

Appendix 4

Subfamily Larentiinae

New World geometrid moths (Lepidoptera: Geometridae): Molecular phylogeny, biogeography, taxonomic updates and description of 11 new tribes

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Daniel Bolt, Florian Bodner, Alfred Moser, Rolf Mörtter, Aare Lindt, Luis E. Parra, Niklas Wahlberg

Compiled by Gunnar Brehm, gunnar.brehm@uni-jena.de

Material and photos provided by:

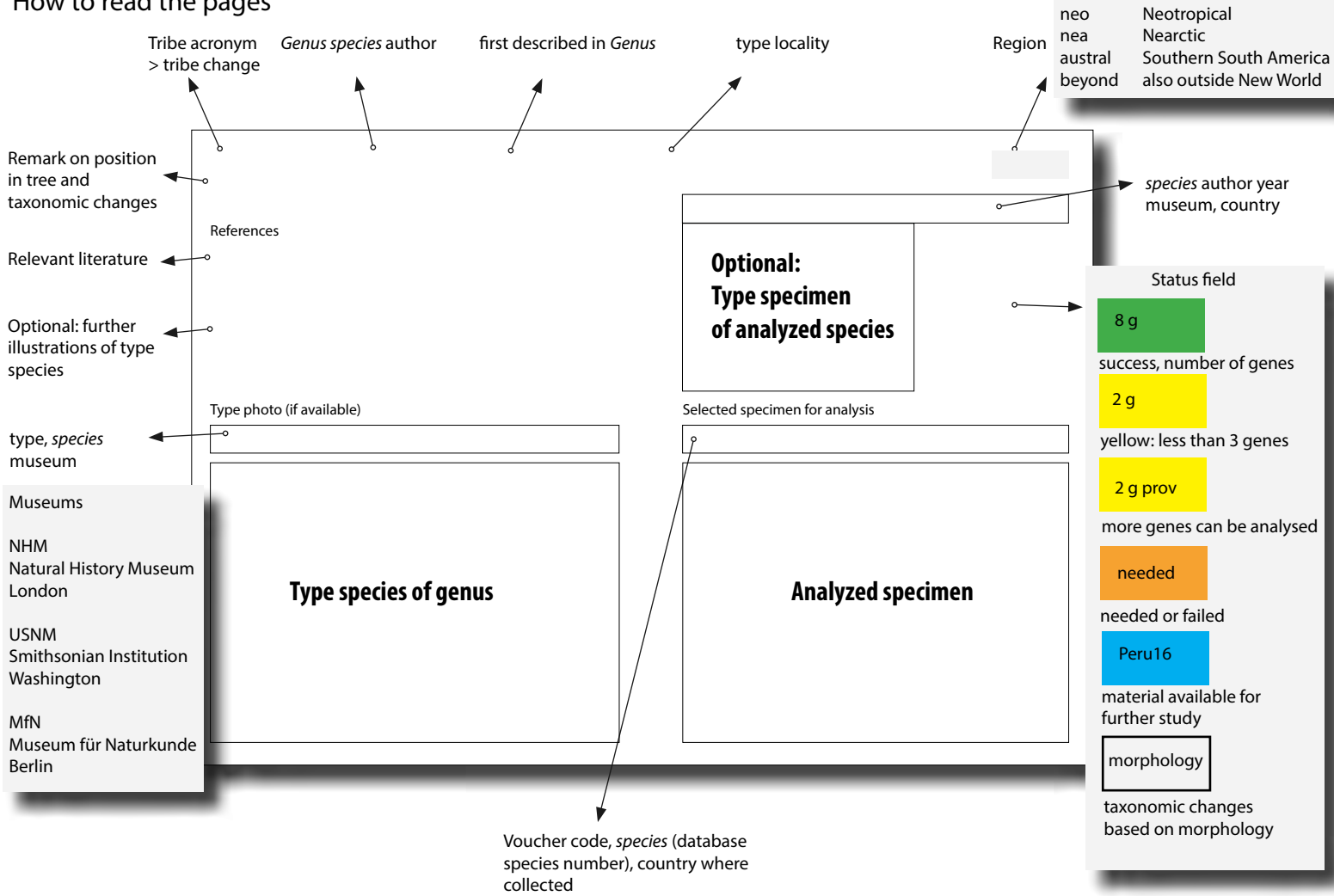
Florian Bodner (FB) Daniel Bolt (DB), Charly Covell (CC), Andreas Kopp (AK), Aare Lindt (AL), Rolf Mörtter (RM),
Alfred Moser (AM), Wolfram Mey (WM), Leidys Murillo Ramos (LMR) Stefan Naumann (SN) Linda Pitkin (Pitkin),
Erki Õunap (EO), Pasi Sihvonen (PS), Dominik Rabl (DR), Jan Vidaalepp (JV), Niklas Wahlberg (NW),
ZSM (Axel Hausmann),

All CNC codes: B. Christian Schmidt,

All USNM codes: P. Gentili-Poole,

All other photos (including specimens "from XX") taken by Gunnar Brehm.

How to read the pages



Contents

- 1) Genera known: alphabetical order of genera
- 2) Not assigned to genus: alphabetical order of tribes

UN > tric *Aloba cinereus* Bartlett-Calvert *Hoplosauris* Chile monobasic
genus transferred to Trichopterygini

austral

References

type photo
needed



8 g

Type photo (if available)
no type *cinereus* (ZSM Bold)

Selected specimen for analysis
bo_chi_371 *A. cinereus* (AM2903) Chile (DB)



UN > tric

Aloba cinereus Bartlett-Calvert *Hoplosauris* Chile monobasic

austral

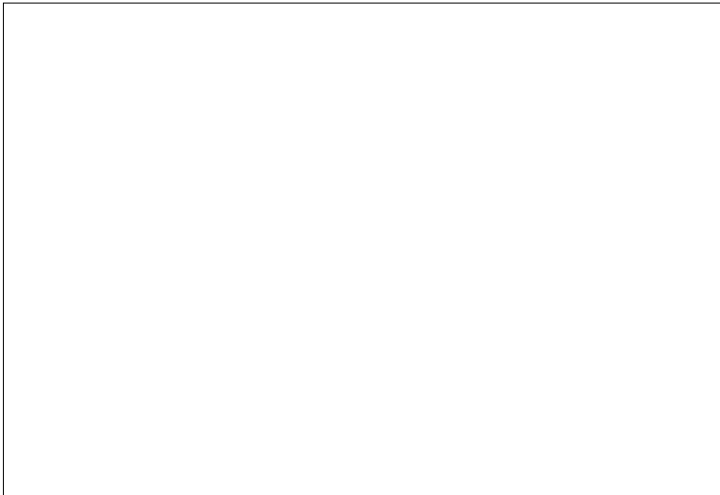
References



6 g

Type photo (if available)

xx



Selected specimen for analysis

bo_chi_347 *Aloba* sp Chile (from DB)



UN > erat *Anemplocia flammifera* Warren *Anemplocia* Colombia

neo

Anemplocia **syn. n.** of *Erateina* Doubleday

type *melambathes* Prout, 1923 NHM Peru

References



8 g

Type photo (if available)

type *flammifera* NHM

Selected specimen for analysis

ID 56100 *E. nr melambathes* Ecuador



UN > tric *Anomozela cirrhoata* Felder & Rogenhofer *Cidaria* Chile
genus transferred to Trichopterygini

austral

References



5 g

Type photo (if available)
type *cirrhoata* NHM



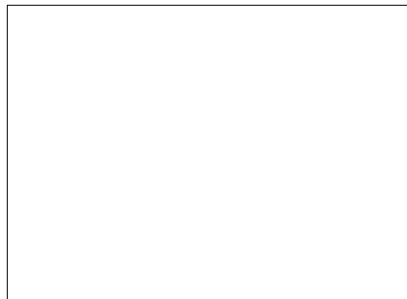
Selected specimen for analysis
Ch-Geo-0009 *A. cirrhoata* Chile (from DB)



UN > psal *Anthalma latifasciata* Warren *Anthalma* Panama monobasic
genus transferred to Psaliadini

neo

References



5 g

Type photo (if available)
type *latifasciata* NHM



Selected specimen for analysis
AK-Geo-CR-0004 *A. latifasciata* Costa Rica (AK)



UN > psal *Anthalma latifasciata* Warren *Anthalma* Panama monobasic
genus transferred to Psaliodini

neo

References



9g

Type photo (if available)
type *latifasciata* NHM



Selected specimen for analysis
ID 19137 = EO1163 *Anthalma* sp (#2493) Ecuador



UN > psal *Anthalma latifasciata* Warren *Anthalma* Panama monobasic
species: euph > plem *Euphyia* > *Anthalma balteata* **comb. n.**
genus transferred to Psaliadini

neo

References

type *balteata* NHM



8 g

Type photo (if available)
type *latifasciata* NHM

Selected specimen for analysis
ID 19148 = EO1165 *A. balteata* group (#697)



UN > psal *Anthalma latifasciata* Warren *Anthalma* Panama monobasic

neo

Lobophora? parecida Dognin, 1892

transferred from *Rhopalodes* to *Anthalma*

References

type *parecida* Dognin, 1892 USNM Ecuador



8 g

Type photo (if available)

type *latifasciata* NHM

Selected specimen for analysis

Pe-Geo-0029 *Anthalma* nr *parecida* Peru



UN > psal *Anthalma latifasciata* Warren *Anthalma* Panama monobasic

neo

genus transferred to Psaliodini

Anthalma apicesignata Dognin, 1893 **comb. n.** (from *Perizoma*)

References



morphology

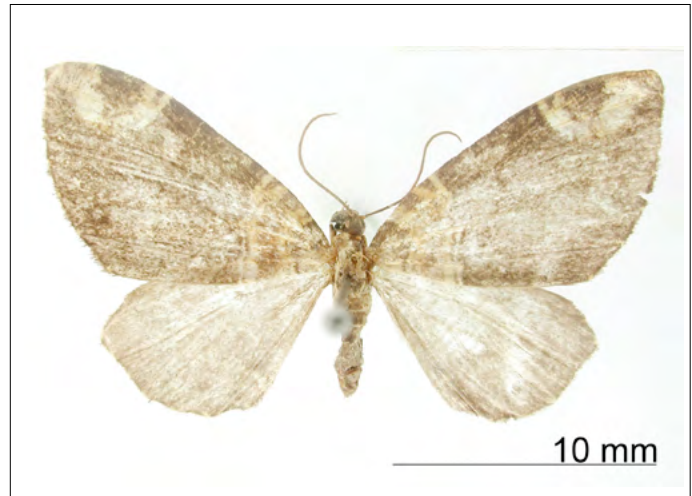
Type photo (if available)

type *latifasciata* NHM



Selected specimen for analysis

type *apicesignata* Dognin, 1913 USNM Colombia



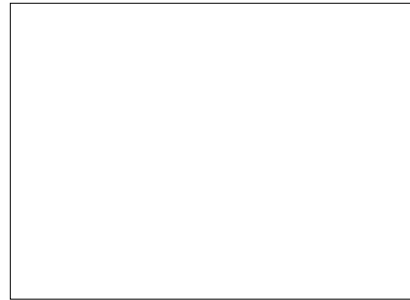
UN > psal *Anthalma latifasciata* Warren *Anthalma* Panama monobasic

neo

genus transferred to Psaliadini

Anthalma arcillata Dognin, 1893 **comb. n.** (from *Perizoma*)

References



morphology

Type photo (if available)

type *latifasciata* NHM



Selected specimen for analysis

type *arcillata* Dognin, 1893 USNM Ecuador



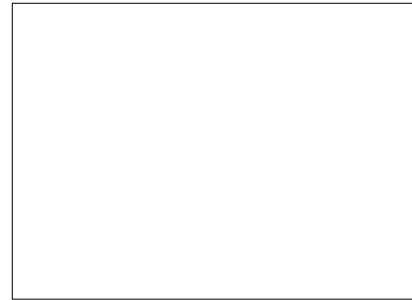
UN > psal *Anthalma latifasciata* Warren *Anthalma* Panama monobasic

genus transferred to Psaliadini

Anthalma alboscripta Dognin, 1892 **comb. n.** (from *Euphyia*)

neo

References



morphology

Type photo (if available)

type *latifasciata* NHM



Selected specimen for analysis

type *alboscripta* Dognin, 1892 USNM Ecuador



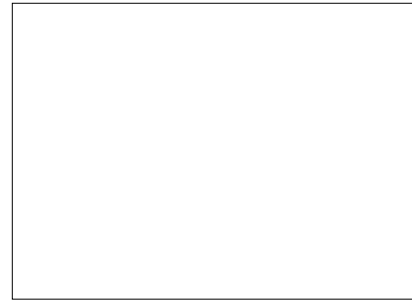
UN > psal *Anthalma latifasciata* Warren *Anthalma* Panama monobasic

genus transferred to Psaliodini

Anthalma artemas Schaus, 1912 **comb. n.** (from *Euphyia*)

neo

References



morphology

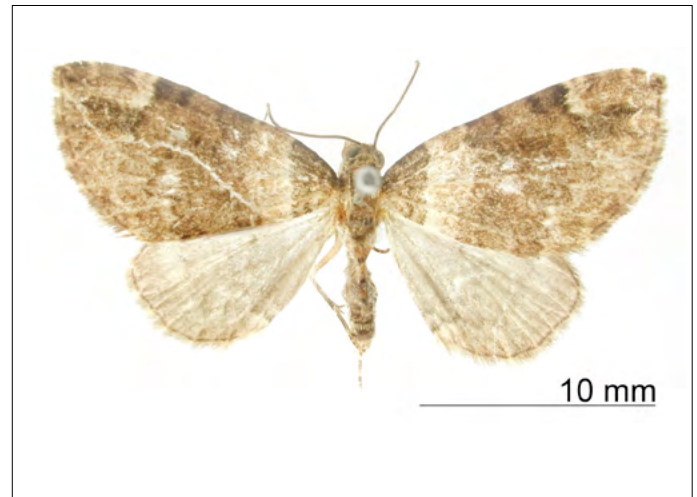
Type photo (if available)

type *latifasciata* NHM



Selected specimen for analysis

type *artemas* Schaus, 1912 USNM Costa Rica



UN > psal *Anthalma latifasciata* Warren *Anthalma* Panama monobasic

genus transferred to Psaliodini

Anthalma cortada Dognin, 1893 **comb. n.** (from *Euphyia*)

neo

References



morphology

Type photo (if available)

type *latifasciata* NHM



Selected specimen for analysis

type *cortada* Dognin, 1893 USNM Ecuador



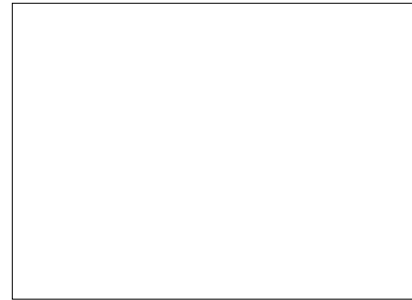
UN > psal *Anthalma latifasciata* Warren *Anthalma* Panama monobasic

neo

genus transferred to Psaliodini

Anthalma cortadoides Dognin, 1893 **comb. n.** (from *Euphyia*)

References



morphology

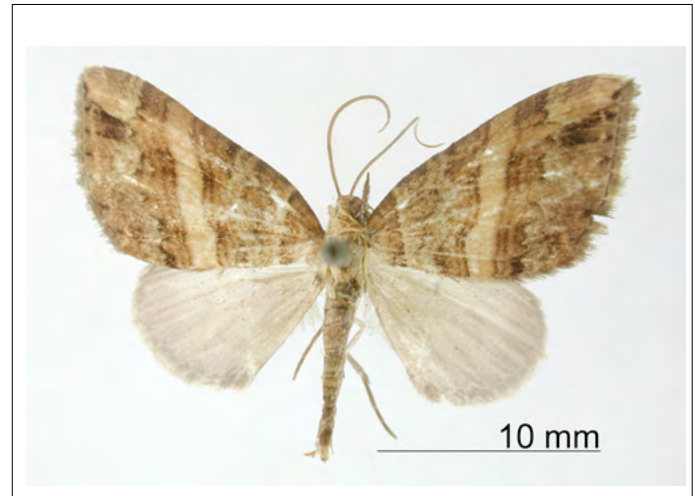
Type photo (if available)

type *latifasciata* NHM



Selected specimen for analysis

type *cortadoides* Dognin, 1893 USNM Ecuador



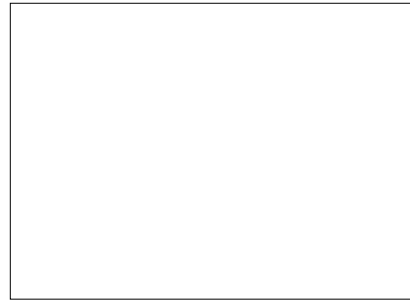
UN > psal *Anthalma latifasciata* Warren *Anthalma* Panama monobasic

neo

genus transferred to Psaliadini

Anthalma curviviata Dognin, 1914 **comb. n.** (from *Euphyia*)

References



morphology

Type photo (if available)

type *latifasciata* NHM



Selected specimen for analysis

type *curviviata* Dognin, 1914 USNM



UN > psal *Anthalma latifasciata* Warren *Anthalma* Panama monobasic

genus transferred to Psaliadini

Anthalma plumbeipennis Dognin, 1914 **comb. n.** (from *Euphyia*)

neo

References



morphology

Type photo (if available)

type *latifasciata* NHM



Selected specimen for analysis

type *plumbeipennis* Dognin, 1914 USNM Colombia



UN > psal *Anthalma latifasciata* Warren *Anthalma* Panama monobasic

genus transferred to Psaliadini

Anthalma rojiza Dognin, 1893 **comb. n.** (from *Euphyia*)

neo

References



morphology

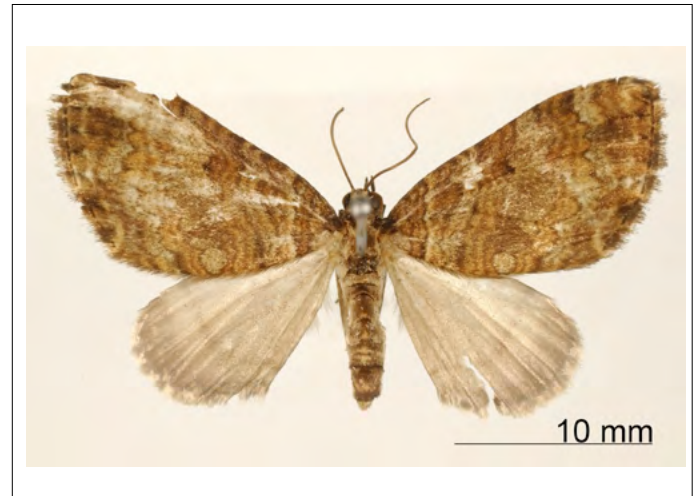
Type photo (if available)

type *latifasciata* NHM



Selected specimen for analysis

type *rojiza* Dognin, 1893 USNM Ecuador



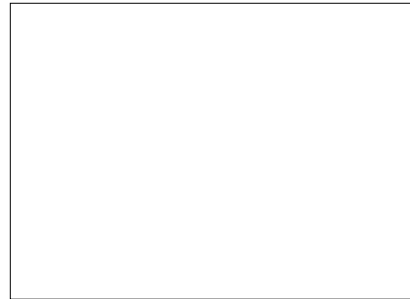
UN > psal *Anthalma latifasciata* Warren *Anthalma* Panama monobasic

neo

genus transferred to Psaliadini

Anthalma terminisecta Dognin, 1914 **comb. n.** (from *Euphyia*)

References



morphology

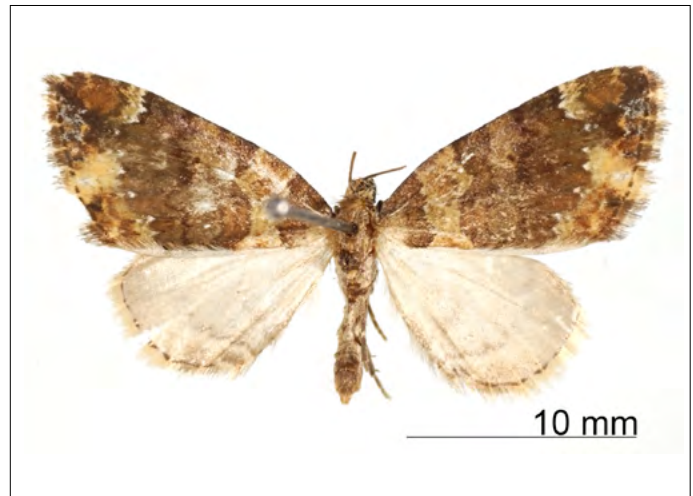
Type photo (if available)

type *latifasciata* NHM



Selected specimen for analysis

type *terminisecta* Dognin, 1914 USNM Colombia



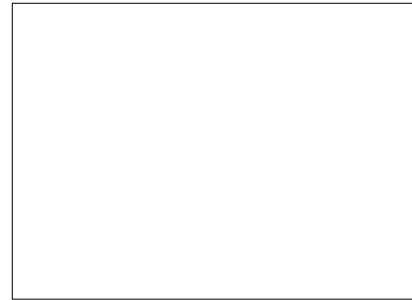
UN > psal *Anthalma latifasciata* Warren *Anthalma* Panama monobasic

genus transferred to Psaliadini

Anthalma zara Thierry-Mieg, 1893 **comb. n.** (from *Euphyia*)

neo

References



morphology

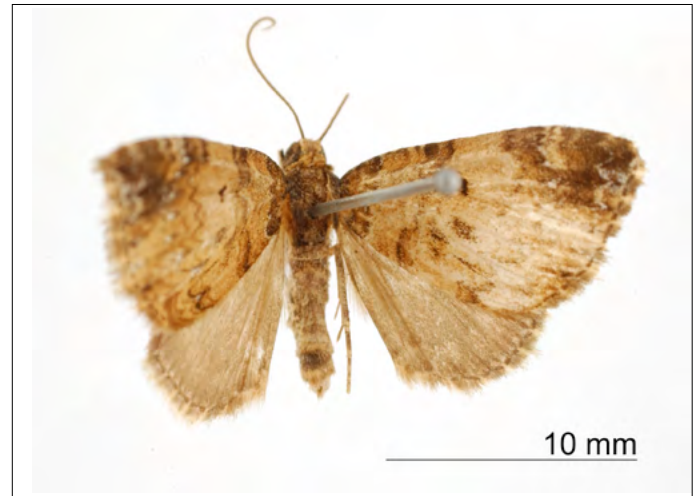
Type photo (if available)

type *latifasciata* NHM



Selected specimen for analysis

type *zara* Thierry-Mieg, 1893 USNM Ecuador



tric? > tric *Aperusia punctistriata* Warren *Aperusia* Peru (SE) 2 species
assignment of genus to Trichopterygini confirmed

neo

References

type *albifascia* Dognin (USNM), Colombia



7g

Type photo (if available)
no photo NHM

Selected specimen for analysis

GB-Geo-034 *A. albifascia* Colombia (from ZSM)

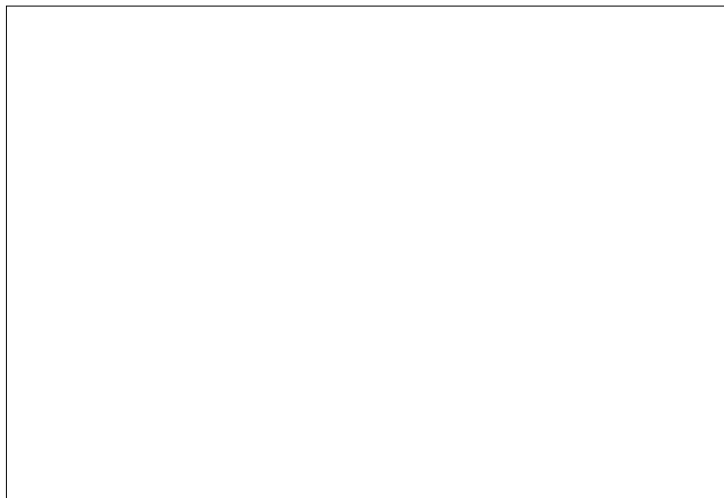


tric? > tric *Aperusia punctistriata* Warren *Aperusia* Peru (SE) 2 species
assignment of genus to Trichopterygini confirmed

neo

References

Type photo (if available)
no photo NHM



9g

Selected specimen for analysis
GB-Geo-035 *Aperusia* sp Colombia (from ZSM)



tric? > tric *Aperusia punctistriata* Warren *Aperusia* Peru (SE) 2 species
assignment of genus to Trichopterygini confirmed

neo

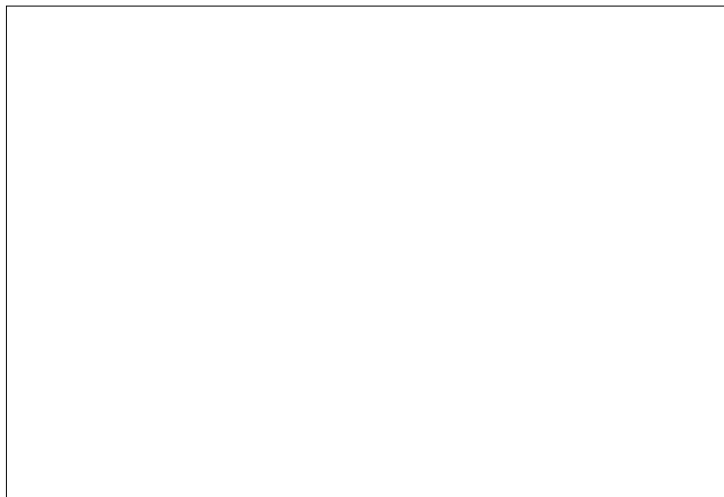
References



8 g

Type photo (if available)
no photo NHM

Selected specimen for analysis
ID 19124 *Aperusia* sp (#2173) Ecuador



hydr *Archirhoe neomexicana* Hulst, 1896 (*Hydriomena*) USA
genus transferred to new tribe Pterocyphini

nea

References



5 g

Type photo (if available)

no type *neomexicana* NHM

Selected specimen for analysis

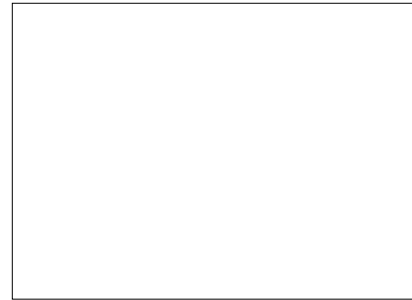
CNC509535 *A. neomexicana* USA



UN > brab *Brabiroides cerevia ssp peruviana* Warren *Brabiroides* Peru (SE)
type genus of new tribe Brabirodini

neo

References



5 g

Type photo (if available)
type *peruviana* NHM



Selected specimen for analysis
ID 19269 *B. cerevia peruviana* (#1149) Ecuador



tric *Butleriana minor* Butler *Pachrophylla* Chile
tribe assignment confirmed
very close to *Parapachrophylla* bo_chi_331

References

Parra LE (1991) *Gayana Zool.* 55(2) :145-199

Type photo (if available)

type *minor* NHM



neo

Parra (1996) illustration *fasciata*



6 g

Selected specimen for analysis

bo_chi_332 *Butleriana minor?* Chile (from DB)



stam *Callipia parrhasiata* Guenée *Callipia* [incorrect locality:] Bengale
tribe assignment confirmed

neo

References

holotype *occulta* Warren, 1904 NHM Peru



7g

Type photo (if available)

type *parrhasiata* NHM



Selected specimen for analysis

gb_ID_0081 *C. occulta* (#428) Ecuador



stam *Callipia parrhasiata* Guenée *Callipia* [incorrect locality:] Bengale
tribe assignment confirmed

neo

References

Type photo (if available)
type *parrhasiata* NHM



5 g

Selected specimen for analysis
gb-ID-003 *C. wojtusiaki septentrionalis* Ecuador

no photo available

stam *Callipia parrhasiata* Guenée *Callipia* [incorrect locality:] Bengale
tribe assignment confirmed

neo

References

type *augustae* Brehm, 2018 PMJ Ecuador



7g

Type photo (if available)

type *parrhasiata* NHM



Selected specimen for analysis

EO0856 *C. augustae* Bolivia (EO)



stam *Stamnodes* > *Callipia*
Callipia anthocharidaria Oberthür **comb. n.**

neo

References

Type photo (if available)
type *anthocharidaria* NHM (Cunamarca, Peru)



5 g

Selected specimen for analysis
TTBO0015 *C. anthocharidaria* Bolivia (TT)



hydr > cida *Ceratodalia gueneata* Packard, 1876 Canada, USA

nea

genus transferred to Cidariini

References



7g

Type photo (if available)

no types NHM

Selected specimen for analysis

CNC541372 *C. gueneata* Canada



UN > dysp *Chlorotimandra viridis* Butler *Chlorotimandra* Chile monobasic
genus transferred to Dyspteridini

austral

References

7g

Type photo (if available)
type *viridis* NHM



Selected specimen for analysis
EO1431 *C. viridis* Chile (EO)



UN > chris *Chrimopteryx expolita* Prout *Chrimopteryx* Argentina
genus assigned to new tribe Chrimopterygini

austral

References

holotype *politata* Fletcher, 1953 NHM Chile



7g

Type photo (if available)
type *expolita* NHM



Selected specimen for analysis
bo_chi_120 *C. politata* Chile (from DB)



UN > chris *Chrimopteryx expolita* Prout *Chrimopteryx* Argentina UN > plem

austral

Chrimopteryx pseudohalia (Butler, 1882) **comb. n.** (from *Nebula*)

type *pseudohalia* Butler, 1882 NHM Chile

References



6 g

Type photo (if available)

type *expolita* NHM



Selected specimen for analysis

bo_chi_400 *C. pseudohalia* Chile (from DB)



UN > chris *Chrimopteryx expolita* Prout *Chrimopteryx* Argentina
type genus of new tribe Chrimopterygini

References

Type photo (if available)
type *expolita* NHM



6 g

Selected specimen for analysis
bo_chi_396 *Chrimopteryx* sp Chile (from DB)



UN > ereb *Cirrolygris momaria* Snellen *Eubolia* [Colombia]
genus assigned to new tribe Erebochlorini

neo

References

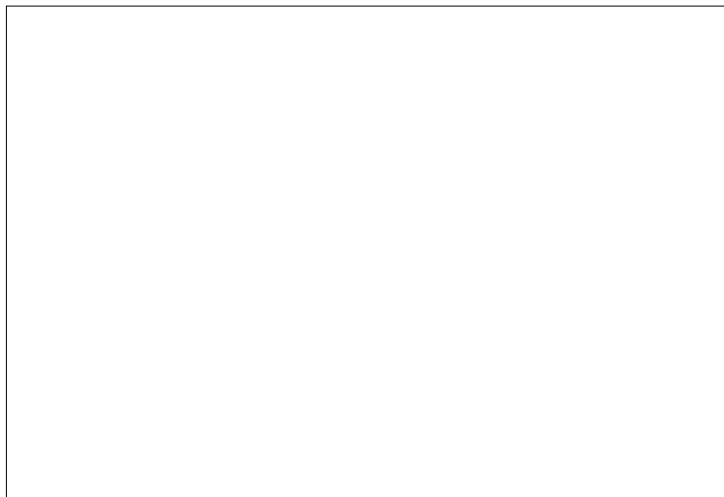
type *cecilia* Dognin USNM Colombia



8 g

Type photo (if available)
no photo

Selected specimen for analysis
ID 15386 *C. nr cecilia* (#2181) Ecuador

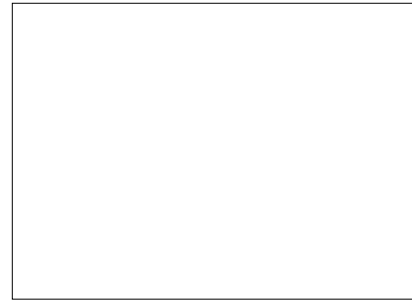
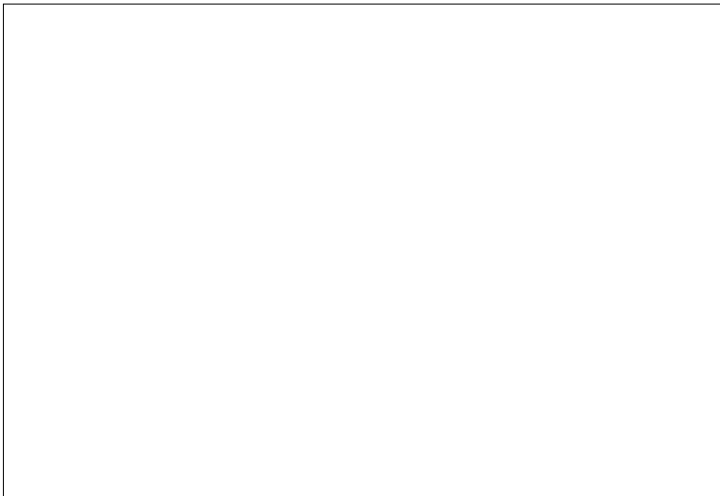


lobo > tric *Cladara atroliturata* Walker *Lobophora* USA
Lobophorini is a synonym of Trichopterygini

nea

References

Type photo (if available)
no photo



4 g

Selected specimen for analysis
CNC533481 *C. atroliturata* Canada

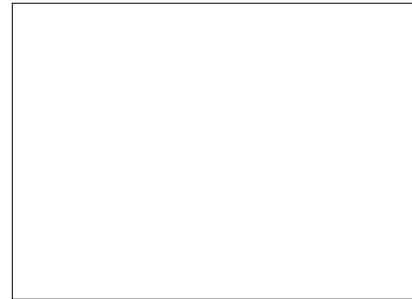
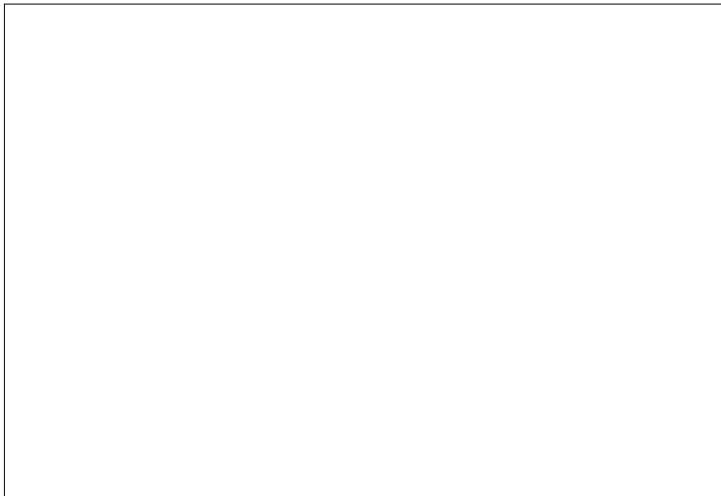


hydr > rheu *Coryphista meadii* Packard *Scotosia* USA
Coryphista **syn. n.** of *Rheumaptera*

nea

References

Type photo (if available)
no photo



5 g

Selected specimen for analysis
CNC541318 *R. meadii* Canada



hydr *Cyclica frondaria* Grote, 1882 *Cyclica* USA: Arizona monotypic

Cyclica **syn. n.** of *Hydriomena*

nea

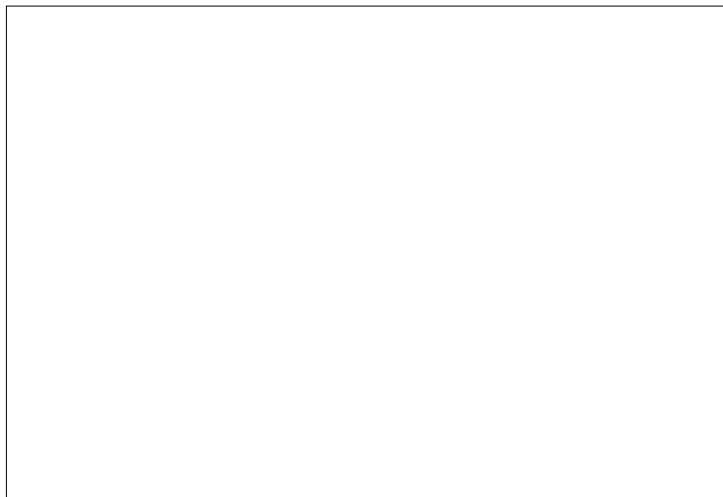
References



6 g

Type photo (if available)

no photo



Selected specimen for analysis

CNC538058 *H. frondaria* USA



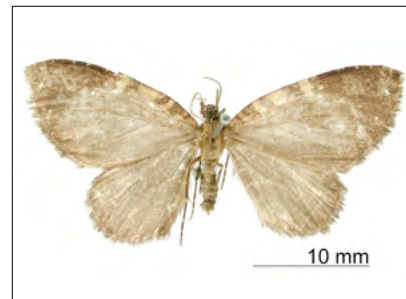
UN > copho *Cophocerotis jaspeata* Dognin *Marmopteryx* [Ecuador (S)]

neo

type genus of new tribe Cophocerotini

References

type *costinotata* Dognin, 1893 USNM Peru



7g

Type photo (if available)

types *jaspeata* USNM

Selected specimen for analysis

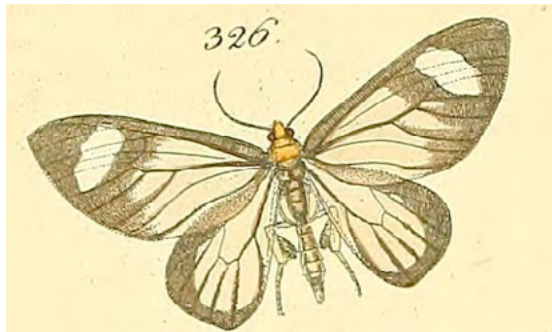
ID 19302 *C. costinotata* (#2448) Ecuador



UN > eudu *Crocypus perucidaria* Herrich-Schäffer *Crocypus* Brazil
genus assigned to Eudulini

neo

References



Type photo (if available)
no type *perucidaria* NHM



10 g

Selected specimen for analysis
Br-Geo-0001 *C. perucidaria* (AM#190) Brazil



UN *Deinoptila penicula* Dognin *Cidaria* [Ecuador (S)]
genus assigned to new tribe Erebochlorini

neo

References



7g

Type photo (if available)
type *penicula* USNM (Ecuador)

Selected specimen for analysis
EO1169 = ID 22138 *D. penicula* (#438) Ecuador



UN *Distoneura marmorata* Warren *Alloeoneura* [Brazil]
genus assigned to new tribe Psaliadini

neo

References

type *pastaza* Prout, 1934 NHM Ecuador



5 g

Type photo (if available)

type *marmorata* NHM



Selected specimen for analysis

ID 22198 = EO1170 *D. pastaza* (#449) Ecuador



dysp *Dyspteris breviataria* Hübner replacement name for *amata* Cramer *Dyspteris* Surinam
clusters with other *Dyspteris* in Dyspteridini

neo-nea

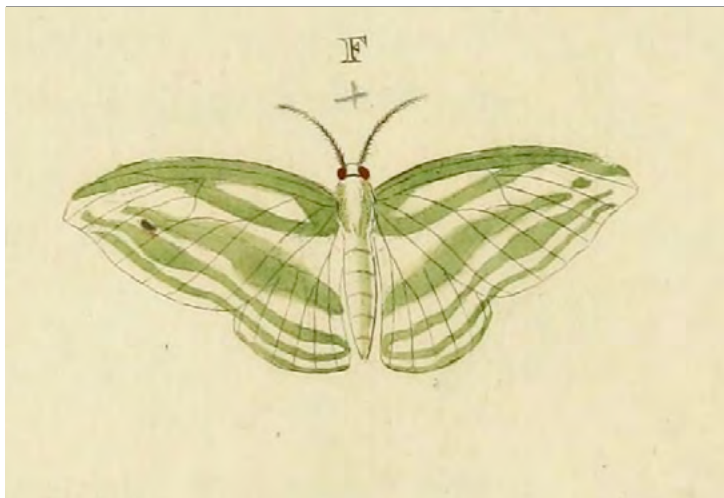
References



6 g

Type photo (if available)

Cramer illustration *amata* (syn of *breviataria*)



Selected specimen for analysis

ID 15491 *Dyspteris* sp (#3245) Ecuador



dysp *Dyspteris breviataria* Hübner replacement name for *amata* Cramer *Dyspteris* Surin-

neo-nea

References

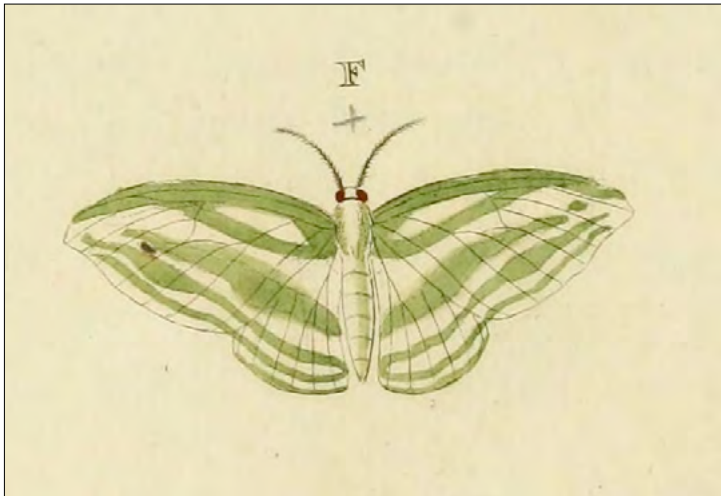
no photo *abortivaria* Herrich-Schäffer, [1855]



8 g

Type photo (if available)

Cramer illustration *amata* (syn of *breviataria*)



Selected specimen for analysis

EO0731 *D. abortivaria* USA (EO)



UN > enna *Ennada flavaria* Blanchard *Ennada* Chile
type genus of new tribe Ennadini

References

Parra LE, Alvear CA (2009) Zootaxa 2062: 46-56

Type photo (if available)

type *cinerescens* NHM (syn of *flavaria*)



neo

type *pellicata* Felder & Rogenhofer, 1875 NHM



5 g

Selected specimen for analysis

Ch-Geo-0010 *E. pellicata* Chile (from DB)



UN > enna *Ennada flavaria* Blanchard *Ennada* Chile
type genus and type species of new tribe Ennadini

austral

References



6 g

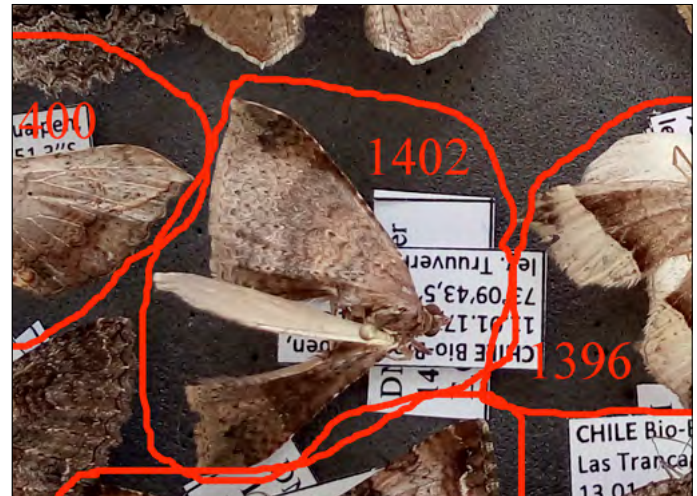
Type photo (if available)

type *E. cinerescens* NHM (syn of *flavaria*)



Selected specimen for analysis

EO1402 *E. flavaria* Chile (EO)



asth *Eois russearia* Hübner
tribe assignment confirmed

Eois Surinam

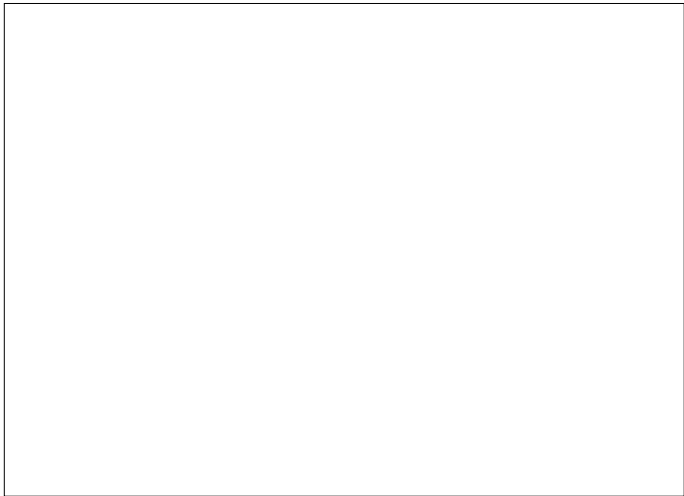
beyond



Selected specimen for analysis



Brehm G et al. (2011) *Annals of the Entomological Society of America* 104.6: 1091-1107



asth *Eois russearia* Hübner *Eois* Surinam
tribe assignment confirmed

beyond

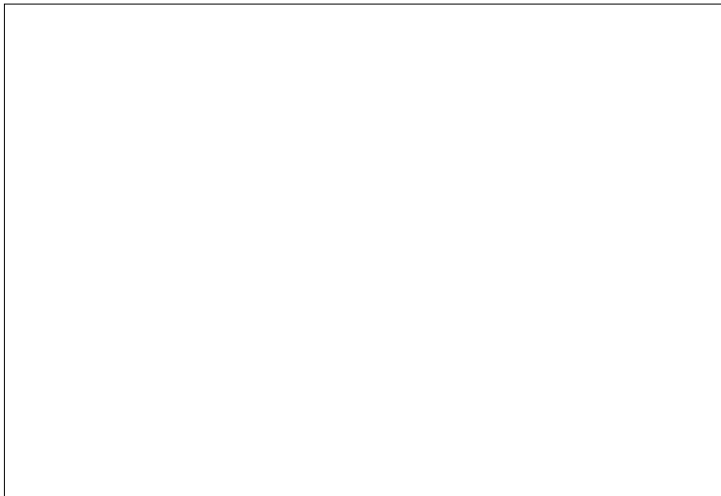
References

type *basaliata* Warren, 1907 NHM Peru



7g

Type photo (if available)



Selected specimen for analysis

ID 17158 *E. basaliata* (#401) Ecuador



asth *Eois russearia* Hübner *Eois* Surinam
tribe assignment confirmed

beyond

References

type *ciocolatina* Warren, 1907 NHM Peru

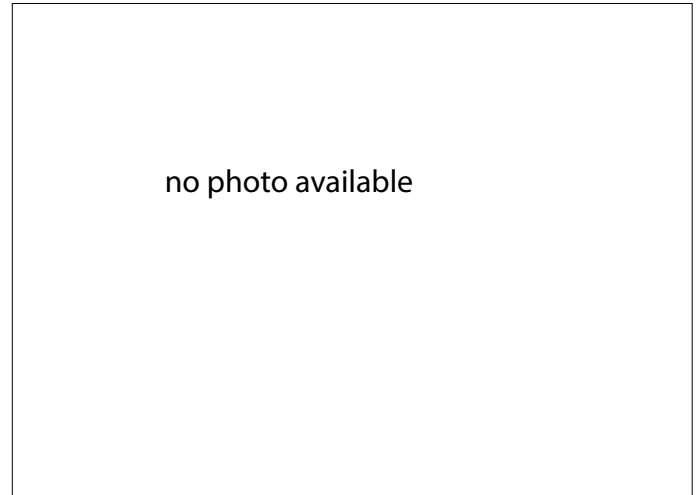
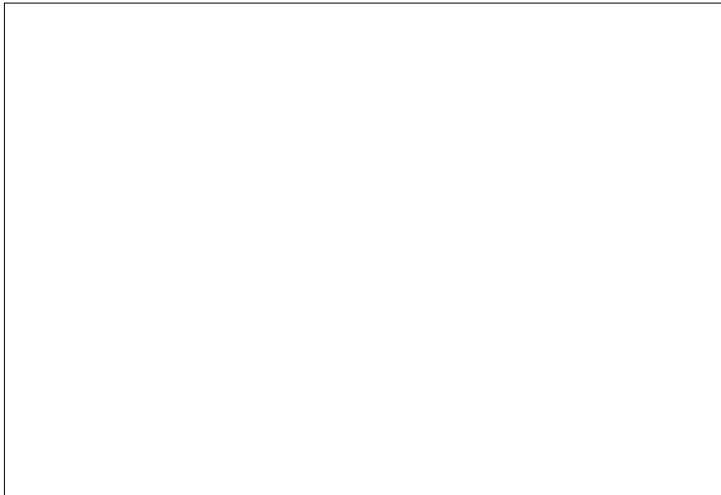


6 g

Type photo (if available)

Selected specimen for analysis

MM14743 *E. ciocolatina* Ecuador



erat *Erateina zoraida* Doubleday *Erateina* Venezuela
groups with other *Erateina*

neo

References

type *thyridata* NHM (syn of *cyclopata* Staudinger)



6 g

Type photo (if available)

type *zoraida* NHM

Selected specimen for analysis

GB-Geo-029 *E. nr cyclopata* Ecuador (from ZSM)

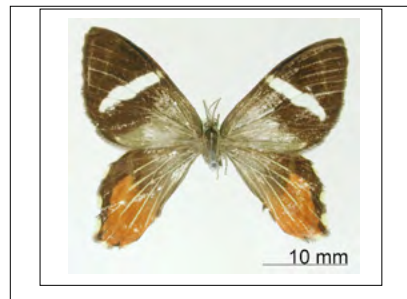


erat *Erateina zoraida* Doubleday *Erateina* Venezuela
groups with other *Erateina*

neo

References

type *punsara* Dognin, 1893 USNM Ecuador



8 g

Type photo (if available)

type *zoraida* NHM

Selected specimen for analysis

EO0911 *Erateina* nr *punsara* Bolivia (EO)



erat *Erateina zoraida* Doubleday *Erateina* Venezuela
not a monophylum with true *Erateina*

neo

References

type *siliquata* Guenée, [1858] NHM Brazil



5 g

Type photo (if available)

type *zoraida* NHM

Selected specimen for analysis

EO0909 *Erateina siliquata* Brazil (EO)



erat *Erateina cachara* Schaus, 1901 (from "*Trocherateina*")
"*Trocherateina*" is unavailable (no published reference found)

neo

References

all species previously assigned to "*Trocherateina*"
are combined with *Erateina*



7g

Type photo (if available)

type *cachara* Schaus, 1901 USNM Mexico

Selected specimen for analysis

gb-CR-S-1239 *E. cachara* (#1239) Costa Rica



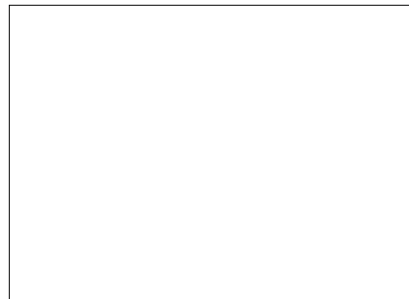
10 mm



UN > ereb *Erebochlora tesseralata* Felder & Rogenhofer *Spargania* [Colombia]
type genus and type species of new tribe Erebochlorini

neo

References



9g

Type photo (if available)
type *tesseralata* NHM

Selected specimen for analysis
gb-CR-S-1218 *E. nr tesseralata* (#1218) Costa Rica



UN > ereb *Erebochlora tesseralata* Felder & Rogenhofer *Spargania* [Colombia]
"Erebochlora" *apiciflava* excluded from *Erebochlora*

neo

References



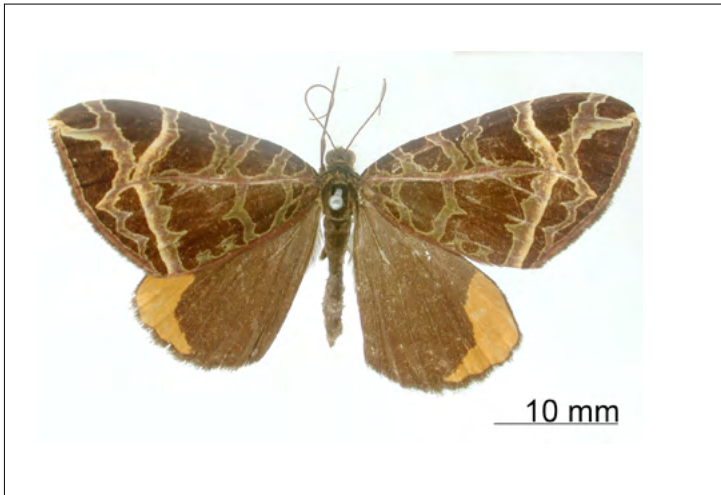
7g

Type photo (if available)

type *apiciflava* Dognin, 1892 USNM Ecuador

Selected specimen for analysis

ID 18790 = EO1155 "E." *apiciflava* (#2455) Ecuador



UN *Ersephila grandipennis* Hulst *Ersephila* [U.S.A.]
groups near *Hydriomena*
possibly not congeneric with true *Ersephila*

References

Type photo (if available)

no type *grandipennis* CNCLEP00098952



neo

type *prema* Druce, 1893 USNM (Mexico)



9 g

Selected specimen for analysis

Gu-Geo-006 *E. prema* Guatemala (from SN)

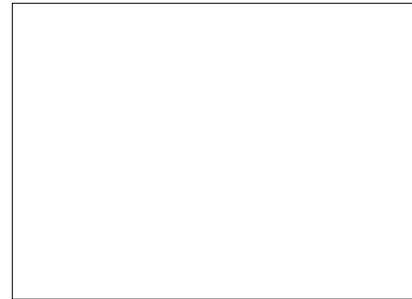


eudu *Eubaphe lobula* Hübner *Eubaphe* Brazil
tribe assignment confirmed

neo-nea

References

no photo *mendica* Walker, 1854 USA



5 g

Type photo (if available)
Hübner illustration

Selected specimen for analysis
EO0520 *E. mendica* Canada (EO)



eudu *Eubaphe lobula* Hübner *Eubaphe* Brazil
tribe assignment confirmed

neo-nea

References

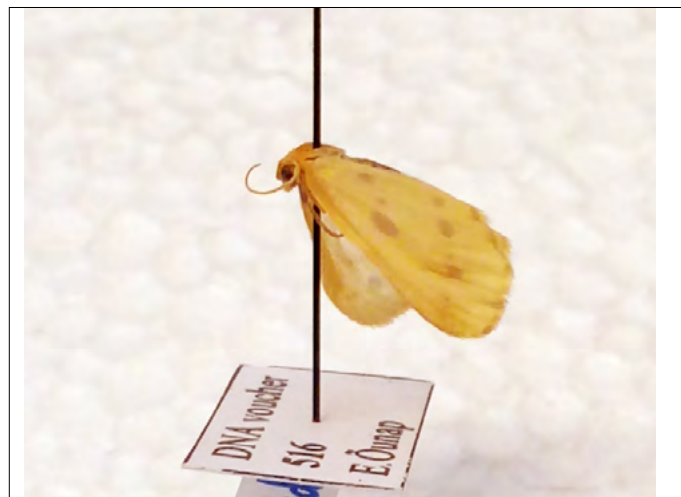
no photo *E. meridiana* Slosson, 1889 USA



5 g

Type photo (if available)

Hübner illustration



Selected specimen for analysis

EO0516 *E. meridiana* USA (EO)

eudu *Eudule pulchricolora* Hübner *Eudule* West Indies
groups with *Graphidipus* and *Crocypus*

neo

References

Type photo (if available)

Hübner illustration *pulchricolora*



type *ficulnea* Druce, 1885 NHM (Ecuador)



4 g

Selected specimen for analysis

ID 16917 *E. ficulnea* (#1047) Ecuador



eudu *Eudule pulchricolora* Hübner *Eudule* West Indies
groups with *Graphidipus* and *Crocypus*

neo

References

compare type "*Larentia*" *edmondsii* (NHM), Chile

Type photo (if available)

Hübner illustration *pulchricolora*



7g

Selected specimen for analysis

ID 56102 *Eudule* sp Ecuador



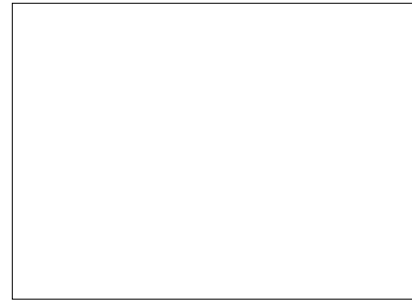
eudu *Eudulophasia invaria* Walker *Ameria* Venezuela
sister of *Eudule*

neo

References

Type photo (if available)

type *invaria* NHM



6 g

Selected specimen for analysis

EO472 *E. invaria* French Guiana (EO)



euph *Euphyia picata* Hübner (syn of *biangulata* Haworth) *Geometra* Europe

Euphyia from different regions cluster together

beyond

no photo *unangulata* Haworth UK



8 g

References

Type photo (if available)

Hübner illustration *picata*



Selected specimen for analysis

EO0202 *E. unangulata* Estonia (EO)



euph *Euphyia picata* Hübner (syn of *biangulata* Haworth) *Geometra* Europe

Euphyia from different regions cluster together

beyond

References

Type photo (if available)

Hübner illustration *picata*



pallidipars Warren (syn of *porraceata* Snellen)



8 g

Selected specimen for analysis

ID 55870 = EO1174 *E. nr porraceata* Ecuador



euph *Euphyia picata* Hübner (syn of *biangulata* Haworth) *Geometra* Europe

neo-hol

Euphyia from different regions cluster together

References

pallidipars Warren (syn of *porraceata* Snellen)



8 g

Type photo (if available)

Hübner illustration *picata*

Selected specimen for analysis

EO0735 *E. porraceata* Ecuador (EO)



euph *Euphyia picata* Hübner (syn of *biangulata* Haworth) *Geometra* Europe

beyond

Euphyia from different regions cluster together

References

Type photo (if available)

Hübner illustration *picata*



type *polychroma* Prout, 1916 NHM Peru



7g

Selected specimen for analysis

ID 19460 = EO1177 *E. nr polychroma* (#811) Ecu.



euph *Euphyia picata* Hübner (syn of *biangulata* Haworth) *Geometra* Europe
Euphyia from different regions cluster together

beyond

References



6 g

Type photo (if available)

Hübner illustration *picata*



Selected specimen for analysis

GB-Geo-067 *Euphyia* sp Argentina (from ZSM)



euph *Euphyia picata* Hübner (syn of *biangulata* Haworth) *Geometra* Europe

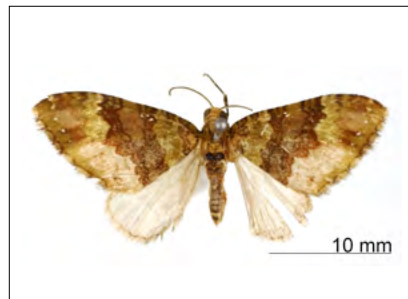
beyond

Euphyia tricolorata **comb n.** (from *Xanthorhoe*)

species xant > euph

References

type *tricolorata* Dognin, 1902 USNM Ecuador



6 g

Type photo (if available)

Hübner illustration *picata*

Selected specimen for analysis

ID 18537 = EO1181 *E. tricolorata* Ecuador



tribe *Fueguina varians* Butler *Pachrophylla* Chile
tribe assignment confirmed

austral

References

Parra LE (1991) *Gayana Zool.* 55(2) :145-199

Type photo (if available)

type *varians* NHM



6 g

Selected specimen for analysis

bo_chi_287 *F. varians* Chile (from DB)



UN > eudu *Graphidipus fulvicostaria* Herrich-Schäffer
groups with *Crocypus* and *Eudule*

Graphidipus Venezuela

neo

References

type *pilifera* Dognin, 1912 USNM Ecuador



7g

Type photo (if available)

type *fulvicostaria* NHM

Selected specimen for analysis

ID 17680 *G. pilifera* (#430) Ecuador



hydr? > coph *Hagnagora buckleyi* Druce *Hagnagora* Ecuador (N)

Hagnagora revised, but unclear if *buckleyi*, *lex* and *catagrammina* are the same lineage as *mortipax* et al.

genus assigned to new tribe Cophocerotiini

neo

type *mortipax* Butler, 1872 NHM Costa Rica

References

Brehm G (2015) ZooKeys 537: 131–156



5 g

type sp
needed

Type photo (if available)

type *buckleyi* NHM

Selected specimen for analysis

ID 17164 *H. mortipax* (#436) Ecuador



hydr? > coph *Hagnagora buckleyi* Druce *Hagnagora* Ecuador (N)
groups with *Hagnagora mortipax* and *Cophocerotis*

neo

References

Brehm G (2015) ZooKeys 537: 131–156

type *clustimena* Druce, 1893 NHM Mexico etc.



3 g

Type photo (if available)

type *buckleyi* NHM



Selected specimen for analysis

EO0733 *H. clustimena* Costa Rica (EO)



euph *Hammaptera probataria* Herrich-Schäffer *Hammaptera* Venezuela

tribe assignment confirmed

viridans Dognin Loja, jun syn of *probararia*, type USNM

neo-nea



Type photo (if available)

Herrich-Schäffer illustration *probataria*



Selected specimen for analysis

ID 17796 = EO1151 *H. sp* (#2508) Ecuador

8 g

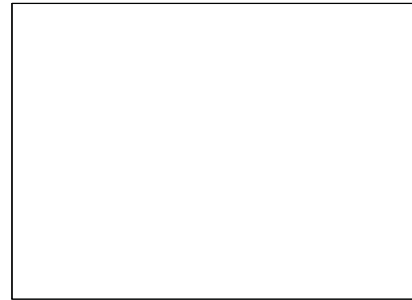
type sp
needed



tric > dysp *Heterophleps triguttaria* Herrich-Schäffer *Heterophleps* USA
genus transferred to Dyspteridini

neo-nea

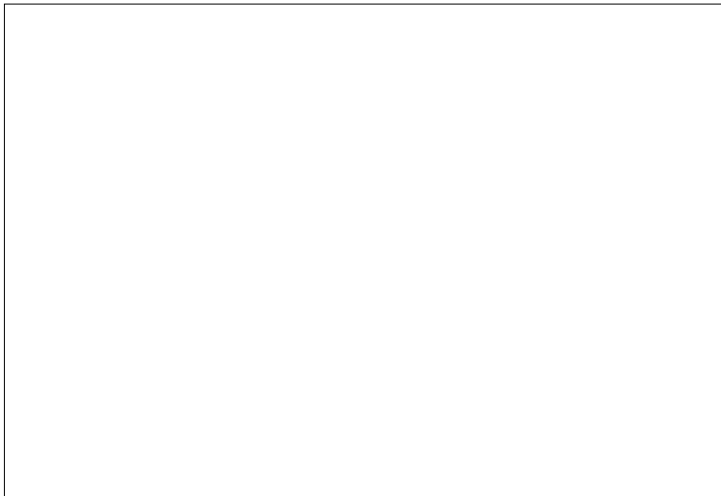
References



7g

Type photo (if available)
no photo

Selected specimen for analysis
CNCLEP00152625 *H. triguttaria* Canada



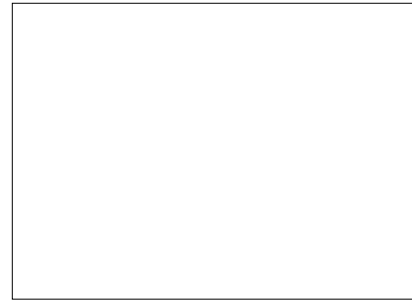
hete *Heterusia conduplicaria* Hübner *Heterusia* [Brazil (SE)]
tribe assignment confirmed

neo-nea

References

Type photo (if available)

Hübner illustration *conduplicaria*



7g

Selected specimen for analysis

EO0908 *H. conduplicaria* Brazil (EO)



hete *Heterusia conduplicaria* Hübner *Heterusia* [Brazil (SE)]

tribe assignment confirmed

neo-nea

References

no types *quadruplicaria* Geyer, 1832 NHM Brazil



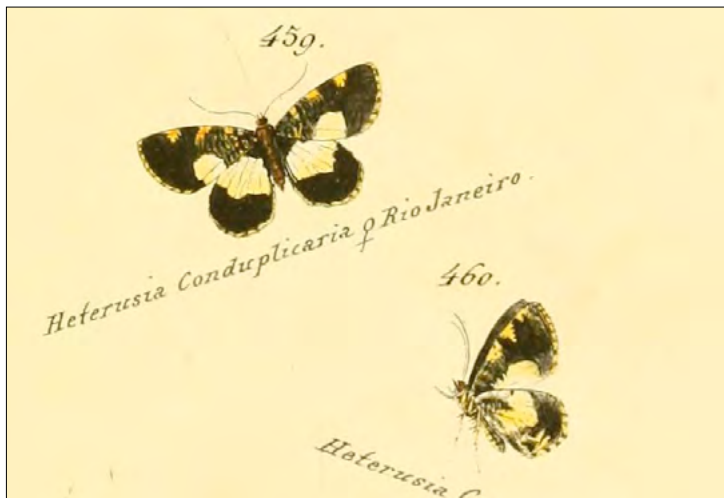
8 g

Type photo (if available)

Hübner illustration *conduplicaria*

Selected specimen for analysis

EO0907 *H. quadruplicaria*



no photo available

tribe *Hoplosauris heliconoides* Butler *Hoplosauris* Chile
tribe assignment confirmed

austral

References

Parra LE, Jimenez-Urrutia MC, Zamora-Manzur C
(2009) Zootaxa 1989: 39–54

no photo *mabillei*



7g

Type photo (if available)

type *heliconoides* NHM



Selected specimen for analysis

EO1429 *Hoplosauris mabillei* Chile (EO)



mela *Horisme* nr *fusconotata*
assignment to *Horisme* doubtful

beyond

References

Horisme tersata Europe



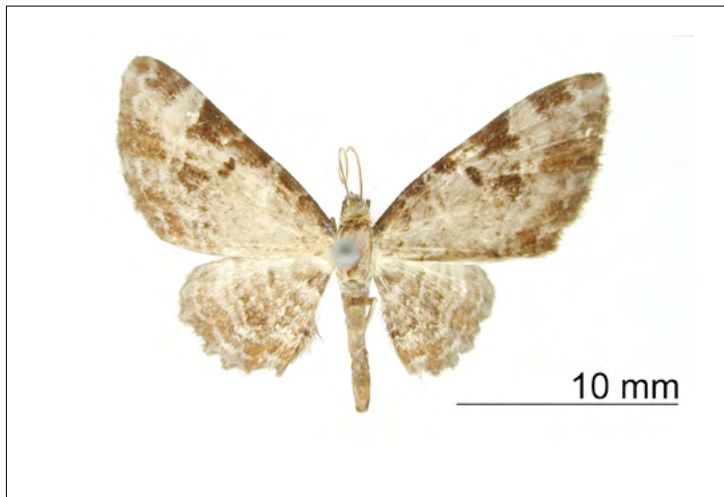
needed

Type photo (if available)

type *fusconotata* Dognin USNM

Selected specimen for analysis

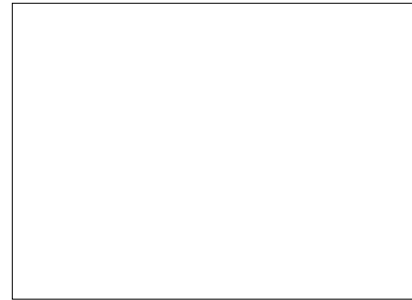
ID 16200 *H. nr fusconotata* (#2137) Ecuador



hydr *Hydriomena furcata* (syn *elutata*) Hübner *Geometra* Europe

beyond

References



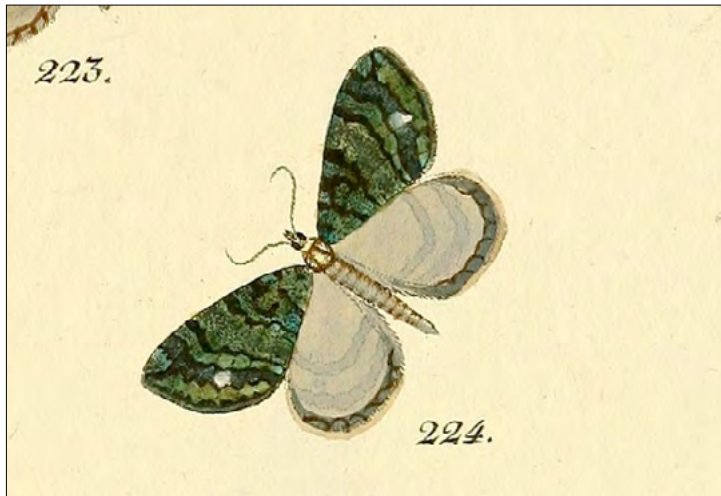
6 g

Type photo (if available)

Hübner illustration *elutata*

Selected specimen for analysis

EO1279 *H. furcata* Estonia (EO)



hydr *Hydriomena elutata* Hübner (syn of *furcata* Thunberg) *Geometra* Europe
tribe assignment confirmed

beyond

References



8 g

Type photo (if available)

Hübner illustration *elutata*

Selected specimen for analysis

EO0032 *H. impluviata* Estonia (EO)

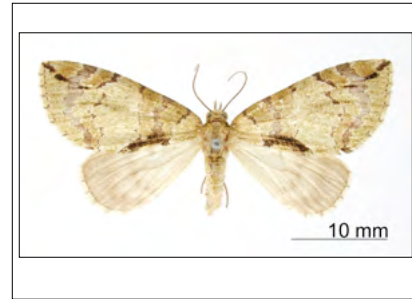


hydr *Hydriomena elutata* Hübner (syn of *furcata* Thunberg) *Geometra* Europe
tribe assignment confirmed

beyond

References

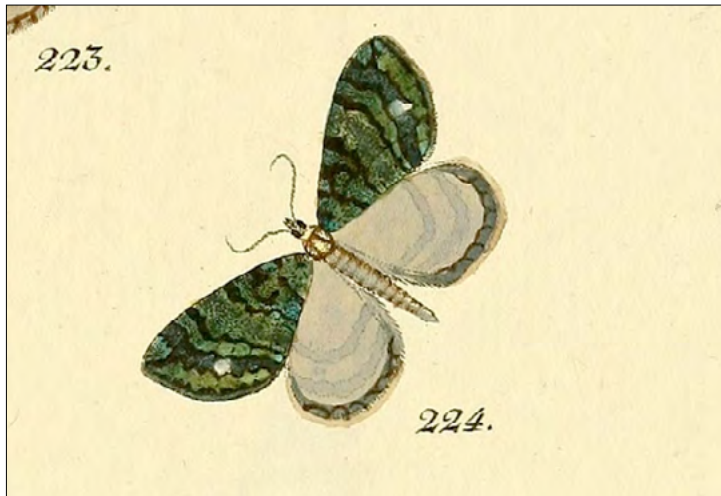
type *H. furinae* Schaus, 1912 USNM Costa Rica



5 g

Type photo (if available)

Hübner illustration *elutata*



Selected specimen for analysis

EO0734 *H. furinae* Costa Rica (EO)



UN > tric *Isosauris hastigera* Butler (syn of *cymatophora* Felder & Rogenhofer, 1875) *Oporabia* Chile austral transferred to Trichopterygini

References

Type photo (if available)

type *hastigera* NHM



type *cinerea* Felder & Rogenhofer, 1875 NHM



4 g

Selected specimen for analysis

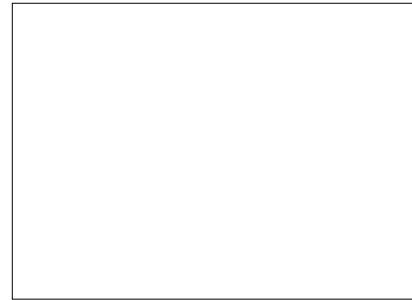
bo_chi_387 *I. cymatophora* Chile (from DB)



tribe *Lagynopteryx valdiviana* Berg (syn of *botulata* Felder & Rogenhofer) *Lagynopteryx* [Chile]
tribe assignment confirmed

austral

References



4 g

Type photo (if available)
type *botulata* NHM



Selected specimen for analysis
Ch-Geo-0006 (male) *L. botulata* Chile (from DB)



tribe *Lagynopteryx valdiviana* Berg (syn of *botulata* Felder & Rogenhofer) *Lagynopteryx* [Chile]
tribe assignment confirmed

austral

References



3 g

Type photo (if available)

type *chilensis* Butler NHM, syn of *botulata*



Selected specimen for analysis

bo_chi_219 (female) *L. moesta* Chile (from DB)



tribe *Llampidken valdiviana* Parra & Santos-Salas *Llampidken* Chile monobasic
tribe assignment confirmed

neo

References

Parra LE, Santos-Salas CP (1992) Boln Soc Biol. Concepción 63: 151–156

Parra LE et al. (2017) Gayana 81:64–99



9 g

Type photo (if available)

type *moesta* Butler NHM Chile

Selected specimen for analysis

bo_chi_002 *L. moesta* Chile (DB)



oper *Malacodea regelaria* Tengström, 1869 *Malacodea* [Finland]: Kittila

hol

References

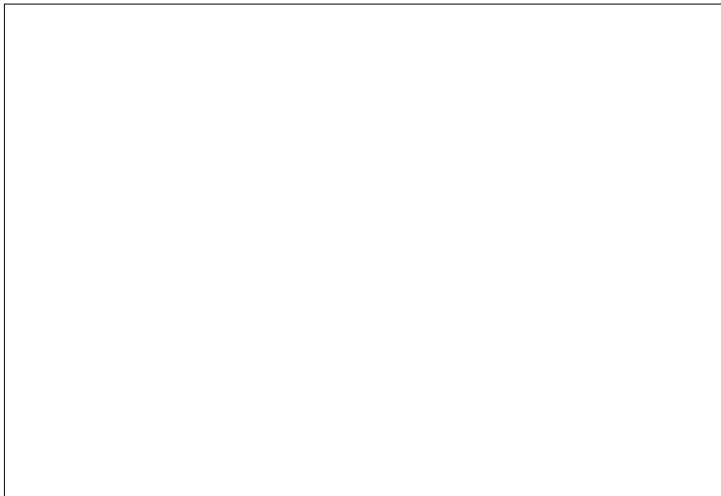
no photo



8 g

Type photo (if available)

no photo



Selected specimen for analysis

EO1137 *M. pulchraria* USA (EO)



UN > psal "Monarcha" – no published reference found – Felder & Rogenhofer, 1875?

neo

assigned to new tribe Psaliadini

see Strutzenberger et al. (submitted): transfer to *Alydda*

References

sister in phylogeny: "*Psaliodes*" *picta*



3 g

Type photo (if available)

type *magicaria* NHM

Selected specimen for analysis

ID 55841 "*Monarcha*" *magicaria* (#3284) Ecuador



UN > pter *Obila dispar* Walker (syn of *floccosaria* Walker)
genus transferred to new tribe Pterocyphini

type *floccosaria* NHM

Obila Honduras

neo-nea

type *umbrinata* Guenée NHM

References



7 g

Type photo (if available)

type *dispar* NHM

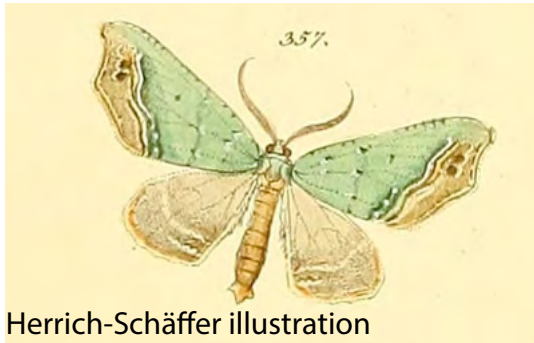
Selected specimen for analysis

ID 18928 = EO1157 *O. umbrinata* (#951) Ecuador



euph *Oligopleura malachitaria* Herrich-Schäffer *Oligopleura* Brazil
tribe assignment confirmed

neo



Herrich-Schäffer illustration

Type photo (if available)

no type *malachitaria* NHM



7g

Selected specimen for analysis

Pe-Geo-0012 *O. malachitaria* Peru (from RM)



euph *Oligopleura malachitaria* Herrich-Schäffer *Oligopleura* Brazil
tribe assignment confirmed

neo

References

type *aulaeata* Felder & Rogenhofer, 1875 NHM



5 g

Type photo (if available)

type *dispar* NHM



Selected specimen for analysis

EO0855 *O. nr aulaeata* Bolivia (EO)



euph *Operophtera brumata* Linnaeus, 1758 *Operophtera*

hol

References

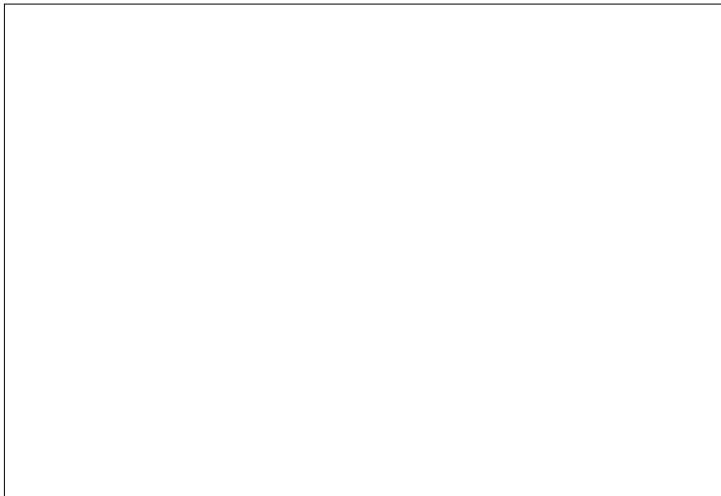
no photo



7g

Type photo (if available)

no photo



Selected specimen for analysis

EO1138 *O. bruceata* USA (EO)



xant *Orthonama lignata* Hübner (syn of *vittata* Borkhausen) *Geometra* Europe
compare type *Orthonama inflexa* Dognin, 1914 **comb. n.** (from *Scotopteryx*)

beyond

References



morphology

Type photo (if available)

Hübner illustration *lignata*



Selected specimen for analysis

type *O. inflexa* USNM



xant *Orthonama lignata* Hübner (syn of *vittata* Borkhausen) *Geometra* Europe

beyond

tribe assignment confirmed

type *dicymanta* Prout, 1929 NHM

type *coneja* Dognin, 1896 USNM Ecuador

References



6 g

Type photo (if available)

Selected specimen for analysis

Hübner illustration *lignata*

ID 18270 = EO1179 *O. coneja* (#442) Ecuador



xant *Orthonama lignata* Hübner (syn of *vittata* Borkhausen) *Geometra* Europe
tribe assignment confirmed

beyond

References

type *plemyrata* F & R, 1875 Chile



5 g

Type photo (if available)

Hübner illustration *lignata*



Selected specimen for analysis

GB_Geo_068 *O. nr plemyrata* Argentina (from ZSM)



xant *Orthonama lignata* Hübner (syn of *vittata* Borkhausen) *Geometra* Europe
tribe assignment confirmed

beyond

References



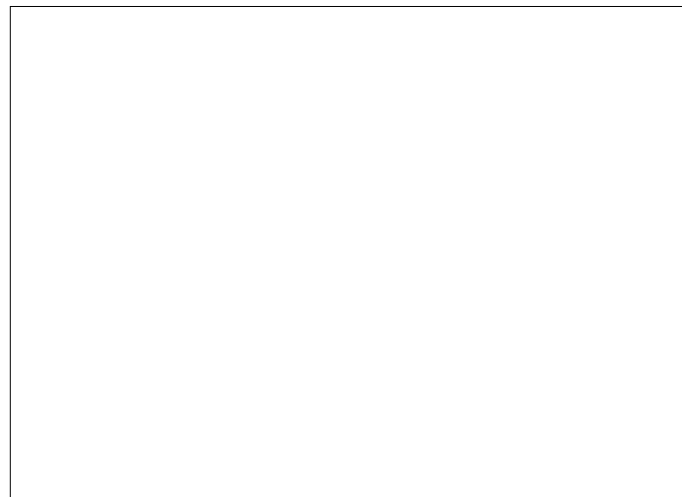
8 g

Type photo (if available)

Hübner illustration *lignata*

Selected specimen for analysis

EO1148 *Orthonama* sp no photo



tric *Parapachrophylla claudiae* Parra *Parapachrophylla* [Chile]

austral

Parra LE (1991) Gayana Zool. 55(2) :145-199

References

Wing patterns of *Parapachrophylla*, *Pachrophylla* and *Butleriana* are strikingly similar (see type photo *Butleriana* right)

Type photo (if available)
paratype *claudiae* NHM



Parra illustration *claudiae* holotype?



4 g

Selected specimen for analysis
bo_chi_331 *P. claudiae*? Chile (from DB)

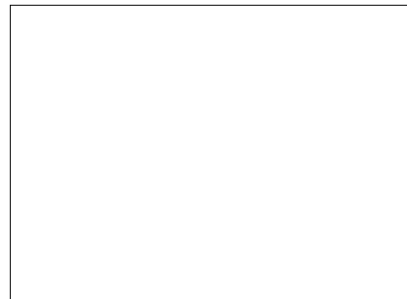


peri *Perizoma albulata* [Denis & Schiffermüller] *Geometra* [Austria]

All New World species are excluded from *Perizoma*

Old World

References



8 g

Type photo (if available)

no type *albulata* (Europe)

Selected specimen for analysis

EO0048 *P. albulata* Estonia (EO)



Sö Limängen 27.VII 1969
P-E Böklin



peri *Perizoma albulata* [Denis & Schiffermüller] *Geometra* [Austria]

Old World

References

no photo *affinitata* Stephens, 1834



5 g

Type photo (if available)

no type *albulata* (Europe)

Selected specimen for analysis

MM10117 *P. affinitata*



no photo available

UN > psal *Plemyriopsis distincta* Walker (syn of *facetata* Guenée) *Erosia* Brazil
transferred to new tribe Psaliadini

neo

References



7g

Type photo (if available)

type *facetata* NHM (Brazil)



Selected specimen for analysis

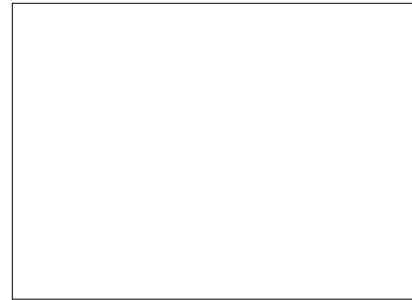
ID 22507 *P. nr facetata* (#1026) Ecuador



UN > ereb *Priapodes longipalpata* Thierry-Mieg *Spargania* Peru
see *Erebochlora*, only difference is the length of the palps
Priapodes **syn. n.** of *Erebochlora* in new tribe Erebochlorini

neo

References



8 g

Type photo (if available)

type *longipalpata* USNM

Selected specimen for analysis

GB-Geo-037 *E. longipalpata* Colombia (from ZSM)



peri? > psal *Psaliodes flavagata* Guenée *Psaliodes* Brazil (type in Paris)

neo-nea

type genus of new tribe Psaliadini

References

type *planiplaga* Warren, 1904 NHM Costa Rica



6 g

Type photo (if available)

no types *flavagata* NHM

Selected specimen for analysis

gb-CR-S-1708 *P. nr planiplaga* (#1708) Costa Rica



peri? > psal *Psaliodes flavagata* Guenée *Psaliodes* Brazil (type in Paris)

neo-nea

type genus of new tribe Psaliadini

References

type *prunicolor* Warren, 1904 NHM Peru



5 g

Type photo (if available)

no types *flavagata* NHM

Selected specimen for analysis

ID 22614 *P. prunicolor* (#2502) Ecuador



UN > stam *Pseudopsodos gemina* Maassen *Psodos* Ecuador (central)
assigned to Stamnodini

neo

References

type *fissilata* NHM (syn of *chrysopterata* Snellen)



7g

Type photo (if available)

type MfN Berlin, photo: W. Mey

Selected specimen for analysis

GB-Geo-042 *P. chrysopterata* Colombia (from ZSM)



UN > pter *Pterocypha gibbosaria* Herrich-Schäffer *Pterocypha* Brazil
type genus and type species of new tribe Pterocyphini

neo-nea

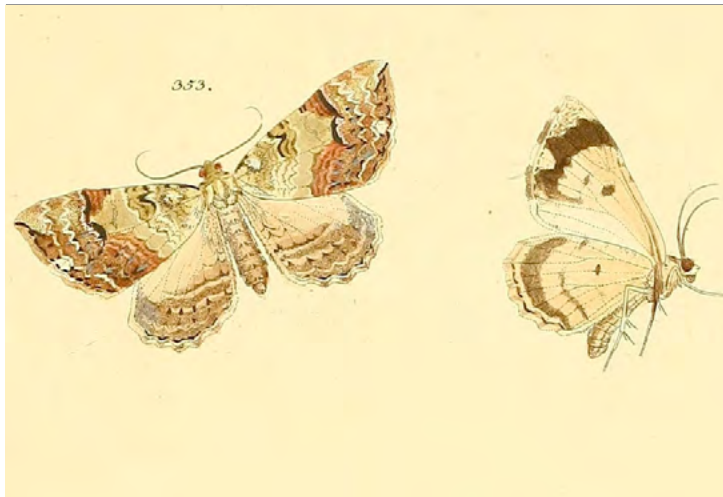
References



7g

Type photo (if available)

Herrich-Schäffer illustration *gibbosaria*



Selected specimen for analysis

Br-Geo-059 *P. gibbosaria* (AM#822) Brazil



UN > pter *Pterocypha gibbosaria* Herrich-Schäffer *Pterocypha* Brazil
type genus of new tribe Pterocyphini

neo-nea

no photo



4 g

References

Type photo (if available)

Herrich-Schäffer illustration *gibbosaria*



Selected specimen for analysis

CNCLEP00152623 *P. defensata* USA

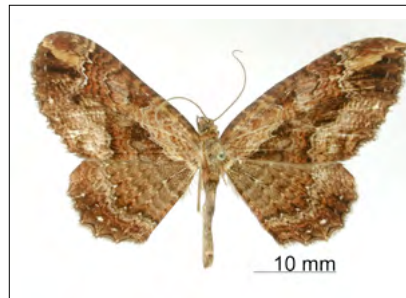


UN *Ptychorrhoe rayada* Dognin *Opisogonia* [Ecuador (S)]
provisionally excluded from genus, related to Euphyiini

neo

References

type *confirmata* Dognin, 1892 USNM Ecuador



8 g

Type photo (if available)
types *rayada* USNM

Selected specimen for analysis

ID 19827 *P. blosyrata confirmata* (#444) Ecuador



rheu *Rheumaptera hastata* ssp *nigrescens* Cockerell
specimen from Europe and S America group together

Melanippe England (N); Scotland

beyond

References



8 g

Type photo (if available)

no type *hastata* (photo M. Mutanen)



Selected specimen for analysis

EO0046 *R. hastata* Estonia (EO)



rheu *Rheumaptera hastata* ssp *nigrescens* Cockerell
groups with *R. hastata*

Melanippe England (N); Scotland

beyond

References

no type *cervinalis* Scopoli, 1763 ZSM



8 g

Type photo (if available)

no type *hastata* (photo M. Mutanen)



Selected specimen for analysis

EO1299 *R. cervinalis* Europe

no photo available

rheu *Rheumaptera hastata* ssp *nigrescens* Cockerell

species: trip > rheu

Rheumaptera pallidivittata **comb. n.** (from *Triphosa*)

References

Melanippe England (N); Scotland

beyond

no type *pallidivittata* Snellen, 1874 NHM Colombia



7g

Type photo (if available)

no type *hastata* (photo M. Mutanen)



Selected specimen for analysis

ID 19311 *R. nr pallidivittata* (#2457) Ecuador



rheu *Rheumaptera hastata* ssp *nigrescens* Cockerell

species: trip > rheu

Rheumaptera affirmata **comb. n.** (from *Triphosa*)

References

Type photo (if available)

no type *hastata* (photo M. Mutanen)



Melanippe England (N); Scotland

beyond

type *affirmata* Guenée NHM



8 g

Selected specimen for analysis

ID 19426 *R. affirmata* (#440) Ecuador



UN > rhin *Rhinura variegata* Warren (syn of *populonia* Druce) *Plemyriopsis* Panama

neo

type genus of new tribe Rhinurini

References

type *populonia* Druce, 1863 NHM Panama



7g

Type photo (if available)

type *variegata* NHM

Selected specimen for analysis

ID 19245= EO1166 *R. nr populonia* (#2153) Ecuador



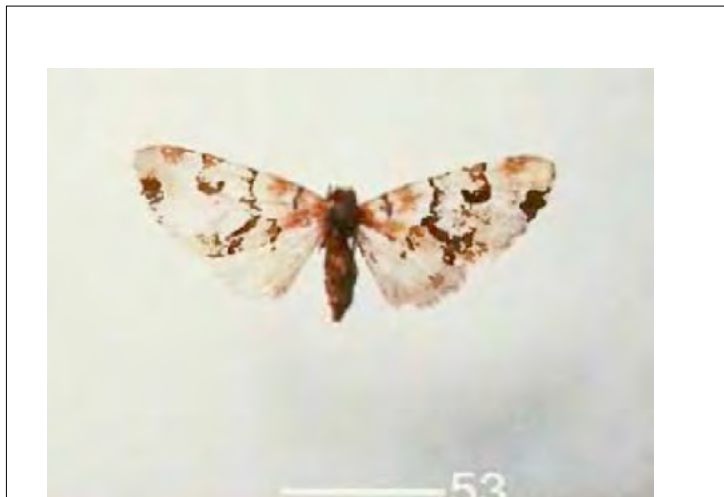
tribe *Rhopalodes castniata* Guenée *Rhopalodes* Brazil
tribe assignment confirmed

austral-neo

References

Type photo (if available)

Parra & Santos-Salas figure *R. castniata* – type?



type *concinna* Dognin, 1911 USNM (Ecuador)



5 g

Selected specimen for analysis

ID 22656 *R. concinna* (#712) Ecuador



UN > stam *Scordyliodes preciosa* Maassen *Scordylia* Peru (N) deposit unknown
genus transferred to Stamnodini

neo

References

type *tessellata* Warren, 1904 NHM Peru



6 g

Type photo (if available)

preciosa Maassen type MfN (photo W. Mey)



Selected specimen for analysis

GB-Geo-003 *S. tessellata* Ecuador (from ZSM)



scot *Scotopteryx tenebraria* Hübner (syn of *coarctaria* [Denis & Schiffermüller] *Geometra* Europe
own clade

Old World

References

no photo *chenopodiata* L. (LSL)



8 g

Type photo (if available)

Hübner illustration *tenebraria*



Selected specimen for analysis

EO0334 *S. chenopodiata* Estonia (EO)



UN > psal *Smileuma salediza* Dognin *Cidaria* [Ecuador (S)]
assigned to new tribe Psaliadini

neo

References

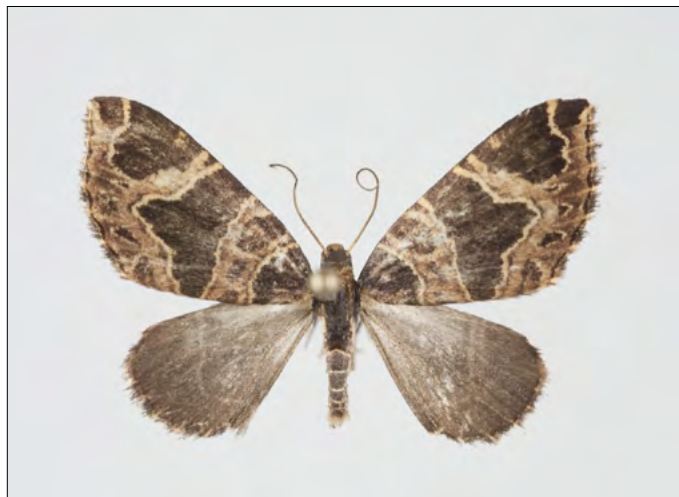
type *plagifracta* Prout, 1910 NHM Colombia



7g

Type photo (if available)
type *salediza* USNM

Selected specimen for analysis
ID 18984 *S. nr plagifracta* (#2747) Ecuador



UN > psal *Smileuma salediza* Dognin *Cidaria* [Ecuador (S)]

assigned to new tribe Psaliadini

Smileuma rhombifascia Warren **comb. n.** (from *Perizoma*)

References

morphology

Type photo (if available)

type *salediza* USNM

Selected specimen for analysis

type *rhombifascia* Warren, 1905 NHM Peru



UN > psal *Smileuma salediza* Dognin *Cidaria* [Ecuador (S)]

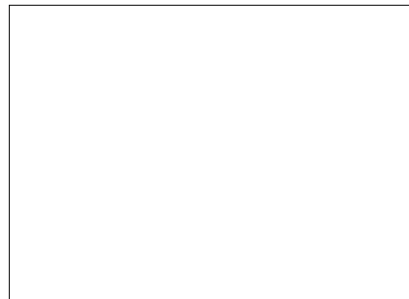
assigned to new tribe Psaliadini

Smileuma bogotata Walker **comb. n.** (from *Perizoma*)

References

Type photo (if available)

type *salediza* USNM



morphology

Selected specimen for analysis

type *bogotata* Walker, 1862 NHM Colombia



hydr > enna *Spargania magnoliata* Guenée *Spargania* Canada
Spargania group together in new tribe Ennadini

beyond

References

type *flavolimbarioides* Dognin, 1894 USNM Colomb.



8 g

Type photo (if available)

no type *placidata* Walker (syn of *magnoliata*) NHM

Selected specimen for analysis

ID 19329 = EO1167 *S. flavolimbarioides* (#454) Ec.



hydr > enna *Spargania magnoliata* Guenée *Spargania* Canada
Spargania group together in new tribe Ennadini

beyond

References

type *narangilla* Dognin, 1893 NHM Ecuador



7g

Type photo (if available)

no type *placidata* Walker (syn of *magnoliata*) NHM

Selected specimen for analysis

ID 17797 = EO1152 *S. nr narangilla* (#2513) Ecu.



hydr > enna *Spargania magnoliata* Guenée *Spargania* Canada

species: "Perizoma" > *Spargania*

Spargania zenobia (Thierry-Mieg) **comb. n.**

References

beyond

type *zenobia* Thierry-Mieg, 1893 USNM Ecuador



8 g

Type photo (if available)

type *placidata* Walker (syn of *magnoliata*) NHM

Selected specimen for analysis

ID 15055 = EO1147 *S. zenobia* (#487) Ecuador



hydr > enna *Spargania magnoliata* Guenée *Spargania* Canada

species: "*Perizoma*" > *Spargania*

Spargania coeruleopicta (Warren, 1908) **comb. n.**

beyond

References



morphology

Type photo (if available)

type *placidata* Walker (syn of *magnoliata*) NHM

Selected specimen for analysis

type *coeruleopicta* Warren NHM Peru



hydr > enna *Spargania magnoliata* Guenée *Spargania* Canada

species: "Perizoma" > *Spargania*

Spargania emmelsiata (Snellen, 1874) **comb. n.**

beyond

References



morphology

Type photo (if available)

type *placidata* Walker (syn of *magnoliata*) NHM

Selected specimen for analysis

type *nigrifasciata* Warren NHM (syn of *emmelesiata*)

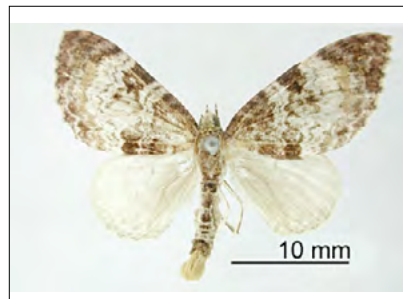


hydr > enna *Spargania magnoliata* Guenée *Spargania* Canada
Spargania group together in new tribe Ennadini

beyond

References

cenizata type Dognin, 1893 USNM Ecuador



7g

Type photo (if available)

type *placidata* Walker (syn of *magnoliata*) NHM

Selected specimen for analysis

ID 15094 = EO1149 *S. cenizata* (#2516) Ecuador



UN > hete *Spiloctenia whitelyi* ssp *ocellata* Warren *Spiloctenia* [Bolivia]
genus assigned to Heterusiini

neo

References

Type photo (if available)
type *whitelyi* Druce NHM



6 g

Selected specimen for analysis
TAMZ0175876 *S. nr whitelyi* Bolivia (from AL)

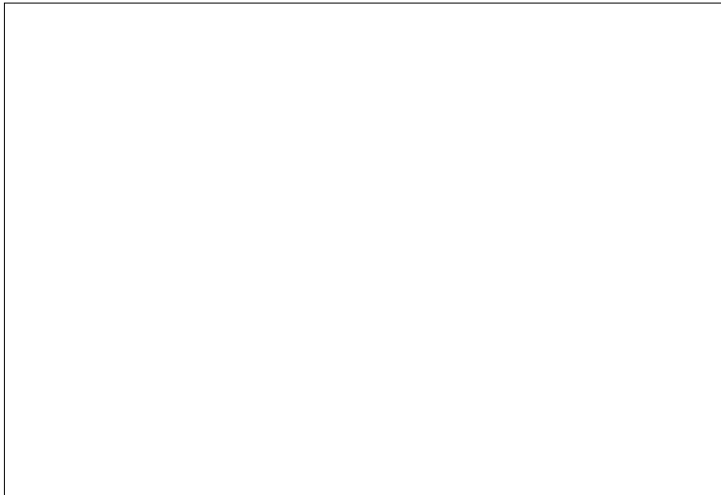


stam *Stamnodes pauperaria* Eversmann *Fidonia* [Russia]
type genus and type species of Stannodini

pal

References

Type photo (if available)
no photo



8 g

Selected specimen for analysis
EO0887 *S. pauperaria* Kyrgyzstan (EO)



stam *Stamnodes pauperaria* Eversmann *Fidonia* [Russia]
type genus of *Stamnodini*

pal

References

no type *topazata* Strecker, 1899 NHM USA



7g

Type photo (if available)

no photo

Selected specimen for analysis

EO0521 *S. topazata* Canada (EO)



stam *Synneuria virgellata* Mabille (syn of *uniformata* Berg)
Synneuria **stat. rev.** , previously a synonym of *Stamnodes*

Synneuria Chile

austral-neo

References

Benitez HA, Parra LE, Sepulveda E, Sanzana MJ (2011)
Journal of the Entomological Research Society 13.1:
53-60 (not a taxonomic paper)

no type *triangularia* Bartlett-Calvert NHM Chile



7g

Type photo (if available)

no type *uniformata* NHM

Selected specimen for analysis

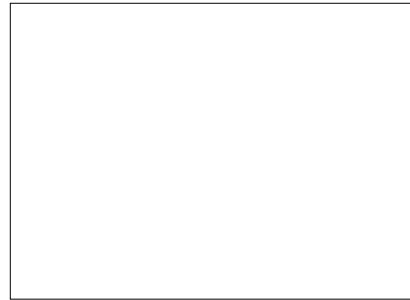
bo_chi_126 *S. triangularia* Chile (from DB)



UN > tric *Synpelurga corralensis* Butler *Synpelurga* Chile monobasic
genus assigned to Trichopterygini

austral

References



7g

Type photo (if available)
type *corralensis* NHM



Selected specimen for analysis
bo_chi_185 *S. corralensis* Chile (from DB)



asth > cida *Trichodezia albovittata* Guenee, [1858] *Odezia* USA, Canada
genus transferred to Cidariini

nea

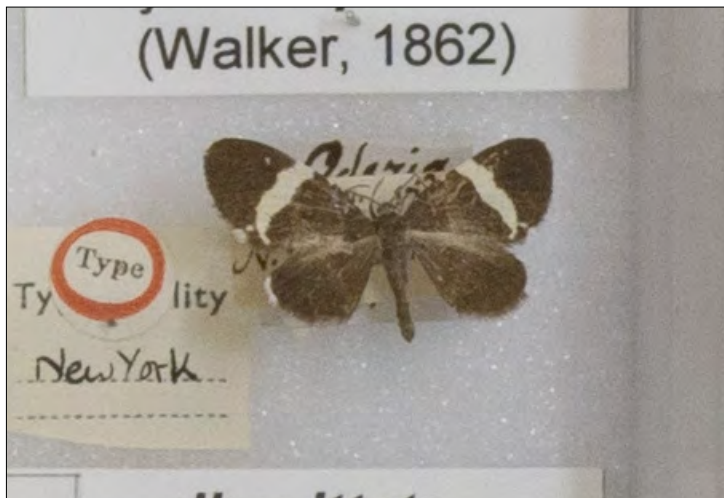
References



5 g

Type photo (if available)
type NHM

Selected specimen for analysis
CNCLEP00152624 *T. albovittata* Canada



trip *Triphosa dubitata* Linnaeus *Phalaena* (Geometra) Europe
sister to *Philereme* species, they form a clade with *Rheumpatera*

pal?

References



8 g

Type photo (if available)
no type *dubitata* (web)

Selected specimen for analysis
EO0888 *T. dubitata* Estonia (EO)



tribe *Triptila virescens* Philippi *Tomopteryx* [Chile]
tribe assignment confirmed

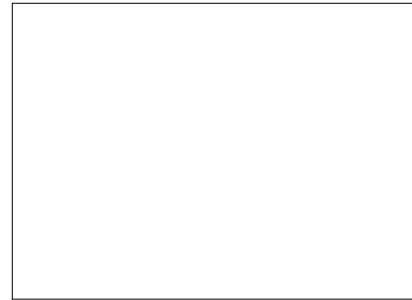
austral

References

Parra LE, Santos-Salas PL (1991) *Gayana Zool.* 55(4):
267–303

Type photo (if available)

Parra & Santos-Salas figure *T. virescens*



8 g

Selected specimen for analysis

bo_chi_082 *T. virescens* Chile (from DB)



tribe *Triptiloides laeta* Philippi *Tomopteryx* [Chile]
tribe assignment confirmed

References

Parra LE, Santos-Salas PL (1991) *Gayana Zool.* 55(4):
267–303

Type photo (if available)

Parra & Santos-Salas figure *T. laeta*



austral

no type *laeta* Philippi, 1873 ZSM Chile



5 g

not in tree

Selected specimen for analysis

Ch-Geo-0001 *Triptiloides laeta* Chile (from DB)



UN *Urocalpe nigriplaga* Warren *Urocalpe* [Peru (central)] monobasic
assigned to new tribe Rhinurini

neo

References



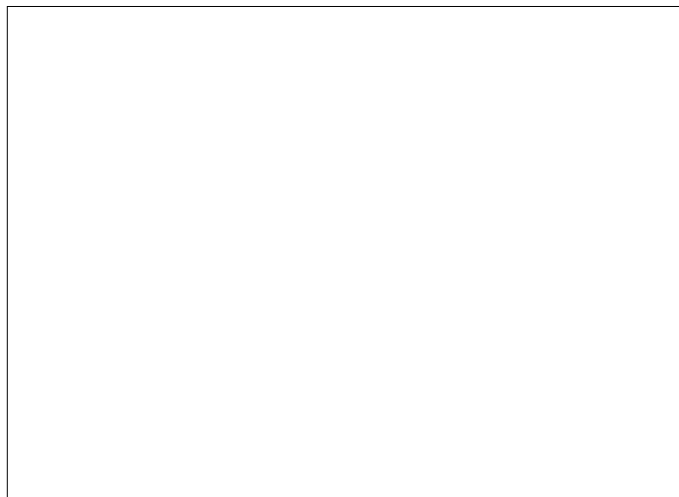
needed

Type photo (if available)

type *nigriplaga* NHM



Selected specimen for analysis
no specimen sequenced



tribe *Warrenaria martha* Butler *Oporabia* Chile monobasic
tribe assignment confirmed

austral

References



8 g

Type photo (if available)
type *martha* NHM



Selected specimen for analysis
EO1434 *Warrenaria martha?* Chile (EO)



xant *Xanthorhoe montanata* [Denis & Schiffermüller] *Geometra* [Austria]

beyond

References

Further European species analysed:

EO1297_Lar_Xanthorhoe_biriviata

EO1307_Lar_Xanthorhoe_spadicearia

EO1296_Lar_Xanthorhoe_ferrugata



8 g

Type photo (if available)

no type *montanata* (web photo)

Selected specimen for analysis

EO0049 *X. montanata* Estonia (EO)



xant *Xanthorhoe montanata* [Denis & Schiffermüller]
clusters with other *Xanthorhoe*

Geometra [Austria]

beyond

References

type *discataria* Schaus, 1912 USNM Costa Rica



Type photo (if available)
no type *montanata* (web photo)

Selected specimen for analysis
CR 1238 = EO1175 *X. discataria* (#1238) Costa Rica



xant > cata *Zenopleps lignicolorata* Hulst, 1874 California
genus transferred to Cataclysmiini

nea

References

Type photo (if available)
no types NHM



6 g

Selected specimen for analysis
CNC538278 *Z. lignicolorata* Canada



**Analyzed Larentiinae taxa
without
generic assignment**

(alphabetical order of tribes)

lare > enna "*Larentia*" nr *profugaria* Herrich-Schäffer, 1855 *Larentia* North America

neo

species excluded from *Larentia*

groups in new tribe Ennadini, possibly new genus

References



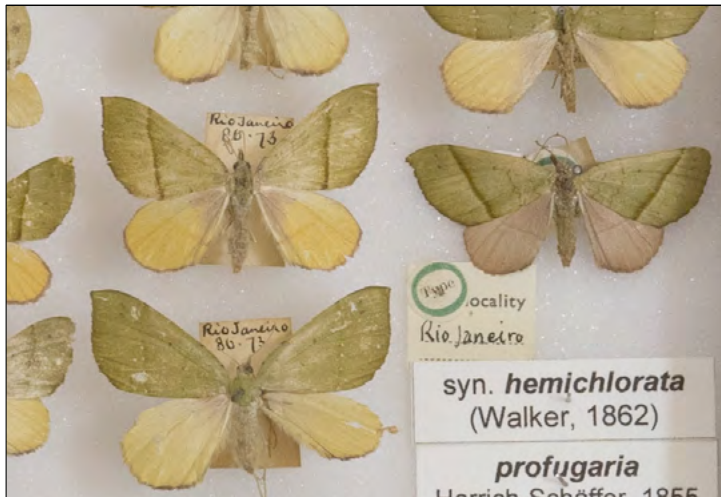
7g

Type photo (if available)

type *hemichlorata* Walker Brazil (syn of *profugaria*)

Selected specimen for analysis

Br-Geo-0047 "L." nr *profugaria* Brazil (from AM)



UN > enna "*Larentia*" *macerata* Felder & Rogenhofer, 1875 *Heterusia?* Chile
groups with *Ennada* and "*Hagnagora*" *mesenata*
in new tribe Ennadini, possibly new genus

austral

References



6 g

Type photo (if available)
syntype *macerata* NHM



Selected specimen for analysis
Ch-Geo-0007 "*Larentia*" *macerata* Chile (from DB)



UN > enna "*Hagnagora*" *mesenata* Felder & Rogenhofer, 1875 *Heterusia* Chile

austral

groups in new tribe Ennadini
possibly new genus

References



5 g

Type photo (if available)
type *mesenata* NHM

Selected specimen for analysis
Ch-Geo-0003 *H. mesenata* Chile (from DB)



cida > enna "Nebula" *ceres* Butler, 1882 *Cidaria* Chile
All American species excluded from *Nebula*
groups in new tribe Ennadini

References

Type photo (if available)

no type *Nebula nebulata* ZSM



austral

syntype *ceres* Butler, 1882 NHM Chile



8 g

Selected specimen for analysis

ZSMnDNA018 "Nebula" *ceres* Chile (from ZSM)



UN > epir "*Euphyia*" *sturnularia* Herrich-Schäffer, [1855] *Cidaria* Brazil
species transferred to Epirrhoini, excluded from *Euphyia*
possibly new genus

neo

References



6 g

Type photo (if available)
no type Costa Rica

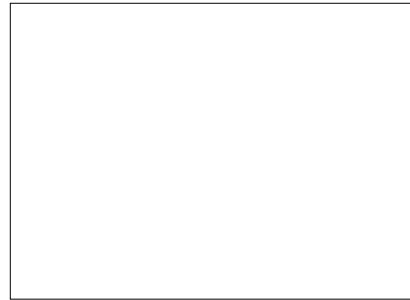
Selected specimen for analysis
ID 18276 = EO1180 "*E.*" *sturnularia* (#1504) Costa R.



UN "*Perizoma*" *vireonaria* Maassen, 1890 Ecuador
vireonaria clusters in unnamed clade, excluded from *Perizoma*

neo

References



8 g

Type photo (if available)
no type *vireonaria* NHM

Selected specimen for analysis
ID 19155 "*P.*" *vireonaria* (#2504) Ecuador



UN *Genus* sp
groups in unnamed clade
possibly new genus

References

neo



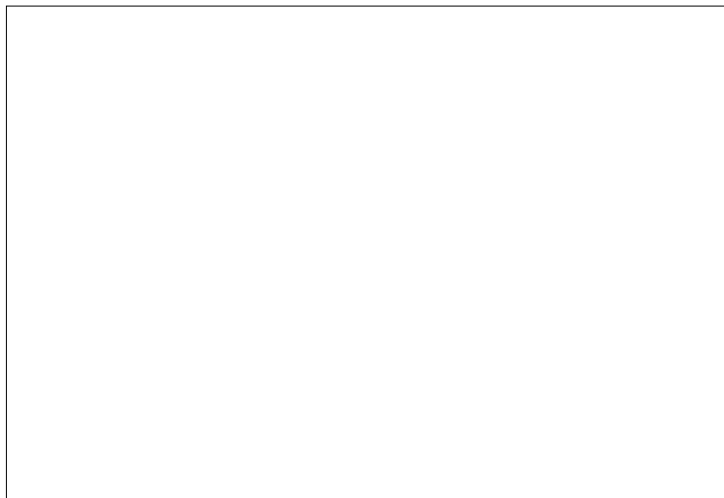
9 g

Type photo (if available)

x

Selected specimen for analysis

Pe-Geo-0261 *Genus* sp Peru



peri? > psal "Psaliodes" *picta* Warren, 1904 *Psaliodes* Peru
does not group together with *P. planiplaga*, species excluded from *Psaliodes*
see Strutzenberger et al. (submitted): transfer to *Alydda* Walker

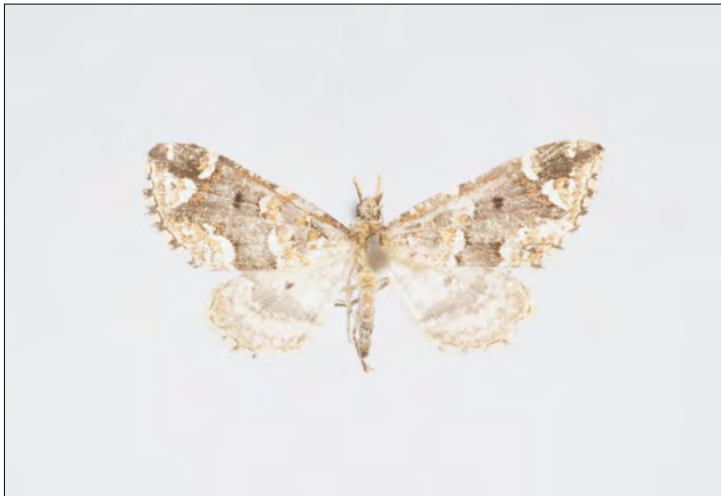
neo

References

8 g

Type photo (if available)

type *picta* NHM



Selected specimen for analysis

ID 19333 "*Psaliodes*" *picta* (#2826) Ecuador



UN "*Perizoma*" *amplata* Warren, 1904 Peru
in unnamed clade, ***amplata*-group**

neo

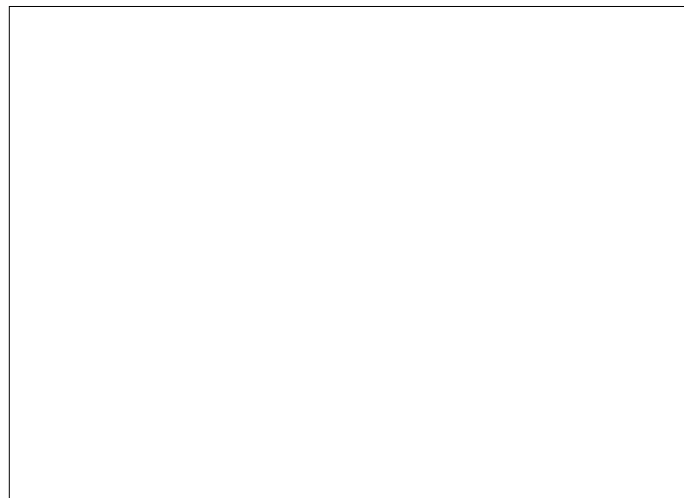
References



morphology

Type photo (if available)
type *amplata* NHM

Selected specimen for analysis



peri? > UN "*Perizoma*" *cretinotata* Bastelberger, 1907 (*Perizoma*) *Peru*
in unnamed clade, *amplata*-group

neo

References



8 g

Type photo (if available)

type *curvisignata* Warren (Peru), syn of *cretinotata*



Selected specimen for analysis

ID 49733 "*P.*" nr *cretinotata* (#2752) Ecuador



UN "*Perizoma*" nr *cyrtozona* Prout, 1922 Colombia
in unnamed clade

neo

References

Type photo (if available)
type *cyrtozona* NHM



6g

Selected specimen for analysis

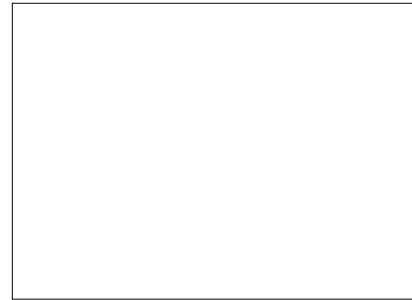
ID 49786 = EO1172 "*P.*" nr *cyrtozona* (#2771) Ecu.



UN "*Perizoma*" *mirifica* Warren, 1904 Peru
in unnamed clade, *amplata*-group

neo

References



morphology

Type photo (if available)
type *amplata* NHM



Selected specimen for analysis
type *mirifica* NHM

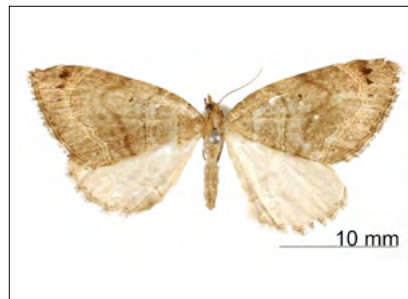


UN "*Perizoma*" nr *versatilis* Dognin, 1911 Colombia
in unnamed clade, *amplata*-group

neo

References

type *versatilis* Dognin USNM



7 g

Type photo (if available)
type *amplata* NHM

Selected specimen for analysis

ID 25104 "*P.*" nr *versatilis* (#2765) Ecuador



stam *Genus* sp
assigned to Stamnodini
possibly new genus

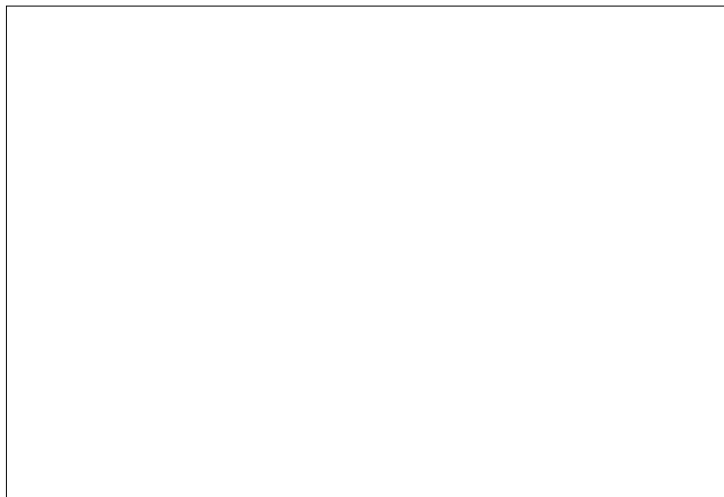
References

neo



8 g

Type photo (if available)



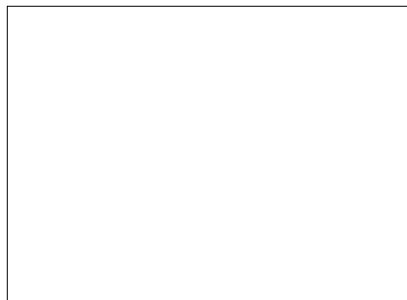
Selected specimen for analysis
ID 15018 *Genus* sp (#2091) Ecuador



stam *Genus* sp
assigned to Stamnodini
possibly new genus

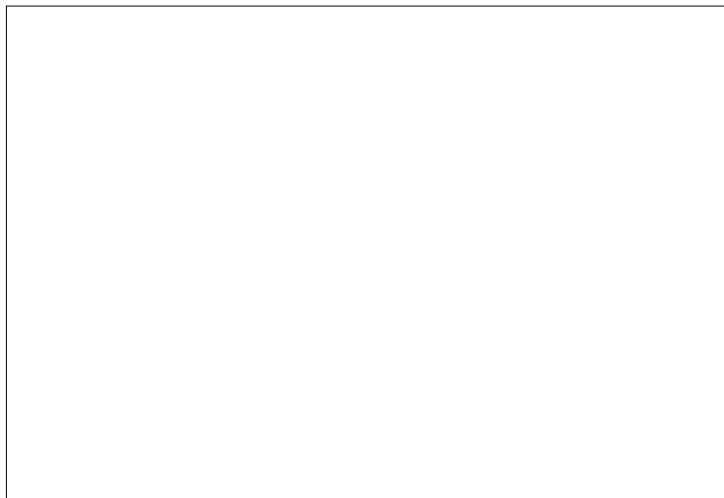
References

neo



8 g

Type photo (if available)



Selected specimen for analysis
ID 16286 *Genus* sp (#2450) Ecuador



UN > stam "*Anticlea*" *oculisigna* Prout, 1923 *Larentia* Patagonia

Anticlea derivata Denis & Schiffermüller *Geometra* Austria

four Chilean taxa provisionally excluded from *Anticlea*

References

BOLD: next match < 90%

Type photo (if available)

no type *A. derivata* (web)



austral

type NHM



5 g

Selected specimen for analysis

bo_chi_344 "*Anticlea*" *oculisigna* Chile (from DB)



tric *Genus* sp
sister to *Anomozela*
possibly new genus

References

austral

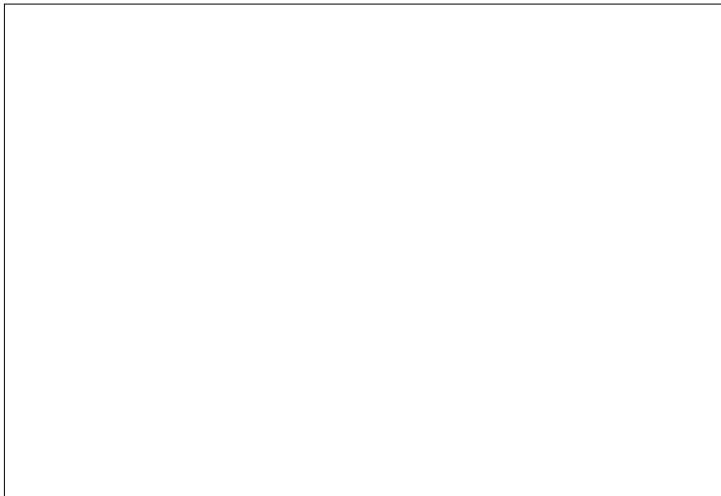


6 g

Type photo (if available)

Selected specimen for analysis

bo_chi_248 *Genus* Chile (from DB)



euph > psal "*Euphyia*" *psyroides* Warren, 1907 Peru

"*Euphyia*" *psyroides* Warren, 1907 **stat. rev.**, revived from synonymy with *psyra* Druce, 1893

type *psyra* Druce, 1893 Guatem. type *psyroides* Warren, 1907 Peru

neo



6 g

morphology

Type photo (if available)

type "*Epirrhoe*" *psyroides* Herbulot, 1988 ZSM

Selected specimen for analysis

ID 25150 = EO1171 "*Euphyia*" *psyroides* Warren (#2471) Ecuador



euph > psal "*Euphyia*" nr *flavilucens* Warren, 1905 *Anapalta* Peru
excluded from *Euphyia*
probably in same clade "*Euphyia*" *psyra* Druce

References

Type photo (if available)
type *flavilucens* NHM



not in tree

morphology

Selected specimen for analysis
ID 19047 = EO1158 "*E.*" nr *flavilucens* (#2472) Ecu.



UN "Nebula" nr *macidata* Felder & Rogenhofer, 1875 Chile
groups near "*Nebula*" *cynthia* in unnamed clade
excluded from *Nebula*, possibly new genus

austral

References



5 g

Type photo (if available)
type *macidata* NHM



Selected specimen for analysis
ZSMnDNA058 = EO1432 "N." nr *macidata* Chile
(from ZSM)



UN "*Nebula*" *cynthia* Butler, 1882 *Cidaria* Chile groups near "*Nebula*" nr *macidata* in unnamed clade excluded from *Nebula*, possibly new genus

austral

References



8 g

Type photo (if available)

type *cynthia* NHM

Selected specimen for analysis

EO1399 "*Nebula*" *cynthia* Chile (EO)



UN *Genus* sp
in unnamed clade with "*Heterusia*" *plagia*

neo

References

BOLD: next public match 92%

dry 2012

same barcode: ID 15880 Ecuador



6 g

Type photo (if available)

GB-Geo-014 ZSM Ecuador, same sp? Ecuador 2012



Selected specimen for analysis

ID 18133 = EO1178 *Genus* sp (#481) Ecuador

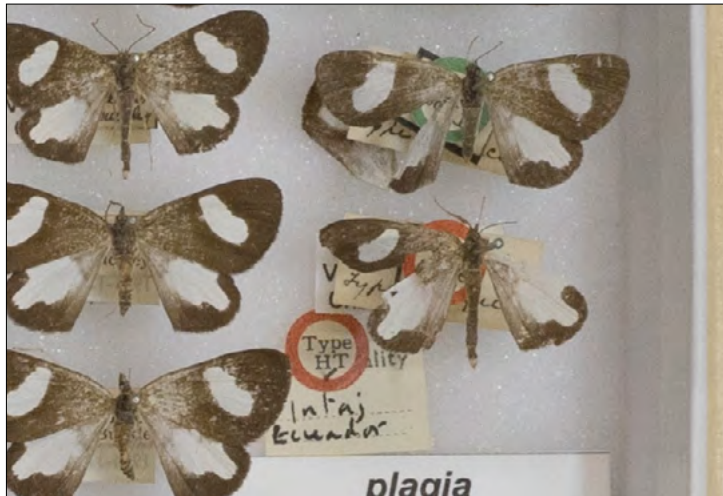


UN *"Heterusia" plagia* Druce, 1893 *Trochiodes* Ecuador
"Heterusia" plagia excluded from *Heterusia*
in unnamed clade

References

Type photo (if available)

type NHM



neo

type *plagia* Druce, 1893



6 g

Selected specimen for analysis

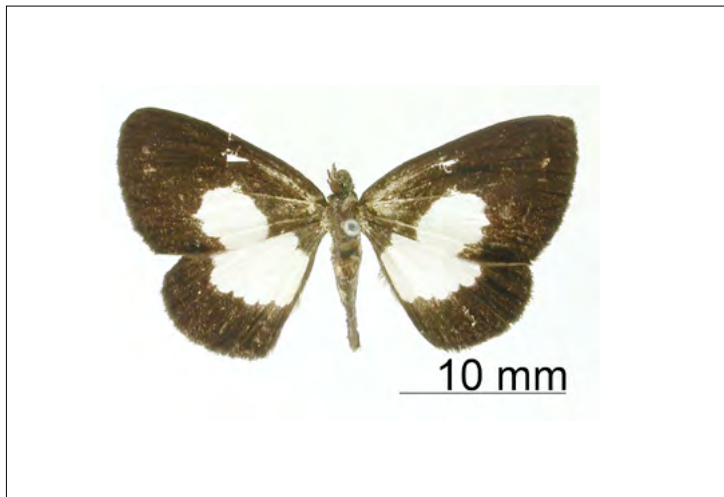
ID 56095 *"Heterusia" plagia* (#1051) Ecuador



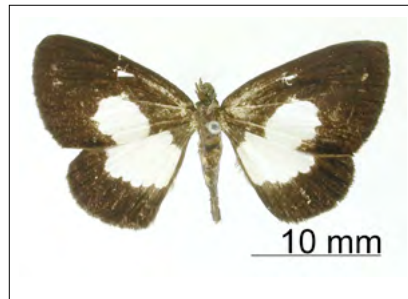
UN *"Heterusia" picata* Dognin, 1904 *Heterusia* Bolivia
related to *"Heterusia" plagia*
in unnamed clade

References

Type photo (if available)
type USNM



type *picata* Dognin, 1904 USNM Bolivia



Selected specimen for analysis
Pe-Geo-0558 *"Heterusia" picata* Peru



neo

8 g

UN "*Larentia*" *irma* Prout, 1923 *Larentia* Patagonia: Nahuel Huapi
isolated lineage between Rhinurini and Larentiini

austral

References

BC ZSM Lep 11660 *L. irma*



4 g

Type photo (if available)
type *irma* NHM

Selected specimen for analysis
EO1407 "*Larentia*" nr *irma* Chile (EO)



Larentiinae taxon

Australia

eupi *Microdes villosata* Guenee, [1858] *Microdes* Australia
tribe assignment confirmed

Australia

References



9g

Type photo (if available)
no photo

Selected specimen for analysis
GB-Geo-0171 *Microdes villosata* Australia

