnostic: aly876.15.1:C294T, aly909.2.2:C319A, aly1450.14.11:A1002G, aly50.31.2:A2011C, and aly909.2.2:C264T.

Etymology. The name is a masculine noun (to agree in gender with the names of species in this genus) in the nominative singular, a fusion of *Fulv*[ous]+[Sal]*atis* for the orange-red wing color characteristic of these species formerly placed in *Salatis*.

Species included. The type species and *Bungalotis scyrus* Bell, 1934.

Parent taxon. Tribe Phocidini Tutt, 1906.

Adina Grishin, new genus

http://zoobank.org/B2165827-0302-48FD-8010-7B74D73D7FEC

Type species. *Nascus adrastor* Mabille and Boullet, 1912, reinstated status.

Definition. *Nascus adrastor* was placed as a synonym of *Bungalotis midas* (Cramer, 1775) (type locality Suriname) by Evans (1952: 139), who assumed it was "an aberration without the spot in space 3 upf." Sequencing a leg of the *N. adrastor* holotype (NVG-18086A10, EL63165) in MNHP reveals that in addition to not being conspecific with *B. midas* (which is in a clade far removed from it), *N. adrastor* may be sister to all Evans' "Bungalotis Sub-group" genera but *Dyscophellus* Godman and Salvin, 1893 with *Euriphellus* Austin, 2008 (Fig. 1), and therefore is not congeneric with any of them. Hence, first, we reinstate *Nascus adrastor* Mabille and Boullet, 1912 as a species-level taxon, because it is apparently not conspecific with any taxon with a more senior name. Second, we establish a new genus and place *Adina adrastor* in it as the type species. This new genus is distinguished from its relatives by the following combination of characters. Forewings lack hyaline spot in cell M_3-CuA_1 (Evans' "space 3") proximally to the irregular band formed by aligned and fully connected spots in discal cell and cells CuA_1-CuA_2 and CuA_2-1A+2A (apparently not an aberration!). However, instead, there is a feeble white-centered dark-brown

Figure 1. Genomic tree of Eudaminae. The tree is constructed from protein-coding regions. The tree is rooted with *Pterourus glaucus* (Linnaeus, 1758) (NVG-1670), not shown. Statistical support values are shown on nodes. For each specimen, its name adopted in this work is given first, and a previously used name is listed in square brackets (if different), supplemented with the DNA sample number, type status (see Table 2 caption for abbreviations) and general locality. See Table S1 in the Supplemental file for additional data about these specimens. Synonyms are given in parentheses preceded by "=", and in addition by "‡" for unavailable names. The type status refers to this synonym, if the synonym name is provided. Clades corresponding to new genera, subgenera and species are colored in red, orange and green, respectively, and the names of new taxa are highlighted accordingly. Names of selected tribes, subtribes, genera, and subgenera are labeled at their clades. Clades corresponding to some genera are highlighted in yellow to compare their genetic diversifications (length of the highlight in horizontal dimension) with each other. Groups of similar genetic diversification would ideally correspond to genera. The same notations are used in Fig. 3–11 and 13–17.

spot halfway between the white band and the outer margin. Furthermore, such small spots mark next four cells towards costa: a doublet of submarginal spots (in cells M_1-M_2 and M_2-M_3) and a doublet of subapical spots (in cells R_4-R_5 and R_5-M_1). It is possible that these spots may be better developed or hyaline in other specimens. Central spot in ventral hindwing cell CuA_2-1A+2A is nearly equidistant from the discal cell spot and spot in cell CuA_1-CuA_2, slightly closer to the latter spot and not in-line with the former as in other genera. All these large ventral spots are gray-centered. Palpi brown, cheeks narrowly yellowish-white under eyes. Fringes prominently checkered on both wings. It should be noted that both antennae and all wings are glued onto the body of the *A. adrastor* holotype that we sequenced a leg of. Nevertheless, a combination of unique wing pattern with the unique genotype of the leg suggests that at least the wings may indeed belong to this body. Furthermore, in the absence of known males, the best diagnostic characters for this new genus are given by DNA, in particular in the COI barcode: T70A, A241T, T382C, T442C, A454T, and A562G, and in the nuclear genome: aly2012.62.1:T90C, aly1656.12.3:T762C, aly1656.12.3:A772G, aly349.23.9:C455T, and aly349.23.9:G475A.

Etymology. The name is a feminine noun in the nominative singular, starting as the type species name to form a Hebrew name הנידע (pronounced ah-DEE-nah) meaning “gentle” or “subtle”. The genus being a gentle reminder that subtle phenotypic differences may hide the large genetic differentiation that can be revealed by genomic sequencing leading to surprising and insightful results.

Species included. Only the type species.

Parent taxon. Tribe Phocidini Tutt, 1906.

Euriphellus cebrenus (Cramer, 1777), new combination

The original illustration of *Papilio cebrenus* Cramer, 1777 (type locality Suriname) shows that the forewing discal cell yellow bar reaches costa, and the yellow spot in cell M_3-CuA_1 is close to the spot in cell CuA_1-CuA_2 (Cramer 1777). N.V.G. also inspected the original Lambertz drawing of *P. cebrenus* in the library of the National History Museum, London, UK used as a source of published Cramer’s engravings (Gilbert 2000). These drawings are usually more accurate than the published copies, but in this case the Lambertz drawing did not reveal additional information because the illustrations were quite similar. Evans (1952) applied the name *cebrenus* to a species known only from Southwest and South Brazil that has some similarities in wing patterns to Cramer’s *P. cebrenus*, but the yellow bar does not extend towards costa beyond discal cell, and the spot in M_3-CuA_1 is midway between the discal cell spot and apical spots. Therefore, both by wing pattern and by locality, *P. cebrenus* is a closer match to some females of the species known today as *Euriphellus euribates* (Stoll, 1782) (type locality Suriname) than to the species from South Brazil Evans called “*cebrenus*”. Furthermore, on the plate 170, Draudt (1922) illustrated a number of Hesperiidae species with *P. cebrenus* among them. Size comparison of the images suggests that the *P. cebrenus* specimen was larger than *E. euribates* and about the same size as *Telegonus hesus* Westwood, 1852 (currently a junior subjective synonym of *E. euribates*). Males of the species Evans called “*cebrenus*” are smaller in size (although size arguments should be taken with caution, due to possibly significant variation), and the Lambertz/Cramer illustrations do not resemble a female of that species, which has a continuous forewing discal band and not a broken one as in the true *P. cebrenus*. Therefore, we conclude with confidence that Evans misidentified *P. cebrenus* and we place it in the genus *Euriphellus* Austin, 2008 (type species *Papilio euribates* Stoll, 1782) to result in *Euriphellus cebrenus* (Cramer, 1777), **new combination**. We have not sequenced the specimens from the Guianas and do not know whether the narrow-banded females with the forewing band reaching costa (i.e., *E. cebrenus*) represent a variation of broader-banded females with the forewing band ending in discal cell (i.e., *E. euribates*), or they are two distinct taxa. Therefore we presently refrain from synonymizing *Euriphellus euribates* (Stoll, 1782) under *Euriphellus cebrenus* (Cramer, 1777) until further research sheds light on this possible synonymy.

Telegonus mutius Plötz, 1882 is a junior subjective synonym of *Euriphellus phraxanor* (Hewitson, 1876)

Considered since Evans (1952) a junior subjective synonym of *Salatis cebrenus* (Cramer, 1777) (type locality Suriname), *Telegonus mutius* Plötz, 1882 (type locality Colombia) does not agree, according to its description, with the original illustration (Cramer 1777) showing a female syntype of *Papilio cebrenus*. The description of *T.*

mutius can be translated as "Margins of all wings smooth (i.e. not serrated), cell 1 of the forewing without hyaline points. … Forewing with a hyaline spot in the discal cell, one similar [spot] in cell 2, a slash in cell 3 and 2 small spots before the apex in cells 6 and 7. Hindwing [unmarked,] only with one brown, gray-core central moon and a row of such spots on the underside. Pale brown, palpi orange … Weymer [in litteris], 36 mm" (Plötz 1882c). *Papilio cebrenus* has a hyaline spot in the forewing cell 1, it also has additional hyaline spots between the discal spot and costa (i.e., discal cell spot continues to reach costa), and three small apical spots, not two. Moreover, as we suggest above, *P. cebrenus* is a species very close to (or the same as) *Euriphellus euribates* (Stoll, 1782). Therefore, *T. mutius* is not the same species as *E. cebrenus*. Instead, we found that some females (for example, in ZMHB) currently identifiable as *Euriphellus phraxanor* (Hewitson, 1876) (type locality "New Granada"—likely referring to Colombia—and Panama: Chiriqui) perfectly match the *T. mutius* description, including the large size of the specimen (forewing length 36 mm). Indeed, nearly identical to each other large hyaline spots in forewing discal cell and cell CuA_1-CuA_2, a hyaline "slash" in cell M_3-CuA_1 and two subapical spots (in cells R_4-R_5 and R_5-M_1) are the only prominent dorsal markings on these females. Their ventral hindwing is marked with a central spot and a discal crescent of similar spots. These spots are mostly pale and encircled with dark scales, but can be viewed as brown with pale centers. Although the type specimens of *T. mutius* have not been located, the description is sufficient to place this taxon in synonymy with *Euriphellus phraxanor*, awaiting a detailed revision of the *E. phraxanor* complex that requires examination and sequencing of the primary types of these taxa.

Salantoia gildo (Mabille, 1888), new combination, reinstated status

Treated as a junior subjective synonym of *Salatis cebrenus* (Cramer, 1777) (type locality Suriname) since Evans (1952), *Telegonus gildo* Mabille, 1888 (type locality Brazil: Amazonas, Coary) has significantly broader spots on forewing compared to *S. cebrenus*. Sequencing of the *T. gildo* syntype (NVG-15031H01) in the ZMHB reveals that it is in the same clade with *Eudamus eriopis* Hewitson, 1867, the type species of *Salantoia* Grishin, 2019, and is not monophyletic with *Salatis* Evans, 1952 (type species *Papilio salatis* Stoll, 1782) or *Euriphellus* Austin, 2008 (type species *Papilio euribates* Stoll, 1782) (Fig. 1). In male genitalia, *T. gildo* shares the following characters with *S. eriopis*: uncus longer and narrower than in *Salatis*, penis not narrowing distad, and harpe with distal short spike or spikes instead of being rounded as in *Salatis*. In wing patterns, *T. gildo* and *S. eriopis* have two or three conspicuous subapical white spots, while *Salatis* species mostly have one (sometimes vestigial) (Evans 1952). Therefore, *T. gildo* belongs to *Salantoia* and not to *Salatis* or *Euriphellus*, and we reinstate it as a species-level taxon *Salantoia gildo* (Mabille, 1888), **new combination**. To stabilize nomenclature, the sole syntype in the Museum für Naturkunde, Berlin, Germany (ZMHB) with the following eight rectangular labels || Origin. || Coary | Hhnl || Tel. gildo ♂ Mab. || Gildo | Mab. || Gildo | Mab. || GEN.PREP., | MIELKE | 1996 || [barcode image] http://coll.mfn-berlin.de/u/ | 940b47 || DNA sample ID: | NVG-15031H01 | c/o Nick V. Grishin || is hereby designated by Grishin as the **lectotype** of *Telegonus gildo* Mabille, 1888.

Furthermore, a specimen of the species that Evans misidentified as *S. cebrenus* (NVG-17104C01) is placed near the base of Evans' "Bungalotis Sub-group" (excluding *Dyscophellus* Godman and Salvin, 1893 and *Euriphellus* Austin, 2008) clade and does not fall into any existing genera (Fig. 1). We see that it is away from *Euriphellus* (where the true *Papilio cebrenus* and *Telegonus mutius* Plötz, 1882 belong), away from *Salantoia* (where *Telegonus gildo* belongs), and away from *Salatis* (where Evans (1952) placed it). We see that Evans' "*S. cebrenus*" has neither genus nor species name applicable to it, and it is named here below.

Ornilius rotundus Grishin, new genus and new species

http://zoobank.org/6CAFDF62-38BE-465D-934A-D844A589F12A
http://zoobank.org/926EC06C-982B-4811-9152-0270F924C028

Definition of the new species. This is the species Evans misidentified as *Papilio cebrenus* Cramer, 1777 (type locality Suriname) and called "*Salatis cebrenus*". Thus, the diagnostic characters for it are given in Evans (1952), where the species keys out to D.2.3. Specifically, both sexes have wings rounder than most relatives, fringes not checkered. Males with yellowish hyaline spots on forewing, cheeks broadly white. Forewing of female with hyaline discal band of three spots well-aligned with each other, small roundish spot in cell M_3-CuA_1 offset from the discal band and three well-developed (not one as in *Salatis* species) hyaline subapical spots. The COI barcode sequence of the holotype is:

AACTTTATACTTTATTTTTGGAATTTGAGCAGGAATAGTAGGAACTTCACTAAGATTATTAATTCGAACTGAATTAG
GAACTCCTGGATCTTTAATTGGAGATGATCAAATTTATAATACTATTGTTACAGCTCATGCTTTTATTATAATTTTTTT
TATAGTAATACCTATTATAATTGGAGGATTTGGAAATTGATTAATTCCTCTCATACTCGGAGCCCCAGATATAG
CATTTCCACGAATAAATAATATAAGATTTTGATTATTACCCCCATCTTTAACTTTACTAATTTCAAGAAGAATTG
TAGAAAATGGTGCTGGAACTGGATGAACAGTATATCCTCCTTTATCGTCTAATATTGCTCACCAAGGATCTTCTG
TAGACTTAGCAATTTTTTCTTTACATTTAGCAGGAATTTCATCTATCTTAGGAGCTATTAATTTCATTACAACAATTAT
TAACATACGAATTAAAAATTTATCATTTGATCAAATACCATTATTTATTTGAGCTGTTGGAATTACAGCTCTTTTATTAT
TACTTTCTTTACCTGTCTTAGCTGGCGCTATTACTATACTTTTAACTGATCGAAATTTAAATACTTCATTTTTTGATC
CAGCAGGAGGAGGAGATCCAATTTTATATCAACATTTATTT

Type locality. Brazil: Santa Catarina, São Bento do Sul, elevation 850 m, GPS coordinates −26.283, −49.417.

Distribution. The species is known only from the Southeast and South regions in Brazil.

Type material. Holotype (Fig. 2a,b), male deposited in the National Museum of Natural History, Smithsonian Institution, Washington, DC, USA (USNM), with the following rectangular white labels: || BRAZIL: Sta Catarina | Sao Bento do Sul | 26°17′S 49°25′W | 25.III.1990 | 850m, leg. Rank || GENITALIA NO. | X-5024 | J.M.Burns 2001 || USNMENT | [barcode image] | 00913850 || DNA sample ID: | NVG-17104C01 | c/o Nick V. Grishin ||. Paratypes: 3 ♂♂ and 5 ♀♀ from Brazil: Espírito Santo and Rio de Janeiro in the Natural History Museum, London, UK (BMNH), 1 ♂ and 1 ♀ in USNM and 3 ♀♀ in the ZMHB. Type identification labels will be mailed to curators of these collections to be placed on these specimens.

Definition of the new genus. This new genus is erected here to receive species previously included in *Salatis* Evans, 1952 (type species *Papilio salatis* Stoll, 1782), but not monophyletic with it and instead originating near the base of the group consisting of *Bungalotis* Watson, 1893 (type species *Papilio midas* Cramer, 1775), *Sarmientoia* Berg, 1897 (type species *Dyscophus faustinus* Burmeister, 1878), *Salatis* Evans, 1952, *Nicephellus* Austin, 2008 (type species *Eudamus nicephorus* Hewitson, 1876), *Salantoia* Grishin, 2019 (type species *Eudamus eriopis* Hewitson, 1867), *Fulvatis* Grishin, new genus (type species *Telegonus fulvius* Plötz, 1882), and *Adina* Grishin, new genus (type species *Nascus adrastor* Mabille and Boullet, 1912) (Fig. 1). While the wing pattern characters are reserved to define the new species, the new genus is defined by male genitalia that are more likely to be the shared character for the genus if additional congeners are discovered. This genus is distinguished from its relatives by the following characters in male genitalia: uncus undivided, concave and narrow in lateral view, tegumen with two flanges about half of uncus length, valva nearly as broad as long, nearly square in shape, long process of sacculus reaching harpe, harpe twice as broad as long, its distal margin with irregular broad dentations. In DNA, a combination of the following base pairs is diagnostic: aly2487.42.4:G49T, aly2012.14.3:G1592C, aly185.5.3:G934C, aly2012.62.1:T90T (not C), aly1656.12.3:T762T (not C), aly1656.12.3:A772A (not G), aly527.19.4:G150G (not A), aly294.11.1:A93A (not G), aly2202.33.1:T40T (not G), aly1231.7.2:T1033T (not A), aly1231.7.2:G1019G (not C), aly15220.1.1:T537T (not C), aly1603.69.1:T840T (not C), aly1139.65.13:C280C (not A), and aly1139.46.3:A70A (not C).

Type species. *Ornilius rotundus* Grishin, **new species**.

Species included in the genus. Only the type species.

Parent taxon for the genus. Tribe Phocidini Tutt, 1906.

Etymology. The genus name is a masculine noun in the nominative singular, given due to the elaborate and embellished shape of the genitalia: *Orn*[atus] + *ilius* (from ilia: guts, groin, genitals, etc.). The species name is a masculine adjective proposed for rounded wings on the type species, more so than in most Phocidini.

Salantoia metallica Grishin, new species

http://zoobank.org/8CC4BEC6-D009-4F8A-B2CC-9AC227EB20A7

Definition. Genomic analysis reveals that one female specimen (NVG-2683) in the USNM collection belongs to *Salantoia*, together with *S. gildo* and the type species *S. eriopis* (Fig. 1), but is not identifiable to species either genetically (it did not match any of the species we have sequenced) or phenotypically, and therefore is new. Female of this species (Fig. 2d,e) is distinguished from other *Salantoia* by extensive greenish-yellow metallic

Figure 2. Holotypes of the Eudaminae species described in this work: **a)** *Ornilius rotundus* Grishin, gen. n., sp. n. dorsal; **b)** ibid. ventral; **c)** *Dyscophellus australis* Grishin, sp. n. dorsal; **d)** *Salantoia metallica* Grishin, sp. n. dorsal; **e)** ibid. ventral; **f)** ibid. left antennal club in ventro-anterior view, nudum facing up, 1 mm scale above; **g)** ibid. sterigma and ovipositor in ventral view, 1 mm scale below; **h)** *Telegonus subflavus* Grishin, sp. n. dorsal; **i)** ibid. ventral; **j)** *Dyscophellus basialbus* Grishin, sp. n. dorsal; **k)** ibid. ventral. Specimen images are to scale (shown under image a) and data are in the text. Photograph c (by N.V.G.) is © of the Trustees of the Natural History Museum London and is made available under Creative Commons License 4.0 (https://creativecommons.org/licenses/by/4.0/).

sheen on its body and all wings above and below. The sheen is most extensive on hindwing and the basal half of forewing, basad of a discal hyaline band from mid-costa to tornus, composed of four aligned spots narrowly interrupted by three darker veins. In addition to the band, forewing with three subapical hyaline dots, the one in cell R$_5$-M$_1$ offset distad from the two others, and one dot in cell M$_3$-CuA$_1$ by vein CuA$_1$. This banded pattern (but not the subapical dots) and metallic sheen reminds of *Porphyrogenes* Watson, 1893 (type species *Telegonus omphale* Butler, 1871), but the new *Salantoia* species differs in the structure of palpi with the 3rd segment very short, mostly hidden among the scales (not protruding much beyond) of the 2nd quadrantic (not cylindrical) segment; the structure of antennae: stronger thickened at the club and with very long nudum of 34 segments (Fig. 2f) vs. up to 25 in *Porphyrogenes* according to Evans (1952: 136), and by weakly defined but yet clearly visible pale discal spots on ventral hindwing complemented with similar spots in discal cell and at the basal third of cell Sc+R$_1$-RS. Sterigma in female genitalia does not offer unusual features: with broad and short, wide-M-shaped well developed lamella antevaginalis and postvaginalis (Fig. 2g). Male is unknown and is not among specimens we have sequenced. The COI barcode sequence of the holotype is:

AACTTTATATTTTATTTTTGGAATTTGAGCCGGAATAGTAGGAACTTCATTAAGATTACTAATTCGAACAGAATTAG
GTACCCCTGGATCTTTAATTGGAGATGATCAAATTTACAATACTATTGTAACAGCTCACGCTTTTATTATAATTTTTT
TATAGTAATACCTATTATAATTGGAGGATTTGGAAATTGATTAGTCCCTTTAATATTAGGAGCCCCTGATATAGCATTTC
CACGAATAAATAATATAAGATTTTGATTATTACCTCCATCTTTAACACTATTAATTTCAAGAAGAATTGTAGAAAATG
GAGCAGGTACAGGATGAACAGTTTATCCTCCTTTATCAGCTAATATTGCACATCAAGGATCTTCAGTTGATTTAG
CAATTTTCTCTCTTCATTTAGCTGGAATTTCATCTATTTTAGGAGCTATTAATTTTATTACAACAATTATCAA
CATACGAATTAAAAATTTATCTTTTGATCAAATACCATTATTTGTTTGAGCTGTTGGAATTACAGCTTTATTATTAT
TACTTTCATTACCTGTATTAGCAGGTGCTATTACAATACTTTTAACAGACCGAAATTTAAATACTTCATTTTTTGATCCT
GCAGGAGGAGGAGATCCAATTTTATATCAACATTTATTT

Type locality. Guyana: Acarai Mts., Sipu River, 900′–2500′, GPS 1.387, −58.947.

Type material. Holotype, female deposited in the National Museum of Natural History, Smithsonian Institution, Washington, DC, USA (USNM), with the following rectangular white labels: || GUYANA: Acarai Mts. | Sipu R. 900′–2500′ | 29.X.-12.XI.2000 | 1°23.2′N 58°56.8′W | Leg. S.Fratello et al || DNA sample ID: | 11-BOA-13383B08 | c/o Nick V. Grishin || DNA sample ID: | NVG-2683 | c/o Nick V. Grishin || NVG140628-53 || [barcode image] | USNM ENT 00179743 ||. The holotype was sampled for DNA twice: a leg sample (11-BOA-13383B08) and abdomen extraction (NVG-2683) prior to genitalia preparation stored in a vial (NVG140628-53) by the specimen. The holotype identification label will be mailed to the curators of the collection. No other specimens are known.

Etymology. The species is named for the metallic sheen of the wings not present in other *Salantoia*. The name is a feminine adjective.

Telegonus erythras Mabille, 1888 is a junior subjective synonym of *Dyscophellus damias* (Plötz, 1882)

Inspecting unpublished illustrations by Plötz, Godman (1907: 135) suggested that *Netrocoryne damias* Plötz, 1882 (type locality Brazil) is synonymous with *Dyscophellus ramusis* (Stoll, 1781). This treatment was followed by the subsequent authors, with Evans (1952) applying this name to the southernmost populations of this species as *Dyscophellus ramusis damias*. However, these specimens (and other *D. ramusis* populations) do not agree with the original description of *N. damias* (Plötz 1882c), given in a key, the last part of which can be translated as: "No hyaline spots. All wings are rust-colored on both sides, with small brown spots instead of the hyaline spots, which below are mostly gray in the middle. FW near the base in cell 1, with two brown points one above the other, HW with a broad brown costal margin[al area]." First, all *D. ramusis* populations are brown-colored, not rust-colored. Rust color is orange-brown, with clear reddish tones absent in *D. ramusis*. Second, southern *D. ramusis* populations have gray-, white- and hyaline-centered dark spots on wing above, not only below.

Furthermore, we found at least one syntype of *N. damias* in the ZMNB, where many Plötz types are curated. One of these specimens (NVG-15031F05) bears a 4-digit label || 4858 ||. Such labels were frequently referenced in Plötz papers (but not for *N. damias*). This specimen also bears a green label || Damias | HSch ||. Plötz referenced his *N. damias* as "*Coecutiens* var. Herr. Sch." (Plötz 1882c), and "HSch" on the label stands for Herrich-Schäffer. Another green label with "Pará" suggests that the specimen is from Brazil. The specimen is reddish in color, has brown spots and these brown spots have pale centers on ventral hindwing. Therefore, it matches the description of *N. damias*, is from Brazil, and is a syntype. This specimen has a red "Typus" label pinned next to it and is referenced in the ZMHB card catalogue as both *N. damias* and *Telegonus fulvius* Plötz, 1882. Indeed, it also bears a white label || fulvius Pl | type || in more modern handwriting, but it does not match the description of *T. fulvius* Plötz, 1882, and therefore is not a syntype of this taxon. A second specimen (NVG-15031F12) is labeled as a type of "*sebaldus*, Cr." (i.e., *Papilio sebaldus* Stoll, 1781), which it is not, because it does not match the original description of *P. sebaldus* and is not from Suriname. However, it bears an old label matching Herrich-Schäffer's handwriting || Amazon inf. | H[a]h[ne]l ||, generally fits the description and locality of *N. damias* and is therefore a possible syntype of this taxon, although it is smaller than mentioned in the description of *N. damias*.

Genomic sequencing reveals that both *N. damias* specimens (NVG-15031F05 and NVG-15031F12) are likely conspecific with each other and with specimens identified as *Dyscophellus erythras* (Fig. 1). *Telegonus erythras* Mabille, 1888 (type locality "Amazone inférieur") was described and illustrated from the Staudinger collection (Mabille 1888), which for the large part is in the ZMHB. However, it is possible that other syntypes exist and they may belong to other species. To stabilize nomenclature, N.V.G. hereby designates the specimen with a clear syntype status (NVG-15031F05) in the ZMHB as the **lectotype** of *Netrocoryne damias* Plötz, 1882. This specimen is chipped near the tornus of the left hindwing and bears the following labels || 4858 || Pará Sieber || fulvius Pl | type || Damias | HSch. || [barcode image] http://coll.mfn-berlin.de/u/ | 940b35 || DNA sample ID: | NVG-15031F05 | c/o Nick V. Grishin ||.

Next, we see that a possible paralectotype of *N. damias* (NVG-15031F12) from "Amazon inf" without discrepancies matches the description and the first illustrated syntype of *T. erythras* and is most likely this syntype, making this specimen part of the type series of both taxa: *N. damias* and *T. erythras*. We also located and sequenced the second illustrated syntype (NVG-15031G03), which Mabille assumed to be a female of this species in his description (Mabille 1888), but it is a male (even labeled as a male in Mabille handwriting) of a species known today as *Fulvatis fulvius* (Plötz, 1882) (formerly in *Salatis*) (Fig. 1), which lacks costal fold in males and for this reason can pass for a female by mistake. This second syntype bears a similar label || Amaz. inf. | H[a]h[ne] l || and it also is labeled || Tel. erythras | ♂ Mab || in Mabille's handwriting in addition to the label || Erythras | Mab. || in Staudinger's handwriting. The "Amazon inf." labels on both connect the two syntypes together and offer additional evidence that these are the two syntypes from the Staudinger collection illustrated by Mabille (1988: Fig. 3). To select one species from the polytypic series of *Telegonus erythras* that agrees best with the current usage of these names, to resolve the confusion about them, and to stabilize their usage, N.V.G. designates the syntype in the ZMHB with its right hindwing chipped near tornus and bearing the following labels || Origin || Amazon inf. | Hhl || Dyscophus | sebaldus, Cr. | ♂ | not ♂ of | Erythus, Cr! || Sebaldus | Crm. || [barcode image] http://coll.mfn-berlin.de/u/ | 940b3e || DNA sample ID: | NVG-15031F12 | c/o Nick V. Grishin || as the **lectotype** of *Telegonus erythras* Mabille, 1888.

Genomic and phenotypic comparison of the two lectotypes: *N. damias* (type locality Brazil: Para) and *T. erythras* (type locality "Amazon inf.") reveals that they are conspecific (Fig. 1). Therefore *Telegonus erythras* Mabille, 1888 is a junior subjective synonym of *Dyscophellus damias* (Plötz, 1882). As a result, the taxon that Evans (1952) following Godman (1907) misidentified as *damias* is left without a name, a situation that is corrected next.

Dyscophellus australis Grishin, new species

http://zoobank.org/0959D624-05B4-4EE3-8AB8-AB11D1D3B31D

Definition. This new name is proposed for the taxon that Evans (1952) misidentified as *Dyscophellus ramusis damias*. Austin (2008) suggested that it is a species-level taxon due to genitalic differences, with which we agree. The description of it is given by Evans (1952: 150) and it keys to D.4.9.(c[sic! recte d]). In brief, smaller than *D. ramusis* (Stoll, 1781) (type locality Suriname), forewing length about 25 mm in males and 30 mm in females (not 30 and 35); wings ochreous-brown (not reddish-brown) with darker-brown spots, most of which with paler centers both above and below; hindwing with outer margin convex and angled at vein CuA_2; harpe in male genitalia terminally broader and divided, inner edge not folded over. The specimen in the best condition from the Evans series is selected as the **holotype**, a male from Paraguay: Sapucay in the Natural History Museum, London, UK (BMNH), illustrated in Fig. 2c, and the rest of the series curated by Evans (8 ♂♂ and 2 ♀♀) are paratypes, from Paraguay and Brazil: Espírito Santo, Rio de Janeiro and Goiás. Type identification labels will be mailed to curators of the collection to be placed on these specimens.

Type locality. Paraguay: Sapucay.

Distribution. The species is known from Southeast Brazil and Paraguay.

Etymology. The species is the southernmost representative of the *Dyscophellus* species that are close relatives of *D. ramusis*. The name is a masculine adjective.

Dyscophellus basialbus Grishin, new species

http://zoobank.org/20AC7B30-B572-4E35-B3B3-FDC0910626A7

Definition. Sequencing of the *Nascus diaphorus* Mabille and Boullet, 1912 (type locality Suriname) holotype (NVG-18086A07, EL63162) in MNHP reveals that it is a taxon closely related to *Dyscophellus ramon* Evans, 1952 (type locality Panama: Bugaba), and not to the species Evans (1952) and consequently Austin (2008) identified as *Dyscophellus diaphorus*. The *D. diaphorus* holotype will key out to *D. ramon* in Evans (1952: 149), because it has a white stripe along the vein 8 (i.e. $Sc+R_1$) on dorsal hindwing (instead of white basal area of Evans' "*D. diaphorus*")

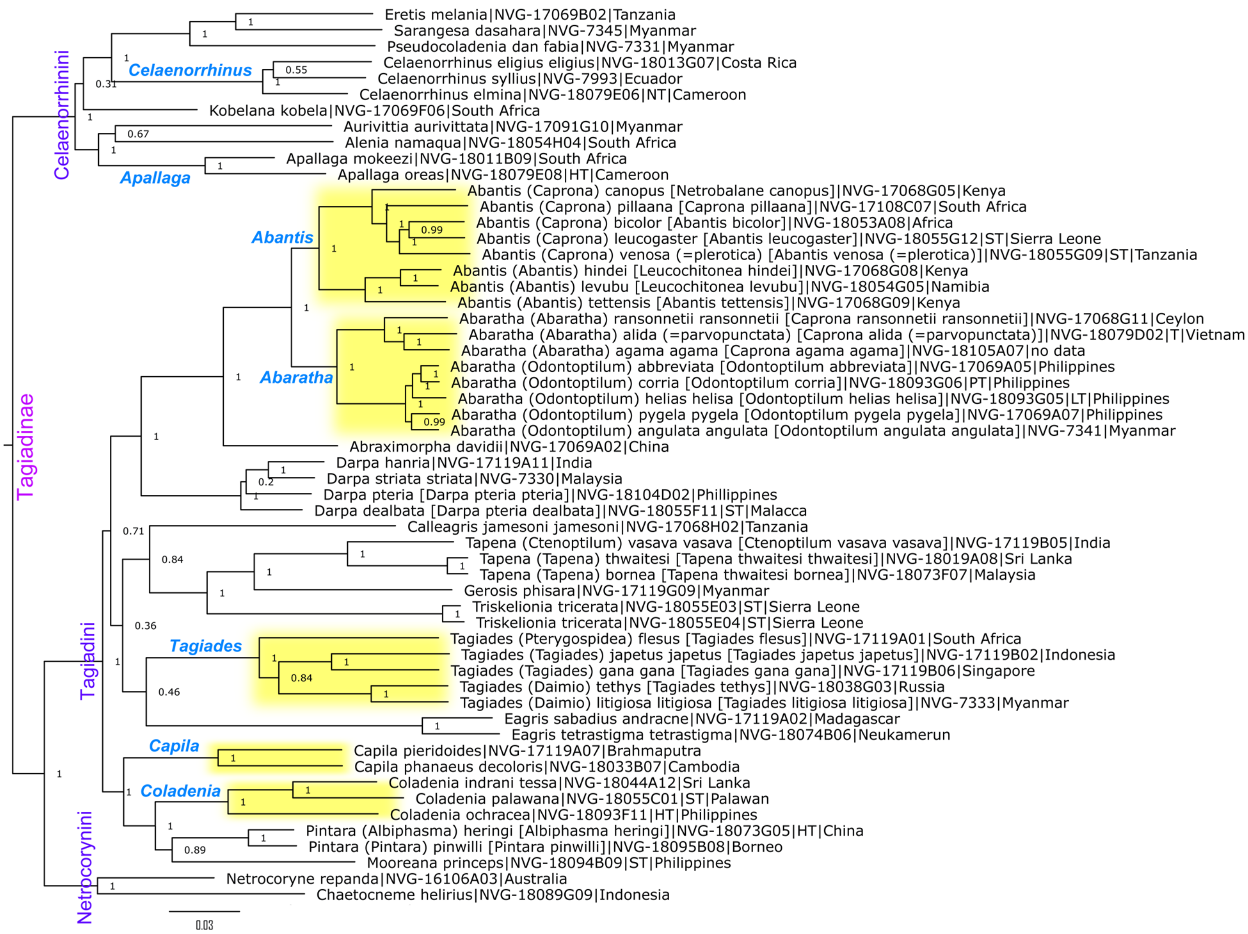

Figure 3. Genomic tree of Tagiadinae. See Fig. 1 legend for notations.

and tawny wing color (instead of more brown). Therefore, in the absence of available synonyms, Austin's and Evans' " *D. diaphorus*" becomes a species without a name, which is given to it here. Description of this species is already provided by Evans (1952: 149), where it keys out to D.4.8., and complemented by Austin (2008: 23), who also illustrated its male genitalia in detail (2008: Fig. 100). In brief, the new species is distinguished from its relatives by males with a broad pale area along hindwing costa above, up to about half wing length, preceded by dark basal spot and followed by dark-brown scaling between veins Sc+R_1 and M_1. This species is most closely related to *Dyscophellus porsena* (E. Bell, 1934) (type locality Peru: Iquitos) as revealed by sequencing of its holotype (NVG-15104B04) in AMNH. Austin (2008) discussed and illustrated *D. porsena*, which according to Austin differs from the new species by the pale area at the hindwing costa being confined to near vein Sc+R_1 as a white ray (but it looks more extensive in *D. porsena* holotype, so it remains to be investigated whether this character is variable or Austin misidentified *D. porsena* as well) and male genitalia with bulkier uncus, shorter tegumen and narrower valva with somewhat downturned harpe instead of slightly upturned harpe in the new species. The COI DNA barcodes of the new species and *D. porsena* differ by 5.8% (38 bp), and the new species is identified by the following combination of DNA characters in the barcode: A40C, T59C, A79G, T112C, A238G, T382A, T463C, A494T, and T547C. The COI barcode sequence of the holotype is:

AACTCTTTATTTTATTTTCGGAATTTGAGCAGGAATAGTCGGTACATCATTAAGATTACTAATTCGAACT
GAATTAGGGATCTCAGGTTCTTTAATTGGTGATGATCAAATCTATAATACTATTGTTACAGCTCATGCTTTTAT
TATAATTTTTTTTATAGTAATACCTATTATAATTGGGGGATTTGGAAATTGATTAGTACCATTAATATTAGGGGCCCCT
GATATAGCTTTCCCGCGAATAAATAACATAAGATTTTGATTATTACCCCCATCCTTAATTTTACTA
ATTTCAAGAAGAATTGTTGAAAATGGTGCAGGAACAGGATGAACTGTTTACCCCCCTTTATCTTCTAATATTGCTCAT
CAAGGATCTTCTGTAGATTTAGCAATTTTTTCTTTACATTTAGCAGGAATTTCATCAATTTTAGGAGCTATTAATTT

TATTACTACAATTATTAACATACGAATTAGAAACTTATCATTCGATCAATTACCCTTATTTGTTTGATCTGTTGGAAT
TACAGCTTTACTATTATTACTTTCCTTACCTGTATTAGCAGGAGCTATTACAATACTTCTTACTGATCGAAATTTAAATA-
CATCATTTTTTGACCCTGCTGGAGGAGGAGATCCAATTTTATATCAACATTTATTT

Type material. The specimen illustrated by Austin (2008: Fig. 34, 37), a male, is chosen as the **holotype**, also illustrated in Fig. 2j,k here. It is currently in the collection of McGuire Center for Lepidoptera and Biodiversity, Gainesville, FL, USA (MGCL) and bears the following labels: || BRASIL: Rondonia | 65 km S Ariquemes | linea C-20, 7 km E | B-65, Fazenda | Rancho Grande | 9 June 1993 / leg. G. T. Austin | (at paper lures | 1700-1730) || DNA sample ID: | NVG-15026C05 | c/o Nick V. Grishin ||. Another male from the same locality, but collected on 11 August 1993, was also sequenced as NVG-15026C06 and is the only paratype. Due to possibly cryptic species in this complex, unsequenced specimens are not made paratypes. Type identification labels will be mailed to curators of the collection to be placed on these specimens.

Type locality. Brazil: Rondônia; 62 km south of Ariquemes, Linha C-20, 7 km (by road) east of route B65, Fazenda Rancho Grande, elevation 180 m.

Distribution. Currently only known with confidence from the type locality, but phenotypically similar populations according to Evans (1952) are recorded from Colombia (Muzo, Rio Negro), French Guiana, Amazonian Peru and Brazil (Pará). At least some of these, however, may be *D. porsena* or other species.

Etymology. The species is named for the diagnostic character defined by Evans, white basal area by the costa on dorsal hindwing, instead of white ray along vein 8 ($Sc+R_1$). The name is a masculine adjective.

Dyscophellus doriscus (Hewitson, 1867), reinstated status

Eudamus doriscus Hewitson, 1867 (type locality Brazil: Rio de Janeiro) has been treated as a subspecies of *Dyscophellus porcius* (C. Felder and R. Felder, 1862) (type locality “upper Rio Negro”) from Southeast Brazil since Evans (1952). Genomic analysis reveals notable separation between the two taxa with Fst/Gmin statistics on Z chromosome-encoded protein of 0.32/0.03 (Cong et al. 2019a). These numbers suggest genetic diversification and limited gene exchange between the two taxa. Phenotypically they differ by the number of hyaline spots in males (Evans 1952). Therefore, we propose species-level status for *Dyscophellus doriscus* (Hewitson, 1867), **reinstated status**. Our genomic analysis included two syntypes of *Netrocoryne coecutiens* Herrich-Schäffer, 1869 from Brazil: Rio de Janeiro in the ZMHB (NVG-15031G01 and G02), which are *D. doriscus*, and specimens from Venezuela, Peru and Bolivia for *D. porcius*. Despite the notable genetic diversification in nuclear genomes, COI barcodes of these species differ by only 0.9% (6 bp), albeit consistently without much variation within each species.

Telegonus diophorus Möschler, 1883 is a junior objective synonym of *Bungalotis corentinus* (Plötz, 1882), reinstated status

Telegonus corentinus Plötz, 1882 (type locality Suriname), whose drawing (No. 1333) according to Godman (1907: 151) was missing from the original set made by Plötz, has been since Mabille (Mabille 1903) treated as a junior subjective synonym of *Papilio midas* Cramer, 1775 (type locality Suriname). However, *Bungalotis midas* specimens do not agree with the original description of *T. corentinus*. *T. corentinus* was described in a key to Hesperiidae species (Plötz 1882c), and was the next species to *B. midas*, both unified by the following characters, as translated from German original: “Without hyaline spots. Forewing basad in cell 1 unspotted. Rust-yellow, hindwing above from vein 7 to the costa brown. Tornus somewhat pointed.” And also for *T. corentinus*: “Hindtibiae with very long hairs.” The lack of a brown spot doublet at the basal third of forewing cell CuA_2-1A+2A excludes *Dyscophellus* Godman and Salvin, 1893. The lack of hyaline spots combined with rusty-yellow (not brown) color excludes all other related genera except *Bungalotis* E. Watson, 1893. Furthermore, according to Evans (1952: 137), “densely fringed” tibiae are characteristic of *Bungalotis*. Therefore, it is most probable that *T. corentinus* indeed belongs to *Bungalotis*.

Plötz’s key clearly spells out the differences between *Bungalotis corentinus* and *B. midas*. First, in *B. corentinus*: “Upper side almost without markings, the most noticeable is a brown spot in the middle cell of the hindwing.” In contrast, for *B. midas* we have: “Upper side of all wings with a brown spot in the middle and an unequal, curvy cross-band against the margin." While we do find poorly marked specimens of *B. midas*, they are not common and they tend to have forewing spots more prominent that the discal cell spot on hindwing. Second, in *B. corentinus*: "Underside brownish, forewing only with a row of small brown spots against the margin, hindwing with a larger central spot and a circle of smaller ones, almost all white-centered." In *B. midas*: "On the underside, … the markings of the forewing are as above, the hindwing has two transverse bands consisting of large square spots and a smaller one in cell 7 next to the base." The description of *B. midas* is quite accurate. However, in *B. midas* males we inspected, the hindwing brown spots do not have white centers, as stated by Plötz for *B. corentinus*. Third, forewing length of *B. corentinus* is 28 mm, which is on the lower side for *B. midas* with the forewing length 30 mm as given by Evans (1952). Thus, if *B. corentinus* is indeed *B. midas*, as currently assumed (Mielke 2005), it would have been one of the smallest, poorest-marked specimens with white-centered small ventral hindwing spots. Out of dozens *B. midas* we have seen, none matched this description. Therefore, *B. corentinus* is not likely to be *B. midas*.

Next, we attempted to locate syntypes of *B. corentinus*. We searched carefully all Hesperiidae drawers in the ZMHB collection, including the supplemental drawers that may contain additional syntype specimens not currently labeled as types. We also searched Hesperiidae holdings in the ZSMC that contain a number of Plötz type specimens. In these collections, the specimen that comes closest to the original description of *T. corentinus* is the holotype of *Telegonus diophorus* Möschler, 1883 (NVG-15031G10) in the ZMHB, also from Suriname. It is not likely that this specimen was a syntype of *T. corentinus*, because the most prominent spot on dorsal hindwing is the one closest to the dark costal area, not the discal cell spot as mentioned in the description (see above). Out of all specimens we have seen, the specimen that matches the Plötz description best is the specimen (NVG-15026B10) identified as *Bungalotis gagarini* Mielke, 1967 (type locality Brazil: Goiás) by Austin (2008) and illustrated in his figures 24 and 25. However, this specimen is from Brazil: Rondonia, not Suriname. We sequenced both of these specimens, and they are apparently conspecific (Fig. 1). Furthermore, we sequenced another specimen from Rondonia (NVG-15026B11, also an excellent match to the original description of *B. corentinus*) with genitalia GTA #1617 illustrated by Austin (2008: Fig. 89) as *B. gagarini*, and an old specimen from the Schaus collection in the USNM from French Guiana (NVG-17104D08) identified as *B. diophorus*. All these specimens cluster tightly together in the tree (Fig. 1) and their COI barcodes show only a couple of base pair difference among them, suggesting that they are all conspecific, and are *B. diophorus*, because the *B. diophorus* holotype is among them. While we leave the question about possible synonymy of *B gagarini* and *B. diophorus* for future studies pending genomic sequencing of *B. gagarini* holotype, we use this opportunity to objectively define the taxonomic identity of *B. corentinus* by neotype designation. Here, N.V.G. designates the holotype of *Telegonus diophorus* Möschler, 1883 as the **neotype** of *Telegonus corentinus* Plötz, 1882, making the former a **junior objective synonym** of the latter. It is the only species known to us that is a perfect match to the original description of *T. corentinus*.

We believe that there is an exceptional need to designate this neotype, not only because the name *B. corentinus* has been misapplied and its current treatment is inconsistent with its original description thus creating a source for future instability of names, but also because of an opportunity to correct the following long-standing confusion between orthographically similar names. The two names currently in use are *Bungalotis diophorus* (Möschler, 1883) and *Dyscophellus diaphorus* (Mabille and Boullet, 1912). Their species epithets differ by only one letter: o vs. a. Their males are quite similar in appearance, most notably distinguished by a doublet of dark spots towards the base of forewing cell CuA_2-1A+2A, absent in *B. diophorus* and present in *D. diaphorus*. A mnemonic to remember: *o* means no spots; *o* fused with *l* to form *a*, where *l* stands for the vertical doublet of spots, means spots. This spot doublet character was also mentioned in the key by Plötz (1882c). This similarity in names and appearance is a source of many confusions. We are taking this opportunity given by the misidentification *B. corentinus* that allows us to put the confusion behind and set the record straight about the true identity of *B. corentinus*, a name proposed earlier than *B. diophorus*.

Our neotype of *B. corentinus* satisfies all requirements set forth by ICZN Article 75.3, namely: 75.3.1. It is designated to clarify the taxonomic identity of *Telegonus corentinus* Plötz, 1882, which has been inconsistent with its original description; 75.3.2. The characters for the taxon have been given in its original description by Plötz (1882c: 78) (some are discussed above), and also by Evans (1952: 138) as those for *B. diophorus* (keys out to D.1.2.); 75.3.3. The neotype specimen is also the holotype of *Telegonus diophorus* Möschler, 1883, with the following labels: || Surinam | Prb. | Wd. | 79 | || Type. | Verh. z-b. Ges: Wien. | 1882. p.322. || Diophorus | Möschl. || Origin || Coll. | Staudinger || Coll. Möschl. || Diophorus | Möschl. || GEN.PREP., | MIELKE | 1996 || [barcode image] http://coll.mfn-berlin.de/u/ | 940b51 || DNA sample ID: | NVG-15031G10 | c/o Nick V. Grishin ||; 75.3.4. Our search for the syntypes is described above, it was not successful, and we consider that the specimens composing the type series of *T. corentinus* are lost; 75.3.5. As detailed above, the neotype is consistent with the original description, more, it apparently is the only currently known species that matches the original description; 75.3.6. The neotype is from Suriname according to its label, which is the type locality of *B. corentinus*; 75.3.7. The neotype is in the collection of the Museum für Naturkunde, Berlin, Germany (ZMHB).

Alternative taxonomy of the *Bungalotis* group

The following eight genera: *Bungalotis* Watson, 1893 (type species *Papilio midas* Cramer, 1775), *Sarmientoia* Berg, 1897 (type species *Dyscophus faustinus* Burmeister, 1878), *Salatis* Evans, 1952 (type species *Papilio salatis* Stoll, 1782), *Nicephellus* Austin, 2008 (type species *Eudamus nicephorus* Hewitson, 1876), *Salantoia* Grishin, 2019 (type species *Eudamus eriopis* Hewitson, 1867), *Fulvatis* Grishin, **new genus** (type species *Telegonus fulvius* Plötz, 1882), *Adina* Grishin, **new genus** (type species *Nascus adrastor* Mabille and Boullet, 1912), and *Ornilius* Grishin, **new genus** (type species *Ornilius rotundus* Grishin, **new species**) form a prominent clade in the genomic tree (Fig. 1). All these genera key to D.1b. in Evans (1952) and share similarity of caterpillars and pupae. They form part of the Evans' "Bungalotis Sub-group" to exclude his *Dyscophellus* (which included *Euriphellus*). Previous errors in assignment of species to *Salatis* and *Sarmientoia* Berg, 1897 using phenotypes (Evans 1952) suggest that they are reasonably close relatives of each other. Due to rapid radiation near the origin of these eight genera, it is a challenge to confidently partition them into smaller number of genera and avoid monotypic *Ornilius*, **new genus**, and *Adina*, **new genus**. However, it may be meaningful to combine all these genera into one: *Bungalotis* sensu lato. This lumping approach will eliminate these monotypic genera and therefore has merit. Under this treatment, the eight genera, which are prominent evolutionary groups within this clade regardless of their rank, become subgenera of *Bungalotis*. However, genetic differentiation even between the two closest genera *Salatis* and *Nicephellus* is substantial (COI barcodes are 9.4% different) (Li et al. 2019). For this reason, we are not taking the step to promote *Bungalotis* sensu lato, but leave it as a possibility to consider.

Pseudonascus Austin, 2008 is a subgenus of *Nascus* Watson, 1893

Although without overwhelming statistical support, *Papilio paulliniae* Sepp, [1842], the type species of *Pseudonascus* Austin, 2008, appears monophyletic with *Papilio phocus* Cramer, 1777, the type species of *Nascus* Watson, 1893 with exclusion of other species, such as *Nascus prax* Evans, 1952, *Telemiades solon* Plötz, 1882, and *Papilio broteas* Cramer, 1780 (Fig. 1). For this reason, if this tree is correct, and if *Pseudonascus* is kept as a genus, these other species would belong to a new genus or genera. To avoid naming this genus (or genera), an alternative solution would be to consider *Pseudonascus* a subgenus, **new status**, within *Nascus*. This broader *Nascus* would include all the species placed in it by Evans (1952). As reported previously (Warren et al. 2008, 2009; Li et al. 2019), *Nascus* is closely allied to *Phocides* Hübner, [1819], and it is even conceivable to take the next step and consider it a subgenus of *Phocides*. This broader *Phocides* would be strongly monophyletic, while *Nascus* is more weakly supported (Fig. 1), suggesting evolutionary irregularities such as incomplete lineage sorting and introgression between ancestors of these lineages. We do not propose this radical taxonomic step here, but offer it for discussion. Due to morphological differences that prompted Austin (2008) to erect this genus and its genetic differentiation from *Nascus*, we agree that *Pseudonascus* is sufficiently distinct to keep it at least as a subgenus instead of a synonym. Therefore, the other two clades of approximately the same genetic differentiation from each other as *Nascus* from *Pseudonascus* are named as subgenera next.

Praxa Grishin, new subgenus

http://zoobank.org/945FA578-C50B-424E-8196-02DFEB22BB26

Type species. *Nascus prax* Evans, 1952.

Definition. The subgenus is in the clade that is sister to the clade formed by subgenera *Nascus* and *Pseudonascus*, but only with moderately strong statistical support (Fig. 1). Keys to D.5.6 in Evans (1952). Distinguished from other species in the genus *Nascus* by the following combination of characters: the closest to costa apical white spot on forewing in line with others (not offset basad); cheeks and palpi below yellowish, not white; tegumen with side processes, harpe without a tooth by ventral side, rounded. In DNA, a combination of the following base pairs is diagnostic: aly1259.4.2:C165T, aly1097.19.1:A220T, aly536.142.1:T339C, aly999.3.4:C78T, and aly86.4.1:C51T.

Etymology. The name is a feminine noun in the nominative singular formed from the type species name.

Species included. Only the type species.

Parent taxon. Genus *Nascus* Watson, 1893.

Bron Grishin, new subgenus

http://zoobank.org/A950EBEA-7799-40AF-9841-8BF5105D1027

Type species. *Papilio broteas* Cramer, 1780.

Definition. The subgenus is sister to *Praxa* Grishin, **new subgenus** (Fig. 1). Keys to D.5.3b in Evans (1952). Distinguished from its relatives by the following combination of characters: the closest to costa apical white spot on forewing in line with others (not offset basad); cheeks and palpi white; tegumen with side processes, harpe with a tooth by ventral side. In DNA, a combination of the following base pairs is diagnostic: aly525.53.4:A108T, aly1222.15.5:A8532G, aly2532.10.1:A375G, aly113.26.2:A28C, and aly28779.7.3:A62T.

Etymology. The name is a masculine noun in the nominative singular, a fusion of species names in this genus: *Br*[oteas] + [sol]*on*.

Species included. The type species and *Telemiades solon* Plötz, 1882.

Parent taxon. Genus *Nascus* Watson, 1893.

Phocides vida (A. Butler, 1872), reinstated status

Distinguished from *Phocides urania* (Westwood, 1852) (type locality Mexico) by the lack of hyaline forewing spots, *Erycides vida* Butler, 1872 (type locality Costa Rica) was treated as its subspecies by Evans (1952). However, the two taxa are well-differentiated genetically forming distinct clades (Fig. 1) and the COI barcode difference between them is 2.9% (19 bp). Therefore, we reinstate *P. vida* as a species-level taxon.

Telegonus galesus form *subflavus* R. Williams, 1927 is an infrasubspecific name

Genomic sequencing and comparison of the holotype of *Telegonus galesus* form *subflavus* Williams, 1927 (type locality Ecuador: Riobamba, NVG-15096B05) in the CMNH and a syntype of *Telegonus galesus* Mabille, 1888 (type locality Peru: Chanchamayo, NVG-15031B07) in the ZMHB reveals that they represent two distinct species (Fig. 1). The COI barcodes of these type specimens differ by 4.3% (28 bp), which in the presence of phenotypic differences is suggestive of species-level status of these taxa. Because the name *subflavus* was proposed for a "form", it may not be necessarily available, and we studied it further. Williams (1927b) used the term "race" to indicate geographic variants (i.e., subspecies) in the same publication where he described "form *subflavus*". Therefore his term "form" applies to an infrasubspecific entity rendering the name *subflavus* unavailable according to the Article 45.6.1. of the ICZN Code. The condition of the Article 45.6.4.1. to "rescue" the name does not apply, because the name *subflavus* has not been used as valid and is not a homonym.

The situation is more complex, however, because Williams uses the word "form" in several meanings in both of his papers (Williams 1927b; Williams 1927a). First, is its general meaning for any phenotypic difference, be it geographically induced or individual, for example, for "a remarkable aberration", he writes "attention is now being called to these occasional forms by assigning them names" (Williams 1927b: 262), using "form" for an aberration. Then he writes "race socus … The prevailing form in the following localities" (Williams 1927b: 263), "racial form" (Williams 1927b: 279), or "a racial name for the Insular form" (Williams 1927a: 70) using "form" for wing patterns characteristic of a race. Second, is the specific meaning of "form" to denote distinct wing pattern across geographic localities, which can be deduced from phrases like "presents itself in two forms almost wherever it is found" (Williams 1927a: 72), "chiriquensis form grullus (Mabille) … I believe them to be only a varietal form" (Williams 1927b: 285), or "creteus form hopfferi (Plotz) … it does not seem to be a racial character" (Williams 1927b: 286). A particularly revealing phrase is "the South Eastern race, in which these larger markings seem to be the prevailing form" (Williams 1927b: 263), that indicates Williams' thinking that species may be divided into geographic "races", and there are wing pattern "forms" within (and possibly across) these races. It is apparent that Williams distinguishes between "racial form" (=subspecies) and "varietal form" (=non-geographic variation). This second meaning is assigned to the names preceded by the word "form" and in particular those followed by "new form" notation added by Williams to the new names he proposed, because he used "new species" (for species), "new race" (for subspecies). Hence, we conclude that all "new form" names proposed by Williams (1927a,b) are infrasubspecific, unless the conditions of the ICZN Article 45.6.4.1. apply. Our conclusion here is the same as that of Steinhauser (1987) who considered *subflavus* "an invalid form name".

Telegonus subflavus Grishin, new species

http://zoobank.org/460487EA-BD24-468A-A335-4F0B49C5DC7A

As shown above, *Telegonus galesus* form *subflavus* Williams, 1927 (type locality Ecuador: Riobamba) is an infrasubspecific name with the "holotype" that is a species distinct from *Telegonus galesus* Mabille, 1888 (type locality Peru: Chanchamayo). This species does not have a valid name, and therefore is new. Here, we apply the same epithet *subflavus* (a masculine adjective) to this species, which according to ICZN Article 45.5.1. would establish it as new, provided that the description of this species, including its holotype designation and illustration are given in Williams (1927b: 281, pl. 24, fig. 4), all are adopted here. It is distinguished from *T. galesus* by more extensive yellow overscaling on wings below, especially in the discal area of ventral hindwing. The **holotype** (NVG-15096B05) (Fig. 2h,i), male, in the collection of the Carnegie Museum of Natural History, Pittsburgh, PA, USA (CMNH) is already conveniently labeled as "Telegonus subflavus", the exact name that is applied to it now. It bears the following six labels: || Riobamba | Ecuador || Type | Telegonus | subflavus | R.C. Williams,Jr. | 7128 || CMNH HOLOTYPE #762 | Telegonus | subflavus | Williams || Insect collection | CARNEGIE MUSEUM OF | NATURAL HISTORY | Pittsburg, Pa. (CMNH) || Allyn Museum photo | No. 820630-3/4 || DNA sample ID: | NVG-15096B05 | c/o Nick V. Grishin ||. The COI barcode sequence of the holotype is:

AACTTTATATTTTATTTTTGGAATTTGAGCAGGATTAGTTGGAACTTCTTTAAGATTACTTATTCGAACTGAATTAG
GAACCCCCGGATCTTTAATTGGTGATGATCAAATTTATAATACTATTGTAACAGCCCATGCATTTATTATA
ATTTTTTTTATAGTTATACCTATTATAATTGGAGGATTCGGAAATTGATTAGTACCCCTAATAATAGGAGCTCCA
GATATAGCTTTCCCTCGTATAAATAATATAAGATTTTGACTTTTACCCCCATCATTAACTTTATTA
ATTTCAAGAAGAATTGTAGAAAATGGTGCTGGAACAGGATGAACAGTTTATCCCCCTCTTTCATCTAATATTGCCCAT
CAAGGAACATCCGTTGACTTAGCAATTTTTTCATTACATCTTGCTGGTATTTCATCTATTCTTGGAGCTATTAATTT
TATTACAACAATTATTAATATACGAATTAATAATTTATCTTTTGATCAAATACCTTTATTTATTTGAGCTGTAGGAAT
TACAGCATTACTATTATTACTTTCTTTACCAGTTTTAGCTGGAGCTATTACTATATTATTAACTGATCGAAATTTA
AATACTTCATTTTTTGATCCAGCAGGAGGAGGAGATCCAATTTTATATCAACATCTATTT

It differs from *T. galesus* by the following combination of characters (among a number of others): 19T, 38G, 85C, 100T, 112T, 133C, 187C, 197T, 205C, 206C, 220T, 223A, 138T, 334A, 374A, 379C, 397T. The type locality is Ecuador: Riobamba. The species is also know from Colombia and Peru with 3 paratypes, NVG-18056D07 ♂, NVG-18056D09 ♀, both from Colombia: Pacho, in ZfBS, and NVG-18028H03 ♂ from Peru: Cusco, in the USNM (Fig. 1). Type identification labels will be mailed to curators of these collections to be placed on the specimens of the type series. Apparently, the range of this new species overlaps with *T. galesus* and they may be sympatric in Peru.

Telegonus cassius (Evans, 1952), confirmed status

We confirm that *Telegonus cassius* (Evans, 1952) (type locality Costa Rica) is a species distinct from *T. galesus*, as listed in Warren et al. (2016), because the COI barcodes between the two taxa differ by 6.5% (43bp) in the presence of phenotypic differences described by Evans (Evans 1952). To stabilize nomenclature, N.V.G. hereby designates a syntype in the ZMHB collection bearing the following seven labels || Origin. || Chanchamayo | Thamm || Teleg. Galesus | ♂ Mab. || Galesus | Mab. || Galesus | Mab. || [barcode image] http://coll.mfn-berlin.de/u/ | e1f9cf || DNA sample ID: | NVG-15031B07 | c/o Nick V. Grishin || as the **lectotype** of *Telegonus galesus* Mabille, 1888.

Aethilla jaira Butler, 1870 and *Telegonus jaira* race *jamaicensis* Williams, 1927 are junior subjective synonyms of *Telegonus cretellus* (Herrich-Schäffer, 1869), reinstated status

Currently a junior subjective synonym of *Telegonus cassander* (Fabricius, 1793) (type locality not specified [Cuba?]), *Eudamus cretellus* Herrich-Schäffer, 1869 (type locality not more specific than Tropical America to USA) is not conspecific with it, and the *E. cretellus* syntype (NVG-15031C03) in the ZMHB is placed in the genomic tree within a clade containing specimens from Jamaica identified as *Telegonus jaira* (Butler, 1870) (type locality West Indies [Jamaica]) (Fig. 1). The syntype has heavier green overscaling consistent with a Jamaican origin identified by DNA sequencing and thus differs phenotypically from its sister species *T. cassander* from Cuba and Isla de Juventud. Because this species is only known from Jamaica, it is likely that the syntype of *E. cretellus* was collected in Jamaica. The holotype and allotype of *Telegonus jaira* race *jamaicensis* Williams, 1927 (type locality Jamaica) (NVG-15096C01 and NVG-15096B01) in the CMNH are also in the same clade. *Telegonus cretellus* (Herrich-Schäffer, 1869) is the oldest name for this clade and therefore takes priority, rendering *Aethilla jaira* Butler, 1870 and *T. j.* race *jamaicensis* Williams, 1927 its junior subjective synonyms. To stabilize nomenclature, N.V.G. designates the syntype in the ZMHB bearing the following labels || Origin || cretellus HS || Coll. H. – Sch. || Telegon. | Cretellus | HS. || GEN.PREP., | MIELKE | 1996 || [barcode image] http://coll.mfn-berlin.de/u/ | 940b07 || DNA sample ID: | NVG-15031C03 | c/o Nick V. Grishin || as the **lectotype** of *Eudamus cretellus* Herrich-Schäffer, 1869.

Albiphasma Huang, Chiba, Wang and Fan, 2016 is a subgenus of *Pintara* Evans, 1932

Sequencing of the holotype of *Abraximorpha heringi* Mell, 1922 (NVG-18073G05) in the ZMHB collection and its phylogenetic comparison with other Tagiadinae Mabille, 1878 species reveals its close relationship with *Pintara* Evans, 1932 (type species *Plesioneura pinwilli* Butler, 1879) (Fig. 3); the COI barcode difference between *A. heringi* and *Pintara pinwilli* is 6.5% (43 bp), which is suggestive of their congeneric relationship. Recently, a new genus *Albiphasma* Huang, Chiba, Wang and Fan, 2016 was proposed for *A. heringi* and its close relative *Abraximorpha pieridoides* Liu and Gu, 1994 (Huang et al. 2016). We suggest that, due to genetic and morphological similarities, *Albiphasma* is a subgenus of *Pintara*. We think that it is more instructive to emphasize the close relationships of nearly monotypic *Albiphasma* with a more species-rich and diverse *Pintara* rather than the uniqueness of its mimetic wing patterns. Notably, the closeness between *Albiphasma* and *Pintara* was hypothesized already on the basis of morphology in the original publication that proposed *Albiphasma* (Huang et al. 2016).

Tagiades ceylonica Evans, 1932, new status

Named by Evans (1932) as a subspecies of *Tagiades litigiosa* Möschler, 1878 (type locality Bangladesh: Sylhet) from Sri Lanka, *T. ceylonica* is set apart from a cluster of *T. litigiosa* specimens in the genomic tree (Fig. 4). COI barcodes of *T. ceylonica* and *T. litigiosa* differ by 5.5% (36 bp). Additionally noting wing pattern, size and genitalic differences between these taxa described previously (Evans 1932, 1949), we conclude that *T. ceylonica* is a species-level taxon.

Tagiades tubulus Fruhstorfer, 1910, new status

Placed as a subspecies of *Tagiades sambavana* Elwes and Edwards, 1897 (type locality Sambawa) by Maruyama (1991), and before that treated as a subspecies of *Tagiades litigiosa* Möschler, 1878 (type locality Sylhet) by Evans (1949), *Tagiades* [*striata*?] *tubulus* Fruhstorfer, 1910 (type locality W Java) shows 2% (13 bp) COI barcode difference from *T. sambavana* and genitalic distinction in a longer style of valva noted by Evans (1949). For these reasons, we suggest species status for *T. tubulus*.

New and reinstated statuses in the *Tagiades trebellius* (Hopffer, 1874) complex

Treated by Evans (1949) as subspecies of *Tagiades trebellius* (Hopffer, 1874) (type locality Sulawesi), the following five taxa show genitalic differences in the structure of valva (described and illustrated in Evans (1949) suggesting that they are species: *Tagiades martinus* Plötz, 1884 (type locality Philippines), *Tagiades sem* Mabille, 1883 (type locality Sangir Is.), *Tagiades neira* Plötz, 1885 (type locality Aru Is.), *Tagiades trebellius kina* Evans, 1934 (type

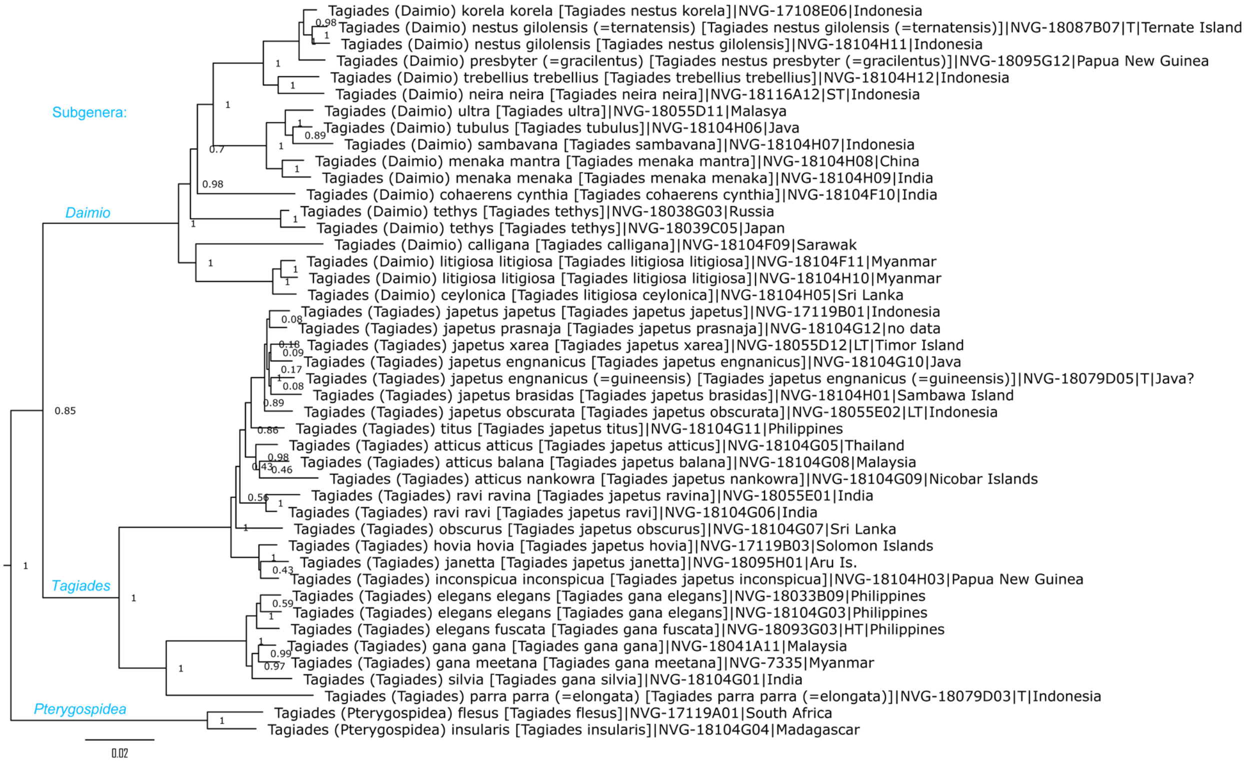

Figure 4. Genomic tree of *Tagiades*. See Fig. 1 legend for notations.

locality Borneo: Kinabalu) and *Tagiades trebellius sheba* Evans, 1934 (type locality Guadalcanar Is.). Furthermore, genetic differentiation between *T. trebellius* and the *T. neira* syntype is large (Fig. 4) and their COI barcodes differ by 8.2% (54 bp), which is a very large difference, not uncommon even between species from different genera. Other pairs of species may exhibit somewhat smaller barcode differences, for example, 6.2% between *T. neira* and a partial barcode of *T. martinus* from Japan (GenBank accession AB192504). Therefore we propose to divide the *T. trebellius* complex into six species and tentatively assign to them other subspecies treated as valid by Evans (1949) as follows: *Tagiades trebellius moti* Evans, 1934 (type locality Waigou) and *Tagiades canonicus* Fruhstorfer, 1910 (type locality New Guinea) of *T. neira*; *Tagiades trebellius vella* Evans, 1934 (type locality Vella Lavella Is.) and *Tagiades trebellius lola* Evans, 1949 (type locality Treasury Is.) of *T. sheba*; while *Tagiades mitra* Mabille, 1895 (type locality Sula Is.) remains a subspecies of *T. trebellius*. Some of these subspecies may turn out to be species when additional genomic data become available. Here, we gave precedence to the name *sheba* published in the same work with the name *vella* (Evans 1934).

Tagiades korela Mabille, 1891 and *Tagiades presbyter* Butler, 1882, reinstated statuses

Considered by Evans (1949) among subspecies of *Tagiades nestus* (C. Felder, 1860) (type locality Amboina), the taxa *Tagiades korela* Mabille, 1891 (type locality Waigeo) and *Tagiades presbyter* Butler, 1882 (type locality Duke of York Is.) differ phenotypically (Evans 1949) and genetically from *T. nestus* and we reinstate them as species (Fig. 4). For instance, the COI barcode difference between *T. nestus gilolensis* Mabille, 1878 (type locality Halmahera Is.) and *T. presbyter* Butler, 1882 is 3% (20 bp) and that between *T. n. gilolensis* and *T. korela* (GenBank accession HQ570836) is 2.3% (15 bp). We tentatively place the following subspecies treated as valid by Evans (1949) under *T. korela* (while others remain with *T. nestus*): *Tagiades nestus biakana* Evans, 1934 (type locality Biak Is.), *Tagiades nestus mefora* Evans, 1934 (type locality Numfoor Is.), *Tagiades suffusus* Rothschild, 1915 (type locality Vulcan Is.), and *Tagiades nestus brunta* Evans, 1949 (type locality Muyua Is.). Assignment of some of the *T. nestus* group subspecies to species is preliminary and is likely to change (for example, they may be species-level taxa) as additional genomic data are analyzed.

Tagiades obscurus Mabille, 1876, *Tagiades ravi* (Moore, [1866]), *Tagiades atticus* (Fabricius, 1793), *Tagiades titus* Plötz, 1884, *Tagiades janetta* Butler, 1870, *Tagiades inconspicua* Rothschild, 1915, and *Tagiades hovia* Swinhoe, 1904, reinstated statuses

Placed by Evans (1949) as subspecies of *Tagiades japetus* (Stoll, [1781]) (type locality Ambon), the following seven taxa reveal genetic differentiation among them and the nominotypical *japetus* consistent with reproductive isolation: *Tagiades obscurus* Mabille, 1876 (type locality deduced as Sri Lanka), *Pterygospidea ravi* Moore, [1866] (type locality Bengal), *Hesperia atticus* Fabricius, 1793 (type locality suggested as Malay Peninsula), *Tagiades titus* Plötz, 1884 (type locality Philippines), *Tagiades janetta* Butler, 1870 (type locality Aru Islands), *Tagiades hovia* Swinhoe, 1904 (type locality Shortland Islands), and *Tagiades inconspicua* Rothschild, 1915 (type locality Manus Island) (Fig. 4). For instance, COI barcode difference between sisters *T. obscurus* and *P. ravi* is 5.3% (35 bp) and between sisters *T. inconspicua* and *T. janetta* is 4.5% (30 bp). Among these eight taxa, the smallest COI difference is observed between nominotypical *T. japetus* and *T. titus*: 2.1% (14 bp). Combined with phenotypic differences described by Evans (1949), such genetic differences support species rank for these taxa. Comparing other subspecies in the *T. japetus* complex with available DNA sequences with their close relatives shows little differentiation for many pairs, for example, *P. ravi* and *Tagiades khasiana ravina* Fruhstorfer, 1910 (type locality Andamas) COI barcodes differ by 0.3% (2 bp). Therefore, we suggest to divide the *japetus* complex into eight species and tentatively assign other subspecies considered valid by Evans (1949) to these species as follows: *T. k. ravina* of *T. ravi*; *Tagiades japetus carnica* Evans, 1934 (type locality Car Nicobar), *Tagiades japetus nankowra* Evans, 1934 (type locality Nancowry), *Pterygospidea helferi* C. Felder, 1862 (type locality Pulomilo) and *Tagiades balana* Fruhstorfer, 1910 (type locality N. Borneo) of *T. atticus*; *Tagiades japetus mathias* Evans, 1934 (type locality St. Mathias) of *T. inconspicua*; *Tagiades japetus kazana* Evans, 1934 (type locality Treasury Islands) of *T. hovia*; while others remain as subspecies of *T. japetus*. This treatment is conservative, because some of these species show non-trivial difference in barcodes within species, for example, *T. atticus* and *T. balana* differ by 1.7% (11 bp), and we have not obtained sequences of several taxa, for instance a uniquely patterned *T. kazana*. It is likely that some of our seven species (probably *T. atticus*, *T. japetus* and *T. janetta*) are complexes of additional species to be sorted out in future work.

Tagiades silvia Evans, 1934, new status and *Tagiades elegans* Mabille, 1877, reinstated status

Treated as subspecies of *Tagiades gana* (Moore, [1866]) (type locality "Bengal" [probably Java]) by Evans (1949), *Tagiades gana silvia* Evans, 1934 (type locality N. Kanara) and *Tagiades elegans* Mabille, 1877 (type locality Philippines) show genetic differentiation among them suggestive of species level for these taxa (Fig. 4). For instance, *T. elegans* and *Tagiades gana meetana* Moore, 1878 (type locality Meetan) show COI barcode difference of 5.9% (39 bp), or *T. elegans* and *T. g. silvia* reveal 3.6% (24 bp). Conversely, the barcodes differ by 0.5% (3 bp) between the nominotypical *T. gana* specimen from Sumatra (GenBank accession JF851897) and *T. g. meetana*. Therefore we propose to split the *T. gana* complex into three species (*T. silvia*, *T. gana* and *T. elegans*) and place *Tagiades gana fuscata* de Jong and Treadaway, 2007 (type locality Philippines: Mindoro) and, after much hesitation and very tentatively, pending further research, also *Tagiades semperi* Fruhstorfer, 1910 (type locality Camiguin Is.) as subspecies of *T. elegans*. We leave with *T. gana* other subspecies that Evans (1949) considered valid.

Daimio Murray, 1875 and *Pterygospidea* Wallengren, 1857 are subgenera of *Tagiades* Hübner, [1819]

Genome-based phylogenetic tree reveals that *Tagiades* Hübner, [1819] (type species *Papilio japetus* Stoll, [1781]) consists of three prominent clades (Fig. 3, 4) that could be given subgenus status. Each clade contains one type species of an available genus-group name that we assign to the clade. Subgenus *Pterygospidea* Wallengren, 1857, **revised status** (type species *Papilio ophion* Stoll, [1790], which is a junior subjective synonym of *Papilio flesus* Fabricius, 1781), consists of Afrotropical *Tagiades* species. Subgenus *Tagiades* is the *japetus* group of Evans (1949). Notably, the *nestus* group of Evans (1949) belongs to the subgenus *Daimio* Murray, 1875, **revised status** (type species *Pyrgus tethys* Ménétriés, 1857), together with *Tagiades (Daimio) tethys* as defined by Evans (1949). We think that denoting the distinct phylogenetic groups with the genus *Tagiades* as subgenera is instructive about the relationships between the many species of the genus, and we prefer not to synonymize *Daimio* as proposed recently (Huang et al. 2020). We also considered an alternative solution of breaking *Tagiades* into three genera, but decided against it. *Tagiades* sensu lato forms a more prominent phylogenetic group than its subgenera (Fig. 3). It includes species that are similar in appearance making them immediately recognizable as *Tagiades*, for which reason they were historically included in it. We are in agreement with Huang et al (2020) that inclusion of *Daimio* in *Tagiades* is preferable to splitting of *Tagiades* into several genera. It is interesting that the type species of *Daimio* is the most distinct in appearance out of all *Tagiades*, both in wing patterns and wing shapes, while being closer related to a subgroup of *Tagiades* species that are in turn more similar in appearance to more distant from *Daimio* species of *Tagiades*. Additionally, superficial similarity of *Daimio tethys* with some species of *Gerosis* Mabille, 1903 indicates convergent evolution.

Ctenoptilum de Nicéville, 1890 is a subgenus of *Tapena* Moore, [1881]

Phylogenetic analysis reveals that two small genera: *Ctenoptilum* de Nicéville, 1890 (type species *Achlyodes vasava* Moore, [1866], two currently recognized species) and *Tapena* Moore, [1881] (type and the only species *Tapena thwaitesi* Moore, [1881]) are sisters (Fig. 3). COI barcode difference between their type species is 8.7% (57 bp). Moreover, their genitalia are similar in a peculiar shape of valva (Evans 1949). We think it is less informative to keep monotypic or nearly monotypic genera unless they are prominently distinct than to join them in a single genus thus indicating their relatedness. Therefore we suggest to treat *Ctenoptilum* de Nicéville, 1890 as a subgenus of *Tapena* Moore, [1881].

Tapena bornea Evans, 1941 and *Tapena minuscula* Elwes and Edwards, 1897 are species-level taxa

Presently placed as subspecies of *Tapena thwaitesi* Moore, [1881] (type locality Sri Lanka), *Tapena thwaitesi bornea* Evans, 1941 (type locality Malaysia: Perak) and *Tapena minuscula* Elwes and Edwards, 1897 (type locality Myanmar: Bernardmyo) show genitalic differences of the magnitude known for species level taxa. Genomic tree reveals a prominent separation between *T. thwaitesi* from Sri Lanka (NVG-18019A08) and *T. bornea* from Borneo: Kinabalu (NVG-18073F07). Their COI barcodes differ by 2.4% (16 bp). Although we have not sequenced *T. minuscula*, due to its genitalic differences from others we propose to treat both *Tapena bornea* Evans, 1941 and *Tapena minuscula* Elwes and Edwards, 1897 as species.

Darpa dealbata (Distant, 1886), reinstated status

Tagiades dealbata Distant, 1886 (type locality Malay Peninsula) has been treated by Evans (1949) as a subspecies of *Darpa pteria* (Hewitson, 1868) (type locality Philippines). In addition to comparatively (among *Darpa* Moore, [1866] species) large genetic distances revealed by a genomic tree (Fig. 3), COI barcodes of these two taxa differ by 7% (46 bp), and genitalia differ per Evans' sketches (1949) and more detailed illustrations (Huang et al. 2019), most strongly in the shape of ampulla process and the end of harpe. For these reasons, we reinstate *Darpa dealbata* (Distant, 1886) as a species distinct from *D. pteria*.

Triskelionia Larsen and Congdon, 2011 belongs to Tagiadini Mabille, 1878 and is confirmed as a valid genus

Proposed for *Hyda tricerata* Mabille, 1891 (type locality Sierra Leone) at that time placed in the Celaenorrhinini Swinhoe, 1912 genus *Sarangesa* Moore, [1881] (type species *Sarangesa albicilia* Moore, [1881], which is currently a subspecies of *Nisoniades dasahara* Moore, [1866]), *Triskelionia* Larsen and Congdon, 2011 was left in Celaenorrhinini (Larsen and Congdon 2011). We sequenced two syntypes of *Triskelionia tricerata* in the ZMHB collection (NVG-18055E03 and 4). They form a clade distinct from others and sister to *Tapena* Moore, [1881] (type species *Tapena thwaitesi* Moore, [1881]) plus *Gerosis* Mabille, 1903 (type species *Coladenia hamiltoni* de Nicéville, [1889], which is a junior subjective synonym of *Satarupa phisara* Moore, 1884) with strong support (Fig. 3). All these genera are within Tagiadini Mabille, 1878, and away from Celaenorrhinini as judged by the monophyly with the corresponding type genera of these tribes. Therefore, we transfer *Triskelionia* from Celaenorrhinini to Tagiadini, new placement, and confirm its validity as a genus.

Abaratha Moore, 1881 is a valid genus

Presently placed in the genus *Caprona* Wallengren, 1857 (type species *Caprona pillaana* Wallengren, 1857), *Pterygospidea ransonnetii* R. Felder, 1868, the type species of *Abaratha* Moore, 1881, is not monophyletic with *C. pillaana*. Instead, *Abaratha* is sister to *Odontoptilum* de Nicéville, 1890 (type species *Achlyodes sura* Moore, [1866], which is a **junior subjective synonym** of *Pterygospidea angulata* C. Felder, 1862). To restore the monophyly of *Caprona*, we suggest to treat *Abaratha* as a valid genus, **revised status**.

Odontoptilum de Nicéville, 1890 is a subgenus of *Abaratha* Moore, 1881

Both *Odontoptilum* de Nicéville, 1890 (type species *Achlyodes sura* Moore, [1866], which is a junior subjective synonym of *Pterygospidea angulata* C. Felder, 1862) and *Abaratha* Moore, 1881 (type species *Pterygospidea ransonnetii* R. Felder, 1868) are sister genera that consist of several species (Fig. 3). Although species within each genus are more closely related to each other than between genera, the two genera are close, for example, COI barcode difference between their type species is only 7.3% (48 bp). Moreover, their male genitalia are similar to each other, characterized by a highly asymmetric uncus and considerably elongated valvae. For these reasons, it would be more informative to emphasize the close relatedness of the two genera and consider all these species congeneric by placing *Odontoptilum* de Nicéville, 1890 in *Abaratha* Moore, 1881 as a subgenus.

Leucochitonea Wallengren, 1857 is a junior subjective synonym of *Abantis* Hopffer, 1855

Leucochitonea Wallengren, 1857 (type species *Leucochitonea levubu* Wallengren, 1857) and *Abantis* Hopffer, 1855 (type species *Abantis tettensis* Hopffer, 1855) cluster closely in the tree (Fig. 3), their COI barcodes are different by 6.2% (41 bp). Their genitalia are similar, wing shapes are similar, and the major distinction of *Leucochitonea* is in its white-colored wings, which is hardly a good argument for the genus distinction: for example, *Capila pieridoides* (Moore, 1878), the white-patterned species, is included within the same genus with the darker-patterned species. Therefore we suggest to treat *Leucochitonea* Wallengren, 1857 as a junior subjective synonym of *Abantis* Hopffer, 1855.

Sapaea Plötz, 1879 and *Netrobalane* Mabille, 1903 are junior subjective synonyms of *Caprona* Wallengren, 1857, which is a subgenus of *Abantis* Hopffer, 1855

The genomic tree reveals unexpected grouping of the four genera that were considered valid: *Leucochitonea* Wallengren, 1857 (type species *Leucochitonea levubu* Wallengren, 1857) and *Abantis* Hopffer, 1855 (type species *Abantis tettensis* Hopffer, 1855), *Netrobalane* Mabille, 1903 (type and the only species *Caprona canopus* Trimen, 1864) and *Caprona* Wallengren, 1857 (type species *Caprona pillaana* Wallengren, 1857) (Fig. 3). As discussed above, all species previously placed in *Caprona* but its type species are in the same clade with *Odontoptilum* de Nicéville, 1890. Then, only the type species of *Abantis* is in the same clade with *Leucochitonea*. All other *Abantis* species, including *Leucochitonea bicolor* Trimen, 1864, which is the type species of *Sapaea* Plötz, 1879, currently considered a junior subjective synonym of *Abantis*, are closely related to the type species of *Caprona* and monotypic *Netrobalane*. The tree topology is strongly supported with 100% bootstrap values (Fig. 3). The tree reveals two major clades that we suggest to treat as subgenera: (1) *Leucochitonea* with *Abantis tettensis* and (2) *Sapaea* with *Caprona pillaana* and *Netrobalane* Mabille, 1903. Considering the priority of these names we propose that *Sapaea* Plötz, 1879 and *Netrobalane* Mabille, 1903 are junior subjective synonyms of *Caprona* Wallengren, 1857, which is a subgenus of *Abantis* Hopffer, 1855. Further analysis of the tree reveals that *Abaratha* (with its subgenus *Odontoptilum*) and *Abantis* (with its subgenus *Caprona*) are relatively close to each other, form a prominent clade in the tree, and together could be considered congeneric within *Abantis* sensu lato. However, instead of joining all these reasonably close relatives in one large genus, we think that keeping two genera may be more instructive because they make geographical sense: African *Abantis* and Asian *Abaratha*.

Kobelana Larsen and Collins, 2013 belongs to Celaenorrhinini Swinhoe, 1912 and is confirmed as a valid genus

Originally tentatively placed in Tagiadini Mabille, 1878 (Larsen and Collins 2013), *Kobelana* Larsen and Collins, 2013 (type species *Nisoniades kobela* Trimen, 1864) is not monophyletic with the type genus of the tribe, and is placed close to the root of Celaenorrhinini (Fig. 3). Due to its distinction and prominent separation from other taxa, it is confirmed as a valid genus, and due to its phylogenetic position, it is transferred from Tagiadini to Celaenorrhinini, new placement.

Apallaga Strand, 1911 is confirmed as a valid genus

Apallaga Strand, 1911 (type species *Apallaga separata* Strand, 1911, currently a subspecies of *Pterygospidea mokeezi* Wallengren, 1857) is not monophyletic with *Celaenorrhinus* Hübner, 1819 (type species *Papilio eligius* Stoll, 1781) and genetically distant from other genera (Fig. 3). Therefore, it is confirmed as a valid genus (Libert 2014).

Gorgopas extensa (Mabille, 1891), new combination

Presently in *Polyctor* Evans, 1953 (type species *Pirgus* [sic] *polyctor* Prittwitz, 1868), *Pterygospidea extensa* Mabille, 1891 (type locality Peru: Huayabamba) is not monophyletic with it, and instead is sister to *Gorgopas* Godman and Salvin, 1894 (type species *Achlyodes viridiceps* Butler and Druce, 1872, which is currently treated as a junior subjective synonym of *Pellicia chlorocephala* Herrich-Schäffer, 1870) (Fig. 5), where it is transferred to form *Gorgopas extensa* (Mabille, 1891), **new combination**.

Clytius shola (Evans, 1953), new combination

Staphylus shola Evans, 1953 (type locality unknown, sequenced specimen is from Venezuela) is not monophyletic with *Staphylus* Godman and Salvin, 1896 (type species *Helias ascalaphus* Staudinger, 1876), and instead is sister to *Clytius clytius* (Godman and Salvin, 1897) (Fig. 5). Male genitalia of the two species share similarly convex costa and bulging ampulla, but a triangular harpe is more extended caudad in *S. shola*. Thus, it is placed in the genus *Clytius* Grishin, 2019 (type species *Pholisora clytius* Godman and Salvin, 1897) as *Clytius shola* (Evans, 1953), **new combination**.

Perus narycus (Mabille, 1889), new combination

Presently in *Ouleus* Lindsey, 1925 (type species *Achlyodes fridericus* Geyer, 1832), *Pythonides narycus* Mabille, 1889 (type locality Peru: Chanchamayo) is not monophyletic with it, and is not even in the tribe Achlyodini Burmeister, 1878 where *Ouleus* belongs (Fig. 5). Instead, *P. narycus* belongs to the tribe Carcharodini Verity, 1940, where it is sister to *Perus* Grishin, 2019 (type species *Pholisora cordillerae* Lindsey, 1925), and where we place it to form *Perus narycus* (Mabille, 1889), **new combination**. Thus, we find that yet another species from Peru belongs to *Perus*.

Perus parvus (Steinhauser and Austin, 1993), new combination

Staphylus parvus Steinhauser and Austin, 1993 (type locality Costa Rica) is not monophyletic with *Staphylus* Godman and Salvin, 1896 (type species *Helias ascalaphus* Staudinger, 1876) and instead originates within *Perus* Grishin, 2019 (type species *Pholisora cordillerae* Lindsey, 1925) (Fig. 5), where we transfer it to form *Perus parvus* (Steinhauser and Austin, 1993), **new combination**.

Perus manx (Evans, 1953), new status

Presently in *Perus* Grishin, 2019 (type species *Pholisora cordillerae* Lindsey, 1925), *Staphylus minor manx* Evans, 1953 (type locality Colombia: Cauca), is not monophyletic with nominotypical *Perus minor* (Schaus, 1902) (type locality Peru), and instead is sister to *Perus parvus* (Steinhauser and Austin, 1993) (type locality Costa Rica) (Fig. 5), being distinct from it: COI barcodes differ by 2.1% (14 bp). Therefore, it is the species-level taxon *Perus manx* (Evans, 1953), **new status**.

Pholisora litus (Dyar, 1912), new combination

Presently in *Bolla* Mabille, 1903 (type species *Bolla pullata* Mabille, 1903 currently a junior subjective synonym of *Bolla imbras* (Godman and Salvin, 1896)), *Staphylus litus* Dyar, 1912 (type locality Mexico: Guerrero) is not monophyletic with it and instead is sister to *Pholisora* Scudder, 1872 (*Hesperia catullus* Fabricius, 1793) (Fig. 5), which is further supported by phenotypic similarities, such as forewing pattern of white spots, white pectus and white palpi beneath. To restore the monophyly, we transfer this species to the latter genus to form *Pholisora litus* (Dyar, 1912), **new combination**.

Turis Grishin, new subgenus

http://zoobank.org/A4674C67-2288-44AE-8C89-2A914EBCBCAF

Type species. *Pyrgus (Scelothrix) veturius* Plötz, 1884.

Definition. *Chirgus* Grishin, 2019 splits into two prominent clades suggesting to divide it into two subgenera (Fig. 6). One clade includes *Hesperia* (*Syrichthus* [sic]) *limbata* Erschoff, 1876 and thus is the nominotypical subgenus, and the other is a new subgenus that keys to G.1.9 in Evans (1953). Distinguished from the nominotypical subgenus by the following combination of characters: forewing above with white or hyaline spots in base of cell CuA_1-CuA_2 and in cell R_2-R_3 half way between the discal cell spot and subapical spots, below without pale streaks between the discal cell spot and postdiscal spots in cells M_1-M_2 and M_2-M_3; males without costal fold, with tibial tuft; uncus undivided; valva simple, three times longer than wide, without inner processes; harpe weakly separated from ampulla, rounded; aedeagus terminally expanded. In DNA, a combination of the following base pairs is diagnostic: aly3561.6.1:A201C, aly3653.7.2:A220C, aly6841.32.4:A1374G, aly116.29.5:A129G, and aly208.28.1:A135G.

Etymology. The name is a masculine noun in the nominative singular formed from the type species name: [ve] *Turi*[u]*s*.

Species included. Only the type species.

Parent taxon. Genus *Chirgus* Grishin, 2019.

Canesia pallida (Röber, 1925), reinstated status

Carrhenes pallida Röber, 1925 (type locality Brazil: Rio Grande do Sul) was downgraded by Evans (1953) to a subspecies of *Carrhenes canescens* (R. Felder, 1869) (type locality Mexico: Veracruz), now in *Canesia* Grishin, 2019. Sequencing of the *C. pallida* holotype (NVG-18094F04) in MTD in the context of several specimens of both taxa reveals that they form two distinct non-sister clades (Fig. 6) prompting us to reinstate *C. pallida* as a species-level taxon.

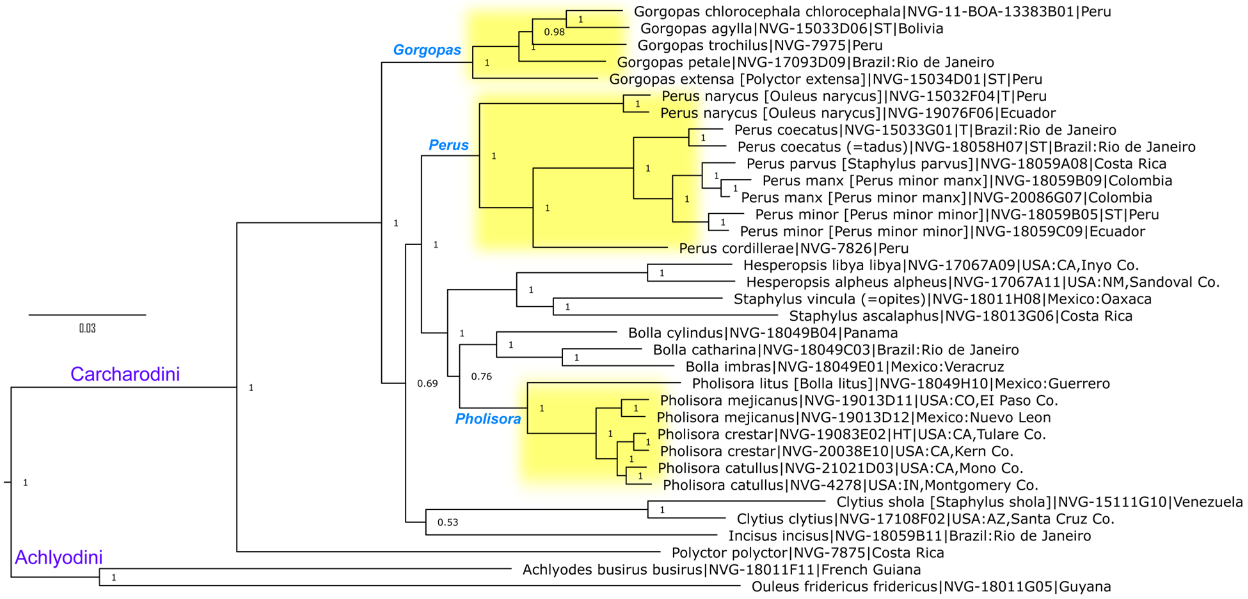

Figure 5. Genomic tree of Carcharodini and relatives. See Fig. 1 legend for notations.

Carrhenes conia Evans, 1953, new status

Genomic sequencing and comparison of *Carrhenes* Godman and Salvin, 1895 (type species *Leucochitonea fuscescens* Mabille, 1891) reveals that *Carrhenes fuscescens conia* Evans, 1953 (type locality French Guiana) and *Carrhenes fuscescens* (Mabille, 1891) (type locality Honduras) are not monophyletic (Fig. 6), suggesting species status for *Carrhenes conia* Evans, 1953, **new status**. Furthermore, the two syntypes of *Leucochitonea chaeremon* Mabille, 1891 (type locality Brazil: Amazonas) in the ZMHB are not conspecific, one of them being *C. conia*. To resolve the ambiguity about its identity and to preserve current usage of the names, N.V.G. designates as the **lectotype** of *Leucochitonea chaeremon* the specimen representing the species that has been known as such since Evans (1953): a paler and more complete male syntype NVG-15033B09 (not the one with right wings missing) in the ZMHB collection that already carries a red rectangular label "Lectotypus", in addition to the following six labels: || Origin. || S. Paulo | Amaz. sup. || ist aber ♂ || Chaeremon ♀ | Mab. | (Mab.) || [barcode image] http://coll.mfn-berlin.de/u/ | 90857b || DNA sample ID: | NVG-15033B09 | c/o Nick V. Grishin ||. From the original description and one of the labels, this specimen was considered a female by Mabille, but it is a male, as corrected on a different label, and it lacks its abdomen.

Carrhenes decens (A. Butler, 1874), new combination

Genomic sequencing reveals that *Antigonus decens* Butler, 1874 (type locality Peru) is not monophyletic with *Antigonus erosus* (Hübner, [1812]) (type locality not given), the type species of *Antigonus* Hübner, [1819] (Fig. 6), and instead is in the same clade with *Carrhenes* Godman and Salvin, 1895 (type species *Leucochitonea fuscescens* Mabille, 1891), suggesting *Carrhenes decens* (A. Butler, 1874), **new combination**.

Paches era Evans, 1953 is a junior subjective synonym of *Santa palica* (Mabille, 1888), reinstated status, new combination

Currently treated as a junior subjective synonym of *Chiothion asychis* (Stoll, 1780) (type locality Suriname), *Ephyriades palica* Mabille, 1888 (type locality Peru: Pebas) is not only a species distinct from *C. asychis*, but also it belong to a different tribe: Pyrgini Burmeister, 1878 instead of Erynnini Brues and Carpenter, 1932, because it is in the same clade with *Santa* Grishin, 2019 (type species *Carrhenes santes* Bell, 1940) (Fig. 6), implying *Santa palica* (Mabille, 1888), **new combination**. Sequencing of the *S. palica* holotype, female (NVG-15032B09), in the ZMHB reveals that it is conspecific with *Paches era* Evans, 1953 (type locality Peru: Rio Pacaya, known only from males), making the latter a junior subjective synonym of the former. The two taxa cluster closely in the genomic tree and COI barcodes of specimens we sequenced differ only by 0.15% (1 bp). Sexual dimorphism is quite striking in this species and made it a challenge to associate the sexes in the absence of DNA data. Furthermore, because the holotype of *S. palica* is lacking an abdomen, this association with *P. era* males by DNA suggests that it is a female.

Tiges Grishin, new subgenus

http://zoobank.org/9744C848-1996-435D-B28E-19D21537D656

Type species. *Antigonus liborius* Plötz, 1884.

Definition. Genomic sequencing of the *Antigonus liborius* Plötz, 1884 (type locality Brazil: Bahia) syntype in the ZMHB reveals that it is not monophyletic with *Antigonus* Hübner, [1819] (type species *Urbanus erosus* Hübner, [1812]), but instead is in the same clade with *Paches exosa* (Butler, 1877) (type locality Brazil: Amazonas) within *Paches* Godman and Salvin, 1895 (type species *Pythonides loxus* Westwood, 1852) forming a new subgenus of *Paches* (Fig. 6). Keys to E.43.5 or E.55.7a in Evans (1953). Distinguished from its relatives by the combination of the following characters: hindwings (at least in males) with concave outer margin in cell Sc+R_1-RS and between veins M_1 and M^3 (sometimes only slightly); complete lack of blue coloration (blue or purple at least on hindwing in male in subgenus *Paches*); uncus divided, as broad as wide (narrower in *Antigonus*), weakly separated from tegumen (stronger in subgenus *Paches*); valva with a long curved process on ampulla protruding caudad beyond harpe; harpe narrow, less than half of valva width. In DNA, a combination of the following base pairs is diagnostic: aly1454.6.2:G68A, aly1838.7.1:A584G, aly1838.7.1:T609A, aly208.4.3:A578G, and aly685.1.9:G164A.

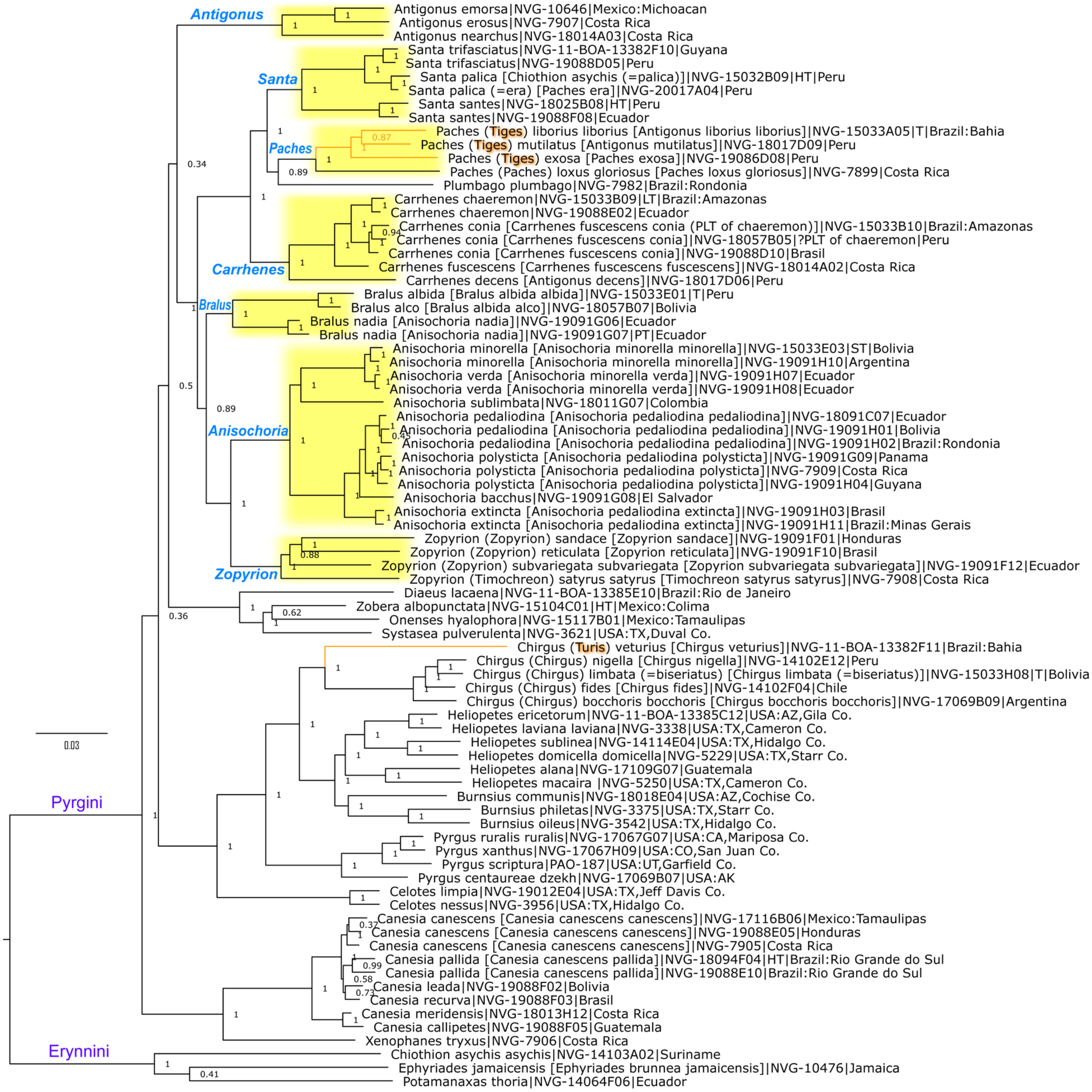

Figure 6. Genomic trees of Pyrgini and relatives. See Fig. 1 legend for notations.

Etymology. The name is a masculine noun in the nominative singular formed as a fusion of the two genus names: [An]*Tig*[onus] + [Pach]*es*, symbolizing a transfer of the type species from *Antigonus* to *Paches*.

Species included. The type species, *Achlyodes mutilatus* Hopffer, 1874 and *Achlyodes exosa* Butler, 1877.

Parent taxon. Genus *Paches* Godman and Salvin, 1895.

Timochreon Godman and Salvin, 1896 is a subgenus of *Zopyrion* Godman and Salvin, 1896

In genomic trees, *Timochreon* Godman and Salvin, 1896 (type species *Helias satyrus* C. Felder and R. Felder, 1867) clusters closely with *Zopyrion* Godman and Salvin, 1896 (type species *Zopyrion sandace* Godman and Salvin, 1896), and they together form a more prominent clade with divergence suggestive of a genus (Fig. 6), with each being subgenera. Barcodes of the type species of these taxa differ by about 8.8% (58 bp). The two names were proposed in the same publication (Godman and Salvin 1896), and as the first reviser we give priority to *Zopyrion* over *Timochreon* because the former consists of more species than the latter, and this choice will result in fewer name changes. Thus, we propose to consider *Timochreon* Godman and Salvin, 1896 a subgenus of *Zopyrion* Godman and Salvin, 1896.

Anisochoria extincta Hayward, 1933, new status and *Anisochoria polysticta* Mabille, 1876, reinstated status

Currently placed as subspecies of *Anisochoria pedaliodina* (Butler, 1870) (type locality not stated), *Anisochoria pedaliodina* form *extincta* Hayward, 1933 (type locality Argentina: Misiones) and *Anisochoria polysticta* Mabille, 1876 (type locality Colombia) form well-separated clades in the genomic tree (Fig. 6), and COI barcodes of *A. p.* f. *extincta* and *A. pedaliodina* differ by 5.8% (38 bp). Due to this genetic differentiation complemented by phenotypic distinction, even reflected in male genitalia (Evans 1953), we suggest to treat *A. extincta* and *A. polysticta* as species distinct from each other and from *A. pedaliodina*.

Anisochoria verda Evans, 1953, new status

Named by Evans (1953) as a subspecies of *Anisochoria minorella* Mabille, 1898 (type locality Bolivia) from Ecuador, *A. m. verda* forms a distinct clade in the genomic tree (Fig. 6), and their COI barcodes differ by 4.4% (29 bp), in addition to phenotypic differences detailed by Evans (1953), including those in genitalia. Therefore, we elevate it to a species *Anisochoria verda* Evans, 1953, **new status**.

Bralus nadia (Nicolay, 1980), new combination

Sequencing a paratype and a recently collected specimen of *Anisochoria nadia* Nicolay, 1980 (type locality Ecuador: Loja) reveals that the species clusters with *Anisochoria albida* Mabille, 1888, which is the type species of *Bralus* Grishin, 2019, represented by a syntype (NVG-15033E01) from the ZMHB and a more recent specimen, instead of with *Anisochoria polysticta* Mabille, 1876, the type species of *Anisochoria* Mabille, 1876 (Fig. 6). The pattern of apical forewing spots in *A. nadia* agrees with this placement. Therefore, we establish *Bralus nadia* (Nicolay, 1980), **new combination**.

Bralus alco (Evans, 1953), new status

Named by Evans (1953) as a subspecies of (then in *Anisochoria* Mabille, 1876) *Bralus albida* (Mabille, 1888) (type locality Peru: Chanchamayo) from Bolivia, *B. a. alco* exhibits 3.5% (23 bp) difference from it. Genetic differentiation combined with consistent differences in phenotypic differences in wing patterns suggests species level for *Bralus alco* (Evans, 1953), **new status**.

Tolius Grishin, new genus

http://zoobank.org/4D0B91EA-3367-42AB-B443-6BE63BB2F5C4

Type species. *Antigonus tolimus* Plötz, 1884.

Definition. Despite similarity in appearance and genitalia with *Achlyodes sempiternus* A. Butler and H. Druce, 1872 (the type species of *Echelatus* Godman and Salvin, 1894), the new genus is not monophyletic with it (Fig. 7). Keys to F.6.2 in Evans (1953). Distinguished from its relatives by the following combination of characters: wings below with at least some vestigial dark bands, forewing apex dark brown below, without a yellow spot; forewing costal fold well developed; no tibial tuft of long scales; uncus with developed arms and side horn-like processes; valva narrow, harpe longer than valva, not expanding basad over ampulla. In DNA, a combination of the following base pairs is diagnostic: aly6841.51.2:A736G, aly1656.26.1:A258G, aly1038.8.1:C1956T, aly862.7.1:A129G, and aly862.7.1:G107A.

Etymology. The name is a masculine noun in the nominative singular, formed from the type species name: *Toli*[m]*us*.

Species included. The type species and *Echelatus luctuosus* Godman and Salvin, [1894].

Parent taxon. Subtribe Erynnina Brues and Carpenter, 1932.

Comments. Frequently misidentified as *Echelatus sempiternus* or *Anastrus sempiternus* in collections, species of this new genus are indeed very similar to it. One of the most reliable wing pattern characters to distinguish the two genera is the color of forewing apex below. It is paler and yellower than the surrounding ground brown color ("yellow spot at apex" of Evans (1953: 182)) in *Echelatus*, but is not different from the background color in *Tolius*. Specimens curated as syntypes of *Anastrus varius* Mabille, 1883 (type locality Venezuela) in the ZMHB (NVG-15032H09) and the ZSMC (NVG-18057A09) are *Tolius tolimus tolimus*. However, these specimens are labeled as being from Panama: Chiriqui, and not Venezuela, and therefore are not syntypes. A syntype of *varius* in BMNH is indeed *Echelatus*.

Antigonus alburnea Plötz, 1884 is a junior subjective synonym of *Tolius tolimus robigus* (Plötz, 1884)

A syntype of *Antigonus alburnea* Plötz, 1884 (type locality Brazil: Para, specimen #5992, DNA sample NVG-15032H11) in the ZMHB is not *Echelatus* but *Tolius*, both by genomic analysis and by wing pattern (Fig. 7). Hence, we consider *A. alburnea* to be a junior subjective synonym of *Tolius tolimus robigus* (Plötz, 1884) and not of *Echelatus sempiternus simplicior* (Möschler, 1877). The names *alburnea* and *robigus* were published in the same work issued on the same date (Plötz 1884), and we give priority to the name *robigus*, because this name is used as valid, but *alburnea* has been placed in synonymy, although with a wrong taxon (Mielke 2005).

Echelatus depenicillus Strand, 1921 is a junior subjective synonym of *Echelatus sempiternus simplicior* (Möschler, 1877)

Judging from its wing patterns, the holotype of *Echelatus depenicillus* Strand, 1921 (type locality Colombia) in DEI is indeed *Echelatus* and not *Tolius*. Thus, we consider *E. depenicillus* to be a junior subjective synonym of *Echelatus sempiternus simplicior* (Möschler, 1877) (type locality Suriname) and not of *Tolius tolimus robigus* (Plötz, 1884) (type locality South America).

Alternative taxonomy of the *Echelatus* group

An alternative taxonomic arrangement would be to consider *Tolius* Grishin, **new genus**, *Anaxas* Grishin, 2019 *Hoodus* Grishin, 2019 and *Potamanaxas* Lindsey, 1925 as subgenera of *Echelatus* Godman and Salvin, 1894. These five taxa form a prominent monophyletic group in the tree and are within the range of genetic diversification known for genera (Fig. 7). However, due to phenotypic diversity of all these species, we do not adopt this solution here, pending further studies.

Antigonus aura Plötz, 1884 is a junior subjective synonym of *Theagenes dichrous* (Mabille, 1878)

Kept by Evans (1953) as a junior subjective synonym of *Helias phalaenoides palpalis* (Latreille, [1824]) (type locality Brazil), *Antigonus aura* Plötz, 1884 (Herrich-Schäffer in litt., type locality Brazil) is actually *Theagenes dichrous* (Mabille, 1878) (type locality Brazil) according to its syntype (NVG-15033E04) in the ZMHB, both phenotypically and genotypically (Fig. 7). We consider this specimen a syntype because it agrees with the original description, bears a red label "Typus", is from Herrich-Schäffer collection according to its label "Coll. H.–Sch", and carries two labels typical of Herrich-Schäffer specimens: a narrow faded label with probable Herrich-Schäffer handwriting "aura HS" and a nearly square label with a black frame "Palpalis Latr." In addition, it has two recent labels: one with a barcode image and "http://coll.mfn-berlin.de/u/9085f5" and the other || DNA sample ID: | NVG-15033E04 | c/o Nick V. Grishin ||. To ensure stability in application of the name *aura*, this specimen is designated by N.V.G. as the **lectotype** of *Antigonus aura* Plötz, 1884. Thus, *A. aura* is a junior subjective synonym of *Theagenes dichrous* (Mabille, 1878).

Camptopleura cincta Mabille and Boullet, 1917, new status

Camptopleura iphicrates var. *cincta* Mabille and Boullet, 1917 (type locality Colombia, Bolivia) is currently treated as a junior subjective synonym of *Camptopleura auxo* (Möschler, 1879) (type locality Colombia). We sequenced a syntype of *C. i.* var. *cincta* from Bolivia (NVG-18078D02) in MNHP and found that it is not monophyletic with *C. auxo* syntype (NVG-15033B06) in the ZMHB (Fig. 7). Instead, it appears to be a distinct species closely related to *Camptopleura theramenes* Mabille, 1877 (type locality Colombia). The COI barcodes of the *C. i.* var. *cincta* syntype and *C. theramenes* specimen from Costa Rica differ by 6.2% (41 bp). Therefore, it is incorrect to keep *C. i.* var. *cincta* as a synonym of *C. auxo*, and we propose to consider *C. i.* var. *cincta* a species-level taxon pending further studies: *Camptopleura cincta* Mabille and Boullet, 1917, **new status**.

Achlyodes impressus Mabille, 1889 is a junior subjective synonym of *Camptopleura orsus* (Mabille, 1889), reinstated status

Achlyodes orsus Mabille, 1889 (type locality Venezuela: Puerto Cabello) is treated as a junior subjective synonym of *Nisoniades mimas* (Cramer, 1775) (type locality Suriname) (Mielke 2005). We sequenced the holotype of *Achlyodes orsus* (NVG-15034D08) in the ZMHB and it is in the same clade with a syntype of *Achlyodes impressus* Mabille, 1889 (type locality Panama: Chiriqui) (NVG-15033A11) in the ZMHB (Fig. 7). These two primary type specimens are phenotypically similar and their COI barcodes are only 0.3% (2 bp) different. Therefore we conclude that they are conspecific. The type specimens of these taxa mostly agree with the original descriptions and/or illustrations (Mabille 1889a; Mabille 1889b), and according to their labels are the true type specimens of these taxa. One issue is that the original description of *A. orsus* does not fully agree with the original illustration (Mabille 1889a), therefore some errors have been made. The first two lines of the back-to-back descriptions of *A. orsus* and *A. oiclus* (currently *Telemiades oiclus* (Mabille, 1889)) are identical (they seem to describe *A. oiclus*), surely by mistake (Mabille 1889a). However, the original illustration is in agreement with the ZMHB specimen NVG-15034D08, and therefore, taking into account appropriate labels on this specimen ("Origin", "achl. orsus | ♂ Mb." (in Mabille handwriting), "Pto Cabello", "Coll. Staudinger"), it is the holotype. According to Lamas (2021) and original publications (Mabille 1889a; Mabille 1889b), the name *orsus* was published on January 15, 1889 and the name *impressus* was published on March 15, 1889. Therefore, we propose that *Achlyodes impressus* Mabille, 1889 is a junior subjective synonym of *Camptopleura orsus* (Mabille, 1889), **reinstated status**.

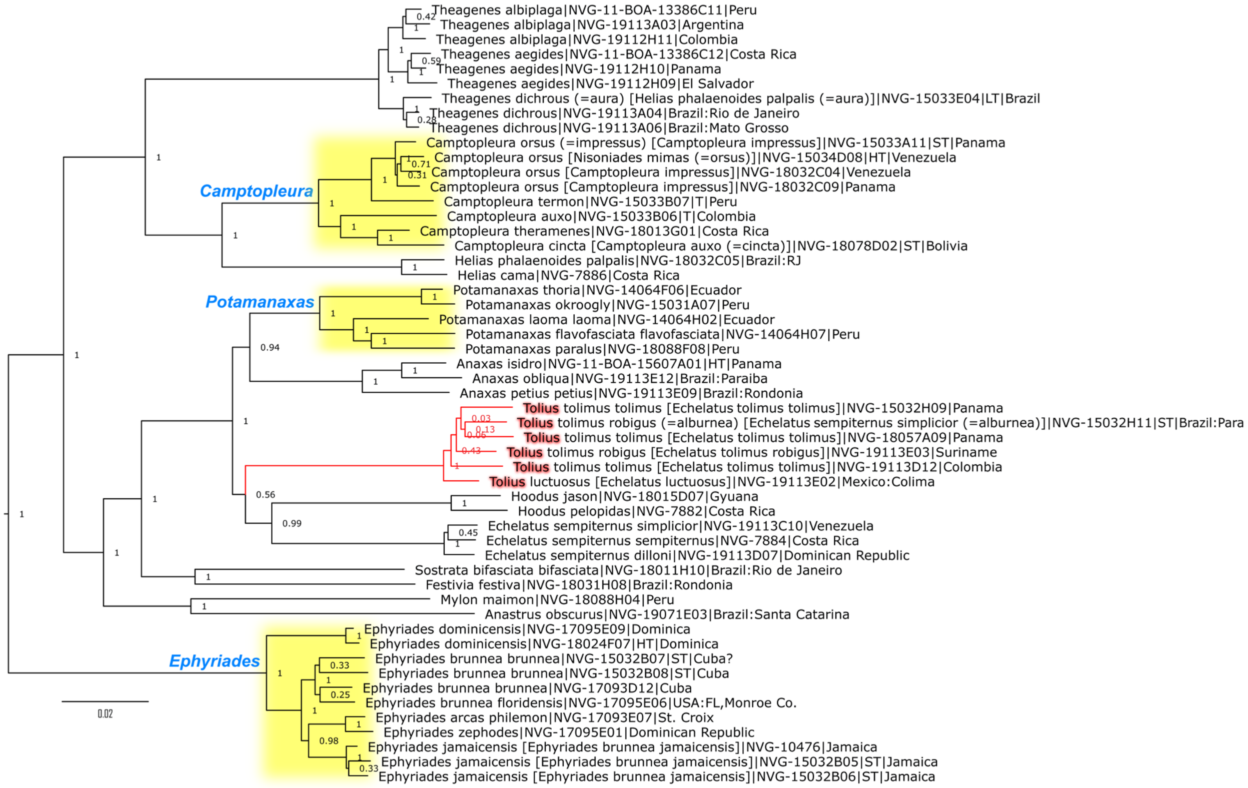

Figure 7. Genomic tree of Erynnini. See Fig. 1 legend for notations.

Ephyriades jamaicensis (Möschler, 1879), reinstated status

Currently treated as a subspecies of *Ephyriades brunnea* (Herrich-Schäffer, 1865) (type locality Cuba), *Achlyodes jamaicensis* Möschler, 1879 (type locality Jamaica) is not monophyletic with it and forms a prominent clade of its own (Fig. 7). The difference in COI barcodes is 3.8% (25 bp) between syntypes of *E. brunnea* (NVG-15032B07) and *A. jamaicensis* (NVG-15032B06) in the ZMHB. Hence, we reinstate *Ephyriades jamaicensis* (Möschler, 1879) as a species.

Pulchroptera Hou, Fan and Chiba, 2021 is a subgenus of *Heteropterus* Duméril, 1806

Two monotypic genera *Heteropterus* Duméril, 1806 (type species *Papilio aracinthus* Fabricius, 1777, which is *Papilio morpheus* Pallas, 1771) and *Pulchroptera* Hou, Fan and Chiba, 2021 (type species *Pamphila pulchra* Leech, 1891) are sisters of each other (Fig. 8) and are closely related, for example, COI barcodes of their type species differ by 8.6% (57 bp). Therefore, to reduce the number of monotypic genera that are not prominently distinct, we propose that *Pulchroptera* Hou, Fan and Chiba, 2021 is a subgenus of *Heteropterus* Duméril, 1806, **new status**. *Heteropterus pulchra* (Leech, 1891), **new combination**, conveys close relationship of this species with *Heteropterus morpheus* (Pallas, 1771) and therefore is more informative than a monotypic genus.

Bibla Mabille, 1904 is a valid genus

Treated as a synonym of *Taractrocera* Butler, 1870 (type species *Hesperia maevius* Fabricius, 1793) by Evans (1949), *Bibla* Mabille, 1904 (type species *Hesperia papyria* Boisduval, 1832) is not monophyletic with it, and instead is sister to a clade consisting of *Suniana* Evans, 1934 (type species *Pamphila lascivia* Rosenstock, 1885), *Potanthus* Scudder, 1872 (type species *Hesperia omaha* Edwards, 1863), and *Ocybadistes* Heron, 1894 (type species *Ocybadistes walkeri* Heron, 1894) (Fig. 8). To restore the monophyly of *Taractrocera* we suggest that *Bibla* is a valid genus. An alternative solution could be to treat *Ocybadistes*, *Bibla*, and *Suniana* as subgenera of *Potanthus*.

Prosopalpus Holland, 1896, *Lepella* Evans, 1937, and *Creteus* de Nicéville, 1895 belongs to Aeromachini Tutt, 1906

Genomic tree reveals that *Prosopalpus* Holland, 1896 (type species *Cobalus duplex* Mabille, 1889, a junior subjective synonym of *Apaustus debilis* Plötz, 1879), *Lepella* Evans, 1937 (type and the only species *Hesperia lepeletier* Latreille, 1824) and *Creteus* de Nicéville, 1895 (type and the only species *Hesperia cyrina* Hewitson, 1876) fall in the prominent clade with *Aeromachus* de Nicéville, 1890 (type species *Thanaos stigmata* Moore, 1878) (Fig. 8) and therefore belong to the tribe Aeromachini Tutt, 1906, where we place them. Unusual phenotypes of these three genera hindered their proper attribution within Hesperiidae.

Parasovia Devyatkin, 1996 is a junior subjective synonym of *Sebastonyma* Watson, 1893

Monotypic genus *Parasovia* Devyatkin, 1996 (type and the only species *Halpe perbella* Hering, 1918) clusters closely with *Sebastonyma* Watson, 1893 (type species *Hesperia dolopia* Hewitson, 1868) (Fig. 8) and COI barcodes of their type species differ by 6.7% (44 bp), suggesting that they are congeneric. Therefore, we propose that *Parasovia* Devyatkin, 1996, **new synonym** is a junior subjective synonym of *Sebastonyma* Watson, 1893.

Rapid diversification of Asian Hesperiinae

More detailed analysis of rapid diversification of Asian Hesperiinae reveals strongly supported clades that render Erionotini Distant, 1886 *sensu lato* paraphyletic (Fig. 9). After adding genomic datasets for the type genera of all six available family-group names associated with Erionotini Distant, 1886 (Warren et al. 2008; Warren et al. 2009; Li et al. 2019) (Fig. 9), we find that out of four confidently supported clades that disrupt monophyly of Erionotini, three clades do not have names. These clades are proposed here as new tribes. The fourth clade is recognized as a valid tribe Notocryptini Swinhoe, 1913, **new status**, that consists of *Notocrypta* de Nicéville, 1889 (type species *Plesioneura curvifascia* C. Felder and R. Felder, 1862), *Ancistroides* Butler, 1874 (type species *Ancistroides longicornis* Butler, 1874) and *Udaspes* Moore, [1881] (type species *Papilio folus* Cramer, 1775) as these genera are defined in Evans (1949), but we rearrange them below. Monophyly of Erionotini is thus restored.

Psolosini Grishin, new tribe

http://zoobank.org/1160A323-4DAA-4B2D-9A69-F77B64F0F37D

Type genus. *Psolos* Staudinger, 1889.

Definition. Forms a strongly supported clade that falls in the assemblage of Asian genera with unresolved phylogeny. Not confidently associated with any tribe (Fig. 9), and therefore is a tribe of its own. Keys to I.2a in Evans (1949). Diagnosed by the following combination of characters: hindwing vein M_2 decurved at origin, forewing vein M_2 straight (not decurved at the origin), its origin in the middle between veins M_3 and M_1 and veins; veins R_1 and SC nearly touching each other; wings broader and rounder than in relatives, for example, forewing costa is frequently strongly convex and outer margin rounded, especially near the base, no hyaline spots; second segment of palpi erect, quadrantic and stout, third segment short and conical; club of antenna not constricted before finely pointed apiculus. In DNA, a combination of the following base pairs is diagnostic: aly798.25.4:T315C, aly1370.9.2:C686T, aly798.25.4:A290T, aly5965.2.3:C1712G, and aly5965.2.3:T1711A.

Genera included. *Psolos* Staudinger, 1889 and *Koruthaialos* Watson, 1893, which includes *Stimula* de Nicéville, 1898, **new status**, as a subgenus (see below).

Parent taxon. Subfamily Hesperiinae Latreille, 1809.

Ismini Grishin, new tribe

http://zoobank.org/83F01EBB-D009-4199-9942-1FA6FE507088

Type genus. *Isma* Distant, 1886.

Definition. Forms a strongly supported clade that falls within the assemblage of Asian genera with unresolved phylogeny. Not confidently associated with any tribe (Fig. 9), and therefore is a tribal level taxon. Keys to I.1 or J.9 in Evans (1949). Phenotypically heterogeneous group that is diagnosed by the following combination of characters: club of antenna not constricted before apiculus, apiculus finely pointed, 2nd segment of palpi erect; and if hindwing vein M_2 decurved at origin, then wings broad with forewing costal margin arched and about as long as anal margin, forewing vein M_2 straight, at its origin in the middle between veins M_1 and M_3, and forewing veins SC and R_1 separate (not nearly touching each other); or if hindwing vein M_2 not decurved then forewing vein M_2 decurved, apiculus not longer than twice width of club, nudum less than 20 segments, antennae at least as long as cell, 3rd segment of palpi short, pointed and protruding, hindwing anal margin longer than costal margin, and males with secondary sexual characters such as forewing stigma and brand and forewing with subapical hyaline spots. In DNA, a combination of the following base pairs is diagnostic: aly1052.8.2:A287G, aly133.35.12:C148G, aly7003.4.4:G1802A, aly4645.12.5:A1343T, and aly4305.15.10:A273G.

Genera included. *Isma* Distant, 1886, *Iambrix* Watson, 1893, and *Idmon* de Nicéville, 1895.

Parent taxon. Subfamily Hesperiinae Latreille, 1809.

Eetionini Grishin, new tribe

http://zoobank.org/9775636D-E693-445B-8438-61F3223570F4

Type genus. *Eetion* de Nicéville, 1895.

Definition. In the current nuclear genomic tree, is not confidently grouped with any tribe and therefore a tribal level taxon (Fig. 9). Keys to J.21 in Evans (1949). Phenotypically, diagnosed by the following combination of characters: antenna not longer than half of forewing costal margin, apiculus longer than two times width of club, nudum around 25 segments, forewing discal cell long, not shorter than forewing anal margin, forewing vein M_2 decurved, hindwing discal cell shorter than half of wing. In DNA, a combination of the following base pairs is diagnostic: aly276558.19.1:A374C, aly366.4.1:T5240A, aly2633.4.3:T97A, aly971.9.15:A88G, and aly971.9.15:A89T.

Genera included. *Eetion* de Nicéville, 1895.

Parent taxon. Subfamily Hesperiinae Latreille, 1809

Figure 8. Genomic tree of Heteropterinae Aurivillius, 1925, some Old World Hesperiinae and relatives. See Fig. 1 legend for notations.

Acerbas sarala (de Nicéville, 1889), new combination

Parnara sarala de Nicéville, 1889 (type locality India: Khasi Hills) currently placed in *Lotongus* Distant, 1886 (type species *Eudamus calathus* Hewitson, 1876) is not monophyletic with it and is instead closest to the type species of *Acerbas* de Nicéville, 1895 (type species *Hesperia anthea* Hewitson, 1868) (Fig. 8). Therefore, we propose *Acerbas sarala* (de Nicéville, 1889), **new combination**.

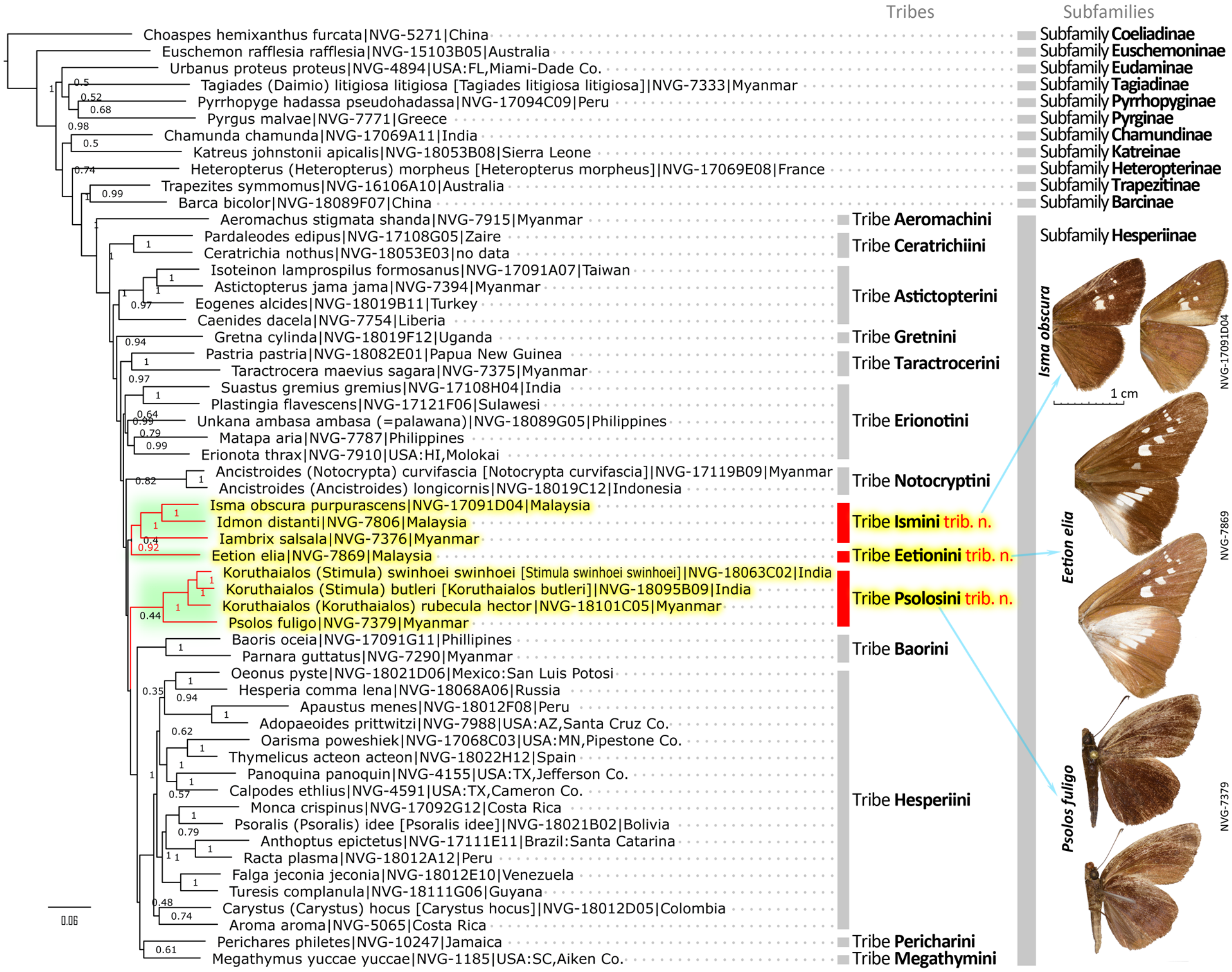

Figure 9. Genomic trees of representative Hesperiidae to illustrate their classification into subfamilies, and for the subfamily Hesperiinae into tribes. Names of species placed in the new tribes described in this work are highlighted in yellow, their clades are colored in red and highlighted in green. Sequenced specimens of the type species of the type genera of the new tribes are illustrated in dorsal (left or above) and ventral (right or below) views and indicated by blue arrows. Some images are left-right inverted and digitally edited to correct wing damage and scale loss by removing imperfections and combining segments of left and right wings. See Fig. 1 legend for other notations.

Carystus tetragraphus Mabille, 1891 is a junior subjective synonym of *Lotongus calathus* (Hewitson, 1876)

Inspection of the phenotype and sequencing of the *Carystus tetragraphus* Mabille, 1891 (type locality "Amboine") syntype in the ZMHB (NVG-18075G04) which agrees with the original description, bears appropriate labels and therefore we consider it to be a true syntype, reveals that it is not *Borbo impar* (Mabille, 1883), and is not even a *Borbo* Evans, 1949 (type species *Hesperia borbonica* Boisduval, 1833), but belongs to *Lotongus* Distant, 1886 (type species *Eudamus calathus* Hewitson, 1876) being placed in the tree within *Lotongus* type species (Fig. 8). Even in the absence of the syntype, only from the original description, *C. tetragraphus* does not agree with the phenotype of *Borbo impar* (Mabille, 1883). By the dark wing pattern and small spots, it fits well within *Lotongus calathus* (Hewitson, 1876), where we place this taxon. Judging from its dark phenotype, *C. tetragraphus* may be *Lotongus calathus parthenope* (Plötz, 1886) (type locality Nias), where we tentatively assign it. However, we are unaware of its records from the Ambon Island in Indonesia, and it is possible that the *C. tetragraphus* syntype was mislabeled.

Borbo impar bipunctata (Elwes and J. Edwards, 1897) is a valid name

Considered a junior subjective synonym of *Borbo impar tetragraphus* (Mabille, 1891), *Parnara bipunctata* Elwes and J. Edwards, 1897 (type locality Indonesia: Bacan Is.) becomes the senior name for this subspecies of *Borbo impar* (Mabille, 1883) (type locality around New Caledonia) after we have shown above that *Carystus tetragraphus* Mabille, 1891 is *Lotongus calathus* (Hewitson, 1876). Therefore the name *Borbo impar bipunctata* (Elwes and J. Edwards, 1897) becomes valid.

Koruthaialos frena Evans, 1949, new status

Described by Evans (1949) as a subspecies of *Koruthaialos focula* (Plötz, 1882) (type locality Java) from Malaysia: Mount Kinabalu, *K. f. frena* exhibits nuclear genomic differences in line with the species level (Fig. 8). COI barcodes are 6.5% (43 bp) different between *K. f. frena* and *K. focula* from their type localities. Its secondary sexual characters are different from *K. focula* and more similar to *Koruthaialos rubecula* (Plötz, 1882) (type locality Malaysia: Kalimantan) (Evans 1949). Therefore we propose to treat it as a species-level taxon: *Koruthaialos frena* Evans, 1949, **new status**. *Koruthaialos focula kerala* de Nicéville, [1896] (type locality Indonesia: Sumatra) does not reveal strong genetic differentiation from the nominotypical subspecies (Fig. 8) and its secondary sexual characters are similar to it. Therefore no change of status is proposed for *K. f. kerala*.

Stimula de Nicéville, 1898 is a subgenus of *Koruthaialos* Watson, 1893

Genomic phylogeny reveals that *Watsonia swinhoei* Elwes and Edwards, 1897 (type locality India: Khasi Hills), type and the only species in the genus *Stimula* de Nicéville, 1898, is a sister to both *Koruthaialos focula* and *Koruthaialos frena*, thus originating deep within *Koruthaialos* Watson, 1893 (type species *Koruthaialos hector* Watson, 1893, which is currently a subspecies of *Koruthaialos rubecula* (Plötz, 1882)) and rendering it paraphyletic (Fig. 8). *Koruthaialos* is a compact genus of five species and breaking it into several genera to restore its monophyly seems inferior to including *Stimula* into it as a subgenus. As a result, only one species, *Koruthaialos rubecula* (Plötz, 1882) as defined by Evans (1949), and characterized by thin and protruding 3rd segment of palpi and convergent arms of uncus, remains in the nominal subgenus, other *Koruthaialos* species are placed in subgenus *Stimula*, which is characterized by short and blunt 3rd segment of palpi and divergent uncus arms. Therefore, *Arunena* Swinhoe, 1919 (type species *Arunena nigerrima* Swinhoe, 1919, which is currently a junior subjective synonym of *Astictopterus butleri* de Nicéville, [1884]), becomes junior subjective synonym of *Stimula*.

Pemara Eliot, 1978 is a junior subjective synonym of *Oerane* Elwes and Edwards, 1897

Two currently monotypic genera *Pemara* Eliot, 1978 (type and the only species *Parnara pugnans* de Nicéville, 1891) and *Oerane* Elwes and Edwards, 1897 (type species *Notocrypta neaera* de Nicéville, 1891, currently a subspecies of *Plesioneura microthyrus* Mabille, 1883) are sisters, closer to each other than the two species of *Suastus* Moore, [1881] to each other (Fig. 8). COI barcodes of *Pemara pugnans* and *Oerane microthyrus* differ by 7.1% (47 bp). For these reasons, moving towards simpler classification, we unite the two monotypic genera into one and suggest that *Pemara* Eliot, 1978 is a junior subjective synonym of *Oerane* Elwes and Edwards, 1897.

Kerana Distant, 1886 and *Tamela* Swinhoe, 1913 are valid genera

Genomic tree reveals that *Ancistroides* Butler, 1874 (type species *Ancistroides longicornis* Butler, 1874) is polyphyletic (Fig. 8). While the type species of *Ancistroides* groups closely with *Notocrypta* de Nicéville, 1889 (type species *Plesioneura curvifascia* C. Felder and R. Felder, 1862), other species currently placed in *Ancistroides* form two distinct clades nearby. Each of these clades contains one type species of an available genus group name, currently treated as junior subjective synonyms of *Ancistroides*. To restore monophyly of *Ancistroides*, we resurrect these two names from synonymy and suggest to treat *Kerana* Distant, 1886 (type species *Astictopterus armatus* Druce, 1873) and *Tamela* Swinhoe, 1913 (type species *Nisoniades diocles* Moore, 1865, which is a subspecies of *Hesperia nigrita* Latreille, [1824]) as valid genera.

Udaspes Moore, [1881] and *Notocrypta* de Nicéville, 1889 are subgenera of *Ancistroides* Butler, 1874

Further inspection of the clade with *Ancistroides longicornis* Butler, 1874, the type species of *Ancistroides* Butler, 1874, reveals that it is compact, and in addition to a large genus *Notocrypta* de Nicéville, 1889 (type species *Plesioneura curvifascia* C. Felder and R. Felder, 1862) includes a nearly monotypic genus *Udaspes* Moore, [1881] (type species *Papilio folus* Cramer, 1775) (Fig. 8). *Ancistroides* and *Udaspes* stand out from *Notocrypta* merely in their unique wing patterns, but male genitalia of all these taxa are of a similar plan and suggest that this entire clade can be viewed as a single genus. Thus, taking into account priority of these names, we propose to treat *Udaspes* Moore, [1881] and *Notocrypta* de Nicéville, 1889 as subgenera of *Ancistroides* Butler, 1874. Next, we find that the subgenus *Notocrypta* as it is defined is nor monophyletic, and the subclade of *Notocrypta* that does not include the type species does not have a name. A new name for the clade is proposed here to restore the monophyly of *Notocrypta*.

Ocrypta Grishin, new subgenus

http://zoobank.org/A1411503-9F26-4E6F-A95B-71D967BD3BE7

Type species. *Notocrypta caerulea* Evans, 1928.

Definition. The subgenus is not monophyletic with *Notocrypta* de Nicéville, 1889 (type species *Plesioneura curvifascia* C. Felder and R. Felder, 1862) despite wing pattern similarities, but is instead a probable sister to *Udaspes* Moore, [1881] (type species *Papilio folus* Cramer, 1775) (Fig. 8). Keys to I.6.7a in Evans (1949). Distinguished from phenotypically similar *Notocrypta* with which it shares white discal forewing band and in some species white apical spots on otherwise dark-brown wings by the following combination of characters: forewing vein M_3 originates closer to vein M_2 than to vein CuA_1; white dorsal forewing band usually fills out the base of cell M_3-CuA_1 and reaches costa (except in some darker specimens); in all species except *N. renardi* (Oberthür, 1878) antennae dark without pale ring at club and abdomen pale below. In DNA, a combination of the following base pairs is diagnostic: aly272.4.2:T91A, aly594.9.1:A660G, aly1445.3.1:A475G, aly1139.10.12:A524C, and aly1019.14.2:A193G.

Etymology. The name is a feminine noun in the nominative singular, formed by removing "Not" from *Notocrypta*. Similar to how "Not" was added to *Amblyscirtes* Scudder, 1872 to form *Notamblyscirtes* Scott, 2006, but in reverse.

Species included. The type species, *Plesioneura renardi* Oberthür, 1878, *Plesioneura waigensis* Plötz, 1882, *Notocrypta aluensis* Swinhoe, 1907, *Plesioneura flavipes* Janson, 1886, and *Notocrypta maria* Evans, 1949.

Parent taxon. Genus *Ancistroides* Butler, 1874.

Ankola Evans, 1937 is a junior subjective synonym of *Pardaleodes* Butler, 1870

A monotypic genus *Ankola* Evans, 1937 (type species *Osmodes* (?) *fan* Holland, 1894) renders *Pardaleodes* Butler, 1870 (type species *Papilio edipus* Stoll, [1781]) paraphyletic (Fig. 10). Due to genetic and morphological (Evans 1937) closeness of these species that form a compact clade in the tree similar in genetic differentiation to *Ceratrichia* Butler, [1870] (type species *Papilio nothus* Fabricius, 1787), we restore monophyly by treating *Ankola*, as a **new** junior subjective **synonym** of *Pardaleodes* Butler, 1870.

Lennia Grishin, new genus

http://zoobank.org/07B33FAD-F918-4127-9EED-9FA4E5EBD74F

Type species. *Leona lena* Evans, 1937.

Definition. A genus not monophyletic with but related to *Leona* Evans, 1937 (type species *Hesperia leonora* Plötz, 1879), where these species were previously placed (Fig. 10). Keys to VIII.59.A in Evans (1937) and differs from its relatives, including *Leona*, by a combination of erect palpi with the last segment short and stout; forewing vein M_3 not closer to vein M_2 than to vein CuA_1; antennae ochreous above and hindwing below without prominent marking but frequently with several white dots. In male genitalia, gnathos, if developed, shorter that half of uncus (in lateral view) uncus either narrow in dorsal view, at least three times longer that wide, barely divided, or broad, rounded and undivided. In DNA, a combination of the following base pairs is diagnostic: aly2627.2.2:T53A, aly2694.9.8:A8661G, aly1370.10.3:A65T, aly6841.66.1:A2191C, and aly490.12.1:A4147G.

Etymology. The name is a feminine noun in the nominative singular formed from the type species name in a manner to avoid homonyms.

Species included. The type species, *Proteides binoevatus* Mabille, 1891, *Hesperia maracanda* Hewitson, 1876, and *Leona lota* Evans, 1937.

Parent taxon. Tribe Astictopterini Swinhoe, 1912.

Caenides sophia (Evans, 1937), new combination

Since its description kept in the genus *Hypoleucis* Mabille, 1891 (type species *Hypoleucis tripunctata* Mabille, 1891), *H. sophia* Evans, 1937 (type locality Cameroon) is not monophyletic with it and instead originates within *Caenides* Holland, 1896 (type species *Hesperia dacela* Hewitson, 1876) (Fig. 10). Hence, we transfer it to the latter genus to form *Caenides sophia* (Evans, 1937), **new combination**. In wing pattern (ventral hindwing brown with ivory colored bands and spots instead of mostly white) and size (smaller), and also due to the lack of brand and differences in palpi (Evans 1937), *C. sophia* was abnormal in *Hypoleucis*, thus this transfer is not surprising.

Hypoleucis dacena (Hewitson, 1876), new combination

Currently still in *Caenides* Holland, 1896 (type species *Hesperia dacela* Hewitson, 1876), although Larsen (2005) suggested that it does not belong there, *Hesperia dacena* Hewitson, 1876 (type locality Gabon) is sister to *Hypoleucis* Mabille, 1891 (type species *Hypoleucis tripunctata* Mabille, 1891) (Fig. 10), where we suggest to place it as *Hypoleucis dacena* (Hewitson, 1876), **new combination**. COI barcodes of *H. dacena* and *H. tripunctata draga* Evans, 1937 differ by only 6% (40 bp). We agree with Larsen (2005) that by its rounder wing shape and less extensive pale spotting and without hindwing hair tuft or brands on forewing (Evans 1937), *H. dacena* was abnormal in *Caenides*, as our genomic results confirm pointing to its more meaningful placement in *Hypoleucis*. Lose one gain one.

Dotta tura (Evans, 1951), new combination

Described by Evans (1951) in *Astictopterus* C. Felder and R. Felder, 1860 (type species *Astictopterus jama* C. Felder and R. Felder, 1860), *A. tura* is not monophyletic with it (Fig. 10), but is sister to the two species currently in *Dotta* Grishin, 2019 (type species *Ceratrichia stellata* Mabille, 1891). Therefore, we transfer *Astictopterus tura* to *Dotta* forming *Dotta tura* (Evans, 1951), **new combination**. Dotted ventral hindwing pattern characteristic of *Dotta* agrees with this placement.

Nervia wallengrenii (Trimen, 1883), new combination

Thymelicus wallengrenii Trimen, 1883 (type locality in South Africa) is not monophyletic with *Kedestes* Watson, 1893 (type species *Hesperia lepenula* Wallengren, 1857), where it is currently placed and instead groups closely with *Nervia* Grishin, 2019 (type species *Hesperia nerva* Fabricius, 1793) (Fig. 10). Therefore, we propose *Nervia wallengrenii* (Trimen, 1883), **new combination**.

Trida Grishin, new genus

http://zoobank.org/AEF4CB05-6711-4D6D-BD1C-804B18C99CE6

Type species. *Cyclopides barberae* Trimen, 1873.

Definition. Currently in *Kedestes* Watson, 1893 (type species *Hesperia lepenula* Wallengren, 1857), but not monophyletic with it and instead sister to a clade consisting of *Nervia* Grishin, 2019 (type species *Hesperia nerva* Fabricius, 1793) and *Tsitana* Evans, 1937 (type species *Cyclopides tsita* Trimen, 1870) (Fig. 10). Keys to 27.B.(a)(a^1)(a^2)(a^3) in Evans (1937). Distinguished from its relatives by the following combination of characters: antennae ventrally pale, with blunt apiculus, forewings with white spots, ventral hindwing brown with silver or white markings, uncus sides straight to convex in dorsal view, tegumen strongly notched before uncus in lateral view, gnathos developed, separated from uncus, valva twice as long as wide, harpe slightly separated from not expanded ampulla, distally with a knob-like projection. In DNA, a combination of the following base pairs is diagnostic: aly1222.15.2:A8503C, aly1370.20.2:C124A, aly3087.2.1:T919A, aly347.12.1:A962A (not G), aly2487.24.2:C457C

Figure 10. Genomic tree of Ceratrichiini and Astictopterini. See Fig. 1 legend for notations.

(not A), aly1838.7.1:G340G (not C), aly8661.2.1:A1479A (not C), aly84.37.1:T669T (not C), aly127.91.2:T147T (not C), aly563.9.2:A1117A (not C), aly1060.3.2:A168A (not T), and aly1379.9.4:A1006A (not C).

Etymology. The name is a feminine noun in the nominative singular, given for the trident-like white pattern on ventral hindwing of the type species.

Species included. The type species and *Kedestes sarahae* Henning and Henning, 1998.

Parent taxon. Tribe Astictopterini Swinhoe, 1912.

Euphyes kiowah (Reakirt, 1866), reinstated status

Currently considered a south-central subspecies of *Euphyes vestris* (Boisduval, 1852) (type locality USA: California), *Hesperia kiowah* Reakirt, 1866 (type locality USA: Rocky Mountains) forms a distinct clade in the genomic tree, separated from other populations currently placed in *E. vestris* (Fig. 11). For example, COI barcodes of the nominotypical *E. vestris* and a specimen in central Colorado differ by 2.9% (19 bp). Therefore, we propose *Euphyes kiowah* (Reakirt, 1866), **reinstated status**.

Euphyes kiowah chamuli Freeman, 1969, new status

Since its description, *Euphyes chamuli* Freeman, 1969 (holotype sequenced) treated as a valid species from Mexico: Chiapas originates within *Euphyes kiowah* (Reakirt, 1866) (type locality USA: Rocky Mountains) (Fig. 11), suggesting possibly synonymy. However, due to phenotypic differences, we keep the name for the southern populations of *E. kiowah* as a subspecies, pending further studies: *Euphyes kiowah chamuli* Freeman, 1969, **new status**.

Arotis Mabille, 1904 is a junior subjective synonym of *Mnaseas* Godman, 1901

A clade of species currently placed in *Mnaseas* Godman, 1901 (type species *Thymelicus bicolor* Mabille, 1889) originates deeply within *Arotis* Mabille, 1904 (type species *Arotis sirene* Mabille, 1904), rendering it paraphyletic (Fig. 11). To restore the monophyly, instead of defining several new genera or subgenera, and due to genetic similarity among these species, we propose to treat *Arotis* Mabille, 1904 is a junior subjective synonym of *Mnaseas* Godman, 1901. These two genera combined form a reasonably prominent clade sister to a genetically prominent genus *Euphyes* Scudder, 1872 (type species *Hesperia metacomet* Harris, 1862, currently a subspecies of *Hesperia? vestris* Boisduval, 1852) (Fig. 11), and we refrain from merging it into the latter genus, even as a subgenus.

Mnaseas inca Bell, 1930, reinstated status

Placed by Evans (1955) as a subspecies of *Thymelicus bicolor* Mabille, 1889 (type locality Honduras), which is the type species of *Mnaseas* Godman, 1901, and kept there since, *Mnaseas inca* Bell, 1930 (type locality Bolivia: Santa Cruz) is not monophyletic with it (Fig. 11), and the two taxa are only rather distantly related exhibiting COI barcode difference of 6.1% (40 bp). Therefore, it is a species-level taxon as originally proposed: *Mnaseas inca* Bell, 1930, **reinstated status**.

Testia mammaea (Hewitson, 1876), new combination

Hesperia mammaea Hewitson, 1876 placed in *Decinea* Evans, 1955 (type species *Hesperia decinea* Hewitson, 1876) by Evans (1955) is in a clade away from *Decinea* (Fig. 11) and is instead sister to *Testia potesta* (Bell, 1941), the type and the only species in its genus. The two species are similar in having long uncus arms, terminally expanded penis, a small pale spot near the end of the discal cell and a postdiscal row of such spots on hindwing below (sometimes vestigial) and a prominent ivory-colored area in the middle of cell CuA_2-1A+2A on ventral forewing. Therefore, we propose *Testia mammaea* (Hewitson, 1876), **new combination**, making *Testia* Grishin, 2019 no longer monotypic.

Oxynthes trinka (Evans, 1955), new combination

Described in *Orthos* Evans, 1955 (type species *Eutychide orthos* Godman, 1900), *Orthos trinka* Evans, 1955 is closely related to *Goniloba corusca* Herrich-Schäffer, 1869), which is the type species of *Oxynthes* Godman, 1900, in Hesperiina Latreille, 1809, while *Orthos* is in Carystina Mabille, 1878 (Fig. 11). Therefore, we propose *Oxynthes trinka* (Evans, 1955), **new combination**.

Noxys Grishin, new genus

http://zoobank.org/6A7D1061-E6D2-4DC5-A6C6-9CE3DB6A56EF

Type species. *Oxynthes viricuculla* Hayward, 1951.

Definition. Currently placed in *Oxynthes* Godman, 1900 (type species *Goniloba corusca* Herrich-Schäffer, 1969) but not monophyletic with it. Sister to *Metrocles* Godman, 1900 (type species *Metrocles leucogaster* Godman, 1900) instead (Fig. 11). Keys to O.10.2 in Evans (1955). The pattern is surprisingly similar to *Oxynthes corusca* (Herrich-Schäffer, 1869) given their distant relationship. Differs from *Oxynthes* species by brand extending along discal cell from the origin of vein CuA_2 to near the origin of vein CuA_1, narrower discal band on ventral hindwing, not crossing the discal cell, which is with a small white spot, smaller tegumen and uncus, much broader aedeagus with large cornuti, and terminally rounded harpe. In DNA, a combination of the following base pairs is diagnostic: aly806.11.5:A397C, aly84.40.4:A239G, aly318.14.6:C739A, aly10226.3.14:G184A, and aly1149.1.1:G219A.

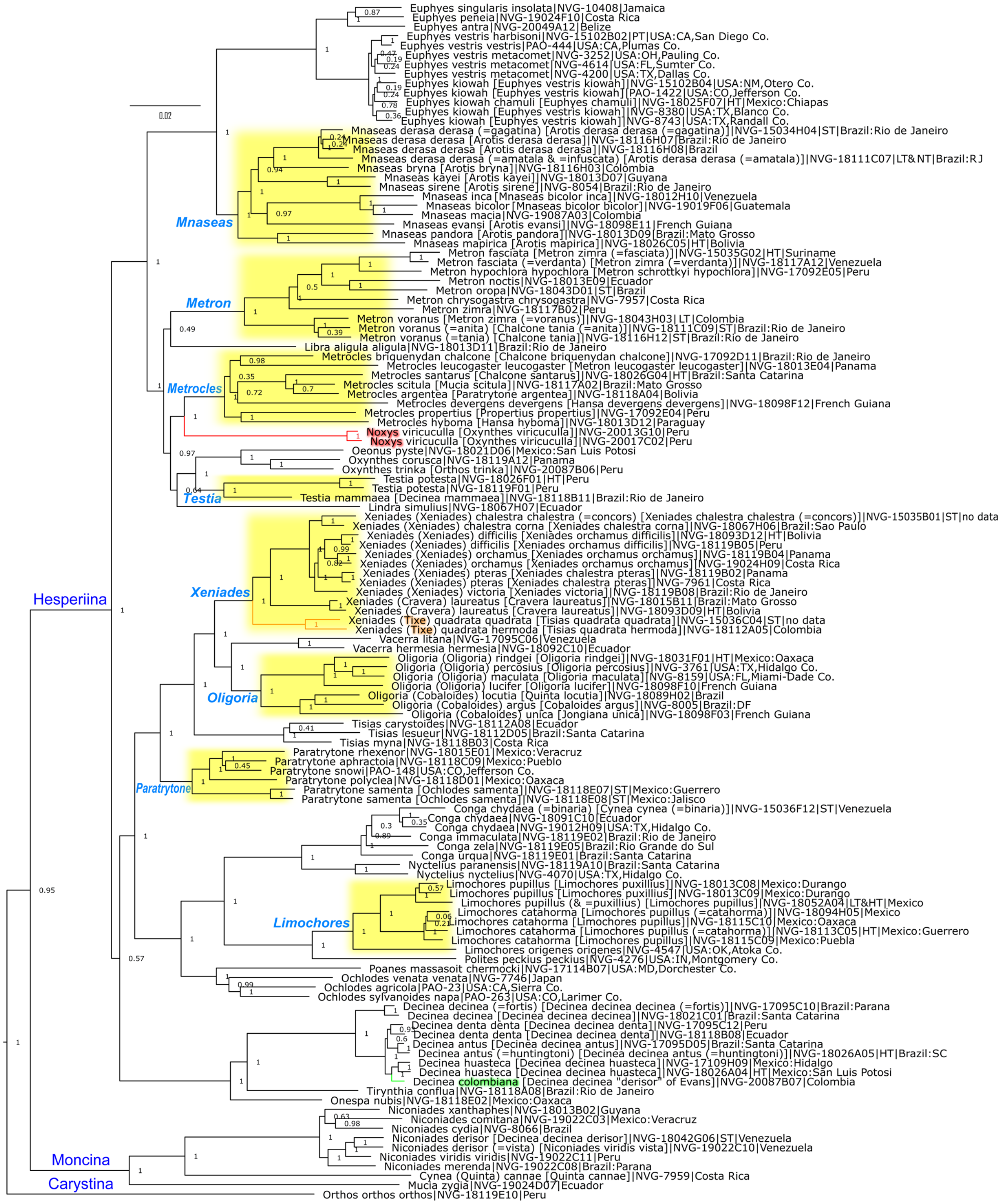

Figure 11. Genomic tree of Hesperiina and relatives. See Fig. 1 legend for notations.

Etymology. The name is a masculine noun in the nominative singular, for the genus the type species was placed previously: *No*[t] + [O]*xy*[nthe]*s*.

Species included. Only the type species.

Parent taxon. Subtribe Hesperiina Latreille, 1809.

Metrocles Godman, 1900 is a valid genus with *Chalcone* Evans, 1955, *Hansa* Evans, 1955, and *Propertius* Evans, 1955 as its junior subjective synonyms

Our genomic trees reveal that *Metron* Godman, 1900 (type species *Pamphila chrysogastra* Butler, 1870) is not monophyletic (Fig. 11). Presently in *Metron*, *Metrocles leucogaster* Godman, 1900, which is the type species of *Metrocles* Godman, 1900 clusters closely with *Chalcone* Evans, 1955 (type species *Augiades chalcone* Schaus, 1902, which is a subspecies of *Pamphila briquenydan* Weeks, 1901), *Hansa* Evans, 1955 (type species *Hesperia hyboma* Plötz, 1886), and *Propertius* Evans, 1955 (type species *Hesperia propertius* Fabricius, 1793) in a clade different from *Metron*. Therefore, we reinstate *Metrocles* as a valid genus. We also find that neither *Hansa* nor *Chalcone* are monophyletic (Fig. 11). Notably, the type species of *Hansa* is sister to *Propertius*. Due to genetic closeness of all these species and challenges to classify them correctly using phenotypic considerations, we propose that *Chalcone* Evans, 1955 *Hansa* Evans, 1955 and *Propertius* Evans, 1955 are junior subjective synonyms of *Metrocles* Godman, 1900.

Metrocles argentea (Weeks, 1901), *Metrocles scitula* (Hayward, 1951) and *Metrocles schrottkyi* (Giacomelli, 1911), new combinations

Formerly placed in *Paratrytone* Godman, 1900 (type species *Paratrytone rhexenor* Godman, 1900), *Pamphila argentea* Weeks, 1901 (type locality Bolivia: near Cusilluni) is not monophyletic with it and instead originates within the newly expanded *Metrocles* Godman, 1900 (type species *Metrocles leucogaster* Godman, 1900), near species formerly placed in *Chalcone* Evans, 1955 (type species *Augiades chalcone* Schaus, 1902, which is a subspecies of *Pamphila briquenydan* Weeks, 1901) (Fig. 11). In the same clade, we find *Niconiades scitula* Hayward, 1951 (type locality Brazil: Mato Grosso), placed by Evans (1955) in *Mucia* Godman, 1900 (type species *Mucia thyia* Godman, 1900, a junior subjective synonym of *Hesperia zygia* Plötz, 1886), which is in subtribe Moncina A. Warren, 2008, and not in Hesperiina Latreille, 1809 as *Metrocles* (Fig. 11). Phenotypically, these placements are reasonable due to similarities in ventral hindwing patterns: white irregular discal band separated into spots by veins is also present in *Metrocles zisa* (Plötz, 1882) (formerly in *Chalcone*). Finally, inspection of the photographs of the holotype of *Thymelicus (?) schrottkyi* Giacomelli, 1911 (type locality Argentina: La Rioja), currently in *Metron* Godman, 1900 (type species *Pamphila chrysogastra* Butler, 1870), revealed very close similarity with *M. scitula* in wing patterns and stigma. For all these reasons, we propose *Metrocles argentea* (Weeks, 1901), **new combination**, *Metrocles scitula* (Hayward, 1951), **new combination**, and *Metrocles schrottkyi* (Giacomelli, 1911), **new combination**.

Metron hypochlora (Draudt, 1923) is a species distinct from *Metrocles schrottkyi* (Giacomelli, 1911)

Inspection of the holotype photograph reveals that Evans (1955) misidentified *Metrocles schrottkyi* (Giacomelli, 1911), a species with a narrow white ventral hindwing band prominently separated into spots by veins and whitish forewing spots, and assigned this name to *Metrocles hypochlora* Draudt, 1923 (type locality Peru: Madre de Dios), a species with the entire hindwing white band and yellow spots in forewing. Robbins et al. (1996) treated *M. hypochlora* as a subspecies of *M. schrottkyi*. Genomic sequencing confirms that *M. hypochlora* belongs to *Metron* Godman, 1900 (type species *Pamphila chrysogastra* Butler, 1870) and not to *Metrocles* Godman, 1900 (type species *Metrocles leucogaster* Godman, 1900) (Fig. 11). Thus we reinstate *Metron hypochlora* as a species-level taxon and place *Metron hypochlora tomba* Evans, 1955, **new combination**, as its subspecies.

Metron voranus (Mabille, 1891) is a valid species with *Augiades tania* Schaus, 1902 as its junior subjective synonym

Sequencing of a ZMHB syntype of *Pamphila voranus* Mabille, 1891 (type locality Colombia), currently a junior subjective synonym of *Metron zimra* (Hewitson, 1877) (type locality Brazil), reveals that it is not even in the same clade with *M. zimra* and instead is conspecific with *Augiades tania* Schaus, 1902 (type locality Brazil: Petropolis), currently a valid species of *Chalcone* Evans, 1955 (type species *Augiades chalcone* Schaus, 1902, which is a subspecies of *Pamphila briquenydan* Weeks, 1901) (Fig. 11). Phenotypic assessment agrees with this conclusion: the white discal band on ventral hindwing is of similar shape in *P. voranus* and *A. tania* that differs from that in *M. zimra*. We confirm that the *P. voranus* syntype agrees with the original description in all aspects, and bears labels in Mabille handwriting. To stabilize the usage of these names, the specimen in the ZMHB collection with the following seven rectangular labels: purple, printed || Origin ||, two white, handwritten (the second one might be in Mabille handwriting) || Columbia ||, || *P. voranus* | Mab. ||, white printed || Coll. | Staudinger ||, white handwritten || *Voranus* | Mab. ||, and two white printed || [barcode image] http://coll.mfn-berlin.de/u/ | 44a09b || DNA sample ID: | NVG-18043H03 | c/o Nick V. Grishin || is hereby designated by N.V.G. as the **lectotype** of *Pamphila voranus* Mabille, 1891. Thus, we conclude that *Augiades tania* Schaus, 1902 as its junior subjective synonym of *Metron voranus* (Mabille, 1891), **reinstated status**.

Metron fasciata (Möschler, 1877) is a valid species with *Pamphila verdanta* Weeks, 1906 as its junior subjective synonym

Sequencing of the *Pamphila fasciata* Möschler, 1877 holotype from Suriname in the ZMHB reveals that this taxon is not monophyletic with *Metron zimra* (Hewitson, 1877) (type locality Brazil), with which it was synonymized (Evans 1955) (Fig. 11). Phenotypically, discal white band on ventral hindwing reaches costa in *M. zimra*, but stops at vein C-Sc+R_1 in *P. fasciata* leaving a brown-olive background color space between the band and costa. Therefore, we reinstate it as a species *Metron fasciata* (Möschler, 1877), **reinstated status**, and place *Pamphila verdanta* Weeks, 1906 (type locality Venezuela: Suapure) as its junior subjective synonym, because the hindwing band does not reach costa in the *P. verdanta* syntype.

Niconiades derisor (Mabille, 1891), new combination

Genomic sequencing of a syntype of *Pamphila derisor* Mabille, 1891 (type locality Venezuela) from the ZMHB collection, currently in *Decinea* Evans, 1955 (type species *Hesperia decinea* Hewitson, 1876) in subtribe Hesperiina Latreille, 1809, reveals that it originates within *Niconiades* Hübner, [1821] (type species *Niconiades xanthaphes* Hübner, [1821]) in the subtribe Moncina A. Warren, 2008 (Fig. 11). Phenotypic assessment agrees with this placement. For instance, the syntype of *P. derisor* has brands characteristic of *Niconiades* and lacking in *Decinea*. Therefore, we propose *Niconiades derisor* (Mabille, 1891), **new combination**.

Niconiades viridis vista Evans, 1955 is a junior subjective synonym of *Niconiades derisor* (Mabille, 1891)

Using Evans (1955), the syntype of *Pamphila derisor* Mabille, 1891 (type locality Venezuela) that we sequenced, keys to *Niconiades viridis vista* Evans, 1955 (type locality Colombia), the northern subspecies of *Thoon viridis* Bell, 1930 (type locality Bolivia). In the genomic tree, *Niconiades derisor* is indeed sister to *Niconiades viridis* (Fig. 11), but they are not conspecific: their COI barcodes differ by 2.3% (15 bp) in the presence of definitive phenotypic differences listed by Evans (1955: 435). Therefore, we propose that *Niconiades viridis vista* Evans, 1955 is a junior subjective synonym of *Niconiades derisor* (Mabille, 1891).

Decinea huasteca (H. Freeman, 1969), *Decinea denta* Evans, 1955 and *Decinea antus* (Mabille, 1895) are species distinct from *Decinea decinea* (Hewitson, 1876), and *Decinea denta pruda* Evans, 1955, new combination

Evans (1955) described genitalic differences in the presence and shape of side process of aedeagus in subspecies of *Decinea decinea* (Hewitson, 1876) (type locality Brazil) that are more indicative of species-level differences. Our genomic tree reveals the most prominent separation of the nominotypical *D. decinea* from other taxa (Fig. 11), as reflected in the largest genitalic difference: long slender aedeagus process, instead of short process or no process. In COI barcodes, it translates to 5.5% (36 bp) between *D. decinea* and *Tirynthia huasteca* H. Freeman, 1969 (type locality Mexico: San Luis Potosi). Other taxa also reveal significant differences, for example, while *Proteides antus*

Mabille, 1895 (type locality Brazil: Santa Catarina), which is sympatric with *D. decinea* in Southeast Brazil and lacks the aedeagus process as *T. huasteca*, differs from the latter by 3.2% (21 bp) and the former by 5.6% (37 bp). *Decinea decinea denta* Evans, 1955 (type locality Peru: La Merced) and *Decinea denta pruda* Evans, 1955 (type locality Paraguay: Sapucay) possess a short process and are more similar to each other. For these reasons, we propose that *Decinea decinea* (Hewitson, 1876) is a monotypic species without subspecies, *Decinea huasteca* (H. Freeman, 1969), **revised status** (already used as a species in several more recent publications since Miller (1992), but not in others (Mielke 2005)), *Decinea denta* Evans, 1955, **new status**, and *Decinea antus* (Mabille, 1895), **reinstated status** are species-level taxa, but *Decinea denta pruda* Evans, 1955, **new combination**, is a subspecies, pending further studies. The names *denta* and *pruda* were published in the same work issued on the same date (Evans 1955), and here we gave priority to the name *denta* because of larger known distribution of this taxon that is also more common in collections.

Decinea colombiana Grishin, new species

http://zoobank.org/D8193C3F-5827-46A6-9809-70EA8978ACFC

Definition. Evans (1955) misidentified *Pamphila derisor* Mabille, 1891 (type locality Venezuela), as detailed above. Hence the taxon Evans identified as *Decinea decinea derisor* is left without a name. Evans (1955) provided its description in a form of identification key, which is adopted here: this new species keys to L.11.2.(a) in Evans (1955). Differs from its relatives by the lack of side process on aedeagus, two separate pale spots in forewing cell, in males, lower spot smaller and typically opaque, usually an opaque small spot in dorsal forewing cell CuA_2-1A+2A, and ventrally ferruginous background with some ochreous overscaling, but not as extensive as in *Decinea huasteca* (H. Freeman, 1969) (type locality Mexico: San Luis Potosi), and less prominent dorsal ochreous overscaling than in the latter species. The **holotype**, male is from Colombia: Bogota, illustrated in Fig. 12a,b and deposited in the Natural History Museum, London, UK (BMNH), its genitalia are prepared on a mini-slide 936 pinned under the specimen. In addition to this genitalia slide, the holotype bears the following three rectangular printed labels: || Bogota, | Colombia. | Druce Coll. || Druce Coll. | ex | Kaden Coll. || Godman-Salvin | Coll. 1913.—2. ||. Scales are removed from the left forewing of the holotype. Other specimens from the "derisor" series in BNMH curated by Evans may include additional species to be studied and no paratypes are chosen. The holotype identification label will be mailed to curators of the collection to be placed on the holotype.

Etymology. Currently, there are no valid Hesperiinae taxa named for the country of Colombia, which is one of the centers of Hesperiidae diversity. This omission is corrected here. The name is a feminine adjective.

Pamphila puxillius Mabille, 1891 is a junior objective synonym of *Limochores pupillus* (Plötz, 1882)

The original descriptions of *Pamphila puxillius* Mabille, 1891 (type locality Mexico) and *Hesperia pupillus* Plötz, 1882 (type locality not given) mention Herrich-Schäffer after each name: "H. S. collect." for *P. puxillius* and "HS. i. l." for *H. pupillus*, and are very similar to each other, mentioning the same spotting, including one or two (but not three) forewing apical spots (Plötz 1882b; Mabille 1891). Moreover, the names themselves are similar. The description of *P. puxillius* is based on a single male from Mexico in Staudinger collection, now in the ZMHB. A thorough search of the ZMHB Hesperiidae holdings revealed the presence of a single male, with the following eight rectangular labels: red, printed || Typus ||; white, handwritten || Mex ||, where "M" is in ink, but "ex" is in pencil, probably added at a later date, possibly after of Plötz's description of *H. pupillus*; white, printed || Coll. H.–Sch. ||; white, printed || Coll. | Staudinger ||; white, handwritten, old, typical of Herrich-Schäffer specimens || pupillus | Hs. ||; white, handwritten, typical of Staudinger specimens || Pupillus | HS. (i. l.?) ||; and two white printed || [barcode image] http://coll.mfn-berlin.de/u/ | 44a0af || DNA sample ID: | NVG-18052A04 | c/o Nick V. Grishin ||. This specimen matched the original description, is a Herrich-Schäffer specimen in the Staudinger collection, and is the holotype of *P. puxillius*, because no other specimens of this species were found neither among Herrich-Schäffer specimens, nor the entire Hesperiidae holdings in the ZMHB. Moreover, this specimen is also a syntype of *H. pupillus* Plötz, 1882, because it agrees with the original description, is from Herrich-Schäffer collection, carries a label "pupillus HS. (i. l.?)" with a similar attribution as in the original description: "*pupillus* HS. (i. l.)", and is a close match to the Godman's copy of unpublished drawing numbered 532 of *H. pupillus* (in BMNH, inspected and photographed by N.V.G.). Even the detail that a forewing above has two apical spots, but below only one is clearly visible, is depicted in this drawing. We were not able to locate other syntypes (maybe no others existed), and N.V.G. hereby designates this specimen NVG-18052A04 as the **lectotype** of *Hesperia pupillus* Plötz, 1882 to stabilize the usage of this name as it was intended by Plötz. This action makes *Pamphila puxillius* Mabille, 1891 a junior objective synonym of *Limochores pupillus* (Plötz, 1882).

Limochores catahorma (Dyar, 1916) is a valid species

Evans (1955) synonymized *Amblyscirtes catahorma* Dyar,1916 (type locality Mexico: Guerrero) with *Hesperia pupillus* Plötz, 1882 (type locality not given). However, the lectotype of *Limochores pupillus* designated above (NVG-18052A04) is in a clade distinct from the clade with the holotype of *A. catahorma* (Fig. 11). Their COI barcodes differ by 4% (26 bp). Moreover, *L. pupillus* is a senior objective synonym of *Pamphila puxillius* Mabille, 1891 (type locality Mexico), because the lectotype of the former is the holotype of the latter. Therefore, *Limochores catahorma* (Dyar, 1916) is a **valid species**, not a synonym of *L. pupillus* or *P. puxillius*. In other words, Evans misidentified *L. pupillus* considering it a species distinct from *P. puxillius*, and the name for the species that Evans called "*Poanopsis pupillus*" is *A. catahorma*. Notably, Draudt (1923a), applied the three names correctly, in agreement with our analysis, i.e., *L. pupillus* as a synonym of *P. puxillius* (although with a questionmark), with *A. catahorma* being a separate species. We recently argued for placing these species in the genus *Limochores* Scudder, 1872 (type species *Hesperia manataaqua* Scudder, 1864, which is a junior subjective synonym of *Hesperia origenes* Fabricius, 1793) (Zhang et al. 2019d; Zhang et al. 2021).

Pamphila binaria Mabille, 1891 is a junior subjective synonym of *Conga chydaea* (A. Butler, 1877)

A syntype in the ZMHB of *Pamphila binaria* Mabille, 1891 (type locality Venezuela, NVG-15036F12) currently treated as junior subjective synonym of *Cynea cynea* (Hewitson, 1876) (type locality Venezuela), is not monophyletic with it or with its subtribe Moncina A. Warren, 2008, and instead is placed with specimens of *Conga chydaea* (Butler, 1877) (type locality Brazil: Amazonas) in a subtribe Hesperiina Latreille, 1809 (Fig. 11). Phenotypic assessment confirms this placement. Therefore, we propose that *Pamphila binaria* Mabille, 1891 is a junior subjective synonym of *Conga chydaea* (A. Butler, 1877).

Paratrytone samenta (Dyar, 1914), new combination

Since its description kept in the genus *Ochlodes* Scudder, 1872 (type species *Hesperia nemorum* Boisduval, 1852, currently a subspecies of *Hesperia agricola* Boisduval, 1852), *O. samenta* Dyar, 1914 (type locality Mexico: Guerrero and Jalisco) is not monophyletic with it and instead is sister to *Paratrytone* Godman, 1900 (type species *Paratrytone rhexenor* Godman, 1900) (Fig. 11). Therefore, we place it in this genus to form *Paratrytone samenta* (Dyar, 1914), **new combination**.

Tixe Grishin, new subgenus

http://zoobank.org/6A1F5AB0-013D-460A-9E0C-2A740784317F

Type species. *Cobalus quadrata* Herrich-Schäffer, 1869.

Definition. Our genomic tree reveals that a number of species currently placed in *Tisias* Godman, 1901 (type species *Proteides myna* Mabille, 1889) are not monophyletic with it and instead form a clade sister to *Xeniades* Godman, 1900 (type species *Papilio orchamus* Cramer, 1777), which also includes *Cravera* de Jong, 1983 (type species *Cravera rara* de Jong, 1983) as a subgenus (Fig. 11). This non-*Tisias* clade is not prominent enough to be a genus of its own, but together with *Xeniades* sensu stricto and *Cravera*, they form a prominent clade that we define as the genus *Xeniades*, with the non-*Tisias* clade as its new subgenus. It keys to K.20.1 or K.20.2 in Evans (1955). Distinguished from its relatives by the following combination of characters: forewing discal cell spots staggered in males, upper spot is not connected to the lower spot (connected or nearly so in *Tisias*); forewing with brands; body robust, palpi quadrantic, third segment short and stout, antennae half of costa in length, apiculus long, half of the club, mid-tibiae with spines; gnathos arms broadly separated and visible in dorsal view protruding on the sides of uncus. In DNA, a combination of the following base pairs is diagnostic: aly1146.55.6:C75T, aly1139.48.3:G142A, aly1432.13.2:A93G, aly144.18.1:A185G, and aly536.195.3:A187C.

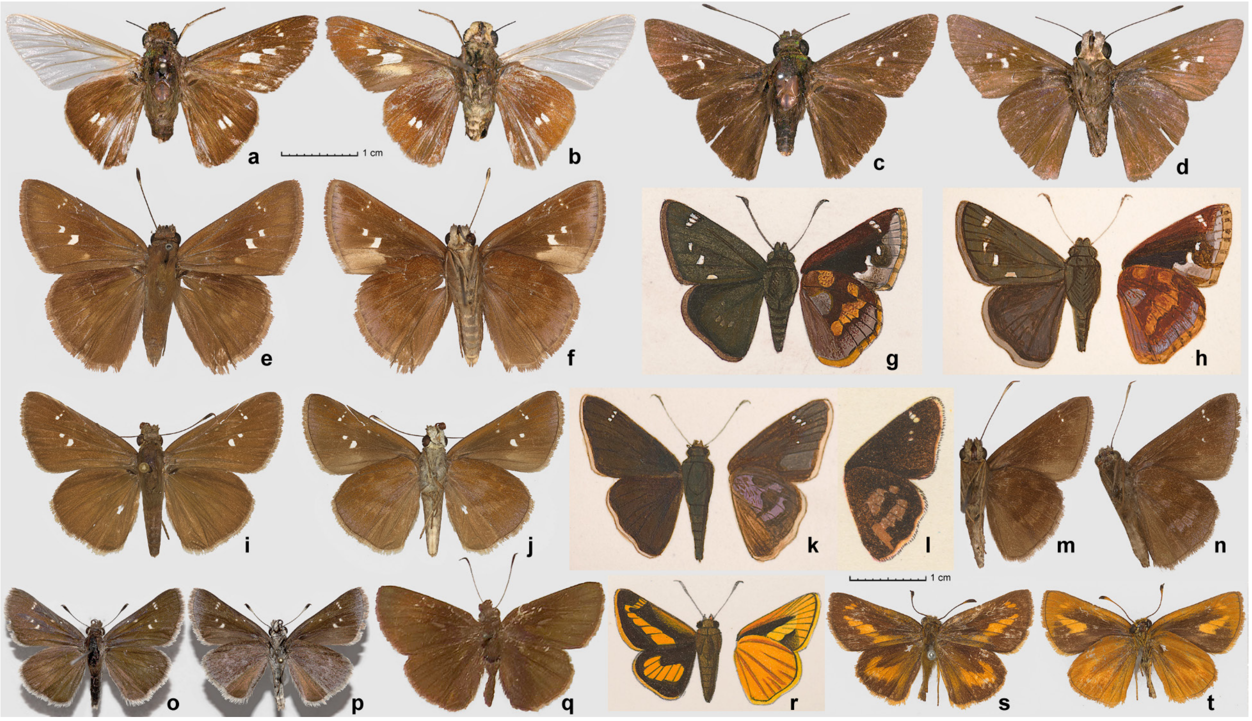

Figure 12. Specimens of Hesperiinae. **a)** *Decinea colombiana* Grishin, sp. n. holotype dorsal; **b)** ibid. ventral; **c)** *Cynea rope* Grishin, sp. n. holotype dorsal; **d)** ibid. ventral; **e)** *Hesperia dido* Plötz, 1882 neotype dorsal; **f)** ibid. ventral; **g)** Godman's copy of an unpublished Plötz's illustration of *H. dido*, left/right dorsal/ventral, no. 577; **h)** ibid. no. 577a; **i)** *Lerema lucius* Grishin, sp. n. holotype dorsal; **j)** ibid. ventral; **k)** Godman's copy of an unpublished Plötz's illustration of *Hesperia lochius* Plötz, 1882, left/right dorsal/ventral, no. 576; **l)** *H. lochius* illustration (left-right inverted for comparison) from the plate 187c[5] in Draudt (1921-1924), ventral; **m)** *Cymaenes laureolus* (Schaus, 1913) ventral, Panama: Cocoli, 4-Oct-1962, leg. G. B. Small, NVG-7250 [USNM]; **n)** ibid. Mexico: Veracruz, Coatepec, Jun-1917, NVG-15111G01 [AMNH]; **o)** *Lerodea sonex* Grishin, sp. n. holotype dorsal; **p)** ibid. ventral; **q)** *Metiscus goth* Grishin, sp. n. holotype dorsal; **r)** Godman's copy of an unpublished Plötz's illustration of *Apaustus vicinus* Plötz, 1884, left/right dorsal/ventral, no. 764; **s)** specimen of *Corticea* from the Staudinger and Bang-Haas collection bearing an old identification label "*Padraona vicinus*", NVG-18096C08, dorsal; **t)** ibid. ventral. Specimen images are to scale and missing data are in the text. Photographs a–d (by Bernard Hermier) and g, h, k, r (by N.V.G.) are © of the Trustees of the Natural History Museum London and are made available under Creative Commons License 4.0 (https://creativecommons.org/licenses/by/4.0/), and photographs o, p are © of Jim Brock, used with permission.

Etymology. The name is a feminine noun in the nominative singular, a fusion of previous and presently suggested genus names for these species: *Ti*[sias] + *xe*[niades].

Species included. The type species, *Tisias rinda* Evans, 1955 and *Tisias putumayo* Constantino and Salazar, 2013.

Parent taxon. Genus *Xeniades* Godman, 1900.

Xeniades pteras Godman, 1900, reinstated status

Proposed as a species, *Xeniades pteras* Godman, 1900 (type locality Panama, Colombia and Venezuela) was treated as a subspecies of *Xeniades chalestra* (Hewitson, 1866) (type locality Brazil: Minas Gerais) by Evans (1955), who gave diagnostic phenotypic characters for *X. pteras*, such as more extensive iridescent green-blue scaling on body above and no hindwing cell spot. In the genomic tree, *Xeniades chalestra corna* Evans, 1955 (Fig. 11) clusters closely with *Xeniades chalestra*, but *X. pteras* does not, revealing profound genetic differentiation and possibly not monophyletic with *chalestra*. COI barcode difference between *X. pteras* and *X. chalestra* is 3.2% (21 bp, specimens NVG-18119B02 and NVG-15035B01). Therefore we reinstate it as the species level taxon: *Xeniades pteras* Godman, 1900, **reinstated status**.

Xeniades difficilis Draudt, 1923, reinstated status

Proposed as a species, *Xeniades difficilis* Draudt, 1923 (type locality Bolivia: Coroico) was considered a subspecies of *Xeniades orchamus* (Cramer, 1777) (type locality Suriname) by Evans (1955). Genomic sequencing and comparison of *X. difficilis* holotype (NVG-18093D12) with *X. orchamus* specimens reveals profound genetic differentiation (Fig. 11), for example, their COI barcodes differ by 4.9% (32 bp). Therefore, we **reinstate** *Xeniades difficilis* Draudt, 1923 as a species-level taxon.

Xeniades hermoda (Hewitson, 1870), reinstated status, new combination

Initially proposed as a species, *Hesperia hermoda* Hewitson, 1870 (type locality Ecuador) has been placed as a subspecies of *Tisias quadrata* (Herrich-Schäffer, 1869) (type locality not given) by Evans (1955). COI barcode difference between the syntype of *quadrata* NVG-15036C04 in the ZMHB and a *hermoda* specimen NVG-18112A05 from Colombia is 2.4% (16 bp). Our genomic tree places both taxa in *Xeniades* Godman, 1900 (type species *Papilio orchamus* Cramer, 1777) instead of *Tisias* Godman, 1901 (type species *Proteides myna* Mabille, 1889) (Fig. 11), Furthermore, nuclear genome differences between *hermoda* and *quadrata* at the level typical of closely related species and the presence of white apical spots, absent in *quadrata*, prompt us to propose *Xeniades hermoda* (Hewitson, 1870), **reinstated status, new combination**.

Cravera de Jong, 1983 is a subgenus of *Xeniades* Godman, 1900

Cravera de Jong, 1983 (type species *Cravera rara* de Jong, 1983) and *Xeniades* Godman, 1900 (type species *Papilio orchamus* Cramer, 1777) are closely related sisters in the genomic tree (Fig. 11). COI barcodes of *Cravera laureatus* (Draudt, 1923) holotype (NVG-18093D09) and *Xeniades orchamus* (Cramer, 1777) from Panama (NVG-18119B04) are only 5.9% (39 bp) different, small divergence not unusual even for cryptic species. Phenotypically, these taxa are also similar in their robust bodies, nearly triangular wing shapes, and patters of spots and stripes. Due to these similarities, we place *Cravera* de Jong, 1983 as a subgenus of *Xeniades* Godman, 1900.

Jongiana O. Mielke and Casagrande, 2002 is a junior subjective synonym of *Cobaloides* Hayward, 1939

The two currently monotypic genera *Jongiana* O. Mielke and Casagrande, 2002 (type and the only species *Surina unica* de Jong, 1983) and *Cobaloides* Hayward, 1939 (type and the only species *Cobaloides argus* Hayward, 1939) are sisters (Fig. 11). Genetic differentiation between them is not larger than in most Hesperiidae genera. Their COI barcodes differ by 6.8% (45 bp). Their genitalia are similar in the outline of uncus and gnathos and have similarly oval-shaped valva ending in a rounded harpe with a rounded small process near ampulla directed caudad. Apparently, *Jongiana* is unique in its wing patterns, probably a result of accelerated phenotypic changes, but otherwise is closely related to *Cobaloides*. For these reasons, we suggest that *Cobaloides* would include *Jongiana*, **new synonym**.

Cobaloides Hayward, 1939 is a subgenus of *Oligoria* Scudder, 1872

Next, we find that *Cobaloides* (now including *Jongiana*) clusters closely with *Oligoria* Scudder, 1872 (type species *Hesperia maculata* Edwards, 1865) (Fig. 11), and genetic differentiation between them is more in line of subgenera than genera. For instance, COI barcode difference between their type species is 5.5% (36 bp), even less than the difference between *Cobaloides* and *Jongiana*. Male genitalia are similar in shape (see previous section) and show more variability within *Oligoria* species than between *Oligoria* and *Cobaloides*. Thus, we place *Cobaloides* in *Oligoria* as a subgenus, **new status**.

Oligoria (Cobaloides) locutia (Hewitson, 1876), new combination

Currently in *Quinta* Evans, 1955 (type species *Cobalus cannae* Herrich-Schäffer, 1869) from subtribe Moncina A Warren, 2008, *Hesperia locutia* Hewitson, 1876 (type locality Brazil) is not monophyletic with it and instead is sister to *Oligoria (Cobaloides) argus* (Hayward, 1939) (type locality Paraguay) from subtribe Hesperiina Latreille, 1809 (Fig. 11). Therefore we propose *Oligoria (Cobaloides) locutia* (Hewitson, 1876), **new combination**.

Gracilata Grishin, new genus

http://zoobank.org/47FC2A31-8815-4D52-BC21-DE35A408F432

Type species. *Enosis quadrinotata* Mabille, 1889.

Definition. Previously placed in *Styriodes* Schaus, 1913 (type species *Styriodes lyco* Schaus, 1913) but is not monophyletic with it, instead being sister to *Psoralis* Mabille, 1904 (type species *Psoralis sabaeus* Mabille, 1904, which is a junior subjective synonym of *Pamphila idee* Weeks, 1901) (Fig. 13). Keys to K.2.1 in Evans (1955). Distinguished from its relatives by the following combination of characters: antennae long, in males longer than 2/3 of the costal margin of forewing; brands short and stout: triangular at the base of cell CuA_1-CuA_2 and a dash below vein CuA_2; forewing longer and narrower than in relatives with produced apex, hindwing disproportionally smaller than forewing compared to relatives, more angular and in males convex in cell CuA_2-1A+2A; tegumen with a dorsal appendage, uncus undivided; aedeagus simple, without processes; harpe short, upturned, with a finger-like process directed dorsal by ampulla, ampulla expanded into a lobe. In DNA, a combination of the following base pairs is diagnostic: aly736.5.2:A444G, aly318.42.2:A1054C, aly3071.1.1:A328G, aly1350.9.1:G193C, and aly481.12.1:T87C.

Etymology. The name is a feminine noun in the nominative singular, for the slender built of these skippers, very long antennae and legs, and narrower wings than in their relatives: *Gracil*[e] + [quadrinot]*ata*.

Species included. Only the type species.

Parent taxon. Subtribe Moncina A. Warren, 2008.

Pamba Evans, 1955 is a junior subjective synonym of *Psoralis* Mabille, 1904

Our genomic tree reveals that the type species of *Psoralis* Mabille, 1904 (type species *Psoralis sabaeus* Mabille, 1904, which is a junior subjective synonym of *Pamphila idee* Weeks, 1901) and *Pamba* Evans, 1955 (type species *Pamba pamba* Evans, 1955) are sisters, rendering *Psoralis* paraphyletic if it includes *Psoralis stacara* (Schaus, 1902) (type locality Brazil: Rio de Janeiro), a phenotypically obvious congener (Fig. 13). Moreover, their genitalia and even patterns on ventral hindwing are similar. Therefore, we propose that *Pamba* Evans, 1955 is a junior subjective synonym of *Psoralis* Mabille, 1904.

Psoralis sabina (Plötz, 1882), *Psoralis laska* (Evans, 1955), *Psoralis arva* (Evans, 1955), *Psoralis umbrata* (Erschoff, 1876), *Psoralis calcarea* (Schaus, 1902), and *Psoralis visendus* (E. Bell, 1942), new combinations

In our genomic tree, the following species form a clade sister to *Psoralis* Mabille, 1904 (type species *Psoralis sabaeus* Mabille, 1904, which is a junior subjective synonym of *Pamphila idee* Weeks, 1901) (Fig. 13): *Hesperia sabina* Plötz, 1882 (type locality Brazil: Rio de Janeiro) the type species of *Saniba* Mielke and Casagrande, 2003, *Vidius laska* Evans, 1955 (type locality Brazil: Mato Grosso) currently in *Vidius* Evans, 1955 (type species *Narga vidius* Mabille, 1891), *Vettius arva* Evans, 1955 (type locality Brazil: Rio de Janeiro) currently in *Vettius* Godman, 1901 (type species *Papilio phyllus* Cramer, 1777), *Hesperia (Pamphila) umbrata* Erschoff, 1876 (type locality not given, likely South Brazil) currently in *Vettius*, *Padraona calcarea* Schaus, 1902 (type locality Brazil: Rio de Janeiro) currently in *Molo* Godman, 1900 (type species *Hesperia heraea* Hewitson, 1868, treated as junior subjective synonym of *Hesperia mango* Guenée, 1865) and *Anthoptus visendus* E. Bell, 1942 (type locality Ecuador) currently in *Molo*. All these species together with *Psoralis* form a confident and compact clade (=share prominent genetic similarities), and not willing to place a number of them in monotypic new genera, we propose to consider them all congeneric, despite phenotypic differences in wing shapes and patterns: *Psoralis sabina* (Plötz, 1882), **new combination**, *Psoralis laska* (Evans, 1955), **new combination**, *Psoralis arva* (Evans, 1955), **new combination**, *Psoralis umbrata* (Erschoff, 1876), **new combination**, *Psoralis calcarea* (Schaus, 1902), **new combination**, and *Psoralis visendus* (E. Bell, 1942), **new combination**.

Saniba O. Mielke and Casagrande, 2003 is a subgenus of *Psoralis* Mabille, 1904

Despite close genetic relationship with *Psoralis* Mabille, 1904 (type species *Psoralis sabaeus* Mabille, 1904, which is a junior subjective synonym of *Pamphila idee* Weeks, 1901), *Saniba* O. Mielke and Casagrande, 2003 (type species *Hesperia sabina* Plötz, 1882) exhibits a number of phenotypic differences and COI barcode difference between their type species is 9.1% (60 bp). Therefore, we propose to treat *Saniba* O. Mielke and Casagrande, 2003 as a subgenus of *Psoralis* Mabille, 1904, **new status**. In addition to the type species, we place the following species in *Saniba*: *Vidius laska* Evans, 1955 (type locality Brazil: Mato Grosso), *Vettius arva* Evans, 1955 (type locality Brazil: Rio de Janeiro), *Hesperia (Pamphila) umbrata* Erschoff, 1876 (type locality not given, likely South Brazil), *Padraona calcarea* Schaus, 1902 (type locality Brazil: Rio de Janeiro), and *Anthoptus visendus* E. Bell, 1942 (type locality Ecuador) (Fig. 13).

Hermio Grishin, new genus

http://zoobank.org/A8DADA97-8F87-4109-B0D0-CB1AA243C7DD

Type species. *Falga* ? *hermione* Schaus, 1913.

Definition. Previously placed in *Lento* Evans, 1955 (type species *Pamphila lento* Mabille, 1878), but not monophyletic with it, clustering with *Psoralis* Mabille, 1904 (type species *Psoralis sabaeus* Mabille, 1904, which is a junior subjective synonym of *Pamphila idee* Weeks, 1901) instead (Fig. 13), but distantly: COI barcodes of their type species differ by 10.9% (72 bp). Keys to I.3.1 in Evans (1955). Distinguished from its relatives by the following combination of characters: antennae longer than half of forewing costal margin; third segment of palpi long, needle-like; hindwing discal cell shorter than half of wing, forewing apex and hindwing tornus rounded; uncus broad, arms knob-like, valvae narrow, asymmetrical, left harpe extended, apically narrowing, right harpe rounded, upturned, forming a cleft between it and ampulla. In DNA, a combination of the following base pairs is diagnostic: aly127.55.6:G65T, aly127.55.6:T69A, aly127.55.6:A113T, aly144.18.1:A190G, and aly4683.4.2:A2881C.

Etymology. The name is a feminine noun in the nominative singular, for the slender build of these skippers, very long antennae and legs, and narrower wings than in their relatives.

Species included. The type species and *Lento hermione vina* Evans, 1955.

Parent taxon. Subtribe Moncina A. Warren, 2008.

Hermio vina (Evans, 1955), new status, new combination

Named by Evans (1955) as a subspecies of *Lento hermione* (Schaus, 1913) (type locality Costa Rica), *L. h. vina* (type locality Peru) differs from *Hermio hermione* by the lack of stigma and the shape of left harpe, not terminally upturned and without basal projection. Due to these differences being consistent with species-level distinction, we propose *Hermio vina* Evans, 1955, **new status**, **new combination**.

Alternative taxonomy of *Psoralis* Mabille, 1904 relatives

Due to confident clustering in the genomic tree (Fig. 13), in addition to subgenus *Saniba* O. Mielke and Casagrande, 2003, it may be reasonable to treat *Hermio* Grishin, **new genus** and *Gracilata* Grishin, **new genus** as subgenera of *Psoralis* Mabille, 1904. While they indeed share some similarity in having long antennae and either undivided or weakly divided uncus, their phenotypic diversity may be too large for a single genus. Therefore we currently do not adopt this view.

Alychna gota (Evans, 1955), new combination

Psoralis gota Evans, 1955 (type locality Venezuela) is not monophyletic with *Psoralis* Mabille, 1904 (type species *Psoralis sabaeus* Mabille, 1904, which is a junior subjective synonym of *Pamphila idee* Weeks, 1901), but instead originates within *Alychna* Grishin, 2019 (type species *Pamphila exclamationis* Mabille, 1898) (Fig. 13) and therefore we propose *Alychna gota* (Evans, 1955), **new combination**.

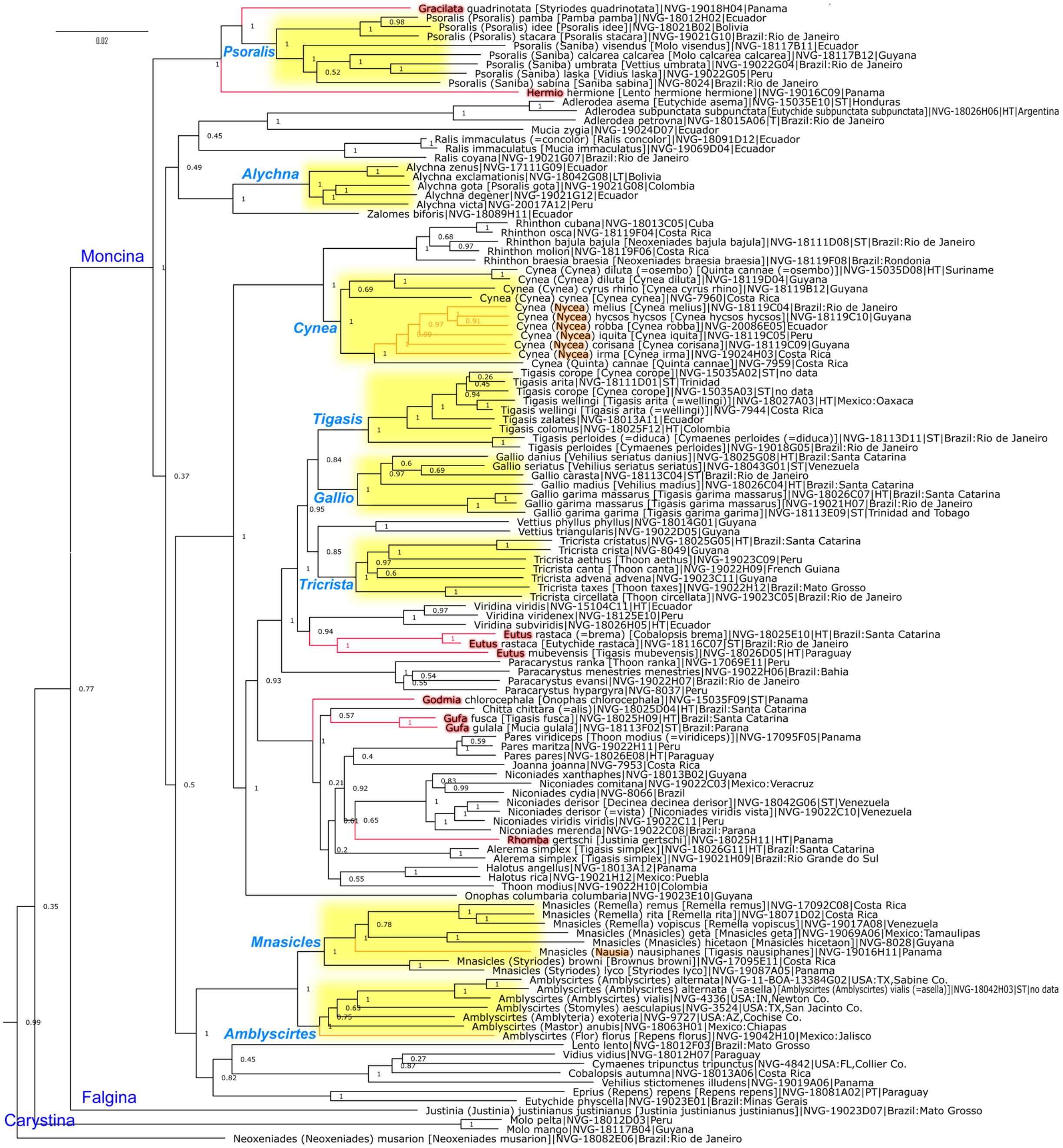

Figure 13. Genomic tree of Moncina, part 1, and relatives. See Fig. 1 legend for notations.

Adlerodea asema (Mabille, 1891) and *Adlerodea subpunctata* (Hayward, 1940), new combinations

Currently placed in *Eutychide* Godman, 1900 (type species *Hesperia physcella* Hewitson, 1866), *Pamphila asema* Mabille, 1891 (type locality Honduras) and *Eutychide subpunctata* Hayward, 1940 (type locality Argentina) sequenced from their primary type specimens, are not monophyletic with it and instead cluster closely with *Adlerodea* Hayward, 1940 (type species *Adlerodea modesta* Hayward, 1940) (Fig. 13). Genitalia are similar between these species, as well as the brands on forewing. Therefore, we propose *Adlerodea asema* (Mabille, 1891), **new combination**, and *Adlerodea subpunctata* (Hayward, 1940), **new combination**.

Psoralis concolor Nicolay, 1980 is a junior subjective synonym of *Ralis immaculatus* (Hayward, 1940), new combination

Inspection of photographs of the holotype of *Oeonus immaculatus* Hayward, 1940 (type locality Ecuador: Morona Santiago, Sucúa) currently in *Mucia* Godman, 1900 (type species *Mucia thyia* Godman, 1900, a junior subjective synonym of *Hesperia zygia* Plötz, 1886), and the original illustration of its genitalia (Hayward 1940) reveal strong similarities with *Psoralis concolor* Nicolay, 1980 (type locality Ecuador: Napo, Cotundo) named 40 years later and currently in *Ralis* Grishin, 2019 (type species *Lerema coyana* Schaus, 1902). The similarities include general dark-brown coloration, wing shape, very prominent stigma, shape of harpe, uncus and aedeagus. Moreover, a specimen identified after genitalic dissection by Nicolay himself as *Mucia immaculatus* (NVG-19069D04) is conspecific with *Ralis concolor* according to genomic analysis (Fig. 13). Both taxa are from the eastern slopes of Andes in Ecuador. Therefore, we propose that *Psoralis concolor* Nicolay, 1980 is a junior subjective synonym of *Ralis immaculatus* (Hayward, 1940), **new combination**.

Rhinthon braesia (Hewitson, 1867) and *Rhinthon bajula* (Schaus, 1902), new combinations

Evans (1955) treated *Thracides molion* Godman, 1901, *Thracides bajula* Schaus, 1902, and *Hesperia braesia* Hewitson, 1867 in *Neoxeniades* Hayward, 1938 (type species *Neoxeniades musarion* Hayward, 1938). Burns et al. (2010) transferred *molion* to *Rhinthon* Godman, 1900 (type species *Proteides chiriquensis* Mabille, 1889, a junior subjective synonym of *Hesperia osca* Plötz, 1882), but left the other two of its close relatives (Fig. 13) in *Neoxeniades*. Here, we correct this problem and suggest *Rhinthon braesia* and *Rhinthon bajula* as **new combinations**.

Nycea Grishin, new subgenus

http://zoobank.org/7CF78EC7-BD8B-48DB-9AED-7A0720A5429A

Type species. *Pamphila hycsos* Mabille, 1891.

Definition. Forms a prominent clade in the tree sister to *Quinta* Evans, 1955 (type species *Cobalus cannae* Herrich-Schäffer, 1869) (Fig. 13) and therefore is a subgenus. Keys to L.7.3b or 5b in Evans (1955). Identified within *Cynea* Evans, 1955 (type species *Hesperia cynea* Hewitson, 1876) by a tuft of long scales in forewing cell CuA_2-1A+2A above, gnathos shorter than uncus, and various modifications (styles, processes, several teeth) at the distal end of aedeagus, harpe not deeply bilobed as in *Quinta* Evans, 1955 (type species *Cobalus cannae* Herrich-Schäffer, 1869). In DNA, a combination of the following base pairs is diagnostic: aly171.6.1:C2996G, aly256.31.3:A7G, aly1370.7.2:C2177A, aly890.59.1:A2627C, and aly2258.11.1:A217C.

Etymology. The name is a feminine noun in the nominative singular, formed from the genus name *Cynea* by swapping letters c and n.

Species included. The type species, *Hesperia corisana* Plötz, 1882, *Cynea rope* Grishin, **new species** (see below), *Cynea popla* Evans, 1955, *Rhinthon iquita* Bell, 1941, *Cynea robba* Evans, 1955, *Thracides melius* Geyer, 1832, and *Pamphila irma* Möschler, 1879.

Parent taxon. Genus *Cynea* Evans, 1955.

Quinta Evans, 1955 is a subgenus of *Cynea* Evans, 1955

Our genomic tree shows that *Cynea* Evans, 1955 (type species *Hesperia cynea* Hewitson, 1876) is paraphyletic with respect to *Quinta* Evans, 1955 (type species *Cobalus cannae* Herrich-Schäffer, 1869) (Fig. 13), and *Quinta* is closely related to a clade consisting of *Cynea* species. To restore the monophyly, we propose to treat *Quinta* as a subgenus of *Cynea*, **new status**.

Hesperia dido Plötz, 1882 is a junior subjective synonym of *Cynea (Quinta) cannae* (Herrich-Schäffer, 1869)

Original descriptions of *Hesperia lochius* Plötz, 1882 (type locality Venezuela: La Guaira) and *Hesperia dido* Plötz, 1882 (type locality Venezuela) were placed next to each other in the key (Plötz 1882b) and preceded by a redescription of *Cobalus cannae* Herrich-Schäffer, 1869 (type locality not specified in the original description and given as [Venezuela:] “Laguayra” by Plötz, the same as for *H. lochius*). The lectotype (NVG-15035D04) and paralectotypes of *Cynea (Quinta) cannae* are in the ZMHB, they are from Herrich-Schäffer collection and agree with the his original description. Therefore, the identity of this species is without a doubt. However, *C. cannae* might have been misidentified by Plötz, because he mentioned “a weak stigma” in male, but true *C. cannae* lacks stigma, and only has a small brand over the vein 1A+2A, covered by a tuft of long scales (Evans 1955).

The two other names (*H. lochius* and *H. dido*) have been considered synonymous since Evans (1955). Type specimens of these species have not been documented. To learn about these taxa, we only have their original descriptions augmented with the copies of unpublished Plötz’s drawings made by Godman’s request (Godman 1907) (Fig. 12g,h), now in the Library of the Natural History Museum London. The following combination of characters differentiates *H. dido* from similar species, including *H. lochius*, as translated from Plötz (1882b), with the relevant parts gathered throughout his key: “Dorsal side of wings black-brown. Forewing with mostly white, often very faint glass spots, which are sometimes missing except for the three dots in front of the apex. Forewing without a hyaline spot in the discal cell. Fringes not checkered. Forewing cells 4 (M_2-M_3) and 5 (M_1-M_2) without spots. Forewing cell 1 (CuA_2-1A+2A) with a whitish spot, cells 2 (CuA_1-CuA_2) and 3 (M_3-CuA_1) with transverse spots. Hindwing red-brown on ventral side, overscaled with violet-gray in the middle and in the submarginal area, with two rusty-yellow spots in the costal area and one such [rusty-yellow] postdiscal band.”

Godman’s copies of two Plötz’s illustrations of this species (Nos. 577 and 577a, inspected and photographed by N. V. G.), agree perfectly with this description, except that the fringes appear checkered on the ventral side. Both images are recognizable as minor variations of *C. cannae*, and can hardly be confused with any other species, thus differing from *H. lochius* illustration (No. 576) and description (for example, brown, not violet-overscaled, submarginal area on ventral hindwing). The fringes are mostly not checkered in *C. cannae*, however, in many specimens, there are patches of dark scales at the outer margin in the middle of cells on ventral side of wings, creating an impression of checkering. Moreover, in some specimens, fringes are darker at veins near the wing margin, thus agreeing with the illustrations. Despite this detail, agreement between the original description, copies of unpublished illustrations, and *C. cannae* specimens is nearly perfect.

A search for syntypes of *H. dido* in the Museum für Naturkunde, Berlin, Germany (ZMHB) and the Zoologische Staatssammlung München, Germany (ZSMC), where primary types of many taxa authored by Plötz are deposited failed to find them. Inspection of photographs of the drawers with Plötz types in the collection of the Universität Greifswald (EMAU) revealed no *H. dido* syntypes either. Therefore, we believe that the syntypes were lost, and we proceeded with the neotype designation. There is an exceptional need to stabilize nomenclature by a neotype of *H. dido*, because the identity of this taxon has been misunderstood, and it has been placed in synonymy with *Lerema accius* (J. E. Smith, 1797) (type locality USA: Georgia) or with *L. a. lochius*, both not in agreement with information available about *H. dido*. To ensure that this name is applied consistently with the original description and illustrations, a neotype is necessary. Therefore, N. V. G. designates a female of *C. cannae* from Venezuela illustrated in Fig. 12e,f as the **neotype** of *Hesperia dido* Plötz, 1882. The wing pattern of the neotype agrees with the description and the illustrations of *H. dido*, and the only discrepancy is the larger size of the neotype: forewing length is about 19 mm, not 16 mm as in the *H. dido* description. However, size is variable, for example, forewing of the specimen from Venezuela: Puerto Cabello in the ZMHB collection used as the basis for the unavailable name *Pamphila byzas* Godman, 1900 (Mabille *in litt.*), proposed in synonymy with *C. cannae*, is only 15.5 mm. Therefore, forewing length of *H. dido* falls within the range known for *C. cannae*.

This neotype of *H. dido* satisfies all requirements set forth by ICZN Article 75.3, namely: 75.3.1. It is designated to clarify the taxonomic identity of this taxon, which has been confused and inconsistent with its original description; 75.3.2. The characters for the taxon have been given in its original description by Plötz (1882a: 53) and are re-stated above; 75.3.3. The neotype specimen bears the following labels: || El Valle | Venez | 1443 | CHBallou | Sofia “ || on Canna ind- | ica Oct.21.’40 | Pupa.Oct.25 | Adult.Nov.10 || DNA sample ID: | NVG-15102B06 | c/o Nick V. Grishin ||, and can be recognized by a tear at the base of right hindwing; 75.3.4. Our unsuccessful search for the syntypes is described above, leading us to conclude that the specimens composing the type series of *H. dido* are lost; 75.3.5. As detailed above, the neotype is consistent with the original description and additional information (for example, copies of Plötz drawings) known about this taxon; 75.3.6. The neotype is from Venezuela: Caracas, El Valle, and the type locality given for *H. dido* in the original description is “Venezuela”; 75.3.7. The neotype is in the collection of the National Museum of Natural History, Smithsonian Institution, Washington, DC, USA (USNM). The neotype implies that *Hesperia dido* Plötz, 1882 is a junior subjective synonym of *Cynea (Quinta) cannae* (Herrich-Schäffer, 1869).

Cymaenes loxa Evans, 1955, new status

Proposed as a stronger-patterned subspecies of *Cymaenes laureolus* (Schaus, 1913) (type locality Costa Rica) by Evans (1955), *C. l. loxa* (type locality Brazil: Para) is genetically distinct to the extent that suggests its species status. For example, Fst/Gmin statistics for comparing specimens from Mexico and Guatemala to *loxa* from South America are 0.40/0.02. Therefore, we propose *Cymaenes loxa* Evans, 1955, **new combination**.

Cymaenes lochius Plötz, 1882, new combination

Placed by Evans (1955) as a subspecies of *Lerema accius* (J. E. Smith, 1797) (type locality USA: Georgia), *Hesperia lochius* Plötz, 1882 (type locality Venezuela: La Guaira), was more recently treated as a species level taxon, for example, by Llorente et al. (1990). The original description of *H. lochius*, with the relevant parts gathered throughout the identification key, follows translated from Plötz (1882b): "Dorsal side of wings black-brown. Forewing with mostly white, often very faint glass spots, which are sometimes missing except for the three dots in front of the apex. Forewing without a hyaline spot in the discal cell. Fringes not checkered. Forewing cells 4 (M_2-M_3) and 5 (M_1-M_2) without spots, also cell 1 (CuA_2-1A+2A) [without a spot]. Hindwing with a slightly wavy outer margin, violet-gray below, light brown on the anal margin to vein 2 (CuA_2), broad brown on the costal margin, in cell 7 (Sc+R_1-RS) with two violet-gray spots, after the middle two brown transverse bands from cell 6 (RS-M_1) to 2 (CuA_1-CuA_2). Forewing with three hyaline dots at the apex and beneath a very small white dot in cell 3 (M_3-CuA_1). ♂."

Similarly to *Hesperia dido* Plötz, 1882 (type locality Venezuela) (see above), we found Godman's copy of the unpublished Plötz's *H. lochius* drawing in the Library of the Natural History Museum London (Fig. 12k). This illustration, possibly used by Draudt (1921–1924) (plate 187c[4,5], without a violet tint of the original copy, and Fig. 12l here), agrees with the original description, and with all likelihood shows a male, as stated in the description, and as we also deduce from its narrower and more pointed wings. There is no obvious stigma on the forewing, typical for the species Evans identified as *Lerema accius lochius*. Moreover, no stigma is mentioned in the original description of *H. lochius*. Judging from Godman's copies, Plötz illustrated stigmas where they were well-defined (for example, in other *Lerema* Scudder, 1872 taxa), and mentioned them in his key. For instance, a stigma is mentioned for the species placed before *H. lochius* in the Plötz's key, called "Cannae HS". The description of Plötz's "Cannae" agrees better with the taxon Evans identified as *L. a. lochius*, than with *Cynea (Quinta) cannae* (Herrich-Schäffer, 1869), and could have been Plötz's misidentification. In any case, it seems likely that males of *H. lochius* lack stigma, while males of the taxon Evans identified as *L. a. lochius* possess a well-developed stigma.

Thus, our analysis reveals that the taxon Evans identified as *L. a. lochius*, is not the species that Plötz described. More, out of all currently known Neotropical species of Hesperiidae, *Cymaenes laureolus* (Schaus, 1913) agrees best with what we learned about *H. lochius* (Fig. 12m,n). It lacks a stigma in males, has a wavy hindwing margin, most specimens are quite dark, only spotted at forewing apex, additionally with a single dash in cell 3 (M_3-CuA_1) on ventral forewing. Ventral hindwing pattern of *C. laureolus* (could be poorly expressed in some specimens) while different from that of the taxon Evans identified as *L. a. lochius*, is a match to *H. lochius* Plötz. Namely, a prominent, nearly square spot in the middle of cell 7 (Sc+R_1-RS) is aligned with the dark discal band; this spot is distad of paler basal area (not a small spot aligned with basal violet-gray area, spot basad of the dark discal band as in Evans' *L. a. lochius*), separated from costa by a dark-brown area; another similar to it spot in the same cell closer to the wing base (frequently fading within darker background); a continuous and nearly straight violet-gray band between veins 7 (RS) and 2 (CuA_2) (not a curved band with the spot in cell 6 (RS-M_1) offset basad, and aligned with the brown discal band in Evans' *L. a. lochius*); hindwing is somewhat paler in the submarginal area and pale-brown from the inner margin to at least vein 1A+2A-3A and partly in the previous cell CuA_2-1A+2A.

In summary, the most noticeable difference between the two species in hindwing pattern is that in *H. lochius* Plötz, the pale spot aligned with the discal brown band is in cell 7 (Sc+R_1-RS), and this spot is rather large and square, with violet tint (as in species of *Cymaenes* Scudder, 1872), but in Evans' *L. a. lochius*, which was treated as a species-level taxon by Llorente et at. (1990), the pale spot aligned with the discal brown band is in cell 6 (RS-M_1) and this spot is smaller, rounder and yellower, more similar to that in *L. accius*.

While we are not able to accomplish this task in the present work, search for the type specimens of *H. lochius* will be conducted and, if unsuccessful, a neotype from Venezuela that agrees with the original description and matches closely the copy of Plötz's illustration (for example, at least lacks stigma in male) will be selected. This species from Venezuela is seemingly quite close to mostly Central American *C. laureolus* (Fig. 12m,n) and may even be conspecific with it. However, in case we are erroneous in our present assessment based only of the original description and the unpublished illustration, not willing to prematurely synonymize *C. laureolus* with it, we tentatively keep *H. lochius* as a valid species to form *Cymaenes lochius* Plötz, 1882, **new combination**, currently recorded only from Venezuela.

Lerema lucius Grishin, new species

http://zoobank.org/E895C840-A81D-4D0E-A212-3F17D8C6FC62

Definition. Evans (1955) misidentified *Hesperia lochius* Plötz, 1882 (type locality Venezuela: La Guaira), as detailed above. Hence, because it has no synonyms, the taxon Evans identified as *Lerema accius lochius* is left without a name, and is proposed as a new species, due to genetic differentiation and genitalic differences from *Lerema accius* (J. E. Smith, 1797) (type locality USA: Georgia). Evans provided its description in a form of identification key, which is adopted here: this new species keys to J.39.2b in Evans (1955). In brief, it is superficially similar to *L. accius* in having ventral hindwing variegated with paler and darker areas of olive-ochreous tones juxtaposed with reddish brown patches and violet-fray overscaling particularly by the outer margin, forewing without a hyaline spot in cell R_2-R_3, and typically with white dashes along costa near apex; but differs from *L. accius* in being on average larger, less variable in pattern, and diagnosed by the end of harpe being flatter and broader than in *L. accius*. The **holotype** is a female from Panama: Colón Province, Playa Piña, illustrated in Fig. 12i,j. It bears the following labels || PANAMA: CANAL ZONE | Pina | 9° 17′N 80° 03′W | I. 1973 | Leg. G.B.Small || DNA sample ID: | NVG-7737 | c/o Nick V. Grishin || genitalia | NVG170205-22 | Nick V. Grishin | USNMENT | [barcode image] | 01321577 || and deposited in the National Museum of Natural History, Smithsonian Institution, Washington, DC, USA (USNM). Its COI barcode sequence is:

AACTTTATATTTTATCTTCGGAATTTGAGCTGGAATATTAGGAACTTCTTTAAGTTTATTAATTCGAACAGAATTAG
GTAACCCAGGATCTTTAATTGGAGATGATCAAATTTATAATACTATTGTTACAGCTCATGCCTTTATTATA
ATTTTCTTTATAGTTATACCTATTATAATTGGAGGATTTGGTAATTGATTAGTACCTTTAATATTAGGTGCCCCT
GATATAGCTTTCCCACGAATAAATAATATAAGATTTTGAATATTACCCCCATCATTAATATTATTAATTTCAAG
TAGAATTGTAGAAAATGGGGCAGGAACAGGATGAACAGTTTACCCTCCATTATCCTCAAATATTGCCCATCAAGGAG
CATCTGTTGATTTAGCAATTTTTTCTCTTCATCTAGCTGGAATTTCCTCTATTTTAGGAGCTATTAATTTTATTACTAC
TATTATTAATATACGAATTAGAAATTTATCTTTTGATCAAATACCTTTATTCGTTTGATCTGTAGGAATTACTGCACTAT
TATTACTTTTATCTTTACCTGTATTAGCAGGAGCTATTACTATACTTTTAACTGATCGAAATCTTAATACTTCTTTTTTT
GATCCTGCAGGAGGAGGAGATCCTATTCTATATCAACATTTATTT

Despite wing pattern similarities, it is 7.3% (48 bp) different from *L. accius*, the difference comparable to that for species placed in different subgenera. Paratypes are: ♂ from Mexico: Sinaloa, San Ignacio, leg. Doug Mullins, 27-Jul-1981, NVG-17111G08 [LACM] and ♀ from Colombia: Valle, Hormiguero, 1000m, 3° 17′N 76° 29′W, 19-Jan-1992, leg. J. Bolling Sullivan, NVG-7736 [USNM]. Type identification labels will be mailed to curators of the collections to be placed on these specimens. Only specimens we sequenced were included in the type series, but the species appears to be widely distributed from Mexico to Venezuela.

Etymology. The name for this species that is phenotypically closest to *Lerema accius* is taken from a Roman poet Lucius Accius. The name is a noun in apposition.

Proteides osembo Möschler, 1883 is a junior subjective synonym of *Cynea (Cynea) diluta* (Herrich-Schäffer, 1869)

Placed into synonymy with *Cynea (Quinta) cannae* (Herrich-Schäffer, 1869) (type locality not specified) by Godman in the Biologia Centrali-Americana book (Godman and Salvin 1900a), *Proteides osembo* Möschler, 1883 (type locality Suriname) stayed there since. Sequencing of the *P. osembo* holotype (NVG-15035D08, in the ZMHB) reveals that it clusters closely with *Cynea (Cynea) diluta* (Herrich-Schäffer, 1869) (type locality not specified), in a sense the latter taxon is currently understood (Fig. 13). This specimen is indeed the holotype, because it agrees with the original description and bears labels characteristic of Möschler specimen. However, it remains a mystery why Godman was "unable to detect any difference between" this holotype and the type series of *Cobalus cannae*, the latter being identified correctly (Godman and Salvin 1900a). Phenotypic inspection of the holotype confirms our genetic assessment, and we propose that *Proteides osembo* Möschler, 1883 is a junior subjective synonym of *Cynea (Cynea) diluta* (Herrich-Schäffer, 1869).

Eutus Grishin, new genus

http://zoobank.org/295E2282-74CC-47A1-8345-DFB108747EA4

Type species. *Cobalus rastaca* Schaus, 1902.

Definition. A diverse clade without obvious affinities, a weakly supported sister of the clade consisting of *Moeris* Godman, 1900 (type species *Talides striga* Geyer, 1832) with *Viridina* Grishin, 2019 (type species *Lerema (?) viridis* Bell, 1942) (Fig. 13) and therefore a genus of its own. Keys to J.50.8, or J.48.8, or L.11.9 in Evans (1955). Distinguished from its relatives by the following combination of characters: harpe narrower than valva, typically upturned as a broad hook, ampulla expanded and bulging out, uncus broad and short, arms far apart, nearly at a distance equal to their length, tegumen short, about the same as uncus in length, saccus shorter than half of vinculum, aedeagus about the same length as valva; triangular brand at the base of forewing cell CuA_1-CuA_2 in some species; frequently with a hyaline narrow spot between forewing veins CuA_2 and CuA_1 near the base of this cell just distad from triangular brand; forewing discal cell may be with a doublet of dash-like spots; hindwing below typically with pale spot in discal cell and postdiscal semi-circle of spots in several cells near the middle of the wing, these spots may be framed with black. Due to phenotypic diversity, best diagnosed by DNA characters and a combination of the following base pairs is diagnostic: aly2582.9.2:C40A, aly957.1.1:T3340C, aly7480.1.19:T466A, aly7480.1.19:C467G, and aly7480.1.19:G468C.

Etymology. The name is a masculine noun in the nominative singular, formed from the first syllable of *Eutychide*, the genus where the type species was formerly placed.

Species included. The type species, *Thoon yesta* Evans, 1955, and *Cobalus mubevensis* Bell, 1932.

Parent taxon. Subtribe Moncina A. Warren, 2008.

Cobalopsis brema E. Bell, 1959 is a junior subjective synonym of *Eutus rastaca* (Schaus, 1902)

Known from a single male holotype, *Cobalopsis brema* E. Bell, 1959 and from a number of females, *Eutus rastaca* (Schaus, 1902) are sisters in the genomic tree (Fig. 13), and the COI barcodes of their primary type specimens are 100% identical. All these specimens are from southeastern Brazil and likely represent same species. Therefore, the name for this species is *rastaca*, and *Cobalopsis brema* E. Bell, 1959, becomes its **new** junior subjective **synonym**.

Gufa Grishin, new genus

http://zoobank.org/8F28C55F-3AA2-43ED-B0FB-572B2AD960DE

Type species. *Phlebodes gulala* Schaus, 1902.

Definition. *Mucia gulala* (Schaus, 1902) (type locality Brazil: Rio de Janeiro) and *Tigasis fusca* (Hayward, 1940) (type species Brazil: Santa Catarina) are not monophyletic with the genera they are currently assigned to and are sisters instead (Fig. 13), and their clade is a moderately supported (and therefore distant) sister of *Chitta* Grishin, 2019 (type species *Phlebodes chittara* Schaus, 1902). Keys to L.9.3 (as *Mucia visa* Evans, 1955, currently a junior subjective synonym of *M. gulala*) or J.44.6 in Evans (1955). Distinguished from its relatives by the following combination of characters: wings produced, in particular hindwing tornal area; forewing with inconspicuous tripartite stigma; palpi flattened, slender, 3rd segment short; antennae long, about 2/3 of costal margin length; mid-tibial with spines; uncus with flanges on the sides; saccus short, shorter than uncus, aedeagus with modifications at the distal end, shorter than valva, valva elongated, harpe half of valva in length, not separated from ampulla, distally flattened and notched. In DNA, a combination of the following base pairs is diagnostic: aly1603.75.10:T114C, aly123.8.2:G150T, aly640.20.4:C120T, aly517.7.11:C28T, and aly2692.8.2:C57A.

Etymology. The name is a feminine noun in the nominative singular, formed from the names of species placed in the genus: *Gu*[lala]+*f*[usc]*a*.

Species included. The type species and *Lerema fusca* Hayward, 1940.

Parent taxon. Subtribe Moncina A. Warren, 2008.

Godmia Grishin, new genus

http://zoobank.org/5920ACE7-4172-4CC9-8197-B5335E8C8869

Type species. *Euroto chlorocephala* Godman, 1900

Definition. Placed by Evans (1955) in *Onophas* Godman, 1900 (type species *Cobalus columbaria* Herrich-Schäffer, 1870), the type species of this genus is not monophyletic with *Onophas* and instead is a phylogenetic lineage in the same clade with *Halotus* Godman 1900 (type species *Hesperilla saxula* Mabille, 1891, which is a junior subjective synonym of *Hesperia angellus* Plötz, 1886) (Fig. 13), but distant from it both genetically and morphologically. Therefore, this new genus is proposed. Keys to J.51.3 in Evans (1955). Distinguished from its relatives by the following combination of characters: antennae unusually long, longer than 2/3 of forewing costal margin; palpi flattened, 3rd segment short; mid-tibiae spined; head and thorax covered with metallic-green scales above, also sparsely overscaling basal half of wings; wings largely unmarked dark-brown; hindwing below with a central pale spot and a postdiscal row of indistinct pale spots; fringes not checkered; dorsal forewing with distinctive brand of two segments: one near the base of cell CuA_1-CuA_2, tear-shaped, narrowing distally; the other right below it adjacent to vein CuA_2 in cell CuA_2-1A+2A, roundish. In DNA, a combination of the following base pairs is diagnostic: aly2130.9.4:C87T, aly34048.2.6:G61A, aly525.35.8:T63C, aly318.14.4:T270C, and aly127.36.2:T312C.

Etymology. The name is a feminine noun in the nominative singular, formed from the author's name of the type species. A number of Hesperiinae have back wings and shiny green-scaled head and thorax above, and one, the type species of this genus, was named by Godman, whose insight into classification of Hesperiidae with the focus on male genitalia and description of new genera is still unmatched.

Species included. Only the type species.

Parent taxon. Subtribe Moncina A. Warren, 2008.

Rhomba Grishin, new genus

http://zoobank.org/62751D2B-43A2-4575-A8C4-ED4A28B86EE1

Type species. *Eutychide gertschi* Bell, 1937.

Definition. Placed in *Justinia* Evans, 1955 (type species *Hesperia justinianus* Latreille, [1824]), this genus is not monophyletic with it, and is instead in a different subtribe (not Falgina Grishin, 2019, but Moncina A. Warren, 2008), being in the same clade with *Niconiades* Hübner, [1821], *Thoon* Godman, 1900, *Joanna* Evans, 1955 and *Pares* Grishin, 2019 among others and not showing closer relationship with any of these genera (Fig. 13). Keys to J.50.6 in Evans (1955) and is distinguished from its relatives by the following combination of characters: antennae longer than half of the costal margin, palpi gracile, last segment conical and short, mid-tibiae without spines, very short and broad uncus with lateral projection on each side, together with tegumen square-shaped in dorsal view, saccus short, the same length as uncus, unusually shaped valva: broad with a bulging costa, trapezoid in shape, harpe upturned with stout teeth at the angles, penis the same length as vinculum in lateral view and slightly narrower than tegumen in lateral view. In DNA, a combination of the following base pairs is diagnostic: aly207.4.2:A41C, aly1019.26.7:A53T, aly925.20.2:G1259A, aly15220.5.8:A772C, and aly276890.2.1:T39C.

Etymology. The name is a feminine noun in the nominative singular, given for the rhomboidal shape of valvae.

Species included. Only the type species.

Parent taxon. Subtribe Moncina A. Warren, 2008.

Psoralis panamensis Anderson and Nakamura, 2019 is a junior subjective synonym of *Rhomba gertschi* (Bell, 1937)

Phenotypic inspection reveals that the holotype of *Rhomba gertschi* (Bell, 1937) is a dark specimen of a species later described as *Psoralis panamensis* Anderson and Nakamura, 2019. Most notably, both taxa share tri-partite brand of similar shape, male genitalia with bulky uncus and tegumen armed with lateral projections, and uniquely shaped valva: costa expanded, harpe terminally serrated and with a prominent sharp tooth at its base inside.

Alerema Hayward, 1942 is a valid genus

Inspection of the genomic tree reveals that *Phlebodes simplex* Bell, 1930 (type locality Brazil: Santa Catarina, Blumenau), a senior subjective synonym of *Alerema aeteria* Hayward, 1942 (type locality Argentina: Misiones), which is the type species of *Alerema* Hayward, 1942 is not monophyletic with *Tigasis* Godman, 1900 (type species *Tigasis zalates* Godman, 1900) where it is currently placed, but instead falls in the rapid radiation of the clade with *Niconiades* Hübner, [1821] (type species *Niconiades xanthaphes* Hübner, [1821])), *Gufa* Grishin, **new genus** (type species *Phlebodes gulala* Schaus, 1902) and *Rhomba* Grishin, **new genus** (type species *Eutychide gertschi* Bell, 1937) among others (Fig. 13). Therefore, we reinstate *Alerema* Hayward, 1942 as a valid genus.

Niconiades peri (Evans, 1955), new status, new combination

Evans (1955) named *peri* (type locality Brazil: Para) as a subspecies of *Neoxeniades bajula* (Schaus, 1902) (type locality Brazil: Rio de Janeiro, Nova Friburgo), apparently without examining *N. bajula* males. Above, we transferred *N. bajula* to *Rhinthon* Godman, 1900 (type species *Proteides chiriquensis* Mabille, 1889, a junior subjective synonym of *Hesperia osca* Plötz, 1882). Inspection of *R. bajula* syntype in the USNM reveals the lack of secondary sexual organs on wings (contrary to Evans' key), but *N. b. peri* holotype (examined in BMNH) possesses a characteristic 3-partite brand as described by Evans, in addition to a number of wing patters differences. Therefore, *N. b. peri* is a species distinct from *R. bajula*. Furthermore, male genitalia of *N. b. peri* differ significantly from those of *Rhinthon* or *Neoxeniades* Hayward, 1938 (type species *Neoxeniades musarion* Hayward, 1938). The three-pronged distal end of valva and elaborate aedeagus structure, together with the brands, place *peri* in *Niconiades* Hübner, [1821] (type species *Niconiades xanthaphes* Hübner, [1821]) to form *Niconiades peri* (Evans, 1955), **new status, new combination**. By placing *N. b. peri* in *Niconiades*, we add another genus to the classic blue-white-black *fulgerator* mimicry complex named after *Telegonus fulgerator* (Walch, 1775). This accurate mimicry is the reason for errors in taxonomic classification.

Pares viridiceps (Mabille, 1889), reinstated status, new combination

Considered a junior subjective synonym of *Thoon modius* (Mabille, 1889) by Evans (1955), the holotype of *Proteides viridiceps* Mabille, 1889 (type locality Panama) is not monophyletic with it and is instead sister to *Pares maritza* (Nicolay, 1980) (type locality Ecuador) (Fig. 13). It differs from *P. maritza* by 2.3% (15 bp) in COI barcode. Therefore, we reinstate *P. viridiceps* as a species-level taxon and transfer it to *Pares* Grishin, 2019 (type species *Phlebodes pares* Bell, 1959), forming *Pares viridiceps* (Mabille, 1889), **reinstated status**, **new combination**.

Paracarystus ranka (Evans, 1955), new combination

Named by Evans (1955) in *Thoon* Godman, 1900 (type species *Proteides modius* Mabille, 1889), *ranka* is not monophyletic with it and instead groups closely with all three known species of *Paracarystus* Godman, 1900 (type species *Cobalus hypargyra* Herrich-Schäffer, 1869) (Fig. 13), where it is placed to form *Paracarystus ranka* (Evans, 1955), **new combination**.

Tricrista aethus (Hayward, 1951), *Tricrista canta* (Evans, 1955), *Tricrista slopa* (Evans, 1955), *Tricrista circellata* (Plötz, 1882), and *Tricrista taxes* (Godman, 1900), new combinations

Genomic sequencing reveals that the following species currently placed in *Thoon* Godman, 1900 (type species *Proteides modius* Mabille, 1889): *Cobalus aethus* Hayward, 1951 (type locality Bolivia), *Thoon canta* Evans, 1955 (type locality Colombia), *Hesperia circellata* Plötz, 1882 (type locality Brazil) and *Thoon taxes* Godman, 1900 (type locality Panama) are not monophyletic with it and instead are in the same prominent clade with *Penicula crista* Evans, 1955, the type species of *Tricrista* Grishin, 2019 (Fig. 13) implying *Tricrista aethus* (Hayward, 1951), **new combination**, *Tricrista canta* (Evans, 1955), **new combination**, *Tricrista circellata* (Plötz, 1882), **new combination**, and *Tricrista taxes* (Godman, 1900), **new combination**. Due to phenotypic similarity to these species, particularly to *T. canta*, we additionally propose *Tricrista slopa* (Evans, 1955), **new combination**.

Gallio madius (E. Bell, 1941) and *Gallio seriatus* (Mabille, 1891), new combinations

Currently in *Vehilius* Godman, 1900 (type species *Cobalus illudens* Mabille, 1891, currently a subspecies of *Pamphila stictomenes* Butler, 1877), *Vehilius madius* Bell, 1941 (type locality Brazil: Santa Catarina) and *Phlebodes seriatus* Mabille, 1891 (type locality Venezuela: Valera) are not monophyletic with it and are in same clade with *Gallio* Evans, 1955 (type species *Stomyles gallio* Mabille, 1904, which is a junior subjective synonym of *Vehilius carasta* Schaus, 1902) (Fig. 13), where they are transferred to form *Gallio madius* (E. Bell, 1941), **new combination** and *Gallio seriatus* (Mabille, 1891), **new combination**.

Gallio danius (Bell, 1941), reinstated status, new combination

Vehilius danius Bell, 1941 (type locality Brazil: Santa Catarina) is not monophyletic with *Vehilius seriatus* (Mabille, 1891) (type locality Venezuela: Valera) (Fig. 13) and therefore is not its subspecies, but instead is a species-level taxon in *Gallio* Evans, 1955 (type species *Stomyles gallio* Mabille, 1904, which is a junior subjective synonym of *Vehilius carasta* Schaus, 1902), not grouping closely with any other species: *Gallio danius* (Bell, 1941), **reinstated status**, **new combination**.

Gallio garima (Schaus, 1902), new combination

Currently in *Tigasis* Godman, 1900 (type species *Tigasis zalates* Godman, 1900), *Oeonus garima* Schaus, 1902 (type locality Trinidad) is not monophyletic with it and instead is sister to *Gallio* Evans, 1955 (type species *Stomyles gallio* Mabille, 1904, which is a junior subjective synonym of *Vehilius carasta* Schaus, 1902) (Fig. 13), where it is placed to form *Gallio garima* (Schaus, 1902), **new combination**, not grouping closely with any other genus.

Gallio massarus (E. Bell, 1940), reinstated status, new combination

Perimeles massarus Bell, 1940 (type locality Brazil: Santa Catarina), while being its sister, is only distantly related to *Gallio garima* (Schaus, 1902), **new combination** (type locality Trinidad) (Fig. 13), for example, their COI barcodes differ by 4.4% (29 bp), and therefore is not its subspecies but a species-level taxon *Gallio massarus* (E. Bell, 1940), **reinstated status**, **new combination**.

Tigasis corope (Herrich-Schäffer, 1869), new combination

Sequencing of the two syntypes (male a female) of *Cobalus corope* Herrich-Schäffer, 1869 (type locality not stated) in the ZMHB (NVG-15035A02 ♂ and NVG-15035A03 ♀) reveals that they do not belong to *Cynea* Evans, 1955 (type species *Hesperia cynea* Hewitson, 1876), as currently assumed, but are closely related to *Tigasis arita* Schaus, 1902 (type locality Trinidad), and therefore belong to the genus *Tigasis* Godman, 1900 (type species *Tigasis zalates* Godman, 1900) (Fig. 13). Specimens of *T. arita* from South America we sequenced possess identical COI barcodes from across the range from Venezuela, Trinidad, Ecuador and Brazil. However, the barcodes of the two *C. corope* syntypes, while being identical to each other, differ from *T. arita* by 0.8% (5 bp). Although this difference is not large, taking into account invariability of *T. arita* barcodes and not willing to synonymize *T. arita* under *C. corope*, we propose to treat *C. corope* as a species-level taxon pending further studies: *Tigasis corope*

(Herrich-Schäffer, 1869), **new combination**. Moreover, while we do not have other specimens of *T. corope* from a known locality to figure out where the *T. corope* syntypes came from, they are not likely to be from Venezuela, Trinidad, Ecuador and Brazil and neighboring areas. It is likely (also see below) they were collected in Panama or western Colombia.

Tigasis wellingi (Freeman, 1969), reinstated status

Our genomic tree reveals a prominent separation between North American and South American populations currently assigned to *Tigasis arita* (Schaus, 1902) (type locality Trinidad) (Fig. 13). Specimens from Mexico: Oaxaca, Guatemala and Costa Rica formed a distinct clade that contained the holotype of *Thoon wellingi* Freeman, 1969 (type locality Mexico: Oaxaca). We consider this clade to be a distinct species: *Tigasis wellingi* (Freeman, 1969), **reinstated status**. The COI barcodes of the *T. arita* syntype and the *T. wellingi* holotype differ by 0.9% (6 bp), consistently with the difference between *T. arita* and *Tigasis corope* (Herrich-Schäffer, 1869) (type locality not stated), the latter formed the third clade that is not likely to be from the localities of the other two clades, suggesting that *T. corope* may have come from Panama or western Colombia (see above).

Cynea rope Grishin, new species

http://zoobank.org/65FDA5DB-B126-41C3-9DCA-E25F1613050A

Definition. Evans (1955) misidentified *Cobalus corope* Herrich-Schäffer, 1869 (type locality not stated), as detailed above. Hence, because it has no synonyms, the taxon Evans identified as *Cynea corope* is left without a name. Evans provided its description in a form of identification key, which is adopted here: this new species keys to L.7.15 in Evans (1955). Differs from its relatives by a combination of the following characters: wings dark-brown, forewing with a tuft of scales in cell CuA_2-1A+2A above the brand and a tuft in cell 1A+2A; small hyaline forewing spots: two parallel elongated spots in forewing discal cell, a tiny one in cell CuA_2-1A+2A, narrow in cell CuA_1-CuA_2, round and smaller in cell M_3-CuA_1, and dot in cells R_5-M_1; hindwing largely unmarked in the holotype; head and thorax with greenish scales; gnathos shorter than uncus, uncus slightly longer than wide, with arms about the same length as gnathos arms, valva twice as long as wide, harpe moderately extended caudad, with a broad dorsal tooth by ampulla, irregularly serrated along the dorsal margin near the tooth, aedeagus with elaborations at the distal end. The **holotype** is a male from Nicaragua: Chontales, collected by T. Belt, from Godman-Salvin collection, illustrated in Fig. 12c,d and deposited in the Natural History Museum, London, UK (BMNH), its genitalia are glued to a card labeled R.8 and pinned under the specimen. The holotype identification label will be mailed to curators of the collection to be placed on the holotype.

Etymology. The name is the last two syllables of *corope* to keep the former name association with this species. The name is a noun in apposition.

Tigasis perloides (Plötz, 1882), new combination

Currently in *Cymaenes* Scudder, 1872 (type species *Cobalus tripunctus* Herrich-Schäffer, 1865), *Hesperia perloides* Plötz, 1882 (type locality Brazil) is not monophyletic with it and instead is sister to *Tigasis* Godman, 1900 (type species *Tigasis zalates* Godman, 1900) (Fig. 13). COI barcode difference between *H. perloides* and *T. zalates* is 7.6% (50 bp), and we propose that they are congeneric, implying *Tigasis perloides* (Plötz, 1882), **new combination**.

Styriodes Schaus, 1913, with *Brownus* Grishin, 2019 as its junior subjective synonym, and *Remella* Hemming, 1939 are subgenera of *Mnasicles* Godman, 1901

Genomic tree reveals that four closely related genera form a clade sister to *Amblyscirtes* Scudder, 1872 (type species *Hesperia vialis* W. H. Edwards, 1862) (Fig. 13). Genetic diversity of this clade is comparable to that of *Amblyscirtes* although the wing pattern differences (from solid dark-brown to cream-striped a spotted) resulted in their classification into several small genera. We propose to treat all these species currently in four genera as congeneric, within *Mnasicles* Godman, 1901 (type species *Mnasicles geta* Godman, 1901). Two genus-group names include particularly close relatives and we propose that *Brownus* Grishin, 2019 (type and the only species *Paratrytone browni* Bell, 1959) is a junior subjective synonym of *Styriodes* Schaus, 1913 (type species *Styriodes* *lyco* Schaus, 1913). We treat the two more distant ones: *Styriodes* and *Remella* Hemming, 1939 (type species *Hesperia remus* Fabricius, 1798), as subgenera of *Mnasicles*, **new status** for both.

Nausia Grishin, new subgenus

http://zoobank.org/2DF8540E-15F3-41E2-8F17-C537DB2F20E4

Type species. *Oenus* [sic] *nausiphanes* Schaus, 1913.

Definition. Currently in *Tigasis* Godman, 1900 (type species *Tigasis zalates* Godman, 1900) but not monophyletic with it, and instead is sister to the clade consisting of subgenera *Mnasicles* Godman, 1901 (type species *Mnasicles geta* Godman, 1901) and *Remella* Hemming, 1939 (type species *Hesperia remus* Fabricius, 1798) with subgenus *Styriodes* Schaus, 1913 (type species *Styriodes lyco* Schaus, 1913) originating right before, therefore is a subgenus of its own (Fig. 13). Keys to J.45.11 in Evans (1955). Similar to subgenus *Remella* in ventral hindwing pattern with a broad diffuse central cream band, but differs in that both sides of the band blend gradually with the basal or marginal brown areas (basal area sharply outlined in *Remella*); antennae checkered; stigma more prominent than in relatives, wider, less curved than in *Remella*, and lined with areas of gray scales outwards; forewing costal margin straight, not concave as in subgenus *Styriodes* Schaus, 1913 (type species *Styriodes lyco* Schaus, 1913) hindwing tornus in males more extended than in other subgenera; valva broad, only a third longer than its height, costa slightly convex, harpe rounded terminally, unturned, appressed to rounded ampulla, separated from it by a small notch, aedeagus terminally with a keel on both sides. In DNA, a combination of the following base pairs is diagnostic: aly216.57.2:G803A, aly499.78.3:A371T, aly1249.8.1:C1504A, aly1249.8.1:A1513C, and aly1603.54.2:G937T.

Etymology. The name is a feminine noun in the nominative singular, formed from the type species name.

Species included. Only the type species.

Parent taxon. Genus *Mnasicles* Godman, 1901.

Cobalus asella Herrich-Schäffer, 1869 is a junior subjective synonym of *Amblyscirtes alternata* (Grote and Robinson, 1867)

Placed by Evans (1955) as a junior subjective synonym of *Amblyscirtes vialis* (W. H. Edwards, 1862) (type locality USA: Illinois, Mercer Co.), *Cobalus asella* Herrich-Schäffer, 1869 (type locality not specified) has not changed its status since. A single syntype of *C. asella* that we found and sampled (NVG-18042H03) in the ZMHB collection, groups with *Amblyscirtes (Amblyscirtes) alternata* (Grote and Robinson, 1867) (type locality USA: Georgia) in the genomic trees (Fig. 13) and phenotypically is consistent with *A. alternata*, not *A. vialis*, due to very short apiculus (extended in *A. vialis*) and more rounded wings. The specimen NVG-18042H03 is a syntype of *C. asella* because it bears the labels typical of Herrich-Schäffer, 1869 types: old darkening elongated handwritten label with the word “asella” on it and printed “Coll. H.–Sch” label, and agrees with the original description. Due to genetic and phenotypic similarities, we propose that *Cobalus asella* Herrich-Schäffer, 1869 is a junior subjective synonym of *Amblyscirtes alternata* (Grote and Robinson, 1867).

Amblyscirtes florus (Godman, 1900), revised combination

Stomyles florus Godman, 1900 (type locality Mexico: Nayarit), currently in *Repens* Evans, 1955 (type species *Repens repens* Evans, 1955), is not monophyletic with its type species and instead is sister to *Amblyscirtes* Scudder, 1872 (type species *Hesperia vialis* W. H. Edwards, 1862) (Fig. 13), of which *Stomyles* Scudder, 1872 (type species *Pyrgus textor* Hübner, [1831], currently a junior subjective synonym of *Hesperia aesculapius* Fabricius, 1793) is a subgenus. Attributed to *Amblyscirtes* by Hoffmann (1941) and reaffirmed in this genus by Evans (1955) due to phenotypic similarities (Evans 1955), it was then placed in *Repens* by Warren et al. (1998). Here, we return it to its nearly original genus as *Amblyscirtes florus* (Godman, 1900), **revised combination**.

Flor Grishin, new subgenus

http://zoobank.org/B66A50DF-DDB9-45CE-94F1-7EA51B682101

Type species. *Stomyles florus* Godman, 1900.

Definition. Transferred from *Repens* Evans, 1955 (type species *Repens repens* Evans, 1955) back to *Amblyscirtes* Scudder, 1872 (type species *Hesperia vialis* W. H. Edwards, 1862) above, *A. florus* (Godman, 1900) cannot be confidently assigned to any of the four current *Amblyscirtes* subgenera (Fig. 13), and therefore belongs to a new subgenus. This new subgenus keys to N.2.20 in Evans (1955). Similar to other *Amblyscirtes* in overall appearance, but distinguished from its congeners by long and thin prominent brands similar to *Repens*, no stigma; shorter saccus, not longer than valva (about twice as long in other *Amblyscirtes*); and aedeagus about twice as long as saccus. In DNA, a combination of the following base pairs is diagnostic: aly1139.81.2:G1397A, aly140.13.7:A228T, aly2284.27.2:T177A, aly1139.81.2:C1396A, and aly1294.2.1:T3438A.

Etymology. The name is a masculine noun in the nominative singular, formed from the type species name.

Species included. Only the type species.

Parent taxon. Genus *Amblyscirtes* Scudder, 1872.

Repens Evans, 1955 is a subgenus of *Eprius* Godman, 1901

After we transferred *Stomyles florus* Godman, 1900 (type locality Mexico: Nayarit) from *Repens* Evans, 1955 (type species *Repens repens* Evans, 1955) to *Amblyscirtes* Scudder, 1872 (type species *Hesperia vialis* W. H. Edwards, 1862), *Repens* became monotypic. Our genomic tree reveals that *Repens* is sister to another monotypic genus *Eprius* Godman, 1901 (type species *Epeus veleda* Godman, 1901) (Fig. 15). The two genera are close to each other genetically, for example, their COI barcodes differ by 9% (59 bp), and resemble each other phenotypically in general appearance, brands and genitalia sharing the elaborate structure of aedeagus distal end. Therefore we propose that these species are congeneric and place *Repens* Evans, 1955 as a subgenus of *Eprius* Godman, 1901, new status.

Vidius fraus (Godman, 1900), new combination

Currently in *Cymaenes* Scudder, 1872 (type species *Cobalus tripunctus* Herrich-Schäffer, 1865), *Megistias fraus* Godman, 1900 (type locality Mexico: Tabasco, Guatemala and Honduras) is not monophyletic with its type species and instead originates within *Vidius* Evans, 1955 (type species *Narga vidius* Mabille, 1891) (Fig. 14), where it is transferred to form *Vidius fraus* (Godman, 1900), **new combination**.

Rectava Grishin, new genus

http://zoobank.org/D858109A-4CF8-4504-810D-ED99A71CBBB6

Type species. *Megistias ignarus* Bell, 1932.

Definition. A clade without obvious close relatives near *Cobalopsis* Godman, 1900 (type species *Pamphila edda* Mabille, 1891, a junior subjective synonym of *Hesperia autumna* Plötz, 1882) and *Lurida* Grishin, 2019 (type species *Cobalus lurida* Herrich-Schäffer, 1869) (Fig. 14), therefore a genus. Not closely related to *Papias* Godman, 1900 (type species *Pamphila integra* Mabille, 1891). Keys to J.36.2, or J.37.5, or J.24.8 in Evans (1955). Distinguished from its relatives by the following combination of characters: brick-shaped, more or less rectangular valva, harpe with a small tooth at dorsal margin, uncus narrowing towards the distal end, with narrow arms (longer than wide) close together, gnathos about the same length as uncus, its arms are close to uncus arms in lateral view, saccus long and thin, longer than valva, aedeagus about 1.5 times longer than saccus; no brands or stigma. In DNA, a combination of the following base pairs is diagnostic: aly2178.27.2:A308G, aly207479.1.2:T48C, and aly1294.9.12:T79A.

Etymology. The name is a feminine noun in the nominative singular, for the shape of valva: *Recta*[ngular]+*va*[lva].

Species included. The type species, *Megistias vorgia* Schaus, 1902, *Vidius nostra* Evans, 1955, and *Papias sobrinus* Schaus, 1902 (see below).

Parent taxon. Subtribe Moncina A. Warren, 2008.

Rectava sobrinus (Schaus, 1902), reinstated status, new combination

Papias sobrinus Schaus, 1902 (type locality Brazil: Rio de Janeiro) is currently a junior subjective synonym of *Papias phainis* Godman, 1900 (type locality Mexico: Veracruz; Guatemala and Costa Rica). Sequencing of two *P. sobrinus* syntypes revealed that they are not even in the same genus with *P. phainis* (Fig. 14). In genitalia, uncus arms are long and wide apart in *P. phainis*, but are small and close together in *P. sobrinus*. Our genomic tree demonstrates that *P. sobrinus* belongs to a new genus named above. Therefore, we propose *Rectava sobrinus* (Schaus, 1902), **reinstated status**, **new combination**.

Nastra subsordida (Mabille, 1891), reinstated status, new combination

Pamphila subsordida Mabille, 1891 (type locality Honduras) has been considered a junior subjective synonym of *Eutychide asema* (Mabille, 1891) (type locality Honduras) by Evans (1955). Above, we placed *E. asema* in *Adlerodea* Hayward, 1940 (type species *Adlerodea modesta* Hayward, 1940). Sequencing of the *P. subsordida* holotype in the ZMHB collection (NVG-15035E09) reveals that it is a species-level taxon sister to *Nastra leucone* (Godman, 1900) (type locality Guatemala) (Fig. 14). Elongated, yellow-brown wings, even paler and unspotted below agree with this placement and refute Evans' synonymy with *A. asema*, which is darker reddish-brown and typically with several black dots in postdiscal area on hindwing below. Hence, we reinstate *Nastra subsordida* (Mabille, 1891) as a species. Because the *N. subsordida* holotype lacked abdomen at least since the times of Godman and Salvin (1900a), genomic analysis is particularly important to reveal its true identity.

Papias trimacula Nicolay, 1973 is a junior subjective synonym of *Nastra subsordida* (Mabille, 1891)

Genomic sequencing of the *Papias trimacula* Nicolay, 1973 (type locality Panama: Canal Zone) holotype in the AMNH collection reveals its close relationship with the holotype of *Nastra subsordida* (Mabille, 1891) (type locality Honduras) (Fig. 14) and implies that *P. trimacula* belongs to *Nastra* Evans, 1955 (type species *Hesperia lherminier* Latreille, [1824]). Holotypes of *P. trimacula* and *N. subsordida* are similar phenotypically, and only differ in the lack of yellow spots in the latter. Inspection of several specimens identified as *Papias trimacula* reveals that the development of yellow spots is variable and they may be lacking. COI barcodes of the two holotypes differ by only 0.3% (2 bp). Therefore, we propose that *Papias trimacula* Nicolay, 1973 is a junior subjective synonym of *Nastra subsordida* (Mabille, 1891).

Nastra celeus (Mabille, 1891) and *Nastra nappa* (Evans, 1955), new combinations

Cyclopides celeus Mabille, 1891 (type locality Brazil: Para) currently in *Vehilius* Godman, 1900 (type species *Cobalus illudens* Mabille, 1891, currently a subspecies of *Pamphila stictomenes* Butler, 1877) and *Vidius nappa* Evans, 1955 (type locality Brazil: Parana) kept in *Vidius* Evans, 1955 (type species *Narga vidius* Mabille, 1891) are placed within *Nastra* Evans, 1955 (type species *Hesperia lherminier* Latreille, [1824]) in genomic trees and are not monophyletic with the type species of either *Vehilius* or *Vidius* (Fig. 14). Therefore new genus-species combinations for them are: *Nastra celeus* (Mabille, 1891) and *Nastra nappa* (Evans, 1955).

Vehilius warreni (Weeks, 1901), new combination

Currently in *Cymaenes* Scudder, 1872 (type species *Cobalus tripunctus* Herrich-Schäffer, 1865), *Pamphila warreni* Weeks, 1901 (type locality Bolivia) is not monophyletic with it, and instead originates within *Vehilius* Godman, 1900 (type species *Cobalus illudens* Mabille, 1891, a subspecies of *Pamphila stictomenes* Butler, 1877) (Fig. 14), where it is transferred to form *Vehilius warreni* (Weeks, 1901), **new combination**.

Vehilius limae (Lindsey, 1925), new combination

Megistias limae Lindsey, 1925 (type locality Peru: Lima) placed in *Cymaenes* Scudder, 1872 (type species *Cobalus tripunctus* Herrich-Schäffer, 1865) by Evans (1955) is sister to the clade with the type species of *Vehilius* Godman, 1900 (*Cobalus illudens* Mabille, 1891, currently a subspecies of *Pamphila stictomenes* Butler, 1877) and is not monophyletic with *C. tripunctus* (Fig. 14). Therefore, we establish a **new combination** *Vehilius limae* (Lindsey, 1925).

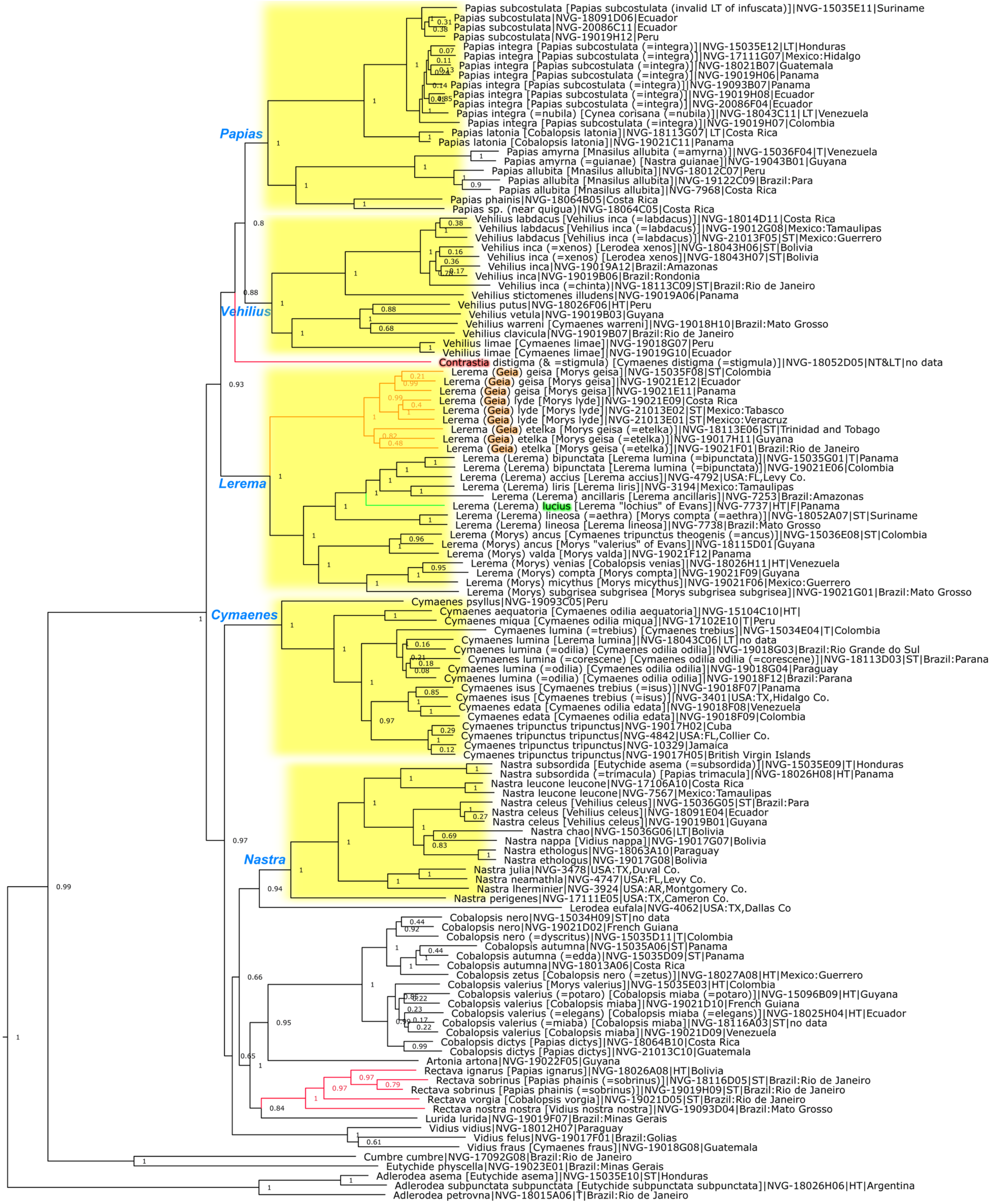

Figure 14. Genomic tree of Moncina, part 2. See Fig. 1 legend for notations.

Cymaenes lumina (Herrich-Schäffer, 1869), new combination

Genome-based phylogenetic analysis of the *Cobalus lumina* Herrich-Schäffer, 1869 (type locality not specified) syntype in the ZMHB collection (NVG-18043C06) places it within the *Cymaenes* Scudder, 1872 (type species *Cobalus tripunctus* Herrich-Schäffer, 1865) clade and away from *Lerema* Scudder, 1872 (type species *Papilio accius* J. E. Smith, 1797), where *C. lumina* has been placed previously (Fig. 14). We confirm this specimen, lacking the head, abdomen, right forewing and part of the right hindwing as a syntype, because it is from the Herrich-Schäffer collection according to its label, agrees with the original description of *C. lumina*, curated as the type and bears a label "*lumina*" in handwriting similar to that on the labels of many Herrich-Schäffer type specimens. The description is given as a key to species, and for *C. lumina* it states on page 203: "US der Hfl mit scharf licht zackig begrenztem dunklerem MBand" (Herrich-Schäffer 1869), which can be translated literally as "Underside of the hindwing with sharp light jagged outlined darker middle band" (i.e., ventral hindwing with a darker middle band sharply outlined by jagged pale areas), which matches the syntype very well, but does not agree with many specimens currently identified as this species. Furthermore, *lumina* #65 is placed in the key next to *asella* #66 (a junior subjective synonym of *Amblyscirtes alternata* (Grote and Robinson, 1867)), a species with rounded wing shape similar to the *lumina* syntype (wings are more elongated in *Lerema*). A syntype of *Cobalus asella* Herrich-Schäffer, 1869 is also in the ZMHB collection and bears labels similar to those of the *C. lumina* syntype. Therefore, we are convinced that the sequenced specimen (NVG-18043C06) is indeed a syntype of *C. lumina*, that N.V.G. hereby designates as the **lectotype** to stabilize the usage of this name, and hence we propose the **new combination** *Cymaenes lumina* (Herrich-Schäffer, 1869). The lectotype is in the ZMHB collection, it lacks the right forewing, head and abdomen and bears the following seven labels || Origin. || lumina || Coll. H.—Sch. || Coll. | Staudinger || Lumina | H-Sch. | Micylla Burm. || [barcode image] http://coll.mfn-berlin.de/u/ | 44a05a || DNA sample ID: | NVG-18043C06 | c/o Nick V. Grishin ||.

Lerema pattenii Scudder, 1872, reinstated status, with *Pamphila bipunctata* Mabille, 1889 and *Sarega staurus* Mabille, 1904 as its junior subjective synonyms

Inspection of photographs of *Lerema pattenii* Scudder, 1872 (type locality Guatemala) holotype (MCZ collection) currently considered a junior subjective synonym of *Lerema accius* (J. E. Smith, 1797) reveals striated hindwing below and the presence of a white subapical spot in cell R_2-R_3 by the forewing apex. The latter character, according to Evans (1955: 163), is diagnostic of *Lerema lumina* and is not found in *L. accius*. We have not seen a striated hindwing pattern in *L. accius* specimens either. Therefore, *L. pattenii* is not *L. accius*, but it keys to *L. lumina* in Evans (1955). As we have shown above, *Cobalus lumina* Herrich-Schäffer, 1869 belong to *Cymaenes*. The *C. lumina* lectotype lacks white dashes along costa near forewing apex below and subapical white spot in forewing space 9 (i.e., cell R_2-R_3) and thus does not key out to "*L. lumina*" in Evans (1955). Hence, the senior synonym of Evans' "*L. lumina*" would be the name for it. *Pamphila bipunctata* Mabille, 1889 (type locality Panama) and *Sarega staurus* Mabille, 1904 (type locality Colombia) are currently listed as synonyms of Evans' "*L. lumina*" (Mielke 2005). However, *L. pattenii* was published in 1872, prior to both of them, and therefore we reinstate it as a species.

Sequencing of the *P. bipunctata* syntype in the ZMHB (NVG-15035G01) confirms that it belongs to *Lerema* Scudder, 1872 (type species *Papilio accius* J. E. Smith, 1797) and not to *Cymaenes* Scudder, 1872 (type species *Cobalus tripunctus* Herrich-Schäffer, 1865), because it is sister to the type species of *Lerema*, and *Cymaenes* species are in a different clade (Fig. 14). This analysis confirms that *Pamphila bipunctata* cannot be a synonym of *Cymaenes lumina*, because they belong to different and distantly related genera. Instead, we find that in wing patterns, both *P. bipunctata* and *S. staurus* agree closely with *L. pattenii* and we propose to treat the former two taxa as junior subjective synonyms of the latter.

Hesperia aethra Plötz, 1886 is a junior subjective synonym of *Lerema lineosa* (Herrich-Schäffer, 1865)

Hesperia aethra Plötz, 1886 (type locality Suriname) was treated as a synonym of *Morys compta* (Butler, 1877) (type locality Brazil: Para) by Evans (1955). Genomic analysis places the *H. aethra* syntype in the ZMHB with *Lerema lineosa* (Herrich-Schäffer, 1865) (type locality Brazil) (Fig. 14). Their COI barcodes are only 0.15% (1 bp) different, and the specimens are phenotypically similar, being rather pale below with more diffuse vague spots on hindwing compared to darker *M. compta* with spots frequently more defined. Therefore, we propose that *Hesperia aethra* Plötz, 1886 is a junior subjective synonym of *Lerema lineosa* (Herrich-Schäffer, 1865).

Cobalopsis valerius (Möschler, 1879), new combination and *Morys ancus* (Möschler, 1879), reinstated status, new combination

Genomic sequencing of the holotype of *Apaustus valerius* Möschler, 1879 (type locality Colombia, NVG-15035E03, in the ZMHB) places it among species of *Cobalopsis* Godman, 1900 (type species *Pamphila edda* Mabille, 1891, which is junior subjective synonym of *Hesperia autumna* Plötz, 1882) (Fig. 14), and therefore we therefore propose *Cobalopsis valerius* (Möschler, 1879), **new combination**. This leaves a taxon known as "*Morys valerius valerius*" in Evans (1955) without a name. However, a syntype of *Pamphila ancus* Möschler, 1879 (type locality Colombia, NVG-15036E08) in the ZMHB, currently treated as a junior subjective synonym of *Cymaenes tripunctus theogenis* (Capronnier, 1874), was clustered with specimens identified as "*M. v. valerius*" sensu Evans, providing an available name for this species (Fig. 14). Furthermore, *P. ancus* agrees with Evans' characters given for " *M. v. valerius*" better than the *A. valerius* holotype: for example, paler general appearance, ventral forewing with a violet sheen near apex, a well-defined opaque spot in forewing cell CuA_2-1A+2A (Ib in Evans' notation), and forewing apical spots are closer to being along a single line. Therefore, we reinstate *Morys ancus* (Möschler, 1879), **new combination**, as a species. This is the species Evans identified as "*Morys valerius valerius*". Below, we confirm that *M. ancus* is not conspecific with *Morys valda* Evans, 1955 described originally as *Morys valerius valda*, and propose to treat *Morys* as a subgenus of *Lerema* Scudder, 1872.

Morys valda Evans, 1955 confirmed status, is the type species of *Morys* Godman, 1900

Proposed for a single species *Apaustus valerius* Möschler, 1879 (type locality Colombia), genus *Morys* Godman, 1900 was diagnosed among other characters by genitalia agreeing with those of *Morys valda* Evans, 1955, figured "from Mexican examples" (Godman and Salvin 1900a). Godman's descriptions of *Morys* and *A. valerius* do not apply to *Cobalopsis*, the genus to which *A. valerius* belongs (see above). Therefore, it is apparent that Godman incorrectly associated the holotype of *A. valerius*, which is a female of *Cobalopsis* (see above), with specimens of a taxon later named *Morys valerius valda* by Evans and elevated to species by Llorente et al. (1990). Due to genetic differences, for example, COI difference 2.7% (18 bp) we confirm the species status of *M. valda*. Thus, Godman's application of the name *A. valerius* to these specimens is a misidentification. To secure the applicability of Godman's description and ensure stability in continuing usage of the genus name, under Article 70.3.2. of the ICZN Code we fix the type species of *Morys* as *Morys valda* Evans, 1955, misidentified as *Apaustus valerius* Möschler, 1879 in the original description of the genus *Morys* (type species by monotypy) by Godman in Godman and Salvin (1900a). Below, we propose to treat *Morys* as a subgenus of *Lerema* Scudder, 1872.

Pamphila compta Butler, 1877 is the type species of *Euroto* Godman, 1900

Evans (1955) noted that Godman incorrectly synonymized *Pamphila geisa* Möschler, 1879 (type locality Colombia) with *Pamphila compta* Butler, 1877 (type locality Brazil: Para). (Godman and Salvin 1900a); the latter selected as the type species of *Euroto* Godman, 1900. Judging from Godman's text, he considered all *Euroto* Godman, 1900 with well-defined hyaline spots on forewings to be *P. compta*. This concept included both better-patterned specimens of *P. compta*, and also *P. geisa*. Among other species Godman placed in *Euroto*, *E. micythus* Godman, 1900 (type locality Mexico: Guerrero and Tabasco and Costa Rica), is a close relative of the true *P. compta* (Fig. 14), and shares similar genitalia, but lacks hyaline spots. Godman's description of the genus applies to all these species. Since Evans (1955), *Euroto* has been treated as a junior subjective synonym of *Morys* Godman, 1900 (type species *Morys valda* Evans, 1955), and *P. compta* is known as its type species. To preserve this treatment, and acknowledging that Godman considered *P. compta* and *P. geisa* to be conspecific (i.e., he partly misidentified *P. compta* and even illustrated *P. geisa* as *P. compta*), under Article 70.3.1. of the ICZN Code we fix the type species of *Euroto* as *Pamphila compta* Butler, 1877, i.e., the nominal species previously cited as the type species, which is the default choice, and not *Pamphila geisa* Möschler, 1879 that was additionally included in Godman's concept of *P. compta*.

Megistias miaba Schaus, 1902 is a junior subjective synonym of *Cobalopsis valerius* (Möschler, 1879)

In the genomic tree, *Megistias miaba* Schaus, 1902 (type locality not specified) specimens, including its syntype (NVG-18116A03 in the USNM), which is currently treated as a valid species in the genus *Cobalopsis* Godman, 1900 (type species *Pamphila edda* Mabille, 1891, which is junior subjective synonym of *Hesperia autumna* Plötz, 1882) cluster closely with the holotype of *Cobalopsis valerius* (Möschler, 1879) (type locality Colombia, NVG-15035E03, in the ZMHB) (Fig. 14) and the COI barcodes of these primary type specimens are 99.8% identical (1 bp difference). Therefore, we propose that *Megistias miaba* Schaus, 1902 is a junior subjective synonym of *Cobalopsis valerius* (Möschler, 1879).

Cobalopsis dictys (Godman, 1900), new combination

Currently in *Papias* Godman, 1900 (type species *Pamphila integra* Mabille, 1891), *P. dictys* Godman, 1900 (type locality Mexico: Veracruz, Guatemala, Costa Rica, Panama) is not monophyletic with it and instead originates within *Cobalopsis* Godman, 1900 (type species *Pamphila edda* Mabille, 1891, which is a junior subjective synonym of *Hesperia autumna* Plötz, 1882) (Fig. 14), implying *Cobalopsis dictys* (Godman, 1900), **new combination**.

Cobalopsis zetus (Bell, 1942), reinstated status

Considered a junior subjective synonym of *Cobalopsis nero* (Herrich-Schäffer, 1869) (type locality not given) by Mielke and Casagrande (2002), *Cobalus zetus* Bell, 1942 (type locality Mexico: Guerrero) is not monophyletic with it (Fig. 14). We sequenced the holotype of *C. zetus* (NVG-18027A08) in AMNH and syntypes of the following taxa in the ZMHB: *Hesperia autumna* Plötz, 1882 (type locality [Panama: Veragua], NVG-15035A06) and *Pamphila edda* Mabille, 1891 (type locality Panama: Chiriqui, NVG-15035D09), the latter taxon treated by Evans (1955) as a junior subjective synonym of the former (which we confirm), *C. nero* (NVG-15034H09) and *Carystus dyscritus* Mabille, 1891 (type locality Colombia, NVG-15035D11) in the ZMHB, the latter taxon treated by Evans (1955) as a junior subjective synonym of the former (which we confirm). Their phylogenetic analysis reveals that *C. zetus* is sister to *C. autumna*, and *C. nero* is sister to them both (Fig. 14). Genomic analysis agrees with phenotypes of these specimens: *C. zetus* holotype keys out to *C. autumna* in Evans (1955: 159) due to brown ventral hindwing, vs. grayer hindwing in *C. nero*. Therefore, not willing to take the next step and prematurely synonymize *C. zetus* with *C. autumna*, we reinstate it as a species, a hypothesis to be tested in future work.

Morys Godman, 1900 is a subgenus of *Lerema* Scudder, 1872

Morys Godman, 1900 (type species *Morys valda* Evans, 1955) clusters closely with *Lerema* Scudder, 1872 (type species *Papilio accius* J. E. Smith, 1797) in genomic trees and is paraphyletic (Fig. 14). Genetic closeness of the two genus-group taxa is reflected in COI barcodes of their type species differing by only 6.8% (45 bp). Being combined, *Morys* with *Lerema* form a more prominent genus than either of them separately. For these reasons, we propose to treat *Morys* Godman, 1900 as a subgenus of *Lerema* Scudder, 1872.

Lerema etelka (Schaus, 1902) reinstated status, new combination, with *Phanis sylvia* Kaye, 1914 as its junior subjective synonym

Euroto etelka Schaus, 1902 (type locality Trinidad) is listed as a junior subjective synonym of *Pamphila geisa* Möschler, 1879 (type locality Colombia) (Mielke 2005). Sequencing syntypes of *P. geisa* (NVG-15035F08) in the ZMHB and *E. etelka* (NVG-18113E06) in the USNM suggests that they are distinct species due to substantial genetic differentiation between them (Fig. 14): for example, their COI barcodes differ by 5.3% (34 bp). Furthermore, genomic level phylogeny that includes syntypes of *Euroto lyde* Godman, 1900 (type locality Mexico: Veracruz and Tabasco, Guatemala, and Costa Rica, NVG-21013E01 and E02 in the CMNH) among other specimens reveals that *E. etelka* is not monophyletic with *Lerema geisa*, **new combination**, but is sister to the clade formed by *L. geisa* and *Lerema lyde*, **new combination** (Fig. 14). Therefore, we reinstate *Lerema etelka* (Schaus, 1902), **reinstated status**, **new combination**, as a species and place *Phanis sylvia* Kaye, 1914 (type locality Trinidad), currently a junior subjective synonym of *L. geisa*, as its junior subjective synonym. Finally, we confirm the species status of *L. lyde* (Godman, 1900) (type locality Mexico, Guatemala and Costa Rica) (Fig. 14) as suggested by Lewis (1973) and reinforced by Llorente et al. (1990), instead of placing this taxon as a subspecies of *L. geisa* adopted by some authors (Evans 1955; Mielke 2005). The COI barcode difference between the two taxa 2.9% (19 bp).

Sequencing of a female specimen in the USNM collection (NVG-19021F01) bearing labels || Phanis | cumbre | Sch || Type | No. 6026 | U.S.N.M. ||, the first one in Schaus' handwriting, reveals that it is *L. etelka*. We do not consider this specimen a paralectotype of *Phanis cumbre* (type locality Brazil: Rio de Janeiro, Petropolis, lectotype designated by Dolibaina et al. (2014)) despite it being identified as this species by Schaus, because only "male" is mentioned and "Petropolis, Brazil" is given as the only locality for *P. cumbre* in the original description (Schaus 1902), but this specimen is a female from "Tijuca, Brazil" according to its label.

Geia Grishin, new subgenus

http://zoobank.org/5A5B8B19-3484-4D04-BD77-742B9B52167F

Type species. *Pamphila geisa* Möschler, 1879.

Definition. Previously placed in *Morys* Godman, 1900 (type species *Morys valda* Evans, 1955), but not monophyletic with it, being sister to both *Morys* and *Lerema* Scudder, 1872 (type species *Papilio accius* J. E. Smith, 1797) (Fig. 14), and therefore is a subgenus distinct from them (above, we placed *Morys* as a subgenus of *Lerema*). Keys to J.40.3 in Evans (195). Distinguished from its relatives by the following combination of characters: forewing in males with a long single brand under vein CuA_2 and a brand above vein CuA_2 between the origins of veins CuA_1 and CuA_2; arms of both gnathos and uncus widely separated at their origins, thin, longer than a wide and short (about half of its width in length) tegumen; harpe long and narrow (at least thrice its height in length), hook-like. In DNA, a combination of the following base pairs is diagnostic: aly1454.7.7:T433A, aly1454.7.7:C434G, aly862.12.2:A1488G, aly997.9.7:G200C, and aly997.9.7:A199T.

Etymology. The name is a feminine noun in the nominative singular formed from the type species name *Gei*[s]*a*.

Species included. The type species, *Euroto lyde* Godman, 1900 and *Euroto etelka* Schaus, 1902.

Parent taxon. *Lerema* Scudder, 1872.

Lerema (Morys) venias (Bell, 1942), new combination

Papias venias Bell, 1942 (type locality Venezuela) was placed in *Cobalopsis* Godman, 1900 (type species *Pamphila edda* Mabille, 1891, which is junior subjective synonym of *Hesperia autumna* Plötz, 1882) by Evans (1955) who inspected no specimens of this taxon. Genomic sequencing of *P. venias* holotype (NVG-18026H11) in AMNH reveals that it is sister to *Lerema (Morys) compta* (Butler, 1877) specimen from Guyana (Fig. 14): COI barcode difference between them is 1.7% (11 bp). Therefore, we confidently place *P. venias* in the genus *Lerema* Scudder, 1872 (type species *Papilio accius* J. E. Smith, 1797) in the subgenus *Morys* Godman, 1900 (type species *Morys valda* Evans, 1955). Then, not willing to err on synonymizing *P. venias* with *L. compta*, due to some degree of genetic differentiations, we tentatively treat it as a distinct species *Lerema (Morys) venias* (Bell, 1942), **new combination**.

Contrastia Grishin, new genus

http://zoobank.org/97587565-2593-473F-83D0-0C41CA0EEB7E

Type species. *Hesperia distigma* Plötz, 1882.

Definition. Previously placed in *Cymaenes* Scudder, 1872 (type species *Cobalus tripunctus* Herrich-Schäffer, 1865), but is not monophyletic with its type species and instead forms a clade with *Papias* Godman, 1900 (type species *Pamphila integra* Mabille, 1891) and *Vehilius* Godman, 1900 (type species *Cobalus illudens* Mabille, 1891, currently a subspecies of *Pamphila stictomenes* Butler, 1877) (Fig. 14). Keys to J.27.12 in Evans (1955). Morphologically is similar to *Cymaenes*, particularly in the shape of valvae with harpe convex along distal margin, and long saccus, not shorter than valva; but distinguished by much narrower, not deeply divided uncus and lilac-colored broad areas on wings below. In DNA, a combination of the following base pairs is diagnostic: aly1547.3.3:A160C, aly2513.1.1:C97T, aly361.1.1:G42A, aly361.1.1:A47G, and aly2954.5.2:A838C.

Etymology. The name is a feminine noun in the nominative singular, given for the contrasting pattern (dark top, pearly-lilac bottom) of the type species in its resting pose.

Species included. Only the type species.

Parent taxon. Subtribe Moncina A. Warren, 2008.

Neotype designation for *Hesperia distigma* Plötz, 1882

While designated as the type species of *Contrastia* **new genus**, *Hesperia distigma* Plötz, 1882 (type locality not specified), is not currently defined by known type specimens, and the possibility of misidentification by the subsequent authors after its original description is conceivable. Diagnostic characters of *H. distigma* assembled and translated from the original description given as a key are: upper side black; forewing reddish-gray beneath before the apex, without dots at the apex, in cell 1 (CuA_2-1A+2A) with a white dot, in cells 2 (CuA_1-CuA_2) and 3 (M_3-CuA_1) with white hyaline spots, discal cell unspotted; hindwing beneath completely or partly reddish, "watered" brown, in the costal half darker, in the discal cell and in cells 1c (CuA_2-1A+2A), 2 (CuA_1-CuA_2) and 3 (M_3-CuA_1) with white spots; forewing length 14 mm (Plötz 1882b). Inspection of the Godman's copy of the unpublished Plötz's drawing of *H. distigma* (no. 488) in the Library of the Natural History Museum London, UK additionally reveals a yellower area along the anal margin on ventral hindwing of a specimen that agrees with the original description. As for the type locality, Plötz's statement is translated as "Fatherland ?", which means it is unknown.

Armed with this original information about *H. distigma*, we carried out a search for its type specimens in collections known to house Plötz's types. A particular emphasis was on the Museum für Naturkunde, Berlin, Germany (ZMHB), because the original description stated "Distigma HS. i. l.", meaning that the name originated from Herrich-Schäffer, likely proposed on the basis of a specimen in his collection, which for the large part is in the ZMHB. Careful search of all Hesperiidae drawers revealed only one specimen that generally agreed with the Plötz's description and drawing of *H. distigma*. Judging from its labels, this specimen is from the Herrich-Schäffer collection, and is apparently a female syntype of *Cobalus stigmula* Mabille, 1891 (sequenced as NVG-18052D05), currently a junior subjective synonym of *H. distigma*. As *H. distigma*, this specimen is from unknown locality, and it is even conceivable that it is a syntype of *H. distigma*. However, in addition to ventral hindwing white spots in discal cell and cells 1c (CuA_2-1A+2A), 2 (CuA_1-CuA_2), and 3 (M_3-CuA_1) (as mentioned in the original description and illustrated in the drawing) it also has a rather well developed white spot in cell 6 (RS-M_1), not mentioned in the description and not pictured in the drawing. Judging from his descriptions and illustrations, Plötz paid careful attention to the number of spots in specimens, and therefore, this is probably not the specimen illustrated as *H. distigma*. It seems impossible to confirm it as a syntype of *H. distigma*, while we confirm it as a syntype of *C. stigmula*.

Search for possible *H. distigma* syntypes in Zoologische Staatssammlung München, Germany (ZSMC) and Universität Greifswald (EMAU), the two other collections housing Plötz's primary specimens, failed to find them. Therefore we assumed that the type material of *H. distigma* was lost or unrecognizable, and we proceeded with a neotype designation. There is an exceptional need to designate neotype of *H. distigma*, because it is the type species of a newly proposed genus, and the absence of the primary type specimen creates a potential for future instability of nomenclature. To define the genus *Contrastia*, **new genus** objectively, it is necessary to have a primary type specimen of its type species. To achieve this goal, N.V.G. designates a female syntype of *Cobalus stigmula* Mabille, 1891, NVG-18052D05, as the **neotype** of *Hesperia distigma* Plötz, 1882 (see label data of this specimen below). This specimen is from unknown locality and has a forewing length 13.5 mm. This specimen is used in our genomic tree (Fig. 14) to delineate the genus *Contrastia*, **new genus**.

Our neotype of *H. distigma* satisfies all requirements set forth by the ICZN Article 75.3, namely: 75.3.1. It is designated to clarify the taxonomic identity of *Hesperia distigma* Plötz, 1882, which remains unsettled; 75.3.2. The characters for the taxon have been given in its original description by Plötz (1882b: 28) and are listed above; 75.3.3. The neotype specimen, which N.V.G. also designates as the **lectotype** of *Cobalus stigmula* Mabille, 1891 to stabilize nomenclature, bears the following labels (on two labels, the name appears to be misspelled as "stigmala"): || Typus || Stigmula m || Coll. H.—Sch || Stigmala | HS. || Pamph. | Stigmala HS. | in litt. || Coll. | Staudinger || [barcode image] http://coll.mfn-berlin.de/u/ | 44a0c8 || DNA sample ID: | NVG-18052D05 | c/o Nick V. Grishin ||, additionally recognized by a long tear along vein 1A+2A in the right hindwing; 75.3.4. Our search for the syntypes is described above, it was not successful, and we consider that the specimens composing the type series of *H. distigma* are either lost or unrecognizable; 75.3.5. As detailed above, the neotype is consistent with the original description of this taxon (with a single discrepancy: extra white spot in ventral hindwing cell 6 (RS-M_1), but its expression is variable, and the spot is missing in at least one specimen of this species in BMNH collection) and a copy of an unpublished illustration by the author of the name; 75.3.6. The neotype is from unknown locality, and the original description also does not specify the type locality, which is likely to be in SE Brazil, and will later be detailed by genomic comparison of sequenced specimens across the distribution of this species (Cong et al. 2021); 75.3.7. The neotype is in the collection of the Museum für Naturkunde, Berlin, Germany (ZMHB). As a result of the lectotype and neotype designations presented here, *Cobalus stigmula* Mabille, 1891 becomes a junior objective synonym of *Hesperia distigma* Plötz, 1882.

Carystus odilia Burmeister, 1878, *Pamphila trebius* Mabille, 1891 and *Megistias corescene* Schaus, 1902 are junior subjective synonyms of *Cymaenes lumina* (Herrich-Schäffer, 1869)

Sequencing of syntypes of *Pamphila trebius* Mabille, 1891 (type locality Colombia: Bogota, NVG-15034E04), *Cobalus lumina* Herrich-Schäffer, 1869 (type locality not specified, NVG-18043C06), both in the ZMHB, and *Megistias corescene* Schaus, 1902 (type locality Brazil: Parana, NVG-18113D03) in the USNM reveals that they are closely grouped with specimens identified as *Cymaenes odilia odilia* (Burmeister, 1878) (type locality Argentina) from South Brazil and Paraguay (Fig. 14). These specimens do not cluster in the tree by their names but are intermixed with low statistical support for any of their grouping within their overall clade that is strongly supported. COI barcodes of the abovementioned syntypes of the three taxa are identical and the specimens are phenotypically similar. Therefore, we suggest that these four taxa are conspecific, and by the priority of names place *Carystus odilia* Burmeister, 1878, *Pamphila trebius* Mabille, 1891 and *Megistias corescene* Schaus, 1902 as junior subjective synonym of *Cymaenes lumina* (Herrich-Schäffer, 1869). The remaining puzzle is the locality of the *P. trebius* syntype, stated as "Bogota" [Colombia] on it label. By DNA, the syntype groups with specimens from southern South America (Fig. 14), and its wing pattern, i.e., prominent and wide brown discal hindwing patch below and the lack of submarginal darkening are characteristic of them rather than of specimens that belong to this species group that we have seen from Colombia.

Cymaenes isus (Godman, 1900), reinstated status

Treated by Evans (1955) as a junior subjective synonym of *Cymaenes trebius* (Mabille, 1891) (type locality Colombia: Bogota), *Megistias isus* Godman, 1900 (type locality Mexico, Guatemala, Nicaragua, Costa Rica, Venezuela and Guyana) may become the senior name for this species after we have shown above that *Pamphila trebius* Mabille, 1891 is a junior subjective synonym of *Cymaenes lumina* (Herrich-Schäffer, 1869). *Cymaenes trebius* was misidentified by Evans (1955), because its syntype specimen in the ZMHB (NVG-15034E04) actually (and correctly) keys out to "Sub-sp. odilia" by its characters. i.e. on its hindwing below "grey suffusion along the termen reaches to the discal [pale] band" (Evans 1955: 133), and specimens from North America that key to Evans' "Sub-sp. trebius" are in a different from the *P. trebius* syntype clade of *Cymaenes* Scudder, 1872 (type species *Cobalus tripunctus* Herrich-Schäffer, 1865) in the genomic tree (Fig. 14). Indeed, Evans identified all the North American syntypes of *M. isus* in the BMNH collection as "Sub-sp. trebius" and no other name except *M. isus* can be applied to this species. Therefore, we reinstate *Cymaenes isus* (Godman, 1900) as a species-level taxon. Phylogenetic analysis reveals that *C. isus* is sister to the type species of the genus, *C. tripunctus* (type locality Cuba) (Fig. 14). The type series of *C. isus* includes specimens from South America that represent a taxon different from North America specimens. To promote stability of nomenclature and follow Evans (1955) who listed the type locality of *C. isus* as "Mexico", in addition to the original author of the taxon Godman (Godman and Salvin 1900b) who illustrated specimens from Mexico, thus giving them more weight in the description, N.V.G. hereby designates one of these illustrated specimens, the male in BMNH collection that is already curated as "the type" with the following labels || Type / H 2222 || Type | H. T. || Venta de Zopilote, | Guerrero, 2800 ft. | Oct. H. H. Smith || ♂ || Sp. figured. || B. C. A. Lep. Rhop. | Megistias | isus, | Godm. || Godman-Salvin | Coll. 1914.–5 || as the **lectotype** of *Megistias isus* Godman, 1900. The type locality of *C. isus* thus becomes Mexico: Guerrero, 22 km N of

Chilpancingo, nr. southern end of the Canon de Zopilote at 2800 ft elevation, approximate GPS 17.77, −99.53, as detailed by Selander and Vaurie (1962), who researched the localities used by Godman and Salvin.

Cymaenes edata (Plötz, 1882), reinstated status

Hesperia edata Plötz, 1882 (type locality Venezuela: La Guaira) was treated by Evans (1955) as a subspecies of *Cymaenes odilia* (Burmeister, 1878) (type locality Argentina), but it is not monophyletic with it. As we have shown above, *C. odilia* is a junior subjective synonym of *Cymaenes lumina* (Herrich-Schäffer, 1869) (Fig. 14). Instead, in the genomic tree, *C. o. edata* is sister to *Cymaenes isus* (Godman, 1900) (type locality Mexico: Guerrero). Therefore, we reinstate *Cymaenes edata* (Plötz, 1882) as a species. With this action, and pending further studies, we follow Llorente et al. (1990) in considering North American *C. isus* (formerly *C. trebius*) a species distinct from South American *C. edata* (formerly within *C. odilia*).

Hesperia phocylides Plötz, 1882 is a junior subjective synonym of *Cymaenes edata* (Plötz, 1882)

Following the hypothesis of Godman (1907), who suggested that was "probably a small ♀ of *Lerema accius*" (J. E. Smith, 1797) (type locality USA: Georgia), *Hesperia phocylides* Plötz, 1882 (type locality Venezuela: La Guaira) is currently treated as a junior subjective synonym of *L. accius* (Mielke 2005). However, inspection of copies of Plötz's unpublished drawings (no. 578 for *H. phocylides*) in the library of the Natural History Museum, London, revealed that the wing pattern of *H. phocylides* does not agree with that of *L. accius*. Namely, hindwing below has a broad middle pale band through the discal cell, also expressed in cell Sc+R_1-RS as a wide rectangular spot, which is narrow in *L. accius*, but the brown discal band is narrow in contrast to broader band in *L. accius*. However, the illustration of *H. phocylides* is an excellent match to *Cymaenes edata* (Plötz, 1882) (type locality Venezuela: La Guaira) specimens from Venezuela. Both *phocylides* and *edata* have the same type locality and due to phenotypic similarities we suggest, acting as first reviser (ICZN Code Art. 24), that *Hesperia phocylides* Plötz, 1882 is a junior subjective synonym of *C. edata*. Both taxa were proposed in the same work issued on the same date (Plötz 1882b), and we give priority to the name *edata*, because this name is currently used as valid, but *phocylides* has been placed in synonymy (although with a wrong taxon) by the suggestion of Godman (1907) since Draudt (1923b).

Cymaenes miqua (Dyar, 1913), reinstated status and *Cymaenes aequatoria* (Hayward, 1940), new status

Lerema miqua Dyar, 1913 (type locality Peru: San Miguel) and *Lerodea aequatoria* Hayward, 1940 (type locality Ecuador) placed as subspecies of *Cymaenes odilia* (Burmeister, 1878) (type locality Argentina) (Mielke 2005) are not monophyletic with it, but instead are sisters to each other forming a separate clade near the base of *Cymaenes* Scudder, 1872 (type species *Cobalus tripunctus* Herrich-Schäffer, 1865) (Fig. 14). We sequenced the holotype of *L. miqua* (NVG-17102E10) in the USNM and the holotype of *L. aequatoria* (NVG-15104C10) in AMNH. The 4.1% (27 bp) difference in their COI barcodes coupled with phenotypic differences detailed by Evans (1955) suggest that they are species-level taxa: *Cymaenes miqua* (Dyar, 1913), **reinstated status** and *Cymaenes aequatoria* (Hayward, 1940), **new status**. In agreement with Mielke (2005), we leave *Cymaenes odilia pacer* Evans, 1955 (type locality Peru: Limbani) as a junior subjective synonym of *C. miqua* due to phenotypic similarities and relative geographic proximity.

Vehilius labdacus (Godman, 1900), reinstated status

North American specimens identified as *Vehilius inca* (Scudder, 1872) (type locality Peru) formed a prominent cluster distinct from South American specimens (Fig. 14) and thus are a distinct species. Available name for this species is *Megistias labdacus* Godman, 1900 (type locality Mexico: Guerrero, Morelos, Veracruz; Guatemala; Nicaragua and Costa Rica), which we reinstate from synonymy with *V. inca* as *Vehilius labdacus* (Godman, 1900), **reinstated status**, a combination already proposed by Lewis (1973).

Pamphila xenos Mabille, 1898 is a junior subjective synonym of *Vehilius inca* (Scudder, 1872)

Currently placed in *Lerodea* Scudder, 1872 (type species *Hesperia eufala* Edwards, 1869), *Pamphila xenos* Mabille, 1898 (type locality Bolivia: Tanampaya) is not monophyletic with it, but instead the two syntypes in the ZMHB we sequenced group within *Vehilius inca* (Scudder, 1872) (type locality Peru) and are conspecific with it (Fig. 14). Therefore, *Pamphila xenos* Mabille, 1898 is a junior subjective synonym of *Vehilius inca* (Scudder, 1872).

Lerodea sonex Grishin, new species

http://zoobank.org/86F96C45-03DE-4776-A24A-2CDEB659E1AD

Definition. Evans (1955) misidentified *Pamphila xenos* Mabille, 1898 (type locality Bolivia: Tanampaya), which as we show above is *Vehilius inca* (Scudder, 1872) (type locality Peru), and the species Evans called "*Lerodea xenos*" is now left without a name, which is given here. The description of this species is given by Evans (1955: 394) and it keys to N.3.2. Diagnosed by a bifid, crab claw-like harpe with equal length parallel to each other processes. Identified by variegated pattern on hindwing; forewing cell spots (if present) not in line with spot in cell CuA_1-CuA_2; fringes not checkered, mostly whitish, except on apical half of forewing; forewing below with pale violet triangular area along the margin, wider in the middle; hindwing below variegated pale violet, with small discal pale spots in some specimens and mostly brown wing segment by anal margin. The **holotype** is a female from Peru: Cuzco, Cosnipata Valley, Waykecha, elevation 2835 m, GPS -13.177500, -71.603889, collected on 19 August 2009 by Brian Harris, illustrated in Fig. 12o,p and deposited in the Museo de Historia Natural, Universidad Nacional Mayor de San Marcos, Lima, Peru (MUSM). The four males from the Evans' series in the Natural History Museum, London, UK (BMNH) are paratypes, from Peru: Carabaya, Limbani and Agualani.Additional paratypes, 9♂♂ and 13♀♀ from Peru: Huánuco, Junín, Huancavelica, Apurímac, and Cuzco are in MUSM. Type identification labels will be mailed to curators of these collections to be placed on these specimens.

Etymology. The name of the species is a reversed word *xenos*, and it is a noun in apposition.

Mnasilus Godman, 1900 is a junior subjective synonym of *Papias* Godman, 1900

A monotypic genus *Mnasilus* Godman, 1900 was proposed for *Mnasilus penicillatus* Godman, 1900 (type locality Mexico, Guatemala, Panama and Brazil), which is currently a junior subjective synonym of *Pamphila allubita* Butler, 1877 (type locality Brazil: Para). In the genomic trees (Fig. 14), *Mnasilus* is sister to the clade consisting of several species of *Papias* Godman, 1900 (type species *Pamphila integra* Mabille, 1891), such as *Papias phainis* Godman, 1900 (type locality Mexico: Veracruz) and *Papias projectus* Bell, 1942 (type locality Ecuador) among others. In turn, they together are sister to the clade with the type species of *Papias* (Fig. 14). To restore the monophyly of *Papias*, we can either propose a new genus for the sister clade of *Mnasilus*, or include *Mnasilus* in *Papias*. We opt for the latter solution due to genetic similarities between these taxa. For instance, COI barcodes of *Pamphila integra* lectotype (NVG-15035E12) and *Mnasilus allubita* specimen from the type locality (NVG-19122C09) differ by 7.1% (47 bp), a divergence common for many congeners. Therefore, we propose to treat *Mnasilus* Godman, 1900 as a junior subjective synonym of *Papias* Godman, 1900.

Papias amyrna (Mabille, 1891), reinstated status and new combination

Genomic sequencing of the syntype of *Pamphila amyrna* Mabille, 1891 (type locality Venezuela: Porto Cabello, DNA sample NVG-15036F04) in the ZMHB collection reveals that it is separated from *Papias* [formerly *Mnasilus*] *allubita* (Butler, 1877), a species that *P. amyrna* was considered a junior subjective synonym of, at a level consistent with *P. amyrna* being a species-level taxon (Fig. 14). While COI barcodes of the *P. amyrna* syntype and *P. allubita* specimen from the type locality (NVG-19122C09) differ by 0.9% (6 bp), not sufficient on its own to support the species-level status of this taxon, *P. amyrna* lacks the tuft of long scales in the middle of dorsal forewing by its inner margin, which per Evans (1955) is characteristic of *P. allubita*. The two taxa are likely to be sympatric at least in Venezuela (Evans, 1955). The syntype of *Cobalus umbrosus* Mabille, 1883 (type locality not specified) in the BMNH collection (inspected), possesses the forewing scale tuft and therefore is not *amyrna* but *P. allubita*, in agreement with Evans (1955). Therefore, pending clarification of the identity of the two taxa with the primary type specimens still to be found: *Cobalus evanidus* Mabille, 1883 (type locality South America) and *Hesperia zalma* Plötz, 1886 (type locality Panama), which, following Evans (1955), currently are junior subjective synonyms of *P. allubita*, we **reinstate** *Papias amyrna* (Mabille, 1891) as a species.

Mnasilus guianae Lindsey, 1925 is a junior subjective synonym of *Papias amyrna* (Mabille, 1891)

Originally named in the genus *Mnasilus* Godman, 1900 (type species *Mnasilus penicillatus* Godman, 1900, a junior subjective synonym of *Pamphila allubita* Butler, 1877), *Mnasilus guianae* Lindsey, 1925 (type locality Guyana: Georgetown) was placed in the genus *Nastra* Evans, 1955 (type species *Hesperia lherminier* Latreille, [1824]) by Evans (1955), who suggested that it may even be a subspecies of *Nastra neamathla* (Skinner and Williams, 1923) (type locality USA: Florida) due to similarities in genitalia. However, we find that genitalia of *guianae* are much more similar to those of *P. allubita*, that *N. neamathla*, e. g. valva is deeply bilobed terminally, not indented as in *N. neamathla*. Moreover, a specimen from Guyana in AMNH collection identified as *M. guianae* following genitalic inspection (NVG-19043B01), was placed within the *Papias* [formerly *Mnasilus*] *allubita* clade, far removed from *Nastra*, and next to the lectotype of *Pamphila amyrna* Mabille, 1891 (type locality Venezuela) (Fig. 14). Both *guianae* and *Pamphila amyrna* come from neighboring countries, are phenotypically similar to each other and to *P. allubita*, including their genitalia, but lack the diagnostic for *P. allubita* tuft of long scales by forewing inner margin above (Evans 1955). The COI barcodes of *Pamphila amyrna* lectotype and the *guianae* specimen NVG-19043B01 differ by only 0.3% (2 bp). For these reasons, we place *Mnasilus guianae* Lindsey, 1925 in the genus *Papias* (*Mnasilus* being its junior subjective synonym) and suggest that it is conspecific with *Papias amyrna* (Mabille, 1891).

Papias latonia (Schaus, 1913), revised combination

Returned to its original genus by Evans (1955) and kept it in thus far, *Cobalopsis latonia* Schaus, 1913 (type locality Costa Rica, syntype NVG 18113G07 in the USNM) is in the same clade with the lectotype of *Pamphila integra* Mabille, 1891 (NVG-15035E12), the type species of *Papias* Godman, 1900, but is distant from *Pamphila edda* Mabille, 1891 (syntype NVG-15035D09 sequenced), the type species of *Cobalopsis* Godman, 1900 (Fig. 14). Therefore we transfer *C. latonia* to the genus *Papias*. Notably, *C. latonia* had been placed in *Papias* by Bell (1946), a treatment that has not caught on, although it appears to be correct. Finally, to stabilize nomenclature, N.V.G. designates a sole syntype in the USNM bearing the following six labels || Nov || JuanVinas | CR || Collection | WmSchaus || Cobalopsis | latonia | type Sch. || Type | No. 11814 | U.S.N.M. || ♂ genitalia | slide #1710 | W.D.F. 7-X-41 || as the **lectotype** of *Cobalopsis latonia* Schaus, 1913. This syntype has expanse of 33 mm, exhibits more extensive spotting, as mentioned and illustrated in the original description (Schaus 1913), and is from "Juan Vinas" according to its label, a locality given first in the description. The second syntype, now paralectotype, in BMNH, from "Cachi" per its label, is larger (expanse of 35 mm) and darker. For example, the second apical forewing spot mentioned in the original description and obvious in the original illustration is not noticeable on dorsal surface of the paralectotype, and a row of five pale spots on ventral hindwing is poorly defined. Furthermore, paralectotype identification label in Schaus' handwriting lacks the word "type" present on the label of lectotype. For these reasons, we conclude that it was the USNM syntype (now lectotype) that was illustrated, described, and considered "type" by Schaus, and not the BMNH syntype (now paralectotype), despite the statement "In British Museum" as the last line in the original description, published in the Proceedings of the zoological Society of London (Schaus 1913). Schaus mentions collecting these specimens during "a recent visit to Costa Rica", and it is possible that due to the venue of publication, the original intent was to deposit the "type", now the lectotype, in BMNH that never realized.

Papias integra (Mabille, 1891), reinstated status

Genomic trees reveal a prominent partitioning of specimens identified as *Papias subcostulata* (Herrich-Schäffer, 1870) (type locality Brazil) into two groups (Fig. 14). Phenotypically, these groups correspond to the two subspecies defined by Evans (1955): the nominotypical subspecies and *Papias subcostulata integra* Mabille, 1891 (type locality Honduras). Although Mielke and Casagrande (2002), who designated the lectotypes of *integra* and *Hesperia infuscata* Plötz, 1882 (type locality "Brazil" in the original description, but Suriname on the label of the lectotype), did not advocate the two Evans' subspecies, our genomic comparison suggests that they are distinct species with *H. infuscata* being a junior subjective synonym of the nominal *P. subcostulata*, and *P. s. integra* being the senior name for the second species. The two species are characterized by Fst/Gmin values of 0.45/0.008 in the Z chromosome. According to a recent study (Cong et al. 2019a), these values indicate strong genetic differentiation and suggest very low gene exchange between these species, thus supporting their distinction from each other.

Evans (1955) mentioned that the two "subspecies" overlap in distribution. We sequenced specimens of both from Ecuador (although not from exactly the same localities). For these reasons (genetic and phenotypic distinction, possible sympatry), we reinstate *Papias integra* (Mabille, 1891) as a species-level taxon. Due to extensive pale overscaling along the veins below, we place *Pamphila allianca* Weeks, 1901 (type locality Bolivia) as a junior subjective synonym of *P. subcostulata*. Interestingly, all the specimens we sequenced have the same COI barcode sequence and thus offer yet another example of distinct species that, like North American *Celastrina* Tutt, 1906, do not differ in their barcodes.

Finally, as Mielke and Casagrande (2002) mentioned, type specimens of *P. subcostulata* are probably lost. They were illustrated by Plötz among his unpublished drawings (no. 286 for *P. subcostulata*). These drawings were inspected by Godman (1907), who organized copying many of them, with these copies bound in the library of the Natural History Museum, London. Although the drawing no. 286 was not copied, Godman (1907: 138) made a comment that *P. subcostulata* may belong to *Papias* and a specimen from Iquitos in Godman and Salvin collection may be this species. We located this specimen in BMNH, and it has prominent pale overscaling along the veins, in particular on the hindwing, agreeing with Evans' concept of *P. subcostulata*. Furthermore, illustrations in Draudt (1921–1924) frequently resemble Plötz unpublished drawings seen as Godman copies, and more so than they resemble actual type specimens Plötz drawings were made of. Therefore it seems likely that many Draudt illustrations were made not from specimens, but from Plötz drawings. For this reason, Draudt illustrations may be viewed as (frequently inferior) copies of Plötz and probably depict the types of these taxa. The illustration of *P. subcostulata* (plate 187f in Draudt 1921–1924) shows ventral side with prominent pale veins and agrees well with the BMNH specimen from Iquitos selected to match Plötz drawing of *P. subcostulata*. Thus, although the type specimens of *P. subcostulata* could not be found, several lines of evidence presented here point to the same conclusion that it is the species with paler veins. Therefore, we agree with the Evans' (1955) identification of *P. subcostulata*.

Pamphila nubila Mabille, 1891 is a junior subjective synonym of *Papias integra* (Mabille, 1891)

Treated by Evans as a junior subjective synonym of *Cynea corisana* (Plötz, 1882) (type locality Suriname), *Pamphila nubila* Mabille, 1891 (type locality Venezuela: Porto Cabello) is placed within *Papias integra* specimens in the genomic tree (Fig. 14) judging from the syntype in the ZMHB collection we have sequenced. This specimen (NVG-18043C11) is a syntype, because it agrees exactly with the original description, comes from the type locality mentioned in the description according to its labels ("Pto Cabello"), has a label with "*Pa. nubila* ♀ Mb." in handwriting similar to that of Mabille, comes from the Staudinger collection, and is curated as the type of this taxon. To stabilize nomenclature, N.V.G. hereby designates this ZMHB specimen lacking left hindwing and bearing the following labels || Origin. || Pto Cabello | Hahnel || Pa. nubila | ♀ Mb. || Pamph. | Nubila | Mab. || Coll. | Staudinger || Nubila | Mab. || GEN.PREP., | MIELKE | 1996 || [barcode image] http://coll.mfn-berlin.de/u/ | 44a060 || DNA sample ID: | NVG-18043C11 | c/o Nick V. Grishin || as the **lectotype** of *Pamphila nubila* Mabille, 1891. Wing patterns of the lectotype, are in agreement with the genomic assessment. For instance, its paler-brown ground color (also mentioned in the original description) and pale overscaling around the veins on ventral surface of wings are like those of *P. integra* specimens, including the lectotype (NVG-15035E12), but differ drastically from the darker brown without paler veins pattern of *C. corisana*. Currently, we do not have evidence to support *P. nubila* as a valid taxon distinct from *P. integra*. For instance, in addition to the fact that the COI barcodes of the two lectotypes are 100% identical, *P. nubila* does not form a prominent clade in genomic trees. Therefore we propose that *Pamphila nubila* Mabille, 1891 is a junior subjective synonym of *Papias integra* (Mabille, 1891). With this action, being the first reviser (ICZN Code Art. 24), we also give precedence to the name *integra* over *nubila*, both names published in the same work at the same date (Mabille 1891).

Metiscus atheas Godman, 1900 is a valid species

Currently considered a junior subjective synonym of *Hesperia achelous* Plötz, 1882 (type locality Panama: Chiriqui), *Metiscus atheas* Godman, 1900 (type locality Mexico: Tabasco, Guatemala: Coban, Costa Rica: Caché, Panama: Chiriqui, Brazil: Amazonas, Trinidad) does not conform to what is known about *H. achelous*. *Metiscus atheas* is characterized by dark-brown typically unspotted wings and a diagnostic shape of stigma, which is bipartite and rather broad—compare to *Lychnuchus (Enosis) immaculata* (Hewitson, 1868)—as illustrated in the original description (Godman and Salvin 1900b).

We reviewed information available about *H. achelous*. No type specimens of *H. achelous* are known to exist, and the original description given in a form of identification key is too brief to confidently identify this species (Plötz 1882a): "forewing darker in the middle area below" is the only species-specific information provided, in addition to forewing length of 16 mm and the drawing number 260. These unpublished Plötz drawings, now presumed lost, were inspected by Godman (1907) who organized copying those he could not readily match to species known to him. The drawings 258–265 relevent to this discussion were not among the compilation of these copies now in the library of the Natural History Museum, London (inspected by N.V.G), and Godman (1907: 137) noted that *Hesperia paria* Plötz, 1882 (type locality Panama: Chiriqui, Plötz drawing 259), currently in *Eutychide* Godman, 1900, was synonymous with *H. achelous*.

While it may seem odd that the two taxa placed next to each other (drawing numbers 259: *H. paria* and 260: *H. achelous*) by Plötz, and thus directly compared with each other, are synonymous, it is not without a precedent. For instance, *Hesperia perloides* Plötz, 1882 (type locality Brazil, drawing number 282) and *Hesperia perla* Plötz, 1882 (type locality Brazil: Rio de Janeiro, drawing number 283) are currently treated as synonyms (Mielke 2005).

The names *H. achelous* and *H. paria* were proposed in the same work issued on the same date (Plötz 1882a), and the precedence between the two names was determined by the "First Reviser" (ICZN Code Art. 24.2). By placing the name *Eutychide achelous* in the right column without comments, and *Hesperia paria* in the left column, Godman (1907: 137) seemingly gave priority to the name *H. achelous* over *H. paria*. This is because in all instances where the name given in the left column has priority, Godman's text in the right column explicitly stated that priority (Godman 1907). If this priority designation is questioned, Draudt (1923b) also used *E. achelous* as a valid name and listed "= *paria*" as its synonym, probably following Godman. Therefore, if considered synonymous, *H. paria* would be a junior subjective synonym of *H. achelous*.

Furthermore, Godman (1907: 137) commented that the specimen illustrated by Plötz in the drawing number 259 as *H. paria* was "from La Guayra, not Chiriqui" as stated in the original description (Plötz 1882a). A number of possibilities arise here, one being that a mistake was made in listing the locality of *H. paria* as "Chiriqui" in the Plötz description. In agreement with that, Draudt (1923b) listed both Panama and Venezuela as the localities for his entry "*E. achelous* Plötz (= *paria* Plötz)".

In addition to the analysis of Plötz drawing, the identity of *H. achelous* was based on the specimens identified as such from the Staudinger collection (Godman and Salvin 1900a), now in the ZMHB. Type specimens for a large number of Plötz names are in the Staudinger collection and it is possible that these *H. achelous* specimens were the Plötz types, although not labeled as such. Inspecting these specimens, Godman concluded that *H. achelous* is the species known today as *Eutychide paria* following Evans (1955). In the ZMHB Hesperiidae drawer 183, there was a male specimen (July 2012, inspected and photographed by N.V.G.) that would be identified as Evans' *H. paria* with a green label "achelous / Plötz" above it.

Evans (1955) disagreed with the application of *H. achelous* for *H. paria* by Staudinger (Godman and Salvin 1900a), Godman (1907), and Draudt (1923b). Evans used *Eutychide paria* as the name for this species and synonymized *M. atheas* under his *Enosis achelous*. The reasons behind this disagreement and placement of *M. atheas* in synonymy with *H. achelous* were not given (Evans, 1955: 216), remain unsubstantiated, and are unclear to us. Based on the analysis presented above, we do not follow Evans, remove *Metiscus atheas* Godman, 1900 from synonymy, and consider it to be a valid species, which is the type species of *Metiscus* Godman, 1900 by monotypy. To promote the stability of nomenclature and to narrow down the type locality currently spanning both Americas, N.V.G. hereby designates the male specimen in the collection of the Natural History Museum, London, UK whose genitalia and wing venation were illustrated in the Godman and Salvin book (1900b), as the **lectotype** of *Metiscus atheas* Godman, 1900. The lectotype is from Mexico: Tabasco, Teapa, collected by H. H. Smith. Its left wings are cleared from scales to reveal venation and stigma, and genitalia are prepared on a mini-slide pinned together with its labels. According to Selander and Vaurie (1962), the type locality Teapa is 48 km south of Villahermosa (very near the border with Chiapas), approximate GPS coordinates 17.55, −92.95.

The identities of *H. achelous* and *H. paria* remain to be determined after a more careful search for its possible type specimens we have initiated in several collections is conducted. There are three issues with finalizing the application of the names *H paria* and *H. achelous*. First, the forewing length of *H. achelous* given by Plötz

(1882a) in the original description is 16 mm (vs. 18 mm for *H paria*), which is smaller than typical for the species Evans (1955) called *H. paria* (20 mm) and Godman called *H. achelous*. Second, our argumentation presented above is based on three publications (Godman and Salvin 1900a; Godman 1907; Draudt 1923b) that may not be fully independent and could largely stem from the specimens that Staudinger identified as *H. achelous*. The argument breaks down if Staudinger misidentified these specimens and other sources simply followed this misidentification, and Plötz's drawings 259 and 260 were not detailed enough or misleading to offer clues about the true identity of these species as interpreted by Godman. Third, the La Guaira specimens from the collection in Greifswald, given as Plötz's place of residence in the original publication (Plötz 1882a) should be investigated to address the discrepancy between the locality of *H. paria* on the drawing (La Guaira) (Godman 1907: 137) and in the description (Chiriqui). The collection of Ernst Moritz Arndt Universität in Greifswald, Germany has been reported to contain a number of Plötz's type specimens from La Guaira, some of which have been designated as lectotypes (Mielke and Casagrande 2002).

Presently, in the interest of nomenclature stability we treat *Hesperia achelous* as a *nomen dubium*, because current evidence points to synonymy between *H. achelous* and *H. paria*, which results in *H. achelous* being a valid name, instead of *H. paria*. Implied usage of *H. achelous* for the species currently known as *E. paria* may need revision after the identity of *H. achelous* is determined, a change that better be avoided. Therefore, we leave the application of the name *E. paria* as currently used, following Evans (1955).

Metiscus **Godman, 1900 is a valid genus**

Metiscus Godman, 1900 (type species *Metiscus atheas* Godman, 1900) is not monophyletic with *Enosis* Mabille, 1889 (type species *Enosis dognini* Mabille, 1889), where its species are currently placed, and does not have apparent close relatives (Fig. 15). Therefore, *Metiscus* is a valid genus. In addition to the type species, the genus consists of *Enosis matheri* H. Freeman, 1969 (type locality Mexico: Veracruz, Catemaco) and *Pamphila angularis* Möschler, 1877 (type locality Suriname).

Enosis matheri **H. Freeman, 1969 is a junior subjective synonym of** ***Metiscus atheas*** **Godman, 1900**

Genomic sequencing of the holotype of *Enosis matheri* H. Freeman, 1969 (type locality Mexico: Veracruz, Catemaco) and two topotypical paralectotypes of *Metiscus atheas* Godman, 1900 (type locality Mexico: Tabasco, Teapa) among other specimens, including one from Colombia, reveals their close clustering together without any separation (Fig. 15). COI barcodes of the *E. matheri* holotype (NVG-18026C08) and one of the *M. atheas* topotypical paralectotypes (NVG-21013E09) are identical, and differ by only one base pair from the other paralectotype (NVG-21013E08). Combined with morphological similarities and proximity of their type localities, our data suggest that *Enosis matheri* H. Freeman, 1969 is a junior subjective synonym of *Metiscus atheas* Godman, 1900.

Mnasalcas amatala **Schaus, 1902 is a junior objective synonym of** ***Hesperia infuscata*** **Plötz, 1882, confirmed as a junior subjective synonym of** ***Mnaseas derasa derasa*** **(Herrich-Schäffer, 1870), new combination**

The name *Hesperia infuscata* Plötz, 1882 (type locality Brazil) was proposed in the same work with *Hesperia achelous* Plötz, 1882 and *Hesperia paria* Plötz, 1882 (see discussion above) and placed in the identification key between these two species (Plötz 1882a). The only species-specific information given for *H. infuscata* was: "Distal half of the wings below gray-brown. ♂ with stigma", in addition to the forewing length of 17 mm and the unpublished drawing number 265 (original likely lost), which was not included among Godman's copies of Plötz's drawings (now in the Natural History Museum, London, inspected by N.V.G.), because Godman assumed that he found a specimen closely matching it in the Godman and Salvin collection (Godman 1907).

First, Godman concluded that the Plötz's drawing of *H. infuscata* did not match his previous identification of this species as published in Godman and Salvin (1900b). This Godman's misidentification was based on the male specimen in the Staudinger collection (now in ZMHB) identified by Möschler as *H. infuscata* (Godman and Salvin 1900b). In all likelihood, it was the specimen that in addition to the "B.C.A.Lep.Rhop." label routinely placed by Godman on specimens used in the book, gained the "Origin" label (Godman did not mention this specimen was a type) and was later designated as the lectotype of *H. infuscata* (Mielke and Casagrande 2002). This specimen (NVG-15035E11), from Suriname, not from Brazil as per *H. infuscata* description, does not agree with either of the species-specific statements of the original description. First, distal half of its wings below is nearly the same color as the basal half (not gray brown). Second, it is a male that lacks a stigma. According to Godman (1907), this specimen did not match the original Plötz drawing of *H. infuscata*.

Although the drawing no. 265 was not among the Godman's copies, it is likely that many of the Plötz's original drawings served as prototypes for illustrations in Draudt (1923b). This is because some of the Draudt illustrations appear more similar to Godman's copies of Plötz drawing than to actual specimens of these species. Draudt considered *H. infuscata* to be possibly synonymous with *Metiscus atheas* Godman, 1900. The illustration of *M. atheas* ventral aspect (plate 187, row f, image no. 8), while not agreeing with the specimens from *M. atheas* type series, agrees well with the original description of *H. infuscata*: "Distal half of the wings below gray-brown." It is possible that this illustration might have been a copy of the (now lost) Plötz's drawing and can give an idea about how this species looks like. It is clear that Möschler's specimen NVG-15035E11 or a species it represents, cannot possibly be approximated by this drawing. For all these reasons, this Möschler's specimen is **not a syntype** of *H. infuscata*, despite the "Origin" label on its pin. Therefore, it cannot be a lectotype and should not be a used to define the name *H. infuscata*.

Second, Godman (1907: 137) noted that the Plötz's drawing 265 depicted a stigma "formed of two narrow elongate streaks" that looked somewhat similar to that of *M. atheas*. The only South American specimens (*H. infuscata* is from Brazil) identified by Evans as *Enosis achelous* (he considered *M. atheas* to be its synonym) were from Ecuador. They possess *atheas*-styled stigma and their ventral aspect shows darker basal half of wings, mostly confined to discal cell on forewing, and paler-brown marginal areas. However the pattern is not as sharply two-toned as the Draudt illustration, which Evans described as "very exaggerated" for his "*E. achelous*", but this pattern could be just right for some other species. Furthermore, the forewing is 17 mm in *H. infuscata* and is larger than 18 mm in the BMNH specimens from Ecuador. For these reasons, *H. infuscata* was a species different from *M. atheas* or *E. achelous*. Next, we searched for possible syntypes of *H. infuscata* in the Museum für Naturkunde, Berlin, Germany (ZMHB) and the Zoologische Staatssammlung München, Germany (ZSMC), where primary types of many taxa authored by Plötz are deposited: N.V.G. inspected all Hesperiidae drawers in the first two collections and failed to find any syntypes. We studied photographs of the drawers with Plötz types in the collection of the Universität Greifswald (EMAU) and found no *H. infuscata* syntypes. Therefore, we believe that the syntypes are no longer extant, and we proceed with a neotype designation. There is an exceptional need to designate neotype of *H. infuscata*, because a specimen that is not a syntype was designated as its lectotype previously (Mielke and Casagrande 2002), introducing confusion about application of this name and requiring the identity of this taxon to be objectively established in agreement with its original description to facilitate future research on Hesperiidae.

Translating from the original description of *H. infuscata* given as a key (Plötz 1882a), the following characters differentiate this taxon: antenna is nearly always longer than half of forewing, wings are without hyaline spots, dorsal and ventral sides of wings are almost equally dark, without markings, distal half of ventral wings is gray-brown, ♂ with stigma, forewing length 17 mm; augmented with Godman's comments (Godman 1907) that *H. infuscata*, as drawn by Plötz, "has a brand formed of two narrow elongate streaks" and "comes very near *Metiscus atheas* Godm." Among Brazilian Hesperiidae, we found a specimen that is an excellent match to the original description of *H. infuscata*, Draudt's illustration of "*Metiscus atheas*" (Draudt 1921–1924), and Godman's comments. This specimen is a syntype of *Mnasalcas amatala* Schaus, 1902, the only one from the known specimens of the syntypic series that has the word "type" on the identification label handwritten by Schaus. N.V.G. designates this specimen as the **neotype** of *Hesperia infuscata* Plötz, 1882 (see label data of this specimen below). This male from Brazil with dark-brown unspotted wings has forewing length 17 mm, antenna 0.53 of the forewing length, well-defined brand of two elongate streaks, distal half of both wings ventral side paler than basal half, and the darker forewing area nearly rectangular, shaped as in the Draudt's illustration.

Our neotype of *H. infuscata* satisfies all requirements set forth by ICZN Article 75.3, namely: 75.3.1. It is designated to clarify the taxonomic identity of *Hesperia infuscata* Plötz, 1882, which has been inconsistent with its original description; 75.3.2. The characters for the taxon have been given in its original description by Plötz (1882a: 319), detailed by Godman (1907: 137) and are discussed above; 75.3.3. The neotype specimen, which N.V.G. also designates as the **lectotype** of *Mnasalcas amatala* Schaus, 1902 to stabilize nomenclature, bears the

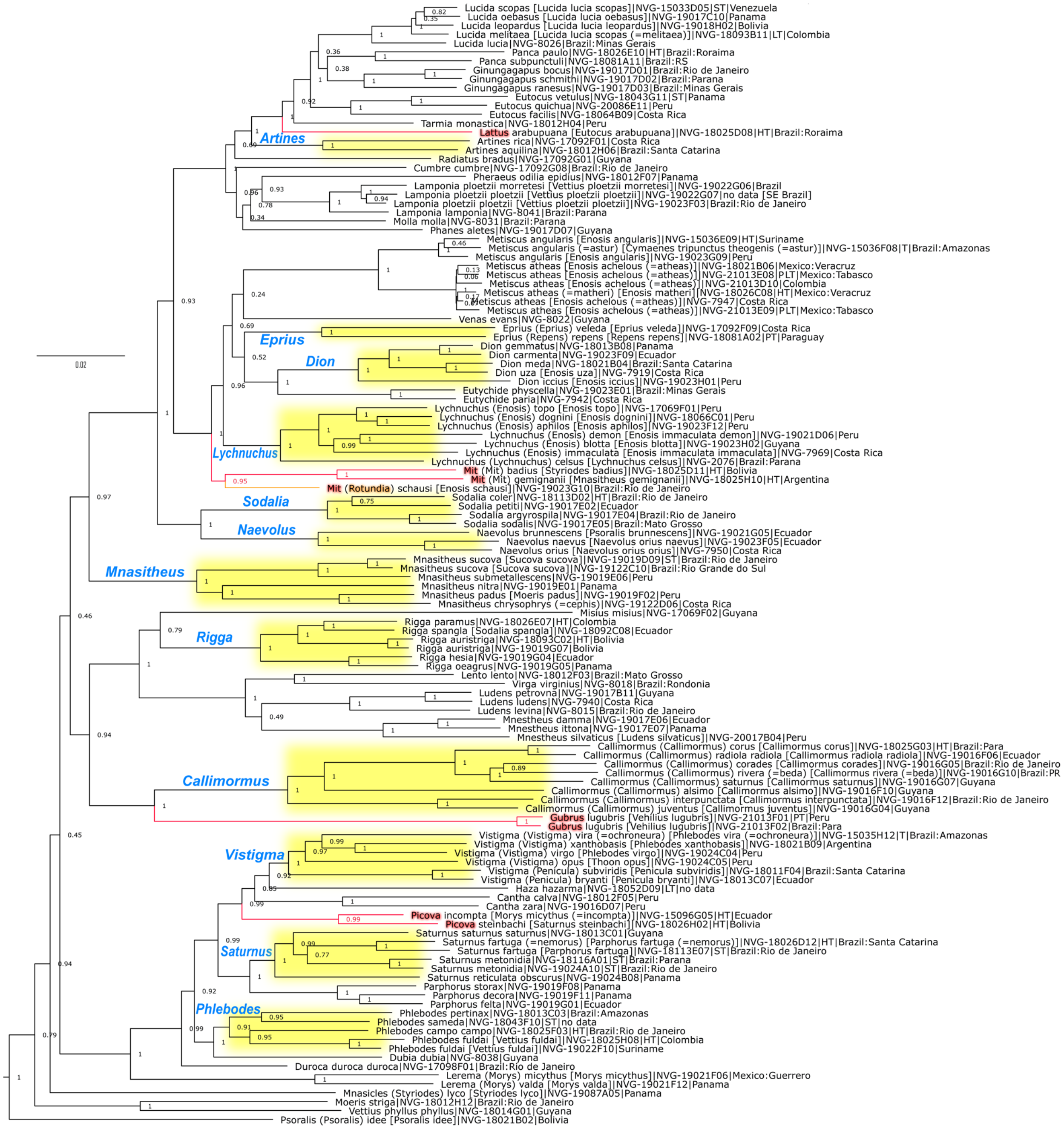

Figure 15. Genomic tree of Moncina, part 3. See Fig. 1 legend for notations.

following labels: || Nova Friburgo, | Brazil. || Collection | W. Schaus || Mnasalcas | amatala | type Sch. || Type | No. 6031 | U.S.N.M. ||, additionally recognized by the head tilted to the left, left antenna stretched out anteriad, and the tip of right hindwing tornus bent dorsad; 75.3.4. Our search for the syntypes is described above, it was not successful, and we consider that the specimens composing the type series of *H. infuscata* are lost; 75.3.5. As detailed above, the neotype is consistent with the original description and all additional information known about this taxon; 75.3.6. The neotype is from Brazil: Rio de Janeiro, Nova Friburgo, and the type locality given for *H. infuscata* in the original description is "Brasilien"; 75.3.7. The neotype is in the collection of the National Museum of Natural History, Smithsonian Institution, Washington, DC, USA (USNM).

Genomic analysis of the *H. infuscata*/*M. amatala* neotype/lectotype (NVG-18111C07) places it together with a syntype of *Pamphila gagatina* Mabille, 1891 in the ZMHB (NVG-15034H04) and among other specimens from Brazil that we identified as *Mnaseas derasa derasa* (Herrich-Schäffer, 1870), **new combination** (type locality Brazil) (Fig. 11), thus confirming that the three former taxa are junior subjective synonyms of the latter.

Finally, Evans attributed the name *H. infuscata* to a species closely related to *Metiscus angularis* (Möschler, 1877) (type locality Suriname). However, this species is smaller: forewing length less than 16 mm in males (vs. 17 mm in *H. infuscata*) and has petite stigma, not similar to that of *M. atheas*. Therefore, Evans misidentified *H. infuscata*, and the taxon he identified as *Enosis angularis infuscata* does not have a name. It is therefore new, described as a species below.

Metiscus goth Grishin, new species

http://zoobank.org/AFAB9CB8-51EC-4296-863B-6CC917EBC94E

Definition. Evans (1955) misidentified *Hesperia infuscata* Plötz, 1882 (type locality Brazil), as detailed above. Hence the taxon Evans identified as *Enosis angularis infuscata* is left without a name. Genitalic differences discussed and illustrated by Evans (1955) substantiate it as a species-level taxon, sister to but distinct from *Metiscus angularis* (Möschler, 1877) (type locality Suriname). Evans (1955) provided its description in a form of identification key, which is adopted here: this new species keys to K.4.10.(a) in Evans (1955) and its male genitalia are illustrated on Plate 68 as "infuscata". Differs from its relatives by a combination of the following characters: wings dark-brown, rounded, dorsal side unmarked in males (no hyaline dot near the base of forewing cell M_3-CuA_1), females with one or several small hyaline spots; wings below paler towards the outer margin, hindwing with a diffuse discal band darker than the background; stigma small, brown-gray, stands out from the wing background color, bipartite, of a characteristic shape with the upper segment comet-like, at the very base of CuA_1-CuA_2 cell stretching along discal cell, lower segment oval-shaped, just below the upper segment base and below CuA_2 vein; distal margin of harpe angled, without a notch, aedeagus not bifid. The **holotype** is a male from Costa Rica illustrated in Fig. 12q and deposited in the American Museum of Natural History, New York, USA (AMNH). Only the specimens of this species from Costa Rica are paratypes: 1♂ and 1♀ in the in the Natural History Museum, London, UK (BMNH), 3♂♂ and 3♀♀ in the National Museum of Natural History, Smithsonian Institution, Washington, DC, USA (USNM). Type identification labels will be mailed to curators of these collections to be placed on these specimens. Other specimens mentioned by Evans (1955) as his "Sub-sp. infuscata" are excluded from the type series.

Etymology. The name of this dark species decorated with a gracile stigma refers to gothic fashion. The name is a noun in appostion.

Pamphila astur Mabille, 1891 is a junior subjective synonym of *Metiscus angularis* (Möschler, 1877)

A syntype of *Pamphila astur* Mabille, 1891 (type locality Brazil: Amazonas) in the ZMHB collection (NVG-15036F08), currently a junior subjective synonym of *Cymaenes tripunctus theogenis* (Capronnier, 1874) (type locality Brazil: Rio de Janeiro) is not monophyletic with it and instead originates within *Metiscus angularis* (Möschler, 1877) (type locality Suriname) sister to its syntype (NVG-15036E09) (Fig. 15). Wing patterns and brand shape of the syntype agree with genetic assessment. Therefore we place *Pamphila astur* Mabille, 1891 is a junior subjective synonym of *Metiscus angularis* (Möschler, 1877).

Enosis Mabille, 1889 is a subgenus of *Lychnuchus* Hübner, [1831]

Enosis Mabille, 1889 (type species *Enosis dognini* Mabille, 1889) is sister to currently monotypic *Lychnuchus* Hübner, [1831] (type species *Lychnuchus olenus* Hübner, [1831], which is a junior subjective synonym of *Hesperia celsus* Fabricius, 1793) (Fig. 15). COI barcode difference between the type species of these genera is 7.1% (47 bp). Morphologically, they both are characterized by bifid aedeagus tip covered in small teeth and stout uncus with knob-like arms. Due to these similarities and to avoid a monotypic genus *Lychnuchus*, which is not prominently distinct, but possesses possibly mimetic and unusual for *Enosis* wing patterns, we propose to treat *Enosis* Mabille, 1889 as a subgenus of *Lychnuchus* Hübner, [1831].

Lychnuchus (Enosis) demon (Evans, 1955), new status, new combination

Named as a subspecies of *Hesperia immaculata* Hewitson, 1868 from Peru, *Enosis immaculata demon* Evans, 1955 shows differences comparable to those of species and is genetically removed from *E. immaculata* (Fig. 15). Furthermore, as detailed above, *Enosis* Mabille, 1889 (type species *Enosis dognini* Mabille, 1889) is a subgenus of *Lychnuchus* Hübner, [1831] (type species *Lychnuchus olenus* Hübner, [1831], which is a junior subjective synonym of *Hesperia celsus* Fabricius, 1793). Therefore we propose *Lychnuchus (Enosis) demon* (Evans, 1955), **new status**, **new combination**.

Mit Grishin, new genus

http://zoobank.org/64AC561D-9CB2-477C-8492-ADC91A6146F8

Type species. *Mnasitheus badius* Bell, 1930.

Definition. A genus in the clade with *Lychnuchus* Hübner, [1831] (type species *Lychnuchus olenus* Hübner, [1831], which is a junior subjective synonym of *Hesperia celsus* Fabricius, 1793), *Dion* Godman, 1901 (type species *Carystus gemmatus* Butler, 1872) and *Eutychide* Godman, 1900 (type species *Hesperia physcella* Hewitson, 1866) among others (Fig. 15). Keys to J.32.6, or K.2.5, or K.4.11 in Evans (1955). Morphologically diverse genus of dark Moncina species, unified by a peculiar mitten-shaped valva with a style of varying length and thickness from the ampulla projecting dorsal (a thumb) and harpe projecting caudad, slightly upturned (hand). Other characters include uncus either short and broad, with small or without arms, or long and undivided, beak-like; saccus half of valva in length; either with brands (no brand over vein CuA_2, long brands under vein CuA_2 and over vein 1A+2A) or long prominent stigma reaching vein 1A+2A; 3rd segment of palpi short. In DNA, a combination of the following base pairs is diagnostic: aly3277.16.1:G904A, aly666.36.3:G181A, aly666.36.3:G182A, aly7193.1.1:T163C, and aly2041.19.7:G130T.

Etymology. The name is a masculine noun in the nominative singular, given for the mitten-like shape of valva.

Species included. The type species, *Lerodea gemignanii* Hayward, 1940 and *Enosis schausi* Mielke and Casagrande, 2002.

Parent taxon. Subtribe Moncina A. Warren, 2008.

Rotundia Grishin, new subgenus

http://zoobank.org/63543CF4-05BF-4A97-A686-B9A38096E174

Type species. *Enosis schausi* Mielke and Casagrande, 2002.

Definition. Forms a more distant clade within *Mit* Grishin, **new genus**, and therefore is a subgenus (Fig. 15). Keys to K.4.11 in Evans (1955). Distinguished from its relatives by the following combination of characters: wings rounder, stigma prominent and long, reaching vein 1A+2A, uncus undivided, thin, beak-like, longer than tegumen, gnathos half of uncus in length, ampulla widely expanded dorsad (=thumb of a mitten) above smaller harpe. In DNA, a combination of the following base pairs is diagnostic: aly666.25.1:C2309A, aly3824.12.5:A3932G, aly3824.12.5:G2968A, aly577.34.1:G1716A, and aly1656.5.1:G106A.

Etymology. The name is a feminine noun in the nominative singular, given for the broad and relatively round wings of the type species.

Species included. Only the type species.

Parent taxon. Genus *Mit* Grishin, **new genus**.

Comment. From morphology, it seems apparent that *Mit (Rotundia) schausi* is more distant from either *Mit (Mit) badius* (Bell, 1930) (the type species of *Mit*) or *Mit (Mit) gemignanii* (Hayward, 1940), which are closer to each other, consistently with our genomic tree (Fig. 15). However, in COI barcodes, *M. schausi* is really close to *M. badius*: only 5.9% (39 bp) difference, less than that between *M. badius* and *Mit (Mit) gemignanii* (Hayward, 1940): 6.7% (44 bp), indicating that genomic data, not COI barcodes, are most valuable for proper classification that is consistent with phenotypic considerations.

Dion iccius (Evans, 1955) and *Dion uza* (Hewitson, 1877), new combinations

Currently placed in *Enosis* Mabille, 1889 (type species *Enosis dognini* Mabille, 1889), *Enosis iccius* Evans, 1955 (type locality Guyana) and *Hesperia uza* Hewitson, 1877 (type locality unknown) are not monophyletic with its type species and instead originate within *Dion* Godman, 1901 (type species *Carystus gemmatus* Butler, 1872) (Fig. 15). Therefore, they are transferred there to form *Dion iccius* (Evans, 1955), **new combination**, and *Dion uza* (Hewitson, 1877), **new combination**.

Dion agassus (Mabille, 1891), reinstated status, new combination

Mielke and Casagrande (2002) synonymized *Pamphila agassus* Mabille, 1891 (type locality Brazil: Amazonas, Massauary) with *Hesperia uza* Hewitson, 1877 (type locality not stated), both in *Enosis* Mabille, 1889 (type species *Enosis dognini* Mabille, 1889) following Evans (1955). Genomic sequencing of the lectotypes of these taxa revealed prominent genetic differentiation suggesting their distinctness at the species level. For example, their COI barcodes differ by 2.3%. Phenotypically, *H. uza* is larger than *P. agassus*: typical forewing lengths 19-20 mm vs. 17 mm; and the lavender area on its ventral hindwing is broader, occupying more than half of the wing. Moreover, ventral hindwing is patterned differently in the two species: *P. agassus* has a discal band of pale-blue metallic spots framed by brown background and lilac (more pinkish) distal area, while in *H. uza* these spots merged with the lavender (more bluish) background, not visibly contrasting it in color (but remain as patches of bluer than background metallic scales), and instead there is a row of indistinct brown streaks (remnants of the distal brown framing of *P. agassus* pale-blue spots) on the lavender background. While it is possible that wing patterns are variable, genetic distinctness identifies the two species. Above, we placed *H. uza* in *Dion* Godman, 1901 (type species *Carystus gemmatus* Butler, 1872), and *P. agassus* is its close relative that belongs to the same genus. Therefore, we propose *Dion agassus* (Mabille, 1891), **reinstated status, new combination**.

Hesperia pruinosa Plötz, 1882 is a junior objective synonym of *Dion uza* (Hewitson, 1877)

The original description of *Hesperia pruinosa* Plötz, 1882 (type locality South America) states that its ventral hindwing is dusted with violet-gray for more than 1/2 towards the anal angle, lists the forewing length at 20 mm, and gives the illustration number 293 (Plötz 1882a). While this illustration (likely lost) was not included in the Godman's copy of Plötz drawings now in the Natural History Museum, London, UK (inspected by N.V.G.), Godman (1907: 138) noted the two specimens in the Godman and Salvin collection from [Brazil, Mato Grosso] Chapada belong to this species. Inspection of these two specimens in Natural History Museum, London, UK, also mentioned by Evans (1955) revealed that instead of ventral hindwing being "über 1/2 gegen den Hinterwinkel veilgrau bestäubt" per Plötz description, it has a discal band of pale-blue spots encircled with brown. Moreover, these specimens are smaller than the *H. pruinosa* type(s): forewing length under 18 mm instead of 20 mm, so they are not a perfect match to the description of *H. pruinosa*.

However, the Draudt illustration of *H. pruinosa* ventral aspect on plate 189 row e image 5 agrees with the original description better that the Chapada specimens (Draudt 1923b). Due to general resemblance between Draudt illustrations and Plötz illustrations copied by Godman's decision, it is likely that a number of Draudt illustrations were either drawn from Plötz's original illustrations or specimens used by Plötz. Therefore, the Draudt *H. pruinosa* illustration is a likely representation of the type specimen. Out of specimens we examined, this illustration comes closest to the lectotype of *Hesperia uza* Hewitson, 1877 (type locality not stated). In particular, both the specimen and illustration have a broad lavender area on ventral hindwing covering cells M_1-M_2 and M_2-M_3 and partly discal cell, discal blue spots are poorly defined (widened, merged with the background, noticeable upon more careful inspection as areas of blue/greener shiny scales), "replaced" by a row of brown spots, not as distinct on the specimen as on the illustration.

As far as we can tell, the name *H. uza* was not mentioned by either Plötz or Draudt, but its original description is nearly the same as *H. pruinosa*'s: "the outer margin of the anterior wing and more than the outer half of the posterior wing are lilac-white" (Hewitson 1877). It is likely that Plötz was not aware of *H. uza*. Because Plötz worked with many specimens from the Staudinger collection, now in the ZMHB, that contains many of his type specimens, he may have used this particular specimen to describe *H. pruinosa*. Therefore, it is possible that the

H. uza lectotype is also a syntype of *H. pruinosa*. However, it seems to be nearly impossible to demonstrate it convincingly.

We conducted a careful search for *H. pruinosa* syntypes in all (more than 250) Hesperiidae drawers in the ZMHB, all Hesperiidae boxes in ZSMC and the Hesperiidae collection in EMAU (collections known to hold Plötz type material) and did not find any specimens that agree with the original description of *H. pruinosa*. Therefore, its types are either lost or unrecognizable, and we proceed with a neotype designation. There is an exceptional need to designate the neotype because this name has been arbitrarily assigned, causing inconsistency and thus confusion (Evans 1955; Mielke and Casagrande 2002), and the lack of the name-bearing type of *H. pruinosa* prevents definitive taxonomic studies of this group, stimulated by genomic sequencing that revealed the presence of two species. It is essential to define the name objectively and in a manner that is consistent with the intent of the original author, if it does not undermine stability of nomenclature.

The specimen, previously designed as the lectotype of *Hesperia uza* Hewitson, 1877 by Mielke and Casagrande (2002), who gave label data for it, is hereby designated by N.V.G. as the **neotype** of *Hesperia pruinosa* Plötz, 1882, making the two names objective synonyms. This specimen, pictured on the Butterflies of America website (Warren et al. 2016), bears two additional labels added since, both white, printed: || [barcode image] http://coll.mfn-berlin.de/u/ | 44a0ce|| and || DNA sample ID: | NVG-18052D10 | c/o Nick V. Grishin ||, and can be recognized by a unique wing tear from the outer margin along 1A+2A vein on the right hindwing. The neotype is in the Museum für Naturkunde, Berlin, Germany (ZMHB). The neotype is designated to clarify the taxonomic status of *H. pruinosa*, which is differentiated from other taxa by the characters stated in the original description (Plötz 1882a), and in Draudt (1923b), as discussed above. This neotype agrees with what is known about *H. pruinosa*. The collecting locality of the neotype is currently unknown and will be determined by genomic comparison with specimens from known localities. However, its phenotype is consistent with the neotype being from South America (the type locality of *H. pruinosa*), for example, from Colombia. Colombian specimens of this species in the BMNH collection are particularly large and are characterized by broadly-lavender ventral hindwings without a discal band of brown-framed blue spots.

In this work, we placed taxa discussed in this section in *Dion* Godman, 1901 (type species *Carystus gemmatus* Butler, 1872). And as a result of our studies, the taxon Evans (1955) called *Enosis pruinosa pruinosa* became *Dion uza*, and *Enosis pruinosa agassus* became *Dion agassus*.

Vistigma Hayward, 1939 is a valid genus and *Penicula* Evans, 1955 is its subgenus

Currently a junior subjective synonym of *Phlebodes* Hübner, [1819] (type species *Papilio pertinax* Stoll, [1781]), *Vistigma* Hayward, 1939 (type species *Vistigma xanthobasis* Hayward, 1939) is not monophyletic with it and instead is sister to *Penicula* Evans, 1955 (type species *Pamphila bryanti* Weeks, 1906) (Fig. 15), a genus that currently consists of two closely related species. COI barcode difference between the type species of *Vistigma* and *Penicula* is 8.2% (54 bp), thus we propose to consider them congeneric with *Penicula* Evans, 1955 being a subgenus of *Vistigma* Hayward, 1939, which is a valid genus, **revised status**. In addition to the type species, two species that are currently in *Phlebodes* belong to *Vistigma*: *Phlebodes virgo* Evans, 1955 (type locality Brazil: Amazonas) and *Pamphila vira* Butler, 1870 (type locality Brazil: Para).

Vistigma (Vistigma) opus (Steinhauser, 2008), new combination

Thoon opus Steinhauser, 2008 originates within *Vistigma* Hayward, 1939 (type species *Vistigma xanthobasis* Hayward, 1939) and is sister to species placed in the subgenus *Vistigma* (Fig. 15), but is in a clade different from the subgenus *Penicula* Evans, 1955, hence *Vistigma (Vistigma) opus* (Steinhauser, 2008), **new combination**.

Saturnus fartuga (Schaus, 1902), new combination

Presently in *Parphorus* Godman, 1900 (type species *Phlebodes storax* Mabille, 1891), *Phlebodes fartuga* Schaus, 1902 (type species Brazil: Rio de Janeiro) in not monophyletic with it and instead originates within *Saturnus* Evans, 1955 (type species *Papilio saturnus* Fabricius, 1787) (Fig. 15), where it is transferred to form *Saturnus fartuga* (Schaus, 1902), **new combination**.

Picova Grishin, new genus

http://zoobank.org/F411F412-42AE-4254-9423-8E0D3B787645

Type species. *Vorates steinbachi* Bell, 1930.

Definition. Currently in *Saturnus* Evans, 1955 (type species *Papilio saturnus* Fabricius, 1787), *Vorates steinbachi* Bell, 1930 (type locality Bolivia) and currently in *Morys* Godman, 1900 (type species *Apaustus valerius* Möschler, 1879), *Euroto incompta* Hayward, 1942 (type locality) are not monophyletic with the type species of the genera they are attributed to and instead are sister taxa in the genomic tree (Fig. 15). Their clade is a weakly supported sister to *Vistigma* Hayward, 1939 (type species *Vistigma xanthobasis* Hayward, 1939) with *Haza* Grishin, 2019 (type species *Hesperia hazarma* Hewitson, 1877) and therefore is a genus. Keys to L.1.2 or J.20.2(a) (in part) in Evans (1955). This new genus is distinguished from its relatives by a beak-like directed dorsad projection on otherwise rounded, broad harpe, harpe not prominently separated from ampulla, saccus slightly shorter than vinculum, uncus narrowing in the middle with two knob-like divergent arms, penis shorter than valva; boomerang-shaped narrow brand at the base of cell CuA_1-CuA_2. In DNA, a combination of the following base pairs is diagnostic: aly203.14.1:A408G, aly1146.42.8:A5096G, aly2250.14.1:A937C, aly151.17.2:C601A, and aly151.17.2:A3570C.

Etymology. The name is a feminine noun in the nominative singular, for the beak-shaped projection on valva: *Pico+va*[lva].

Species included. The type species and *Euroto incompta* Hayward, 1942 (see below).

Parent taxon. Subtribe Moncina A. Warren, 2008.

Picova incompta (Hayward, 1942), reinstated status, new combination

The holotype of *Euroto incompta* Hayward, 1942 (type locality Ecuador), currently a junior subjective synonym of *Lerema (Morys) micythus* (Godman, 1900) (type locality Mexico: Guerrero and Tabasco; and Costa Rica) is not monophyletic with it and is in a different clade, where it is closely related to *Picova steinbachi* (E. Bell, 1930) (type locality Bolivia) (Fig. 15). Therefore, we propose *Picova incompta* (Hayward, 1942), **reinstated status**, **new combination**.

Phlebodes fuldai (E. Bell, 1930), revised combination

Evans (1955) correctly placed *Euroto fuldai* Bell, 1930 (type locality Colombia) in *Phlebodes* Hübner, [1819] (type species *Papilio pertinax* Stoll, 1781) as *Phlebodes fuldia* [sic], stating that none of its specimens were in BM[NH], and then named *Vettius yalta* Evans, 1955 (type locality Brazil: Espírito Santo) with similar genitalia that he illustrated. Lamas (1994) placed *P. fuldai* in *Vettius* Godman, 1901 (type species *Papilio phyllus* Cramer, 1777), then Mielke (2004) placed *V. yalta* in synonymy with *V. fuldai*. However, the holotype of *fuldai* is not monophyletic with the type species of *Vettius*, and instead is in the same clade with the type species of *Phlebodes* (Fig. 15). Hence, we propose *Phlebodes fuldai* (E. Bell, 1930), **revised combination**.

Mnasitheus padus (Evans, 1955), new combination

Named by Evans (1955) in *Moeris* Godman, 1900 (type species *Talides striga* Geyer, [1832]), *padus* Evans, 1955 is not monophyletic with it, and is instead sister to *Mnasitheus chrysophrys* (Mabille, 1891), a valid name for *Mnasitheus cephis* Godman, 1900, which is the type species of *Mnasitheus* (Fig. 15). The two species are genetically close, for example, COI barcodes differ by 7.8% (51 bp), and are similar in genitalia. Moreover, in their revision of *Moeris* Godman, 1900 (type species *Talides striga* Geyer, [1832]), Carneiro et al. (2015) mentioned a cleft between ampulla and harpe that is absent in all *Moeris* species except *M. padus*, but present in *Eutychide submetallescens* Hayward, 1940 that they place in *Mnasitheus*. Genomic tree shows that *M. submetallescens* is more distant from the type species of *Mnasitheus* than *M. padus*. Therefore, we confidently place *M. padus* in *Mnasitheus*, **new combination**.

Sucova Evans, 1955 is a junior subjective synonym of *Mnasitheus* Godman, 1900

A monotypic genus *Sucova* Evans, 1955 (type and the only species *Hesperia sucova* Schaus, 1902) is sister to *Mnasitheus submetallescens* Hayward, 1940 making *Mnasitheus* polyphyletic. To restore monophyly, we can either transfer *submetallescens* to *Sucova*, or place *Sucova* in *Mnasitheus*. We prefer the latter solution, because Carneiro et al. (2015) correctly deduced phylogenetic affinity of then-*Moeris submetallescens* on the basis of morphological characters. Therefore, the placement of *submetallescens* in *Mnasitheus* is supported by the genus concept used in morphology-based studies and could be taken as a reference. Noting genetic similarity of these taxa (Fig. 15), we conclude that *Sucova* Evans, 1955 is a junior subjective synonym of *Mnasitheus* Godman, 1900.

Naevolus brunnescens (Hayward, 1939), new combination

Placed in *Psoralis* Mabille, 1904 (type species *Psoralis sabaeus* Mabille, 1904, which is a junior subjective synonym of *Pamphila idee* Weeks, 1901) by Evans (1955), *Oeonus brunnescens* Hayward, 1939 is not monophyletic with it (Fig. 15), and is instead sister to *Naevolus orius* (Mabille, 1883), the senior subjective synonym of *Cydrus naevolus* Godman, 1900, type and the only known species of *Naevolus* Hemming, 1939, where it is therefore placed. We note that both species possess similarly elongated wings, not frequently found in other Moncina.

Naevolus naevus Evans, 1955, new status

Named by Evans (1955) as a subspecies of *Naevolus orius* (Mabille, 1883) from western Ecuador, *naevus* differs from *orius* not only in wing patterns, but also in male genitalia (Evans 1955), in addition to genetic differences (Fig. 15) and COI barcode difference of 4% (26 bp), supporting its **new status** as a distinct species.

Lattus Grishin, new genus

http://zoobank.org/0C22E44F-6EF6-40F6-8233-70D069072441

Type species. *Eutocus arabupuana* Bell, 1932.

Definition. A genus sister to the clade consisting of five genera: *Eutocus* Godman, 1901 (type species *Eutocus phthia* Godman, 1901, a junior subjective synonym of *Apaustus facilis* Plötz, 1884), *Tarmia* Lindsey, 1925 (type species *Tarmia monastica* Lindsey, 1925), *Lucida* Evans, 1955 (type species *Carystus lucia* Capronnier, 1874), *Panca* Evans, 1955 (type species *Lerodea subpunctuli* Hayward, 1934), and *Ginungagapus* Carneiro, O. Mielke and Casagrande, 2015 (type species *Eutocus schmithi* Bell, 1930) (Fig. 15). Therefore, it is a genus. Keys to J.3.7 in Evans (1955). Distinguished from its relatives by the following combination of characters: wings broad, rounded, below with variegated patterns of darker lines and spots, reminding of a lattice pattern; small triangular brand at the base of CuA_1-CuA_2 cell; gnathos arms very long and thin, longer than uncus, uncus terminally rounded, undivided; penis with a style half of its length; valva twice as long as broad, harpe upturned, extends dorsally for a third of its length beyond ampulla. In DNA, a combination of the following base pairs is diagnostic: aly345.4.7:C2251A, aly1838.61.1:G543C, aly86.14.2:A4732G, aly138.16.3:G112C, and aly86.14.2:A4681C.

Etymology. The name is a masculine noun in the nominative singular, given for the lattice-like ventral hindwing pattern of the type species.

Species included. Only the type species.

Parent taxon. Subtribe Moncina A. Warren, 2008.

Lucida scopas (Mabille, 1891), *Lucida oebasus* (Godman, 1900), *Lucida leopardus* (Weeks, 1901), and *Lucida melitaea* (Draudt, 1923) reinstated statuses

Narga scopas Mabille, 1891 (type locality Venezuela: Merida, syntype NVG-15033D05 sequenced), *Megistias oebasus* Godman, 1900 (type locality Costa Rica), and *Pamphila leopardus* Weeks, 1901 (type locality Bolivia) are currently subspecies of *Lucida lucia* (Capronnier, 1874) (type locality Brazil: Rio de Janeiro) and *Artines melitaea* Draudt, 1923 (type locality Colombia: Río Aguacatal, lectotype NVG-18093B11 sequenced) is a junior subjective synonym of *Lucida lucia scopas*. However, these taxa show prominent genetic differentiation, in particular, *L. lucia* is the most different from the all, showing COI barcode difference of 5.6% (37 bp) from *Lucida scopas*

(Mabille, 1891), **reinstated status**. Curiously, the COI barcode difference between *L. scopas* and *Lucida melitaea* (Draudt, 1923), **reinstated status**, is also quite large, at 2.9% (19 bp), and that between *L. scopas* and *Lucida leopardus* (Weeks, 1901), **reinstated status**, is 3.2% (21 bp). Coupled with phenotypic differences, in particular in the absence/presence/size of the brand, considerable genetic differentiation argues for species status of these taxa, including *Lucida oebasus* (Godman, 1900), **reinstated status**, that lacks the brand.

Alternative taxonomy of *Eutocus* Godman, 1901 relatives

Lattus Grishin, **new genus** (type species *Eutocus arabupuana* Bell, 1932) was proposed as a genus, because it is sister to all other members of this group classified into of five genera: *Eutocus* Godman, 1901 (type species *Eutocus phthia* Godman, 1901, a junior subjective synonym of *Apaustus facilis* Plötz, 1884), *Tarmia* Lindsey, 1925 (type species *Tarmia monastica* Lindsey, 1925), *Lucida* Evans, 1955 (type species *Carystus lucia* Capronnier, 1874), *Panca* Evans, 1955 (type species *Lerodea subpunctuli* Hayward, 1934), and *Ginungagapus* Carneiro, O. Mielke and Casagrande, 2015 (type species *Eutocus schmithi* Bell, 1930) (Fig. 15). A number of species have been misclassified between these genera, for example, *Lattus arabupuana* Bell, 1932) was placed in *Eutocus* before. Due to close relationship between the six genera, it may be advantageous to consider all their species as congeneric within a larger but phylogenetically compact *Eutocus* sister to *Artines* Godman, 1901 (type species *Thracides aepitus* Geyer, 1832), and treat other five genus-group names as its subgenera. We are not adopting this view here, but offering it for consideration.

Lamponia ploetzii (Capronnier, 1874), new combination

Not monophyletic with *Vettius* Godman, 1901 (type species *Papilio phyllus* Cramer, 1777), where it was placed previously, *Goniloba ploetzii* Capronnier, 1874 instead groups within the species of *Lamponia* Evans, 1955 (type species *Hesperia lamponia* Hewitson, 1876) (Fig. 15), where it is transferred to form *Lamponia ploetzii* (Capronnier, 1874), **new combination**.

Gubrus Grishin, new genus

http://zoobank.org/B5CF60DB-22DD-4829-9DBD-8A673CF58BF0

Type species. *Vehilius lugubris* Lindsey, 1925.

Definition. Currently included in *Vehilius* Godman, 1900 (type species *Cobalus illudens* Mabille, 1891, a subspecies of *Pamphila stictomenes* Butler, 1877), but not monophyletic with it, and instead is a distant sister to *Callimormus* Scudder, 1872 (type species *Callimormus juventus* Scudder, 1872) (Fig. 15). A new genus is established here due to genetic and morphological differentiation of its currently sole member. Keys to J.28.5 in Evans (1955). The new genus is distinguished from its relatives, in particular from *Callimormus*, by the following combination of characters: no brands in male, uncus broader, not prominently narrowing distad (narrowing in *Callimormus*), divided, with knob-like arms, valva similar to *Callimormus* in shape, but rounder and harpe less separated from nearly straight to slightly convex ampulla, overlapping with it. In DNA, a combination of the following base pairs is diagnostic: aly1624.2.1:T259C, aly1624.2.1:T231C, aly164.4.1:A79T, aly3277.16.1:C892A, and aly1041.6.1:C56T.

Etymology. The name is a masculine noun in the nominative singular, formed from the type species name: [lu] *Gubr*(*ɨu*)*s*.

Species included. Only the type species.

Parent taxon. Subtribe Moncina A. Warren, 2008.

Mnestheus silvaticus Hayward, 1940, reinstated combination

Currently in *Ludens* Evans, 1955 (type species *Cobalus ludens* Mabille, 1891) probably due to wing pattern similarities, *Mnestheus silvaticus* Hayward, 1940 (type locality Argentina) is not monophyletic with it and instead is sister to *Mnestheus* Godman, 1901 (type species *Phlebodes ittona* Butler, 1870) (Fig. 15). To restore monophyly, we put it back in its original genus to form *Mnestheus silvaticus* Hayward, 1940, **reinstated combination**.

Morphological characters, in particular undivided uncus and valva shape without a deep cleft between ampulla and harpe, support this placement.

Rigga spangla (Evans, 1955), new combination

Named by Evans (1955) in *Mnasitheus* Godman, 1900 (type species *Mnasitheus cephis* Godman, 1900, a junior subjective synonym of *Cobalus chrysophrys* Mabille, 1891), *M. spangla* is not monophyletic with it and is placed within *Rigga* Grishin, 2019 (type species *Vorates auristriga* Draudt, 1923) in our genomic tree (Fig. 15), implying a new combination *Rigga spangla* (Evans, 1955) that we adopt. Placement of *R. spangla*, **new combination**, in *Sodalia* Evans, 1955 (type species *Pamphila sodalis* Butler, 1877) suggested recently (Gaviria-Ortiz et al. 2020), is not supported by genomic analysis and is indeed at odds with the shape of stigma, uncus and valva, which are more similar to *Rigga paramus* (E. Bell, 1947) and *Rigga sapala* (Godman, 1900) than to *Sodalia* species.

Anthoptus macalpinei H. Freeman, 1969 is a junior subjective synonym of *Anthoptus inculta* (Dyar, 1918)

Sequencing of primary type specimens of *Anthoptus macalpinei* Freeman, 1969 (type locality Mexico: Veracruz) and *Padraona inculta* Dyar, 1918 (type locality Mexico, probably Veracruz) reveals the lack of genetic differentiation at the species level between them (Fig. 16). Their COI barcodes are 100% identical. They are similar phenotypically and were probably collected at nearby localities. Therefore, we consider them conspecific and propose that *Anthoptus macalpinei* is a **new synonym** of *A. inculta*.

Corticea schwarzi (E. Bell, 1941) and *Corticea sylva* (Hayward, 1942) are species distinct from *Corticea mendica* (Mabille, 1898)

Treated by Evans (1955) as subspecies of *Corticea mendica* (Mabille, 1898) (type locality Bolivia), *Lerodea schwarzi* Bell, 1941 (type locality Colombia: Cali) and *Lerodea sylva* Hayward, 1942 (type locality Ecuador and Colombia: Muzo) show genetic differentiation among them at the level consistent with them being species-level taxa (Fig. 16). For example, COI barcodes of *L. schwarzi* and *L. sylva* differ by 2.6% (17 bp) and of *C. mendica* and *L. sylva* by 5.3% (35 bp). Their wing pattern differences and localities are consistent with these results. Therefore, we **reinstate** *Corticea schwarzi* (E. Bell, 1941) and *Corticea sylva* (Hayward, 1942) as species.

Corticea vicinus (Plötz, 1884), new combination

Apaustus vicinus Plötz, 1884 (Herrich-Schäffer in litt.) (type locality not specified) has been placed in his new genus *Lento* by Evans (1955) (type species *Pamphila lento* Mabille, 1878), who probably examined Godman's copy of an unpublished illustration of this species by Plötz (Fig. 12r) in the Natural History Museum, London, but have not seen any specimens. Although there is general resemblance between the illustration and some of *Lento* species, the agreement is not ideal. *Lento* species tend to have forewing discal band invading discal cell, or the discal cell spot separate from the band, or hindwing mostly orange above, not with an broad and long orange band as in *A. vicinus*. We found two old specimens, one in the ZMHB and the other in the MTD (Fig. 12s,t) labeled "*vicinus*" that agreed with the Plötz illustration much better than any of the *Lento* species. Presently, we consider these specimens to be *A. vicinus*, but are conducting additional studies about its identity. The specimen in the ZMHB is from the Staudinger collection and may even be a possible syntype of *A. vicinus*. Both specimens are not *Lento* but *Corticea* Evans, 1955 (type species *Hesperia corticea* Plötz, 1882), identified by their phenotype as closely resembling *Corticea schwarzi* (E. Bell, 1941) (type locality Colombia) and differing from it mostly in the shape of orange band on hindwing above also reflected in the pattern differences below. We sequenced the specimen in MTD, from Colombia: Magdalena (NVG-18096C08), along with another specimen of this species in the CMNH (NVG-21012E11), and our genomic tree placed it as sister to *Corticea sylva* (Hayward, 1942) (type locality Ecuador) in the same clade with *C. schwarzi* (Fig. 16), differing from *C. sylva* by 2.6% (17 bp) in COI barcode. Therefore, we transfer *Apaustus vicinus* from *Lento* to *Corticea* forming *Corticea vicinus* (Plötz, 1884), **new combination**. Curiously, the *C. vicinus* specimen largely shares mitochondrial genome with *C. schwarzi*, for example, COI barcode difference between them in only 0.6% (4 bp), possibly due to introgression or hybrid origin of this species that is closer to *C. sylva* in nuclear genome, but in wing patterns is more similar to *C. schwarzi*.

Pyrrhocalles Mabille, 1904 and *Asbolis* Mabille, 1904 are junior subjective synonyms of *Choranthus* Scudder, 1872

Genomic tree reveals that *Choranthus* Scudder, 1872 (type species *Hesperia radians* Lucas, 1857) is paraphyletic with respect to *Pyrrhocalles* Mabille, 1904 (type species *Pamphila antiqua* Herrich-Schäffer, 1863) and *Asbolis* Mabille, 1904 (type and the only species *Goniloba sandarac* Herrich-Schäffer, 1865, a junior subjective synonym of *Eudamus capucinus* Lucas, 1857), which are sisters (Fig. 16). Genetic differentiation between the species in these three genera is similar to that in their close relatives *Corticea* Evans, 1955 and *Anthoptus* E. Bell, 1942 (type species *Hesperia epictetus* Fabricius, 1793). With only *Asbolis capucinus* being abnormally distinct in its

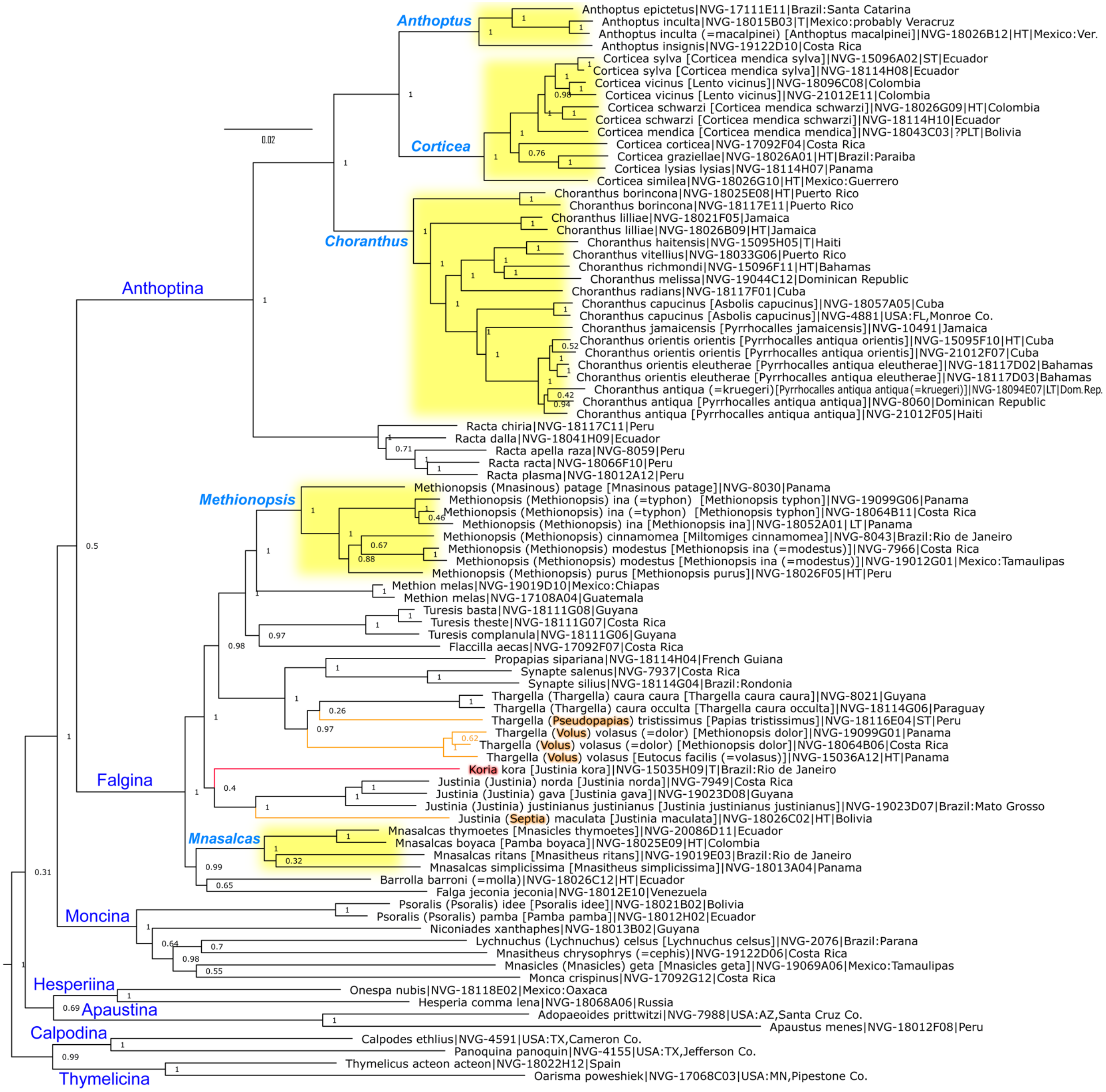

Figure 16. Genomic tree of Anthoptina, Falgina and relatives. See Fig. 1 legend for notations.

wing shapes and patterns, other species are more similar, for example, *Choranthus lilliae* E. Bell, 1931 resembles a smaller version of *Pyrrhocalles jamaicensis* (Schaus, 1902). Therefore, it appears that the best way to restore monophyly is to consider all these species congeneric and propose *Pyrrhocalles* and *Asbolis* as new synonyms of *Choranthus*.

New combinations: *Choranthus orientis* (Skinner, 1920), revised status, and *Choranthus orientis eleutherae* (Bates, 1934)

Pyrrhocalles antiqua form *orientis* Skinner, 1920 (type locality Cuba: Guantanamo) differs phenotypically (Evans 1955) and genetically from the nominal *Pamphila antiqua* Herrich-Schäffer, 1863 (type locality "Cuba", recte Haiti) (Fig. 16). COI barcode difference between *P. antiqua* and the [holo]type of *P. a.* f. *orientis* is 2.3% (15 bp, specimens NVG-8060 and NVG-15095F10). Therefore, we consider *Choranthus orientis* (Skinner, 1920), **revised status** to be a species-level taxon. *Phemiades antiqua eleutherae* M. Bates, 1934 (type locality Bahamas: S. Eleuthera) is sister to *C. orientis* and not to *C. antiqua*, therefore we place this subspecies under *orientis* to form a new combination *Choranthus orientis eleutherae* (Bates, 1934).

Methionopsis typhon Godman, 1901 is a junior subjective synonym of *Methionopsis ina* (Plötz, 1882)

Inspecting Plötz unpublished drawing, Godman concluded that *Hesperia ina* Plötz, 1882 from Panama: Chiriqui is a synonym of his *Methionopsis modestus* Godman, 1901 (type locality Mexico (Gue, Ver, and Tab), Guatemala, Honduras, Panama, and Brazil) (Godman 1907). However, sequencing of *M. ina* specimens with the "Typus" label in the ZMHB (sampled as NVG-18052A01) reveals that it is not *M. modestus*, but instead it clusters within *Methionopsis typhon* Godman, 1901 (type locality Guatemala) (Fig. 16). The shape of the brands supports genomic assessment. The *ina* "Typus" specimen agrees with the original description of *ina* and carries the labels consistent with it being a syntype: it is labeled from "Chiriqui", collected in 1874 (prior to *ina* description) and one of the labels refers to the number 261, which is the illustration number ("t. 261") Plötz assigned to *ina*. This specimen is a true syntype, and to ensure stability of nomenclature, N.V.G. hereby designates it as the **lectotype** of *Hesperia ina* Plötz, 1882. The specimen can be recognized by its head turned to the left and partly uncurled proboscis. It is illustrated in Warren et al. (2016) and bares DNA sample label NVG-18052A01. We do not have evidence to consider *M. typhon* a species distinct from *M. ina* and therefore suggest that the latter is the senior name for *M. typhon*, **new synonym**.

Methionopsis modestus Godman, 1901 is a valid name

Incorrectly considered a synonym of *Hesperia ina* Plötz, 1882 (type locality Panama: Chiriqui), which is conspecific with *Methionopsis typhon* Godman, 1901 (type locality Guatemala) instead, *Methionopsis modestus* Godman, 1901 (type locality Mexico (Gue, Ver, and Tab), Guatemala, Honduras, Panama, and Brazil) becomes a valid name for the species referred previously to as *Methionopsis ina*. This species is characterized by a long brand above vein CuA_2 on the forewing (Evans 1955).

Miltomiges Mabille, 1903 is a junior subjective synonym of *Methionopsis* Godman, 1901

Monotypic genus *Miltomiges* Mabille, 1903 (type and the only species *Cobalus cinnamomea* Herrich-Schäffer, 1869) is sister to *Methionopsis modestus* Godman, 1901, the type species of *Methionopsis* Godman, 1901, rendering this genus paraphyletic (Fig. 16). Although unique in ventral wing pattern, *M. cinnamomea* is similar to *Methionopsis* species in genitalia, in particular in the shape of uncus, gnathos and valva (Evans, 1955), in addition to genetic closeness. Therefore, to restore the monophyly of *Methionopsis*, we place *cinnamomea* in this genus, making *Miltomiges* a junior subjective synonym of *Methionopsis*.

Thargella volasus (Godman, 1901), new combination, is a valid species and *Methionopsis dolor* Evans, 1955 is its junior subjective synonym

Sequencing of the holotype of *Eutocus volasus* Godman, 1901 (type locality Panama: Chiriqui, NVG-15036A12) in the ZMHB reveals that it is not closely related to *Eutocus facilis* (Plötz, 1884) (type locality Suriname) and therefore is not its junior subjective synonym as currently assumed. Instead, *E. volasus* clusters closely with specimens we identified as *Methionopsis dolor* Evans, 1955 (type locality Colombia: Cauca) from Costa Rica and Panama (Fig. 16). Moreover, named by Evans (1955) in *Methionopsis* Godman, 1901 (type species *Methionopsis modestus* Godman, 1901), *dolor* is not monophyletic with it and instead originates near *Thargella* Godman, 1900 (type species *Hesperia caura* Plötz, 1882) (Fig. 16). Therefore, not willing to propose monotypic genera in the presence of confident relationship, we propose *Thargella volasus* (Godman, 1901), **new combination**. Then, pending further studies of its holotype, we tentatively place *Methionopsis dolor* Evans, 1955 as a junior subjective synonym of *T. volasus*. Furthermore, we note that *T. volasus* is rather distant from *T. caura* genetically, despite some similarity in genitalia, and a new subgenus is proposed for it and its to-be-discovered close relatives.

Volus Grishin, new subgenus

http://zoobank.org/68E90C79-0033-4994-97BC-3441C8D33B1B

Type species. *Eutocus volasus* Godman, 1901.

Definition. In the same clade with *Propapias* Mielke, 1992 (type species *Rhinthon proximus* Bell, 1934, a subjective junior synonym of *Cymaenes sipariana* Kaye, 1925) and *Synapte* Mabille, 1904 (type species *Carystus salenus* Mabille, 1883), but closer related to *Thargella* Godman, 1900 (type species *Hesperia caura* Plötz, 1882), and defined as its subgenus (Fig. 16). Keys to J.8.2 in Evans (1955). Distinguished from its relatives by the following combination of characters: antennae longer than 2/3 of forewing costa, palpi slender, with long and thin 3rd segment; forewing costa more convex than in most dark-brown Hesperiidae, but less convex than in the nominotypical subgenus *Thargella*, forewing without brand above vein CuA_2; uncus terminally narrowing, bifid, valva length about thrice of its height, harpe narrow, claw-like, pointed dorsad and separated from ampulla. In DNA, a combination of the following base pairs is diagnostic: aly1341.12.28:A8953C, aly1603.19.3:A81G, aly1591.7.3:T313A, aly1591.7.3:C314G, and aly1672.3.1:T709A.

Etymology. The name is a feminine noun in the nominative singular, derived from the type species name: *Vol*[as]*us*.

Species included. Only the type species.

Parent taxon. Genus *Thargella* Godman, 1900.

Pseudopapias Grishin, new subgenus

http://zoobank.org/CA8F6588-7E24-496A-BE4F-2A6A51FAB9FE

Type species. *Papias tristissimus* Schaus, 1902.

Definition. Previously placed in *Papias* Godman, 1900 (type species *Pamphila integra* Mabille, 1891), in subtribe Moncina A. Warren, 2008, but not monophyletic with it and instead belongs to subtribe Falgina Grishin, 2019 (Fig. 16), being closer related *Propapias* Mielke, 1992 (type species *Rhinthon proximus* Bell, 1934, a subjective junior synonym of *Cymaenes sipariana* Kaye, 1925) and, in particular, to *Thargella* Godman, 1900 (type species *Hesperia caura* Plötz, 1882) and. Keys to J.36.9 in Evans (1955), where it is placed as a subgenus. Distinguished from its relatives by the following combination of characters: males with prominent oval brand above forewing vein 1A+2A, antennae longer than half of costa, genitalia remind of *Propapias*: uncus arms long and thin, longer than tegumen, saccus short, shorter than penis width, but differ by nearly rectangular valva with a broad tooth-like projection near the middle by costa and narrow tooth-like upturned harpe narrowly separated from ampulla. In DNA, a combination of the following base pairs is diagnostic: aly536.210.3:A34C, aly173.33.1:A894T, aly2793.1.1:T1014C, aly1155.15.1:A383A (not G), aly598.2.1:C466C (not A), aly315.12.2:G1169G (not C), aly1341.12.28:A8953A (not C), aly1591.7.3:T313T (not A), and aly1591.7.3:C314C (not G).

Etymology. The name is a masculine noun in the nominative singular, derived from the genus name where the type species has been placed previously but does not belong despite some superficial similarities.

Species included. Only the type species.

Parent taxon. Genus *Thargella* Godman, 1900.

Mnasinous Godman, 1900 is a subgenus of *Methionopsis* Godman, 1901

A monotypic genus *Mnasinous* Godman, 1900 (type and the only species *Mnasinous patage* Godman, 1900) is sister to *Methionopsis* Godman, 1901 (type species *Methionopsis modestus* Godman, 1901) and it show neither genetic (Fig. 16) nor phenotypic distinction to justify a monotypic genus. Indeed, the characteristic structure of the junction between harpe and ampulla is similar in *M. patage* and *M. cinnamomea*. Therefore we suggest that *Mnasinous* is a subgenus, **new status**. All other species currently included in *Methionopsis* belong to the nominotypical subgenus.

Mnasalcas Godman, 1900 is a valid genus

Currently a junior subjective synonym of *Mnasitheus* Godman, 1900 (type species *Mnasitheus cephis* Godman, 1900, a junior subjective synonym of *Cobalus chrysophrys* Mabille, 1891), *Mnasalcas* Godman, 1900 (type species *Pamphila uniformis* Butler and H. Druce, 1872, which is a junior subjective synonym of *Cobalus simplicissima* Herrich-Schäffer, 1870) in not monophyletic with it. Instead of Moncina A. Warren, 2008, *Mnasalcas* belongs to the subtribe Falgina Grishin, 2019, where it is in the same clade with *Falga* Mabille, 1898 (type species *Carystus jeconia* Butler, 1870) and *Barrolla* Grishin, 2019 (type species *Paratrytone barroni* Evans, 1955), and therefore is a valid genus (Fig. 16). In addition to the type species, *Mnasitheus continua* Evans, 1955 (type locality Bolivia) and *Euroto ritans* Schaus, 1902 (type locality Brazil: Rio de Janeiro), currently in *Mnasitheus* are transferred to *Mnasalcas*.

Mnasalcas thymoetes (Hayward, 1942) and *Mnasalcas boyaca* (Nicolay, 1973), new combinations

Mnasicles thymoetes Hayward, 1942 (type locality Ecuador) in not monophyletic with *Mnasicles geta* Godman, 1901, which is the type species of *Mnasicles* Godman, 1901, and *Pamba boyaca* Nicolay, 1973 (type locality Colombia: Boyaca) is not monophyletic with *Pamba pamba* Evans, 1955, which is the type species of *Pamba* Evans, 1955 (Fig. 16). Instead the two species are sisters of each other in the same clade with *Mnasalcas* Godman, 1900 (type species *Pamphila uniformis* Butler and H. Druce, 1872, which is a junior subjective synonym of *Cobalus simplicissima* Herrich-Schäffer, 1870) implying *Mnasalcas thymoetes* (Hayward, 1942), **new combination**, and *Mnasalcas boyaca* (Nicolay, 1973), **new combination**.

Koria Grishin, new genus

http://zoobank.org/72B44650-DA81-4698-980D-91FDD457216F

Type species. *Hesperia kora* Hewitson, 1877.

Definition. Genetically separated from *Justinia* Evans, 1955 (type species *Hesperia justinianus* Latreille, 1824), where it was previously placed, and possibly not even monophyletic with it due to weak statistical support, pending more detailed studies (Fig. 16), therefore proposed as a genus. Keys to J.49.2 in Evans (1955). Distinguished from *Justinia* by white above antennal club, flanges on tegumen, shorter uncus arms and expanded ampulla. In DNA, a combination of the following base pairs is diagnostic: aly363.37.2:C727A, aly813.4.4:T4508G, aly1222.14.14:A7170C, aly694.20.3:G480A, and aly694.20.3:T479C.

Etymology. The name is a feminine noun in the nominative singular formed from the type species name.

Species included. Only the type species.

Parent taxon. Subtribe Falgina Grishin, 2019.

Septia Grishin, new subgenus

http://zoobank.org/B0752926-ED73-40E8-B044-F64974FFDED4

Type species. *Justinia septa* Evans, 1955.

Definition. While confidently monophyletic with *Justinia* Evans, 1955 (type species *Hesperia justinianus* Latreille, 1824) separated from the *Justinia* core group of species by a prominent genetic gap (Fig. 16) and therefore a distinct taxon. Keys to J.49.7a in Evans (1955). Distinguished from other *Justinia* species by small pale spot in discal cell on ventral hindwing, two such spots in forewing discal cell, and harpe not extending dorsally beyond ampulla. In DNA, a combination of the following base pairs is diagnostic: aly1222.15.2:A9212C, aly1651.2.5:C5104A, aly2178.30.1:A34G, aly1450.10.1:C985A, and aly208.17.4:A1281G.

Etymology. The name is a feminine noun in the nominative singular formed from the type species name.

Species included. The type species and *Eutychide maculata* Bell, 1930.

Parent taxon. Genus *Justinia* Evans, 1955.

Corta Grishin, new genus

http://zoobank.org/E9A954DA-B466-473F-A726-442FD4014A11

Type species. *Eutychide lycortas* Godman, 1900

Definition. With species previously placed in *Orthos* Evans, 1955 (type species *Eutychide orthos* Godman, 1900), this genus is not monophyletic with it (Fig. 17). Keys to L.15.2 in Evans (1955). Distinguished from its relatives by the following combination of characters: antennae longer than half of costal margin; palpi flattened with the last segment short and stout, conical in shape; mid-tibiae with spines; males with short brand over vein 2 and long and wide brand over vein 1 (~1/3 of anal wing margin length); tegumen with a long distal apophysis reaching the end of uncus; uncus narrowing distad, rounded at the tip; gnathos close to uncus in lateral view, arms divergent, protruding on uncus sides in lateral view; penis widens distally, as wide as tegumen in lateral view; valva with expanded ampulla, harpe separated from it by a gap, upturned, serrated at its distal margin. In DNA, a combination of the following base pairs is diagnostic: aly235.16.1:A601T, aly235.16.1:A602C, aly208.50.8:G914C, aly1405.22.5:G41A, and aly86.14.2:T4498G.

Etymology. The name is a feminine noun in the nominative singular formed from the type species name: [ly] *Corta*[s]. Also, it is phylogenetically near the genus *Orthos* and sounds similar to it.

Species included. Only the type species.

Parent taxon. Subtribe Carystina Mabille, 1878.

Comments. Unusually patterned, *Corta lycortas* reminds of a small *Talides sergestus* (Cramer, 1775), a more distant relative from the same subtribe, and maybe to some extent others from two different subtribes: *Lerema accius* (J. E. Smith, 1797) (Moncina A. Warren, 2008) and female *Lon zabulon* (Boisduval and Le Conte, [1837]) or *Lon taxiles* (W. H. Edwards, 1881) (Hesperiina Latreille, 1809). However, there is no reason to expect that this pattern would be present in yet undiscovered members of the genus *Corta*, **new genus**, therefore the wing pattern characters were not included in the diagnosis of this genus.

Hesperia cinica Plötz, 1882 is a junior subjective synonym of *Dubiella dubius* (Stoll, 1781)

Suggested to belong to *Tirynthia* Godman, 1900 (type species *Goniloba conflua* Herrich-Schäffer, 1869) by Godman (1907) and kept there since as a valid species, *Hesperia cinica* Plötz, 1882 (type locality Brazil: Para) remains a mystery with no specimens known. Inspection of a Godman's copy of the *H. cinica* Plötz's illustration in BMNH, an inferior copy of which (too green instead of cedar-brown, dorsal hindwing spot without a long smudge present in the original copy) was apparently published by Draudt (1921–1924), reveals that it uniquely matches females of *Dubiella dubius* (Stoll, 1781) (type locality Suriname). More specifically, forewing is with single elongated discal cell spot along cubitus, white spots nearly in a row in cells CuA_2-1A+2A, CuA_1-CuA_2, M_3-CuA_1, and M_2-M_3, a missing spot in cell M_1-M_2, three adjoining apical spots in a straight line, and yellow mark mid-costa below; hindwing is with a diffuse central pale mark dorsally, not expressed into a complete band as in some *D. dubius* specimens, ventrally mahogany-red-colored with discal white band from costa to anal margin, broken in cell 1A+2A-3A. Therefore, we place *Hesperia cinica* Plötz, 1882 as a junior subjective synonym of *Dubiella dubius* (Stoll, 1781).

Cobalus disjuncta Herrich-Schäffer, 1869 is a junior subjective synonym of *Dubiella dubius* (Stoll, 1781)

Cobalus disjuncta Herrich-Schäffer, 1869 (type locality not specified) placed in synonymy with *Vettius lafrenaye* (Latreille, [1824]) (type locality Brazil) by Evans (1955) and kept there since, is not that species according to its original description (Herrich-Schäffer 1869). Notably, the description states that "underside of the hindwing rusty-red colored with continuous sharp white horizontal band through the middle" in *C. disjuncta*, completely different from that of *V. lafrenaye*, whose hindwing is with a broad white triangular area as described for *Vettius lafrenaye pica* (Herrich-Schäffer, 1869) (type locality not specified), named in the same publication that proposed the name *C. disjuncta*. Moreover, Herrich-Schäffer listed *Zenis minos* (Latreille, [1824]) (type locality Brazil) as a synonym of his *C. disjuncta*, therefore the two species are expected to be similar. Herrich-Schäffer either misidentifed *Z. minos* or considered the differences between *C. disjuncta* and *Z. minos* to be intraspecific variation, because *Z. minos* lacks forewing pale spots in cells 1 (1A+2A and CuA_2-1A+2A) and 5 (M_1-M_2), but has a well-developed spot in cell 8 (R_3-R_4). According to the original description, *C. disjuncta* is characterized by "FW cells 1–7 with spots" (Herrich-Schäffer 1869), not matching the characters of *Z. minos*. However, females of *Dubiella dubius* (Stoll, 1781) (type locality Suriname) are superficially similar to *Z. minos* in having mahogany-colored hindwing with a continuous white discal band, and they also have a spot in cell 1b (CuA_2-1A+2A). Moreover, some *D. dubius* females have a dot in cell 5 (M_1-M_2, erroneously given as "space 4" by Evans (1955)), but may lack a spot in cell 8 (R_3-R_4, place of a 3rd apical spot; *D. dubius* females are identified by having "always 2 or 3 apical spots" per Evans (1955)). Thus, such females fully agree with the original description of *C. disjuncta* being spotted in forewing cells 1–7 and also differing from *Dubiella fiscella* (Hewitson, 1877) (type locality Brazil: Para; no spots in cells 5 and 7 (M_1-M_2 and R_4-R_5) per Evans (1955)). Therefore, we tentatively place *Cobalus disjuncta* Herrich-Schäffer, 1869 as a junior subjective synonym of *Dubiella dubius* (Stoll, 1781). We consider this placement tentative due to possible variation in the number of white spots, and acknowledge that it is conceivable for some females of *D. fiscella* (Hewitson, 1877) (type locality Brazil: Para) to have at least very small white dots in forewing cells 5 and 7 (M_1-M_2 and R_4-R_5) in addition to a larger round spot in cell 6 (R_5-M_1), thus agreeing with the original description of *C. disjuncta*. A search for *C. disjuncta* syntypes and, if necessary, neotype designation will settle this issue.

Sacrator Evans, 1955 is a junior subjective synonym of *Thracides* Hübner, [1819]

The two known species of *Sacrator* Evans, 1955 (type species *Hesperia sacrator* Godman and Salvin, 1879) originate within *Thracides* Hübner, [1819] (type species *Papilio phidon* Cramer, 1779) and thus render it paraphyletic (Fig. 17). Due to genetic and morphological (Evans 1955) similarities of all these species forming a compact clade with genetic differentiation comparable to that of related genera, we restore the monophyly by treating *Sacrator* as a **new** junior subjective **synonym** of *Thracides* Hübner, [1819].

Vertica brasta (Evans, 1955), new combination

Named by Evans (1955) in *Lychnuchus* Hübner, [1831] (type species *Lychnuchus olenus* Hübner, [1831], which is a junior subjective synonym of *Hesperia celsus* Fabricius, 1793), *brasta* (type locality Peru: Chanchamayo) is not in the same subtribe with it (in Carystina Mabille, 1878, while *Lychnuchus celsus* is in Moncina A. Warren, 2008) and confidently clusters with specimens identified as being in the genus *Vertica* Evans, 1955 (type species *Hesperia verticalis* Plötz, 1882) (Fig. 17). Due to this confident relationship arguing against a monotypic new genus for *brasta*, we propose *Vertica brasta* (Evans, 1955), **new combination**.

Brasta Grishin, new subgenus

http://zoobank.org/CD758877-73A0-4CF6-A0B9-4DD661B0E90B

Type species. *Lychnuchus brasta* Evans, 1955.

Definition. As argued above, we placed *Lychnuchus brasta* Evans, 1955 in *Vertica* Evans, 1955 (type species *Hesperia verticalis* Plötz, 1882) (Fig. 17). However, it is rather distant from other congeners, for example its COI barcode differs from the type species of the genus by 10.8% (71 bp). Combined with phenotypic distinction, these differences argue for placing *L. brasta* in a subgenus separate from other *Vertica*. This new subgenus keys

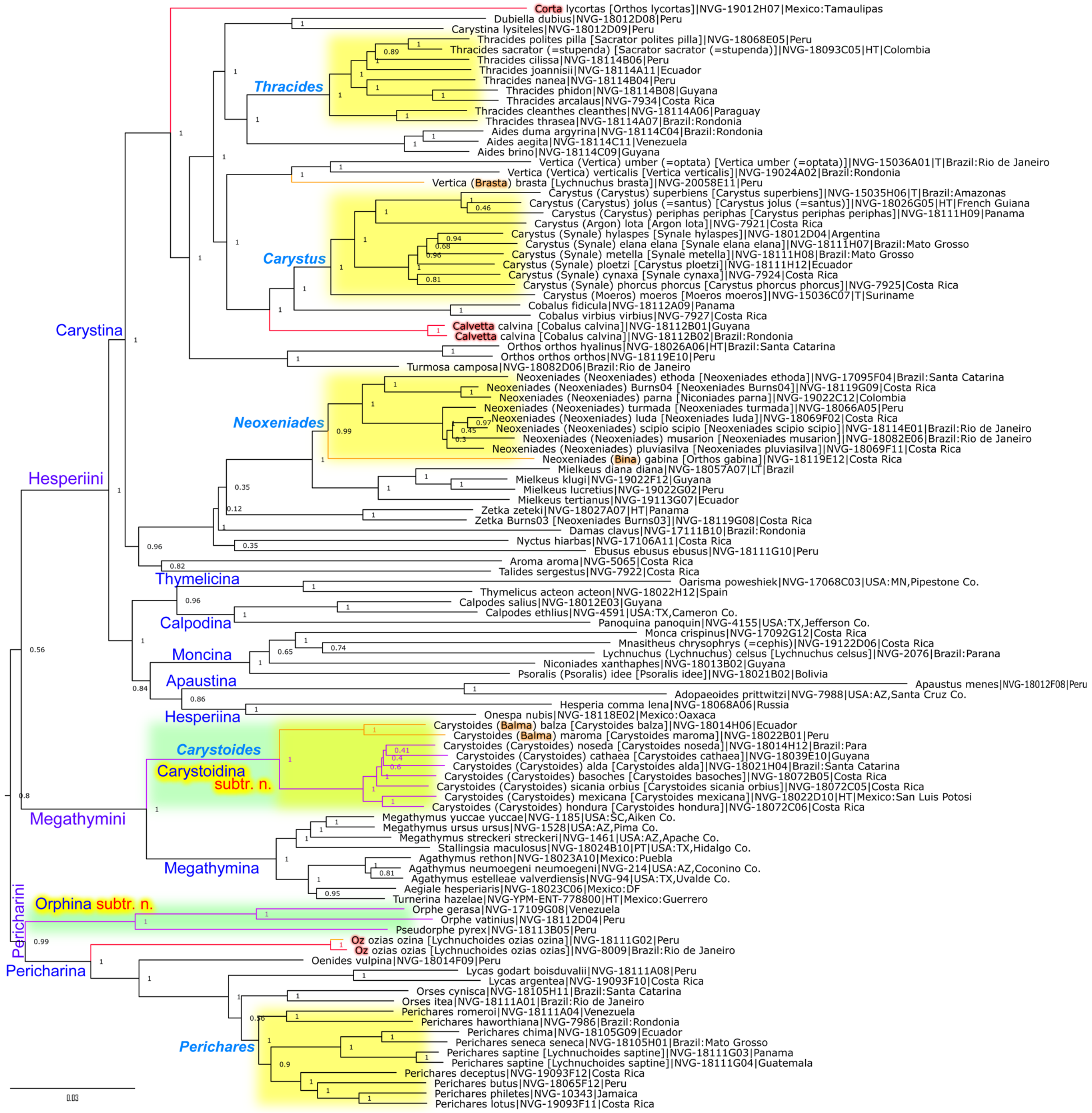

Figure 17. Genomic tree of Carystina, Pericharini, Megathymini and relatives. Clades corresponding to new subtribes described in this work are highlighted in green. See Fig. 1 legend for other notations.

to K.12.3 in Evans (1955). Distinguished from its relatives by the following combination of characters: antennae long, longer than half of costa; palpi bulky, quadrantic with short and stout third segment; male with long and narrow brands above and below both veins 1A+2A and CuA_2; uncus wider and aedeagus broader than in *Vertica*, harpe of valva without hooks or processes. In DNA, a combination of the following base pairs is diagnostic: aly10226.56.1:G163A, aly1186.4.1:A1079G, aly1313.27.7:C1522A, aly851.5.4:A154A (not G), aly1838.46.1:A323A (not G), and aly1838.8.2:T446T (not A).

Etymology. The name is a feminine noun in the nominative singular, tautonymous with the type species name.

Species included. Only the type species.

Parent taxon. Genus *Vertica* Evans, 1955.

Calvetta Grishin, new genus

http://zoobank.org/8EA0229D-7B8C-4D34-AC64-4A7FEAE2D5F4

Type species. *Hesperia calvina* Hewitson, 1866

Definition. With species previously placed in *Cobalus* Hübner, [1819] (type species *Papilio virbius* Cramer, 1777), this genus is not monophyletic with it (Fig. 17). Keys to K.22.2 in Evans (1955). Distinguished from its relatives by the following combination of characters: mid-tibiae without spines, palpi orange-yellow on the sides. uncus broad-ended, expanded on the sides (instead of nearly rectangular in *Cobalus*), narrower in lateral view, harpe wider separated from ampulla without teeth or processes. In DNA, a combination of the following base pairs is diagnostic: aly527.15.2:T105G, aly281.17.1:A271C, aly451.25.1:T1415A, aly6002.2.1:A223G, and aly6002.2.1:T310A.

Etymology. The name is a feminine noun in the nominative singular formed from the type species name with elaborations to avoid homonyms.

Species included. Only the type species.

Parent taxon. Subtribe Carystina Mabille, 1878.

Comments. *Hesperia discors* Plötz, 1882 is known only from its description and unpublished illustration. Evans (1955) misunderstood the concept of *Hesperia discors* Plötz, 1882 and placed it next to *C. calvina* in *Cobalus*, where neither of these species belongs. *Calvetta* **new genus** would be a better place for *H. discors* than *Cobalus*. Until its type specimens are found or *H. discors* is re-discovered, we are not able to place it with confidence, but venture a tentative assignment of *H. discors* to *Carystina* Evans, 1955 next to *C. lysiteles* (Mabille, 1891) due to similarities in wing patterns.

Moeros Evans, 1955, *Argon* Evans, 1955, and *Synale* Mabille, 1904 are subgenera of *Carystus* Hübner, [1819]

Moeros Evans, 1955 (type and the only species *Proteides moeros* Möschler, 1877), *Argon* Evans, 1955 (type species *Carystus argus* Möschler, 1879, which is a junior subjective synonym of the only valid species name in the genus *Hesperia lota* Hewitson, 1877), and *Synale* Mabille, 1904 (type species *Papilio hylaspes* Stoll, 1781) form a prominent clade together with *Carystus* Hübner, [1819] (type species *Papilio jolus* Stoll, [1782]) (Fig. 17). Moreover, some of the species currently placed in *Carystus* should belong to *Synale*. For these reasons, we propose to treat *Moeros*, *Argon*, and *Synale* as subgenera of *Carystus*, and transfer the following species from the subgenus *Carystus* to the subgenus *Synale*: *Carystus phorcus* (Cramer, 1777), *Carystus diores* (Plötz, 1882), *Carystus junior* Evans, 1955, and *Carystus ploetzi* O. Mielke and Casagrande, 2002.

Zetka irena (Evans, 1955), new combination

A Costa Rican species recorded in Janzen and Hallwachs database (2021) as "*Neoxeniades* Burns03", which judging from the wing patterns is either *Neoxeniades irena* Evans, 1955 (type locality Ecuador, holotype female in BMNH inspected) or its close undescribed relative, is sister to *Zetka zeteki* (E. Bell, 1931) (Fig. 17), the type species of *Zetka* Grishin, 2019, and not as closely related to *Neoxeniades* Hayward, 1938 (type species *Neoxeniades musarion* Hayward, 1938), suggesting *Zetka irena* (Evans, 1955), **new combination**.

Bina Grishin, new subgenus

http://zoobank.org/B51324A7-3BB1-4987-9EB8-208369F1CD1A

Type species. *Cobalus gabina* Godman, 1900.

Definition. Previously included in *Orthos* Evans, 1955 (type species *Eutychide orthos* Godman, 1900) this taxon is in a different clade and is sister to *Neoxeniades* Hayward, 1938 (type species *Neoxeniades musarion* Hayward, 1938) (Fig. 17). Due to its close relationship with *Neoxeniades* and monotypic composition, it is proposed as a subgenus. Keys to L.15.4 in Evans (1955). Distinguished from its relatives by the following combination of characters: antennae longer than costal margin, forewing with short brands on both sides of vein CuA_2 and over vein 1A+2A; hindwing with convex outer margin, only moderately produced at tornus, but forewing in males narrower apically than in *Neoxeniades*; uncus distally notched, gnathos shorter than uncus, valva twice as long as wide, terminally rounded, harpe separated from flattened ampulla by a small notch, serrated at the dorsal margin. In DNA, a combination of the following base pairs is diagnostic: aly956.3.2:G153A, aly103.11.2:A2076G, aly1841.5.6:C285G, aly1341.12.28:A1324G, and aly1146.51.1:A1222T.

Etymology. The name is a feminine noun in the nominative singular, last two syllables of the type species name.

Species included. Only the type species.

Parent taxon. Genus *Neoxeniades* Hayward, 1938.

Neoxeniades parna (Evans, 1955), new combination

Niconiades parna (Evans, 1955 (type locality Brazil: Para) is not monophyletic with *Niconiades* Hübner, [1821] (type species *Niconiades xanthaphes* Hübner, [1821]), in Moncina A. Warren, 2008, but instead is within *Neoxeniades* Hayward, 1938 (type species *Neoxeniades musarion* Hayward, 1938), in Carystina Mabille, 1878 (Fig. 17). The shape of valva and extended slightly bilobed uncus agree with this placement. Therefore we propose *Neoxeniades parna* (Evans, 1955), **new combination**.

Saliana vixen Evans, 1955 is a junior subjective synonym of *Neoxeniades parna* (Evans, 1955)

Inspection of the holotype *Saliana vixen* Evans, 1955 (type locality French Guiana) in BMNH reveals that it is similar to females of a Costa Rican species recorded in Janzen and Hallwachs database (2021) as "*Neoxeniades* Burns04", which is closely related to *Neoxeniades parna* (Evans, 1955) (type locality Brazil: Para) (Fig. 17), suggesting that it is not *Calpodes* Hübner, [1819] (type species *Papilio ethlius* Stoll, 1782), which now includes *Saliana* Evans, 1955 (type species *Papilio salius* Cramer, 1775) (Zhang et al. 2019d), but a female of *N. parna*. Notably, the *S. vixen* holotype has no hyaline spot in forewing cell M_2-M_3 characteristic of *Calpodes* and has extensive bright emerald-green overscaling on the body above absent in *Calpodes* species. The names *parna* and *vixen* were published in the same work issued on the same date (Evans 1955), and here we give priority to the name *parna*. Therefore, we suggest that *Saliana vixen* (Evans, 1955) is a junior subjective synonym of *Neoxeniades parna* (Evans, 1955).

Oz Grishin, new genus

http://zoobank.org/48DA2281-9ED8-4962-A6BA-BB2A8E060F20

Type species. *Astictopterus ozias* Hewitson, 1878.

Definition. Superficially very similar to *Lychnuchoides saptine* (Godman and Salvin, 1879), the type species of *Lychnuchoides* Godman, 1901 and was placed in it. However, not monophyletic with *L. saptine* (Fig. 17) and instead forms a clade of its own closer to the base of the tree. Keys to K.29.3 in Evans (1955). Distinguished from its relatives by the following combination of characters: apiculus of antennae obtuse (not angled); nudum of about 13 segments; mid-tibiae without spines; males with a narrow stigma on forewing, no brands; gnathos developed, not as broad as in many relatives, arms converging, separated from uncus in lateral view; harpe expanded in the middle, longer than valva. See comments below about wing pattern characters. In DNA, a combination of the following base pairs is diagnostic: aly291.6.1:G208T, aly971.19.1:T1347C, aly207.8.6:A119G, aly207.8.6:A118C, and aly423.15.3:A165T.

Etymology. The name is a masculine noun in the nominative singular, the first syllable of the type species name.

Species included. The type species and *Lychnuchoides sebastiani* Salazar and Constantino, 2013.

Parent taxon. Tribe Pericharini Grishin, 2019.

Comments. The lack of monophyly between *O. ozias* and *L. saptine* took us by surprise due to close similarity in their wing patterns, for example, a nearly perfect agreement in the outline of forewing yellow patch and the resemblance in pale stripes separating darker patches on ventral hindwing. In the field, the best character to distinguish between the two genera is the pattern on the forewing apex below. In *Oz*, **new genus**, the wing is mostly brown past the yellow discal band, and the pale overscaling starts near the apex, at more than half the distance from the yellow band and apex. In *Lychnuchoides*, the wing is with a smaller brown patch (less than half of the distance from the yellow band to apex along costa) past the yellow discal band, and the rest of the apical area is occupied by pale overscaling, typically with several elongated brown spots inside it.

Lychnuchoides Godman, 1901 is a junior subjective synonym of *Perichares* Scudder, 1872

The type species of *Lychnuchoides* Godman, 1901, *Hesperia saptine* Godman and Salvin, 1879, is placed within *Perichares* Scudder, 1872 (type species *Papilio coridon* Fabricius, 1775, a homonym, considered to refer to *Papilio philetes* Gmelin, [1790]) and is sister to the clade formed by *Perichares chima* Evans, 1955 and *Perichares seneca* (Latreille, [1824]), rendering *Perichares* paraphyletic (Fig. 17). To restore monophyly, due to close clustering of all these species in the tree, we consider *Lychnuchoides* to be a subjective junior synonym of *Perichares*.

Orphina Grishin, new subtribe

http://zoobank.org/3DFB5B82-69E0-4B21-BF46-AEE78715AB34

Type genus. *Orphe* Godman, 1901.

Definition. Genomic phylogeny strongly supports sister relationship of *Orphe* Godman, 1901 (type species *Hesperia gerasa* Hewitson, 1867) and *Pseudorphe* A. Warren and Dolibaina, 2015 (type and the only species *Telles pyrex* Evans, 1955) and places them as distant sister to all other Pericharini Grishin, 2019 (Fig. 17). Due to this prominent genetic differentiation, the clade consisting of *Orphe* and *Pseudorphe* is defined here as a new subtribe. It keys to K.27 or K.19.2 in Evans (1955), and is diagnosed by a combination of the following characters: antennae long, nearly 2/3 of costa length; palpi quadrantic, 2nd segment not flattened; mid-tibiae smooth; forewings produced, hindwing rounded; in males, stigma sharply defined, continuous, either straight and lanceolate, or slightly curved inwards; in females, white spots present in every forewing cell between veins R_3 and 1A+2A, including discal cell, forming an F (not Ш) on left wing; male genitalia with valva nearly rectangular, costa slightly convex, ampulla knob-like, harpe only slightly extending posteriad beyond ampulla and narrowly separated from it, terminally upturned, either rounded or ending in a tooth, aedeagus either stout and bulky or slender with coecum nearly as long as the rest of aedeagus, aedeagus with broad and long vesica opening. In DNA, a combination of the following base pairs is diagnostic: aly5007.4.1:T321C, aly2618.5.1:G4345A, aly2096.17.2:C490A, aly1074.4.1:G376A, and aly2613.3.2:A1493C.

Genera included. The type genus and *Pseudorphe* A. Warren and Dolibaina, 2015.

Parent taxon. Tribe Pericharini Grishin, 2019.

Comments. Genetic differentiation of the new subtribe from the nominotypical subtribe Pericharina is quite substantial, and the branch that unties them is not particularly prominent in the genomic tree (Fig. 17). Therefore, it is conceivable to treat them both as distinct tribes. This view is not adopted here, because Orphina, new subtribe, includes a small number of species (only three) and they resemble Pericharina in general appearance.

Carystoidina Grishin, new subtribe

http://zoobank.org/A99BE530-AD8F-4711-8AF4-D58F4C08FCF4

Type genus. *Carystoides* Godman, 1901.

Definition. Genomic phylogeny reveals that *Carystoides* Godman, 1901 is not monophyletic with Calpodina Clark, 1948 (type genus *Calpodes* Hübner, [1819]), where it was placed by Warren et al. (2009) (as Calpodini) (Fig. 17). Furthermore, *Carystoides* is not monophyletic with Carystina Mabille, 1878 (type genus *Carystus* Hübner, [1819]) either. Instead, the subtribe here defined is a strongly supported sister to the rest of Megathymini (Fig. 17), but is morphologically distinct from it. The subtribe keys to K.28 in Evans (1955) and is diagnosed by a combination of the following characters: antennae longer than half of the forewing costal margin, club gradually bent into apiculus at about its half, with a white patch in males; palpi broad and quadrantic with short and stout last segment; atypical forewing venation in males: vein CuA_1 originates in the middle between veins CuA_2 and M_3, but in females vein CuA_1 originates near vein M_3, causing sexual dimorphism in mutual arrangement of forewing white spots. In DNA, a combination of the following base pairs is diagnostic: aly113.11.4:G356A, aly86.8.16:G563C, aly1146.46.2:G569A, aly1146.46.2:A571C, and aly1200.3.1:G3549A.

Genera included. Only the type genus.

Parent taxon. Tribe Megathymini J. Comstock and A. Comstock, 1895.

Comments. The placement of *Carystoides* into Megathymini was rather unexpected, and at last we apparently found the closest living relative of Giant-Skippers. Even morphological similarities link these groups, for example, *Carystoides balza* Evans, 1955 valva is similar to some *Agathymus* Freeman, 1959 species: harpe distally upturned and with a directed caudad process by ampulla. All other Megathymini except *Carystoides* are kept in a single subtribe Megathymina.

Balma Grishin, new subgenus

http://zoobank.org/DA438D8C-677C-40A0-B5A4-3713BC42D473

Type species. *Carystoides balza* Evans, 1955.

Definition. *Carystoides* Godman, 1901 (type species *Hesperia basoches* Latreille, [1824]) divides into two prominent clades (Fig. 17) one of which is this subgenus. Keys to K.28.5 or K.28.11 in Evans (1955). Distinguished from other species in the genus *Carystoides* by the hind tibiae lacking upper spurs, contrasting dark veins in the white apex of dorsal forewing in males, and harpe with a bulky process pointed caudad by ampulla. In DNA, a combination of the following base pairs is diagnostic: aly207.9.6:C320T, aly4192.1.2:G731A, aly536.164.4:G55A, aly1139.42.5:T64C, and aly2781.1.15:C208T.

Etymology. The name is a feminine noun in the nominative singular formed as a fusion of the species names: *Bal*[za] + [maro]*ma*.

Species included. The type species and *Caristus* [sic] *maroma* Möschler, 1877.

Parent taxon. Genus *Carystoides* Godman, 1901.

Acknowledgments

We acknowledge Leina Song, Ping Chen and Ming Tang for excellent technical assistance. We are grateful to David Grimaldi and Courtney Richenbacher (American Museum of Natural History, New York, NY, USA), Blanca Huertas, David Lees and Geoff Martin (Natural History Museum, London, UK), Jonathan Pelham (Burke Museum of Natural History and Culture, Seattle, WA, USA), Jim Fetzner, Bob Androw, Vanessa Verdecia, Cat Giles, and the late John Rawlins (Carnegie Museum of Natural History, Pittsburgh, PA, USA), Paul A. Opler, Chuck Harp and Boris Kondratieff (Colorado State University Collection, Fort Collins, CO, USA), Crystal Maier and Rebekah Baquiran (Field Museum of Natural History, Chicago, FL, USA), Weiping Xie (Los Angeles County Museum of Natural History, Los Angeles, CA, USA), John R. MacDonald and Richard L. Brown (Mississippi Entomological Museum, Starkville, MS, USA), Andrew D. Warren and Andrei Sourakov (MGCL: McGuire Center for Lepidoptera and Biodiversity, Gainesville, FL, USA), Rodolphe Rougerie (Muséum National d'Histoire Naturelle, Paris, France), Matthias Nuss (MTD: Museum für Tierkunde, Dresden, Germany), Gerardo Lamas (MUSM: Museo de Historia Natural, UNMSM, Lima, Peru), Larry F. Gall (PMNH: Peabody Museum of Natural History, Yale University, New Haven, CT, USA), Wolfgang A. Nässig (SMF: Natural History Museum, Frankfurt, Germany), Edward G. Riley, Karen Wright, and John Oswald (Texas A&M University Insect Collection, College Station, TX, USA), Alex Wild (TMMC: Biodiversity Center, University of Texas at Austin, Austin, TX, USA), Jeff Smith and Lynn Kimsey (UCDC: Bohart Museum of Entomology, University of California, Davis, CA, USA), Robert K. Robbins, John M. Burns, and Brian Harris (USNM: National Museum of Natural History, Smithsonian Institution, Washington, DC, USA), Wolfram Mey and Viola Richter (ZMHB: Museum für Naturkunde, Berlin, Germany), and Axel Hausmann and Ulf Buchsbaum (ZSMC: Zoologische Staatssammlung München, Germany), for granting access to specimens in the collections under their care and for stimulating discussions; to the Texas Parks and Wildlife Department (Natural Resources Program Director David H. Riskind) for the research permit 08-02Rev; to the U. S. National Park Service for the following research permits: Big Bend (Raymond Skiles) BIBE-2004-SCI-0011, Yellowstone (Erik Oberg and Annie Carlson) YELL-2017-SCI-7076; to the National Environment & Planning Agency of Jamaica for the permission to collect specimens; to Paul A. Opler and Rongjiang Wang for collecting and preserving specimens in RNAlater; to Ernst Brockmann, Bill Dempwolf, Bernard

Hermier, John Shuey, the late Edward C. Knudson (specimens now at the McGuire Center for Lepidoptera and Biodiversity, Gainesville, FL, USA), John MacDonald, Kiyoshi Maruyama, Kojiro Shiraiwa, and Mark Walker for leg samples of their specimens, to Jim Brock and Bernard Hermier for photographs, to Ernst Brockmann for help with sampling specimens for DNA in a number of German collections, to Gerardo Lamas, Bernard Hermier and Jonathan Pelham for fruitful discussions and to Bernard Hermier for critical reading of the manuscript at its early stages and copious helpful suggestions and corrections. We are indebted to Bernard Hermier, Stephen R. Spomer and J. Bruce Walsh for providing critical reviews of the manuscript. Please note that the images ©The Trustees of the Natural History Museum, London are made available to you under Creative Commons License 4.0 (https://creativecommons.org/licenses/by/4.0/), which means in particular that when using the images you must give appropriate credit and provide a link to the license. We acknowledge the Texas Advanced Computing Center (TACC) at The University of Texas at Austin for providing HPC resources. The study was supported in part by the grants (to N.V.G.) from the National Institutes of Health GM127390 and the Welch Foundation I-1505.

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Received December 31, 2021; accepted February 5, 2022.
Review editor David Plotkin.

Table 1. Tabular abstract of the proposed taxonomic changes, grouped by category. Abbreviations: jss., junior subjective synonym; jos., junior objective synonym.

Proposed name, combination or status	Previously used attribution
new tribe (trib. n.)	
Psolosini Grishin, **trib. n.**	in Erionotini Distant, 1886 or in *Incertae sedis*
Ismini Grishin, **trib. n.**	in Erionotini Distant, 1886 or in *Incertae sedis*
Eetionini Grishin, **trib. n.**	in Erionotini Distant, 1886 or in *Incertae sedis*
new subtribe (subtr. n.)	
Orphina Grishin, **subtr. n.**	in Pericharini Grishin, 2019
Carystoidina Grishin, **subtr. n.**	in Calpodina Clark, 1948 or in Carystina Mabille, 1878
new genus (gen. n.)	
Fulvatis Grishin, **gen. n.**	in *Salatis* Evans, 1952
Adina Grishin, **gen. n.**	in *Bungalotis midas* (Cramer, 1775)
Ornilius Grishin, **gen. n.**	"Salatis cebrenus" of Evans (1952), misidentification
Tolius Grishin, **gen. n.**	in *Echelatus* Godman and Salvin, 1894
Lennia Grishin, **gen. n.**	in *Leona* Evans, 1937
Trida Grishin, **gen. n.**	in *Kedestes* Watson, 1893
Noxys Grishin, **gen. n.**	in *Oxynthes* Godman, 1900
Gracilata Grishin, **gen. n.**	in *Styriodes* Schaus, 1913
Hermio Grishin, **gen. n.**	in *Lento* Evans, 1955
Eutus Grishin, **gen. n.**	in *Eutychide* Godman, 1900, *Thoon* Godman, 1900 and *Tigasis* Godman, 1900
Gufa Grishin, **gen. n.**	in *Mucia* Godman, 1900 and *Tigasis* Godman, 1900
Godmia Grishin, **gen. n.**	in *Onophas* Godman, 1900
Rhomba Grishin, **gen. n.**	in *Justinia* Evans, 1955
Rectava Grishin, **gen. n.**	in *Papias* Godman, 1900, *Cobalopsis* Godman, 1900 and *Vidius* Evans, 1955
Contrastia Grishin, **gen. n.**	in *Cymaenes* Scudder, 1872
Mit Grishin, **gen. n.**	in *Styriodes* Schaus, 1913, *Mnasitheus* Godman, 1900 and *Enosis* Mabille, 1889
Picova Grishin, **gen. n.**	in *Saturnus* Evans, 1955 and *Morys* Godman, 1900
Lattus Grishin, **gen. n.**	in *Eutocus* Godman, 1901
Gubrus Grishin, **gen. n.**	in *Vehilius* Godman, 1900
Koria Grishin, **gen. n.**	in *Justinia* Evans, 1955
Corta Grishin, **gen. n.**	in *Orthos* Evans, 1955
Calvetta Grishin, **gen. n.**	in *Cobalus* Hübner, [1819]
Oz Grishin, **gen. n.**	in *Lychnuchoides* Godman, 1901
new subgenus (subgen. n.)	
Praxa Grishin, **subgen. n.**	in *Pseudonascus* Austin, 2008
Bron Grishin, **subgen. n.**	in *Pseudonascus* Austin, 2008
Turis Grishin, **subgen. n.**	in *Chirgus* Grishin, 2019
Tiges Grishin, **subgen. n.**	in *Antigonus* Hübner, [1819]
Ocrypta Grishin, **subgen. n.**	in *Notocrypta* de Nicéville, 1889
Tixe Grishin, **subgen. n.**	in *Tisias* Godman, 1901
Nycea Grishin, **subgen. n.**	in *Cynea* Evans, 1955
Nausia Grishin, **subgen. n.**	in *Tigasis* Godman, 1900
Flor Grishin, **subgen. n.**	in *Repens* Evans, 1955
Geia Grishin, **subgen. n.**	in *Morys* Godman, 1900
Rotundia Grishin, **subgen. n.**	in *Enosis* Mabille, 1889
Volus Grishin, **subgen. n.**	in *Eutocus* Godman, 1901
Pseudopapias Grishin, **subgen. n.**	in *Papias* Godman, 1900
Septia Grishin, **subgen. n.**	in *Justinia* Evans, 1955

Proposed name, combination or status	Previously used attribution
Brasta Grishin, **subgen. n.**	in *Lychnuchus* Hübner, [1831]
Bina Grishin, **subgen. n.**	in *Orthos* Evans, 1955
Balma Grishin, **subgen. n.**	in *Carystoides* Godman, 1901
new species (sp. n.)	
Ornilius rotundus Grishin, **sp. n.**	"Salatis cebrenus" of Evans (1952), misidentification
Salantoia metallica Grishin, **sp. n.**	misidentified as *Porphyrogenes* sp.
Dyscophellus australis Grishin, **sp. n.**	*Dyscophellus* "ramusis damias" of Evans (1952), misidentification
Dyscophellus basialbus Grishin, **sp. n.**	*Dyscophellus* "diaphorus" of Evans (1952), misidentification
Telegonus subflavus Grishin, **sp. n.**	infrasubspecific name *Telegonus galesus* form *subflavus* R. Williams, 1927 placed under *Telegonus galesus* Mabille, 1888
Decinea colombiana Grishin, **sp. n.**	*Decinea* "decinea derisor" of Evans (1955), misidentification
Lerema (*Lerema*) *lucius* Grishin, **sp. n.**	*Lerema* "lochius" of Evans (1955), misidentification
Cynea (*Nycea*) *rope* Grishin, **sp. n.**	*Cynea* "corope" of Evans (1955), in part, misidentification
Lerodea sonex Grishin, **sp. n.**	*Lerodea* "xenos" of Evans (1955), misidentification
Metiscus goth Grishin, **sp. n.**	"Enosis angularis infuscata" of Evans (1955), misidentification
revised combinations involving new genera and subgenera (some with status change, as indicated)	
Fulvatis fulvius (Plötz, 1882)	*Salatis fulvius* (Plötz, 1882)
Fulvatis scyrus (E. Bell, 1934)	*Salatis scyrus* (E. Bell, 1934)
Adina adrastor (Mabille and Boullet, 1912)	jss. of *Bungalotis midas* (Cramer, 1775)
Nascus (*Praxa*) *prax* Evans, 1952	*Pseudonascus prax* (Evans, 1952)
Nascus (*Bron*) *broteas* (Cramer, 1780)	*Pseudonascus broteas* (Cramer, 1780)
Nascus (*Bron*) *solon* (Plötz, 1882)	*Pseudonascus solon* (Plötz, 1882)
Chirgus (*Turis*) *veturius* (Plötz, 1884)	*Chirgus veturius* (Plötz, 1884)
Paches (*Tiges*) *liborius* (Plötz, 1884)	*Antigonus liborius* Plötz, 1884
Paches (*Tiges*) *mutilatus* (Hopffer, 1874)	*Antigonus mutilatus* (Hopffer, 1874)
Paches (*Tiges*) *exosa* (A. Butler, 1877)	*Paches exosa* (A. Butler, 1877)
Tolius tolimus (Plötz, 1884)	*Echelatus tolimus* (Plötz, 1884)
Tolius luctuosus (Godman and Salvin, 1894)	*Echelatus luctuosus* Godman and Salvin, 1894
Ancistroides (*Ocrypta*) *caerulea* (Evans, 1928)	*Notocrypta caerulea* Evans, 1928
Ancistroides (*Ocrypta*) *renardi* (Oberthür, 1878)	*Notocrypta renardi* (Oberthür, 1878)
Ancistroides (*Ocrypta*) *waigensis* (Plötz, 1882)	*Notocrypta waigensis* (Plötz, 1882)
Ancistroides (*Ocrypta*) *aluensis* (Swinhoe, 1907)	*Notocrypta aluensis* Swinhoe, 1907
Ancistroides (*Ocrypta*) *flavipes* (Janson, 1886)	*Notocrypta flavipes* (Janson, 1886)
Ancistroides (*Ocrypta*) *maria* (Evans, 1949)	*Notocrypta maria* Evans, 1949
Lennia lena (Evans, 1937)	*Leona lena* Evans, 1937
Lennia binoevatus (Mabille, 1891)	*Leona binoevatus* (Mabille, 1891)
Lennia maracanda (Hewitson, 1876)	*Leona maracanda* (Hewitson, 1876)
Lennia lota (Evans, 1937)	*Leona lota* Evans, 1937
Trida barberae (Trimen, 1873)	*Kedestes barberae* (Trimen, 1873)
Trida sarahae (Henning and Henning, 1998)	*Kedestes sarahae* Henning and Henning, 1998
Noxys viricuculla (Hayward, 1951)	*Oxynthes viricuculla* Hayward, 1951
Xeniades (*Tixe*) *quadrata* (Herrich-Schäffer, 1869)	*Tisias quadrata* (Herrich-Schäffer, 1869)
Xeniades (*Tixe*) *rinda* (Evans, 1955)	*Tisias rinda* Evans, 1955
Xeniades (*Tixe*) *putumayo* (Constantino and Salazar, 2013)	*Tisias putumayo* Constantino and Salazar, 2013
Gracilata quadrinotata (Mabille, 1889)	*Styriodes quadrinotata* (Mabille, 1889)
Hermio hermione (Schaus, 1913)	*Lento hermione* (Schaus, 1913)
Hermio vina (Evans, 1955), stat. nov.	*Lento hermione vina* Evans, 1955
Cynea (*Nycea*) *hycsos* (Mabille, 1891)	*Cynea hycsos* (Mabille, 1891)
Cynea (*Nycea*) *corisana* (Plötz, 1882)	*Cynea corisana* (Plötz, 1882)
Cynea (*Nycea*) *popla* Evans, 1955	*Cynea popla* Evans, 1955

Proposed name, combination or status	Previously used attribution
Cynea (*Nycea*) *iquita* (E. Bell, 1941)	*Cynea iquita* (E. Bell, 1941)
Cynea (*Nycea*) *robba* Evans, 1955	*Cynea robba* Evans, 1955
Cynea (*Nycea*) *melius* (Geyer, 1832)	*Cynea melius* (Geyer, 1832)
Cynea (*Nycea*) *irma* (Möschler, 1879)	*Cynea irma* (Möschler, 1879)
Eutus rastaca (Schaus, 1902)	*Eutychide rastaca* (Schaus, 1902)
Eutus yesta (Evans, 1955)	*Thoon yesta* Evans, 1955
Eutus mubevensis (E. Bell, 1932)	*Tigasis mubevensis* (E. Bell, 1932)
Gufa gulala (Schaus, 1902)	*Mucia gulala* (Schaus, 1902)
Gufa fusca (Hayward, 1940)	*Tigasis fusca* (Hayward, 1940)
Godmia chlorocephala (Godman, 1900)	*Onophas chlorocephala* (Godman, 1900)
Rhomba gertschi (E. Bell, 1937)	*Justinia gertschi* (E. Bell, 1937)
Mnasicles (*Nausia*) *nausiphanes* (Schaus, 1913)	*Tigasis nausiphanes* (Schaus, 1913)
Amblyscirtes (*Flor*) *florus* (Godman, 1900)	*Repens florus* (Godman, 1900)
Rectava ignarus (E. Bell, 1932)	*Papias ignarus* (E. Bell, 1932)
Rectava vorgia (Schaus, 1902)	*Cobalopsis vorgia* (Schaus, 1902)
Rectava nostra (Evans, 1955)	*Vidius nostra* Evans, 1955
Rectava sobrinus (Schaus, 1902), stat. rest.	jss. of *Papias phainis* Godman, 1900
Lerema (*Geia*) *geisa* (Möschler, 1879)	*Morys geisa* (Möschler, 1879)
Lerema (*Geia*) *lyde* (Godman, 1900)	*Morys lyde* (Godman, 1900)
Lerema (*Geia*) *etelka* (Schaus, 1902), stat. rest.	jss. of *Morys geisa* (Möschler, 1879)
Contrastia distigma (Plötz, 1882)	*Cymaenes distigma* (Plötz, 1882)
Mit (*Mit*) *badius* (E. Bell, 1930)	*Styriodes badius* (E. Bell, 1930)
Mit (*Mit*) *gemignanii* (Hayward, 1940)	*Mnasitheus gemignanii* (Hayward, 1940)
Mit (*Rotundia*) *schausi* (Mielke and Casagrande, 2002)	*Enosis schausi* Mielke and Casagrande, 2002
Picova steinbachi (E. Bell, 1930)	*Saturnus steinbachi* (E. Bell, 1930)
Picova incompta (Hayward, 1942), stat. rest.	jss. of *Morys micythus* (Godman, 1900)
Lattus arabupuana (E. Bell, 1932)	*Eutocus arabupuana* E. Bell, 1932
Gubrus lugubris (Lindsey, 1925)	*Vehilius lugubris* Lindsey, 1925
Thargella (*Volus*) *volasus* (Godman, 1901), stat. rest.	jss. of *Eutocus facilis* (Plötz, 1884)
Thargella (*Pseudopapias*) *tristissimus* (Schaus, 1902)	*Papias tristissimus* Schaus, 1902
Koria kora (Hewitson, 1877)	*Justinia kora* (Hewitson, 1877)
Justinia (*Septia*) *septa* Evans, 1955	*Justinia septa* Evans, 1955
Corta lycortas (Godman, 1900)	*Orthos lycortas* (Godman, 1900)
Vertica (*Brasta*) *brasta* (Evans, 1955)	*Lychnuchus brasta* Evans, 1955
Calvetta calvina (Hewitson, 1866)	*Cobalus calvina* (Hewitson, 1866)
Neoxeniades (*Bina*) *gabina* (Godman, 1900)	*Orthos gabina* (Godman, 1900)
Oz ozias (Hewitson, 1878)	*Lychnuchoides ozias* (Hewitson, 1878)
Oz sebastiani (Salazar and Constantino, 2013)	*Lychnuchoides sebastiani* Salazar and Constantino, 2013
Carystoides (*Balma*) *balza* Evans, 1955	*Carystoides balza* Evans, 1955
Carystoides (*Balma*) *maroma* (Möschler, 1877)	*Carystoides maroma* (Möschler, 1877)
junior objective synonyms (jos.) of valid species or junior subjective synonyms (jss.)	
jos. of *Bungalotis corentinus* (Plötz, 1882)	*Bungalotis diophorus* (Möschler, 1883)
jos. of *Limochores pupillus* (Plötz, 1882)	*Limochores puxillius* (Mabille, 1891)
jos. of *Contrastia distigma* (Plötz, 1882)	jss. *Cobalus stigmula* Mabille, 1891 of *Cymaenes distigma* (Plötz, 1882)
jos. of jss. *Hesperia infuscata* Plötz, 1882	jss. *Mnasalcas amatala* Schaus, 1902 of *Arotis derasa derasa* (Herrich-Schäffer, 1870)
jos. of *Dion uza* (Hewitson, 1877)	*Enosis uza pruinosa* (Plötz, 1882)
genera placed in or transferred between tribes	
placed in Aeromachini Tutt, 1906	*Prosopalpus* Holland, 1896 in *Incertae sedis*
placed in Aeromachini Tutt, 1906	*Lepella* Evans, 1937 in *Incertae sedis*
placed in Aeromachini Tutt, 1906	*Creteus* de Nicéville, 1895 in *Incertae sedis*

Proposed name, combination or status	Previously used attribution
transferred to Tagiadini Mabille, 1878	*Triskelionia* Larsen and Congdon, 2011 in Celaenorrhinini Swinhoe, 1912
transferred to Celaenorrhinini Swinhoe, 1912	*Kobelana* Larsen and Collins, 2013 in Tagiadini Mabille, 1878
valid genus (gen.) from junior subjective synonym (jss.)	
gen. *Abaratha* Moore, 1881	jss. of *Caprona* Wallengren, 1857
gen. *Bibla* Mabille, 1904	jss. of *Taractrocera* Butler, 1870
gen. *Kerana* Distant, 1886	jss. of *Ancistroides* Butler, 1874
gen. *Tamela* Swinhoe, 1913	jss. of *Ancistroides* Butler, 1874
gen. *Metrocles* Godman, 1900	jss. of *Metron* Godman, 1900
gen. *Alerema* Hayward, 1942	jss. of *Tigasis* Godman, 1900
gen. *Metiscus* Godman, 1900	jss. of *Enosis* Mabille, 1889
gen. *Vistigma* Hayward, 1939	jss. of *Phlebodes* Hübner, [1819]
gen. *Mnasalcas* Godman, 1900	jss. of *Mnasitheus* Godman, 1900
valid subgenus (subgen.) from junior subjective synonym (jss.)	
subgen. *Daimio* Murray, 1875	jss. of *Tagiades* Hübner, [1819]
subgen. *Pterygospidea* Wallengren, 1857	jss. of *Tagiades* Hübner, [1819]
valid subgenus (subgen.) from valid genus (gen.)	
subgen. of *Nascus* Watson, 1893	gen. *Pseudonascus* Austin, 2008
subgen. of *Pintara* Evans, 1932	gen. *Albiphasma* Huang, Chiba, Wang and Fan, 2016
subgen. of *Tapena* Moore, [1881]	gen. *Ctenoptilum* de Nicéville, 1890
subgen. of *Abaratha* Moore, 1881	gen. *Odontoptilum* de Nicéville, 1890
subgen. of *Abantis* Hopffer, 1855	gen. *Caprona* Wallengren, 1857
subgen. of *Zopyrion* Godman and Salvin, 1896	gen. *Timochreon* Godman and Salvin, 1896
subgen. of *Heteropterus* Duméril, 1806	gen. *Pulchroptera* Hou, Fan and Chiba, 2021
subgen. of *Koruthaialos* Watson, 1893	gen. *Stimula* de Nicéville, 1898
subgen. of *Ancistroides* Butler, 1874	gen. *Udaspes* Moore, [1881]
subgen. of *Ancistroides* Butler, 1874	gen. *Notocrypta* de Nicéville, 1889
subgen. of *Xeniades* Godman, 1900	gen. *Cravera* de Jong, 1983
subgen. of *Oligoria* Scudder, 1872	gen. *Cobaloides* Hayward, 1939
subgen. of *Psoralis* Mabille, 1904	gen. *Saniba* O. Mielke and Casagrande, 2003
subgen. of *Cynea* Evans, 1955	gen. *Quinta* Evans, 1955
subgen. of *Mnasicles* Godman, 1901	gen. *Styriodes* Schaus, 1913
subgen. of *Mnasicles* Godman, 1901	gen. *Remella* Hemming, 1939
subgen. of *Eprius* Godman, 1901	gen. *Repens* Evans, 1955
subgen. of *Lerema* Scudder, 1872	gen. *Morys* Godman, 1900
subgen. of *Lychnuchus* Hübner, [1831]	gen. *Enosis* Mabille, 1889
subgen. of *Vistigma* Hayward, 1939	gen. *Penicula* Evans, 1955
subgen. of *Methionopsis* Godman, 1901	gen. *Mnasinous* Godman, 1900
subgen. of *Carystus* Hübner, [1819]	gen. *Moeros* Evans, 1955
subgen. of *Carystus* Hübner, [1819]	gen. *Argon* Evans, 1955
subgen. of *Carystus* Hübner, [1819]	gen. *Synale* Mabille, 1904
junior subjective synonym (jss.) from valid genus (gen.)	
jss. of *Abantis* Hopffer, 1855	gen. *Leucochitonea* Wallengren, 1857
jss. of *Caprona* Wallengren, 1857	gen. *Sapaea* Plötz, 1879
jss. of *Caprona* Wallengren, 1857	gen. *Netrobalane* Mabille, 1903
jss. of *Sebastonyma* Watson, 1893	gen. *Parasovia* Devyatkin, 1996
jss. of *Oerane* Elwes and Edwards, 1897	gen. *Pemara* Eliot, 1978
jss. of *Pardaleodes* Butler, 1870	gen. *Ankola* Evans, 1937
jss. of *Mnaseas* Godman, 1901	gen. *Arotis* Mabille, 1904
jss. of *Metrocles* Godman, 1900	gen. *Chalcone* Evans, 1955
jss. of *Metrocles* Godman, 1900	gen. *Hansa* Evans, 1955
jss. of *Metrocles* Godman, 1900	gen. *Propertius* Evans, 1955

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jss. of *Cobaloides* Hayward, 1939	gen. *Jongiana* O. Mielke and Casagrande, 2002
jss. of *Psoralis* Mabille, 1904	gen. *Pamba* Evans, 1955
jss. of *Styriodes* Schaus, 1913	gen. *Brownus* Grishin, 2019
jss. of *Papias* Godman, 1900	gen. *Mnasilus* Godman, 1900
jss. of *Mnasitheus* Godman, 1900	gen. *Sucova* Evans, 1955
jss. of *Choranthus* Scudder, 1872	gen. *Pyrrhocalles* Mabille, 1904
jss. of *Choranthus* Scudder, 1872	gen. *Asbolis* Mabille, 1904
jss. of *Methionopsis* Godman, 1901	gen. *Miltomiges* Mabille, 1903
jss. of *Thracides* Hübner, [1819]	gen. *Sacrator* Evans, 1955
jss. of *Perichares* Scudder, 1872	gen. *Lychnuchoides* Godman, 1901
junior subjective synonym (jss.) transferred between genera	
jss. of *Stimula* de Nicéville, 1898	jss. *Arunena* Swinhoe, 1919 of *Koruthaialos* Watson, 1893
valid species from junior subjective synonym (jss.) (some in new genus-species combinations)	
Salantoia gildo (Mabille, 1888)	jss. of *Salatis cebrenus* (Cramer, 1777)
Bungalotis corentinus (Plötz, 1882)	jss. of *Bungalotis midas* (Cramer, 1775)
Telegonus cretellus (Herrich-Schäffer, 1869)	jss. of *Telegonus cassander* (Fabricius, 1793)
Santa palica (Mabille, 1888)	jss. of *Chiothion asychis* (Stoll, 1780)
Camptopleura cincta Mabille and Boullet, 1917	jss. of *Camptopleura auxo* (Möschler, 1879)
Camptopleura orsus (Mabille, 1889)	jss. of *Nisoniades mimas* (Cramer, 1775)
Metron voranus (Mabille, 1891)	jss. of *Metron zimra* (Hewitson, 1877)
Metron fasciata (Möschler, 1877)	jss. of *Metron zimra* (Hewitson, 1877)
Limochores catahorma (Dyar, 1916)	jss. of *Limochores pupillus* (Plötz, 1882)
Pares viridiceps (Mabille, 1889)	jss. of *Thoon modius* (Mabille, 1889)
Tigasis wellingi (Freeman, 1969)	jss. of *Tigasis arita* (Schaus, 1902)
Rectava sobrinus (Schaus, 1902)	jss. of *Papias phainis* Godman, 1900
Nastra subsordida (Mabille, 1891)	jss. of *Eutychide asema* (Mabille, 1891)
Lerema (*Lerema*) *pattenii* Scudder, 1872	jss. of *Lerema accius* (J. E. Smith, 1797)
Lerema (*Morys*) *ancus* (Möschler, 1879)	jss. of *Cymaenes tripunctus theogenis* (Capronnier, 1874)
Cobalopsis zetus (Bell, 1942)	jss. of *Cobalopsis nero* (Herrich-Schäffer, 1869)
Lerema (*Geia*) *etelka* (Schaus, 1902)	jss. of *Morys geisa* (Möschler, 1879)
Cymaenes isus (Godman, 1900)	jss. of *Cymaenes trebius* (Mabille, 1891)
Vehilius labdacus (Godman, 1900)	jss. of *Vehilius inca* (Scudder, 1872)
Papias amyrna (Mabille, 1891)	jss. of *Mnasilus allubita* (Butler, 1877)
Papias integra (Mabille, 1891)	jss. of *Papias subcostulata* (Herrich-Schäffer, 1870)
Metiscus atheas Godman, 1900	jss. of *Enosis achelous* (Plötz, 1882)
Dion agassus (Mabille, 1891)	jss. of *Enosis uza* (Hewitson, 1877
Picova incompta (Hayward, 1942)	jss. of *Morys micythus* (Godman, 1900)
Lucida melitaea (Draudt, 1923)	jss. of *Lucida lucia* (Capronnier, 1874)
Methionopsis (*Methionopsis*) *modestus* Godman, 1901	jss. of *Methionopsis ina* (Plötz, 1882)
Thargella (*Volus*) *volasus* (Godman, 1901)	jss. of *Eutocus facilis* (Plötz, 1884)
valid species from valid subspecies (ssp.) (some in new genus-species combinations)	
Dyscophellus doriscus (Hewitson, 1867)	ssp. of *Dyscophellus porcius* (C. Felder and R. Felder, 1862
Phocides vida (A. Butler, 1872)	ssp. of *Phocides urania* (Westwood, 1852)
Tagiades (*Daimio*) *ceylonica* Evans, 1932	ssp. of *Tagiades litigiosa* Möschler, 1878
Tagiades (*Daimio*) *tubulus* Fruhstorfer, 1910	ssp. of *Tagiades sambavana* Elwes and Edwards, 1897
Tagiades (*Daimio*) *kina* Evans, 1934	ssp. of *Tagiades trebellius* (Hopffer, 1874)
Tagiades (*Daimio*) *sheba* Evans, 1934	ssp. of *Tagiades trebellius* (Hopffer, 1874)
Tagiades (*Daimio*) *martinus* Plötz, 1884	ssp. of *Tagiades trebellius* (Hopffer, 1874)
Tagiades (*Daimio*) *sem* Mabille, 1883	ssp. of *Tagiades trebellius* (Hopffer, 1874)
Tagiades (*Daimio*) *neira* Plötz, 1885	ssp. of *Tagiades trebellius* (Hopffer, 1874)
Tagiades (*Daimio*) *korela* Mabille, 1891	ssp. of *Tagiades nestus* (C. Felder, 1860)

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Tagiades (*Daimio*) *presbyter* Butler, 1882	ssp. of *Tagiades nestus* (C. Felder, 1860)
Tagiades (*Tagiades*) *obscurus* Mabille, 1876	ssp. of *Tagiades japetus* (Stoll, [1781])
Tagiades (*Tagiades*) *ravi* (Moore, [1866])	ssp. of *Tagiades japetus* (Stoll, [1781])
Tagiades (*Tagiades*) *atticus* (Fabricius, 1793)	ssp. of *Tagiades japetus* (Stoll, [1781])
Tagiades (*Tagiades*) *titus* Plötz, 1884	ssp. of *Tagiades japetus* (Stoll, [1781])
Tagiades (*Tagiades*) *janetta* Butler, 1870	ssp. of *Tagiades japetus* (Stoll, [1781])
Tagiades (*Tagiades*) *inconspicua* Rothschild, 1915	ssp. of *Tagiades japetus* (Stoll, [1781])
Tagiades (*Tagiades*) *hovia* Swinhoe, 1904	ssp. of *Tagiades japetus* (Stoll, [1781])
Tagiades (*Tagiades*) *silvia* Evans, 1934	ssp. of *Tagiades gana* (Moore, [1866])
Tagiades (*Tagiades*) *elegans* Mabille, 1877	ssp. of *Tagiades gana* (Moore, [1866])
Tapena (*Tapena*) *bornea* Evans, 1941	ssp. of *Tapena thwaitesi* Moore, [1881]
Tapena (*Tapena*) *minuscula* Elwes and Edwards, 1897	ssp. of *Tapena thwaitesi* Moore, [1881]
Darpa dealbata (Distant, 1886)	ssp. of *Darpa pteria* (Hewitson, 1868)
Perus manx (Evans, 1953)	ssp. of *Perus minor* (Schaus, 1902)
Canesia pallida (Röber, 1925)	ssp. of *Carrhenes canescens* (R. Felder, 1869)
Carrhenes conia Evans, 1953	ssp. of *Carrhenes fuscescens* (Mabille, 1891)
Anisochoria extincta Hayward, 1933	ssp. of *Anisochoria pedaliodina* (Butler, 1870)
Anisochoria polysticta Mabille, 1876	ssp. of *Anisochoria pedaliodina* (Butler, 1870)
Anisochoria verda Evans, 1953	ssp. of *Anisochoria minorella* Mabille, 1898
Bralus alco (Evans, 1953)	ssp. of *Bralus albida* (Mabille, 1888)
Ephyriades jamaicensis (Möschler, 1879)	ssp. of *Ephyriades brunnea* (Herrich-Schäffer, 1865)
Koruthaialos (*Stimula*) *frena* Evans, 1949	ssp. of *Koruthaialos focula* (Plötz, 1882)
Euphyes kiowah (Reakirt, 1866)	ssp. of *Euphyes vestris* (Boisduval, 1852)
Mnaseas inca Bell, 1930	ssp. of *Mnaseas bicolor* (Mabille, 1889)
Metron hypochlora (Draudt, 1923)	ssp. of *Metron schrottkyi* (Giacomelli, 1911)
Decinea huasteca (H. Freeman, 1969)	ssp. of *Decinea decinea* (Hewitson, 1876)
Decinea denta Evans, 1955	ssp. of *Decinea decinea* (Hewitson, 1876)
Decinea antus (Mabille, 1895)	ssp. of *Decinea decinea* (Hewitson, 1876)
Xeniades (*Xeniades*) *pteras* Godman, 1900	ssp. of *Xeniades chalestra* (Hewitson, 1866)
Xeniades (*Xeniades*) *difficilis* Draudt, 1923	ssp. of *Xeniades orchamus* (Cramer, 1777)
Xeniades (*Xeniades*) *hermoda* (Hewitson, 1870)	ssp. of *Tisias quadrata* (Herrich-Schäffer, 1869)
Hermio vina (Evans, 1955)	ssp. of *Lento hermione* (Schaus, 1913)
Cymaenes loxa Evans, 1955	ssp. of *Cymaenes laureolus* (Schaus, 1913)
Niconiades peri (Evans, 1955)	ssp. of *Neoxeniades bajula* (Schaus, 1902
Gallio danius (Bell, 1941)	ssp. of *Vehilius seriatus* (Mabille, 1891)
Gallio massarus (E. Bell, 1940)	ssp. of *Tigasis garima* (Schaus, 1902)
Cymaenes edata (Plötz, 1882)	ssp. of *Cymaenes odilia* (Burmeister, 1878)
Cymaenes miqua (Dyar, 1913)	ssp. of *Cymaenes odilia* (Burmeister, 1878)
Cymaenes aequatoria (Hayward, 1940)	ssp. of *Cymaenes odilia* (Burmeister, 1878)
Lychnuchus (*Enosis*) *demon* (Evans, 1955)	ssp. of *Enosis immaculata* (Hewitson, 1868)
Naevolus naevus Evans, 1955	ssp. of *Naevolus orius* (Mabille, 1883)
Lucida scopas (Mabille, 1891)	ssp. of *Lucida lucia* (Capronnier, 1874)
Lucida oebasus (Godman, 1900)	ssp. of *Lucida lucia* (Capronnier, 1874)
Lucida leopardus (Weeks, 1901)	ssp. of *Lucida lucia* (Capronnier, 1874)
Corticea schwarzi (E. Bell, 1941)	ssp. of *Corticea mendica* (Mabille, 1898)
Corticea sylva (Hayward, 1942)	ssp. of *Corticea mendica* (Mabille, 1898)
Choranthus orientis (Skinner, 1920)	ssp. of *Pyrrhocalles antiqua* (Herrich-Schäffer, 1863)
valid subspecies from junior subjective synonym (jss.)	
Borbo impar bipunctata (Elwes and J. Edwards, 1897)	jss. of *Borbo impar tetragraphus* (Mabille, 1891)
valid subspecies from valid species (sp.)	
Euphyes kiowah chamuli Freeman, 1969	sp. of *Euphyes* Scudder, 1872

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junior subjective synonym (jss.) from valid species or subspecies	
jss. of *Dyscophellus damias* (Plötz, 1882)	*Dyscophellus erythras* (Mabille, 1888)
jss. of *Telegonus cretellus* (Herrich-Schäffer, 1869)	*Telegonus jaira* (A. Butler, 1870)
jss. of *Santa palica* (Mabille, 1888)	*Paches era* Evans, 1953
jss. of *Camptopleura orsus* (Mabille, 1889)	*Camptopleura impressus* (Mabille, 1889)
jss. of *Lotongus calathus* (Hewitson, 1876)	*Borbo impar tetragraphus* (Mabille, 1891)
jss. of *Metron voranus* (Mabille, 1891)	*Chalcone tania* (Schaus, 1902)
jss. of *Niconiades derisor* (Mabille, 1891)	*Niconiades viridis vista* Evans, 1955
jss. of *Ralis immaculatus* (Hayward, 1940)	*Ralis concolor* (Nicolay, 1980)
jss. of *Eutus rastaca* (Schaus, 1902)	*Cobalopsis brema* E. Bell, 1959
jss. of *Rhomba gertschi* (Bell, 1937)	*Psoralis panamensis* Anderson and Nakamura, 2019
jss. of *Nastra subsordida* (Mabille, 1891)	*Papias trimacula* Nicolay, 1973
jss. of *Cobalopsis valerius* (Möschler, 1879)	*Cobalopsis miaba* (Schaus, 1902)
jss. of *Cymaenes lumina* (Herrich-Schäffer, 1869)	*Cymaenes odilia* (Burmeister, 1878)
jss. of *Cymaenes lumina* (Herrich-Schäffer, 1869)	*Cymaenes trebius* (Mabille, 1891)
jss. of *Vehilius inca* (Scudder, 1872)	*Lerodea xenos* (Mabille, 1898)
jss. of *Papias amyrna* (Mabille, 1891)	*Nastra guianae* (Lindsey, 1925)
jss. of *Metiscus atheas* Godman, 1900	*Enosis matheri* H. Freeman, 1969
jss. of *Anthoptus inculta* (Dyar, 1918)	*Anthoptus macalpinei* H. Freeman, 1969
jss. of *Methionopsis* (*Methionopsis*) *ina* (Plötz, 1882)	*Methionopsis typhon* Godman, 1901
jss. of *Thargella* (*Volus*) *volasus* (Godman, 1901)	*Methionopsis dolor* Evans, 1955
jss. of *Dubiella dubius* (Stoll, 1781)	*Tirynthia cinica* (Plötz, 1882)
jss. of *Neoxeniades* (*Neoxeniades*) *parna* (Evans, 1955)	*Calpodes vixen* (Evans, 1955)
junior subjective synonym (jss.) transferred between species	
jss. of *Euriphellus phraxanor* (Hewitson, 1876)	jss. *Telegonus mutius* Plötz, 1882 of *Salatis cebrenus* (Cramer, 1777)
jss. of *Tolius tolimus robigus* (Plötz, 1884)	jss. *Antigonus alburnea* Plötz, 1884 of *Echelatus sempiternus simplicior* (Möschler, 1877)
jss. of *Echelatus sempiternus simplicior* (Möschler, 1877)	jss. *Echelatus depenicillus* Strand, 1921 of *Tolius tolimus robigus* (Plötz, 1884)
jss. of *Theagenes dichrous* (Mabille, 1878)	jss. *Antigonus aura* Plötz, 1884 of *Helias phalaenoides palpalis* (Latreille, [1824])
jss. of *Metron fasciata* (Möschler, 1877),	jss. *Pamphila verdanta* Weeks, 1906 of *Metron zimra* (Hewitson, 1877)
jss. of *Conga chydaea* (A. Butler, 1877)	jss. *Pamphila binaria* Mabille, 1891 of *Cynea cynea* (Hewitson, 1876)
jss. of *Cynea* (*Quinta*) *cannae* (Herrich-Schäffer, 1869)	jss. *Hesperia dido* Plötz, 1882 of *Lerema lochius* (Plötz, 1882)
jss. of *Cynea* (*Cynea*) *diluta* (Herrich-Schäffer, 1869)	jss. *Proteides osembo* Möschler, 1883 of *Quinta cannae* (Herrich-Schäffer, 1869)
jss. of *Amblyscirtes* (*Amblyscirtes*) *alternata* (Grote and Robinson, 1867)	jss. *Cobalus asella* Herrich-Schäffer, 1869 of *Amblyscirtes (Amblyscirtes) vialis* (W. H. Edwards, 1862)
jss. of *Lerema* (*Lerema*) *pattenii* Scudder, 1872	jss. *Pamphila bipunctata* Mabille, 1889 of *Lerema lumina* (Herrich-Schäffer, 1869)
jss. of *Lerema* (*Lerema*) *pattenii* Scudder, 1872	jss. *Sarega staurus* Mabille, 1904 of *Lerema lumina* (Herrich-Schäffer, 1869)
jss. of *Lerema* (*Lerema*) *lineosa* (Herrich-Schäffer, 1865)	jss. *Hesperia aethra* Plötz, 1886 of *Morys compta* Butler, 1877
jss. of *Lerema* (*Geia*) *etelka* (Schaus, 1902)	jss. *Phanis sylvia* Kaye, 1914 of *Morys geisa* (Möschler, 1879)
jss. of *Cymaenes lumina* (Herrich-Schäffer, 1869)	jss. *Megistias corescene* Schaus, 1902 of *Cymaenes odilia odilia* (Burmeister, 1878)
jss. of *Cymaenes edata* (Plötz, 1882)	jss. *Hesperia phocylides* Plötz, 1882 of *Lerema accius* (J. E. Smith, 1797)
jss. of *Papias integra* (Mabille, 1891)	jss. *Pamphila nubila* Mabille, 1891 of *Cynea corisana* (Plötz, 1882)
jss. of *Mnaseas derasa derasa* (Herrich-Schäffer, 1870)	jss. *Hesperia infuscata* Plötz, 1882 of *Papias subcostulata* (Herrich-Schäffer, 1870)
jss. of *Metiscus angularis* (Möschler, 1877)	jss. *Pamphila astur* Mabille, 1891 of *Cymaenes tripunctus theogenis* (Capronnier, 1874)
jss. of *Dubiella dubius* (Stoll, 1781)	jss. *Cobalus disjuncta* Herrich-Schäffer, 1869 of *Vettius lafrenaye* (Latreille, [1824])

Proposed name, combination or status	Previously used attribution
new and revised genus-species combinations	
Euriphellus cebrenus (Cramer, 1777)	sp. of *Salatis* Evans, 1952
Gorgopas extensa (Mabille, 1891)	sp. of *Polyctor* Evans, 1953
Clytius shola (Evans, 1953)	sp. of *Staphylus* Godman and Salvin, 1896
Perus narycus (Mabille, 1889)	sp. of *Ouleus* Lindsey, 1925
Perus parvus (Steinhauser and Austin, 1993)	sp. of *Staphylus* Godman and Salvin, 1896
Pholisora litus (Dyar, 1912)	sp. of *Bolla* Mabille, 1903
Carrhenes decens (A. Butler, 1874)	sp. of *Antigonus* Hübner, [1819]
Santa palica (Mabille, 1888)	sp. of *Chiothion* Grishin, 2019
Bralus nadia (Nicolay, 1980)	sp. of *Anisochoria* Mabille, 1876
Acerbas sarala (de Nicéville, 1889)	sp. of *Lotongus* Distant, 1886
Caenides sophia (Evans, 1937)	sp. of *Hypoleucis* Mabille, 1891
Hypoleucis dacena (Hewitson, 1876)	sp. of *Caenides* Holland, 1896
Dotta tura (Evans, 1951)	sp. of *Astictopterus* C. Felder and R. Felder, 1860
Nervia wallengrenii (Trimen, 1883)	sp. of *Kedestes* Watson, 1893
Testia mammaea (Hewitson, 1876)	sp. of *Decinea* Evans, 1955
Oxynthes trinka (Evans, 1955)	sp. of *Orthos* Evans, 1955
Metrocles argentea (Weeks, 1901)	sp. of *Paratrytone* Godman, 1900
Metrocles scitula (Hayward, 1951)	sp. of *Mucia* Godman, 1900
Metrocles schrottkyi (Giacomelli, 1911)	sp. of *Metron* Godman, 1900
Niconiades derisor (Mabille, 1891)	sp. of *Decinea* Evans, 1955
Paratrytone samenta (Dyar, 1914)	sp. of *Ochlodes* Scudder, 1872
Oligoria (*Cobaloides*) *locutia* (Hewitson, 1876)	sp. of *Quinta* Evans, 1955
Psoralis (*Saniba*) *laska* (Evans, 1955)	sp. of *Vidius* Evans, 1955
Psoralis (*Saniba*) *arva* (Evans, 1955)	sp. of *Vettius* Godman, 1901
Psoralis (*Saniba*) *umbrata* (Erschoff, 1876)	sp. of *Vettius* Godman, 1901
Psoralis (*Saniba*) *calcarea* (Schaus, 1902)	sp. of *Molo* Godman, 1900
Psoralis (*Saniba*) *visendus* (E. Bell, 1942)	sp. of *Molo* Godman, 1900
Alychna gota (Evans, 1955)	sp. of *Psoralis* Mabille, 1904
Adlerodea asema (Mabille, 1891)	sp. of *Eutychide* Godman, 1900
Adlerodea subpunctata (Hayward, 1940)	sp. of *Eutychide* Godman, 1900
Ralis immaculatus (Hayward, 1940)	sp. of *Mucia* Godman, 1900
Rhinthon braesia (Hewitson, 1867)	sp. of *Neoxeniades* Hayward, 1938
Rhinthon bajula (Schaus, 1902)	sp. of *Neoxeniades* Hayward, 1938
Cymaenes lochius Plötz, 1882	sp. of *Lerema* Scudder, 1872
Paracarystus ranka (Evans, 1955)	sp. of *Thoon* Godman, 1900
Tricrista aethus (Hayward, 1951)	sp. of *Thoon* Godman, 1900
Tricrista canta (Evans, 1955)	sp. of *Thoon* Godman, 1900
Tricrista slopa (Evans, 1955)	sp. of *Thoon* Godman, 1900
Tricrista circellata (Plötz, 1882)	sp. of *Thoon* Godman, 1900
Tricrista taxes (Godman, 1900)	sp. of *Thoon* Godman, 1900
Gallio madius (E. Bell, 1941)	sp. of *Vehilius* Godman, 1900
Gallio seriatus (Mabille, 1891)	sp. of *Vehilius* Godman, 1900
Gallio garima (Schaus, 1902)	sp. of *Tigasis* Godman, 1900
Tigasis corope (Herrich-Schäffer, 1869)	sp. of *Cynea* Evans, 1955
Tigasis perloides (Plötz, 1882)	sp. of *Cymaenes* Scudder, 1872
Amblyscirtes (*Flor*) *florus* (Godman, 1900)	sp. of *Repens* Evans, 1955
Vidius fraus (Godman, 1900)	sp. of *Cymaenes* Scudder, 1872
Nastra celeus (Mabille, 1891)	sp. of *Vehilius* Godman, 1900
Nastra nappa (Evans, 1955)	sp. of *Vidius* Evans, 1955
Vehilius warreni (Weeks, 1901)	sp. of *Cymaenes* Scudder, 1872

Proposed name, combination or status	Previously used attribution
Vehilius limae (Lindsey, 1925)	sp. of *Cymaenes* Scudder, 1872
Cymaenes lumina (Herrich-Schäffer, 1869)	sp. of *Lerema* Scudder, 1872
Cobalopsis valerius (Möschler, 1879)	sp. of *Cobalopsis* Godman, 1900
Cobalopsis dictys (Godman, 1900)	sp. of *Papias* Godman, 1900
Lerema (*Morys*) *venias* (Bell, 1942)	sp. of *Cobalopsis* Godman, 1900
Papias latonia (Schaus, 1913)	sp. of *Cobalopsis* Godman, 1900
Dion iccius (Evans, 1955)	sp. of *Enosis* Mabille, 1889
Dion uza (Hewitson, 1877)	sp. of *Enosis* Mabille, 1889
Vistigma (*Vistigma*) *opus* (Steinhauser, 2008)	sp. of *Thoon* Godman, 1900
Saturnus fartuga (Schaus, 1902)	sp. of *Parphorus* Godman, 1900
Phlebodes fuldai (E. Bell, 1930)	sp. of *Vettius* Godman, 1901
Mnasitheus padus (Evans, 1955)	sp. of *Moeris* Godman, 1900
Naevolus brunnescens (Hayward, 1939)	sp. of *Psoralis* Mabille, 1904
Lamponia ploetzii (Capronnier, 1874)	sp. of *Vettius* Godman, 1901
Mnestheus silvaticus Hayward, 1940	sp. of *Ludens* Evans, 1955
Rigga spangla (Evans, 1955)	sp. of *Sodalia* Evans, 1955
Corticea vicinus (Plötz, 1884)	sp. of *Lento* Evans, 1955
Mnasalcas thymoetes (Hayward, 1942)	sp. of *Mnasicles* Godman, 1901
Mnasalcas boyaca (Nicolay, 1973)	sp. of *Pamba* Evans, 1955
Vertica (*Brasta*) *brasta* (Evans, 1955)	sp. of *Lychnuchus* Hübner, [1831]
Carystina discors Plötz, 1882	sp. of *Cobalus* Hübner, [1819]
Zetka irena (Evans, 1955)	sp. of *Neoxeniades* Hayward, 1938
Neoxeniades (*Neoxeniades*) *parna* (Evans, 1955)	sp. of *Niconiades* Hübner, [1821]
new and revised species-subspecies combinations (one in a new genus-species combination)	
Tagiades (*Daimio*) *neira moti* Evans, 1934	ssp. of *Tagiades trebellius* (Hopffer, 1874)
Tagiades (*Daimio*) *neira canonicus* Fruhstorfer, 1910	ssp. of *Tagiades trebellius* (Hopffer, 1874)
Tagiades (*Daimio*) *sheba vella* Evans, 1934	ssp. of *Tagiades trebellius* (Hopffer, 1874)
Tagiades (*Daimio*) *sheba lola* Evans, 1945	ssp. of *Tagiades trebellius* (Hopffer, 1874)
Tagiades (*Daimio*) *korela biakana* Evans, 1934	ssp. of *Tagiades nestus* (C. Felder, 1860)
Tagiades (*Daimio*) *korela mefora* Evans, 1934	ssp. of *Tagiades nestus* (C. Felder, 1860)
Tagiades (*Daimio*) *korela suffusus* Rothschild, 1915	ssp. of *Tagiades nestus* (C. Felder, 1860)
Tagiades (*Daimio*) *korela brunta* Evans, 1949	ssp. of *Tagiades nestus* (C. Felder, 1860)
Tagiades (*Tagiades*) *ravi ravina* Fruhstorfer, 1910	ssp. of *Tagiades japetus* (Stoll, [1781])
Tagiades (*Tagiades*) *atticus carnica* Evans, 1934	ssp. of *Tagiades japetus* (Stoll, [1781])
Tagiades (*Tagiades*) *atticus nankowra* Evans, 1934	ssp. of *Tagiades japetus* (Stoll, [1781])
Tagiades (*Tagiades*) *atticus helferi* C. Felder, 1862	ssp. of *Tagiades japetus* (Stoll, [1781])
Tagiades (*Tagiades*) *atticus balana* Fruhstorfer, 1910	ssp. of *Tagiades japetus* (Stoll, [1781])
Tagiades (*Tagiades*) *inconspicua mathias* Evans, 1934	ssp. of *Tagiades japetus* (Stoll, [1781])
Tagiades (*Tagiades*) *hovia kazana* Evans, 1934	ssp. of *Tagiades japetus* (Stoll, [1781])
Tagiades (*Tagiades*) *elegans fuscata* de Jong and Treadaway, 2007	ssp. of *Tagiades gana* (Moore, [1866])
Tagiades (*Tagiades*) *elegans semperi* Fruhstorfer, 1910	ssp. of *Tagiades gana* (Moore, [1866])
Metron hypochlora tomba Evans, 1955	ssp. of *Metron schrottkyi* (Giacomelli, 1911)
Decinea denta pruda Evans, 1955	ssp. of *Decinea decinea* (Hewitson, 1876)
Choranthus orientis eleutherae (Bates, 1934)	ssp. of *Pyrrhocalles antiqua* (Herrich-Schäffer, 1863)

Table 2. Data for 1190 sequenced Hesperiidae specimens. See Table S1 in the Supplemental file deposited at <https://osf.io/aesvy/> for detailed information about these specimens and Materials and Methods section for collection abbreviations. Type status abbreviations are: AT, allotype; HT, holotype; LT, lectotype; NT, neotype; PT, paratype; ST, syntype; T, type.

DNA voucher	Taxon name	Type	Brief data	Collection
NVG-17068G08	*Abantis* (*Abantis*) *hindei*		Kenya, 1961	USNM
NVG-18054G05	*Abantis* (*Abantis*) *levubu*		Namibia, 2002	ZMHB
NVG-17068G09	*Abantis* (*Abantis*) *tettensis*		Kenya, 1956	USNM
NVG-18053A08	*Abantis* (*Caprona*) *bicolor*		Africa, 1890	ZMHB
NVG-17068G05	*Abantis* (*Caprona*) *canopus*		Kenya, 1961	USNM
NVG-18055G12	*Abantis* (*Caprona*) *leucogaster*	**ST**	Sierra Leone, old (around 1900)	ZMHB
NVG-17108C07	*Abantis* (*Caprona*) *pillaana*		South Africa, 1947	LACM
NVG-18055G09	*Abantis* (*Caprona*) *venosa* (=*plerotica*)	**ST**	Tanzania, old (around 1900)	ZMHB
NVG-18105A07	*Abaratha* (*Abaratha*) *agama agama*		no data, old (around 1900)	USNM
NVG-18079D02	*Abaratha* (*Abaratha*) *alida* (=*parvopunctata*)	**T**	Vietnam, 1868	MNHP
NVG-17068G11	*Abaratha* (*Abaratha*) *ransonnetii ransonnetii*		Ceylon, 1970	USNM
NVG-17069A05	*Abaratha* (*Odontoptilum*) *abbreviata*		Philippines, 1965	USNM
NVG-7341	*Abaratha* (*Odontoptilum*) *angulata angulata*		Myanmar, 2002	USNM
NVG-18093G06	*Abaratha* (*Odontoptilum*) *corria*	**PT**	Philippines, 1988	SMF
NVG-18093G05	*Abaratha* (*Odontoptilum*) *helias helisa*	**LT**	Philippines, prior to 1867	SMF
NVG-17069A07	*Abaratha* (*Odontoptilum*) *pygela pygela*		Philippines, 1986	USNM
NVG-17069A02	*Abraximorpha davidii*		China: Sichuan, old (around 1900)	USNM
NVG-18081B11	*Acerbas anthea anthea*		Malaysia, 1917, NHMUK_010430824, 0247275554	BMNH
NVG-17091E09	*Acerbas duris duris*		Philippines, old (around 1900)	USNM
NVG-18074B03	*Acerbas sarala sarala*		India, 1890	ZMHB
NVG-18011F11	*Achlyodes busirus busirus*		French Guiana, 1988	USNM
NVG-18081D02	*Actinor radians*		India, 1885, NHMUK_010430809, 0247275546	BMNH
NVG-18086A10	*Adina adrastor*	**HT**	no data, 1887	MNHP
NVG-15035E10	*Adlerodea asema*	**ST**	Honduras, 1888	ZMHB
NVG-18015A06	*Adlerodea petrovna*	**T**	Brazil: RJ, old (around 1900)	USNM
NVG-18026H06	*Adlerodea subpunctata subpunctata*	**HT**	Argentina, 1912	AMNH
NVG-7988	*Adopaeoides prittwitzi*		USA: AZ, Santa Cruz Co., 1999	USNM
NVG-18023C06	*Aegiale hesperiaris*		Mexico: DF, 1910	AMNH
NVG-18064E05	*Aeromachus jhora creta*		Burma, 1956	USNM
NVG-7915	*Aeromachus stigmata shanda*		Myanmar, 2002	USNM
NVG-94	*Agathymus estelleae valverdiensis*		USA: TX, Uvalde Co., 2004	UTSW
NVG-214	*Agathymus neumoegeni neumoegeni*		USA: AZ, Coconino Co., 2004	UTSW
NVG-18023A10	*Agathymus rethon*		Mexico: Puebla, 1956	AMNH
NVG-18114C11	*Aides aegita*		Venezuela, 1979	USNM
NVG-18114C09	*Aides brino*		Guyana, 2000	USNM
NVG-18114C04	*Aides duma argyrina*		Brazil: Rondonia, 1989	USNM
NVG-18054H04	*Alenia namaqua*		South Africa, 2002	ZMHB
NVG-18026G11	*Alerema simplex*	**HT**	Brazil: SC, before 1930	AMNH
NVG-19021H09	*Alerema simplex*		Brazil: Rio Grande do Sul, 1961	USNM
NVG-19021G12	*Alychna degener*		Ecuador, 1975	USNM
NVG-18042G08	*Alychna exclamationis*	**LT**	Bolivia, prior to 1898	ZMHB
NVG-19021G08	*Alychna gota*		Colombia, 1989	USNM
NVG-20017A12	*Alychna victa*		Peru, 2016	MUSM
NVG-17111G09	*Alychna zenus*		Ecuador, 1992	LACM
11-BOA-13384G02	*Amblyscirtes* (*Amblyscirtes*) *alternata*		USA: TX, Sabine Co., 2012	NGrishin
NVG-18042H03	*Amblyscirtes* (*Amblyscirtes*) *alternata* (=*asella*)	**ST**	no data, prior to 1869	ZMHB
NVG-4336	*Amblyscirtes* (*Amblyscirtes*) *vialis*		USA: IN, Newton Co., 2015	UTSW

DNA voucher	Taxon name	Type	Brief data	Collection
NVG-9727	*Amblyscirtes* (*Amblyteria*) *exoteria*		USA: AZ, Cochise Co., 2017	UTSW
NVG-19042H10	*Amblyscirtes* (*Flor*) *florus*		Mexico: Jalisco, 1966	AMNH
NVG-18063H01	*Amblyscirtes* (*Mastor*) *anubis*		Mexico: Chiapas, 1992	USNM
NVG-3524	*Amblyscirtes* (*Stomyles*) *aesculapius*		USA: TX, San Jacinto Co., 2015	UTSW
NVG-7288	*Ampittia dioscorides singa*		Sri Lanka, 1971	USNM
NVG-19071E03	*Anastrus obscurus*		Brazil: SC, 1991	USNM
11-BOA-15607A01	*Anaxas isidro*	**HT**	Panama, 1970	USNM
NVG-19113E12	*Anaxas obliqua*		Brazil: Paraiba, 1953	USNM
NVG-19113E09	*Anaxas petius petius*		Brazil: Rondonia, 1989	USNM
NVG-18019C12	*Ancistroides* (*Ancistroides*) *longicornis*		Indonesia, old (around 1900)	AMNH
NVG-18075C02	*Ancistroides* (*Notocrypta*) *clavata*	**T**	Philippines, 1888	ZMHB
NVG-17119B09	*Ancistroides* (*Notocrypta*) *curvifascia*		Myanmar, 2001	USNM
NVG-7340	*Ancistroides* (*Notocrypta*) *feistamelii*		Myanmar, 2002	USNM
NVG-18101E04	*Ancistroides* (*Notocrypta*) *paralysos*		Malaysia, 1990	USNM
NVG-18101D01	*Ancistroides* (*Ocrypta*) *caerulea*		Papua New Guinea, 1983	USNM
NVG-18101E01	*Ancistroides* (*Ocrypta*) *renardi*		Papua New Guinea, 1983	USNM
NVG-18101E03	*Ancistroides* (*Ocrypta*) *waigensis waigensis*		Waigou, old (around 1900)	USNM
NVG-7332	*Ancistroides* (*Udaspes*) *folus*		Myanmar, 2001	USNM
NVG-19091G08	*Anisochoria bacchus*		El Salvador, 1953	USNM
NVG-19091H03	*Anisochoria extincta*		Brasil, 1991	USNM
NVG-19091H11	*Anisochoria extincta*		Brazil: Minas Gerais, 1994	USNM
NVG-19091H10	*Anisochoria minorella*		Argentina, 1979	USNM
NVG-15033E03	*Anisochoria minorella*	**ST**	Bolivia, old (around 1900)	ZMHB
NVG-19091H01	*Anisochoria pedaliodina*		Bolivia, 2003	USNM
NVG-19091H02	*Anisochoria pedaliodina*		Brazil: Rondonia, 1993	USNM
NVG-18091C07	*Anisochoria pedaliodina*		Ecuador, 2012	EBrockmann
NVG-7909	*Anisochoria polysticta*		Costa Rica, 2004, 04-SRNP-15751	USNM
NVG-19091H04	*Anisochoria polysticta*		Guyana, 2000	USNM
NVG-19091G09	*Anisochoria polysticta*		Panama, 1978	USNM
NVG-18011G07	*Anisochoria sublimbata*		Colombia, old (around 1900)	USNM
NVG-19091H07	*Anisochoria verda*		Ecuador, 1989	USNM
NVG-19091H08	*Anisochoria verda*		Ecuador, 1989	USNM
NVG-17111E11	*Anthoptus epictetus*		Brazil: SC, 1999	LACM
NVG-18015B03	*Anthoptus inculta*	**T**	Mexico: probably Veracruz, old (around 1900)	USNM
NVG-18026B12	*Anthoptus inculta* (=*macalpinei*)	**HT**	Mexico: Veracruz, 1966	AMNH
NVG-19122D10	*Anthoptus insignis*		Costa Rica, 1908	USNM
NVG-10646	*Antigonus emorsa*		Mexico: Michoacan, 1994	TAMU
NVG-7907	*Antigonus erosus*		Costa Rica, 2013, 13-SRNP-56479	USNM
NVG-18014A03	*Antigonus nearchus*		Costa Rica, 2006, 06-SRNP-32799	USNM
NVG-18011B09	*Apallaga mokeezi*		South Africa, 1978	USNM
NVG-18079E08	*Apallaga oreas*	**HT**	Cameroon, 1989	MNHP
NVG-18012F08	*Apaustus menes*		Peru, 2011	USNM
NVG-17069C12	*Apostictopterus fuliginosus*		China: Sichuan, old (around 1900)	USNM
NVG-18073A11	*Argemma argyrosticta argyrosticta* (=*limbana*)	**ST**	Equatorial Guinea, 1906	ZMHB
NVG-18073A10	*Argemma aurea* (=*guineensis*)	**ST**	Equatorial Guinea, 1906	ZMHB
NVG-18019B09	*Arnetta atkinsoni*		India, 1927	AMNH
NVG-5065	*Aroma aroma*		Costa Rica, 2004, 04-SRNP-1707	USNM
NVG-17091G03	*Arrhenes marnas marnas*		Papua New Guinea, 1944	USNM
NVG-18012H06	*Artines aquilina*		Brazil: SC, 1999	USNM
NVG-17092F01	*Artines rica*		Costa Rica, 2015, 15-SRNP-65094	USNM
NVG-7755	*Artitropa comus comus*		Liberia, 1988	USNM
NVG-17092B07	*Artitropa erinnys nyasae*		Zimbabwe, 1947	USNM
NVG-19022F05	*Artonia artona*		Guyana, 2000	USNM
NVG-7394	*Astictopterus jama jama*		Myanmar, 2001	USNM
NVG-17091G10	*Aurivittia aurivittata*		Myanmar, 2002	USNM

DNA voucher	Taxon name	Type	Brief data	Collection
NVG-18014E05	*Avestia avesta*		Malaysia, old (around 1900)	USNM
NVG-17091G11	*Baoris oceia*		Phillipines, 1914	USNM
NVG-19067B01	*Baracus vittatus*		Sri Lanka, 1999	UCDC
NVG-18089F07	*Barca bicolor*		China: Shaanxi, 2009	EBrockmann
NVG-18026C12	*Barrolla barroni* (=*molla*)	**HT**	Ecuador, before 1959	AMNH
NVG-19066H05	*Bibla papyria agraulia*		Australia, 1979	UCDC
NVG-18011A07	*Bibla papyria papyria*		Australia, old (around 1900)	USNM
NVG-18049C03	*Bolla catharina*		Brazil: RJ, 1995	USNM
NVG-18049B04	*Bolla cylindus*		Panama, 1984	USNM
NVG-18049E01	*Bolla imbras*		Mexico: Veracruz, 1979	USNM
NVG-18054G08	*Borbo borbonica*		Namibia, 1993	ZMHB
NVG-18079C10	*Borbo gemella*	**T**	Madagascar, prior to 1884	MNHP
NVG-20087C12	*Borbo impar bipunctata*		Seram, 1984	KMaruyama
NVG-18074H04	*Borbo impar bipunctata*	**T**	Indonesia, 1893	ZMHB
NVG-15033E01	*Bralus albida*	**T**	Peru, old (around 1900)	ZMHB
NVG-18057B07	*Bralus alco*		Bolivia, prior to 1888	ZSMC
NVG-19091G06	*Bralus nadia*		Ecuador, 2002	USNM
NVG-19091G07	*Bralus nadia*	**PT**	Ecuador, 1975	USNM
NVG-17104A09	*Bungalotis borax*		French Guiana, old (around 1900)	USNM
NVG-17104D08	*Bungalotis corentinus*		French Guiana, old (around 1900)	USNM
NVG-15031G10	*Bungalotis corentinus* (& =*diophorus*)	**NT,HT**	Suriname, old (around 1900)	ZMHB
NVG-5741	*Bungalotis erythus*		Costa Rica, 2008, 08-SRNP-65224	USNM
NVG-15026B10	*Bungalotis gagarini*		Brazil: Rondonia, 1995	MGCL
NVG-17104A08	*Bungalotis lactos*		Guyana, 1927	USNM
NVG-17103H08	*Bungalotis midas*		Ecuador, 1998	USNM
NVG-17104E07	*Bungalotis quadratum*		Costa Rica, 2008, 08-SRNP-1750	USNM
NVG-17104D12	*Bungalotis sipa*		Guyana, 1999	USNM
NVG-18018E04	*Burnsius communis*		USA: AZ, Cochise Co., 1974	USNM
NVG-3542	*Burnsius oileus*		USA: TX, Hidalgo Co., 2015	UTSW
NVG-3375	*Burnsius philetas*		USA: TX, Starr Co., 2015	UTSW
NVG-16108G04	*Butleria flavomaculatus valdivianus*		Chile, 1979	USNM
NVG-7754	*Caenides dacela*		Liberia, 1988	USNM
NVG-19043C11	*Caenides sophia*		Uganda, 1954	AMNH
NVG-18075C08	*Caenides soritia* (=*xantho*)	**T**	Cameroon, prior to 1891	ZMHB
NVG-18075C09	*Caenides xychus*	**T**	Sierra Leone, 1888	ZMHB
NVG-17068H02	*Calleagris jamesoni jamesoni*		Tanzania, 1958	USNM
NVG-19016F10	*Callimormus* (*Callimormus*) *alsimo*		Guyana, 2000	USNM
NVG-19016G05	*Callimormus* (*Callimormus*) *corades*		Brazil: RJ, 1994	USNM
NVG-18025G03	*Callimormus* (*Callimormus*) *corus*	**HT**	Brazil: Para, before 1941	AMNH
NVG-19016F12	*Callimormus* (*Callimormus*) *interpunctata*		Brazil: RJ, 1995	USNM
NVG-19016G04	*Callimormus* (*Callimormus*) *juventus*		Guyana, 1999	USNM
NVG-19016F06	*Callimormus* (*Callimormus*) *radiola radiola*		Ecuador, 1990	USNM
NVG-19016G10	*Callimormus* (*Callimormus*) *rivera* (=*beda*)		Brazil: Parana, 1959	USNM
NVG-19016G07	*Callimormus* (*Callimormus*) *saturnus*		Guyana, 2000	USNM
NVG-4591	*Calpodes ethlius*		USA: TX, Cameron Co., 2015	UTSW
NVG-18012E03	*Calpodes salius*		Guyana, 2000	USNM
NVG-18112B02	*Calvetta calvina*		Brazil: Rondonia, 1991	USNM
NVG-18112B01	*Calvetta calvina*		Guyana, 2000	USNM
NVG-15033B06	*Camptopleura auxo*	**T**	Colombia, old (around 1900)	ZMHB
NVG-18078D02	*Camptopleura cincta*	**ST**	Bolivia, 1905	MNHP
NVG-18032C09	*Camptopleura orsus*		Panama, 1981	USNM
NVG-18032C04	*Camptopleura orsus*		Venezuela, no date?1970	USNM
NVG-15034D08	*Camptopleura orsus*	**HT**	Venezuela, old (around 1900)	ZMHB
NVG-15033A11	*Camptopleura orsus* (=*impressus*)	**ST**	Panama, old (around 1900)	ZMHB
NVG-15033B07	*Camptopleura termon*	**T**	Peru, old (around 1900)	ZMHB
NVG-18013G01	*Camptopleura theramenes*		Costa Rica, 2015, 15-SRNP-45798	USNM
NVG-19088F05	*Canesia callipetes*		Guatemala, old (around 1900)	USNM

DNA voucher	Taxon name	Type	Brief data	Collection
NVG-7905	*Canesia canescens*		Costa Rica, 2014, 14-SRNP-1649	USNM
NVG-19088E05	*Canesia canescens*		Honduras, 1979	USNM
NVG-17116B06	*Canesia canescens*		Mexico: Tamaulipas, 1974	TAMU
NVG-19088F02	*Canesia leada*		Bolivia, 1987	USNM
NVG-18013H12	*Canesia meridensis*		Costa Rica, 1997, 97-SRNP-1522	USNM
NVG-18094F04	*Canesia pallida*	**HT**	Brazil: Rio Grande do Sul, old (around 1900)	MTD
NVG-19088E10	*Canesia pallida*		Brazil: Rio Grande do Sul, 1962	USNM
NVG-19088F03	*Canesia recurva*		Brasil, 1991	USNM
NVG-18012F05	*Cantha calva*		Peru, 1986	USNM
NVG-19016D07	*Cantha zara*		Peru, 2002	USNM
NVG-18033B07	*Capila phanaeus decoloris*		Cambodia, 2006	MWalker
NVG-17119A07	*Capila pieridoides*		Brahmaputra, old (around 1900)	USNM
NVG-15033B09	*Carrhenes chaeremon*	**LT**	Brazil: Amazonas, old (around 1900)	ZMHB
NVG-19088E02	*Carrhenes chaeremon*		Ecuador, 1992	USNM
NVG-19088D10	*Carrhenes conia*		Brasil, 1991	USNM
NVG-18057B05	*Carrhenes conia*		Peru, around 1896	ZSMC
NVG-15033B10	*Carrhenes conia*		Brazil: Amazonas, old (around 1900)	ZMHB
NVG-18017D06	*Carrhenes decens*		Peru, 2012	USNM
NVG-18014A02	*Carrhenes fuscescens*		Costa Rica, 1995, 95-SRNP-6819	USNM
NVG-18123A05	*Carterocephalus abax*		China, old (around 1900)	USNM
NVG-17067B09	*Carterocephalus palaemon palaemon*		Russia, 2003	CSUC
NVG-18012D09	*Carystina lysiteles*		Peru, 1999	USNM
NVG-18014H06	*Carystoides* (*Balma*) *balza*		Ecuador, 1974	USNM
NVG-18022B01	*Carystoides* (*Balma*) *maroma*		Peru, 1930	AMNH
NVG-18021H04	*Carystoides* (*Carystoides*) *alda*		Brazil: SC, 1938	AMNH
NVG-18072B05	*Carystoides* (*Carystoides*) *basoches*		Costa Rica, 2015, 15-SRNP-70059	USNM
NVG-18039E10	*Carystoides* (*Carystoides*) *cathaea*		Guyana, 2003	FMNH
NVG-18072C06	*Carystoides* (*Carystoides*) *hondura*		Costa Rica, 2015, 14-SRNP-47794	USNM
NVG-18022D10	*Carystoides* (*Carystoides*) *mexicana*	**HT**	Mexico: San Luis Potosi, 1966	AMNH
NVG-18014H12	*Carystoides* (*Carystoides*) *noseda*		Brazil: Para, 1986	USNM
NVG-18072C05	*Carystoides* (*Carystoides*) *sicania orbius*		Costa Rica, 2015, 15-SRNP-65210	USNM
NVG-7921	*Carystus* (*Argon*) *lota*		Costa Rica, 2007, 07-SRNP-55877	USNM
NVG-18012D05	*Carystus* (*Carystus*) *hocus*		Colombia, 1971	USNM
NVG-18026G05	*Carystus* (*Carystus*) *jolus* (=*santus*)	**HT**	French Guiana, before 1940	AMNH
NVG-18111H09	*Carystus* (*Carystus*) *periphas periphas*		Panama, 1969	USNM
NVG-15035H06	*Carystus* (*Carystus*) *superbiens*	**T**	Brazil: Amazonas, old (around 1900)	ZMHB
NVG-15036C07	*Carystus* (*Moeros*) *moeros*	**T**	Suriname, 1874	ZMHB
NVG-7924	*Carystus* (*Synale*) *cynaxa*		Costa Rica, 2008, 08-SRNP-37249	USNM
NVG-18111H07	*Carystus* (*Synale*) *elana elana*		Brazil: Mato Grosso, 1969	USNM
NVG-18012D04	*Carystus* (*Synale*) *hylaspes*		Argentina, 1998	USNM
NVG-18111H08	*Carystus* (*Synale*) *metella*		Brazil: Mato Grosso, 1990	USNM
NVG-7925	*Carystus* (*Synale*) *phorcus phorcus*		Costa Rica, 2007, 07-SRNP-57133	USNM
NVG-18111H12	*Carystus* (*Synale*) *ploetzi*		Ecuador, 2002	USNM
NVG-18013G07	*Celaenorrhinus eligius eligius*		Costa Rica, 2010, 10-SRNP-20588	USNM
NVG-18079E06	*Celaenorrhinus elmina*	**NT**	Cameroon, 1997	MNHP
NVG-7993	*Celaenorrhinus syllius*		Ecuador, 2002	USNM
NVG-19012E04	*Celotes limpia*		USA: TX, Jeff Davis Co., 2018	WDempwolf
NVG-3956	*Celotes nessus*		USA: TX, Hidalgo Co., 2015	UTSW
NVG-7758	*Cephrenes augiades sperthias*		Australia, 1995	USNM
NVG-18099D12	*Ceratrichia brunnea brunnea*		Kenya, 1956	USNM
NVG-18099E01	*Ceratrichia flava flava*		Uganda, 1961	USNM
NVG-18099E02	*Ceratrichia hollandi hollandi*		Uganda, 1957	USNM
NVG-18053E03	*Ceratrichia nothus*		no data, old (around 1900)	ZMHB
NVG-18099E04	*Ceratrichia wollastoni wollastoni*		Uganda, 1952	USNM
NVG-18089G07	*Cerba martini*		Malaysia, 1993	EBrockmann
NVG-18089G09	*Chaetocneme helirius*		Indonesia, 2002	EBrockmann
NVG-17069A11	*Chamunda chamunda*		India, old (around 1900)	USNM

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NVG-14103A02	*Chiothion asychis asychis*		Suriname, 1982	USNM
NVG-17069B09	*Chirgus* (*Chirgus*) *bocchoris bocchoris*		Argentina, old (around 1900)	USNM
NVG-14102F04	*Chirgus* (*Chirgus*) *fides*		Chile, 1961	FMNH
NVG-15033H08	*Chirgus* (*Chirgus*) *limbata* (=*biseriatus*)	**T**	Bolivia, old (around 1900)	ZMHB
NVG-14102E12	*Chirgus* (*Chirgus*) *nigella*		Peru, 1939	FMNH
11-BOA-13382F11	*Chirgus* (*Turis*) *veturius*		Brazil: Bahia, 1991	USNM
NVG-18025D04	*Chitta chittara* (=*alis*)	**HT**	Brazil: SC, before 1959	AMNH
NVG-5271	*Choaspes hemixanthus furcata*		China: Sichuan, 2015	UTSW
NVG-17069G10	*Chondrolepis niveicornis*		Kenya, 1951	USNM
NVG-8060	*Choranthus antiqua*		Dominican Republic, 1994	USNM
NVG-21012F05	*Choranthus antiqua*		Haiti, 1977	CMNH
NVG-18094E07	*Choranthus antiqua* (=*kruegeri*)	**LT**	Dominican Republic, 1925	MTD
NVG-18025E08	*Choranthus borincona*	**HT**	Puerto Rico, 1915	AMNH
NVG-18117E11	*Choranthus borincona*		Puerto Rico, 1982	USNM
NVG-18057A05	*Choranthus capucinus*		Cuba, 2013	ZSMC
NVG-4881	*Choranthus capucinus*		USA: FL, Monroe Co., 2015	UTSW
NVG-15095H05	*Choranthus haitensis*	**T**	Haiti, old (around 1900)	CMNH
NVG-10491	*Choranthus jamaicensis*		Jamaica, 2017	UTSW
NVG-18021F05	*Choranthus lilliae*		Jamaica, 1959	AMNH
NVG-18026B09	*Choranthus lilliae*	**HT**	Jamaica, 1931	AMNH
NVG-19044C12	*Choranthus melissa*		Dominican Republic, about 1990	AMNH
NVG-18117D02	*Choranthus orientis eleutherae*		Bahamas, 1978	USNM
NVG-18117D03	*Choranthus orientis eleutherae*		Bahamas, 1978	USNM
NVG-15095F10	*Choranthus orientis orientis*	**HT**	Cuba, 1910	CMNH
NVG-21012F07	*Choranthus orientis orientis*		Cuba, 1930	CMNH
NVG-18117F01	*Choranthus radians*		Cuba, 2010	USNM
NVG-15096F11	*Choranthus richmondi*	**HT**	Bahamas, old (around 1900)	CMNH
NVG-18033G06	*Choranthus vitellius*		Puerto Rico, 2015	MWalker
NVG-17108F02	*Clytius clytius*		USA: AZ, Santa Cruz Co., 1991	LACM
NVG-15111G10	*Clytius shola*		Venezuela, 1907	AMNH
NVG-18013A06	*Cobalopsis autumna*		Costa Rica, old (around 1900)	USNM
NVG-15035A06	*Cobalopsis autumna*	**ST**	Panama, 1876	ZMHB
NVG-15035D09	*Cobalopsis autumna* (=*edda*)	**ST**	Panama, old (around 1900)	ZMHB
NVG-18064B10	*Cobalopsis dictys*		Costa Rica, 2012, 12-SRNP-22065	USNM
NVG-21013C10	*Cobalopsis dictys*		Guatemala, old (around 1900)	CMNH
NVG-19021D02	*Cobalopsis nero*		French Guiana, 1993	USNM
NVG-15034H09	*Cobalopsis nero*	**ST**	no data, old (around 1900)	ZMHB
NVG-15035D11	*Cobalopsis nero* (=*dyscritus*)	**T**	Colombia, old (around 1900)	ZMHB
NVG-19021D10	*Cobalopsis valerius*		French Guiana, 1993	USNM
NVG-19021D09	*Cobalopsis valerius*		Venezuela, 1985	USNM
NVG-15035E03	*Cobalopsis valerius*	**HT**	Colombia, 1876	ZMHB
NVG-18025H04	*Cobalopsis valerius* (=*elegans*)	**HT**	Ecuador, 1939	AMNH
NVG-18116A03	*Cobalopsis valerius* (=*miaba*)	**ST**	no data, prior to 1902	USNM
NVG-15096B09	*Cobalopsis valerius* (=*potaro*)	**HT**	Guyana, old (around 1900)	CMNH
NVG-18027A08	*Cobalopsis zetus*	**HT**	Mexico: Guerrero, 1911	AMNH
NVG-18112A09	*Cobalus fidicula*		Panama, 1984	USNM
NVG-7927	*Cobalus virbius virbius*		Costa Rica, 2012, 12-SRNP-22162	USNM
NVG-18044A12	*Coladenia indrani tessa*		Sri Lanka, 1973	USNM
NVG-18093F11	*Coladenia ochracea*	**HT**	Philippines, 1988	SMF
NVG-18055C01	*Coladenia palawana*	**ST**	Palawan, 1888	ZMHB
NVG-18091C10	*Conga chydaea*		Ecuador, 2012	EBrockmann
NVG-19012H09	*Conga chydaea*		USA: TX, Hidalgo Co., 1973	TAMU
NVG-15036F12	*Conga chydaea* (=*binaria*)	**ST**	Venezuela, old (around 1900)	ZMHB
NVG-18119E02	*Conga immaculata*		Brazil: RJ, 1995	USNM
NVG-18119E01	*Conga urqua*		Brazil: SC, 1973	USNM
NVG-18119E05	*Conga zela*		Brazil: Rio Grande do Sul, 1962	USNM
NVG-18052D05	*Contrastia distigma* (=*stigmula*)	**ST**	no data, prior to 1891	ZMHB

DNA voucher	Taxon name	Type	Brief data	Collection
NVG-19012H07	*Corta lycortas*		Mexico: Tamaulipas, 1974	TAMU
NVG-17092F04	*Corticea corticea*		Costa Rica, 2012, 12-SRNP-70085	USNM
NVG-18026A01	*Corticea graziellae*	**HT**	Brazil: Paraiba, 1954	AMNH
NVG-18114H07	*Corticea lysias lysias*		Panama, 1981	USNM
NVG-18043C03	*Corticea mendica*	**?PLT**	Bolivia, 1894	ZMHB
NVG-18026G09	*Corticea schwarzi*	**HT**	Colombia, 1935	AMNH
NVG-18114H10	*Corticea schwarzi*		Ecuador, 1988	USNM
NVG-18026G10	*Corticea similea*	**HT**	Mexico: Guerrero, before 1947	AMNH
NVG-15096A02	*Corticea sylva*	**ST**	Ecuador, old (around 1900)	CMNH
NVG-18114H08	*Corticea sylva*		Ecuador, 1993	USNM
NVG-18096C08	*Corticea vicinus*		Colombia, old (around 1900)	MTD
NVG-21012E11	*Corticea vicinus*		Colombia, 1915	CMNH
NVG-20114G08	*Creteus cyrina cyrina*		Thailand, 1980	KMaruyama
NVG-17092G08	*Cumbre cumbre*		Brazil: RJ, 1994	USNM
NVG-15104C10	*Cymaenes aequatoria*	**HT**	Ecuador, 1938	AMNH
NVG-19018F09	*Cymaenes edata*		Colombia, 1972	USNM
NVG-19018F08	*Cymaenes edata*		Venezuela, 1981	USNM
NVG-19018F07	*Cymaenes isus*		Panama, 1985	USNM
NVG-3401	*Cymaenes isus*		USA: TX, Hidalgo Co., 2015	UTSW
NVG-18043C06	*Cymaenes lumina*	**LT**	no data, prior to 1869	ZMHB
NVG-18113D03	*Cymaenes lumina* (=*corescene*)	**ST**	Brazil: Parana, prior to 1902	USNM
NVG-19018F12	*Cymaenes lumina* (=*odilia*)		Brazil: Parana, 1971	USNM
NVG-19018G03	*Cymaenes lumina* (=*odilia*)		Brazil: Rio Grande do Sul, 1956	USNM
NVG-19018G04	*Cymaenes lumina* (=*odilia*)		Paraguay, old (around 1900)	USNM
NVG-15034E04	*Cymaenes lumina* (=*trebius*)	**T**	Colombia, old (around 1900)	ZMHB
NVG-17102E10	*Cymaenes miqua*	**T**	Peru, 1911	USNM
NVG-19093C05	*Cymaenes psyllus*		Peru, 2001	USNM
NVG-19017H05	*Cymaenes tripunctus tripunctus*		British Virgin Islands, 1986	USNM
NVG-19017H02	*Cymaenes tripunctus tripunctus*		Cuba, 2010	USNM
NVG-10329	*Cymaenes tripunctus tripunctus*		Jamaica, 2017	UTSW
NVG-4842	*Cymaenes tripunctus tripunctus*		USA: FL, Collier Co., 2015	UTSW
NVG-7960	*Cynea* (*Cynea*) *cynea*		Costa Rica, 2010, 10-SRNP-35740	USNM
NVG-18119B12	*Cynea* (*Cynea*) *cyrus rhino*		Guyana, 2000	USNM
NVG-18119D04	*Cynea* (*Cynea*) *diluta*		Guyana, 2000	USNM
NVG-15035D08	*Cynea* (*Cynea*) *diluta* (=*osembo*)	**HT**	Suriname, 1876	ZMHB
NVG-18119C09	*Cynea* (*Nycea*) *corisana*		Guyana, 1999	USNM
NVG-18119C10	*Cynea* (*Nycea*) *hycsos hycsos*		Guyana, 1999	USNM
NVG-18119C05	*Cynea* (*Nycea*) *iquita*		Peru, 1986	USNM
NVG-19024H03	*Cynea* (*Nycea*) *irma*		Costa Rica, 2015, 15-SRNP-20106	USNM
NVG-18119C04	*Cynea* (*Nycea*) *melius*		Brazil: RJ, 1996	USNM
NVG-20086E05	*Cynea* (*Nycea*) *robba*		Ecuador, 2019	KMaruyama
NVG-7959	*Cynea* (*Quinta*) *cannae*		Costa Rica, 2012, 12-SRNP-75508	USNM
NVG-18014F05	*Dalla caicus inca*		Peru, 2011	USNM
NVG-18014F03	*Dalla frater*		Peru, 2013	USNM
NVG-18017B12	*Dalla semiargentea*		Colombia, 1965	USNM
NVG-17111B10	*Damas clavus*		Brazil: Rondonia, 1993	LACM
NVG-18055F11	*Darpa dealbata*	**ST**	Malacca, old (around 1900)	ZMHB
NVG-17119A11	*Darpa hanria*		India, 1890	USNM
NVG-18104D02	*Darpa pteria*		Phillippines, 1985	USNM
NVG-7330	*Darpa striata striata*		Malaysia, old (around 1900)	USNM
NVG-17095D05	*Decinea antus*		Brazil: SC, 1991	USNM
NVG-18026A05	*Decinea antus* (=*huntingtoni*)	**HT**	Brazil: SC, 1930	AMNH
NVG-20087B07	*Decinea colombiana* sp. n.		Colombia, 2017	KMaruyama
NVG-18021C01	*Decinea decinea*		Brazil: SC, old (around 1900)	AMNH
NVG-17095C10	*Decinea decinea* (=*fortis*)		Brazil: Parana, 1995	USNM
NVG-18118B08	*Decinea denta denta*		Ecuador, 1990	USNM
NVG-17095C12	*Decinea denta denta*		Peru, 1989	USNM

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NVG-17109H09	*Decinea huasteca*		Mexico: Hidalgo, 1981	LACM
NVG-18026A04	*Decinea huasteca*	**HT**	Mexico: San Luis Potosi, 1966	AMNH
11-BOA-13385E10	*Diaeus lacaena*		Brazil: RJ, 1996	USNM
NVG-19023F09	*Dion carmenta*		Ecuador, 1973	USNM
NVG-18013B08	*Dion gemmatus*		Panama, 1983	USNM
NVG-19023H01	*Dion iccius*		Peru, 1987	USNM
NVG-18021B04	*Dion meda*		Brazil: SC, 1920	AMNH
NVG-7919	*Dion uza*		Costa Rica, 2008, 08-SRNP-40522	USNM
NVG-18054F12	*Dotta callicles*		Namibia, 1992	ZMHB
NVG-17093B03	*Dotta stellata stellata*		Kenya, 1957	USNM
NVG-17093A12	*Dotta tura*		Tanzania, 1954	USNM
NVG-8038	*Dubia dubia*		Guyana, 1999	USNM
NVG-18012D08	*Dubiella dubius*		Peru, 1989	USNM
NVG-17098F01	*Duroca duroca duroca*		Brazil: RJ, 1996	USNM
NVG-15026C05	*Dyscophellus basialbus* sp. n.	**HT**	Brazil: Rondonia, 1993	MGCL
NVG-15026C06	*Dyscophellus basialbus* sp. n.	**PT**	Brazil: Rondonia, 1993	MGCL
NVG-15031F05	*Dyscophellus damias*	**LT**	Brazil: Para, old (around 1900)	ZMHB
NVG-15031F12	*Dyscophellus damias* (=*erythras*)	**LT**	Brazil: Para, old (around 1900)	ZMHB
NVG-17104D04	*Dyscophellus damias* (=*erythras*)		Colombia, 1971	USNM
NVG-18025C02	*Dyscophellus damias* (=*tarquinius*)	**HT**	Peru, 1926	AMNH
NVG-18086A07	*Dyscophellus diaphorus*	**HT**	Suriname, 1910	MNHP
NVG-15026C09	*Dyscophellus mielkei*	**PT**	Brazil: Rondonia, 1992	MGCL
NVG-17104E12	*Dyscophellus porcius*		Venezuela, 1984	USNM
NVG-15104B04	*Dyscophellus porsena*	**HT**	Peru, 1931	AMNH
NVG-18101G09	*Dyscophellus ramon*		Mexico: Veracruz, 1941	AMNH
NVG-17104C07	*Dyscophellus ramusis*		French Guiana, old (around 1900)	USNM
NVG-17104D06	*Dyscophellus sebaldus*		Brazil: Amazonas, 1970	USNM
NVG-17119A02	*Eagris sabadius andracne*		Madagascar, 1988	USNM
NVG-18074B06	*Eagris tetrastigma tetrastigma*		Neukamerun, 1914	ZMHB
NVG-18111G10	*Ebusus ebusus ebusus*		Peru, 2015	USNM
NVG-19113D07	*Echelatus sempiternus dilloni*		Dominican Republic, 1981	USNM
NVG-7884	*Echelatus sempiternus sempiternus*		Costa Rica, 2007, 07-SRNP-12147	USNM
NVG-19113C10	*Echelatus sempiternus simplicior*		Venezuela, 1988	USNM
NVG-7869	*Eetion elia*		Malaysia, 1990	USNM
NVG-18067C08	*Emmelus purpurascens*		Peru, 2001	EBrockmann
NVG-18019B11	*Eogenes alcides*		Turkey, old (around 1900)	AMNH
NVG-17093E07	*Ephyriades arcas philemon*		St. Croix, 1996	USNM
NVG-15032B08	*Ephyriades brunnea brunnea*	**ST**	Cuba, prior to 1865	ZMHB
NVG-17093D12	*Ephyriades brunnea brunnea*		Cuba, 2010	USNM
NVG-15032B07	*Ephyriades brunnea brunnea*	**ST**	Cuba?, prior to 1865	ZMHB
NVG-17095E06	*Ephyriades brunnea floridensis*		USA: FL, Monroe Co., 1987	USNM
NVG-17095E09	*Ephyriades dominicensis*		Dominica, 1965	USNM
NVG-18024F07	*Ephyriades dominicensis*	**HT**	Dominica, 1929	AMNH
NVG-10476	*Ephyriades jamaicensis*		Jamaica, 2017	UTSW
NVG-15032B05	*Ephyriades jamaicensis*	**ST**	Jamaica, 1876	ZMHB
NVG-15032B06	*Ephyriades jamaicensis*	**ST**	Jamaica, 1876	ZMHB
NVG-17095E01	*Ephyriades zephodes*		Dominican Republic, 1981	USNM
NVG-18081A02	*Eprius* (*Repens*) *repens*	**PT**	Paraguay, 1904, NHMUK_010430831, 0247279233	BMNH
NVG-17092F09	*Eprius* (*Eprius*) *veleda*		Costa Rica, 2006, 06-SRNP-47351	USNM
NVG-17069B02	*Eretis melania*		Tanzania, 1963	USNM
NVG-7910	*Erionota thrax*		USA: HI, Molokai, 2005	USNM
NVG-20049A12	*Euphyes antra*		Belize, 2000	JShuey
PAO-1422	*Euphyes kiowah*		USA: CO, Jefferson Co., 2020	UTSW
NVG-8380	*Euphyes kiowah*		USA: TX, Blanco Co., 2017	UTSW
NVG-8743	*Euphyes kiowah*		USA: TX, Randall Co., 2017	UTSW
NVG-15102B04	*Euphyes kiowah*		USA: NM, Otero Co., 1986	USNM

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NVG-18025F07	*Euphyes kiowah chamuli*	**HT**	Mexico: Chiapas, 1965	AMNH
NVG-19024F10	*Euphyes peneia*		Costa Rica, 2011, 11-SRNP-69003	USNM
NVG-10408	*Euphyes singularis insolata*		Jamaica, 2017	UTSW
NVG-15102B02	*Euphyes vestris harbisoni*	**PT**	USA: CA, San Diego Co., 1982	USNM
NVG-3252	*Euphyes vestris metacomet*		USA: OH, Pauling Co., 1971	TAMU
NVG-4200	*Euphyes vestris metacomet*		USA: TX, Dallas Co., 2015	UTSW
NVG-4614	*Euphyes vestris metacomet*		USA: FL, Sumter Co., 2015	UTSW
PAO-444	*Euphyes vestris vestris*		USA: CA, Plumas Co., 2017	UTSW
NVG-14063E01	*Euriphellus euribates*		Peru, 2013	USNM
NVG-17103G01	*Euriphellus marian*		Peru, 1994	USNM
NVG-18052E06	*Euriphellus phraxanor*		Panama, 1896	ZMHB
NVG-15103B05	*Euschemon rafflesia rafflesia*		Australia, probably around 1946	USNM
NVG-18064B09	*Eutocus facilis*		Costa Rica, 2006, 06-SRNP-47959	USNM
NVG-20086E11	*Eutocus quichua*		Peru, 2018	KMaruyama
NVG-18043G11	*Eutocus vetulus*	**ST**	Panama, prior to 1883	ZMHB
NVG-18026D05	*Eutus mubevensis*	**HT**	Paraguay, before 1932	AMNH
NVG-18116C07	*Eutus rastaca*	**ST**	Brazil: RJ, prior to 1902	USNM
NVG-18025E10	*Eutus rastaca* (=*brema*)	**HT**	Brazil: SC, 1923	AMNH
NVG-7942	*Eutychide paria*		Costa Rica, 2006, 06-SRNP-34336	USNM
NVG-19023E01	*Eutychide physcella*		Brazil: Minas Gerais, 1990	USNM
NVG-18012E10	*Falga jeconia jeconia*		Venezuela, 1985	USNM
NVG-18031H08	*Festivia festiva*		Brazil: Rondonia, 1989	USNM
NVG-17092F07	*Flaccilla aecas*		Costa Rica, 2015, 15-SRNP-45377	USNM
NVG-18073A06	*Flandria weberi*		Gabun, old (around 1900)	ZMHB
NVG-7762	*Fulda coroller*		Madagascar, 1991	USNM
NVG-15031G03	*Fulvatis fulvius*		Brazil: Para, old (around 1900)	ZMHB
NVG-15031G04	*Fulvatis fulvius*	**ST**	Brazil: Para, old (around 1900)	ZMHB
NVG-15104A06	*Fulvatis scyrus*	**HT**	Peru, 1931	AMNH
NVG-7808	*Galerga hyposticta*		Madagascar, 1990	USNM
NVG-18113C04	*Gallio carasta*	**ST**	Brazil: RJ, prior to 1902	USNM
NVG-18025G08	*Gallio danius*	**HT**	Brazil: SC, before 1941	AMNH
NVG-18113E09	*Gallio garima garima*	**ST**	Trinidad and Tobago, prior to 1902	USNM
NVG-18026C07	*Gallio garima massarus*	**HT**	Brazil: SC, before 1940	AMNH
NVG-19021H07	*Gallio garima massarus*		Brazil: RJ, 1994	USNM
NVG-18026C04	*Gallio madius*	**HT**	Brazil: SC, before 1941	AMNH
NVG-18043G01	*Gallio seriatus*	**ST**	Venezuela, prior to 1891	ZMHB
NVG-18099H10	*Gamia shelleyi*		Uganda, 1953	USNM
NVG-16108F09	*Gangara thyrsis*		Philippines, 1987	USNM
NVG-18057H08	*Ge geta*		no data, 1894	ZSMC
NVG-18054G09	*Gegenes pumilio*		Namibia, 1992	ZMHB
NVG-17119G09	*Gerosis phisara*		Myanmar, 2002	USNM
NVG-19017D01	*Ginungagapus bocus*		Brazil: RJ, 1995	USNM
NVG-19017D03	*Ginungagapus ranesus*		Brazil: Minas Gerais, 1990	USNM
NVG-19017D02	*Ginungagapus schmithi*		Brazil: Parana, 1995	USNM
NVG-15035F09	*Godmia chlorocephala*	**ST**	Panama, old (around 1900)	ZMHB
NVG-15033D06	*Gorgopas agylla*	**ST**	Bolivia, old (around 1900)	ZMHB
11-BOA-13383B01	*Gorgopas chlorocephala chlorocephala*		Peru, 2009	USNM
NVG-15034D01	*Gorgopas extensa*	**ST**	Peru, 1887	ZMHB
NVG-17093D09	*Gorgopas petale*		Brazil: RJ, 1995	USNM
NVG-7975	*Gorgopas trochilus*		Peru, 2008	USNM
NVG-19018H04	*Gracilata quadrinotata*		Panama, 1981	USNM
NVG-18019F12	*Gretna cylinda*		Uganda, 1953	AMNH
NVG-21013F02	*Gubrus lugubris*		Brazil: Para, 1918	CMNH
NVG-21013F01	*Gubrus lugubris*	**PT**	Peru, 1920	CMNH
NVG-18025H09	*Gufa fusca*	**HT**	Brazil: SC, 1925	AMNH
NVG-18113F02	*Gufa gulala*	**ST**	Brazil: Parana, prior to 1902	USNM
NVG-18013A12	*Halotus angellus*		Panama, 1976	USNM

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NVG-19021H12	*Halotus rica*		Mexico: Puebla, 1991	USNM
NVG-17119G01	*Halpe porus*		Myanmar, 2001	USNM
NVG-18052D09	*Haza hazarma*	**LT**	no data, prior to 1877	ZMHB
NVG-7886	*Helias cama*		Costa Rica, 2008, 08-SRNP-2560	USNM
NVG-18032C05	*Helias phalaenoides palpalis*		Brazil: RJ, 1994	USNM
NVG-17109G07	*Heliopetes alana*		Guatemala, 2003	LACM
NVG-5229	*Heliopetes domicella domicella*		USA: TX, Starr Co., 2015	UTSW
11-BOA-13385C12	*Heliopetes ericetorum*		USA: AZ, Gila Co., 2012	NGrishin
NVG-3338	*Heliopetes laviana laviana*		USA: TX, Cameron Co., 2015	UTSW
NVG-5250	*Heliopetes macaira*		USA: TX, Cameron Co., 2015	UTSW
NVG-14114E04	*Heliopetes sublinea*		USA: TX, Hidalgo Co., 2014	TLS
NVG-18072H06	*Herila herilus*		Tanzania, 1887	ZMHB
NVG-19016C09	*Hermio hermione*		Panama, 1977	USNM
NVG-18068A06	*Hesperia comma lena*		Russia, 1990	EBrockmann
NVG-17067A11	*Hesperopsis alpheus alpheus*		USA: NM, Sandoval Co., 1984	CSUC
NVG-17067A09	*Hesperopsis libya libya*		USA: CA, Inyo Co., 2009	CSUC
NVG-17069E08	*Heteropterus* (*Heteropterus*) *morpheus*		France, 1966	USNM
NVG-18089B03	*Heteropterus* (*Pulchroptera*) *pulchra*		China: Yunnan, 1988	EBrockmann
NVG-7823	*Hidari irava*		Singapore, 1989	USNM
NVG-18072H08	*Hollandus xanthopeplus*		Cameroon, 1895	ZMHB
NVG-18072H07	*Hollandus xanthopeplus*		Equatorial Guinea, 1906	ZMHB
NVG-18015D07	*Hoodus jason*		Gyuana, 1999	USNM
NVG-7882	*Hoodus pelopidas*		Costa Rica, 2008, 08-SRNP-55556	USNM
NVG-7767	*Hovala pardalina*		Madagascar, 1988	USNM
NVG-19044C06	*Hypoleucis dacena*		Uganda, 1953	AMNH
NVG-18075D02	*Hypoleucis dacena* (=*leucopogon*)	**T**	Cameroon, 1889	ZMHB
NVG-19043C09	*Hypoleucis ophiusa ophiusa*		Ghana, 1969	AMNH
NVG-17091H02	*Hypoleucis tripunctata draga*		Uganda, 1960	USNM
NVG-7376	*Iambrix salsala*		Myanmar, 2003	USNM
NVG-7806	*Idmon distanti*		Malaysia, 1990	USNM
NVG-17091E06	*Ilma irvina*		Indonesia, old (around 1900)	USNM
NVG-18059B11	*Incisus incisus*		Brazil: RJ, 1995	USNM
NVG-17091D04	*Isma obscura purpurascens*		Malaysia, 1966	USNM
NVG-18067G09	*Isoteinon abjecta*		Ghana, 1979	EBrockmann
NVG-17091A07	*Isoteinon lamprospilus formosanus*		Taiwan, 1980	USNM
NVG-7953	*Joanna joanna*		Costa Rica, 2004, 04-SRNP-14377	USNM
NVG-19023D08	*Justinia* (*Justinia*) *gava*		Guyana, 2000	USNM
NVG-19023D07	*Justinia* (*Justinia*) *justinianus justinianus*		Brazil: Mato Grosso, 1991	USNM
NVG-7949	*Justinia* (*Justinia*) *norda*		Costa Rica, 2011, 11-SRNP-33301	USNM
NVG-18026C02	*Justinia* (*Septia*) *maculata*	**HT**	Bolivia, before 1930	AMNH
NVG-18053B08	*Katreus johnstonii apicalis*		Sierra Leone, 1887	ZMHB
NVG-17108F10	*Kedestes lepenula*		South Africa, 1943	LACM
NVG-17119C03	*Kerana armatus*		Malaysia, 1983	USNM
NVG-18101C09	*Kerana gemmifer dombya*		Sarawak, 1966	USNM
NVG-17069F06	*Kobelana kobela*		South Africa, 1978	USNM
NVG-18063C05	*Kobrona kobros*	**ST**	Indonesia, 1883	ZSMC
NVG-15035H09	*Koria kora*	**T**	Brazil: RJ, old (around 1900)	ZMHB
NVG-18101C05	*Koruthaialos* (*Koruthaialos*) *rubecula hector*		Myanmar, 2003	USNM
NVG-18095B09	*Koruthaialos* (*Stimula*) *butleri*		India, old (around 1900)	MTD
NVG-18095B10	*Koruthaialos* (*Stimula*) *butleri*		India, old (around 1900)	MTD
NVG-18101B07	*Koruthaialos* (*Stimula*) *focula focula*		Java, old (around 1900)	USNM
NVG-18101B08	*Koruthaialos* (*Stimula*) *focula kerala*		Sumatra, old (around 1900)	USNM
NVG-18101B09	*Koruthaialos* (*Stimula*) *frena*		Malaysia, old (around 1900)	USNM
NVG-18101C03	*Koruthaialos* (*Stimula*) *sindu sindu*		Malaysia, old (around 1900)	USNM
NVG-18063C02	*Koruthaialos* (*Stimula*) *swinhoei swinhoei*		India, old (around 1900)	ZSMC
NVG-18014F02	*Ladda eburones eburones*		Peru, 2008	USNM
NVG-18014F01	*Ladda monospila*		Peru, 2010	USNM

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NVG-18014E10	*Ladda quadristriga*		Peru, 2013	USNM
NVG-8041	*Lamponia lamponia*		Brazil: Parana, 1995	USNM
NVG-19022G06	*Lamponia ploetzii morretesi*		Brazil, old (around 1900)	USNM
NVG-19023F03	*Lamponia ploetzii ploetzii*		Brazil: RJ, 1996	USNM
NVG-19022G07	*Lamponia ploetzii ploetzii*		no data [SE Brazil], old (around 1900)	USNM
NVG-18025D08	*Lattus arabupuana*	**HT**	Brazil: Roraima, 1927	AMNH
NVG-18075C11	*Lennia binoevatus*	**T**	Gabon, 1888	ZMHB
NVG-18087A07	*Lennia lena*		Ivory Coast, 1963	MNHP
NVG-18096E03	*Lennia maracanda*		Congo, old (around 1900)	MTD
NVG-18012F03	*Lento lento*		Brazil: Mato Grosso, 1991	USNM
NVG-18087A09	*Leona leonora leonora*		Gabon, 1969	MNHP
NVG-18075D01	*Leona stoehri*	**T**	Togo, prior to 1893	ZMHB
NVG-17093A04	*Lepella lepeletier*		Uganda, 1951	USNM
NVG-18089G10	*Leptalina unicolor*		Japan, 1986	EBrockmann
NVG-19021F01	*Lerema* (*Geia*) *etelka*		Brazil: RJ, old (around 1900)	USNM
NVG-19017H11	*Lerema* (*Geia*) *etelka*		Guyana, 1989	USNM
NVG-18113E06	*Lerema* (*Geia*) *etelka*	**ST**	Trinidad and Tobago, prior to 1902	USNM
NVG-15035F08	*Lerema* (*Geia*) *geisa*	**ST**	Colombia, old (around 1900)	ZMHB
NVG-19021E12	*Lerema* (*Geia*) *geisa*		Ecuador, 1990	USNM
NVG-19021E11	*Lerema* (*Geia*) *geisa*		Panama, 1981	USNM
NVG-19021E09	*Lerema* (*Geia*) *lyde*		Costa Rica, 2003	USNM
NVG-21013E01	*Lerema* (*Geia*) *lyde*	**ST**	Mexico: Veracruz, old (around 1900)	CMNH
NVG-21013E02	*Lerema* (*Geia*) *lyde*	**ST**	Mexico: Tabasco, old (around 1900)	CMNH
NVG-4792	*Lerema* (*Lerema*) *accius*		USA: FL, Levy Co., 2015	UTSW
NVG-7253	*Lerema* (*Lerema*) *ancillaris*		Brazil: Amazonas, 1993	USNM
NVG-19021E06	*Lerema* (*Lerema*) *bipunctata*		Colombia, 1992	USNM
NVG-15035G01	*Lerema* (*Lerema*) *bipunctata*	**T**	Panama, old (around 1900)	ZMHB
NVG-7738	*Lerema* (*Lerema*) *lineosa*		Brazil: Mato Grosso, 1991	USNM
NVG-18052A07	*Lerema* (*Lerema*) *lineosa* (=*aethra*)	**ST**	Suriname, 1882	ZMHB
NVG-3194	*Lerema* (*Lerema*) *liris*		Mexico: Tamaulipas, 1973	TAMU
NVG-7737	*Lerema* (*Lerema*) *lucius* sp. n.	**HT**	Panama, 1973	USNM
NVG-15036E08	*Lerema* (*Morys*) *ancus*	**ST**	Colombia, old (around 1900)	ZMHB
NVG-18115D01	*Lerema* (*Morys*) *ancus*		Guyana, 2000	USNM
NVG-19021F09	*Lerema* (*Morys*) *compta*		Guyana, 2000	USNM
NVG-19021F06	*Lerema* (*Morys*) *micythus*		Mexico: Guerrero, 1989	USNM
NVG-19021G01	*Lerema* (*Morys*) *subgrisea subgrisea*		Brazil: Mato Grosso, 1990	USNM
NVG-19021F12	*Lerema* (*Morys*) *valda*		Panama, 1976	USNM
NVG-18026H11	*Lerema* (*Morys*) *venias*	**HT**	Venezuela, before 1942	AMNH
NVG-4062	*Lerodea eufala*		USA: TX, Dallas Co, 2015	UTSW
NVG-18013D11	*Libra aligula aligula*		Brazil: RJ, 1995	USNM
NVG-18115C09	*Limochores catahorma*		Mexico: Puebla, 1952	USNM
NVG-18115C10	*Limochores catahorma*		Mexico: Oaxaca, 1990	USNM
NVG-18094H05	*Limochores catahorma*		Mexico, old (around 1900)	MTD
NVG-18113C05	*Limochores catahorma*	**HT**	Mexico: Guerrero, 1913	USNM
NVG-4547	*Limochores origenes origenes*		USA: OK, Atoka Co., 2015	UTSW
NVG-18013C08	*Limochores pupillus*		Mexico: Durango, 1972	USNM
NVG-18013C09	*Limochores pupillus*		Mexico: Durango, 1964	USNM
NVG-18052A04	*Limochores pupillus* (*&* =*puxillius*)	**LT,HT**	Mexico, prior to 1882	ZMHB
NVG-18067H07	*Lindra simulius*		Ecuador, 2012	EBrockmann
NVG-19043E01	*Lissia lissa lima*		Uganda, 1954	AMNH
NVG-7373	*Lotongus calathus balta*		Myanmar, 2003	USNM
NVG-18075G04	*Lotongus calathus parthenope* (=*tetragraphus*)	**ST**	Amboina, 1886	ZMHB
NVG-18094A09	*Lotongus calathus shigeoi*	**PT**	Philippines, 1994	SMF
NVG-18074B02	*Lotongus calathus taprobanus*	**ST**	Indonesia, 1882	ZMHB
NVG-19018H02	*Lucida leopardus*		Bolivia, 2003	USNM
NVG-8026	*Lucida lucia*		Brazil: Minas Gerais, 1994	USNM

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NVG-18093B11	*Lucida melitaea*	**LT**	Colombia, prior to 1923	SMF
NVG-19017C10	*Lucida oebasus*		Panama, 1985	USNM
NVG-15033D05	*Lucida scopas*	**ST**	Venezuela, old (around 1900)	ZMHB
NVG-8015	*Ludens levina*		Brazil: RJ, 1995	USNM
NVG-7940	*Ludens ludens*		Costa Rica, 2012, 11-SRNP-33493	USNM
NVG-19017B11	*Ludens petrovna*		Guyana, 2000	USNM
NVG-19019F07	*Lurida lurida*		Brazil: Minas Gerais, 1994	USNM
NVG-19093F10	*Lycas argentea*		Costa Rica, 2018, 18-SRNP-71129	USNM
NVG-18111A08	*Lycas godart boisduvalii*		Peru, 2013	USNM
NVG-19023F12	*Lychnuchus* (*Enosis*) *aphilos*		Peru, 1998	USNM
NVG-19023H02	*Lychnuchus* (*Enosis*) *blotta*		Guyana, 2000	USNM
NVG-19021D06	*Lychnuchus* (*Enosis*) *demon*		Peru, 1983	USNM
NVG-18066C01	*Lychnuchus* (*Enosis*) *dognini*		Peru, 2003	EBrockmann
NVG-7969	*Lychnuchus* (*Enosis*) *immaculata*		Costa Rica, 2008, 08-SRNP-40702	USNM
NVG-17069F01	*Lychnuchus* (*Enosis*) *topo*		Peru, 2009	USNM
NVG-2076	*Lychnuchus* (*Lychnuchus*) *celsus*		Brazil: Parana, 2011	MEM
NVG-18019F03	*Malaza carmides*		Madagascar, old (around 1900)	AMNH
NVG-7787	*Matapa aria*		Philippines, 1986	USNM
NVG-1461	*Megathymus streckeri streckeri*		USA: AZ, Apache Co., 2013	UTSW
NVG-1528	*Megathymus ursus ursus*		USA: AZ, Pima Co., 2013	UTSW
NVG-1185	*Megathymus yuccae yuccae*		USA: SC, Aiken Co., 2013	UTSW
NVG-17108A04	*Methion melas*		Guatemala, 1963	BMUW
NVG-19019D10	*Methion melas*		Mexico: Chiapas, 1975	USNM
NVG-8043	*Methionopsis* (*Methionopsis*) *cinnamomea*		Brazil: RJ, 1995	USNM
NVG-18052A01	*Methionopsis* (*Methionopsis*) *ina*	**LT**	Panama, 1876	ZMHB
NVG-18064B11	*Methionopsis* (*Methionopsis*) *ina* (=*typhon*)		Costa Rica, 2010, 10-SRNP-43176	USNM
NVG-19099G06	*Methionopsis* (*Methionopsis*) *ina* (=*typhon*)		Panama, 1972	USNM
NVG-7966	*Methionopsis* (*Methionopsis*) *modestus*		Costa Rica, 2007, 07-SRNP-23257	USNM
NVG-19012G01	*Methionopsis* (*Methionopsis*) *modestus*		Mexico: Tamaulipas, 1974	TAMU
NVG-18026F05	*Methionopsis* (*Methionopsis*) *purus*	**HT**	Peru, 1929	AMNH
NVG-8030	*Methionopsis* (*Mnasinous*) *patage*		Panama, 1996	USNM
NVG-19023G09	*Metiscus angularis*		Peru, 1984	USNM
NVG-15036E09	*Metiscus angularis*	**HT**	Suriname, old (around 1900)	ZMHB
NVG-15036F08	*Metiscus angularis* (=*astur*)	**T**	Brazil: Amazonas, old (around 1900)	ZMHB
NVG-21013D10	*Metiscus atheas*		Colombia, old (around 1900)	CMNH
NVG-7947	*Metiscus atheas*		Costa Rica, 2004, 04-SRNP-14922	USNM
NVG-18021B06	*Metiscus atheas*		Mexico: Veracruz, 1942	AMNH
NVG-21013E08	*Metiscus atheas*	**ST**	Mexico: Tabasco, old (around 1900)	CMNH
NVG-21013E09	*Metiscus atheas*	**ST**	Mexico: Tabasco, old (around 1900)	CMNH
NVG-18026C08	*Metiscus atheas* (=*matheri*)	**HT**	Mexico: Veracruz, 1963	AMNH
NVG-17093A11	*Metisella meninx*		South Africa, 1949	USNM
NVG-17093A02	*Metisella metis paris*		Uganda, 1958	USNM
NVG-18118A04	*Metrocles argentea*		Bolivia, 1946	USNM
NVG-17092D11	*Metrocles briquenydan chalcone*		Brazil: RJ, 1995	USNM
NVG-18098F12	*Metrocles devergens devergens*		French Guiana, 2015	BHermier
NVG-18013D12	*Metrocles hyboma*		Paraguay, old (around 1900)	USNM
NVG-18013E04	*Metrocles leucogaster leucogaster*		Panama, 1977	USNM
NVG-17092E04	*Metrocles propertius*		Peru, 2012	USNM
NVG-18026G04	*Metrocles santarus*	**HT**	Brazil: SC, before 1940	AMNH
NVG-18117A02	*Metrocles scitula*		Brazil: Mato Grosso, 1991	USNM
NVG-7957	*Metron chrysogastra chrysogastra*		Costa Rica, 2013, 13-SRNP-22628	USNM
NVG-15035G02	*Metron fasciata*	**HT**	Suriname, old (around 1900)	ZMHB
NVG-18117A12	*Metron fasciata* (=*verdanta*)		Venezuela, 1985	USNM
NVG-17092E05	*Metron hypochlora hypochlora*		Peru, 2008	USNM
NVG-18013E09	*Metron noctis*		Ecuador, 1989	USNM

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NVG-18043D01	*Metron oropa*	**ST**	Brazil, prior to 1877	ZMHB
NVG-18043H03	*Metron voranus*	**LT**	Colombia, prior to 1891	ZMHB
NVG-18111C09	*Metron voranus* (=*anita*)	**ST**	Brazil: RJ, prior to 1902	USNM
NVG-18116H12	*Metron voranus* (=*tania*)	**ST**	Brazil: RJ, prior to 1902	USNM
NVG-18117B02	*Metron zimra*		Peru, 2016	USNM
NVG-19043C12	*Meza meza meza*		no data, old (around 1900)	AMNH
NVG-18057A07	*Mielkeus diana diana*	**LT**	Brazil, prior to 1886	ZSMC
NVG-19022F12	*Mielkeus klugi*		Guyana, 1999	USNM
NVG-19022G02	*Mielkeus lucretius*		Peru, 2000	USNM
NVG-19113G07	*Mielkeus tertianus*		Ecuador, 2002	USNM
NVG-7814	*Miraja varians*		Madagascar, 1988	USNM
NVG-17069F02	*Misius misius*		Guyana, 2001	USNM
NVG-18025D11	*Mit* (*Mit*) *badius*	**HT**	Bolivia, before 1930	AMNH
NVG-18025H10	*Mit* (*Mit*) *gemignanii*	**HT**	Argentina, 1907	AMNH
NVG-19023G10	*Mit* (*Rotundia*) *schausi*		Brazil: RJ, 1977	USNM
NVG-18025E09	*Mnasalcas boyaca*	**HT**	Colombia, 1971	AMNH
NVG-19019E03	*Mnasalcas ritans*		Brazil: RJ, 1996	USNM
NVG-18013A04	*Mnasalcas simplicissima*		Panama, 1984	USNM
NVG-20086D11	*Mnasalcas thymoetes*		Ecuador, 2019	KMaruyama
NVG-19019F06	*Mnaseas bicolor*		Guatemala, old (around 1900)	USNM
NVG-18116H03	*Mnaseas bryna*		Colombia, 1972	USNM
NVG-18116H07	*Mnaseas derasa derasa*		Brazil: RJ, 1995	USNM
NVG-18116H08	*Mnaseas derasa derasa*		Brazil, old (around 1900)	USNM
NVG-18111C07	*Mnaseas derasa derasa* (=*amatala*, =*infuscata*)	**LT,NT**	Brazil: RJ, old (around 1900)	USNM
NVG-15034H04	*Mnaseas derasa derasa* (=*gagatina*)	**ST**	Brazil: RJ, old (around 1900)	ZMHB
NVG-18098E11	*Mnaseas evansi*		French Guiana, 1993	BHermier
NVG-18012H10	*Mnaseas inca*		Venezuela, 1985	USNM
NVG-18013D07	*Mnaseas kayei*		Guyana, 1999	USNM
NVG-19087A03	*Mnaseas macia*		Colombia, 1985	USNM
NVG-18026C05	*Mnaseas mapirica*	**HT**	Bolivia, before 1930	AMNH
NVG-18013D09	*Mnaseas pandora*		Brazil: Mato Grosso, 1992	USNM
NVG-8054	*Mnaseas sirene*		Brazil: RJ, 1994	USNM
NVG-19069A06	*Mnasicles* (*Mnasicles*) *geta*		Mexico: Tamaulipas, 1972	TMMC
NVG-8028	*Mnasicles* (*Mnasicles*) *hicetaon*		Guyana, 1999	USNM
NVG-19016H11	*Mnasicles* (*Nausia*) *nausiphanes*		Panama, 1977	USNM
NVG-17092C08	*Mnasicles* (*Remella*) *remus*		Costa Rica, 2006, 06-SRNP-6640	USNM
NVG-18071D02	*Mnasicles* (*Remella*) *rita*		Costa Rica, 2002, 02-SRNP-18003	USNM
NVG-19017A08	*Mnasicles* (*Remella*) *vopiscus*		Venezuela, 1981	USNM
NVG-17095E11	*Mnasicles* (*Styriodes*) *browni*		Costa Rica, 2006	USNM
NVG-19087A05	*Mnasicles* (*Styriodes*) *lyco*		Panama, old (around 1900)	USNM
NVG-19122D06	*Mnasitheus chrysophrys* (=*cephis*)		Costa Rica, old (around 1900)	USNM
NVG-19019E01	*Mnasitheus nitra*		Panama, 1976	USNM
NVG-19019F02	*Mnasitheus padus*		Peru, 2001	USNM
NVG-19019E06	*Mnasitheus submetallescens*		Peru, 1986	USNM
NVG-19019D09	*Mnasitheus sucova*	**ST**	Brazil: RJ, old (around 1900)	USNM
NVG-19122C10	*Mnasitheus sucova*		Brazil: Rio Grande do Sul, 1961	USNM
NVG-19017E06	*Mnestheus damma*		Ecuador, 1988	USNM
NVG-19017E07	*Mnestheus ittona*		Panama, 1977	USNM
NVG-20017B04	*Mnestheus silvaticus*		Peru, 2011	MUSM
NVG-18012H12	*Moeris striga*		Brazil: RJ, 1995	USNM
NVG-8031	*Molla molla*		Brazil: Parana, 1971	USNM
NVG-18117B04	*Molo mango*		Guyana, 1999	USNM
NVG-18012D03	*Molo pelta*		Peru, 2012	USNM
NVG-18019F10	*Moltena fiara*		Natal, 1924	AMNH
NVG-17092G12	*Monca crispinus*		Costa Rica, 2006, 06-SRNP-55847	USNM
NVG-18074G10	*Monza alberti* (=‡*ab. alenicola*)	**T**	Equatorial Guinea, 1906	ZMHB

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NVG-17069H12	*Monza cretacea*		Nigeria, 1951	USNM
NVG-18101A12	*Monza punctata punctata*		Tanzania, 1954	USNM
NVG-18094B09	*Mooreana princeps*	**ST**	Philippines, old (around 1900)	SMF
NVG-17069H09	*Mopala orma*		Cameroon, old (around 1900)	USNM
NVG-19024D07	*Mucia zygia*		Ecuador, 1988	USNM
NVG-18088H04	*Mylon maimon*		Peru, 2001	EBrockmann
NVG-19021G05	*Naevolus brunnescens*		Ecuador, 1993	USNM
NVG-19023F05	*Naevolus naevus*		Ecuador, 1976	USNM
NVG-7950	*Naevolus orius*		Costa Rica, 2010, 10-SRNP-72281	USNM
NVG-17104F08	*Nascus* (*Bron*) *broteas*		Costa Rica, 2008, 08-SRNP-66188	USNM
NVG-18088H10	*Nascus* (*Bron*) *solon solon*		Brazil: Amazonas, 2007	EBrockmann
NVG-17104F12	*Nascus* (*Nascus*) *phintias*		Costa Rica, 2005, 05-SRNP-2532	USNM
NVG-17103E10	*Nascus* (*Nascus*) *phocus*		Venezuela, 1985	USNM
NVG-18098E12	*Nascus* (*Praxa*) *prax*		French Guiana, 1996	BHermier
NVG-5736	*Nascus* (*Pseudonascus*) *paulliniae*		Costa Rica, 2013, 13-SRNP-79622	USNM
NVG-15036G05	*Nastra celeus*	**ST**	Brazil: Para, old (around 1900)	ZMHB
NVG-18091E04	*Nastra celeus*		Ecuador, 2012	EBrockmann
NVG-19019B01	*Nastra celeus*		Guyana, 2000	USNM
NVG-15036G06	*Nastra chao*	**LT**	Bolivia, old (around 1900)	ZMHB
NVG-19017G08	*Nastra ethologus*		Bolivia, 1987	USNM
NVG-18063A10	*Nastra ethologus*		Paraguay, 2011	EBrockmann
NVG-3478	*Nastra julia*		USA: TX, Duval Co., 2015	UTSW
NVG-17106A10	*Nastra leucone leucone*		Costa Rica, 2012, 12-SRNP-76600	USNM
NVG-7567	*Nastra leucone leucone*		Mexico: Tamaulipas, 1975	TAMU
NVG-3924	*Nastra lherminier*		USA: AR, Montgomery Co., 2015	UTSW
NVG-19017G07	*Nastra nappa*		Bolivia, 1987	USNM
NVG-4747	*Nastra neamathla*		USA: FL, Levy Co., 2015	UTSW
NVG-17111E05	*Nastra perigenes*		USA: TX, Cameron Co., 1963	LACM
NVG-15035E09	*Nastra subsordida*	**T**	Honduras, 1988	ZMHB
NVG-18026H08	*Nastra subsordida* (=*trimacula*)	**HT**	Panama, 1963	AMNH
NVG-18119E12	*Neoxeniades* (*Bina*) *gabina*		Costa Rica, 1965	USNM
NVG-18119G09	*Neoxeniades* (*Neoxeniades*) Burns04		Costa Rica, 2004, 04-SRNP-55335	USNM
NVG-17095F04	*Neoxeniades* (*Neoxeniades*) *ethoda*		Brazil: SC, 1991	USNM
NVG-18069F02	*Neoxeniades* (*Neoxeniades*) *luda*		Costa Rica, 2014, 14-SRNP-20072	USNM
NVG-18082E06	*Neoxeniades* (*Neoxeniades*) *musarion*		Brazil: RJ, old (around 1900), NHMUK_012824133, 0247279800	BMNH
NVG-19022C12	*Neoxeniades* (*Neoxeniades*) *parna*		Colombia, 1969	USNM
NVG-18069F11	*Neoxeniades* (*Neoxeniades*) *pluviasilva*		Costa Rica, 2016, 15-SRNP-32087	USNM
NVG-18114E01	*Neoxeniades* (*Neoxeniades*) *scipio scipio*		Brazil: RJ, 1984	USNM
NVG-18066A05	*Neoxeniades* (*Neoxeniades*) *turmada*		Peru, 2002	EBrockmann
NVG-17091A12	*Nervia chaca*		Rhodesia, 1954	USNM
NVG-17091B06	*Nervia nancy*		Kenya, 1960	USNM
NVG-18074G02	*Nervia protensa* (=*chacoides*)	**ST**	Cameroon, 1913	ZMHB
NVG-20126F09	*Nervia wallengrenii wallengrenii*		South Africa, old (around 1900)	CMNH
NVG-16106A03	*Netrocoryne repanda*		Australia, 1963	LACM
NVG-17104C09	*Nicephellus nicephorus*		Brazil: Paraiba, 1952	USNM
NVG-5740	*Nicephellus nicephorus*		Costa Rica, 2002, 02-SRNP-27687	USNM
NVG-19022C03	*Niconiades comitana*		Mexico: Veracruz, 1972	USNM
NVG-8066	*Niconiades cydia*		Brazil, 1999	USNM
NVG-18042G06	*Niconiades derisor*	**ST**	Venezuela, prior to 1891	ZMHB
NVG-19022C10	*Niconiades derisor* (=*vista*)		Venezuela, 1978	USNM
NVG-19022C08	*Niconiades merenda*		Brazil: Parana, 1991	USNM
NVG-19022C11	*Niconiades viridis viridis*		Peru, 2013	USNM
NVG-18013B02	*Niconiades xanthaphes*		Guyana, 2000	USNM
NVG-20017C02	*Noxys viricuculla*		Peru, 2012	MUSM
NVG-20013G10	*Noxys viricuculla*		Peru, 2019	WDempwolf
NVG-4070	*Nyctelius nyctelius*		USA: TX, Hidalgo Co., 2015	UTSW

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NVG-18119A10	*Nyctelius paranensis*		Brazil: SC, 1989	USNM
NVG-17106A11	*Nyctus hiarbas*		Costa Rica, 2013, 12-SRNP-31778	USNM
NVG-17068C03	*Oarisma poweshiek*		USA: MN, Pipestone Co., 1986	CSUC
PAO-23	*Ochlodes agricola*		USA: CA, Sierra Co., 2016	UTSW
PAO-263	*Ochlodes sylvanoides napa*		USA: CO, Larimer Co., 2016	UTSW
NVG-7746	*Ochlodes venata venata*		Japan, 1933	USNM
NVG-19066H07	*Ocybadistes walkeri sothis*		Australia, 1977	UCDC
NVG-18014F09	*Oenides vulpina*		Peru, 2016	USNM
NVG-18021D06	*Oeonus pyste*		Mexico: San Luis Potosi, 1967	AMNH
NVG-18014D12	*Oerane microthyrus*		Philippines, 1984	USNM
NVG-17121C12	*Oerane pugnans*		Sumatra, 1989	KMaruyama
NVG-8005	*Oligoria* (*Cobaloides*) *argus*		Brazil: DF, 1969	USNM
NVG-18089H02	*Oligoria* (*Cobaloides*) *locutia*		Brazil, 1997	EBrockmann
NVG-18098F03	*Oligoria* (*Cobaloides*) *unica*		French Guiana, 2000	BHermier
NVG-18098F10	*Oligoria* (*Oligoria*) *lucifer*		French Guiana, 2013	BHermier
NVG-8159	*Oligoria* (*Oligoria*) *maculata*		USA: FL, Miami-Dade Co., 2017	UTSW
NVG-3761	*Oligoria* (*Oligoria*) *percosius*		USA: TX, Hidalgo Co., 2015	UTSW
NVG-18031F01	*Oligoria* (*Oligoria*) *rindgei*	**HT**	Mexico: Oaxaca, 1961	AMNH
NVG-15117B01	*Onenses hyalophora*		Mexico: Tamaulipas, 2003	CSUC
NVG-18118E02	*Onespa nubis*		Mexico: Oaxaca, 1961	USNM
NVG-19023E10	*Onophas columbaria columbaria*		Guyana, 2000	USNM
NVG-18081C10	*Onryza meiktila*		Myanmar, 1926, NHMUK_010430878, 0247274748	BMNH
NVG-17104C01	*Ornilius rotundus* gen. n. et sp. n.		Brazil: SC, 1990	USNM
NVG-17109G08	*Orphe gerasa*		Venezuela, 1993	LACM
NVG-18112D04	*Orphe vatinius*		Peru, 2015	USNM
NVG-18105H11	*Orses cynisca*		Brazil: SC, 1989	USNM
NVG-18111A01	*Orses itea*		Brazil: RJ, 1995	USNM
NVG-18026A06	*Orthos orthos hyalinus*	**HT**	Brazil: SC, 1930	AMNH
NVG-18119E10	*Orthos orthos orthos*		Peru, 2016	USNM
NVG-18011G05	*Ouleus fridericus fridericus*		Guyana, 2000	USNM
NVG-18119A12	*Oxynthes corusca*		Panama, 1974	USNM
NVG-20087B06	*Oxynthes trinka*		Peru, 2018	KMaruyama
NVG-8009	*Oz ozias ozias*		Brazil: RJ, 1995	USNM
NVG-18111G02	*Oz ozias ozina*		Peru, 2016	USNM
NVG-7899	*Paches* (*Paches*) *loxus gloriosus*		Costa Rica, 2003, 03-SRNP-30995	USNM
NVG-19086D08	*Paches* (*Tiges*) *exosa*		Peru, 2002	USNM
NVG-15033A05	*Paches* (*Tiges*) *liborius liborius*	**T**	Brazil: Bahia, old (around 1900)	ZMHB
NVG-18017D09	*Paches* (*Tiges*) *mutilatus*		Peru, 1982	USNM
NVG-18026E10	*Panca paulo*	**HT**	Brazil: Roraima, 1927	AMNH
NVG-18081A11	*Panca subpunctuli*		Brazil: RS, 1973, NHMUK_010430832, 0247274599	BMNH
NVG-4155	*Panoquina panoquin*		USA: TX, Jefferson Co., 2015	UTSW
NVG-19122C09	*Papias allubita*		Brazil: Para, 1964	USNM
NVG-7968	*Papias allubita*		Costa Rica, 2002, 02-SRNP-13739	USNM
NVG-18012C07	*Papias allubita*		Peru, 2000	USNM
NVG-15036F04	*Papias amyrna*	**T**	Venezuela, old (around 1900)	ZMHB
NVG-19043B01	*Papias amyrna* (=*guianae*)		Guyana, 1933	AMNH
NVG-19019H07	*Papias integra*		Colombia, 1969	USNM
NVG-19019H08	*Papias integra*		Ecuador, 1990	USNM
NVG-20086F04	*Papias integra*		Ecuador, 2017	KMaruyama
NVG-18021B07	*Papias integra*		Guatemala, 1963	AMNH
NVG-15035E12	*Papias integra*	**LT**	Honduras, 1888	ZMHB
NVG-17111G07	*Papias integra*		Mexico: Hidalgo, 1981	LACM
NVG-19019H06	*Papias integra*		Panama, 1975	USNM
NVG-19093B07	*Papias integra*		Panama, 1982	USNM
NVG-18043C11	*Papias integra* (=*nubila*)	**LT**	Venezuela, prior to 1891	ZMHB

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NVG-18113G07	*Papias latonia*	**LT**	Costa Rica, prior to 1913	USNM
NVG-19021C11	*Papias latonia*		Panama, 1979	USNM
NVG-18064B05	*Papias phainis*		Costa Rica, 2005, 05-SRNP-20156	USNM
NVG-18064C05	*Papias sp.* (near *quigua*)		Costa Rica, 2002, 02-SRNP-14500	USNM
NVG-18091D06	*Papias subcostulata*		Ecuador, 2012	EBrockmann
NVG-20086C11	*Papias subcostulata*		Ecuador, 2019	KMaruyama
NVG-19019H12	*Papias subcostulata*		Peru, 1986	USNM
NVG-15035E11	*Papias subcostulata*		Suriname, 1876	ZMHB
NVG-19022H07	*Paracarystus evansi*		Brazil: RJ, 1994	USNM
NVG-8037	*Paracarystus hypargyra*		Peru, 2013	USNM
NVG-19022H06	*Paracarystus menestries menestries*		Brazil: Bahia, 1991	USNM
NVG-17069E11	*Paracarystus ranka*		Peru, 2012	USNM
NVG-18118C09	*Paratrytone aphractoia*		Mexico: Pueblo, 1990	USNM
NVG-18118D01	*Paratrytone polyclea*		Mexico: Oaxaca, 1992	USNM
NVG-18015E01	*Paratrytone rhexenor*		Mexico: Veracruz, old (around 1900)	USNM
NVG-18118E07	*Paratrytone samenta*	**ST**	Mexico: Guerrero, 1912	USNM
NVG-18118E08	*Paratrytone samenta*	**ST**	Mexico: Jalisco, prior to 1914	USNM
PAO-148	*Paratrytone snowi*		USA: CO, Jefferson Co., 2016	UTSW
NVG-7821	*Pardaleodes bule*		Cameroon, 1989	USNM
NVG-17108G05	*Pardaleodes edipus*		Zaire, 1981	LACM
NVG-19043B11	*Pardaleodes fan*		Cameroon, old (around 1900)	AMNH
NVG-20125B03	*Pardaleodes fan*	**HT**	Cameroon, old (around 1900)	CMNH
NVG-17069F11	*Pardaleodes fan*		Kenya, 1955	USNM
NVG-19067A03	*Pardaleodes incerta incerta*		Kenya, 1987	UCDC
NVG-18099E10	*Pardaleodes sator pusiella*		Uganda, 1949	USNM
NVG-19022H11	*Pares maritza*		Peru, 1982	USNM
NVG-18026E08	*Pares pares*	**HT**	Paraguay, before 1959	AMNH
NVG-17095F05	*Pares viridiceps*		Panama, 1979	USNM
NVG-7290	*Parnara guttatus*		Myanmar, 2002	USNM
NVG-19019F11	*Parphorus decora*		Panama, 1976	USNM
NVG-19019G01	*Parphorus felta*		Ecuador, 2002	USNM
NVG-19019F08	*Parphorus storax*		Panama, 1973	USNM
NVG-18082E01	*Pastria pastria*		Papua New Guinea, 1982, NHMUK_010430882, 0247277187	BMNH
NVG-17091A04	*Pedesta masuriensis*		India?, 1883	USNM
NVG-18065F12	*Perichares butus*		Peru, 2015	EBrockmann
NVG-18105G09	*Perichares chima*		Ecuador, 1984	USNM
NVG-19093F12	*Perichares deceptus*		Costa Rica, 2011, 11-SRNP-35558	USNM
NVG-7986	*Perichares haworthiana*		Brazil: Rondonia, 1992	USNM
NVG-19093F11	*Perichares lotus*		Costa Rica, 2011, 11-SRNP-70355	USNM
NVG-10247	*Perichares philetes*		Jamaica, 2017	UTSW
NVG-10343	*Perichares philetes*		Jamaica, 2017	UTSW
NVG-18111A04	*Perichares romeroi*		Venezuela, 2003	USNM
NVG-18111G04	*Perichares saptine*		Guatemala, old (around 1900)	USNM
NVG-18111G03	*Perichares saptine*		Panama, 1976	USNM
NVG-18105H01	*Perichares seneca seneca*		Brazil: Mato Grosso, 1991	USNM
NVG-15033G01	*Perus coecatus*	**T**	Brazil: RJ, old (around 1900)	ZMHB
NVG-18058H07	*Perus coecatus* (=*tadus*)	**ST**	Brazil: RJ, prior to 1902	USNM
NVG-7826	*Perus cordillerae*		Peru, 1999	USNM
NVG-20086G07	*Perus manx*		Colombia, 2017	KMaruyama
NVG-18059B09	*Perus manx*		Colombia, 1969	USNM
NVG-18059C09	*Perus minor*		Ecuador, 1988	USNM
NVG-18059B05	*Perus minor*	**ST**	Peru, prior to 1902	USNM
NVG-19076F06	*Perus narycus*		Ecuador, 2003	USNM
NVG-15032F04	*Perus narycus*	**T**	Peru, prior to 1889	ZMHB
NVG-18059A08	*Perus parvus*		Costa Rica, 1971	USNM
NVG-19017D07	*Phanes aletes*		Guyana, 1999	USNM

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NVG-18012F07	*Pheraeus odilia epidius*		Panama, 1982	USNM
NVG-18025F03	*Phlebodes campo campo*	**HT**	Brazil: RJ, 1947	AMNH
NVG-18025H08	*Phlebodes fuldai*	**HT**	Colombia, 1929	AMNH
NVG-19022F10	*Phlebodes fuldai*		Suriname, old (around 1900)	USNM
NVG-18013C03	*Phlebodes pertinax*		Brazil: Amazonas, 1993	USNM
NVG-18043F10	*Phlebodes sameda*	**ST**	no data, prior to 1869	ZMHB
NVG-5316	*Phocides batabano okeechobee*		USA: FL, Monroe Co., 2015	UTSW
NVG-17099D07	*Phocides distans licinus*		Panama, 1969	USNM
NVG-18024H04	*Phocides johnsoni*	**HT**	Colombia, 1946	AMNH
NVG-17113G02	*Phocides lilea*		USA: TX, Cameron Co., 1986	TAMU
NVG-17098H10	*Phocides padrona*		Bolivia, 1958	USNM
NVG-18039D06	*Phocides perillus*		Colombia, old (around 1900)	FMNH
NVG-19039F06	*Phocides perkinsi*		Jamaica, 1962	AMNH
NVG-18094F05	*Phocides pialia pialia* (=*parvus*)	**LT**	Brazil, old (around 1900)	MTD
NVG-18087C02	*Phocides urania*		Guatemala, 1966	EBrockmann
NVG-17109E09	*Phocides urania*		Mexico: San Luis Potosi, 1981	LACM
NVG-17113G05	*Phocides urania*		Mexico: Nuevo Leon, 1980	TAMU
NVG-18033E07	*Phocides urania*		Mexico: Tamaulipas, 2003	MWalker
NVG-15034D12	*Phocides vida*		Panama, 1892	ZMHB
NVG-15034E01	*Phocides vida*		Panama, 1892	ZMHB
NVG-17099B08	*Phocides vida*		Panama, 1976	USNM
NVG-18025C08	*Phocides vulcanides* (=*xenocrates*)	**HT**	Colombia, before 1932	AMNH
NVG-18031C04	*Phocides yokhara inca*		Ecuador, 2002	USNM
NVG-4278	*Pholisora catullus*		USA: IN, Montgomery Co., 2015	UTSW
NVG-21021D03	*Pholisora catullus*		USA: CA, Mono Co., 2021	UTSW
NVG-19083E02	*Pholisora crestar*	**HT**	USA: CA, Tulare Co., 2013	CSUC
NVG-20038E10	*Pholisora crestar*		USA: CA, Kern Co., 2016	UTSW
NVG-18049H10	*Pholisora litus*		Mexico: Guerrero, 1906	USNM
NVG-19013D12	*Pholisora mejicanus*		Mexico: Nuevo Leon, 1978	TAMU
NVG-19013D11	*Pholisora mejicanus*		USA: CO, El Paso Co., 1982	TAMU
NVG-15096G05	*Picova incompta*	**HT**	Ecuador, old (around 1900)	CMNH
NVG-18026H02	*Picova steinbachi*	**HT**	Bolivia, before 1930	AMNH
NVG-18073G05	*Pintara* (*Albiphasma*) *heringi*	**HT**	China: N. Guangdong, prior to 1922	ZMHB
NVG-18095B08	*Pintara* (*Pintara*) *pinwilli*		Borneo, old (around 1900)	MTD
NVG-18089G06	*Pirdana hyela*		Malaysia, 1987	EBrockmann
NVG-17068A11	*Piruna aea mexicana*		USA: AZ, Santa Cruz Co., 2016	CSUC
NVG-6454	*Piruna pirus*		USA: CO, Grand Co., 2016	UTSW
NVG-18033A06	*Pithauria murdava*		Malaysia, 2003	MWalker
NVG-17121F06	*Plastingia flavescens*		Sulawesi, 1987	KMaruyama
NVG-18094C01	*Plastingia viburnia*	**HT**	Philippines, old (around 1900)	SMF
NVG-18053C07	*Ploetzia amygdalis*		Madagascar, old (around 1900)	ZMHB
NVG-7982	*Plumbago plumbago*		Brazil: Rondonia, 1989	USNM
NVG-17114B07	*Poanes massasoit chermocki*		USA: MD, Dorchester Co., 1976	CSUC
NVG-4276	*Polites peckius peckius*		USA: IN, Montgomery Co., 2015	UTSW
NVG-7875	*Polyctor polyctor*		Costa Rica, 2012, 12-SRNP-4870	USNM
NVG-5719	*Porphyrogenes peterwegei*		Costa Rica, 2013, 13-SRNP-65288	USNM
NVG-14064H07	*Potamanaxas flavofasciata flavofasciata*		Peru, 1982	USNM
NVG-14064H02	*Potamanaxas laoma laoma*		Ecuador, 1984	USNM
NVG-15031A07	*Potamanaxas okroogly*		Peru, old (around 1900)	ZMHB
NVG-18088F08	*Potamanaxas paralus*		Peru, 2001	EBrockmann
NVG-14064F06	*Potamanaxas thoria*		Ecuador, 2002	USNM
NVG-7388	*Potanthus omaha omaha*		Malaysia, 1990	USNM
NVG-18114H04	*Propapias sipariana*		French Guiana, 1993	USNM
NVG-17092H04	*Prosopalpus debilis*		Uganda, 1957	USNM
NVG-7331	*Pseudocoladenia dan fabia*		Myanmar, 2001	USNM
NVG-18113B05	*Pseudorphe pyrex*		Peru, 1992	USNM
NVG-7379	*Psolos fuligo*		Myanmar, 2003	USNM

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NVG-18021B02	*Psoralis* (*Psoralis*) *idee*		Bolivia, old (around 1900)	AMNH
NVG-18012H02	*Psoralis* (*Psoralis*) *pamba*		Ecuador, 1975	USNM
NVG-19021G10	*Psoralis* (*Psoralis*) *stacara*		Brazil: RJ, 1995	USNM
NVG-18117B12	*Psoralis* (*Saniba*) *calcarea calcarea*		Guyana, 2000	USNM
NVG-19022G05	*Psoralis* (*Saniba*) *laska*		Peru, 1989	USNM
NVG-8024	*Psoralis* (*Saniba*) *sabina*		Brazil: RJ, 1996	USNM
NVG-19022G04	*Psoralis* (*Saniba*) *umbrata*		Brazil: RJ, 1995	USNM
NVG-18117B11	*Psoralis* (*Saniba*) *visendus*		Ecuador, 1990	USNM
NVG-18101A01	*Pteroteinon caenira*		Uganda, 1956	USNM
NVG-19043E05	*Pteroteinon capronnieri*		Uganda, 1953	AMNH
NVG-7753	*Pteroteinon iricolor*		Liberia, 1988	USNM
NVG-7757	*Pteroteinon laufella*		Liberia, 1988	USNM
NVG-17069B07	*Pyrgus centaureae dzekh*		USA: AK, 1991	USNM
NVG-7771	*Pyrgus malvae*		Greece, 1992	USNM
NVG-17067G07	*Pyrgus ruralis ruralis*		USA: CA, Mariposa Co., 2009	CSUC
PAO-187	*Pyrgus scriptura*		USA: UT, Garfield Co., 2016	UTSW
NVG-17067H09	*Pyrgus xanthus*		USA: CO, San Juan Co., 2002	CSUC
NVG-17094C09	*Pyrrhopyge hadassa pseudohadassa*		Peru, 2013	USNM
NVG-8059	*Racta apella raza*		Peru, 2012	USNM
NVG-18117C11	*Racta chiria*		Peru, 2009	USNM
NVG-18041H09	*Racta dalla*		Ecuador, 2013	EBrockmann
NVG-18012A12	*Racta plasma*		Peru, 2011	USNM
NVG-18066F10	*Racta racta*		Peru, 2012	EBrockmann
NVG-17092G01	*Radiatus bradus*		Guyana, 1999	USNM
NVG-19021G07	*Ralis coyana*		Brazil: RJ, 1994	USNM
NVG-19069D04	*Ralis immaculatus*		Ecuador, 1977	USNM
NVG-18091D12	*Ralis immaculatus* (=*concolor*)		Ecuador, 2012	EBrockmann
NVG-18026A08	*Rectava ignarus*	**HT**	Bolivia, before 1932	AMNH
NVG-19093D04	*Rectava nostra nostra*		Brazil: Mato Grosso, 1990	USNM
NVG-18116D05	*Rectava sobrinus*	**ST**	Brazil: RJ, prior to 1902	USNM
NVG-19019H09	*Rectava sobrinus*	**ST**	Brazil: RJ, old (around 1900)	USNM
NVG-19021D05	*Rectava vorgia*	**ST**	Brazil: RJ, old (around 1900)	USNM
NVG-18111D08	*Rhinthon bajula bajula*	**ST**	Brazil: RJ, prior to 1902	USNM
NVG-18119F08	*Rhinthon braesia braesia*		Brazil: Rondonia, 1995	USNM
NVG-18013C05	*Rhinthon cubana*		Cuba, old (around 1900)	USNM
NVG-18119F06	*Rhinthon molion*		Costa Rica, 2007, 07-SRNP-35927	USNM
NVG-18119F04	*Rhinthon osca*		Costa Rica, 2008, 08-SRNP-36378	USNM
NVG-18025H11	*Rhomba gertschi*	**HT**	Panama, 1936	AMNH
NVG-18093C02	*Rigga auristriga*	**HT**	Bolivia, prior to 1923	SMF
NVG-19019G07	*Rigga auristriga*		Bolivia, 2003	USNM
NVG-19019G04	*Rigga hesia*		Ecuador, 2002	USNM
NVG-19019G05	*Rigga oeagrus*		Panama, 1982	USNM
NVG-18026E07	*Rigga paramus*	**HT**	Colombia, 1945	AMNH
NVG-18092C08	*Rigga spangla*		Ecuador, 2011	EBrockmann
NVG-19067A02	*Sabera caesina albifascia*		Australia, 1991	UCDC
NVG-14063C05	*Salantoia eriopis*		Brazil: Para, 1986	USNM
NVG-18088H07	*Salantoia eriopis*		Peru, 1990	EBrockmann
NVG-15031H01	*Salantoia gildo*	**LT**	Brazil: Amazonas, old (around 1900)	ZMHB
NVG-2683	*Salantoia metallica* sp. n.	**HT**	Guyana, 2000	USNM
NVG-5737	*Salatis canalis*		Costa Rica, 2013, 13-SRNP-70310	USNM
NVG-15095C12	*Salatis canalis*	**HT**	Panama, old (around 1900)	CMNH
NVG-17104B09	*Salatis salatis*		Guyana, 2000	USNM
NVG-17104B10	*Salatis salatis*		Suriname, old (around 1900)	USNM
NVG-15032B09	*Santa palica*	**HT**	Peru, old (around 1900)	ZMHB
NVG-20017A04	*Santa palica* (=*era*)		Peru, 1995	MUSM
NVG-19088F08	*Santa santes*		Ecuador, 2001	USNM
NVG-18025B08	*Santa santes*	**HT**	Peru, 1924	AMNH

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11-BOA-13382F10	*Santa trifasciatus*		Guyana, 2000	USNM
NVG-19088D05	*Santa trifasciatus*		Peru, 2012	USNM
NVG-7345	*Sarangesa dasahara*		Myanmar, 2001	USNM
NVG-14063C03	*Sarmientoia browni*		Brazil: Mato Grosso, 1991	USNM
NVG-18088H08	*Sarmientoia faustinus*		Paraguay, 2011	EBrockmann
NVG-19099F05	*Sarmientoia haywardi*		Argentina, old (around 1900)	USNM
NVG-14063C02	*Sarmientoia similis*		Brazil: Mato Grosso, 1990	USNM
NVG-18113E07	*Saturnus fartuga*	**ST**	Brazil: RJ, prior to 1902	USNM
NVG-18026D12	*Saturnus fartuga* (=*nemorus*)	**HT**	Brazil: SC, before 1941	AMNH
NVG-18116A01	*Saturnus metonidia*	**ST**	Brazil: Parana, prior to 1902	USNM
NVG-19024A10	*Saturnus metonidia*	**ST**	Brazil: RJ, old (around 1900)	USNM
NVG-19024B08	*Saturnus reticulata obscurus*		Panama, 1976	USNM
NVG-18013C01	*Saturnus saturnus saturnus*		Guyana, 2000	USNM
NVG-18019C05	*Scobura cephala*		India, 1927	AMNH
NVG-17091A01	*Sebastonyma dolopia*		India, old (around 1900)	USNM
NVG-18053B12	*Sebastonyma perbella*	**T**	China, 1911	ZMHB
NVG-7803	*Semalea pulvina*		Cameroon, 1989	USNM
NVG-19017E04	*Sodalia argyrospila*		Brazil: RJ, 1978	USNM
NVG-18113D02	*Sodalia coler*	**HT**	Brazil: RJ, prior to 1902	USNM
NVG-19017E02	*Sodalia petiti*		Ecuador, 1988	USNM
NVG-19017E05	*Sodalia sodalis*		Brazil: Mato Grosso, 1990	USNM
NVG-18011H10	*Sostrata bifasciata bifasciata*		Brazil: RJ, 1995	USNM
NVG-16108H11	*Sovia lucasii lucasii*		China: Sichuan, old (around 1900)	USNM
NVG-18024B10	*Stallingsia maculosus*	**PT**	USA: TX, Hidalgo Co., 1953	AMNH
NVG-18013G06	*Staphylus ascalaphus*		Costa Rica, 2008, 08-SRNP-55975	USNM
NVG-18011H08	*Staphylus vincula* (=*opites*)		Mexico: Oaxaca, 1988	USNM
NVG-17108H04	*Suastus gremius gremius*		India, 1962	LACM
NVG-7792	*Suastus migreus*		Philippines, 1987	USNM
NVG-18093H03	*Suastus minuta compactus*	**HT**	Philippines, 1991	SMF
NVG-18075F11	*Suniana lascivia neocles*	**ST**	Australia, prior to 1891	ZMHB
NVG-7937	*Synapte salenus*		Costa Rica, 2007, 07-SRNP-21744	USNM
NVG-18114G04	*Synapte silius*		Brazil: Rondonia, 1991	USNM
NVG-3621	*Systasea pulverulenta*		USA: TX, Duval Co., 2015	UTSW
NVG-18104F09	*Tagiades* (*Daimio*) *calligana*		Sarawak, 1966	USNM
NVG-18104H05	*Tagiades* (*Daimio*) *ceylonica*		Sri Lanka, 1973	USNM
NVG-18104F10	*Tagiades* (*Daimio*) *cohaerens cynthia*		India, old (around 1900)	USNM
NVG-17108E06	*Tagiades* (*Daimio*) *korela korela*		Indonesia, 1998	LACM
NVG-7333	*Tagiades* (*Daimio*) *litigiosa litigiosa*		Myanmar, 2001	USNM
NVG-18104F11	*Tagiades* (*Daimio*) *litigiosa litigiosa*		Myanmar, 2001	USNM
NVG-18104H10	*Tagiades* (*Daimio*) *litigiosa litigiosa*		Myanmar, 2003	USNM
NVG-18104H08	*Tagiades* (*Daimio*) *menaka mantra*		China: Sichuan, old (around 1900)	USNM
NVG-18104H09	*Tagiades* (*Daimio*) *menaka menaka*		India, old (around 1900)	USNM
NVG-18116A12	*Tagiades* (*Daimio*) *neira neira*	**ST**	Indonesia, 1905	USNM
NVG-18104H11	*Tagiades* (*Daimio*) *nestus gilolensis*		Indonesia, old (around 1900)	USNM
NVG-18087B07	*Tagiades* (*Daimio*) *nestus gilolensis* (=*ternatensis*)	**T**	Ternate Island, 1891	MNHP
NVG-18095G12	*Tagiades* (*Daimio*) *presbyter* (=*gracilentus*)		Papua New Guinea, old (around 1900)	MTD
NVG-18104H07	*Tagiades* (*Daimio*) *sambavana*		Indonesia, 1886	USNM
NVG-18039C05	*Tagiades* (*Daimio*) *tethys*		Japan, old (around 1900)	FMNH
NVG-18038G03	*Tagiades* (*Daimio*) *tethys*		Russia, 2016	UTSW
NVG-18104H12	*Tagiades* (*Daimio*) *trebellius trebellius*		Indonesia, 1985	USNM
NVG-18104H06	*Tagiades* (*Daimio*) *tubulus*		Java, old (around 1900)	USNM
NVG-18055D11	*Tagiades* (*Daimio*) *ultra*		Malasya, 1886	ZMHB
NVG-17119A01	*Tagiades* (*Pterygospidea*) *flesus*		South Africa, 1950	USNM
NVG-18104G04	*Tagiades* (*Pterygospidea*) *insularis*		Madagascar, 1988	USNM
NVG-18104G05	*Tagiades* (*Tagiades*) *atticus atticus*		Thailand, old (around 1900)	USNM
NVG-18104G08	*Tagiades* (*Tagiades*) *atticus balana*		Malaysia, old (around 1900)	USNM

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NVG-18104G09	*Tagiades* (*Tagiades*) *atticus nankowra*		Nicobar Islands, old (around 1900)	USNM
NVG-18033B09	*Tagiades* (*Tagiades*) *elegans elegans*		Philippines, 2005	MWalker
NVG-18104G03	*Tagiades* (*Tagiades*) *elegans elegans*		Philippines, 1986	USNM
NVG-18093G03	*Tagiades* (*Tagiades*) *elegans fuscata*	**HT**	Philippines, 1997	SMF
NVG-18041A11	*Tagiades* (*Tagiades*) *gana gana*		Malaysia, 2018	UTSW
NVG-17119B06	*Tagiades* (*Tagiades*) *gana gana*		Singapore, 1989	USNM
NVG-7335	*Tagiades* (*Tagiades*) *gana meetana*		Myanmar, 2003	USNM
NVG-17119B03	*Tagiades* (*Tagiades*) *hovia hovia*		Solomon Islands, 1972	USNM
NVG-18104H03	*Tagiades* (*Tagiades*) *inconspicua inconspicua*		Papua New Guinea, 1944	USNM
NVG-18095H01	*Tagiades* (*Tagiades*) *janetta*		Aru Is., old (around 1900)	MTD
NVG-18104H01	*Tagiades* (*Tagiades*) *japetus brasidas*		Sambawa Island, 1886	USNM
NVG-18104G10	*Tagiades* (*Tagiades*) *japetus engnanicus*		Java, old (around 1900)	USNM
NVG-18079D05	*Tagiades* (*Tagiades*) *japetus engnanicus* (=*guineensis*)	**T**	Java?, 1905	MNHP
NVG-17119B01	*Tagiades* (*Tagiades*) *japetus japetus*		Indonesia, old (around 1900)	USNM
NVG-17119B02	*Tagiades* (*Tagiades*) *japetus japetus*		Indonesia, old (around 1900)	USNM
NVG-18055E02	*Tagiades* (*Tagiades*) *japetus obscurata*	**LT**	Indonesia, old (around 1900)	ZMHB
NVG-18104G12	*Tagiades* (*Tagiades*) *japetus prasnaja*		no data, old (around 1900)	USNM
NVG-18055D12	*Tagiades* (*Tagiades*) *japetus xarea*	**LT**	Timor Island, old (around 1900)	ZMHB
NVG-18104G07	*Tagiades* (*Tagiades*) *obscurus*		Sri Lanka, 1966	USNM
NVG-18079D03	*Tagiades* (*Tagiades*) *parra parra* (=*elongata*)	**T**	Indonesia, 1909	MNHP
NVG-18104G06	*Tagiades* (*Tagiades*) *ravi ravi*		India, old (around 1900)	USNM
NVG-18055E01	*Tagiades* (*Tagiades*) *ravi ravina*		India, old (around 1900)	ZMHB
NVG-18104G01	*Tagiades* (*Tagiades*) *silvia*		India, old (around 1900)	USNM
NVG-18104G11	*Tagiades* (*Tagiades*) *titus*		Philippines, 1987	USNM
NVG-7922	*Talides sergestus*		Costa Rica, 2007, 07-SRNP-56563	USNM
NVG-18101C11	*Tamela nigrita maura*		Malaysia, 1989	USNM
NVG-18053B11	*Tamela nigrita othonias*		Borneo, 1889	ZMHB
NVG-17119B05	*Tapena* (*Ctenoptilum*) *vasava vasava*		India, 1892	USNM
NVG-18073F07	*Tapena* (*Tapena*) *bornea*		Malaysia, old (around 1900)	ZMHB
NVG-18019A08	*Tapena* (*Tapena*) *thwaitesi*		Sri Lanka, 1925	AMNH
NVG-17091F09	*Taractrocera dolon*		Papua New Guinea, old (around 1900)	USNM
NVG-7375	*Taractrocera maevius sagara*		Myanmar, 2003	USNM
NVG-18012H04	*Tarmia monastica*		Peru, 1952	USNM
NVG-18057C04	*Telegonus cassander*		Cuba, 2013	ZSMC
NVG-19075F09	*Telegonus cassander*		Cuba, old (around 1900)	USNM
NVG-14103B11	*Telegonus cassius*		Costa Rica, 1985	USNM
NVG-14103B12	*Telegonus cassius*		Costa Rica, 1979	USNM
NVG-18057C03	*Telegonus cassius*		Panama, prior to 1888	ZSMC
NVG-14061D07	*Telegonus cellus*		USA: AL, Marion Co., 1974	USNM
NVG-15031C03	*Telegonus cretellus*	**LT**	no data, old (around 1900)	ZMHB
NVG-10323	*Telegonus cretellus* (=*jaira*)		Jamaica, 2017	UTSW
NVG-15096B01	*Telegonus cretellus* (=*jamaicensis*)	**AT**	Jamaica, old (around 1900)	CMNH
NVG-15096C01	*Telegonus cretellus* (=*jamaicensis*)	**HT**	Jamaica, 1902	CMNH
NVG-18056D10	*Telegonus galesus*		Bolivia, old (around 1900)	ZfBS
NVG-15031B07	*Telegonus galesus*	**LT**	Peru, old (around 1900)	ZMHB
NVG-18056D07	*Telegonus subflavus* sp. n.	**PT**	Colombia, old (around 1900)	ZfBS
NVG-15096B05	*Telegonus subflavus* sp. n.	**HT**	Ecuador, old (around 1900)	CMNH
NVG-18028H03	*Telegonus subflavus* sp. n.	**PT**	Peru, 2011	USNM
NVG-18103E12	*Telicota colon argeus*		Australia, 1985	USNM
NVG-18118B11	*Testia mammaea*		Brazil: RJ, old (around 1900)	USNM
NVG-18026F01	*Testia potesta*	**HT**	Peru, 1931	AMNH
NVG-18119F01	*Testia potesta*		Peru, 1983	USNM
NVG-18116E04	*Thargella* (*Pseudopapias*) *tristissimus*	**ST**	Peru, prior to 1902	USNM
NVG-8021	*Thargella* (*Thargella*) *caura caura*		Guyana, 2000	USNM

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NVG-18114G06	*Thargella* (*Thargella*) *caura occulta*		Paraguay, 1980	USNM
NVG-15036A12	*Thargella* (*Volus*) *volasus*	**HT**	Panama, old (around 1900)	ZMHB
NVG-18064B06	*Thargella* (*Volus*) *volasus* (=*dolor*)		Costa Rica, 2006, 06-SRNP-22491	USNM
NVG-19099G01	*Thargella* (*Volus*) *volasus* (=*dolor*)		Panama, 1975	USNM
11-BOA-13386C12	*Theagenes aegides*		Costa Rica, 1980	USNM
NVG-19112H09	*Theagenes aegides*		El Salvador, 1952	USNM
NVG-19112H10	*Theagenes aegides*		Panama, 1979	USNM
NVG-19113A03	*Theagenes albiplaga*		Argentina, 1977	USNM
NVG-19112H11	*Theagenes albiplaga*		Colombia, 1992	USNM
11-BOA-13386C11	*Theagenes albiplaga*		Peru, 2008	USNM
NVG-19113A04	*Theagenes dichrous*		Brazil: RJ, 1995	USNM
NVG-19113A06	*Theagenes dichrous*		Brazil: Mato Grosso, 1998	USNM
NVG-15033E04	*Theagenes dichrous* (=*aura*)	**LT**	Brazil, old (around 1900)	ZMHB
NVG-19022H10	*Thoon modius*		Colombia, 1969	USNM
NVG-7383	*Thoressa masoni*		Myanmar, 2001	USNM
NVG-7934	*Thracides arcalaus*		Costa Rica, 2009, 09-SRNP-20175	USNM
NVG-18114B06	*Thracides cilissa*		Peru, 2014	USNM
NVG-18114A06	*Thracides cleanthes cleanthes*		Paraguay, 1980	USNM
NVG-18114A11	*Thracides joannisii*		Ecuador, 2002	USNM
NVG-18114B04	*Thracides nanea*		Peru, 2016	USNM
NVG-18114B08	*Thracides phidon*		Guyana, 1999	USNM
NVG-18068E05	*Thracides polites pilla*		Peru, 2004	EBrockmann
NVG-18093C05	*Thracides sacrator* (=*stupenda*)	**HT**	Colombia, prior to 1923	SMF
NVG-18114A07	*Thracides thrasea*		Brazil: Rondonia, 1994	USNM
NVG-18022H12	*Thymelicus acteon acteon*		Spain, 1953	AMNH
NVG-18111D01	*Tigasis arita*	**ST**	Trinidad, prior to 1902	USNM
NVG-18025F12	*Tigasis colomus*	**HT**	Colombia, before 1941	AMNH
NVG-15035A02	*Tigasis corope*	**ST**	no data, old (around 1900)	ZMHB
NVG-15035A03	*Tigasis corope*	**ST**	no data, old (around 1900)	ZMHB
NVG-19018G05	*Tigasis perloides*		Brazil: RJ, 1995	USNM
NVG-18113D11	*Tigasis perloides* (=*diduca*)	**ST**	Brazil: RJ, prior to 1902	USNM
NVG-7944	*Tigasis wellingi*		Costa Rica, 2011, 11-SRNP-32281	USNM
NVG-18027A03	*Tigasis wellingi*	**HT**	Mexico: Oaxaca, 1961	AMNH
NVG-18013A11	*Tigasis zalates*		Ecuador, 1977	USNM
NVG-18118A08	*Tirynthia conflua*		Brazil: RJ, 1995	USNM
NVG-18112A08	*Tisias carystoides*		Ecuador, 1976	USNM
NVG-18112D05	*Tisias lesueur*		Brazil: SC, 1999	USNM
NVG-18118B03	*Tisias myna*		Costa Rica, 2008, 07-SRNP-66151	USNM
NVG-19113E02	*Tolius luctuosus*		Mexico: Colima, 1953	USNM
NVG-19113E03	*Tolius tolimus robigus*		Suriname, 1971	USNM
NVG-15032H11	*Tolius tolimus robigus* (=*alburnea*)	**ST**	Brazil: Para, old (around 1900)	ZMHB
NVG-19113D12	*Tolius tolimus tolimus*		Colombia, old (around 1900)	USNM
NVG-15032H09	*Tolius tolimus tolimus*		Panama, old (around 1900)	ZMHB
NVG-18057A09	*Tolius tolimus tolimus*		Panama, prior to 1883	ZSMC
NVG-16106A10	*Trapezites symmomus*		Australia, 1963	LACM
NVG-19023C11	*Tricrista advena advena*		Guyana, 2000	USNM
NVG-19023C09	*Tricrista aethus*		Peru, 1986	USNM
NVG-19022H09	*Tricrista canta*		French Guiana, 1993	USNM
NVG-19023C05	*Tricrista circellata*		Brazil: RJ, 1995	USNM
NVG-8049	*Tricrista crista*		Guyana, 2000	USNM
NVG-18025G05	*Tricrista cristatus*	**HT**	Brazil: SC, before 1930	AMNH
NVG-19022H12	*Tricrista taxes*		Brazil: Mato Grosso, 1990	USNM
NVG-20126F11	*Trida barberae barberae*		South Africa, old (around 1900)	CMNH
NVG-18055E03	*Triskelionia tricerata*	**ST**	Sierra Leone, old (around 1900)	ZMHB
NVG-18055E04	*Triskelionia tricerata*	**ST**	Sierra Leone, old (around 1900)	ZMHB
NVG-18019E10	*Tsitana tsita*		South Africa, 1924	AMNH
NVG-18111G08	*Turesis basta*		Guyana, 2000	USNM

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NVG-18111G06	*Turesis complanula*		Guyana, 2000	USNM
NVG-18111G07	*Turesis theste*		Costa Rica, 1965	USNM
NVG-18082D06	*Turmosa camposa*		Brazil: RJ, 1883, NHMUK_012824124, 0247279797	BMNH
YPM-ENT-778800	*Turnerina hazelae*	**HT**	Mexico: Guerrero, 1956	PMNH
NVG-18089G08	*Unkana ambasa*		Thailand, 1988	EBrockmann
NVG-18089G05	*Unkana ambasa ambasa* (=*palawana*)		Philippines, 1985	EBrockmann
NVG-18081C02	*Unkana mytheca*		Indonesia, 1914, NHMUK_010430823, 0247278996	BMNH
NVG-4894	*Urbanus proteus proteus*		USA: FL, Miami-Dade Co., 2015	UTSW
NVG-18092C10	*Vacerra hermesia hermesia*		Ecuador, 2015	EBrockmann
NVG-17095C06	*Vacerra litana*		Venezuela, 1975	USNM
NVG-19019B07	*Vehilius clavicula*		Brazil: RJ, 1995	USNM
NVG-19019A12	*Vehilius inca*		Brazil: Amazonas, 1993	USNM
NVG-19019B06	*Vehilius inca*		Brazil: Rondonia, 1991	USNM
NVG-18113C09	*Vehilius inca* (=*chinta*)	**ST**	Brazil: RJ, prior to 1902	USNM
NVG-18043H06	*Vehilius inca* (=*xenos*)	**ST**	Bolivia, 1894	ZMHB
NVG-18043H07	*Vehilius inca* (=*xenos*)	**ST**	Bolivia, 1894	ZMHB
NVG-18014D11	*Vehilius labdacus*		Costa Rica, 2006, 06-SRNP-33594	USNM
NVG-19012G08	*Vehilius labdacus*		Mexico: Tamaulipas, 1975	TAMU
NVG-21013F05	*Vehilius labdacus*	**ST**	Mexico: Guerrero, old (around 1900)	CMNH
NVG-19019G10	*Vehilius limae*		Ecuador, 2002	USNM
NVG-19018G07	*Vehilius limae*		Peru, 2000	USNM
NVG-18026F06	*Vehilius putus*	**HT**	Peru, 1931	AMNH
NVG-19019A06	*Vehilius stictomenes illudens*		Panama, 1985	USNM
NVG-19019B03	*Vehilius vetula*		Guyana, 2000	USNM
NVG-19018H10	*Vehilius warreni*		Brazil: Mato Grosso, 1992	USNM
NVG-8022	*Venas evans*		Guyana, 2000	USNM
NVG-20058E11	*Vertica* (*Brasta*) *brasta*		Peru, 2019	KShiraiwa
NVG-15036A01	*Vertica* (*Vertica*) *umber* (=*optata*)	**T**	Brazil: RJ, old (around 1900)	ZMHB
NVG-19024A02	*Vertica* (*Vertica*) *verticalis*		Brazil: Rondonia, 1996	USNM
NVG-18014G01	*Vettius phyllus phyllus*		Guyana, 2001	USNM
NVG-19022D05	*Vettius triangularis*		Guyana, 2000	USNM
NVG-19017F01	*Vidius felus*		Brazil: Golias, 1969	USNM
NVG-19018G08	*Vidius fraus*		Guatemala, old (around 1900)	USNM
NVG-18012H07	*Vidius vidius*		Paraguay, old (around 1900)	USNM
NVG-8018	*Virga virginius*		Brazil: Rondonia, 1990	USNM
NVG-18026H05	*Viridina subviridis*	**HT**	Ecuador, 1938	AMNH
NVG-18125E10	*Viridina viridenex*		Peru, 2017	WDempwolf
NVG-15104C11	*Viridina viridis*	**HT**	Ecuador, 1938	AMNH
NVG-18013C07	*Vistigma* (*Penicula*) *bryanti*		Ecuador, 2001	USNM
NVG-18011F04	*Vistigma* (*Penicula*) *subviridis*		Brazil: SC, 1990	USNM
NVG-19024C05	*Vistigma* (*Vistigma*) *opus*		Peru, 1983	USNM
NVG-15035H12	*Vistigma* (*Vistigma*) *vira* (=*ochroneura*)	**T**	Brazil: Amazonas, old (around 1900)	ZMHB
NVG-19024C04	*Vistigma* (*Vistigma*) *virgo*		Peru, 1995	USNM
NVG-18021B09	*Vistigma* (*Vistigma*) *xanthobasis*		Argentina, 1907	AMNH
NVG-18079C02	*Willema tsadicus* (=*birbiranus*)	**T**	Ethiopia, 1925	MNHP
NVG-17093A10	*Willema willemi*		South Africa, 1968	USNM
NVG-7765	*Xanthodisca vibius*		Cameroon, 1987	USNM
NVG-17121F10	*Xanthoneura corissa corissa*		Sabah, 1985	KMaruyama
NVG-18064D07	*Xanthonymus xanthioides*		Cameroon, old (around 1900)	USNM
NVG-18093D09	*Xeniades* (*Cravera*) *laureatus*	**HT**	Bolivia, prior to 1923	SMF
NVG-18015B11	*Xeniades* (*Cravera*) *laureatus*		Brazil: Mato Grosso, 1991	USNM
NVG-18112A05	*Xeniades* (*Tixe*) *quadrata hermoda*		Colombia, 1992	USNM
NVG-15036C04	*Xeniades* (*Tixe*) *quadrata quadrata*	**ST**	no data, old (around 1900)	ZMHB
NVG-15035B01	*Xeniades* (*Xeniades*) *chalestra chalestra* (=*concors*)	**ST**	no data, old (around 1900)	ZMHB

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NVG-18067H06	*Xeniades* (*Xeniades*) *chalestra corna*		Brazil: Sao Paulo, 2007	EBrockmann
NVG-18093D12	*Xeniades* (*Xeniades*) *difficilis*	**HT**	Bolivia, prior to 1923	SMF
NVG-18119B05	*Xeniades* (*Xeniades*) *difficilis*		Peru, 2015	USNM
NVG-19024H09	*Xeniades* (*Xeniades*) *orchamus*		Costa Rica, 2010, 10-SRNP-75001	USNM
NVG-18119B04	*Xeniades* (*Xeniades*) *orchamus*		Panama, 1975	USNM
NVG-7961	*Xeniades* (*Xeniades*) *pteras*		Costa Rica, 2013, 13-SRNP-22562	USNM
NVG-18119B02	*Xeniades* (*Xeniades*) *pteras*		Panama, 1977	USNM
NVG-18119B08	*Xeniades* (*Xeniades*) *victoria*		Brazil: RJ, 1995	USNM
NVG-7906	*Xenophanes tryxus*		Costa Rica, 2010, 10-SRNP-103428	USNM
NVG-18089H11	*Zalomes biforis*		Ecuador, 2013	EBrockmann
NVG-18126A05	*Zela zeus optima*		Langkawi, 2018	UTSW
NVG-18119G08	*Zetka* Burns03		Costa Rica, 2006, 06-SRNP-32471	USNM
NVG-18027A07	*Zetka zeteki*	**HT**	Panama, 1928	AMNH
NVG-15104C01	*Zobera albopunctata*	**HT**	Mexico: Colima, 1967	AMNH
NVG-18075D06	*Zophopetes cerymica* (=*weiglei*)	**T**	Ghana, 1883	ZMHB
NVG-18099H09	*Zophopetes dysmephila*		Kenya, 1958	USNM
NVG-18075D05	*Zophopetes nobilior*	**T**	Gabun, 1892	ZMHB
NVG-7908	*Zopyrion* (*Timochreon*) *satyrus satyrus*		Costa Rica, 2007, 07-SRNP-58884	USNM
NVG-19091F10	*Zopyrion* (*Zopyrion*) *reticulata*		Brazil, 1992	USNM
NVG-19091F01	*Zopyrion* (*Zopyrion*) *sandace*		Honduras, 1981	USNM
NVG-19091F12	*Zopyrion* (*Zopyrion*) *subvariegata subvariegata*		Ecuador, 2002	USNM
NVG-1670	*Pterourus glaucus glaucus*		USA: TX, Denton Co., 2013	USNM