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CATALOGUE OF NEOTROPICAL PLECOPTERA

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ABSTRACT

The Catalogue of Neotropical Plecoptera lists 508 valid names, of which 32 are dubious. The history of each name is given. The Neotropical Region comprises six families, of which two are endemic to the southern half. The Diamphipnoidae has 3 genera and 6 species, the Eustheniidae, 2 genera and 2 species, the Austroperlidae, 3 genera and 4 species, the Gripopterygidae, 28 genera and 85 species, the Notonemouridae, 4 genera and 18 species and the Perlidae, 10 genera and 393 species, the majority (332 species) in the genus *Anacroneuria*.

Keywords: Plecoptera, stoneflies, Catalogue, Neotropical Region



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INTRODUCTION

This catalogue includes the Neotropical stoneflies and the species of *Anacroneuria*, as well as a fossil nymph from Mexico, southern Nearctic Region.

The first world catalogue of Plecoptera is that of CLAASSEN (1940) that listed 1355 species (ILLIES 1966). The second is the *magnus opus* of ILLIES (1966) that listed 1484 species. A review of the classification, a study of the morphology and a phylogeny of the order, in addition to an update of ILLIES's catalogue, are presented by ZWICK (1973b). The world total was recently estimated at 3497 species (FOCHETTI & TIENNO DE FIGUEROA 2008). This catalogue, that covers the literature until 2009, lists 508 valid species, of which 32 are dubious.

For the Neotropical Region, only local lists are available. The exception is Chile, with the articles of CEKALOVIC (1976) and VERA & CAMOUSSEIGHT (2006) that list the species and gives their distribution. The first author adds all localities and their coordinates and altitude, the second, the life stages known and the species occurrences in bordering countries. A catalogue for the largely unknown fauna of Nicaragua is given by MAES (1988). Here, in addition to taxonomic articles, data of some faunistic/ecological articles are included, when these extend the distribution of taxa.

A comprehensive book on the Plecoptera of Latin America was published in 2009 (STARK, FROEHLICH & ZÚÑIGA 2009). It presents a general introduction to the order and keys to families in English and Spanish and, for each family, chief characteristics, keys to genera in English and Spanish and a list of species of each genus.

Names of countries follow the English usage, names of provinces, states, localities are in vernacular. For Chile, the new division into regions is added as Roman numerals in the distribution of species, based in a large part on VERA and CAMOUSSEIGHT (l.c.); the Metropolitan Region is indicated by M. Feet and miles are converted to metric.

The localities of three species of *Anacroneuria* described by Klapálek (1921, 1922) are given as Chaco, Bolivia, but in consequence of the Chaco War (1932-1935) most of the area was ceded to Paraguay.

For historical interest, a list of NAVÁS's secondary citations is appended.

The general format for the genera and species is

the following:

Genus *Xyz* AUTHOR

Xyz AUTHOR year: p., figs. ... (). Species typica: *original genus epithet* AUTHOR [year, if not the same as genus]. • AUTHOR ...

synonym AUTHOR year: p., figs. ... (). Species typica: *orig. genus epithet* AUTHOR [year, if not the same as genus]. • AUTHOR year: p. **Synonym** of *Xyz*

Distribution

epithet {Original genus, if different} AUTHOR year: p., figs. ... (). Holotype, sex: **COUNTRY, Province** or **State**, locality [COLLECTOR, date]; Museum. Paratypes: ... New **COUNTRY, Province**. • {Genus, if different} AUTHOR year: p., figs. ... (). New **COUNTRY, Province**. Comments.

synonym AUTHOR year: p. • AUTHOR year: p. **Synonym** of ...

If not specified, the data refers to adults.

A list of the collections or museums holding types follows. Most are given by the name of the city where the collection is found, as this gives, in the author's opinion, a more prompt location of the place. A few are given by the name of the collection and a number of acronyms are kept.

AMNH – American Museum of Natural History, New York, USA.

Apollinaris – Collection of *Frater Apollinaris*. Lost. Barcelona – Museo de Zoología, Barcelona, Spain.

Berlin – Museum für Naturkunde des Humboldt-Universität zu Berlin, Germany.

Cali – Museo de Entomología, Universidad del Valle, Cali, Colombia.

Carmagnola – Museo Civico di Storia Naturale di Carmagnola, Italy.

CAS – California Academy of Sciences, San Francisco, CA, USA.

Carneegie – Carnegie Museum of Natural History, Pittsburgh, PA, USA.

Cordoba – Universidad Nacional de Cordoba, Argentina.

Cornell – Insect Collection, Cornell University, Ithaca, NY, USA.

Cuiabá – Coleção Regional de Entomologia, Universidade Federal de Mato Grosso, Cuiabá, Brazil.

- DEI – Senckenberg Deutsches Entomologisches Institut, Müncheberg, Germany.
- Field – The Field Museum, Chicago, IL, USA.
- Gainesville – Florida State Collection of Arthropods, Gainesville, FL, USA.
- Genève – Université de Genève, Switzerland.
- Genova – Museo Civico di Storia Naturale “Giacomo Doria”, Genova, Italy.
- Guelph – Insect Collection, Guelph University, Guelph, Ontario, Canada.
- Greifswald - Greifswald Museum, Germany.
- Halle – Martin-Luther-Universität Halle-Wittenberg, Halle, Germany.
- Hamburg – Entomologische Sammlung des Zoologischen Staatsinstitut und Zoologisches Museum, Universität Hamburg, Germany.
- Helsinki – Natural History Museum, Helsinki, Finland.
- Illies – ILLIES collection, formerly in the Limnological Station at Schlitz, now under care of P. ZWICK, Schlitz, Germany.
- INHS – Illinois Natural History Survey, University of Illinois at Urbana-Champaign, IL, USA.
- Jewett – JEWETT’s collection, Portland, OR, USA; fate unknown.
- Klapálek – Klapálek’s collection, Prague.
- La Plata – Museo de La Plata, La Plata, Argentina
- Lausanne – Musée de Zoologie, Lausanne, Switzerland.
- Leiden – Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands.
- London – Natural History Museum, London, UK.
- Los Angeles – Natural History Museum of Los Angeles County, Los Angeles, CA, USA.
- Manaus – Instituto Nacional de Pesquisas da Amazônia (INPA), Manaus, Amazonas State, Brazil.
- Maracay – Museo del Instituto de Zoología Agrícola, Universidad Central de Venezuela, Maracay, Venezuela.
- MCZ – Museum of Comparative Zoology, Harvard University, MA, USA.
- Medellín – Museo de Entomología “Francisco Luis Gallego”, Universidad Nacional, Medellín, Colombia.
- Montevideo – Departamento de Artropódos, Facultad de Humanidades y Ciencias, Universidad del Uruguay, Montevideo, Uruguay.
- Navás – NAVÁS’s Collection, Colégio Cristo Rey, Zaragoza. During the Spanish Civil War in part destroyed, in part lost afterwards by neglect, remnants transferred to Barcelona.
- Nebraska – University of Nebraska, Lincoln, NE, USA.
- NMNH – National Museum of Natural History, Smithsonian Institution, Washington, DC, USA.
- Ottawa – Canadian National Collection, Ottawa, Canada.
- Panamá – Museo de Invertebrados de la Universidad de Panamá.
- Paris – Muséum National d’Histoire Naturelle, Paris, France.
- Peabody – Peabody Museum, Yale University, New Haven, CT, USA.
- Prague – National Museum, Prague, Czech Republic.
- Rio de Janeiro – Museu Nacional, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil.
- Santiago – Museo Nacional de Historia Natural de Santiago, Chile.
- São Paulo – Museu de Zoologia da Universidade de São Paulo, São Paulo, Brazil.
- Selys – Muséum des Sciences Naturelles de Belgique, Bruxelles, Belgium.
- Stockholm – Naturhistoriska Riksmuseet, Stockholm, Sweden.
- Torino – Museo di Zoologia, Università degli Studi di Torino, Italy.
- Tucumán – Facultad de Ciencias Naturales y Instituto Miguel Lillo, Universidad Nacional de Tucumán, Tucumán, Argentina.
- UM – University of Minnesota, Department of Entomology, Saint Paul, MN, USA.
- UNAM – Universidad Nacional Autónoma de México, Ciudad de México, México.
- Vienna – Naturhistorische Museum Wien, Austria
- Warsaw – Polish Academy of Sciences, Zoological Institute, Warsaw.
- Zaragoza – Colegio Cristo Rey, Zaragoza, Spain.

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LIST OF TAXA

Eusthenioidea

Diamphipnoidae

Diamphipnoa, Diamphipnopsis

Eustheniidae

Eustheniinae

Neuropelopsis

Stenoperlinae

Neuropelra

Gripopterygoidea

Austroperlidae

Andesobius, Klapopteryx, Penturopelra

Gripopterygidae

Antarctoperlinae

Antarctoperla, Araucanioperla, Ceratoperla, Chilenoperla, Megandiperla, Pehuenioperla, Pelurgoperla, Plegoperla.

Dinotoperlinae

Alfonsooperla

Gripopteryginae

Andiperla, Andiperlodes, Aubertoperla, Claudioperla, Falklandoperla, Gripopteryx, Guaranyperla, Limnoperla, Neopentura, Paragripopteryx, Potamoperla, Rhithroperla, Teutoperla, Tupiperla, Uncicauda

Leptoperlinae

Notoperla, Senzilloides

Zelandoperlinae

Notoperlopsis

Nemouroidea

Notonemouridae

Austronemoura, Neofulla, Neonemura, Udamocercia

Perloidea

Perlidae

Acroneuriinae

Acroneuriini

Inconeuria, Kempnyella, Klapalekia, Nigroperla, Onychoplax, Pictetoperla.

Anacroneuriini

Anacroneuria, Enderleina, Kempnyia, Macrogynoplax.

CATALOGUE

Eusthenioidea

Archiperlaria ILLIES 1960b: 663

Diamphipnoidae RICKER

Diamphipnoinae RICKER 1950: 197.

Diamphipnoidae ILLIES 1960b:680, fig. 11 (distribution map). Key to genera. • ILLIES 1966:9, fig.3 (distribution map). • ZWICK 1973b:194. • STARK, FROEHЛИCH & ZUÑIGA 2009:59.

Genus *Diamphipnoa* GERSTAECKER

Diamphipnoa GERSTAECKER 1873:62, figs. 17-27 (habitus, mouth parts, gill, abdomen). Species typica, monotypy: *Diamphipnoa lichenalis*. • ŠAMAL 1931:267. Revision. • ILLIES 1960b:684. Redefined. • STARK, FROEHЛИCH & ZUÑIGA 2009:60.

Distribution: Southern South America.

annulata {*Stenoperla*} (BRAUER 1869):17. Syntypes ♂, ♀: CHILE; Hamburg, missing. • {*Diamphipnoa*} TILLYARD 1921: 235, pl.14, fig. 8 (habitus). ♀, CHILE: IX: Cautín; X: Chiloé. • ŠAMAL 1931:271 figs. 9-13 (♂: terminalia ventral, dorsal, lateral; ♀: terminalia ventral, dorsal). IX: Cautín; X: Chiloé. • ILLIES 1960b:687, Figs. 12A, 13A, 14, 16 (Nymph, habitus, mouthparts; right wings; ♂: terminalia dorsal, ventral, lateral; paraproct; mandibles; ♀: st8; eggs). VII: Curicó; VIII: Ñuble; IX: Cautín; X: Llanquihue, Chiloé. Nymphs: XIV: Valdivia; XI: Aisén? • ILLIES 1966:10. • JOOST 1976:204. "Mittelchile".

lichenalis {*Diamphipnoa*} GERSTAECKER 1873:64, figs. 17-27 (habitus, male and female; mouthparts, abdomen ventral, male and female; gills). Syntypes ♂, ♀: CHILE: X: Llanquihue, Puerto Montt [FONCK, 1860]; DEI. • TILLYARD 1921. **Synonym** of *Diamphipnoa annulata*.

colberti STARK 2008:55, figs. 1-6 (habitus; terminalia dorsal, lateral; epiproct dorsal, lateral; paraproct lateral). Holotype, male: CHILE: VII: Maule,

Pullehue, along Río Curanilahue [SA Marshall, 26/XI/2006]; Guelph (*pro tempore*)

helgae ILLIES 1960b:685, figs. 1, 15 (habitus, dorsal, ventral; ♂ terminalia dorsal, ventral, lateral; paraproct; ♀ terminalia ventral). Holotype, ♂: CHILE: IX: Malleco, Curacautín, 38°25'S, 521 m [PEÑA, 19/12/1950]; DEI. Paratypes: 1♂, 2♀. X: Osorno, Puyehue. ARGENTINA, Río Negro. Nymphs: CHILE: XIV: Valdivia; X: Osorno, Llanquihue. • ILLIES 1966:10.

virescentipennis {*Perla*} (BLANCHARD 1851):99. CHILE: [VIII]: San Carlos; lost. • {*Diamphipnoa*} ŠAMAL 1931 (nec BLANCHARD 1851):268, figs. 1-8 (wings; ♂: terminalia ventral, dorsal, lateral; ♀: terminalia ventral; egg). CHILE: IX: Cautín; XIV: Valdivia. • ŠAMAL 1932 (nec BLANCHARD 1851):59, figs. 1-7 (nymph: head and thorax, mouthparts, terminalia lateral). VII: Maule; XIV: Valdivia. • ILLIES 1960b:689, fig. 17 (M area of forewing; ♂, terminalia dorsal, ventral, lateral, epiproct; ♀ terminalia ventral). Neotype, ♂: CHILE: VIII: Ñuble, Cordillera Chillán, ca. 37°S [GERMAIN, 1899]; DEI. Paraneotypes: 2♂, 1♀, same data as neotype. • ILLIES 1966:11.

Genus *Diamphipnopsis* ILLIES

Diamphipnopsis ILLIES 1960b:690, fig. 11 (distribution map). Species typica, original designation: *Diamphipnopsis samali* ILLIES. • STARK, FROEHЛИCH & ZUÑIGA 2009:60.

Distribution: Chile; Argentina (WAIS & BONETTO 1988:1457).

beschi ILLIES 1960b:694, fig. 20 (♂: mandibles; terminalia dorsal, ventral, lateral). Holotype, ♂: CHILE: XIV: Valdivia, Pillaifa Stream, 39°55'S, 600 m [BESCH, 20/I/1958]; Illies. • ILLIES 1966:11. • STARK, 2008:57, figs. 7-8 (female: head and pronotum, terminalia ventral). CHILE: X: Oncol, P. Boniface Way. Putative female.

samali ILLIES 1960b:692, figs. 2, 18-19 (anatomy of abdomen; right wings; ♂: terminalia dorsal, ventral, lateral; ♀: st8-9). Holotype, ♂: CHILE: XIV: Valdivia, Panguipulli, 39°40'S [A FAZ,

22/IV/1928]; DEI. Paratypes: 11♂, 12♀, VIII: Arauco; IX: Cautín; XIV: Valdivia; X: Osorno. Nymphs: IX: Cautín, Temuco; XIV: Valdivia; X: Osorno, Llanquihue; XII: Magallanes? • WERNER 1965:227. X: Chiloé. • ILLIES 1966:11. • JOOST 1976:204. VIII: Arauco; XI: Aisén.
virescentipennis; ŠÁMAL 1931 (nec BLANCHARD 1851).
ILLIES 1960b. **Synonym** of *D. samali*.

Eustheniidae TILLYARD

Eustheniidae TILLYARD 1921a:38. • ILLIES 1960:668. Redefinition. • ILLIES 1966:4, fig. 2 (distribution map). • ZWICK 1973b:193. • STARK, FROEHЛИCH & ZUÑIGA 2009:63.

Stenoperlinae TILLYARD

Stenoperlinae TILLYARD 1921b:233. • ILLIES 1960b:671. Redefinition. • ZWICK 1973b:194. • ZWICK 1979:37. Comments; key to genera.

Genus *Neoperla* ILLIES

Neoperla ILLIES 1960b:673. Species typica, monotypy: *Stenoperla scheidigi* NAVÁS. • ZWICK 1979:39. • STARK, FROEHЛИCH & ZUÑIGA 2009:64. **Distribution:** Southern South America.

scheidigi {*Stenoperla*} (NAVÁS 1929d):327, fig. 73 (head and pronotum, terminalia ventral and lateral, anal area of forewing). Holotype, ♂: CHILE, XIV: Valdivia, Corral [C SCHENDING (sic), 17/01/1907]; Hamburg. • AUBERT 1956b:437. Type lost. • {*Neoperla*} ILLIES 1960b:673, figs. 3B, 5A, 6A, 7, 8 (head ventral; right wings; nymph, habitus; ♂: habitus dorsal, ventral; terminalia dorsal, ventral, lateral; ♀: st7-8; eggs). Neotype, ♂: CHILE: X: Osorno, small stream E Lago Puyehue (40°40'S), 800 m [ILLIES, 24/XII/1957]; DEI. Nymphs: IX: Cautín; XIV: Valdivia; X: Osorno, Llanquihue. • WEIDNER 1962:108. Type destroyed in World War II. • ILLIES 1966:4. • JOOST 1976:204. XI: Aisén. • *scheidigi?* WAIS 1986:39, figs. 1-3 (nymph: habitus, dorsal, ventral; gill). ARGENTINA: Neuquén.

Eustheniinae TILLYARD

Eustheniinae TILLYARD 1921b:226. • ILLIES 1960b:675. • ZWICK 1979:20. Comments. Key to genera.

Genus *Neuroperlopsis* ILLIES

Neuroperlopsis ILLIES 1960b:677. Species typica, monotypy: *Neuroperlopsis patris* ILLIES. • ZWICK 1979:20. • STARK, FROEHЛИCH & ZUÑIGA 2009:65. **Distribution:** Chile.

patris ILLIES 1960b:678, figs. 5B, 6B, 9-10 (right wings; nymph, habitus; ♂: habitus dorsal, ventral; terminalia dorsal, ventral, lateral; paraproct; ♀: st7-8). Holotype, ♂: CHILE: X: Osorno, small stream E Lago Puyehue ca. 1000 m a.s.l., 40°40'S [ILLIES, 24/XII/1957]; DEI, but see below. Paratypes: 2♂, 1♀, VIII: Ñuble. • WERNER 1965:227. VII: Curicó. • ILLIES 1966:8. • JOOST 1976:204. IX: Cautín. • SARTORI, MEMBIELA, RAVIZZA, SÁNCHEZ-ORTEGA & ZWICK 1990:168. Holotype in Lausanne.

Gripopterygoidea

Leptoperloidea TILLYARD 1926:117

Austroperlidae TILLYARD

Austroperlidae TILLYARD 1921:35. • ILLIES 1966:12, fig 4 (distribution map). • ZWICK 1973b:194, fig.63 (distribution map). • MCLELLAN 2001b:233, 238, fig. 30 (distribution map). Diagnosis, comments, keys. • STARK, FROEHЛИCH & ZUÑIGA 2009:51. Comments, keys.

Penturoperlidae ILLIES 1960c:27. • ILLIES 1969. **Synonym** of Austroperlidae.

Genus *Andesobius* MCLELLAN

Andesobius MCLELLAN 2001b:242. Species typica, monotypy: *Klapopteryx barilochensis* ILLIES. • STARK, FROEHЛИCH & ZUÑIGA 2009:53. **Distribution:** Southern South America.

bariloensis {*Klapopteryx*} ILLIES 1960c:33, figs 1-5 (nymph: habitus, terminalia lateral, ventral; ♂: terminalia lateral, dorsal, ventral; ♀: right forewing, terminalia ventral, posterior). Holotype, ♂: ARGENTINA: Río Negro, Nireco, 800 m [J ILLIES, 05/XII/1957]; Illies. Paratypes: 2♀. Nymphs: Río Negro; CHILE: IX: Cautín; X: Osorno, Llanquihue. • ILLIES 1966:14. • {*Andesobius*} MCLELLAN 2001b:244, figs. 15-22 (nymph: head; adult: head, pronotum, forewing; ♂: genitalia lateral, dorsal, epiproct; ♀: terminalia ventral). ARGENTINA: Neuquén, Chubut, Río Negro; CHILE: X (Los Lagos).

Genus *Klapopteryx* NAVÁS

Klapopteryx NAVÁS 1928:122. Species typica, monotypy: *Klapopteryx armillata* NAVÁS. • ILLIES 1960c:33, fig. 6a-c (mouthparts), 7 (distribution). • ILLIES 1964:56. Key for ♀. • ILLIES 1966:13. • ILLIES 1969:40. Redefined. • ZWICK 1973b:196. • MCLELLAN 2001b:239. Diagnosis. • STARK, FROEHLICH & ZUÑIGA 2009:55.

Distribution: Southern South America.

armillata NAVÁS 1928:123, fig. 22 (forewing, part of hindwing). Holotype, ♀: CHILE: [XIV: Valdivia], Panguipulli [FAZ, 17/XI/1924]; DEI. • AUBERT 1956b:438. Type in Berlin. • ILLIES 1960c:37, fig. 6f (♀ st8). VII: Linares; XIV: Valdivia. • ILLIES 1966:14. • PETERSEN & GAEDIKE 1968:964. Type in bad condition. • MCLELLAN 2001b:239, figs. 1-8 (forewing; ♂: genitalia lateral, dorsal, epiproct, penis ventral; ♀: terminalia ventral; nymph: habitus).

costalis ILLIES 1960c:37, fig. 6g (♀, st8). Holotype, ♀: CHILE: VIII: Arauco, Caramávida, Nahuelbuta, ca. 38°S, 750m [L. Peña, 25/XII/1953]; Illies. • ILLIES 1966:14. • MCLELLAN 2001b:239. Synonym of *Klapopteryx armillata*.

kuscheli ILLIES 1960c:35, fig. 6d-e (tarsus, ♀ terminalia ventral). Holotype, ♀: CHILE: XI: Aisén, Río Murta, tributary of Lago Buenos Aires, 46°28'S, 72°40'W, ca. 300 m [KUSCHEL, 26/I/1956]; Illies. Paratypes: 1♀. Nymphs: XII: Última Esperanza. • ILLIES 1964c:53, figs. 3-4 (♂: habitus; terminalia dorsal, ventral, lateral). ARGENTINA:

Río Negro (3♂, 6♀; ILLIES's designation as paratypes is invalid). • ILLIES 1966:14. • MCLELLAN 2001b:241, figs. 9-14 (♂: genitalia lateral, dorsal, paraproct; ♀: terminalia ventral; nymph: hind leg). • MISERENDINO & PIZZOLÓN 2000:75. ARGENTINA: Chubut.

sp. D MCLELLAN 2001b:250. ARGENTINA: Neuquén, Lago Rucachoroi, W Aluminé [CM & OS FLINT, 1-2/III/1972]; NMNH. One nymph.

sp. E MCLELLAN 2001b: 250. CHILE: X: Osorno, Pucatrihue, at Puente Hermoso [PJ SPANGLER, 29/I/1978]; NMNH. Three nymphs.

Genus *Penturoperla* ILLIES

Penturoperla ILLIES 1960c:38. Species typica, monotypy: *Penturoperla barbata* ILLIES. • ILLIES 1966:15. • ILLIES 1969:39. Redefined. • ZWICK 1973b:197. • MCLELLAN 2001b:245. Diagnosis. • STARK, FROEHLICH & ZUÑIGA 2009:57.

Distribution: Southern South America, from ca. 35° to 46°S.

barbata ILLIES 1960c:39, figs. 8-10 (right forewings; nymph: habitus, mouthparts, abdomen tip ventral; ♂: terminalia lateral, dorsal, ventral; ♀: terminalia ventral, posterior; hind leg). Holotype, ♂: CHILE: VII: Curicó, El Coigual, 35°S [L PEÑA, IV/1955]; Illies. Paratypes: 4♂, 5♀, Curicó; VIII: Ñuble, Arauco; IX: Cautín; XIV: Valdivia; XI: Aisén. ARGENTINA: Río Negro. Nymphs: IX: Cautín; XIV: Valdivia; X: Llanquihue. • WERNER 1965:227. XI: Aisén. • ILLIES 1966:15. • JOOST 1976:204. IX: Cautín. • MCLELLAN 2001b:247, figs. 23-29 (wings; ♂: genitalia dorsal, epiproct, paraproct; ♀: terminalia ventral; nymph: habitus). ARGENTINA: Neuquén; CHILE: IX (La Araucanía); X (Los Lagos).

Gripopterygidae ENDERLEIN

Gripopterygidae ENDERLEIN 1909b:392 (key to subfamilies and genera). • FROEHLICH 1960:3. Comments. • ILLIES 1963:148, fig. 1 (Distribution map). Redefinition. Key to subfamilies. • ILLIES

1966:28, fig.7 (distribution map). • FROEHЛИCH 1969:17. Comments. • ZWICK 1973b:198, fig. 64 (distribution map). • STARK, FROEHЛИCH & ZUÑIGA 2009:68.

Andiperlinae AUBERT 1956a:230. • ILLIES 1960d:164, fig. 4 (distribution map). • ILLIES 1964a:47. *Megandiperla* ILLIES is an Antartoperlinae, *Andiperla* AUBERT and *Andiperlodes* ILLIES are Paragripopteryginae.

Gripopterygidae, nymph: *Claudioperla?* BARRETO-VARGAS, G.; REINOSO-FLÓREZ, G.; GUEVARA-CARDONA, G.; VILLA-NAVARRO, F.A. 2005. COLOMBIA: Tolima.

Antartoperlinae ENDERLEIN

Antartoperlinae ENDERLEIN 1909b:392. • ILLIES 1963:208. Redefined. Key to genera. • ILLIES 1966:48. • ZWICK 1973b:210.

Andiperlinae AUBERT 1956a (*partim*): *Megandiperla* ILLIES.

Genus *Antarctoperla* ENDERLEIN

Antarctoperla ENDERLEIN 1905:810. Species typica, original designation: *Antarctoperla anderssoni* ENDERLEIN. • ENDERLEIN 1909b:416. • ENDERLEIN 1909c:683. • ENDERLEIN 1912:121. • ILLIES 1963:210, fig 34 (distribution map). Redefined. Key to species. • ILLIES 1966:48. • STARK, FROEHЛИCH & ZUÑIGA 2009:80.

Distribution: Southern South America.

altera ZWICK 1973a:475, fig. 2 (♀, st8-9). Holotype, ♀: CHILE: XII: Magallanes, Isla Wellington, Puerto Eden, 300-800 m. [HOLDGATE, 02/XII/1958]; Illies. Paratype: 1♂. • MCLELLAN & ZWICK 2007:37, figs. 50-52 (nymph: habitus; segment 7, cross section; t10 and cercus, dorsal).

anderssoni; ILLIES 1963, partim (nec ENDERLEIN 1905):211, figs. 33b-e (♂: terminalia dorsal, lateral, detail of paraproct; ♀: terminalia ventral). CHILE: XII: Magallanes, Isla Wellington, Puerto Eden.

anderssoni ENDERLEIN 1905:811, figs. 1, 3 (wings, cercus). Holotype, ♀: [ARGENTINA, Tierra del Fuego], Ushuaia [ANDERSSON, III/1902];

Stockholm. • ENDERLEIN 1909b:416. • ENDERLEIN 1912:121, figs. 29-30 (wings, cercus), Tab. 4, fig. 41 (wings). • FROEHЛИCH 1960:13, Fig. 7 (♀ terminalia ventral). • ILLIES 1963:212, figs. 32-33a-d (nymph: habitus; mandible and maxilla; terminalia ventral; forewing; ♂: terminalia dorsal and lateral, detail of paraproct; ♀: terminalia ventral). CHILE: XII: Magallanes. • ILLIES 1964a:46, fig. 5f (♂ terminalia lateral). • ILLIES 1966:48. • JOOST 1976:205. CHILE: XIV: Valdivia. • ZWICK 1973a:473. **Synonym** of *A. michaelseni*.

michaelseni {*Gripopteryx*} Klapálek 1904:12, figs. 9-10 (wings, terminalia lateral, dorsal). Holotype, ♂: Tierra del Fuego, Lago de Jacinta, wood [MICHAELSEN, 27/X/1892]; Hamburg. • {*Antarctoperla*} ENDERLEIN 1905:814. • ENDERLEIN 1909b:416. • ENDERLEIN 1909c:683. • FROEHЛИCH 1960. (*partim*, ♀ nec Klapálek 1904):14, fig. 8 (♂: terminalia lateral, dorsal, ventral, detail; ♀: terminalia ventral). CHILE: VIII: Ñuble; IX: Angol, Cautín, Malleco; X: Llanquihue, Osorno; XIV: Valdivia. Female probably a *Chilenoperla* species, *fide* ZWICK 1973a. • {*Gripopteryx*} WEIDNER 1962:108. Holotype in Hamburg. • ILLIES 1963:213, fig. 35 (wings; ♂: paraproct, hind tarsus; ♀: subgenital plate). CHILE, ARGENTINA, from 33° to 51°S. • WERNER 1965:231, from VII to XII. • ILLIES 1966:49. • JOOST 1976: 205. VII: Cauquenes, Linares; XI: Aisén. • ZWICK 1972b:99. CHILE: X: Llanquihue, Chiloé. • ZWICK 1973a:473, fig. 1 (♀: st8-9). • JOOST 1976:205. • VERA 2007:21, fig. 4a (nymphal tarsi).

anderssoni ENDERLEIN 1905:811. • ZWICK 1973a:473.

Synonym of *A. michaelseni*.

ruizi {*Gripopteryx*} (NAVÁS 1928):120. Holotype: CHILE: [IX: Malleco], Lonquimay; Navás, lost. Paratypes: IX: Malleco, Cautín, Victoria. • AUBERT 1956b:438. Type not located. • ILLIES 1963. **Synonym** of *Antarctoperla michaelseni*.

Genus *Araucanioperla* ILLIES

Araucanioperla ILLIES 1963:231. Species typica, original designation: *Antarctoperla brincki* FROEHЛИCH. Key to species. • ILLIES 1966:49. • ZWICK 1973b:211. • STARK, FROEHЛИCH & ZUÑIGA 2009:80.

Distribution: Southern South America.

brincki {*Antarctoperla*} FROEHЛИCH 1960:16, fig. 9 (wings; ♂: terminalia lateral, ventral, dorsal; ♀: terminalia ventral). Holotype, ♂: CHILE: X: Osorno, Puyehue. (40°40'S) [ROSS & MICHELBACHER, 26/I/1951]; CAS. Allotype, ♀: same data as holotype. Paratype: 1♂. • {*Araucanioperla*} ILLIES 1963:232, fig. 45 (wings, pronotum ♂ and ♀). X: Llanquihue, Chiloé. • WERNER 1965:231. XI: Aisén. • ILLIES 1966:49. • ZWICK 1973b:211. • JOOST 1976:206. VIII: Arauco.

bullocki {*Grypopterix* (sic)} (NAVÁS 1933):231, fig. 48 (pronotum, forewing). Holotype: CHILE: [IX: Malleco] Angol [37°45'S] [BULLOCK, 07/IX/1931]; Barcelona. • AUBERT 1957:58. Holotype in Barcelona. • {*Araucanioperla*} ILLIES 1963:233, fig. 46 (♀: wings, head and pronotum, terminalia ventral). CHILE: X: Llanquihue. ARGENTINA: Chubut. • ILLIES 1966:49. • VERA 2007:16, figs. 1-9 (Nymph: habitus; mouthparts; tarsi I, II, III; ♂ and ♀ terminalia lateral; detail of segment 7, shape variation of pronotum and paraproct. Fig. 4a: *Antactoperla michaelseni*: tarsi). CHILE: VII (Maule). Description of nymph.

Araucanioperla (?), larval type C ZWICK 1972b:97, fig. 2 (nymph: habitus, terminalia ventral). CHILE: XIV: Valdivia, Cordillera Pelada [F. REISS, 16/XI/1969]. • VERA 2007:21. The nymph is not *Araucanioperla*.

Araucanioperla sp.? WAIS 1983:97, fig. 1 (nymph: habitus dorsal, ventral, lateral, terminalia lateral). ARGENTINA: Río Negro, Arroyo Los Césares, 41°26'S, 71°40'W [IR WAIS, 31/V/1983], 3 nymphs. *Similis* larval type A ILLIES 1963 (=*Neopentura semifusca* ILLIES, *fide* VERA 2006b).

Genus *Ceratoperla* ILLIES

Ceratoperla ILLIES 1963:216. Species typica, monotypy: *Notoperla fazi* NAVÁS. Key to species. • ILLIES 1966:50. • ZWICK 1973b:211. NELSON 1973:315. Key to species, phylogenetic relationships among species. • STARK, FROEHЛИCH

& ZUÑIGA 2009:81.

Distribution: Southern South America.

fazi {*Notoperla*} (NAVÁS 1934b):162, fig. 37 (forewing). Holotype, ♀: CHILE: [IX: Cautín], Temuco [FAZ, I/1928]; DEI. • AUBERT 1956b:438. Type in Berlin. • {*Ceratoperla*} ILLIES 1963:218, figs. 36, 37 (nymph: habitus, mandible and maxilla; terminalia ventral. Wings. ♂ terminalia ventral, dorsal, lateral; ♀ terminalia ventral). CHILE, 38° to 41°S. • ILLIES 1966:50. CHILE, ARGENTINA. • PETERSEN & GAEDIKE 1968:965. Holotype in DEI, in bad condition. • ZWICK 1973b:211. • MCLELLAN & ZWICK 2007:40, fig. 70 (lacinia).

schwabei ILLIES 1963:220, fig. 38 (♂: terminalia ventral, dorsal, lateral, detail; ♀: terminalia ventral, dorsal). Holotype, ♂: CHILE: XIV: Valdivia, Río Rahue, ca. Lago Rupanco (40°45'S) [HG SCHWABE & J ILLIES; 31/X/1957]; Illies. Paratypes: 2♂, 1♀, 1 exuviae. • ILLIES 1966:50. • MCLELLAN & ZWICK 2007:35, figs. 43-47 (nymph, first instar, habitus, antenna, segments 9-10, pilosity; slightly larger specimen, habitus). IX: Malleco.

Genus *Chilenoperla* ILLIES

Chilenoperla ILLIES 1963:221. Species typica, original designation: *Chilenoperla semitincta* ILLIES. Key to species. • ILLIES 1966:50. • ZWICK 1973b:211. • VERA 2008:155. Nymph of *Ch. elongata* very similar to that described as nymph of *Pelurgoperla* by ILLIES 1963, but ILLIES's species and genus confirmed by exuviae and a partially emerged adult male. • STARK, FROEHЛИCH & ZUÑIGA 2009:82.

Distribution: Southern South America.

beschi ILLIES 1963:225, fig. 41 (♂ terminalia ventral, dorsal, lateral, epiproct; ♀ terminalia ventral). Holotype, ♂: CHILE: XIV: Valdivia, Niebla, 39°45'S [W BESCH, 06/IX/1958]; Illies. Paratypes: 3♂, 3♀, Valdivia; VII: Linares. • WERNER 1965:231. VII: Linares; IX: Malleco. • ILLIES 1966:50. • NELSON 1973:318, figs. 6-10 (holotype ♂: terminalia dorsal, ventral, lateral; epiproct lateral, dorsal).

elongata VERA 2008:145, figs.1-6 (wings, apex of wings of second specimen, head and pronotum; male: terminalia ventral, dorsal, lateral, paraproct and cercus, epiproct dorsal, lateral; female: terminalia ventral, dorsal, lateral, proproct and cercus, variations of paraprocts; nymph: habitus, habitat, exuviae, setae of antenna, posterior margin of tergum 7, tarsi, mandible, labium, maxilla, lacinia medial, ventral), table 1 (measurements). Holotype, ♂: CHILE: VII, Vilches Alto (35°36'18"S, 71°03'44"W) [A VERA, 06-08/XII/2002]; Santiago. Allotype, ♀, same data as holotype. Paratypes: 11♂, 15♀.

illiesi NELSON 1973:318, figs. 11-17 (wings, ♂: terminalia dorsal, ventral, lateral; epiproct lateral, dorsal; ♀: terminalia, ventral). Holotype, ♂: ARGENTINA, Río Negro, Bariloche [R & E SHANNON, 11/1926]. NMNH. Paratypes: 2♂, 2♀: CHILE: VII: Linares, Fundo Malcho, Cordillera Parral.

beschi ILLIES 1963, partim, ♂. Fide NELSON 1973.

puerilis ILLIES 1963:226, figs. 39 [handwritten correction by ILLIES, stating that the nymph belongs to *Ch. puerilis*] (nymph: habitus, mandible, maxilla, terminalia ventral), 42 (♂: terminalia lateral, epiproct). Holotype, mature ♂ nymph, adult terminalia extracted: CHILE: X: Llanquihue, Peulla, stream near Laguna Margarita (41°05'S) [BRUNDIN, 18/I/1954]; Illies. Paratypes: 10 nymphs. • ILLIES 1966:51. • NELSON 1973:321, figs. 18-22 (Holotype, ♂: terminalia dorsal, lateral, ventral; epiproct lateral, dorsal). • MISERENDINO & PIZZOLÓN 2000:64. ARGENTINA: Chubut

semitincta ILLIES 1963:223, fig. 40 (wings; ♂: hind leg; terminalia ventral, dorsal, lateral, epiproct; ♀ terminalia ventral). Holotype, ♂: CHILE: XIV: Valdivia, Niebla, at sea level, 39°45'S [ILLIES, 12/X/1957]; Illies. Paratypes: 2♀, X: Lanquihue. • ILLIES 1966:51. • NELSON 1973:316, figs. 1-5 (holotype ♂, terminalia dorsal, ventral and lateral; epiproct, lateral and dorsal). • ZWICK 1972b:99. X: Chiloé. • ZWICK 1973b:211. • MISERENDINO 2006:269. ARGENTINA: Chubut.

spec. ZWICK 1972b: 99. Two small nymphs. CHILE: X: Monte Tronador, 1700 m [REISS].

Genus *Megandiperla* ILLIES

Megandiperla ILLIES 1960d:161. Species typica, monotypy: *Megandiperla kuscheli* ILLIES. In Andiperlinae. • ILLIES 1963:241, fig. 50b (maxilla), 51 (distribution map). • ILLIES 1964a:38, fig. 1C (♀, habitus), 46, fig. 5e (♂, terminalia lateral). In Antarctoperlinae. • ILLIES 1966:51. • ZWICK 1973b:212. • LANFRANCO 1982:208, fig. 1 (distribution). • STARK, FROEHЛИCH & ZUÑIGA 2009:89.

Distribution: Southern Chile.

kuscheli ILLIES 1960d:162, figs. 1-4 (♂: habitus; terminalia dorsal, ventral, lateral; ♀: terminalia ventral; nymph: habitus, terminalia dorsal, ventral; mouthparts). Holotype, ♂: CHILE: XII: Magallanes, Monte Jervis (49°10'S), 1000 m [G KUSCHEL, 20/XII/1958]; Santiago. Paratypes: 1♂, 3♀. Additional material: 1♀ plus a number of lost adults and nymphs, XII: Peninsula Muñoz Gamero. • ILLIES 1964a:47, fig. 5e (♂ terminalia lateral). • ILLIES 1966:51. • ZWICK 1973b:212.

Genus *Pehuenioperla* VERA

Pehuenioperla VERA 2009:318. Species typica, monotypy: *Pehuenioperla llaima* VERA.

Distribution: Southern South America.

llaima VERA 2009:319, figs. 1-21 (male: terminalia dorsal, ventral, lateral, posterior, epiproct, cercus and paraproct, penis dorsal, ventral, lateral; female: head and pronotum, head and thorax lateral, tarsus, wings, terminalia ventral, lateral; nymph: habitus, head and pronotum, tarsi, mandible, lacinia and galea ventral and internal, apex of lacinia, labium and maxillae ventral, male and female terminalia lateral, female terminalia dorsal). Holotype, ♀: CHILE: IX: Parque Nacional Conguillio, Estero Conguillio, 38°25'S [A VERA, 20/IX/2008]; Santiago. Allotype, ♂: same data as holotype but 12/IX/2009. Paratypes: 1♀ stuck in exuviae; 2♂, 2♀ exuviae.

Genus *Pelurgoperla* ILLIES

Pelurgoperla ILLIES 1963:227. Species typica, monotypy: *Pelurgoperla personata* ILLIES. • ILLIES 1966:51. • STARK, FROEHЛИCH & ZUÑIGA 2009:91.
Distribution: Southern South America.

personata ILLIES 1963:229, figs. 43-44(nymph: habitus, mouthparts, terminalia ventral; wings; ♂: terminalia ventral, dorsal, lateral; epiproct; hind tarsus; ♀ terminalia ventral). Holotype, ♂: CHILE: XIV: Valdivia, Pellaifa, Río Llancahue (39°35'S) [ILLIES, 11/II/1958]; Illies. Paratypes: 3♂, 3♀, 38 nymphs: (38°-45°S). CHILE: IX: Malleco; X: Llanquihue, Osorno; XIV: Valdivia; XI: Aisén. ARGENTINA: Río Negro, 38°-45°S. • WERNER 1965:231. IX: Malleco. • ILLIES 1966:51.

Genus *Plegoperla* ILLIES

Plegoperla ILLIES 1963:238. Species typica, monotypy: *Antarctoperla punctata* FROEHЛИCH. • ILLIES 1966:52. • STARK, FROEHЛИCH & ZUÑIGA 2009:92.

Distribution: Chile.

borggreenae ILLIES 1965:153, fig. 2 (*borggreenae* ♀, pronotum, terminalia ventral; *punctata* ♀, pronotum, terminalia ventral). Holotype, ♂: CHILE: VIII: Arauco, Pichinahual, Sierra de Nahuelbuta (37°47'S), 1200-1400 m [PEÑA, 23-31/I/1954]; Illies. Paratypes, 1♂, 2♀. • ILLIES 1966:52.

punctata {*Antarctoperla*} (FROEHЛИCH 1960):17, fig. 10 (♂: antenna; pronotum; wings; terminalia lateral, dorsal, ventral). Holotype, ♂: CHILE: IX: Angol, Sierra de Nahuelbuta, W Angol, 1200 m [ROSS & MICHELBACHER]; CAS. • {*Plegoperla*} ILLIES 1963:239, fig.49 (♂: wings, head, pronotum, foreleg; terminalia dorsal, epiproct). VIII: Arauco. • ILLIES 1965:153. *P. punctata*; ILLIES 1963 (nec FROEHЛИCH 1960)=*P. borggreenae* ILLIES. • WERNER 1965:231, VIII: Biobío. • ILLIES 1966:52.

Antarctoperlinae (*Araucanioperla*?) larval type A ILLIES 1963:235, fig. 46 (nymph: habitus dorsal, lateral; mandible; maxilla; terminalia ventral); Illies. CHILE: XIV: Valdivia (39°-40°S); X:

Llanquihue (41°S). • WAIS 1983:9. ARGENTINA: Río Negro. • VERA 2006b:70. Nymph of *Neopentura semifusca* ILLIES.

Antarctoperlinae (*Araucanioperla*?) larval type B ILLIES 1963:236-238, fig. 48 (nymph: habitus dorsal, lateral; mandible; maxilla; terminalia ventral); Illies. CHILE: XIV: Valdivia, (39°35'S); X: Llanquihue, (41°20'S). • VERA 2007:21. The nymph is not *Araucanioperla*.

Antarctoperlinae Species B MCLELLAN, WAIS, CABO 1990:180, figs. 6-11 (habitus, maxilla, mandible, terminalia ventral, paraproct, body ventral pattern). Nymph: Malvinas/Falkland Islands, East Falkland/ Soledad, Malo River (ca. 51°40'S, 58°30'W) [S COSCARÓN, 06/12/1974]; NMNH.

Antarctoperlinae gen. sp. I MCLELLAN & ZWICK 2007:27, figs. 18-23 (nymph: habitus, mandible, maxilla, tarsus, tergal hair fringe, abdominal tip ventral). Five nymphs, CHILE: IX: Malleco; X: Osorno, Llanquihue.

Antarctoperlinae gen. sp. II MCLELLAN & ZWICK 2007:29, figs. 24-29 (nymph: habitus, pronotal lateral margin, hypopharynx, pilosity of abdominal tergite, abdominal tip lateral). Sixty-three nymphs, ARGENTINA: Neuquén; CHILE: IX: Malleco.

Antarctoperlinae gen. sp. III MCLELLAN & ZWICK 2007:31, figs. 30-35 (nymph: habitus, labial segment, left maxilla, pilosity of abdominal tergite, abdominal tip ventral). Three nymphs, CHILE: XII: Magallanes.

Antarctoperlinae gen. sp. IV MCLELLAN & ZWICK 2007:34, figs. 36-42 (nymph: habitus, fore body lateral, st5 with setation and chloride cells, fore body of penultimate and antepenultimate instars). Three nymphs, CHILE: VII: Linares.

Dinotoperlinae MCLELLAN

Dinotoperlinae MCLELLAN 1977:121.

Genus *Alfonsoperla* MCLELLAN & ZWICK

Alfonsoperla MCLELLAN & ZWICK 2007:22. Species typica, monotypy: *Alfonsoperla flinti* MCLELLAN & ZWICK. Type locality: CHILE: VIII (Biobío). • STARK, FROEHLICH & ZUÑIGA 2009:79.

Distribution: Chile.

flinti MCLELLAN & ZWICK 2007:22, figs.6-17, 71 (wings; ♂: terminalia lateral, dorsal, oblique with everted penis; ♀: terminalia ventral; nymph: habitus, head and pronotum lateral, head frontal, hind tarsus, labium, maxilla, mandible, lacinia). Holotype, ♂: CHILE: VIII: Arauco, San Alfonso above Caramávida [OS FLINT, G BARRÍA, 16-17/X/1969]; NMNH. Larventyp X (*Teutoperla*?). ILLIES 1963 belongs here.

Gripopteryginae ENDERLEIN

Gripopteryginae ENDERLEIN 1909b:392. • ILLIES 1963:151. Redefinition. • ILLIES 1966:29. • MCLELLAN 1977:121. Redefinition.

Andiperlinae AUBERT 1956a (*partim*): *Andiperla*, *Andiperlodes*. • ILLIES 1960d:165, fig. 4 (distribution map).

Paragripopteryginae ILLIES 1963:176, fig. 15 (distribution of 3 genera). Key to genera. • ZWICK 1973b:208. • MCLELLAN 1977:120. Included in Gripopteryginae.

Genus *Andiperla* AUBERT

Andiperla AUBERT 1956a:229. Species typica, monotypy: *Andiperla willinki* AUBERT. Type locality: ARGENTINA. In Andiperlinae. • ILLIES 1963:241, fig. 51 (distribution map). • ILLIES 1964a:45, fig. 5a (♂ terminalia lateral). In Paragripopteryginae. • ILLIES 1966:40. • STARK, FROEHLICH & ZUÑIGA 2009:79.

Distribution: Southern South America.

willinki AUBERT 1956a:229, figs. 1-5 (♀, habitus; ♂, terminalia lateral, dorsal; ♀ terminalia ventral; nymph, terminalia ventral). Holotype, ♂: ARGENTINA: Santa Cruz, Glaciar Upsala ca. Lago Argentino, ca. 1000 m [A WILLINK, 18/III/1953]; Lausanne. Paratypes: 1♂, 5♀, 1

nymph. • ILLIES 1963:241, fig. 5a (maxilla). • ILLIES 1964a:38, fig. 1A (♀, habitus), 46, fig. 5a (♂, terminalia lateral). • ILLIES 1966:40. • LANFRANCO 1982:208, fig. 1 (distribution). ARGENTINA, CHILE, from ca. 48° to ca. 51°30'S • SARTORI, MEMBIELA, RAVIZZA, SÁNCHEZ-ORTEGA & ZWICK 1990:169. Holotype in Lausanne.

Genus *Andiperlodes* ILLIES

Andiperlodes ILLIES 1963:241, fig. 51 (distribution map). Species typica, monotypy: *Andiperlodes holdgatei*. In Andiperlinae. • ILLIES 1964a:47. In Paragripopteryginae. • ILLIES 1966:40. • STARK, FROEHLICH & ZUÑIGA 2009:80.

Distribution: Chile.

holdgatei ILLIES 1963:243, fig. 50c-e (♀: maxilla, habitus, terminalia ventral). Holotype, ♀: CHILE: XII: Magallanes, Peninsula Muñoz Gamero (52°25'S) [MW HOLDGATE, 27/XII/1958]; Illies. Paratypes: 9♀. • ILLIES 1964a:38, fig. 1D (♀, habitus), 46, fig. 5e (♂, terminalia lateral). • ILLIES 1966:41. • LANFRANCO 1982:208, fig. 1 (distribution).

tehuwelche PESSACQ, 2009:51, figs. 1-4 (male: terminalia dorsal and lateral; female: head and thorax, left maxilla, terminalia ventral, tergum 10). Holotype, ♂: ARGENTINA: Santa Cruz, Estancia La Angostura, nameless stream at side of state route 29, 48°37'44"S, 70°37'05"W, 580 m [J MUZÓN, 20/02/2009]; La Plata. Allotype, ♀; paratypes, 10 nymphs.

Genus *Aubertoperla* ILLIES

Aubertoperla ILLIES 1963:187. Species typica, original designation: *Gripopteryx illiesi* FROEHLICH. Key to species. In Paragripopteryginae. • ILLIES 1966:41. • MCLELLAN 1977:121. Gripopteryginae. • STARK, FROEHLICH & ZUÑIGA 2009:81.

Distribution: Southern South America.

illiesi {*Gripopteryx*} (FROEHLICH 1960):11, fig. 6 (wings; ♂ terminalia dorsal, ventral, lateral; ♀ terminalia ventral). Holotype, ♂: CHILE: IX: Angol, Sierra de Nahelbuta [ROSS & MICHELBACHER, 03/I/1951]; CAS. Allotype, ♀:

same data as holotype. Paratypes: 3♀. • {*Aubertoperla*} ILLIES 1963:188, figs. 20-21a-c (nymph: habitus; terminalia ventral; maxilla and mandible. Wings. ♂: terminalia ventral, lateral). CHILE, ARGENTINA, between 35° and 45°S. • WERNER 1965:230. [South to 41°S]. VII: Curicó; VIII: Ñuble, Arauco; IX: Malleco, Cautín; X: Osorno; XI: Aisén. • ILLIES 1966:41. • MCLELLAN & ZWICK 2007:40, fig. 67 (lacinia).

kuscheli ILLIES 1963:190, fig. 21d-h (apical half of forewing; ♂: terminalia ventral, dorsal, lateral, lateral without cercus and paraproct). Holotype, ♂: CHILE: XI: Aisén, Río Murta, at mouth into Lago Buenos Aires [KUSCHEL, 26/01/1956]; Illies. Paratypes: 2♂, 2♀, 2 nymphs. XI: Aisén; XII: Magallanes. • WERNER 1965:230. VIII: Arauco. • ILLIES 1966:41.

Genus *Claudioperla* ILLIES

Claudioperla ILLIES 1963:197. Species typica, monotypy: *Gripopteryx tigrina* Klapálek. In Paragripopteryginae. • ILLIES 1966:41. • MCLELLAN 1977:121. Gripopteryginae. • STARK, FROEHЛИCH & ZUÑIGA 2009:82.

Distribution: Along the Andes from Colombia to Chile.

tigrina {*Gripopteryx*} (Klapálek 1904):11, figs. 7-8 (wings, terminalia lateral, ventral and dorsal). Holotype, ♂: PERU: Callonga [Lima, Callanga] [STAUDINGER]; ? • ENDERLEIN 1909b (not Klapálek 1904, *fide* FROEHЛИCH 1960):415. Cusco. • {*Claudioperla*} ILLIES 1963:198, figs. 25, 26 (nymph: habitus, mandible and maxilla, terminalia ventral; wings). PERU: Puno, Lima; BOLIVIA, La Paz ; CHILE: II: Antofagasta. • WERNER 1965:230. CHILE: XIV: Valdivia (39°35'S). • ILLIES 1966:41. • TURCOTTE & HARPER 1982:413. ECUADOR: Azuay. • MCLELLAN & ZWICK 2007:39, figs. 55-57 (nymph: t8, pilosity, chloride cell).

enderleini {*Gripopteryx*} FROEHЛИCH 1960:4, fig.1 (wings, ♂ terminalia ventral, dorsal, lateral; ♀ terminalia ventral). Holotype, ♂: PERU: [Puno,] 60 km N Puno [ROSS & MICHELBACHER, 28/II/1951]; CAS. Allotype, ♀: same data as

holotype. Paratypes: 21♂, 5♀, Puno, Cusco. • ILLIES 1963:198. **Synonym** of *C. tigrina*

sp. ZÚÑIGA, DIAS, MARTÍNEZ, ZABALA & BACAA 2009:743. COLOMBIA: Nariño, Municipio de Cumbal, Rio Blanco, 3050 m, 00° 53' 47" N, 77° 48' 23" W, 15/02/2008, 10♂, 15♀, 12 nymphs.

Genus *Falklandoperla* MCLELLAN

Falklandoperla MCLELLAN 2001a:155. Species typica, monotypy: *Falklandoperla kelper* MCLELLAN. • STARK, FROEHЛИCH & ZUÑIGA 2009:85.

Distribution: Falkland (Malvinas) Islands.

kelper MCLELLAN 2001a:156, figs 1-7 (♀: habitus, hind tarsus, terminalia ventral; nymph: habitus, terminalia ventral, mandible, maxilla). Holotype, ♀: East Falkland, banks of first stream E of minefield 57 [RM ALLIBONE, WL CHADDERTON, RM McDOWALL, 07/XI/1999]; London. Paratypes: 5♀, 14 nymphs, East and West Falkland.

sp. A, Gripopteryginae, MCLELLAN WAIS & CABO 1990.

Genus *Gripopteryx* (PICTET)

Capnia (*Gripopteryx*) PICTET 1841:327. Species typica, by precedence: *Capnia cancellata* PICTET 1841. • {*Gripopteryx*} Klapálek 1904:6. Comments; key to species • JEWETT 1960b:167. Key to species. • ILLIES 1963:152, fig. 2 (nymph: habitus dorsal, lateral; terminalia ventral; mandible, maxilla). Redefinition. Key to species. • ILLIES 1966:29. • FROEHЛИCH 1969:18. • ZWICK 1973b:199. • STARK, FROEHЛИCH & ZUÑIGA 2009:85.

Gripoptera ŠAMAL 1921:110. Species typica, monotypy: *Gripoptera brasiliensis* ŠAMAL. • NAVÁS 1921:263. Translation of ŠAMAL 1921 into Latin. • JEWETT 1959a:149. **Synonym** of *Gripopteryx*.

Distribution: Central and southern Brazil, Uruguay, Paraguay, northeastern Argentina.

brasiliensis {*Gripoptera*} (ŠAMAL 1921):110, figs. 2-5 (head, pronotum, terminalia dorsal and ventral). Holotype, ♀: BRAZIL: Santa Catarina, Blumenau [HETSCHKU]; KEMPNY, missing. • NAVÁS 1921:264. Translation of ŠAMAL 1921 into Latin. •

{*Gripopteryx*} JEWETT 1959a:149, figs. 1, 1A, 1 B (wings, ♀ terminalia ventral and lateral). **Santa Catarina.** JEWETT's male allotype is invalid. • JEWETT 1960b:168. **Synonym** of *G. cancellata*. • ILLIES 1963:155. **Synonym** of *G. cancellata*. • FROEHLICH 1969:18. *Species propria*. • ZWICK 1972a:1131. Possible **synonyms** of *G. brasiliensis* sensu JEWETT 1959a: *G. zurbitui* NAVÁS 1927, *G. serrei* NAVÁS 1930c and *G. pardina* NAVÁS 1936. • ZWICK 1973b:199. *zurbitui* NAVÁS 1927:68. • ILLIES 1963:155. **Synonym** of *Gripopteryx cancellata*. • ZWICK 1972a:1131. Possible **synonym** of *G. brasiliensis* sensu JEWETT 1959a. • ZWICK 1973b:199.

cancellata {*Capnia (Gripopteryx)*} (PICTET 1841):328, pl. 41 (♂: habitus, wings closed; habitus, wings expanded; head and pronotum; terminalia dorsal and ventral, paraproct). Holotype, ♂: **BRAZIL**; Genève. • {*Gripopteryx*} Klapálek 1904 (nec PICTET 1841, *fide* ENDERLEIN 1909c):8, figs. 4-5 (male terminalia lateral, dorsal). • {*Gripopteryx*} JEWETT 1960b:168. **Santa Catarina, Rio de Janeiro.** • ILLIES 1963:155. • ILLIES 1966:29. • ZWICK 1972a:1129, fig. 1 (♂ holotype: terminalia lateral, ventral, dorsal; paraproct). • ZWICK 1973b:199. • FROEHLICH 1990:236, figs. 1-8 (♀: terminalia ventral, lateral, dorsal; nymph, ♂: head and pronotum; thorax dorsal, abdomen lateral; terminalia oblique and dorsal; nymph, ♀, terminalia ventral). **Minas Gerais, Rio de Janeiro, São Paulo.** • FROEHLICH 1993:21. **Minas Gerais, Rio de Janeiro, São Paulo, Santa Catarina, Rio Grande do Sul.**

coruja FROEHLICH 1993:25, figs. 3-9 (♂: terminalia ventral, lateral; epiproct; ♀: terminalia ventral; paraprocts; nymph: thorax and abdomen lateral; terminalia lateral). Holotype, ♂: **BRAZIL: São Paulo**, Salesópolis, Estação Biológica de Boracéia [FROEHLICH, 11/XI/1990]; São Paulo. Paratypes: 4♂, 4♀, 5♂ + exuviae, 1♀ + exuviae, 54 nymphs, 4 final nymphal exuviae.

elisae ILLIES 1964c: 49, figs 1-2 (♂, right forewing, terminalia dorsal, ventral, lateral. Nymph: habitus, mouthparts, contour of dorsum, terminalia ventral). Holotype, ♂: **BRAZIL: Rio**

Grande do Sul, Bom Jesus (28°40'S, 50°23'W), 1100 m [E FITTKAU, 24/X/1961]; Illies. • ILLIES 1966:30. • FROEHLICH 1969:19.

flinti FROEHLICH 1993:36, figs. 32-34 (♂: terminalia dorsal, ventrolateral; epiproct). Holotype, ♂: **BRAZIL: Rio de Janeiro**, Nova Friburgo, Parque Municipal [OS FLINT, C FLINT, SA VANIN, 20/IV/1977]; São Paulo. Paratypes: 1♂, **Rio de Janeiro**, Parque Nacional do Itatiaia; 2♂, **São Paulo**, Caraguatatuba.

garbei NAVÁS 1936:731, fig. 19 (hindwing). Holotype, ♀: **BRAZIL: Rio de Janeiro**, Serra de Macaé [GARBE, 29/X/1909]; São Paulo. • AUBERT 1956b:438. Type in São Paulo. • JEWETT 1960b:170. • {*Jewettoperla*} ILLIES 1963 (nec NAVÁS 1936):185, fig 19 (wings; ♀ terminalia ventral). • {*Paragripopteryx*} ILLIES 1966:45. • FROEHLICH 1969:19. • {*Gripopteryx*} FROEHLICH 1990:240, figs. 15-20 (♂, terminalia ventral, dorsolateral; epiproct; ♀, terminalia oblique; nymph, ♂, thorax and abdomen lateral terminalia lateral). **Minas Gerais, Rio de Janeiro, São Paulo.** • FROEHLICH 1993:22. **Minas Gerais, Rio de Janeiro, São Paulo, Santa Catarina.** ILLIES's material from the Boracéia Biological Station, including the figure, belongs to *Paragripopteryx blanda* FROEHLICH.

juetah FROEHLICH 1990:242, figs. 21-33 (♂: head and pronotum dorsal; terminalia ventral and lateral; epiproct; ♀: terminalia ventrolateral, dorsal, paraproct; eggs; nymph, ♂, thorax and abdomen lateral; terminalia lateral; nymph, ♀, terminalia ventrolateral). Holotype, ♂: **BRAZIL: São Paulo**, Campos do Jordão, Parque Estadual, 1600 m [FROEHLICH, 15/X/1985]; São Paulo. Paratypes: 15♂, 1♂ + exuviae, 13♀, 62 nymphs, 9 last instar nymphal exuviae. **São Paulo, Minas Gerais.** [Obs.: ILLIES 1963:154, fig. 2 belongs to this species.]

liana FROEHLICH 1993:31, figs. 17-25 (♂: terminalia ventral, lateral, dorsal; epiproct; ♀: terminalia ventral; paraprocts; nymph, ♂: thorax and abdomen lateral, terminalia lateral). Holotype, ♂: **BRAZIL: Minas Gerais**, Santana do Riacho, Serra do Cipó, Chapéu de Sol, 1000 m [FROEHLICH,

08/X/1975]; São Paulo. Paratypes, 8♂, 5♀, 12 nymphs, 3 final nymphal exuviae.

maculosa JEWETT 1960b:171, figs. 2, 2A, 2B, 2C (wings; ♂ terminalia lateral and ventral; ♀ terminalia ventral). Holotype, ♂: **BRAZIL: Rio de Janeiro**, Petrópolis, Alto Mosella [D ALBUQUERQUE, III/1957]; Rio de Janeiro. Allotype, ♀: **Espírito Santo**, Santa Teresa, Reserva do Museu [SANTOS, MACHADO, BARROS, III/1957]; Rio de Janeiro. Paratypes: 2♂, **Rio de Janeiro**; 1♂, 1♀, **Espírito Santo**. • ILLIES 1963 (nec JEWETT 1960a):56, fig. 3 (♂: terminalia dorsal, ventral, lateral; ♀: wings terminalia). **São Paulo**, Salesópolis. The material from Boraceia, including fig. 3, belongs to *Gr. coruja* FROEHLICH. • ILLIES 1966:30. • FROEHLICH 1969:19. • FROEHLICH 1993:24, fig. 2 (♂ holotype: terminalia lateral). • AVELINO-CAPISTRANO & COSTA 2009:69. Holotype and allotype in Rio de Janeiro.

pardina NAVÁS 1936:730, fig. 18 (forewing, detail of hindwing). Holotype, ♀: **BRAZIL: Rio de Janeiro**, Itatiaia; São Paulo. • AUBERT 1956b:438. Type in São Paulo. • JEWETT 1960b:171. • ILLIES 1963:155. **Synonym** of *Gripopteryx cancellata*. • ILLIES 1966:460. *Species inquirenda*. • FROEHLICH 1969:19. *Species propria*. • ZWICK 1972a:1131. Possible **synonym** of *G. brasiliensis* sensu JEWETT 1959a. • FROEHLICH 1993:23, fig. 1 (♀ holotype: terminalia ventral).

pilosa FROEHLICH 1990:245, figs. 34-43 (♂: head and pronotum; terminalia ventral, lateral, dorsal; epiproct; ♀, terminalia dorsal, oblique; nymph, ♂, thorax and abdomen lateral; terminalia lateral). Holotype, ♂: **BRAZIL: Minas Gerais**, Sapucaí-Mirim [OLIVEIRA, 06/IX/1986]; São Paulo. Paratypes: 1♂, 6♀, 2♀ + exuviae; 31 nymphs, 9 last instar nymphal exuviae. **Minas Gerais, Rio de Janeiro, São Paulo**.

pinima FROEHLICH 1993:29, figs. 10-16 ((♂: terminalia ventral, dorsal, lateral; epiproct; ♀: terminalia ventral; nymph, ♂: thorax and abdomen lateral; terminalia lateral). Holotype, ♂: **BRAZIL: São Paulo**, Salesópolis, Estação Biológica de Boracéia, 850 m [FROEHLICH, 11/XI/1988]; São Paulo.

Paratypes: 9♂, 2♂ + exuviae, 6♀, 45 nymphs, 1 final nymphal exuviae. • MCLELLAN & ZWICK 2007:40, fig. 69 (lacinia).

reticulata BRAUER 1866:51. Holotype, ♂: **BRAZIL: Rio de Janeiro**; Vienna. • JEWETT, 1960b:171, figs. 3, 3A, 3B, 3C (wings; ♂ terminalia lateral and ventral; ♀ terminalia ventral). **Rio de Janeiro, São Paulo**. The ♀ allotype is invalid. • ILLIES 1963: 57. • ILLIES 1966:30. • FROEHLICH 1969:18. • FROEHLICH 1990:238 figs. 9-14 (♀, terminalia oblique; nymph, ♀: head and pronotum; terminalia dorsal and oblique; nymph, ♂: dorsal thorax and abdomen, lateral, terminalia, lateral). **Minas Gerais, Rio de Janeiro, São Paulo**. • FROEHLICH 1993:22. **Minas Gerais, Rio de Janeiro, São Paulo**.

brasiliensis {*Gripoptera*} ŠÁMAL 1921:110. • ILLIES 1963:157. **Synonym** of *Gripopteryx reticulata*. • FROEHLICH 1969:18. *Species propria*.

zikanina {*Klapopteryx*} (NAVÁS 1932a):62, fig. 7 (forewing, part of hindwing). Holotype, ♀: **BRAZIL: Rio de Janeiro**, Barão Homem de Mello (ZIKAN, 01/03/1927); Berlin. • AUBERT 1956b:438. Type in Berlin. • ILLIES 1963:157. **Synonym** of *Gripopteryx reticulata*.

serrei NAVÁS 1930c:14, fig. 40 (hindwing). Holotype, ♀: **URUGUAY: Florida**, Cerro Colorado [P SERRE, 1911]; Paris. • AUBERT 1956b:438. Type in Paris. • ILLIES 1963:155. **Synonym** of *Gripopteryx cancellata*. • ZWICK 1972a:1131. Possible **synonym** of *G. reticulata* sensu JEWETT 1959a. • ZWICK 1984:148, figs. 1-3 (♀ holotype: terminalia ventral, lateral, dorsal). *Species propria*.

serrensis FROEHLICH 1993:34, figs. 26-31 (♂: subgenital plate; t10, paraprocts; ♀: terminalia ventral; ♂ nymphal exuviae: nota, wing pads, abdomen lateral; ♀ nymphal exuviae: contour of abdomen, lateral). Holotype, ♂ + exuviae: **BRAZIL: Rio Grande do Sul**, Santo Antônio da Patrulha [WILLAND & FIORENTIN, 30/IX/1989]; São Paulo. Paratype, ♀ + exuviae.

zurbitui NAVÁS 1927:68. Holotype, ♀: **PARAGUAY: [Itapúa]**, Hohenau. [STAUDINGER & BANG-HAAS]; Navás, lost. • AUBERT 1956b:438. Type not

located. • ILLIES 1963:155. **Synonym** of *Gripopteryx cancellata*. • ZWICK 1972a:1131. Possible synonym of *G. brasiliensis* sensu JEWETT.

sp. *Gripopteryx?* Klapálek 1904:3, fig. 1 (nymph, ♀, terminalia ventral). Nymph: **Falkland Islands**, Port Stanley, freshwater pool [MICHAELSEN, 16/VII/1893].

sp. Klapálek 1904:4. Nymph, ♂: [ARGENTINA]: **Tierra del Fuego**, Ushuaia, lagoon at mouth of Río Grande (often brackish?) [MICHAELSEN, 9/XII/1892].

sp. JEWETT 1959a:150. One ♂, 1♀. **BRAZIL: Santa Catarina**, Nova Teutonia [PLAUMANN]; Jewett. • JEWETT 1960b:196. Described as *Gripopteryx crassila*.

Gripopterygidae nymph, group A: *Gripopteryx*. FIORENTIN & CORSEUIL 1994:32, fig. 1 (habitus). **BRAZIL: Rio Grande do Sul**.

Gripopterygidae nymph, group B: *Gripopteryx*. FIORENTIN & CORSEUIL 1994:33, fig. 2 (habitus). **BRAZIL: Rio Grande do Sul**.

Genus *Guaranyperla* FROEHЛИCH

Guaranyperla FROEHЛИCH 2001:377. Species typical, original designation: *Guaranyperla guapiara* FROEHЛИCH. • STARK, FROEHЛИCH & ZUÑIGA 2009:87.

Distribution: Southeastern Brazil.

beckeri FROEHЛИCH 2001:380, figs. 7-10 (male, head and pronotum, male terminalia dorsal, ventral and lateral). Holotype, ♂: **Minas Gerais**, Poços de Caldas, Morro do Ferro [J BECKER, 20/X/1963]; São Paulo.

guapiara FROEHЛИCH 2001:378, figs. 1-6 (female, head and pronotum, terminalia; nymph, habitus dorsal and details). Holotype, ♀: adult and nymphal exuviae: **São Paulo**, Iporanga, Parque Estadual Intervales, Rio das Mortes, 540 m [FROEHЛИCH & DE RIBEIRO, 6/VIII/1997]; São Paulo. Paratypes: 1♀, 2♀ + exuviae; 7 nymphs.

nitens FROEHЛИCH 2001:381, Figs. 11-12 (female, head and pronotum, terminalia ventral). Holotype, ♀: **São Paulo**, Campos do Jordão, State Park [CG FROEHЛИCH, 30/X/1986]; São Paulo.

spec. A FROEHЛИCH 2001:381, fig. 13 (nymph, habitus). **São Paulo**, Campos do Jordão, State Park, 2 nymphs: [SA VANIN, 18/V/1993]; São Paulo. Putative nymph of *Gu. nitens*.

spp., nymphs FROEHЛИCH 2001:383. **São Paulo, Minas Gerais, Espírito Santo**.

Genus *Limnoperla* ILLIES

Limnoperla ILLIES 1963:199. Species typica, monotypy: *Gripopteryx jaffueli* NAVÁS. In Paragripopteryginae. • ILLIES 1966:44. • MCLELLAN 1977:121. In Gripopteryginae. • STARK, FROEHЛИCH & ZUÑIGA 2009:87.

Distribution: Southern South America.

jaffueli {*Gripopteryx*} (NAVÁS 1928):119, fig. 20 (hindwing). Holotype: **CHILE: [V]: Marga-Marga, Los Perales** [JAFFUEL & PIRIÓN, X/1926]; DEI, lost. • {*Limnoperla*} ILLIES 1963:201, figs 27-30 (nymph: habitus; mandible and maxilla; terminalia ventral. Wings. ♂: variation in wing length; variation in shape of paraproct and epiproct; terminalia lateral and oblique. ♀: subgenital plate). Neotype, ♂: **CHILE: IX: Cautín**, Cunco [probably FAZ, 02/01/1930]; DEI. **CHILE, ARGENTINA**, between 32° and 53°15'S. • WERNER 1965:230, From **Coquimbo [IX] to Magallanes [XII]**. • ILLIES 1966:44. • ZWICK 1972b:99. **CHILE: XIV: Valdivia; X: Llanquihue, Chiloé**. • PETERSEN & GAEDIKE 1968:966. Holotype lost. • JOOST 1976:205. **V: Valparaíso; M: Santiago; VII: Cauquenes, Linares; VIII: Arauco; XI: Aisén**. • MCLELLAN & ZWICK 2007:38, 40, figs. 54, 64, 65, 68 (nymph: fore body, dorsal; hind femur; labium, lacinia).

pirioni {*Gripopteryx*} (NAVÁS 1930b):354. Holotype: **[CHILE: V] Marga Marga** [P PIRIÓN, VIII/1927]; Navás, lost. • AUBERT 1956b:438. Type not located. • ILLIES 1963:201. **Synonym** of *Limnoperla jaffueli*.

venulata {*Grypopteryx* (sic)} (NAVÁS 1933):232, fig. 49

(forewing). Holotype, ♂: CHILE: IX: Angol [BULLOCK, 14/08/1931]. • AUBERT 1957:58. Holotype in Barcelona. • FROEHЛИCH 1960:6, fig. 2 (wings; ♂ terminalia lateral, ventral and dorsal; ♀ terminalia ventral. Neotype ♂ designated: CHILE: IX: Angol [ROSS & MICHELBACHER, 31/XII/1950]; CAS. Additional material: ♂, ♀, VIII: Biobío, Ñuble, Cautín; IX: Malleco; XIV: Valdivia; X: Llanquihue, Osorno. • ILLIES 1963:201. **Synonym** of *Limnoperla jaffueli*.

Genus *Neopentura* ILLIES

Neopentura ILLIES 1965:154. Species typica, monotypy: *Neopentura semifusca* ILLIES. In Austroperlidae. • ILLIES 1966:14. • ILLIES 1969:21. In Gripopterygidae. • ZWICK 1973b:201. • STARK, FROEHЛИCH & ZUÑIGA 2009:89.

Distribution: Southern Argentina and Chile.

semifusca ILLIES 1965:156, fig. 3 (wings, head and pronotum, terminalia ventral). Holotype, ♀: ARGENTINA: Neuquén, Hua-Hum (=Río Guahum, 40°05'S, 71°42'W, VERA 2006b) [Hayward, XII/1946]; Lausanne. • ILLIES 1966:14. • SARTORI, MEMBIELA, RAVIZZA, SÁNCHEZ-ORTEGA & ZWICK 1990:168. Holotype in Lausanne. • VERA 2006b:70, figs. 1-10 (♂: wings, terminalia lateral, dorsal and ventral, cercus and paraproct; ♀: st8-9; nymph: habitus lateral and dorsal, detail of margin of st8, mandibles, maxilla, labium). CHILE: Regiones IX (La Araucanía) to XI (Aisén). ARGENTINA: Río Negro.

Antarctoperlinae (*Araucanioperla*?) larval type A ILLIES 1963:235. • *Araucanioperla* sp.? WAIS 1983:100. Nymph of *N. semifusca* fide VERA 2006b.

Genus *Paragripopteryx* ENDERLEIN

Paragripopteryx ENDERLEIN 1909b:416. Species typica, monotypy: *Gripopteryx cancellata*; Klapálek 1904 (nec PICTET 1841), renamed *Paragripopteryx klapaleki*. • ILLIES 1963 (nec ENDERLEIN 1909b):178 • ILLIES 1966:44. • FROEHЛИCH 1969:19. • ZWICK 1973b:210. • STARK, FROEHЛИCH & ZUÑIGA 2009:91.

Gripopteryx; JEWETT 1960b (*partim*):167.

Jewettoperla ILLIES 1963:184. Species typica, original

designation: *Gripopteryx crassila* JEWETT 1960b. In Paragripopteryginae. • FROEHЛИCH 1969:19. **Synonym** of *Paragripopteryx*.

Distribution: Uruguay, NE Argentina, S and SE Brazil.

anga FROEHЛИCH 1969:23, figs. 11-18, 35 (♂: terminalia dorsal, lateral, ventral; ♀: wings, terminalia ventral; nymph: mouth parts, t10). Holotype, ♂: BRAZIL: São Paulo, [Santo André], Estação Biológica de Paranapiacaba [CG FROEHЛИCH, 27/III/1964]; São Paulo. Paratypes: ♂, ♀, nymphs. • ILLIES 1966:45 (*nomem nudum*). • FROEHЛИCH 1994:228.

baratinii BENEDETTO 1983:19, figs. 1-7 (♂: terminalia ventral, lateral, dorsal, posterior; epiproct; ♀: terminalia ventral, lateral). Holotype, ♂: URUGUAY: Lavalleja, Aguas Blancas [28/X/1956]; Montevideo. Paratypes: 4♂, 1♀.

blanda FROEHЛИCH 1969:26, figs. 19-25 (♂: wings, terminalia dorsal, ventral, lateral; ♀: terminalia ventral, paraproct; nymph: terminalia dorsal, lacinia and galea). Holotype, ♂: BRAZIL: São Paulo, [Santo André], Estação Biológica de Paranapiacaba. [CG FROEHЛИCH, 17/IX/1963]; São Paulo. Paratypes: ♂, ♀, nymphs. • ILLIES 1966:45 (*nomem nudum*). • FROEHЛИCH 1994:228.

garbei {*Jewettoperla*} ILLIES 1963 (nec NAVÁS 1936):185, fig. 19 (♀: wings, terminalia ventral). BRAZIL: São Paulo. *Vide supra* remark in *Gr. garbei*.

crassila {*Gripopteryx*} (JEWETT 1960b):169, figs. 1, 1A, 1B (♂: wings; terminalia lateral; ♀: terminalia ventral). Holotype, ♂: BRAZIL: Santa Catarina, Nova Teutonia [PLAUMANN, X/1956]; CAS. Allotype, ♀: same data as holotype but XI/1956. • {*Jewettoperla*} ILLIES 1963:185. • {*Paragripopteryx*} ILLIES 1966:45. • FROEHЛИCH 1969:19.

sp. {*Gripopteryx*} JEWETT 1959a:150. ♂, ♀.

delicata FROEHЛИCH 1994:229, figs. 1-5 (♂: terminalia dorsal, ventral, lateral; ♀: terminalia ventral). Holotype, ♂: BRAZIL: São Paulo, Campos do Jordão, Parque Estadual, 1600 m [CG FROEHЛИCH, 26/XI/1986]; São Paulo. Paratypes: 10♂, 30♀, 1♀ + exuviae.

egena FROEHLICH 1994:237, figs; 26-30 (δ : terminalia dorsal, ventral, lateral; φ : terminalia ventral, additional subgenital plate). Holotype, δ : BRAZIL: São Paulo, Iporanga, Parque Estadual (Fazenda) Intervales [CG FROEHLICH, CM POLEGATTO, 18/XI/1992]. São Paulo. Paratypes: 3 δ , 6 φ .

guardae FROEHLICH 1994:231, figs 6-11 (δ : terminalia dorsal, ventral, lateral; φ : terminalia ventral; Nymph: δ and φ paraprocts, femoral bristles). Holotype, δ : BRAZIL: São Paulo, Campos do Jordão, Parque Estadual [CG FROEHLICH, 17/X/1985]; São Paulo. Paratypes: 5 δ , 2 δ + exuviae, 10 φ , 23 nymphs.

hamata FROEHLICH 1994:234, figs. 18-21 (δ : terminalia dorsal, ventral, lateral; φ : terminalia ventral). Paratype, δ : BRAZIL: São Paulo, Salesópolis, Estação Biológica de Boracéia, 850 m [CG FROEHLICH, MJN FERREIRA, LG OLIVEIRA, 12/XI/1990]; São Paulo. Paratypes: 4 δ , 5 φ .

klapaleki ENDERLEIN 1909b:416. Holotype, δ : *Gripopteryx cancellata*, Klapálek 1904 (nec PICTET 1841). • {*Gripopteryx*} JEWETT, 1960b:170. • ILLIES 1963:179. **Synonym** of *Paragripopteryx gracilis*; ILLIES. • {*Paragripopteryx*} ILLIES 1966:46. • FROEHLICH 1969:19, figs. 1-10 (δ : terminalia dorsal, ventral, lateral, epiproct. φ : terminalia ventral. Nymph: terminalia dorsal, femur, tarsus, claviform hairs, lacinia and galea, habitus). δ , φ , nymphs. São Paulo. *Species propria*. • ZWICK 1973a:476. • FROEHLICH 1994:228.

cancellata {*Gripopteryx*} Klapálek 1904 (nec PICTET 1841):8, figs. 3-5 (wings, terminalia lateral and dorsal). δ : BRAZIL: Rio de Janeiro, Petrópolis; Helsinki, lost. • ENDERLEIN 1909b:416. *Paragripopteryx klapaleki*.

merui FROEHLICH 1994:232, figs. 13-17 (δ : terminalia dorsal, ventral, lateral; epiproct; nymphal exuviae of holotype: paraprocts). Holotype, δ : BRAZIL: São Paulo, Campos do Jordão, Parque Estadual [CG FROEHLICH, MJN FERREIRA & LG OLIVEIRA, 20/XI/1987]; São Paulo. Paratypes: 1 δ , 1 δ + exuviae.

munoai {*Jewettoperla*} (BENEDETTO 1969):145, figs. 1-13 (δ : habitus lateral, terminalia ventral, dorsal, lateral, posterior; φ : habitus lateral, terminalia ventral, lateral, posterior; nymph, δ terminalia ventral, φ terminalia ventral). Holotype, δ : URUGUAY: Maldonado, Cerro de las Animas [ZOLESSI & al., 27/VII/1967]; Montevideo. Allotype, φ : same data as as holotype. Paratypes: 22, δ , φ , nymphs. • BENEDETTO 1970:386, figs. 2-5 (nymph, habitus; adult, emergence, copulation; egg). • {*Paragripopteryx*} ZWICK 1973b:210.

Gripopterygidae nymph, group D: *Paragripopteryx*. FIORENTIN & CORSEUIL 1994:34, fig. 4 (foreleg). BRAZIL: Rio Grande do Sul.

Genus *Potamoperla* ILLIES

Potamoperla ILLIES 1963:182. Species typica, monotypy: *Perla myrmidon* MABILLE. In Paragripopteryginae. • ILLIES 1966:46. • MCLELLAN 1977:121. Gripopteryginae. • STARK, FROEHLICH & ZUÑIGA 2009:92.

Distribution: South America: Andean, from Peru southwards.

myrmidon {*Perla*} (MABILLE 1888):6, pl. 1, fig.3 (habitus). Holotype: [CHILE: XII], Cape Horn [HYADES]; Paris, missing. • {*Gripopteryx*} Klapálek 1904:10. • {*Potamoperla*} ILLIES 1963:182, figs. 17-18 (nymph: Habitus; cercus; terminalia ventral; mandible and maxilla. Wings. δ : t10; terminalia oblique). CHILE, ARGENTINA, south of 30°S. • ILLIES 1964a:46, fig.5b (δ terminalia lateral). • WERNER 1965:230. CHILE: VII: Curicó, XI: Aisén. • ILLIES 1966:46. • ZWICK 1972b:99. CHILE: X: Chiloé. • ZWICK 1973a:476. • JOOST 1976:205.

michelbacheri {*Gripopteryx*} FROEHLICH 1960:10, fig 5 (wings; δ terminalia lateral, dorsal, ventral). Holotype, δ : CHILE: XIV: Valdivia, 30 km S Valdivia [ROSS & MICHELBAKER, 28/XII/1950]; CAS. • ILLIES 1963:182. **Synonym** of *Potamoperla myrmidon*.

oncina {*Gripopteryx*} FROEHLICH 1960:9, fig. 4 (wings; δ terminalia lateral, dorsal and ventral; φ terminalia ventral). Holotype, δ : CHILE: VIII: Biobío, Tucapel [ROSS & MICHELBAKER,

28/XII/1950]; CAS. Allotype, ♀: same data as holotype. Paratypes: 5♂. • ILLIES 1963:182.

Synonym of *Potamoperla myrmidon*.

tigrina var. *hyalinipennis* {*Gripopteryx*} (ENDERLEIN 1909b):415. Holotype, ♂: PERU: Cusco, 3500 m [GARLEPP]; Warsaw. • ILLIES 1963:198. **Synonym** of *Claudioperla tigrina*. • ILLIES 1966:42. • ZWICK 1973a:476. **Synonym** of *Potamoperla myrmidon*.

Genus *Rhithroperla* ILLIES

Rhithroperla ILLIES 1963:205. Species typica, original designation: *Gripopteryx rossi* FROEHLICH. Key to species. In Paragripopteryginae. • ILLIES 1966:46. • MCLELLAN 1977:121. Gripopteryginae. • STARK, FROEHLICH & ZUÑIGA 2009:94.

Distribution: Southern South America.

penai ILLIES 1963:207, fig. 31d (♂: terminalia lateral). Holotype, ♂: CHILE: X: Chiloé, Isla Chiloé, Dalcahue (42°22'S) [PEÑA, 20/II/1957]; Illies. • ILLIES 1966:46.

rossi {*Gripopteryx*} FROEHLICH 1960:8, fig. 3 (wings; ♂ terminalia lateral, ventral, dorsal; ♀ terminalia ventral). Holotype, ♂: CHILE: XIV: Valdivia, 13 km E Río Bueno [ROSS & MICHELBACHER, 15/I/1951]; CAS. Allotype, ♀: X: Osorno, 10 km E of Puyehue. Paratypes: 2♂, 4♀. XIV: Valdivia; X: Osorno. • {*Rhithroperla*} ILLIES 1963:205, fig 31a-c (wings; ♂ terminalia lateral; ♀ terminalia ventral). CHILE, south of 40°S. • WERNER 1965:231. VII: Curicó; XII: Magallanes. • ILLIES 1966:47. • MCLELLAN & ZWICK 2007:38-40, figs. 53, 58-59, 61-62 (nymph, fore body, dorsal; t8, pilosity, chloride cell; head, hind femur). • (cf. *rossi*) WAIS & BONETTO 1988:1457. ARGENTINA: Río Negro. • (aff. *rossi*) WAIS 1990:837. Neuquén. • MISERENDINO & PIZZOLÓN 2000:64. Chubut.

Genus *Teutoperla* ILLIES

Teutoperla ILLIES 1963:191. Species typica, original designation: *Teutoperla rothi* ILLIES. Key to species. In Paragripopteryginae. • ILLIES 1966:47. • MCLELLAN 1977:121. In Gripopteryginae. • STARK, FROEHLICH & ZUÑIGA 2009:96.

Distribution: Chile.

auberti ILLIES 1965:151, fig. 1 (♂, terminalia dorsal, ventral, lateral; ♀, terminalia ventral, lateral). Holotype, ♂: CHILE: VIII: Ñuble, Las Cabras, SW slope of Volcán Chillán (ca. 37°S), 1400 m [PEÑA, 10-23/XII/1954]; Lausanne. Paratypes: ca. 30 ♂, ♀. • ILLIES 1966:47. • SARTORI, MEMBIELA, RAVIZZA, SÁNCHEZ-ORTEGA & ZWICK 1990:168. Holotype on Lausanne. • (cf. *auberti*) WAIS & BONETTO 1988:1457. ARGENTINA: Río Negro.

brundini ILLIES 1963:194, fig. 23 (♂: terminalia dorsal and lateral, detail second specimen; ♀: terminalia ventral). CHILE: X: Llanquihue, stream by Peulla, 41°05'S [BRUNDIN, 15/I/1959]; Illies. Paratypes: 1♂, 2♀, X: Chiloé. • WERNER 1965:230. X: Osorno. • ILLIES 1966:47. • MCLELLAN & ZWICK 2007:39-40, figs. 60, 63 (nymph: t8, pilosity; hind femora).

maulina VERA 2006c:31, figs. 1-19 (wings; ♂: head and pronotum, terminalia lateral, dorsal and ventral, details of epiproct and penis; ♀: pronotum, terminalia ventral and lateral, paraproct, ovarioles; egg and details; nymph: habitus, mandibles, maxilla, labium, paraproct, detail of t8; adult phenology histogram). Holotype, ♂: CHILE: VII (Maule): afluente del Río Curanilahue, Arroyo los Treguilles, sector Los Ruiles, 35°49'S 72°38'W. [A VERA, 31/X/2004]; Santiago. Paratypes: 8♂, 9♀.

rothi ILLIES 1963:192, fig. 22 (wings; ♂: terminalia dorsal, ventral, lateral; ♀: terminalia ventral). Holotype, ♂: CHILE: XIV: Valdivia, stream by Punucapa [ILLIES, 23/II/1958]; Illies. Paratypes: 5♂, 9♀; 37°-42°S. • ILLIES 1966:47.

Teutoperla? Larventyp X ILLIES 1963:195, fig. 24 (habitus, mandible and maxilla; terminalia ventral). CHILE: XIV: Valdivia, 39°35'S, ca. 600 m.; X: Llanquihue, 41°05'S, ca. 600 m. • VERA 2006c:30. Larventyp X does not belong to *Teutoperla*. • MCLELLAN & ZWICK 2007:27. Larventyp X is *Alfonsopteryx flinti*.

Genus *Tupiperla* FROEHLICH

Tupiperla; ILLIES 1966:47 (*Nomen nudum*). In Paragripopteryginae. • FROEHLICH 1969:28.

Species typica, monotypy: *Semblis gracilis* BURMEISTER. • MCLELLAN 1977:121. In *Gripopteryginae*. • FROEHЛИCH 1998:34. • STARK, FROEHЛИCH & ZUÑIGA 2009:96.

Paragripopteryx; ILLIES 1963 (nec ENDERLEIN 1909b):178. *Fide* FROEHЛИCH 1969.

Distribution: From highlands of central and eastern Brazil, ca. 14°S, to Uruguay, NE Argentina and S Paraguay.

eleonorae {*Paragripopteryx*} (FROEHЛИCH 1988):236, figs. 22-25 (♂: terminalia dorsal, ventral, lateral; ♀: terminalia ventral). Holotype, ♂: BRAZIL: São Paulo, Iporanga, Caverna Areias de Baixo [HOMEM & MORACCHIOLI, 21/IX/1991]; São Paulo. Paratypes: 1♂, 1♀. • {*Tupiperla*} FROEHЛИCH 1998:23, figs. 8-12 (♂, terminalia lateral, dorsal, ventral; ♀, terminalia ventro-lateral, ventral). São Paulo.

flinti FROEHЛИCH 2002a:38, figs. 1-4 (♂: terminalia lateral, dorsal, ventral; ♀: terminalia ventrolateral). Holotype, ♂: ARGENTINA: Misiones, Arroyo Coati, 15 km E of San José [OS FLINT, 18-19/XI/1973]; NMNH. Paratypes: 19♂, 21♀, Misiones; PARAGUAY: Paraguarí.

gracilis {*Semblis*} (BURMEISTER 1839):876. Holotype, ♂ (not ♀): BRAZIL; Halle. • {*Capnia* (*Gripopteryx*)} PICTET 1841:330, pl. 42, figs 1-3 (habitus, tarsus). • {*Gripopteryx*} Klapálek 1904:10. • JEWETT 1960b:170. • {*Paragripopteryx*} ILLIES 1963 (in part): 179, fig. 16 (b, t10; f, left paraproct). São Paulo. • {*Tupiperla*} ILLIES 1966:48 (*nomen nudum*). • FROEHЛИCH 1969:29, figs. 26-34 (♂: terminalia dorsal, ventral lateral; ♀: terminalia ventral; nymph: habitus, mouth parts, femur, tarsus). São Paulo. The nymph does not belong to *T. gracilis*, *fide* FROEHЛИCH 1998. • ZWICK 1972a:1131. • FROEHЛИCH 1998:20, figs. 1-3 (♂ holotype: terminalia lateral, dorsal; ♀, terminalia ventro-lateral). Rio de Janeiro, Minas Gerais, São Paulo.

illiesi FROEHЛИCH 1998:24, figs. 13-15 (♀, terminalia ventro-lateral, ventral). Holotype, ♂: BRAZIL: São Paulo, Salesópolis. Estação Biológica de Boracéia [CG & O FROEHЛИCH, 12/IX/1988]; São Paulo. Paratypes: 48♂, 42♀.

gracilis {*Paragripopteryx*} ILLIES 1963 (*partim*):179, fig. 16 (♂: t10 [c, d], terminalia lateral, paraprocts [f, center and right]; ♀: terminalia ventral). • FROEHЛИCH 1969, figs. 26-28 (♂ terminalia dorsal, ventral, lateral).

jumirim BISPO & FROEHЛИCH 2007:216, figs. 1-5 (♂: terminalia lateral, dorsal, ventral; ♀: terminalia ventral, lateral). Holotype, ♂: BRAZIL: Goiás, Chapada dos Veadeiros, Alto Paraíso, Pouso Alto-Cruzeiro (13°56'37"S; 47°29'41"W) [PC BISPO, E YOKOYAMA, GP PACIÉNCIA, 18.XII.2006]. Paratypes: 3♂, 42♀.

misionera FROEHЛИCH 2002a:38, figs. 5-7 (♂, terminalia lateral, dorsal, ventral). Holotype, ♂: ARGENTINA: Misiones, Arroyo Coati, 15 km E of San José [OS FLINT, 18-19/XI/1973]; NMNH.

modesta FROEHЛИCH 1998:26, figs. 16-19 (♂, terminalia lateral, dorsal, ventral; ♀, terminalia ventro-lateral). Holotype, ♂: BRAZIL: São Paulo, Campos do Jordão, Parque Estadual [CG FROEHЛИCH, 26/XI/1986]; São Paulo. Paratypes: 14♂, 12♀.

neofriburgensis {*Gripopteryx*} (NAVÁS 1916a):27, fig. 8 (wings, terminalia dorsal and lateral). Holotype, ♂: BRAZIL: Rio de Janeiro, Nueva [Nova] Friburgo [H RAMOS, XII/1911]; Navás. • AUBERT 1956b:438. Type not located. • JEWETT 1959a:149. Santa Catarina. JEWETT's female allotype is invalid. • JEWETT 1960b:172. **Synonym** of *Gripopteryx tessellata*.

oliveirai FROEHЛИCH 1998:26, figs. 20-24 (♂: terminalia lateral, dorsal, ventral; detail paraprocts; ♀, terminalia ventral). Holotype, ♂: BRAZIL: Goiás, Pirenópolis, Córrego Inferno [LG OLIVEIRA, 13/I/1994]; São Paulo. Paratypes: 27♂, 21♀.

reichardti FROEHЛИCH 1998:27, figs. 25-28 (♂, terminalia lateral, dorsal, ventral; ♀, terminalia ventral, ventro-lateral). Holotype, ♂: BRAZIL: São Paulo, Campos do Jordão, Parque Estadual [CG FROEHЛИCH, M GIMENES, 22/XII/1986]; São Paulo. Paratypes: 7♂, 8♀. São Paulo, Serra do

Japi; **Minas Gerais**, Poços de Caldas.

robusta FROEHЛИCH 1998:29, figs. 30 (♂, terminalia lateral, dorsal, ventral; ♀, terminalia ventral, ventro-lateral). Holotype, ♂: **BRAZIL: São Paulo**, Campos do Jordão, Parque Estadual [CG FROEHЛИCH, AC RIBEIRO-FERREIRA, 22/IV/1987]; São Paulo. Paratypes: 22♂, 6♀. **São Paulo, Rio de Janeiro.**

sulina FROEHЛИCH 1998:29, figs. 35-39 (♂: terminalia lateral, dorsal, ventral; ♀: terminalia ventro-lateral; st8-9). Holotype, ♂: **BRAZIL: Santa Catarina**, Blumenau, Reserva Spitzkopf [CG FROEHЛИCH, SA VANIN, 4/XII/1975]; São Paulo. Paratypes: 8♂, 20♀.

tessellata {*Gripopteryx*} BRAUER 1866:51. Holotype, ♀: **BRAZIL: Rio de Janeiro**; Vienna. • (*tesselata*) Klapálek 1904:9, fig. 6 (wings). **BRAZIL: [Rio de Janeiro]**. • JEWETT 1960b:172, fig. 4 (hind femur). **Rio de Janeiro**. • ILLIES 1963:179. **Synonym** of *Paragripopteryx gracilis*. • {*Tupiperla*} ILLIES 1966:48. **Synonym** of *Tupiperla gracilis*. • FROEHЛИCH 1998:21, figs. 4-7 (♂, terminalia lateral, dorsal, ventral; ♀, terminalia ventro-lateral). **BRAZIL: Rio de Janeiro, Minas Gerais, São Paulo**. *Species propria*. • FROEHЛИCH 2008:126, fig. 1 (holotype, subgenital plate).

neofriburgensis {*Gripopteryx*} (NAVÁS 1916a):27. • JEWETT 1960b:172. **Synonym** of *Gripopteryx tessellata*.

umbra FROEHЛИCH 1998:31, figs. 40-44 (♂, terminalia lateral, dorsal, ventral; ♀, terminalia ventro-lateral, ventral). Holotype, ♂: **BRAZIL: São Paulo**, Iporanga, Parque Estadual Intervales [CG FROEHЛИCH, CM POLEGATTO, 20/XI/1992]; São Paulo. Paratypes, 1♂, 3♀.

sp. A FROEHЛИCH 1998:32, fig. 45 (♀, terminalia ventro-lateral). **BRAZIL: Santa Catarina**, Ilhota, Morro do Baú, 1♀.

sp. B FROEHЛИCH 1998:33, fig. 46 (♀, terminalia ventro-lateral). **BRAZIL: Santa Catarina**, Ilhota, Morro do Baú, 3♀; Blumenau, Spitzkopf, 2♀.

sp. C FROEHЛИCH 1998:33, fig. 47 (♀, terminalia ventro-lateral). **BRAZIL: Santa Catarina**, Ilhota, Morro do Baú, 1♀.

sp. D FROEHЛИCH 1998:33, fig. 48 (♀, terminalia ventro-lateral). **BRAZIL: São Paulo**, Santo André, Estação Biológica de Paranapiacaba, 2♀, (as *T. gracilis*, FROEHЛИCH 1969).

sp. E FROEHЛИCH 1998:33, fig. 49 (♀, terminalia ventro-lateral). **BRAZIL: São Paulo**, Campos do Jordão, 1♀.

sp. F FROEHЛИCH 1998:34, fig. 50 (♀, terminalia ventro-lateral). **BRAZIL: Minas Gerais**, Poços de Caldas, 2♀.

Gripopterygidae nymph, group C: *Tupiperla*. FIORENTIN & CORSEUIL 1994:34, fig. 3 (habitus). **BRAZIL: Rio Grande do Sul**.

Genus ***Uncicauda*** MCLELLAN & ZWICK

Uncicauda MCLELLAN & ZWICK 2007:22. Species typica, monotypy, *Uncicauda pirata* MCLELLAN & ZWICK. • STARK, FROEHЛИCH & ZÚÑIGA 2009:98. **Distribution:** Chile.

pirata MCLELLAN & ZWICK 2007:22, figs. 1-5 (wings; ♂: terminalia lateral, ventral, dorsal; ♀: terminalia ventral). Holotype, ♂: **CHILE: IX: Malleco**, Nahuelbuta, Los Gringos, 37°48'S, 73°01'W, [CM FLINT, OS FLINT, 15-17/XII/1993], NMNH. Paratypes: 2♂, 2♀, **IX: Malleco**; 2♂, **Cautín**.

testacea {*Potamoperla*} VERA 2006d:169, figs. 1-10 (male: head and pronotum, wings, terminalia ventral, dorsal, lateral; female: terminalia ventral; nymph: habitus, labrum, mandible, maxilla, labium, paraproct). Holotype, male: **CHILE: IX: Curacautín, Manzanar** [A. VERA, 22/XI/2004]; Santiago. Allotype, ♀: **IX: Malleco**, Termas de Tolhuaca [M GUERRERO, 5/II/2001]. Paratypes: 5♂, 7♀, **VII (Maule)**, **IX (La Araucanía)**, **XI (Aisén)**. {*Uncicauda*} STARK, FROEHЛИCH & ZÚÑIGA 2009:98. **N. comb.**

Gripopteryginae species A MCLELLAN, WAIS, CABO

1990:177, figs. 1-5 (habitus, maxilla, mandible, terminalia ventral, paraproct). Nymph: Malvinas/Falkland Islands, East Falkland, Soledad, Malo River (ca. 51°40'S, 8°30'W) [S COSCARÓN, 06/XII/1974]; NMNH. • MCLELLAN 2001a: Belongs to *Falklandoperla kelper*.

Leptoperlinae BANKS

Leptoperlini BANKS 1913:202.

Senzillidae NAVÁS 1917:191.

Abranchioperlidae ILLIES 1958:227. • ILLIES 1960a:413.

Leptoperlinae; ILLIES 1963:161. Senzillidae, Abranchioperlidae, **synonyms** of Leptoperlinae. • ILLIES 1966:33. • MCLELLAN 1977:121.

Genus *Notoperla*

Notoperla ENDERLEIN 1909b: 393, 416. Species typica, monotypy: *Antarctoperla fuegiana* ENDERLEIN 1905.

• ENDERLEIN 1912:123. • ILLIES 1963:163, fig. 9 (distribution map). Redefined. *Senzilla*, *Abranchioperla* **synonyms** of *Notoperla*. • ILLIES 1966:38. • MCLELLAN, MERCADO & ELLIOTT 2005:33. Comments. • MCLELLAN, MISERENDINO & HOLMANN 2006:53, fig. 31 (Distribution map). Comments. • STARK, FROEHЛИCH & ZUÑIGA 2009:90.

Senzilla NAVÁS 1917:192. Species typica, monotypy: *Senzilla tunelina*.

Abranchioperla ILLIES 1958:223. Species typica, monotypy: *Abranchioperla archiplatae*.

Distribution: Southern South America.

archiplatae {*Abranchioperla*} (ILLIES 1958):223, figs. 1-3 (Nymph: habitus; abdomen ventral; head and pronotum; mouthparts; tibia and tarsus of foreleg). Holotype, nymph: CHILE: M: Santiago, Río Volcán, Lo Valdés, 1900-2000 m, 33°45'S, 70°W [ILLIES, 07 and 25/III/1958]; Illies. Paratypes: 35 nymphs. Additional material: (?) 2♀, XI: Aisén; 4 nymphs; XII: Magallanes. • ILLIES 1960a (nec ILLIES 1958):417, figs 1, 3-5 (nymph: habitus, thorax and abdomen ventral, ♂, ♀ terminalia; adult ♀: wings, pronotum, coxa, trochanter, terminalia ventral; distribution map). CHILE: M: Santiago; VI: Colchagua; XI: Aisén; XII:

Magallanes. ARGENTINA: Río Negro, Tierra del Fuego. • {*Notoperla*} ILLIES 1963:170, fig. 11 (♂ "holotype": forewing; terminalia dorsal, ventral, lateral, detail). Male holotype invalid. • ILLIES 1966:38. • MCLELLAN & ZWICK 2007:36, figs. 48-49 (nymph, coxal projection, fore body). CHILE: M.

bovei NAVÁS 1930b:354, fig. 68 (forewing). Holotype, ♀: [ARGENTINA]: Uscinuaja, T. de Fuoco (sic) [Tierra del Fuego, Ushuaia] [BOVE, II/1884]; Genova. • AUBERT 1956b:438. Type in Genova. • ILLIES 1963:167. **Synonym** of *Notoperla fuegiana*.

conspicua FROEHЛИCH 1960:19, fig. 12. (♂: terminalia lateral, dorsal, ventral; ♀: wings; terminalia ventral). Holotype, ♂: ARGENTINA: Tierra del Fuego, Ushuaia, Tierra Mayor [WYGODZINSKY, 25/I/1960]; La Plata. Allotype, ♀: same data as holotype. Paratypes: 6♂, 2♀. • ILLIES 1963:167. **Synonym** of *Notoperla fuegiana*. • ILLIES 1966:38. • ZWICK 1973a:476. Very probably *species propria*.

fasciata MCLELLAN 2006. In: MCLELLAN, MISERENDINO & HOLLMANN 2006:55, figs. 1-11 (front coxal projection, hind leg; ♂: genitalia dorsal and lateral; ♀: pronotum, forewing, genitalia ventral; nymph: head dorsal, procoxal projection, male t10 lateral and dorsal). Holotype, ♂: ARGENTINA: Chubut, La Hoya Stream, 42°50'28"S, 71°15'55"W, 1200 m [ME HOLLMANN, 18/XII/2004]; Tucumán. Paratypes: 5♂, 4♀, 11 nymphs.

fuegiana {*Antarctoperla*} (ENDERLEIN 1905):813, fig. 4 (wings). Holotype, ♀: ARGENTINA: Tierra del Fuego, Ushuaia, wood. [III/1902]; Stockholm. • {*Notoperla*} ENDERLEIN 1909b:416. • ENDERLEIN 1912:123, fig. 31; Tab. 4, fig. 42 (wings). • FROEHЛИCH 1960:19, fig. 11 (♀ terminalia ventral and dorsal). • ILLIES 1963:167, figs. 7b, 8 (♂, brachypterous, habitus; nymph: habitus; mouthparts). • ILLIES 1966:38. • ZWICK 1973a:476. It is highly unlikely that *N. conspicua* FROEHЛИCH is identical with *N. fuegiana*.

archiplatae; ILLIES 1960a (nec ILLIES 1958). **Synonym** of *N. fuegiana*.
bovei NAVÁS 1930b:354. • ILLIES 1963:167. **Synonym** of *Notoperla fuegiana*.

macdowalli MCLELLAN & MERCADO 2005. In: MCLELLAN, MERCADO & ELLIOTT 2005:35, figs. 1-6 (base of front leg, base of antenna, male genitalia dorsal and lateral, nymph habitus). Fig. 7 (locality map). Holotype, ♂: CHILE: M: Estero La Leonera, Santuario Nacional Yerba Loca, 1812 m, 33°18'40"S, 70°19'15"W [S ELLIOTT, X/2003]; Santiago. Paratypes: Nymphs: 1♂, 7♀.

magnaspina MCLELLAN 2006. In: MCLELLAN, MISERENDINO & HOLLMANN 2006:59, figs. 12-20 (front coxal projection, foreleg; ♂: genitalia dorsal and lateral; ♀: genitalia ventral; nymph: front coxal projection, head dorsal, t10 dorsal and lateral). Holotype, ♂: ARGENTINA: Chubut, La Hoya Stream, 42°50'28"S, 71°15'75"W, 1200 m [ME HOLLMANN, 25/I/2005]; Tucumán. Paratypes: 2♂, 1♀, 1 nymph. Additional material: Neuquén, Río Negro, Chubut, Santa Cruz.

tunelina {*Senzilla*} (NAVÁS 1917):192, fig. 3 (wings). Holotype, ♂: ARGENTINA: Santa Cruz, Valle Túnel, [Lago Viedma, 49°30'S] [WITTE]; La Plata. • AUBERT 1956b:438. Type in Buenos Aires (i.e., La Plata). • {*Notoperla*} ILLIES 1963:168, figs 7a, 10 (♂: habitus; terminalia dorsal, ventral, lateral, detail. ♀, wings). CHILE: XI: Aisén; XII: Magallanes. • ILLIES 1966:39. • MCLELLAN, MISERENDINO & HOLLMANN 2006:59. CHILE: XI: Aisén; XII: Magallanes. • MCLELLAN & ZWICK 2007:40, fig. 66 (lacinia).

archiplatae {*Abranchioperla*}; ILLIES 1960a (nec ILLIES 1958):417. • ILLIES. 1963:168. **Synonym** of *Notoperla tunelina*.

werneri NAVÁS 1934b:162. • ILLIES. 1963:168. **Synonym** of *Notoperla tunelina*.

werneri NAVÁS 1934b:162, fig. 38 (forewing). Holotype, ♀: CHILE: XII: Magallanes, Ultima Esperanza, 500 m [W GROMSCH, 02/1931]; Navás. • AUBERT 1956b:438. Type in Zaragoza. • ILLIES. 1963:168. **Synonym** of *Notoperla tunelina*.

Genus *Senzilloides*

Senzilloides ILLIES 1963:171. Species typica, monotypy: *Gripopteryx panguipullii* NAVÁS. • ILLIES 1966:39. • STARK, FROEHLICH & ZUÑIGA

2009:94

Distribution: Southern South America.

panguipullii {*Gripopteryx*} (NAVÁS 1928):121, fig. 21 (forewing, apex of hindwing). Syntypes: ♂, ♀: CHILE: XIV: [Valdivia,] Panguipulli [FAZ, 18/X/1924]; DEI. • AUBERT 1956b:438. Type in Berlin. • {*Senzilloides*} ILLIES 1963:174, figs. 12-14 (nymph: habitus; terminalia lateral, ventral; mandible and maxilla; wings, variation in forewing tips; ♂: terminalia dorsal, ventral, lateral; ♀: terminalia ventral). ARGENTINA, CHILE, south of 36°S. • WERNER 1965:230. CHILE: VII: Curicó. [South of 35°S]. • ILLIES 1966:39. • JOOST 1976:205. CHILE: Cordillera. [South of 33°S].

sp. FARÍAS & WAIS 1986:5, figs. 1-8 (Nymph: head and thorax, head, forefemur, terminalia dorsal; ♂, terminalia lateral, ♀, terminalia lateral). Fourteen nymphs: ARGENTINA: Neuquén, Parque Nacional Lanín, Arroyo Turbio above Lago Tromen, 600 m [EF FARÍAS, 05/I/1986].

Zelandoperlinae MCLELLAN

Zelandoperlinae MCLELLAN 1977:121.

Genus *Notoperlopsis* ILLIES

Notoperlopsis ILLIES 1963:158. Species typica, monotypy: *Notoperlopsis femina* ILLIES. In Gripopteryginae. • ILLIES 1966:31. • MCLELLAN 1977:121. Zelandoperlinae. • MCLELLAN, MISERENDINO & HOLMANN 2006:67, fig. 31. Distribution map. • STARK, FROEHLICH & ZUÑIGA 2009:90.

Distribution: Southern South America.

femina ILLIES 1963:161, figs. 5-6 (nymph: habitus; mandible and maxilla; cercus lateral; terminalia ventral. ♀: wings; terminalia ventral; head and pronotum; foreleg). Holotype, ♀: CHILE: XIV: Valdivia, Lago Pellaifa, 39°35'S [BESCH, 12/05/1958]; Illies. Paratypes: 2♀, Valdivia. Nymphs: 12, CHILE: IX: Malleco; X: Llanquihue.

ARGENTINA: Chubut. • ILLIES 1966:31. • MCLELLAN, MISERENDINO & HOLLMANN 2006:63, figs. 21-30 (head and pronotum, wings, leg; ♂: genitalia lateral, dorsal; ♀: terminalia ventral; nymph: habitus, terminalia ventral and lateral, mandible, maxilla). Male described, female and nymph redescribed. **ARGENTINA: Chubut, Neuquén.**

Notonemouridae

Notonemourinae RICKER 1950:198. • ILLIES 1961:118. • ILLIES 1966:162, fig. 11 (distribution map).

Notonemouridae ZWICK 1973b:317. • STARK, FROEHЛИCH & ZUÑIGA 2009:101.

Genus *Austronemoura* AUBERT

Austronemoura AUBERT 1960:48. Species typica, original designation: *Austronemoura chilena* AUBERT. • ILLIES 1961:100, fig. 2 (nymph: habitus, maxilla, labium, prothorax ventral). Redefinition, revision. • ILLIES 1966:168. • STARK, FROEHЛИCH & ZUÑIGA 2009:104.

Distribution: Southern South America.

araucoana AUBERT 1960:51, figs. 15-19 (♂: terminalia ventral, dorsal, lateral; t10, epiproct; paraproct). Holotype, ♂: CHILE: VIII: Arauco, Caramávida, 1000 m [L PEÑA, 05-10/02/1953]; Lausanne. Paratypes: 2♂. • ILLIES 1961:102. • ILLIES 1966:168. • SARTORI, MEMBIELA, RAVIZZA, SÁNCHEZ-ORTEGA & ZWICK 1990:180. Holotype in Lausanne.

auberti MCLELLAN & ZWICK 1996:109, figs. 1-5, 15-17 (♂: terminalia dorsal, ventral, lateral, upper paraproct; ♀: terminalia ventral, dissected specimen). Holotype ♂: CHILE: IX: Malleco, Parque Nacional Nahuelbuta, Coimallín, 37°48'S, 73°01'W [C & OS FLINT, JR., 16/12/1993]; NMNH. Paratypes: 44♂, 91♀.

caramavidensis AUBERT 1960:50, figs. 10-14 (♂: terminalia ventral, dorsal, lateral; t10, epiproct; paraproct). Holotype, ♂: CHILE: VIII: Arauco, Caramávida, 1000 m [L PEÑA, 25-31/XII/1953]; Lausanne. Paratypes: 5♂. • ILLIES 1961:102.

Probably species B AUBERT 1960. • ILLIES 1966:168. • SARTORI, MEMBIELA, RAVIZZA, SÁNCHEZ-ORTEGA & ZWICK 1990:181. Holotype in Lausanne.

chilena AUBERT 1960:49, figs. 4-9 (♂: terminalia ventral, dorsal, lateral; t10, epiproct; st 9; ♀: terminalia ventral). Holotype, ♂: CHILE: X: Riñihue, 120 m [L PEÑA, 24/II/1955]; Lausanne. Allotype, ♀: same data as holotype. Paratypes: 36♂, 8♀, CHILE: XIV: Valdivia; X: Osorno. • ILLIES 1961:100, fig. 3 (gynandromorph). CHILE, ARGENTINA, 38°-41°S. • WERNER 1965:232. CHILE, XI: Aisén (44°50'S). • ILLIES 1966:168. • SARTORI, MEMBIELA, RAVIZZA, SÁNCHEZ-ORTEGA & ZWICK 1990:181. Holotype in Lausanne.

decipiens MCLELLAN & ZWICK 1996:111, figs. 10-14, 18, 19 (♂: terminalia ventral, lateral, dorsal; detail of epiproct, lateral; epiproct dorsal; ♀: st8, detail). Holotype, ♂: CHILE: X: Osorno, Puyehue [11/1961]; Illies. Paratypes: 2♂, 5♀.

encoensis AUBERT 1960:52, figs. 26-29 (♂: terminalia ventral, dorsal, lateral; apex of t10, epiproct). Holotype, ♂: CHILE: XIV: Valdivia, Enco, 120-700 m [L PEÑA, 26/II/1955]; Lausanne. Paratype: 1♂, X: Llanquihue. • ILLIES 1961:104, fig. 5 (♀ terminalia ventral, lateral). Valdivia. • ILLIES 1966:169. • JOOST 1976:207. XII: Aisén. • SARTORI, MEMBIELA, RAVIZZA, SÁNCHEZ-ORTEGA & ZWICK 1990:181. Holotype in Lausanne.

eodoxiae FROEHЛИCH 1960:22, fig. 13. (♂: wings; terminalia lateral, ventral, dorsal, detail; ♀: terminalia ventral). Holotype ♂: CHILE: X: Lanquihue, Los Muermos, 41°25'S [ROSS & MICHELBACHER, 19/I/1951]; CAS. Allotype, ♀: same data as holotype. Paratypes: 14♂, 5♀, IX: Malleco; XIV: Valdivia; X: Lanquihue. • ILLIES 1961:102, fig. 4 (Distribution map). Species C AUBERT 1960 belongs here. CHILE, 36°-42°S: VII: Linares; X: Llanquihue, Chiloé. • WERNER 1965:232. X: Osorno. • ILLIES 1966:169. • JOOST 1976:207. XI: Aisén

flintorum MCLELLAN & ZWICK 1996:111, figs. 6-9 (♂: terminalia ventral lateral, dorsal; epiproct). Holotype ♂: CHILE X: Chiloé, 4 km E Cucao,

42°39'S, 74°05'W [C & OS FLINT, JR., 26/12/1993]; NMNH. Paratypes: 2♀.

quadrangularis AUBERT 1960:51, figs. 20-25 (♂: terminalia ventral, dorsal, lateral; t10, epiproct; paraprocts; st9). Holotype ♂: CHILE: X: Osorno, Puyehue, 1300-1400 m [PEÑA, 13-19/03/1955]; Lausanne. • ILLIES 1961:104, fig. 4 (distribution map). Species A AUBERT 1960 belongs here. CHILE: XI: Aisén; XII: Magallanes; ARGENTINA: Río Negro. • ILLIES 1966:169. • SARTORI, MEMBIELA, RAVIZZA, SÁNCHEZ-ORTEGA & ZWICK 1990:181. Holotype in Lausanne.

species A AUBERT 1960:53, fig. 30 (♀ terminalia ventral). CHILE: Los Paraguas, 1400 m: 1♀ [PEÑA, 21-24/III/1955]; Lausanne. • ILLIES 1961:104. Belongs to *A. quadrangularis* AUBERT.

species B AUBERT 1960:54, fig. 31 (♀ terminalia ventral). CHILE: VIII: Arauco, Caramávida, 1000 m: 2♀ [PEÑA, 05-10/02/1950]; Lausanne. • ILLIES 1961:102. Probably belongs to *A. caramavidensis* AUBERT.

species C AUBERT 1960:54, fig. 32 (♀ terminalia ventral). CHILE: VIII: Arauco, Caramávida: 1♀; XIV: Valdivia, Riñihue, 120 m: 1♀; Lausanne. • ILLIES 1961:102. Belongs to *A. eudoxiae* FROEHLICH.

Genus *Neofulla* CLAASSEN

Neofulla CLAASSEN 1936:622. • ILLIES 1961:105., fig. 7 (nymph: habitus, prothorax ventral, maxilla, labium). • ILLIES 1966:172. • STARK, FROEHLICH & ZUÑIGA 2009:106.

Fulla NAVÁS 1929d:328. Species typica, monotypy: *Fulla areolata* NAVÁS. *Nomen praeoccupatum*.

Illiesia AUBERT 1960:54. Species typica, original designation: *Illiesia spinosa* AUBERT. • ILLIES 1961:105. Diagnosis. **Synonym** of *Neofulla*.

Distribution: Southern South America.

areolata {*Fulla*} (NAVÁS 1929d):329, fig. 74 (forewing). Holotype: CHILE: XIV: Corral [R PAESSLER, 01/VI/1912]; Hamburg. • AUBERT 1956b:438. Type lost. • AUBERT 1960:60. • ILLIES 1961:107, figs. 1, 8 (habitus; ♂ terminalia dorsal,

ventral, lateral; ♀ terminalia ventral). Neotype ♂: CHILE: IX: Cautín, Pillaifa Stream [BESCH, 12/II/1958]. Additional material: XIV: Valdivia; X: Llanquihue; with caution, XI: Aisén; XII: Magallanes. • WEIDNER 1962:108. Holotype in Hamburg. ILLIES's (1961) designation of a neotype is therefore invalid. • SCHNEIDER 1990:250, fig. 2 (♂: terminalia lateral, ventral; paraprocts). CHILE: X: Osorno; ARGENTINA: Neuquén. • JOOST 1976:207. CHILE: XI: Aisén.

biloba AUBERT 1960:55, figs. 39-44 (♂: terminalia ventral, dorsal, lateral; apex of t10, epiproct; paraproct; st9). Holotype, ♂: CHILE: X: Llanquihue, Río Chaqueguan, 460 m [L PEÑA, 18/III/1950]; Lausanne. • ILLIES 1961:109. • ILLIES 1966:173. • SARTORI, MEMBIELA, RAVIZZA, SÁNCHEZ-ORTEGA & ZWICK 1990:181. Holotype in Lausanne. • PESSACQ 2008:60, figs. 1-8 (nymph: labrum, mandible, maxilla, lacinia, maxillary palpus, labium, tarsus, abdomen dorsal). Description of nymph. ARGENTINA: Chubut.

spinosa {*Illiesia*} (AUBERT 1960):54, figs. 1, 33-38 (♂: forewing; terminalia ventral, dorsal, lateral; apex of t10, epiproct; paraproct; st9). Holotype, ♂: CHILE: XIV: Valdivia, Enco, 120-700 m [L PEÑA, 26/II/1955]; Lausanne. • {*Neofulla*} ILLIES 1961:109. • WERNER 1965:232. XI: Aisén. • ILLIES 1966:173. • SCHNEIDER 1990:249, fig 1 (♀: terminalia lateral, ventral, dorsal). CHILE: X: Osorno. • SARTORI, MEMBIELA, RAVIZZA, SÁNCHEZ-ORTEGA & ZWICK 1990:181. Holotype in Lausanne.

Genus *Neonemura* NAVÁS

Neonemura NAVÁS 1919a:6. Species typica, monotypy: *Neonemura barrosi* NAVÁS. • AUBERT 1960:57. Redefinition. • ILLIES 1961:109, fig. 9 (nymph: habitus, prothorax ventral, maxilla, mandible). Redefined. • ILLIES 1966:173. • ZWICK 1973b:319. • STARK, FROEHLICH & ZUÑIGA 2009:106.

Distribution: Southern South America.

barrosi NAVÁS 1919a:6, fig. 23 (forewing, pronotum, terminalia lateral). Holotype, ♀: CHILE: Río Blanco [R BARROS, X/1917]; Navás, lost. • NAVÁS

1925:312, fig. 39 (♂, hindwing). • AUBERT 1956b:438. Type not located. • AUBERT 1960:57, figs. 3, 45-50 (forewing; ♂: terminalia dorsal, lateral, ventral; epiproct; ♀: terminalia ventral, lateral). • FROEHLICH 1960:21. • ILLIES 1961:109, fig. 10 (distribution map). CHILE, 33°-51°S. • WERNER 1965:232. From VII: Curicó to XII: Magallanes. • ILLIES 1966:173. • ZWICK 1972b:99. X: Llanquihue, Chiloé. • JOOST 1976:207. VIII: Arauco; XI: Aisén. • WAIS & BONETTO 1988:1457. ARGENTINA: Río Negro.

illiesi ZWICK 1972b:95, fig. 1 (♂: terminalia dorsal, ventral, lateral, paraprocts; ♀: terminalia ventral). Holotype, ♂: CHILE: X: Chiloé, Chepu [W KUSCHEL, 03/10/1958]; Illies. Paratypes: 2♂, 2♀. • ZWICK 1973b:319. • VERA 2008:25. CHILE: XI, XII.

maculata VERA 2008:23, 5 figs. (male: wings, terminalia lateral, dorsal, ventral, epiproct, circus). Holotype, male: CHILE: VII, Reserva Nacional Altos de Lircay, estero Majadillas [A. VERA, 30/IV/2006]; Santiago.

Genus *Udamocercia* ENDERLEIN

Udamocercia ENDERLEIN 1909b:418. Species typica, monotypy: *Leuctra antarctica* ENDERLEIN 1905. • ENDERLEIN 1912:124. • AUBERT 1960:58. Redefined. • ILLIES 1961:112, fig. 11 (nymph: habitus, prothorax ventral, maxilla, mandible). • ILLIES 1966:176. • STARK, FROEHLICH & ZUÑIGA 2009:107.

Distribution: Southern South America. CHILE: IX-XII.

antarctica {*Leuctra*} (ENDERLEIN 1905):814, fig. 5 (abdomen, lateral). Holotype, ♀: [ARGENTINA: Tierra del Fuego,] Ushuaia. [III/1902]; Stockholm. • {*Udamocercia*} ENDERLEIN 1909b:418. • ENDERLEIN 1912:124, fig. 32 (♀ abdomen lateral), Tab. 4, fig. 43 (wings). • ILLIES 1961:112. • ILLIES 1966:176. • ZWICK 1973a:477. Comments.

species {*Nemurella*} Klapálek 1904:5, fig. 2 (nymph: terminalia ventral, lateral). [CHILE: XII: Antarctica,] Isla Navarino, Puerto Toro. • ILLIES 1961:112. The species belongs to *U. antarctica*.

arumifera AUBERT 1960:59, figs. 2, 51-56 (forewing; ♂: terminalia ventral, dorsal, lateral; epiproct; paraproct. ♀ terminalia lateral). Holotype, ♂: CHILE: X: Llanquihue, Río Chaquiguan, 460 m [L PEÑA, 18/III/1950]; Lausanne. Paratype: 1♀. • ILLIES 1961:112, fig. 12A, B (♂ terminalia ventral, lateral). CHILE: XIV: Valdivia. ARGENTINA: [Río Negro]. • ILLIES 1966:176. • SARTORI, MEMBIELA, RAVIZZA, SÁNCHEZ-ORTEGA & ZWICK 1990:181. Holotype in Lausanne. • MISERENDINO & PIZZOLÓN 2000:64. Chubut.

frantzi ILLIES 1961:114, figs. 12C, 12D (♂ terminalia ventral, lateral). Holotype ♂: CHILE: XIV: Valdivia, Liquiñe, 39°35'S [BESCH, 25/IV/1958]; Illies, but see below. Paratypes, 2♂, 3♀. CHILE: IX: Cautín; XIV: Valdivia. ARGENTINA: [Río Negro]. • ILLIES 1966:176. • SARTORI, MEMBIELA, RAVIZZA, SÁNCHEZ-ORTEGA & ZWICK 1990:181. Holotype in Lausanne.

species AUBERT 1960:60. Two ♀, CHILE: X: Enco. Belongs to *frantzi* fide ILLIES 1961:115.

Incertae sedis

Gemnra (sic) *Pirioni* NAVÁS 1928:124, fig. 23 (forewing). Holotype ♂: CHILE: Marga Marga, Hacienda Perales [A. PIRIÓN, 27/II/1927]; lost. • AUBERT 1960:60. *Nomen nudum*. • ILLIES 1961:99. *Nomen nudum*. • ILLIES 1966:471: Notonemourinae, Austronemoura or Neonemura. *Nomen dubium*.

Perloidea

Perlidae

Perlidae LATREILLE 1802:292. • ENDERLEIN 1909b:388 (key to genera). • Klapálek 1914:53, 61 • ILLIES 1966:259. • STARK 2001b:406. Key to Neotropical genera. • STARK, FROEHLICH & ZUÑIGA 2009:109.

Acroneuriinae

Acroneuriinae Klapálek 1914:58. • ILLIES 1964b:208, fig. 1 (distribution map in South-Middle America). Key to southern South America genera.

- ILLIES 1966: 304, fig. 15 (distribution map).

Genus *Anacroneuria* Klapálek

Anacroneuria Klapálek 1909:228. Species typica: *A. albimacula* Klapálek, by subsequent designation: CLAASSEN 1940:177. • NEEDHAM & BROUGHTON 1927:110. Comments, key to Central American and Mexican species. P. 119, footnote: "a ...fragment...has been found among some material from Texas...this genus should...be added to the US fauna". • JEWETT 1960b:173. • ILLIES 1964b:230, fig. 21 (Nymph: head, mandible, maxilla). Comments. • ILLIES 1966:311. Comments. • ZWICK 1972a:1149. Redefinition and discussion. • ZWICK 1973a:478. Comments. • ZWICK 1973b:270. • FROEHLICH 1984c:44, figs. 1, 11 (head and pronotum, thorax ventral). • STARK 1998:552. Key to Costa Rican and Panamanian species. • DORVILLÉ & FROEHLICH 1999:281, figs. 2, 6, 9 (Nymph: head; T3 and base of abdomen, ventral; maxilla). • STARK 2001b:410, figs. 1-5 (sp. A, head and pronotum, ♂: st9, penis ventral, dorsal; ♀: st8-9). Diagnosis, comments, species list. • STARK, FROEHLICH & ZUÑIGA 2009:115.

Forquilla NAVÁS 1924b:74. Species typica, monotypy: *Forquilla divisa* NAVÁS. • JEWETT 1958:159. Synonym of *Anacroneuria*.

Coeloperla NAVÁS 1936:727. Species typica, monotypy: *Coeloperla paulina* NAVÁS. New synonym.

Nedanta NAVÁS 1932c (*partim*): 86. Species typica, original designation: *Nedanta fusca* NAVÁS. • ZWICK 1972a:1160. *N. isoscelia* is *Anacroneuria*.

Distribution: From southern Nearctic Region to northern Argentina.

achagua STARK 1999:70, figs. 1-5 (head and pronotum; ♂, st9, penis ventral, lateral, dorsal). Holotype, ♂: VENEZUELA: Portuguesa; Guanare [B MALKIN, 13/IX/1957]; CAS. Paratype: 1♂.

acutipennis Klapálek 1923:23. Holotype, ♀: PANAMA: Volcán Chiriquí; [VAN DEN WEELE]; Leiden, now Prague. • ILLIES 1966:312. • STARK 1998:554, figs. 1-5, 136, 159-160 (head and pronotum, ♂: st9, penis lateral, dorsal, ventral, details; ♀: st8-9). COSTA RICA: Alajuela; Cartago; Puntarenas; San José. GUATEMALA. •

STARK & KONDRATIEFF 2004:6, figs. 1-5 (head and pronotum; ♂: st9, penis lateral, dorsal, ventral). *expansa* Klapálek 1923:22. • STARK 1998:554.

Synonym of *A. acutipennis*. sp. C HARPER 1992:118. • STARK 1998:554. Belongs to *A. acutipennis*.

adamsae STARK & Sivec 1998:4, figs. 1-4 (♂, st9, penis ventral, lateral, dorsal). Holotype, ♂: PERU: CUSCO, Paucartambo, Buenos Aires, km 135, 2150 m [N. ADAMS, 28-29/VIII/1989]; NMNH.

aethiops {*Perla*} (WALKER 1852):154. Holotype, ♀: MEXICO [Coll. HARTWEG]; London. • HAGEN 1861:24. • {*Anacroneuria*} NEEDHAM & BROUGHTON 1927:116, fig. 5 (♀, st8-9). MEXICO: Chiapas. • JEWETT 1958:161. MEXICO: Oaxaca. • ILLIES 1966:312. • {*Perla*} KIMMINS 1970:338. ♀ holotype in London. • {*Anacroneuria*} STARK & KONDRATIEFF 2004:6, figs. 6-10 (head and pronotum; ♂, penis lateral, ventral, dorsal; ♀, st8-9). MEXICO: Chiapas, Oaxaca, Puebla, Veracruz.

alajuela STARK 1998:554, figs. 6-10 (♂, head and pronotum, st9, penis). Holotype, ♂: COSTA RICA: Alajuela, 20 km S Upala [FD PARKER, VI/1990]; NMNH.

albimacula Klapálek 1921:324. Holotype, ♂: COLOMBIA: Bogotá [LINDIG]. Berlin, lost. • ILLIES 1966:312. • STARK, ZUÑIGA, ROJAS & BAENA 1999:16, figs. 1-5 (♂, st9, penis ventral, lateral, dorsal; ♀, st8-9). Neotype ♂: COLOMBIA: Antioquia, 12 km E Medellin [OS FLINT, 06/II/1983]; NMNH.

amaru STARK 2004:67, figs. 1-5 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: BOLIVIA: Santa Cruz, Prov. Caballero, Parque Nacional Amboró, 2030 m, 17°50'14"S, 64°23'38"W [S SPECTOR, J LEDEZMA, 17-25/X/2001]; AMNH (pro tempore). Paratypes: 124♂.

amazonica FROEHLICH 2003:132. Holotype, ♀: BRAZIL: Amazonas, Manaus, Reserva Florestal Adolpho Ducke [MARLIER, 21/II/1964]; São Paulo. Paratype: ♀. Nom. nov. for the ♀ described as *A.*

marlieri. • RIBEIRO & RAFAEL 2009:13, figs. 46-48 (female: sterna 7-8, sterna 9-10, vaginal sclerite).

Female redescribed, comments on type locality.

marlieri FROEHЛИCH 2001 (*partim*, ♀):191, figs. 11, 16 (head and pronotum, st8-9).

amboro STARK 2004:68, figs. 6-10 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: **BOLIVIA: Santa Cruz**, Prov. Caballero, Parque Nacional Amboró, 2030 m, 17°50'15"S, 64°23'29"W [S SPECTOR, J LEDEZMA, 17-20/X/2001]; AMNH (pro tempore). Paratypes: 4♂.

ampla JEWETT 1959a:156, fig. 10 (head and pronotum).

Holotype, ♀: **BRAZIL: Santa Catarina**; Nova Teutônia [PLAUMANN, XI/1955]; CAS. Paratypes: 15♀. • ILLIES 1966:312. • FROEHЛИCH 2002b:85.

Synonym of *A. plaumanni*.

anchicaya BAENA & ZÚÑIGA 1999. In STARK, ZÚÑIGA, ROJAS & BAENA 1999:22, figs. 21-25 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: **COLOMBIA: Valle del Cauca**, Alto Anchicayá, 700 m [A.M.ROJAS, A. RAMOS, 12/V/1994]; Cali. Paratype: 1♂. • STARK 2001a:4. **ECUADOR: Cotopaxi, Napo, Pichincha**. • ZÚÑIGA & STARK 2002:218. **COLOMBIA: Valle del Cauca**. • ZÚÑIGA, STARK, VÁSCONEZ, BERSOSA & VIMOS 2006:53, fig. 35 (putative ♀, st8-9). **Valle del Cauca, Antioquia**. • ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:136. **Antioquia, Cauca, Risaralda, Valle del Cauca**.

angusticollis {*Neoperla*} (ENDERLEIN 1909b):409. Syntypes, 2♂: **COLOMBIA: Río Magdalena** [ERNST PEHLKE]; Warsaw. • ILLIES 1966:481. Possibly an *Anacroneuria*. *Nomen dubium*. • {*Anacroneuria*} ZWICK 1973a:483, figs. 11-13 (♂ holotype, penis dorsal, lateral; ♀, st8-9). **BOLIVIA: La Paz, Coroico**. • STARK, ZÚÑIGA, ROJAS & BAENA 1999:17, figs. 6-10 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). **ECUADOR: Napo**. • STARK 2001a:4. **ECUADOR: Napo, Pastaza, Zamora Chinchipe**.

handlirschi Klapálek 1922:94. • ZWICK 1973a:483.

Synonym of *A. angusticollis*. • STARK & SIVEC 1998:28. *Species propria*.

unicolor Klapálek 1922:94. • ZWICK 1973a:483.

Synonym of *A. angusticollis*.

annularis {*Perla (Perla)*} (PICTET 1841):252, pl. 25, figs.

3-5 (habitus, wings closed; habitus, wings expanded; head and pronotum). Holotype, lacking abdomen: **BRAZIL**; Genève. • {*Perla*} ILLIES, 1966:498. *Nomen oblitum*. • {*Anacroneuria*} ZWICK 1972a:1152.

annulicauda {*Perla (Perla)*} (PICTET 1841):249, pl. 22,

figs. 1-4 (habitus, wings closed, wings expanded, head and pronotum, base of cercus). Syntypes: 1 ♀, **MEXICO**; Berlin; 1♂, **BRAZIL**; Vienna, lost. • {*Perla*} HAGEN 1861:26. • {*Neoperla*} ENDERLEIN 1909a (nec PICTET 1841, *fide* ZWICK 1972a):175, fig. 8 (contour of ♀ subgenital plate). **BRAZIL: Santa Catarina**. **Synonym** of *A. mollis* = *A. hyalina*, *fide* ZWICK 1973a. • NEEDHAM & BROUGHTON 1927 (nec PICTET 1841, *fide* ZWICK 1972a):111, figs. 1-1A (♀, st8-9, base of cercus). **BRAZIL: Rio [de Janeiro]**. ["This species may be designated as the type of the genus." p. 112]. • COSTA LIMA 1939:105. **BRAZIL**: no material. • ILLIES 1966:312. • ZWICK 1972a:1152, fig. 6c (♀ lectotype, terminalia ventral). Lectotype designated, ♀: **MEXICO**; Berlin. • ZWICK, 1973a:485, figs. 14-15 (penis dorsal, lateral). • ZWICK, 1973b:270. • STARK & KONDRAEFF 2004:6, figs. 11-15 (head and pronotum; ♂: penis lateral, dorsal, ventral; ♀: st8-9). **GUATEMALA: El Progreso**; **HONDURAS: Comayagua**; **MEXICO: Chiapas, Guerrero, Nayarit, Oaxaca, Sonora, Veracruz**.

guatemalensis {*Neoperla*} (ENDERLEIN 1909a):161 • ZWICK 1973a:485. **Synonym** of *A. annulicauda*.

nigrocincta {*Perla (Perla)*} (PICTET 1841):236, *partim*. • {*Anacroneuria*} ZWICK 1972a:1152. In part *A. annulicauda*.

sulana NEEDHAM & BROUGHTON 1927:112. • ZWICK 1972a:1152. **Synonym** of *A. annulicauda*.

annulicauda {*Neoperla*} (ENDERLEIN 1909a) (nec PICTET 1841):175, fig. 8 (contour of ♀ subgenital plate).

BRAZIL: Santa Catarina. • Klapálek 1922:92. **Synonym** of *A. mollis*.

annulipalpis Klapálek 1922:91. Syntypes, 2♀: **PANAMA: Chiriquí** [V. D. WEELE]; Prague. •

ILLIES 1966:313. • STARK 1998:557, figs. 11-15, 137, 161-162 (head and pronotum, ♂: st9, penis lateral, dorsal, ventral; ♀, st8-9); ♀ lectotype designated.
COSTA RICA: Alajuela, Guanacaste, Puntarenas, San José; **PANAMA:** Chiriquí.
quadriloba; HARPER 1992 (nec JEWETT 1958):117. • STARK 1998:557. **Synonym** of *A. annulipalpis* Klapálek.

antica {*Neoperla*} (NAVÁS 1924b):71. Holotype, ♀: **COSTA RICA** [PAUL SERRE, 1922]; Paris. • AUBERT 1956b:440. Type in Paris. • ILLIES 1966:481. Possibly an *Anacroneuria*. *Species inquirenda*. • {*Anacroneuria*} STARK 1998:602. ♀ holotype severely damaged. *Nomen dubium*.

antizana STARK 2001a:5, figs. 1-5 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: **ECUADOR:** Napo, 6 km S Baeza, 1920 m [SITES, LINIT, NICHOLS, 20/VII/1993]; UM.

apicalis {*Neoperla*} (ENDERLEIN 1909a):174, fig 11 (contour of ♀ subgenital plate). Holotype, ♀:
COLOMBIA: Río Magdalena [E. PEHLKE]; Warsaw. • ENDERLEIN 1909b:407. [Key]. • ILLIES 1966:481. Possibly an *Anacroneuria*. *Nomen dubium*. • {*Anacroneuria*} ZWICK 1973a:485, fig 16 (♀ holotype, st8-9). • STARK, ZÚÑIGA, ROJAS & BAENA 1999:18.

appollinaris {*Neoperla*} (NAVÁS 1924a):250. Holotype, ♂: **COLOMBIA:** Meta, Villavicencio [FR. APOLLINAIRE MARIE, 1919]; Navás. • AUBERT 1956b:440, type in Paris. • ILLIES 1966:481. Possibly an *Anacroneuria*. *Species inquirenda*. • {*Anacroneuria*} STARK, ZÚÑIGA, ROJAS & BAENA 1999:45. *Nomen dubium*.

arawak STARK 1999:72, figs. 6-11 (head and pronotum; ♂: st9, penis ventral, lateral, dorsal; ♀: st8-9). Holotype, ♂: **SURINAM:** Brokopondo, Brownsberg Naturpark, Mazaroni Plateau, 400-500 m [WE STEINER, 16/VIII/1982]; NMNH. Paratype: 1♀. • STARK 2000:305. **GUYANA:** Mazaruni-Potaro.

arcabuco ZÚÑIGA & STARK 2006. In: ZÚÑIGA, STARK, VÁSCONEZ, BERSOSA & VIMOS 2006:45, figs. 1-4

(head and pronotum; penis ventral, lateral, dorsal). Holotype, ♂: **COLOMBIA:** Boyacá, Município de Arcabuco, Quebrada Mamarranos, via Villa de Leyva-Arcabuco, 2500 m [MC ZÚÑIGA, N ARANGUREN, AJ CARDENAS-ZÚÑIGA, 01/XII/2002]; Cali.

arcuata STARK 1995:224, figs. 53-56 (♂, st9, penis ventral, lateral, dorsal). Holotype, ♂: **VENEZUELA:** Aragua, Dos Riitos, 6 km N Rancho Grande [CM FLINT, OS FLINT, 04/II/1976]; NMNH. Paratype: 1♂

aroucana KIMMINS 1948:105, figs. 1-5 (♂, terminalia ventral, lateral; penis. ♀, terminalia ventral). Holotype, ♂: **TRINIDAD:** Arouca River (HBN HYNES, 30/XI/1941); London. Paratypes: 2♀. • HYNES 1948:105, figs 1A-1H (nymph: habitus; ♂, ♀ terminalia ventral; mouthparts; mid-tarsus). • ILLIES 1966:313. • STARK 1994:173, figs.8-17 (head and pronotum; ♂: st9; penis ventral, lateral, dorsal; ♀: st8-9; egg; nymph: head and pronotum, fore femur, apical cercal segments) **TRINIDAD**. • STARK 1999:73. **VENEZUELA:** Sucre.

arrazayalensis ORCE 2003:227, Figs. 1A-1E (head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: **ARGENTINA:** Salta, Finca Arrazayal, Arroyo Arrazayal, 660 m, 22°48'32"S, 64°29'34"W [DOMÍNGUEZ, ROMERO, MANZO, 13/XII/1999]; Tucumán.

atrifrons Klapálek 1922:89. Holotype, ♂: **BRAZIL:** Amazonas, St. Paul [São Paulo de Olivença] [BATES]; London. • WEIDNER 1962:107. Four "Cotypen", *in litteris*, not mentioned by Klapálek 1922, São Paulo, Estancia Meyrink [METZ, 08/X/1895]; Hamburg. • ILLIES 1966:313. • FROEHLICH 2008:129, figs. 8-11 (male holotype, head and pronotum, hammer, penis dorsal and lateral). The *in litteris* "cotypes" of the Hamburg Museum (WEIDNER 1962) belong to *A. stanjewetti*. *montera* STARK 1998:41. FROEHLICH 2008:129. **Synonym** of *A. atrifrons* Klapálek.

atrinota JEWETT 1959b:107, figs 4, 4A, 4B (head and pronotum; hind leg; contour of sgp). Holotype, ♀: **PERU:** Huánuco, Tingo María [EI SCHLINGER & ES

Ross, 21-31/X/1954]; CAS. Allotype, ♂: same data as holotype. Paratypes: 5♂, 12♀, **Huánuco, Lambayeque**. • ILLIES 1966:313. • STARK & SIVEC 1998:4, figs 5-9, 22 (head and pronotum; ♂: st9, penis ventral, lateral, dorsal; ♀: st8-9). Redescription of ♀ holotype and ♂ allotype.

auca STARK 2001a:6, figs. 6-10 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: ECUADOR: Pastaza, Tzapino, 32 km NE Tigueno, 400 m [J COHEN, 25/V/1976]; NMNH. Paratypes: 2♂.

aurata JEWETT 1959a:153, fig 9 (♀, st8-9). Holotype, ♀: BRAZIL: Santa Catarina; Nova Teutônia [PLAUMANN, I/1956]; CAS. • ILLIES 1966:313.

aymara STARK & SIVEC 1998:7, figs. 10-14 (♂: head and pronotum, st9, penis ventral, lateral, dorsal). Holotype ♂: PERU: Madre de Dios, Manu, Erika, 550 m [OS FLINT, N ADAMS, 4-6/IX/1988]; NMNH. Paratype: 1♂, Cusco. • STARK 2001a:7. ECUADOR: Pastaza.

azul ROJAS & BAENA 1999. In STARK, ZÚÑIGA, ROJAS & BAENA 1999:23, figs. 26-30 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: COLOMBIA: Valle del Cauca, Río Azul, cuenca media Río Calima, 550 m [AM ROJAS, M BAENA, 10/VIII/1994]; Cali. Paratypes: 6♂, Valle del Cauca, Cauca. • STARK 2001a:7. ECUADOR: Pastaza, Pichincha. • ZÚÑIGA & STARK 2002:216, figs. 25-26 (hind femur and tibia, ♀ st8-9). Antioquia, Valle del Cauca. • ZÚÑIGA, STARK, VÁSCONEZ, BERSOSA & VIMOS 2006:54. Antioquia. • ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:138. Antioquia.

badilinea JEWETT 1959a:157, fig. 14 (head and pronotum). Holotype, ♀: BRAZIL: Santa Catarina, Nova Teutônia [PLAUMANN, X/1956]; CAS. Paratypes: 15♀. • ILLIES 1966:314. • FROEHLICH 2002b:75, fig. 1 [♀, st8-9]. Santa Catarina. ARGENTINA: Misiones.

baniva STARK 1995:224, figs. 57-61 (♂: st9, penis ventral, lateral, dorsal; ♀: st8-9). Holotype ♂: VENEZUELA: Amazonas, Río Cataniapo, 10 km

S Puerto Ayacucho [OS FLINT, 09/III/1984]; NMNH. Paratypes: 2♀.

bari STARK 1995:226, figs. 62-67 (head and pronotum; ♂: st9, penis ventral, lateral, dorsal; ♀, st8-9). Holotype ♂: VENEZUELA: Zulia, El Tucuco, 45 km SW Machiques [AS MENKE, D VINCENT, 5-6/VI/1976]; NMNH. Paratypes: 4♂, 3♀, Barinas, Miranda, Zulia. • STARK 1999:67. Guárico; Trujillo. • STARK 2001a:7. ECUADOR: Napo. • ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:138. COLOMBIA: Antioquia.

baumannii STARK & KONDRATIEFF 2004:7, figs. 16-23 (head and pronotum; ♂: penis lateral, dorsal, ventral; ♀: st8-9; nymph: head and pronotum, forefemur, cerci). Holotype, ♂: MEXICO: Chihuahua, Arroyo Banderas at forks [RW BAUMANN, BC KONDRATIEFF, S WELLS, B SARGENT, 25/VI/1987]; NMNH. Paratypes: 28♂, 45♀, 2 nymphs.

benedettoi STARK 1998:557, figs. 16-20, 138, 163-164 (head and pronotum; ♂: st9, penis lateral, dorsal, ventral, details; ♀: st8-9). Holotype, ♂: COSTA RICA: Guanacaste, Río Los Ahogados, 11.3 km ENE Quebrada Grande, 470 m [R HOLZENTHAL, W FASTH, 07/III/1986]; NMNH. Paratypes: 35♂, 1♀. Alajuela; Guanacaste; Limón, Puntarenas, San José. PANAMA: Bocas del Toro. • STARK & KONDRATIEFF 2004:13, figs. 24-28 (head and pronotum, ♂: st9; penis lateral, dorsal, ventral). HONDURAS.

bifasciata {*Perla* (*Perla*)} (PICTET 1841):230, pl.20, figs. 6, 7 (habitus, wings closed, wings expanded). Holotype, ♀: COLOMBIA [MORITZ]; Berlin. • ILLIES 1966:498. Possibly an *Anacroneuria*. *Species inquirenda*. • {*Anacroneuria*} ZWICK 1972a:1154, fig. 6a (♀ holotype, terminalia ventral, st9, inner sclerite). • ZWICK 1973a:479. • ZWICK 1973b:270. • STARK 1995:239, figs. 52, 127-134 (head and pronotum; ♂: st9, penis ventral, lateral, dorsal; ♀: st8-9; egg). VENEZUELA: Aragua; Carabobo; Distrito Federal; Lara. • STARK 1999:73. Distrito Federal. • STARK, ZÚÑIGA, ROJAS & BAENA 1999:18. • ZÚÑIGA, STARK, VÁSCONEZ, BERSOSA & VIMOS 2006:54. COLOMBIA: Antioquia.

biloba KLAPÁLEK 1922:92. Holotype, ♀: ECUADOR: Riobamba [G RIVET]; Paris. • ILLIES 1966:314. • STARK 2001a:2. *Nomen dubium*.

bipunctata STARK 2004:69, figs. 11-12 (♀, head and pronotum, st8-9). Holotype, ♀: PERU: Madre de Dios, Aguajal, Manu Biosphere Reserve, 250 m [MG POGUE, 12/IX/1988]; NMNH. Paratype: 1♀.

blanca STARK 1995: 213, figs. 1-11, 45 (head and pronotum; ♂: st9, apical cercal segments, penis ventral, lateral, dorsal; ♀: st9; egg; nymph: head and pronotum, fore femur, apical cercal segments). Holotype, ♂: VENEZUELA: Amazonas, Cerro de la Neblina, basecamp, 140 m [D DAVIS, T MCCABE, 1-10/III/1984]; NMNH. Paratypes: 22♂, 26♀, 13 nymphs. • FROEHЛИCH 2003:130. BRAZIL: Amazonas.

blanda NEEDHAM & BROUGHTON 1927:117, pl 12, figs. 9-9B (head and pronotum, ♀ terminalia, wings). Holotype, ♀: PANAMA: Barro Colorado Island [WC ALLEE]; Cornell. • JEWETT 1958:168. • ILLIES 1966:314. • HARPER 1992:117, fig. 5 (♂: penis dorsal, lateral). Colón, Panamá. • STARK 1998:560, figs. 21-25, 139 (head and pronotum; ♂: st9, penis lateral, dorsal, ventral; ♀: st8-9). COSTA RICA: Alajuela; Puntarenas. PANAMA: Colón, Panamá. • ZÚÑIGA & STARK 2002:218. COLOMBIA: Choco.

bolivari {*Neoperla*} (BANKS 1914):611, pl. 28, fig. 1 (♀ terminalia ventral). Holotype, ♀: COLOMBIA: Monte Socorro, 3.600 m [FASSL]; MCZ. • ILLIES 1966:481. Possibly an *Anacroneuria*. *Nomen dubium*. • {*Anacroneuria*} STARK, ZÚÑIGA, ROJAS & BAENA 1999:18, figs. 11-14 (♂, st9, penis ventral, lateral, dorsal). Antioquia, Risaralda. • ZÚÑIGA & STARK 2002:218. Cauca, Valle del Cauca.

boliviensis {*Neoperla*} (ENDERLEIN 1909b):406 [key], 408. Syntypes, 2♂: BOLIVIA: Sara (now Santa Cruz) [J STEINBACH]; Warsaw. • ILLIES 1966:482. Possibly an *Anacroneuria*. *Nomen dubium*. • {*Anacroneuria*} ZWICK 1973a:479, figs. 3-4 (♂ lectotype, penis dorsal, lateral). Designated ♂ lectotype, ♂ paralectotype. • STARK & SIVEC

1998:7, figs. 15-16 (♂ lectotype, penis dorsal, lateral).

boraceiensis FROEHЛИCH 2004:54, figs. 1-7 (♂: head and pronotum, hammer, penis dorsal and lateral; ♀: st8, st9; egg). Holotype, ♂: BRAZIL: São Paulo, Salesópolis, Estação Biológica de Boracéia, Rio Guaratuba [CG FROEHЛИCH, AS MELO, VR RIBEIRO, 14/XII/2001]; São Paulo. Paratypes: 29♂, 14♀. • BISPO & FROEHЛИCH 2004:103.

brailovskyi STARK & KONDRATIEFF 2004:13, figs. 29-33 (head and pronotum; ♂: penis lateral, dorsal, ventral; ♀: st8-9). Holotype, ♂: MEXICO: Veracruz, Río Jamapa, 6 km N Coscomatepec [CM & OS FLINT, 26/V/1981]; NMNH. Paratypes: 5♂, 1♀.

brandaoi BISPO & FROEHЛИCH 2004c:193, figs. 8-12 (head and pronotum, st9, penis dorsal, ventral, lateral). Holotype, ♂: BRAZIL, Goiás, Colinas do Sul, Serra da Mesa (14° 01'S, 48° 12'W) [SILVESTRE, DIETZ, CAMPANER, 2-15/XII/1995]; São Paulo. Paratype: 1♂.

brevicollis KLAPÁLEK 1922:95. Syntypes: 1♂, 1♀: Most probably from BRAZIL; Vienna. • ILLIES 1966:314. • ZWICK 1973a:486. Lectotype ♂ designated. *Synonym* of *A. debilis*.

brunneilata JEWETT 1959b:112, fig 5 (♀, contour of ssp). Holotype, ♀: PERU: Huánuco, Tingo María [EI SCHLINGER & ES ROSS, 21-31/X/1954]; CAS. Allotype, ♂: same data as holotype. Paratypes: 5♂, 45♀, Huánuco; 6♂, 3♀, Lambayeque; 2♀, Junín. Additional material: ECUADOR: Pastaza, 1♀. • ILLIES 1966:314. • STARK & SIVEC 1998:7, figs. 17-21, 23 (head and pronotum; ♂: st9, penis ventral, lateral, dorsal; ♀: st 8 and 9). Redescription of ♀ holotype and ♂ allotype.

?*longicauda* {*Neoperla*} (ENDERLEIN 1909a) (nec PICTET 1841):163. • JEWETT 1959b:113. Possible *synonym*.

buenoi STARK & KONDRATIEFF 2004:14, figs. 34-38 (head and pronotum; ♂: st9; penis lateral, dorsal, ventral). Holotype, ♂: MEXICO: Veracruz, Río Jamapa, 6 km N Coscomatepec [J BUENO, 26/V/1981]; UNAM. Paratypes: 5♂.

bulbosa STARK & SIVEC 1998:12, figs. 24-27 (δ , st9, penis ventral, lateral, dorsal). Holotype, δ : PERU: "Piches and Perene VS", 610-915 m [Sociedad Geografica de Lima]; NMNH.

cacute STARK & MALDONADO 2002. In MALDONADO, STARK & CRESSA:223, figs. 10-14 (head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, δ : VENEZUELA: Mérida, Quebrada La Picón, 2200 m, $8^{\circ}37'57''N$, $71^{\circ}02'12''W$ [B PÉREZ, 23/XI/1999]; Maracay. Paratype: 1 δ .

cajas ZÚÑIGA & VIMOS 2006. In: ZÚÑIGA, STARK, VÁSCONEZ, BERSOSA & VIMOS 2006:46, figs. 5-9 (head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, δ : ECUADOR: Azuay, Parque Natural Nacional Cajas, Río Surucucho, 15 km E of Cuenca, 3100 m, $02^{\circ}50'22''C$, $79^{\circ}09'32''W$ [M.C. ZÚÑIGA, D. VIMOS, E. ZÁRATE, R.J. CARDOSO-ZÚÑIGA, 10/V/2003]; Cali, pro tempore. Paratypes: 25 δ .

calima BAENA & ROJAS 1999. In STARK, ZÚÑIGA, ROJAS & BAENA 1999:23, figs. 31-35 (δ , head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, δ : COLOMBIA: Valle del Cauca, Río Azul, 550 m, cuenca media Río Calima [AM ROJAS, M BAENA, R ALDANA, 11/VIII/1994]; Cali. Paratypes: 5 δ . • ZÚÑIGA, STARK, VÁSCONEZ, BERSOSA & VIMOS 2006:54. **Antioquia, Valle Del Cauca.** • ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:138. **Valle del Cauca.**

callanga STARK & SIVEC 1998:12, figs. 28-31 (δ , st9, penis ventral, lateral, dorsal). Holotype, δ : PERU: Cusco, Paucartambo, Callanga, 1300 m [F WOYTKOWSKI, 14/II/1953]; NMNH.

camposi {Neoperla}(BANKS 1920):322. Holotype, δ : ECUADOR: Pichincha, Pifo [F CAMPOS RJ; MCZ. • ILLIES 1966:482. Possibly an *Anacroneuria*. Species inquirenda. • {Anacroneuria} STARK 2001a:8-9, figs. 11-14 (δ , st9, penis ventral, lateral, dorsal). Redescription of holotype. • STARK & ZÚÑIGA 2003:233, figs. 18-20 (penis ventral, dorsal, lateral). • STARK 2007:171. Napo.

cana STARK & SIVEC 1998:12, figs. 32-36 (δ , head and pronotum, st9, penis ventral, lateral, dorsal). Holotype δ : PERU: Cusco, Paucartambo to Pilcopata road, river at Puente Unión, 1670 m [R BLAHNIK, M PESCADOR, 21-23/VI/1993]; NMNH.

canchi STARK & SIVEC 1998:16, figs. 37-41 (δ , head and pronotum, st9, penis ventral, lateral, dorsal). Holotype δ : PERU: Madre de Dios, Manu, Pakitzá, 250 m [OS FLINT, N ADAMS, 09/IX/1995]; NMNH.

canelo STARK 2001a:9, figs. 15-19 (δ , head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, δ : ECUADOR: Napo, Río Jondachi, 30 km N Tena, 950 m [OS FLINT, 10/IX/1990]; NMNH. Paratypes, 2 δ .

caraa DE RIBEIRO & FROEHLICH 2007:55, figs. 6-10 (head and pronotum, hammer, penis dorsal, ventral, lateral). Holotype, δ : BRAZIL: Rio Grande do Sul, Caraá, Rio dos Sinos, $29^{\circ}42'53''S$, $50^{\circ}17'19''W$ [DE RIBEIRO, 04. XII. 2003]; São Paulo.

caraca STARK 1995:228, figs. 68-77 (head and pronotum; δ : st9, penis ventral, lateral, dorsal; φ : st8-9; egg; nymph, head and pronotum, fore femur, apical cercal segments). Holotype, δ : VENEZUELA: Aragua, P.N. Henri Pittier, near El Limón, Río Limón, 500 m [HM SAVAGE, 10-12/XI/1979]; NMNH. Paratypes: 68 δ , 102 φ , 11 nymphs, 4 exuviae. Aragua; Barinas. • STARK 1999:73. **Guárico.** • STARK 2001a:10. ECUADOR: Napo. • ZÚÑIGA & STARK 2002:219. COLOMBIA: Magdalena, Valle del Cauca. • ZÚÑIGA, STARK, VÁSCONEZ, BERSOSA & VIMOS 2006:53. **Antioquia, Valle del Cauca.** • ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:138. **Risaralda, Valle del Cauca.**

caraja FROEHLICH 2002b:100, figs. 93-96 (δ , head and pronotum, hammer, penis). Holotype, δ : BRAZIL: Pará; Rio Xingu Camp ($52^{\circ}22'W$, $3^{\circ}39'S$), ca. 60 km S Altamira [P SPANGLER, OS FLINT, 1-21/X/1986]; NMNH.

carchi STARK 2001a:11, figs. 20-23 (δ , st9, penis ventral, lateral, dorsal). Holotype, δ : ECUADOR:

Carchi, Chical, 1250 m [J J RAWLINS, M SMYERS, 16/VII/1983]; Carnegie.

carole STARK 2004:70, figs. 13-14 (♀, head and pronotum, st8-9). Holotype, ♀: PERU: Madre de Dios, Manu, Pakitza, 250 m [OS FLINT, N ADAMS, 9-23/IX/1988]; NMNH. Paratypes: 3♀.

cathia FROEHLICH 2002b:91, figs. 55-60 (♂: head and pronotum, hammer, penis dorsal, lateral; ♀: st8-9; egg). Holotype, ♂: BRAZIL: Santa Catarina, Nova Teutônia [F PLAUMANN, XI/1962]; CAS. Paratypes: 1♂, 5♀. • DE RIBEIRO & FROEHLICH 2007:55. Rio Grande do Sul.

cayapa STARK 2001a:12, figs. 24-28 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: ECUADOR: Pichincha, 14 km E Santo Domingo de los Colorados [A LANGLEY, J COHEN, 05/VII/1975]; NMNH.

chachis STARK & VASCONEZ 2006. In: ZÚÑIGA, STARK, VÁSCONEZ, BERSOSA & VIMOS 2006:47, Figs. 10-14 (head and pronotum; st9; penis ventral, lateral, dorsal). Holotype, ♂: ECUADOR: Pichincha, Parroquia de Mindo, Río Mindo, 1310 m, 00°03'59"S, 78°45'55"W [MC ZÚÑIGA, JJ VÁSCONEZ, RJ CARDOZO-ZÚÑIGA, 20/V/2003]; Cali, pro tempore. Paratype: 1♂, Pastaza.

chaima STARK 1999:73, figs. 12-16 (♂: head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: VENEZUELA: Sucre, Río Cocollar, 1.5 km SE Las Piedras de Cocollar, 810 m [R HOLZENTHAL, OS FLINT, 7-8/IV/1995]; NMNH.

chavin STARK & SIVEC 1998:16, figs. 42-45 (♂, st9, penis ventral, lateral, dorsal). Holotype, ♂: PERU: Huánuco, Yurac, 108 km E Tingo María [EI SCHLINGER, ES ROSS, 16/XI/1954]; CAS. • STARK 2004:78. Pasco.

chiapasa JEWETT 1958:166, fig. 6 (st8-9). Holotype, ♀: MEXICO: Chiapas, El Zapote [A DAMPF, 13/XI/1930]; INHS. Allotype, ♂: Same data as holotype. Paratypes: 2♀. • ILLIES 1966:314. • STARK & KONDRATIEFF 2004:41. **Synonym** of *A. planicollis*.

chimborazo STARK 2001a:13, figs. 29-32 (♂, st9, penis ventral, lateral, dorsal). Holotype, ♂: ECUADOR: Chimborazo, 7 km N. Penipe, 2340 m [OS FLINT, 16/IX/1990]; NMNH. Paratype: 1♂.

chipaya STARK & SIVEC 1998:19, figs. 46-50 (♂: st9, penis ventral, lateral, dorsal; ♀: st8-9). Holotype, ♂: BOLIVIA: Cochabamba, Incachaca [LE PEÑA, 25-31/VIII/1956]; NMNH. Paratypes: 19♂, 1♀. • ZÚÑIGA & STARK 2002:219. COLOMBIA: Risaralda, Cauca.

chiquita STARK 1995:229, figs. 78-81 (♂, st9, penis ventral, lateral, dorsal). Holotype, ♂: VENEZUELA: Zulia, El Tucuco, 45 km SW Machiques [A MENKE, D VINCENT, 5-6/VI/1976]; NMNH.

choachi STARK & ZÚÑIGA 1999. In: STARK, ZÚÑIGA, ROJAS & BAENA 1999:24, figs. 36-40 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: COLOMBIA: Cundinamarca, Choachi [FR FOSBERG, 17/V/1944]; NMNH.

choco STARK & BERSOSA 2006. In: ZÚÑIGA, STARK, VÁSCONEZ, BERSOSA & VIMOS 2006:49, figs. 15-19 (head and pronotum; ♂: penis ventral, lateral, dorsal; ♀: st8-9). Holotype, ♂: COLOMBIA: Chocó, Municipio de Acandí, Cerro de Tripogandí, 2 km Bahía de Napú, Quebrada Coquital, 08°23'58"N, 77°08'46"W, 115 m [MP ROZO, C CAMARGO, VII/2000]; Cali. Paratypes: 5♂, 22♀. COLOMBIA: Chocó, Magdalena; ECUADOR: Esmeraldas, Pichincha.

chorrera STARK 1995:230, figs. 42, 82-89 (head and pronotum; ♂: st9, paraproct, penis lateral, dorsal, ventral; ♀: st8-9; egg, detail of egg). Holotype, ♂: VENEZUELA: Mérida, La Chorrera Canyon, 2000 m [JB HEPPNER, 08/II/1978]; NMNH. Paratypes: 15♂, 2♀. Mérida; Distrito Federal, Aragua. • STARK 1999:74. Mérida; Trujillo; Tachira. • STARK & ZÚÑIGA 2003:233, figs. 1-3, 21-23 (penis ventral dorsal, lateral, details). Mérida.

cincta {*Perla (Perla)*} (PICTET 1841):229, pl. 20, fig. 5 (habitus, wings expanded). Holotype, ♀: Vera Crux (MEXICO?, PANAMA?); Paris, lost. •

{*Perla*} HAGEN 1861:24. • {*Anacroneuria*} NEEDHAM & BROUGHTON 1927:114, fig. 4 (♀, subgenital plate). PANAMA: Chiriquí. • JEWETT 1958:169. Chiriquí. • ILLIES 1966:314. • ZWICK 1972a:1155. NEEDHAM & BROUGHTON's interpretation is uncertain. • HARPER 1992:118, fig.14 (♀: st8-9). Chiriquí. • STARK 1998:551. *Nomen dubium*. • STARK & KONDRATIEFF 2004:1. *Nomen dubium*.

cipriano ZÚÑIGA & ROJAS 1999. In: STARK, ZÚÑIGA, ROJAS & BAENA 1999:25, figs. 41-45 (head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: COLOMBIA: Valle del Cauca, Río Azul, cuenca media Río Calima, 550 m [AM ROJAS, M BAENA, R ALDANA, 21/II/1994]; Cali. Paratype: 1♂.

citara STARK & ORTEGA 2007. In: ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:128, Figs. 1-5 (head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: COLOMBIA: Antioquia, Municipio de Betania, Farallones de Citará, Vereda La Oculta, Quebrada Agualinda [OE ORTEGA, 07/VIII/1996]; Medellín. Paratype: 1♂.

claudiae STARK 1999:74, fig. 17-21 (♂: head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: VENEZUELA: Zulia, Río Yasa, 3 km E Kasmera (Estación Biologica), 150 m [R HOLZENTHAL, C CRESSA, RINCÓN, 14/I/1994]; NMNH. Paratype: 1♂.

cochabamba STARK 2004:71, figs. 15-19 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: BOLIVIA: Santa Cruz, Prov. Caballero, Parque Nacional Amboró, 2060 m, 17°50'02"S, 64°23'05"W [S SPECTOR, J LEDEZMA, 18/X/2001]; AMNH (pro tempore).

collaris {*Neoperla*} (NAVÁS 1932a):58, fig. 2 (head and pronotum). Holotype, ♀: BRAZIL: Rio de Janeiro, Barão Homem de Mello [ZIKAN, 03/XI/1929]; DEI. • AUBERT 1956b:440. • ILLIES 1966:482. Possibly an *Anacroneuria*. *Species inquirenda*. • PETERSEN & GAEDIKE 1968:964. Female holotype in DEI. • {*Anacroneuria*} STARK, FROEHLICH & ZÚÑIGA 2009:117.

comanche STARK & BAUMANN 1987:345, figs. 1-8 (♂ head and pronotum; terminalia lateral and dorsal; paraproct; st9; penis ventral, lateral, dorsal). Holotype ♂: USA: Texas, Kendall Co., Dierks Ford [C ORCHARD & V DROPKIN, 4/VII/1946]; Field. • STARK & KONDRATIEFF 2004:30. *Synonym* of *A. litura*.

contrerasi STARK & KONDRATIEFF 2004:14, figs. 39-43 (head and pronotum; ♂: penis lateral, dorsal, ventral; ♀: st8-9). Holotype, ♂: MEXICO: Nuevo León, Santiago, Potrero Redondo [A CONTRERAS-RAMOS, 25/III/1984]; NMNH. Paratypes: 2♂, 1♀.

cordillera ROJAS & ZÚÑIGA 1999. In STARK, ZÚÑIGA, ROJAS & BAENA 1999:26, figs. 51-55 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype ♂: COLOMBIA: Valle del Cauca, Villa Carmelo, cuenca alta, Río Meléndez, 1800 m [AM ROJAS, MC ZÚÑIGA, C SERRATO, 15/X/1991]; Cali. • ZÚÑIGA & STARK 2002:220. • ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:139. Cauca

coroicana {*Neoperla*} (NAVÁS 1927):65, fig. 4 (head and pronotum). Holotype, ♀: BOLIVIA: La Paz, Coroico [In NAVÁS: Sutchan. Ussuri.] [STAUDINGER & BANG-HAAS]; Navás, lost. • AUBERT 1956b:440. Type not located. • (*corvicana*) ILLIES 1966:482. Possibly an *Anacroneuria*. *Nomen dubium*. • STARK & Sivec 1998:2. *Nomen dubium*.

coronata NEEDHAM & BROUGHTON 1927:117, figs 7, 7A (♂: terminalia, right wings). Holotype, ♂: MEXICO [SALLEE]; Cornell. • ILLIES 1966:315. • STARK & KONDRATIEFF 2004:19, figs. 44-48 (head and pronotum; ♂: penis lateral, dorsal, ventral; ♀: st8-9). HONDURAS: Comayagua, Olancho; MEXICO: Chiapas.

coscaroni FROEHLICH 2002b:91, figs. 61-66 (head and pronotum; ♂, hammer, penial armature; ♀, st8-9; egg). Holotype, ♂: ARGENTINA: Entre Ríos; Salto Grande, Río Uruguay [OS FLINT, 16/XI/1973]; NMNH. Paratypes: 9♂, 7♀.

cosnipata STARK & Sivec 1998:19, figs. 51-55 (♂, head and pronotum, st9, penis ventral, lateral, dorsal).

Holotype, ♂: PERU: **Cusco**, Llavehoyo ca. Río Cosnipata, 1400 m [F WOYTKOWSKI, 22/XII/1951]; NMNH. • STARK 2004:78, figs. 49-50 (♀, head and pronotum, st8-9). Putative ♀.

costalis {*Perla (Perla)*} (PICTET 1841):264, pl 24, fig. 4 (habitus, wings expanded). Holotype: [MEXICO]: **Vera-Cruz**; Paris, lost. • {*Perla*} HAGEN 1861:27. • {*Neoperla*} ENDERLEIN 1909a [nec PICTET 1841]:177, fig. 12 (contour of ♀ subgenital plate). **BRAZIL**: **Santa Catarina; Rio Grande do Sul**. Several species, *fide* ZWICK 1973a. • {*Perla*} ILLIES 1966:500. [*Species inquirenda*]. • {*Anacroneuria*} ZWICK 1973a:486. Unidentifiable, ENDERLEIN's 1909a material comprises several species. • STARK & KONDRATIEFF 2004:1. *Nomen dubium*.

costana {*Neoperla*} (NAVÁS 1924b):72. Holotype, ♂: **COSTA RICA** [PAUL SERRE, 1920]; Paris. • AUBERT 1956b:440. Type in Paris. • ILLIES 1966:483. Possibly an *Anacroneuria*. *Species inquirenda*. • {*Anacroneuria*} STARK 1998:560, figs. 26-30 (♂, head and pronotum, st9, penis lateral, dorsal, ventral). **COSTA RICA**: **Puntarenas**. • STARK & KONDRATIEFF 2004:20, figs. 49-53 (head and pronotum; ♂: penis lateral, dorsal, ventral; ♀: st8-9). **MEXICO**: **Chiapas, Oaxaca, Sonora, Veracruz**.

cotacachi STARK 2001a:15, figs. 33-39 (head and pronotum; ♂: st9, penis ventral, lateral, dorsal; ♀: st8-9; egg). Holotype, ♂: **ECUADOR**: **Pichincha**, Río Umachaca, 5 km E Nanegal, Forest Station Maquipucuna, 1250 m [OS FLINT, 04-05/IX/1990]; NMNH. Paratypes: 1♂, 7♀.

cotopaxi STARK 2001a:17, figs. 40-43 (♂, st9, penis ventral, lateral, dorsal). Holotype, ♂: **ECUADOR**: **Cotopaxi**, San Francisco de las Pampas, Otonga, 2000 m [E TAPIA, G ONORE, C YOUNG, 30-31/VII/1993]; Carnegie. Paratype: 1♂.

crenulata JEWETT 1958:171, fig 11 (♀ st8-9). Holotype, ♀: **MEXICO**: **Guerrero**, Mexcala [13/XII/1929]; INHS. Allotype, ♂: Same data as holotype. Paratypes: 10♂, 14♀, **Chiapas, Distrito Federal, Guerrero, México, Morelos, Nuevo León, Puebla, Tabasco, Tamaulipas, Vera Cruz**; 1♂,

BELIZE; 1♂, **HONDURAS**; 1♂, 4♀, **PANAMA**: **Chiriquí, Panamá**. • ILLIES 1966:315. • STARK & BAUMANN 1987:346, figs. 9-13 (♂ terminalia lateral and dorsal, st9, paraproct, penis ventral). Allotype. • STARK & KONDRATIEFF 2004:30. **Synonym** of *A. litura*.

cruza STARK 1995:231, figs. 90-96 (♂, st9, penis ventral, lateral, dorsal; nymph, head and pronotum, fore femur, apical cercal segments). Holotype, ♂: **VENEZUELA**: **Amazonas**, Exp. Culebra [03°33'N, 65°05'W], N Duida [J Maldonado Capriles, 7-16/IV/1950]; NMNH. Paratypes: 2 nymphs, 2 exuviae. • STARK 1999:74. **VENEZUELA**: **Sucre; Guyana**.

cuadrada STARK 1995:233, figs. 97-100 (♂, st9, penis ventral, lateral, dorsal). Holotype, ♂: **VENEZUELA**: **Mérida**, Río Santo Domingo, 5 km NW Santo Domingo [CM FLINT, OS FLINT, 19/II/1976]; NMNH.

curiosa STARK 1998:563, figs. 31-35, 165-166 (♂, head and pronotum, st9, penis lateral, dorsal, ventral, details). Holotype ♂: **COSTA RICA**: **Guanacaste**, Parque Nacional Guanacaste, Maritza, Río Tempisque, 550 m [CM FLINT, OS FLINT, 17/VI/1988]; NMNH. Paratypes: 25♂; **Alajuela; Guanacaste**. **NICARAGUA**: **Chontales**. • ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:139. **COLOMBIA**: **Valle del Cauca**. *flavominuta*; HARPER 1992:116. • STARK 1998:563. **Synonym** of *A. curiosa*.

cusi STARK 2004:71, figs. 20-24 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: **BOLIVIA**: **Santa Cruz**, Prov. Caballero, Parque Nacional Amboró, 2060 m, 17°50'02"S, 64°23'05"W [S SPECTOR, J LEDEZMA, 18/X/2001]; AMNH (pro tempore). Paratypes: 3♂.

cuzco STARK & SIVEC 1998:19, figs. 56-60 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: **PERU**: **Cusco**, Paucartambo, pte. San Pedro, ca. 50 km NW Pilcopata, 1430 m [N ADAMS & al., 30-31/VIII/1989]; NMNH. Paratypes: 4♂, **Cusco**. 2♂, **BOLIVIA**: **La Paz**. • STARK 2004:78. **BOLIVIA**: **Santa Cruz**.

dampfi JEWETT 1958:165, fig. 5 (st8-9). Holotype ♀:
MEXICO: Chiapas, Finca Vergel [A. DAMPF, 29/V/1935]; INHS. Allotype, ♂: same data as holotype but 15/V/1935. Paratypes: 5♀. • ILLIES 1966:315. • STARK 1998:582. **Synonym** of *A. planicollis*.

debilis {*Perla (Perla)*} (PICTET 1841):255, pl. 26, fig. 4 (habitus, wings expanded). Holotype, ♂: **BRAZIL** [SELLOW]; Berlin. • {*Neoperla*} ENDERLEIN 1909a [in part PICTET 1841, *fide* ZWICK 1973a]:173, fig. 10 (contour of ♀ subgenital plate). **Santa Catarina.** • {*Neoperla*} BANKS 1913:85. **Rondônia.** • {*Perla*} ILLIES 1966:501. *Species inquirenda.* • {*Anacroneuria*} ZWICK 1972a:1155, fig. 5b (♂ holotype, penis dorsal, lateral). • ZWICK 1973a:486, figs. 17-18 (egg; ♀, st8-9). **BRAZIL:** Santa Catarina, Rio Grande do Sul. • ZWICK 1973b:270. • FROEHLICH 2002b:76, figs. 2-4 (♀, st8-9 of 2 specimens; egg). **BRAZIL:** Santa Catarina; Paraná, Espírito Santo. **ARGENTINA:** Misiones, Entre Ríos. **PARAGUAY:** Paraguarí. • DE RIBEIRO & FROEHLICH 2007:55. **BRAZIL:** Rio Grande do Sul. *brevicollis* Klapálek 1922:95. • ZWICK 1973a:486. **Synonym** of *A. debilis*.

diaphana Klapálek 1921:325. Syntypes, 3♀:
BRAZIL: Rio Grande do Sul; [STIEGELMAYR]; Vienna, missing. • ILLIES 1966:315.

digitata STARK 1995:234, figs. 101-107 (head and pronotum; ♂: st9, penis ventral, lateral, dorsal; ♀: st8-9; egg). Holotype, ♂: **VENEZUELA:** Barinas, Río Santo Domingo [CM FLINT, OS FLINT, 17/II/1976]; NMNH. Paratypes: 8♀.

dilaticollis {*Perla*} (BURMEISTER 1839):880. Holotype, ♀: **BRAZIL:** Halle. • {*Perla (Perla)*} PICTET 1841 (partim, type):240, pl. 23, figs. 5-10 (dorsal view, wings closed, wings expanded; 2 figs. head and pronotum, 2 legs). **BRAZIL;** **COLOMBIA;** **MEXICO.** • {*Perla*} HAGEN 1861:25. • {*Pseudoperla*} BANKS 1901:362. **MEXICO:** Morelos, Veracruz. • {*Neoperla*} ENDERLEIN 1909b (probably not BURMEISTER 1839):411. **BRAZIL:** Espírito Santo. **BOLIVIA:** Sara (now Santa Cruz). • {*Anacroneuria*} NEEDHAM & BROUGHTON 1927 (nec BURMEISTER 1839):117, figs. 8-8B (♂: terminalia

with everted penis, t10 and paraprocts; ♀: st8-9). **MEXICO; GUATEMALA; PANAMA; BRAZIL:** Mato Grosso. • COSTA LIMA 1939:105. No material. • JEWETT 1958 (nec BURMEISTER 1839):170. **MEXICO:** Chiapas; **GUATEMALA** [...possibly this name should not be used...I am following NEEDHAM and BROUGHTON...]. • ILLIES 1966:315. • ZWICK 1972a:1156, fig. 6e (♀ terminalia). Very unprobable that *dilaticollis*; NEEDHAM & BROUGHTON 1927 and JEWETT 1958 belong to this species. • ZWICK 1973b:270. Secondary citations before 1972 are questionable. • FROEHLICH 2002b:78, figs. 5-6 (♀ holotype, head and pronotum; egg). **BRAZIL:** Espírito Santo.

dimidiata {*Neoperla*} (NAVÁS 1916b):62. Holotype, ♀:
COLOMBIA: La Vega [Frater APOLLINARIS MARIA, VI/1915]; Navás, lost. • AUBERT 1956b:440. Type not located. • ILLIES 1966:483. Possibly an *Anacroneuria*. *Nomen dubium.* • STARK, ZÚÑIGA, ROJAS & BAENA 1999:45. *Nomen dubium.*

divisa {*Forquilla*} (NAVÁS 1924b):74, fig. 13 (right wings). Syntypes: 1♂, 2♀: **COSTA RICA** [PAUL SERRE, 1921]; Paris. • AUBERT 1956b:440. Type in Paris. • {*Anacroneuria*} ILLIES 1966:316. • STARK 1998:563, figs. 36-40, 141, 167-168 (head and pronotum, ♂: st9, penis lateral, dorsal, ventral, details; ♀: st8-9). One female syntype extant, male missing. **COSTA RICA:** Alajuela; Guanacaste.

dourada JEWETT 1960a:1, figs. 1, 1A (♀: head and pronotum, st8-9). Holotype, ♀: **BRAZIL:** Goiás; 24 km E Formoso [FS TRUXAL, 09/VI/1956]; Rio de Janeiro, missing. Allotype, ♂: Same data except 23/V/1956; Rio de Janeiro; missing. Paratypes: 1♂, 8♀. • (*dousada*) ILLIES 1966:316.

egena {*Neoperla*} (NAVÁS 1916a):26, fig. 7 (left wings). Holotype: **BRAZIL:** Rio de Janeiro; Nueva [Nova] Friburgo [H RAMOS, XII/1911]; Navás, lost. • AUBERT 1956b:440. Type not located. • ILLIES 1966:483. Possibly an *Anacroneuria*. *Nomen dubium.*

expansa Klapálek 1923:22. Syntypes: 1♀: **GUATEMALA;** Prague; 1♀: **BOLIVIA;** Greifswald, missing. • ILLIES 1966:316. • STARK 1998:554. ♀ lectotype designated. **GUATEMALA;**

Prague. **Synonym** of *Anacroneuria acutipennis*.

exquisita STARK 1998:566, figs. 41-45 (δ , head and pronotum, st9, penis lateral, dorsal, ventral). Holotype, δ : COSTA RICA: San José, Parque Nacional Braulio Carrillo, Río Zurchi, 1650 m [R HOLZENTHAL, M HEYN, B ARMITAGE, 06/VII/1986]; NMNH. Paratypes: 4 δ .

farallonensis ROJAS & BAENA 1993:25, figs. 1-6 (δ , head and pronotum, fore wing, penis, segment10). Holotype, δ : COLOMBIA: Valle del Cauca, Peñas Blancas, Parque Nacional de los Farallones, Río Cali (03°33'N, 75°42'W), 2000 m [C SERRATO, 10/IX/1991]; Cali. • STARK, ZÚÑIGA, ROJAS & BAENA 1999:19. • ZÚÑIGA & STARK 2002:216, figs. 27-31 (head and pronotum; ♀: st8-9; ♂: penis ventral, lateral, dorsal). Redescription. • ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:140. COLOMBIA: Risaralda.

fenestrata {*Perla (Chloroperla)*} (PICTET 1841):281, pl. 31, figs. 1-4 (habitus, wings closed, wings expanded; leg; detail of wing). Holotype, δ : COLOMBIA; Berlin. • {*Neoperla*} ENDERLEIN 1909b:409. {*Perla*} ILLIES 1966:502. Possibly an *Anacroneuria*. *Nomen oblitum*. • ZWICK 1972a:1157, fig. 5d (♀ terminalia). Holotype, δ ; Berlin. • ZWICK 1973b:271. • STARK 1995:241, figs. 135-139 [δ , head and pronotum, st9, penis ventral, lateral, dorsal]. VENEZUELA: Mérida. • STARK, ZÚÑIGA, ROJAS & BAENA 1999:19. • ZÚÑIGA, STARK, VÁSCONEZ, BERSOSA & VIMOS 2006:55. COLOMBIA: Boyacá. • ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:140. Boyacá.

fiorentini DE RIBEIRO & FROEHLICH 2007:53, figs. 1-5 (δ : head and pronotum, hammer, penis dorsal and lateral; ♀: st8-9). Holotype, δ : BRAZIL: Rio Grande do Sul, Caraá, Rio dos Sinos, 29°42'53"S, 50°17'19"W [DE RIBEIRO, 04. XII. 2002]; São Paulo. Paratypes: 2 δ , 2♀.

fittkauai FROEHLICH 2003:131, figs. 7-11 (δ : head and pronotum, hammer, penis; ♀: st8-9; egg). Holotype, δ : BRAZIL: Amazonas, lower Rio Negro [EJ FITTKAU, 27/XI/1963]; São Paulo. Paratypes: 37 δ , 27♀.

flavicoronata JEWETT 1959b:111, figs. 3-3A (♀ head and pronotum; contour of subgenital plate). Holotype, ♀: PERU: Huánuco, Tingo María [EI SCHLINGER & ES ROSS, 16/XI/1954]; CAS. Allotype, ♂: same data as holotype. Paratypes: 16 δ , 2♀. • ILLIES 1966:316. • STARK & SIVEC 1998:24, figs. 61-65, 71 [head and pronotum; ♂: st9, penis ventral, lateral, dorsal; ♀: st8-9]. Loreto. • STARK 2004:78. Pasco.

flavifacies JEWETT 1958:161, fig. 1 (head and pronotum). Holotype, ♂: MEXICO: México, Temascaltepec, Real de Arriba [HE HINTON & RL USINGER, 04/VI/1933]; CAS. • ILLIES 1966:316. • STARK & KONDRATIEFF 2004:20, figs. 54-57 (head and pronotum; ♂: st9; penis lateral, ventral).

flavifrons JEWETT 1959b:108, figs 2, 2A (♀, head and pronotum; contour of subgenital plate). Holotype, ♀: PERU: Huánuco, Yurac, 108 km E Tingo María [EI SCHLINGER & ES ROSS, 16/XI/1954]; CAS. Allotype, ♂: same data as holotype. Paratype: 1♀. Identification not certain: Ancash, Chimbote, 2 δ , 1♀; NMNH. • ILLIES 1966:316. • STARK & SIVEC 1998:24, figs. 66-70, 72 (head and pronotum; ♂: st9, penis ventral, lateral, dorsal). Redescription of ♀ holotype and ♂ paratype.

flavilatera Klapálek 1922:92. Syntypes: ♂, ♀: COLOMBIA: Bogotá. [LINDIG]; Berlin, missing. • ILLIES 1966:317. • STARK, ZÚÑIGA, ROJAS & BAENA, 1999:45. *Nomen dubium*.

flavolineata JEWETT 1958:171, figs. 10, 10A (st8-9). Holotype, ♀: GUATEMALA: Alta Verapaz, Lanquín, 300 m [RD MITCHELL, 08/VI/1948]; CNHM. Paratypes: 17♀, Alta Verapaz; 4♀, MEXICO: Hidalgo, Vera Cruz. • ILLIES 1966:317. • STARK & KONDRATIEFF 2004:21, figs. 58-59 (♀, head and pronotum, st9).

flavominuta JEWETT 1958:167. Holotype, ♀: MEXICO: Chiapas, Santa Ana, [A DAMPF, 25/II/1931]; INHS. Allotype, ♂: Same data as holotype. Paratypes: 3 δ , 20♀; Chiapas, Pueblo; 9♀, GUATEMALA: Chimaltenango, Alta Verapaz, Izabal; 2 δ , 1♀; PANAMA: Chiriquí, Veraguas. • ILLIES 1966:317. • HARPER 1992:116,

fig. 2 (δ : penis dorsal, lateral). Male paratype of JEWETT 1958. **PANAMA: Veraguas.** **Synonym** of *A. curiosa* fide STARK 1998. • STARK & KONDRATIEFF 2004:21, figs. 60-64 (head and pronotum; δ : penis lateral, dorsal, ventral; φ : st8-9). **HONDURAS: Olancho;** **MEXICO: Chiapas, San Luis Potosí, Veracruz.**

flinti STARK & SIVEC 1998:28, figs. 73-76 (δ , st9, penis ventral, lateral, dorsal). Holotype, δ : **PERU: Madre de Dios**, Manu, Río Manu, Limonal, 10 km N Boca Manu, 200 m [OS FLINT, N ADAMS, 07/IX/1988]; NMNH.

flintorum FROEHЛИCH 2002b: 93, figs. 67-70 (δ , head and pronotum, hammer, penial armature). Holotype, δ : **BRAZIL: Rio de Janeiro**; Nova Friburgo, Municipal Water Supply, 950 m [CM & OS FLINT, 24/IV/1977]; NMNH. • BISPO & FROEHЛИCH 2004b:99, figs. 4-10 (δ head and pronotum, st9, penis dorsal, ventral, lateral; φ st8-9; egg). **São Paulo.** • DE RIBEIRO & FROEHЛИCH 2007:55. **Rio Grande do Sul.**

forcipata ROJAS & BAENA 1999. In: STARK, ZÚÑIGA, ROJAS & BAENA 1999:26, figs. 51-55 (δ , head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, δ : **COLOMBIA: Valle del Cauca**, Río Azul, 550 m, cuenca media Río Calima [AM ROJAS, M BAENA, R ALDANA, 21/II/1994]; Cali. • ZÚÑIGA & STARK 2002:220.

fulvipennis {*Neoperla*} (NAVÁS 1934b): 17. Holotype, φ : **COSTA RICA: San José** [F NEVERMANN, V/1930]; Hamburg. • WEIDNER 1962:108. Holotype in Hamburg. • ILLIES 1966:483. Possibly an *Anacroneuria. Species inquirenda.* • {*Anacroneuria*} STARK 1998:603. Holotype in fragments. *Nomen dubium.*

fumigata Klapálek 1922:95. Syntypes: **BRAZIL: Espírito Santo;** Berlin, missing, and Klapálek; male syntype in Prague (STARK, *in litteris*) • ILLIES 1966:317.

furfurosa JEWETT 1960b: 173, figs. 9-9A (head and pronotum, φ terminalia). Holotype, φ : **BRAZIL: Rio de Janeiro**; Rio de Janeiro, Bom Retiro

[SANTOS, MACHADO, BARROS, MYRIAM, 8/I/1957]; Rio de Janeiro. Allotype, δ : same data as holotype. Paratypes: 1 δ , 3 φ . • ILLIES 1966:317. • AVELINO-CAPISTRANO & COSTA 2009:69. Holotype in Rio de Janeiro.

fuscescens {*Neoperla*} (NAVÁS 1927):67. Holotype, φ : **BOLIVIA: [LaPaz,] Coroico** [STIEGELMAYR & BANG-HAAS]; Navás, lost. • ILLIES 1966:483. Possibly an *Anacroneuria. Nomen dubium.* • STARK & SIVEC 1998:2. *Nomen dubium.*

fuscicosta {*Neoperla costalis* var.} (ENDERLEIN 1909a):178. Syntypes: **BRAZIL: Santa Catarina**; 7 δ , 17 φ [LÜDERWALDT]; Warsaw. • {*Anacroneuria*} JEWETT 1959a:155, figs. 8-8A (2 specimens, head and pronotum). **Santa Catarina. Partim, fide ZWICK 1973a.** • JEWETT 1960b:174. **Rio de Janeiro, Espírito Santo.** Doubtfully *A. fuscicosta.* • {*Neoperla*} ILLIES 1966:484. Comments. *Species inquirenda.* • ZWICK 1973a:486, figs. 19-20 (egg, φ st9, seminal receptacle). Designated φ lectotype, φ paralectotypes. ENDERLEIN's material includes several species. • FROEHЛИCH 2002b:78, figs. 7-11 (head and pronotum; δ : hammer, penis dorsal, lateral; φ : st8-9). **BRAZIL: Santa Catarina; Paraná.** **ARGENTINA: Misiones.** • DE RIBEIRO & FROEHЛИCH 2007:55. **BRAZIL: Rio Grande do Sul.**

galba JEWETT 1960a:3, fig. 2 (φ , st8-9). Holotype, φ : **BRAZIL: Goiás.** [Chapada dos] Veadeiros [FS Truxal, 30/IV/1956]; Rio de Janeiro; missing. Allotype, δ : same data except 23/V/1956; Rio de Janeiro; missing. Paratypes: 4 δ , 3 φ . The specimens provisionally identified with this species from **Espírito Santo, São Paulo** and **Minas Gerais** very doubtfully belong to it. • ILLIES 1966:317.

genualis {*Neoperla*} (NAVÁS 1932a):58, fig. 3 (head and pronotum). Holotype, δ : **BRAZIL: Mato Grosso**, São Martinho [MELZER, XI/1929]; DEI [lacking abdomen]. • AUBERT 1956b:440: Type in Buenos Aires: no!, v.s. • ILLIES 1966:484. Possibly an *Anacroneuria. Nomen dubium.* • PETERSEN & GAEDIKE 1968:965. Holotype in DEI. • {*Anacroneuria*} FROEHЛИCH 2007:15, fig. 1 (head and

pronotum). Probably from **Mato Grosso do Sul**, Porto São Martinho.

guaiikuru FROEHЛИCH 2007:19, figs. 12-14 (head and pronotum, st9, penis dorsal, ventral lateral). Holotype, ♂: BRAZIL: **Mato Grosso do Sul**, Rio Salobra, 20°41'35"S, 56°44'26"W [O FROEHЛИCH, 16-21/III/2004]; São Paulo. Paratypes: 5♂.

guambiana ZÚÑIGA & STARK 1999. In: STARK, ZÚÑIGA, ROJAS & BAENA 1999:27, figs. 56-60 (head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: COLOMBIA: Cauca, Piendamó, cuenca media Río Piendamó, 1400 m [Y BALLESTEROS, J LOAIZA, 23/XI/1993]; Cali. Paratypes: 5♂. • STARK & ZÚÑIGA 2003: 234, figs. 5, 24-26, 42, 44 (penis ventral dorsal, lateral, detail; ♀, st8-9; distribution map of *guambiana* complex). **Cauca, Risaralda**. • ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:140.

guatemalensis {Neoperla} (ENDERLEIN 1909a):161, Fig. 1 (contour of ♀ subgenital plate). Syntypes: 1♂, 2♀: GUATEMALA. 1♂, 1♀: MEXICO: Chiapas [L CONRADT, 01/IV/1907]; Warsaw. • ILLIES 1966:484. Possibly an *Anacroneuria*. *Species inquirenda*. • ZWICK 1973a:485. Designated ♀ lectotype, ♂ paralectotype: MEXICO; 2♀ paralectotypes: GUATEMALA; ♂ paralectotype missing. **Synonym** of *A. annulicauda*.

guayaquil ZÚÑIGA & ROJAS 1999. In: STARK, ZÚÑIGA, ROJAS & BAENA 1999:28, figs. 61-65 (head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: COLOMBIA: Quindío, Reserva Guayaquil, cuenca alta Río Quindío, 3070 m [MC ZÚÑIGA, AM ROJAS, 29/IV/1992]; Cali. • STARK 2001a:18. ECUADOR: Chimborazo.

hacha STARK 1998:568, figs. 46-50, 169-170 (♂, head and pronotum, st9, penis lateral, dorsal, ventral, details). Holotype, ♂: COSTA RICA: Guanacaste, Estación Maritza, Río Tempisque [27/IV/1989]; NMNH. Paratypes: 31♂, Guanacaste.

handlirschi Klapálek 1922: 94. Syntypes: 1♂, 1♀: PERU: Pichis; 3♀: Marcapata; Prague. 1♂: BOLIVIA: La Paz, Yungas de Coroico, [FASSL];

Vienna. • ILLIES 1966:317. • ZWICK 1973a:483. Designated ♂ lectotype: **BOLIVIA**: Yungas de Coroico. **Synonym** of *A. angusticollis*. • ZWICK 1973b:271. • STARK & SIVEC 1998:28, figs. 77-82 [head and pronotum; ♂: st9, penis ventral, lateral, dorsal; ♀: st8-9]. *Species propria*. **BOLIVIA**: Cochabamba. **PERU**: Cusco; Madre de Dios.

harperi STARK 1998:568, figs. 51-55, 142 (head and pronotum; ♂: st9, penis lateral, dorsal, ventral; ♀: st8-9). Holotype, ♂: PANAMA: Alajuela [A BUSCK, 17/IV/1911]; NMNH. Paratypes: 3♂, 2♀, Alajuela; Darien. • ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:140. COLOMBIA: Chocó.

sp. B HARPER 1992:118.

hemiphaea {Neoperla} (NAVÁS 1936):727. Holotype, ♀: BRAZIL: Santa Catarina, Hamonia [now Ibirama] [LUEDERWALDT, XI/1910]; São Paulo. • AUBERT 1956b:440. Type in São Paulo. • ILLIES 1966:485. Possibly an *Anacroneuria*. *Species inquirenda*.

heppneri STARK & SIVEC 1998:32, figs. 83-87 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: PERU: Huánuco, Tingo María, 672 m [JB HEPPNER, 1-6/II/1980]; NMNH.

hieroglyphica {Neoperla} (ENDERLEIN 1909a):167, fig. 5 (♀, contour of subgenital plate). Holotype, ♀: ECUADOR: Balzapamba [R HAENSCH, 03/IX/1899]; Warsaw. Paratypes: 1♀, Balzapamba; 1♀, Archidona, lost. • ILLIES 1966:485. Possibly an *Anacroneuria*. *Species inquirenda*. • {*Anacroneuria*} ZWICK 1973a:481, fig. 7 (♀, st8-9). Holotype, ♀: Balzapamba. • STARK 2001a:18. Comments on ZWICK 1973a.

holzenthalii STARK 1998:568, figs. 56-60, 143, 171-172 (head and pronotum; ♂: st9, penis lateral, dorsal, ventral, details; ♀: st8-9). Holotype, ♂: COSTA RICA: Guanacaste, Parque Nacional Rincón de la Vieja, Quebrada Zapilote, 785 m [R HOLZENTHAL, 03/III/1986]; NMNH. Paratypes: 22♂, 15♀, Alajuela; Guanacaste; Heredia. NICARAGUA: Chontales. • STARK & KONDRATIEFF 2004:24, figs. 65-69 (head and pronotum; ♂, st9; penis lateral, dorsal, ventral). HONDURAS: Comayagua.

hoogstraali JEWETT 1958:169, figs. 9-9A (δ : head and pronotum; φ : st8-9). Holotype, φ : MEXICO: Nuevo León, Galeana, 2210 m [H HOOGSTRAAL, 22/VII/1938]; CNHM. Allotype, φ : Same data as holotype. Paratypes: 3 δ , 1 φ . • (*hoogstraati*) ILLIES 1966:318. • ZWICK 1973b:271. • STARK & KONDRATIEFF 2004:24, figs. 70-74 (head and pronotum; δ : penis lateral, dorsal, ventral; φ : st8-9). MEXICO: Nuevo León, San Luis Potosí.

huayna STARK 2004:72, figs. 25-27 (δ , penis ventral, lateral, dorsal). Holotype, δ : PERU: Pasco, Chontilla, 22 km S Iscozazin [R ETHERIDGE, 1-15/VIII/1961]; Los Angeles.

hyalina {*Perla* (*Perla*)} (PICTET, KOLLAR MSS, 1841):247, pl. 21, figs. 5-8 (habitus, wings expanded, lighter variety, darker variety, head and pronotum, base of cercus). Syntypes, 2: BRAZIL; Vienna. • {*Neoperla*} ENDERLEIN 1909a (nec PICTET 1841):171, fig. 9 (contour of φ subgenital plate). BRAZIL: Rio Grande do Sul. • {*Perla*} ILLIES 1966:502. Possibly an *Anacroneuria*. Species inquirenda. • {*Anacroneuria*} ZWICK 1972a:1158, fig. 6b (φ , st8-9). Remaining φ syntype in NHMW is designated lectotype for both *P. hyalina* and *A. mollis*. • ZWICK 1973b:271. *mollis* Klapálek 1922:92. • ZWICK 1972a:1158.

Synonym of *P. hyalina*.

annulicauda {*Neoperla*} (ENDERLEIN 1909a) (nec PICTET 1841):175. • Klapálek 1922:92. **Synonym** of *A. mollis*.

ignatiana {*Neoperla*} (NAVÁS 1923):43. Holotype, δ : ARGENTINA: Misiones, ca. San Ignacio, Villa Lutecia [ER WAGNER, 1911]; Paris. • AUBERT 1956b:440. Type in Paris. • {*Anacroneuria*} ILLIES 1964b:231. • ILLIES 1966:486. Possibly an *Anacroneuria*. Species inquirenda.

iguaque ZÚÑIGA & STARK 2006. In: ZÚÑIGA, STARK, VÁSCONEZ, BERSOSA & VIMOS 2006:50, figs. 20-24 (head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, δ : COLOMBIA: Boyacá, Municipio de Arcabuco, Río Cane, Vía Villa de Leyva-Arcabuco, 2500 m [MC ZÚÑIGA, N ARANGUREN, AJ CARDOZO-ZÚÑIGA & al., 12/XII/2002]; Cali. Paratypes: 2 δ .

impensa JEWETT 1959a:157, fig. 12 (head and pronotum). Holotype, φ : BRAZIL: Santa Catarina, Nova Teutonia [F PLAUMANN, 09/XI/1955]; CAS. Paratype: 1 φ . • ILLIES 1966:318. • FROEHLICH 2002b:80, figs. 12-17 (φ holotype: head and pronotum; st8-9; δ , hammer, penis; egg). Santa Catarina. ARGENTINA: Misiones.

inca STARK & SIVEC 1998:32, figs. 88-92 (δ , head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, δ : PERU: Madre de Dios, Manu, Erika, 550 m [OS FLINT, N ADAMS, 4-6/IX/1988]; NMNH. Paratype: 1 δ , Cusco. • STARK 2004:79, figs. 51-52 (φ , head and pronotum, st8-9). Madre de Dios, putative φ .

intermixta {*Perla*} (WALKER 1852):153. Holotype, φ : VENEZUELA; London. • ILLIES 1966:503. Possibly an *Anacroneuria*. *Nomen oblitum*. • KIMMINS 1970:343. φ holotype in London. • {*Anacroneuria*} STARK 1995:243. Comments.

inza ZÚÑIGA & STARK 2002:210, figs. 1-5 (δ : head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, δ : COLOMBIA: Cauca, Municipio de Inzá, Quebrada San Andrés de Pisimalá, 1730 m [MC ZÚÑIGA, F MUÑOZ-QUESADA, JH LÓPEZ, 20/XII/1997]; Cali. Paratypes: 4 δ .

iporanga BISPO & FROEHLICH 2004b:103, figs. 14-18 (δ : head and pronotum, st9, penis dorsal, ventral, lateral). Holotype, δ : BRAZIL: São Paulo, Iporanga, Parque Estadual Intervales, Ribeirão Água Comprida [PC BISPO, VL CRISCI-BISPO, 23/IX/1999]; São Paulo. Paratype: 1 δ .

iridescens Klapálek 1922:91. Syntypes: 11 φ : BOLIVIA: Chaco, 6 φ ; PERU: Santo Domingo, 1800 m, 2 φ [V.D. WEELE]; Carabaya Limbani, 1 φ , [V.D. WEELE]; VENEZUELA, 2 φ , SÉLYS, missing. • ILLIES 1966:318. • STARK & SIVEC 1998:35, fig. 93 (φ , st8-9). Designated as lectotype: φ syntype from BOLIVIA: Chaco; Prague.

isleta STARK 1994:171, figs. 1-7 (head and pronotum; egg; φ : st8-9; δ : st9; penis ventral, lateral, dorsal). Holotype, δ : TOBAGO: 5.9 km N Roxborough, Parlatuvier Rd. C2/4, 400 m, [NE ADAMS & WN

MATHIS, 15-16/VI/1993]; NMNH. Paratypes: 1♂, 5♀.

isoscelia {*Nedanta*} (NAVÁS 1932c):88, fig. 13 (head and pronotum; subgenital plate). Holotype, ♀: BRAZIL: Santa Catarina; Boiteuxburgo, 800 m [P MISSFELDT, 1929-1930]; Hamburg. • AUBERT 1956b:439. Type lost. • WEIDNER 1962:108. Holotype in Hamburg. • ZWICK 1972a:1160. **Synonym** of *A. longicauda*.

itajaimirim BISPO & FROEHLICH 2004b:105, figs. 19-25 (♂: head and pronotum, st9, penis dorsal, ventral, lateral; ♀: st8-9; egg). Holotype, ♂: BRAZIL: São Paulo, Iporanga, Parque Estadual Intervales, Cachoeira das Pedrinhas [PC BISPO, VL CRISCI BISPO, 01/XI/2002]; São Paulo. Paratypes: 1♂, 1♀.

izapa STARK & KONDRATIEFF 2004:26, figs. 75-77 (♂, penis lateral, dorsal, ventral). Holotype, ♂: MEXICO: Chiapas, San Quintín, Jatape River, 230 m [DW ANRAM, 15/III/1935]; INHS. Paratypes: 2♂.

jaciara BISPO & NEVES 2005. In: BISPO, P.C.; NEVES, C.O; FROEHLICH, C.G. 2005:2, Figs. 1-7 (♂: head and pronotum, st9, penis lateral, ventral, dorsal; ♀: st8-9, egg). Holotype, ♂: BRAZIL: Mato Grosso, Jaciara, Córrego Tenente Amaral [CO Neves, 01/IX/1999]; Cuiabá. Paratypes: 44♂, 69♀.

gewetti STARK 2001a:19, figs. 44-48 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: ECUADOR: Napo, San Francisco de Borja [P SPANGLER, A.GURNEY, A LANGLEY, J COHEN, 15/V/1975]; NMNH. Paratypes: 13♂, Azuay; Loja; Morona Santiago; Pichincha. • ZÚÑIGA & STARK 2002:220. COLOMBIA: Valle del Cauca. • ZÚÑIGA, STARK, VÁSCONEZ, BERSOSA & VIMOS 2006:55, fig. 36 (♀, st8-9). ECUADOR: Pichincha. • ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:141. COLOMBIA: Antioquia.

jivaro STARK 2001a:20, figs. 49-53 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: ECUADOR: Cañar, Río Chaucas, 3 km N Zhud, 2910 m [OS FLINT, 17/IX/1990]; NMNH. Paratypes: 3♂, Cañar, Azuay.

karina STARK 1999:77, figs. 22-26 (♂: head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: VENEZUELA: Sucre, Río Cocollar, 1.5 km SE Las Piedras de Cocollar, 810 m [R HOLZENTHAL, OS FLINT, 7-8/IV/1995]; NMNH. Paratypes: 7♂.

kitchensi STARK 2001a:21, figs. 54-58 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: ECUADOR: Pastaza, Puyo [P SPANGLER, DR GIVENS, 11/V/1977]; NMNH. Paratype: 1♂. • STARK 2004:79, fig. 53 (♀, st8-9).

kondratieffi STARK 2001a:23, figs. 59-63 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: ECUADOR: Los Ríos, 56 km N Quevedo, Río Palenque Biological Station, 250 m [J COHEN, 28-29/VII/1976]; NMNH. • STARK 2007:172. Pichincha. "Although labels indicate different provinces, the holotype and the new specimen apparently come from the Río Palenque Biological Station".

lacunaris {*Neoperla*} (NAVÁS 1934b):160, fig. 35 (forewing). Holotype, ♀: ECUADOR: [Pichincha], Santo Domingo de los Colorados [R BENOIST, 1930]; Paris. • AUBERT 1956b:440. Type in Paris. • ILLIES 1966:487. Possibly an *Anacroneuria*. *Species inquirenda*. • STARK 2001:2. *Nomen dubium*.

lacunosa {*Neoperla*} (NAVÁS 1926a):14. Holotype, ♀: BRAZIL: Bahia; [R OBERTHÜR, 1903. Ex Coll. A DAVID]; Paris. • AUBERT 1956b:440. Type in Paris. • ILLIES 1966:487. Possibly an *Anacroneuria*. *Species inquirenda*.

laminata Klapálek 1923:23. Syntypes: BRAZIL: Rio Grande do Sul [STIEGELMAYR]; Vienna, missing. • ILLIES 1966:318.

laticeps {*Neoperla*} (ENDERLEIN 1909b):410. Holotype ♂: BRAZIL: Pará; Warsaw. • ILLIES 1966:487. Possibly an *Anacroneuria*. *Species inquirenda*. ZWICK 1973a:488. **Synonym** of *Macrogynoplax guayanensis*.

latissima Klapálek 1921:327. Syntypes, ♂: [BOLIVIA]: Chaco, 1♂; Berlin; 1♂, Klapálek.

COLOMBIA: 1♂ [PARZUDACKI, 1842]; Paris.[?]. • ILLIES 1966:318. • STARK & SIVEC 1998:2. *Nomen dubium*.

lepidia Klapálek 1923:91. Holotype (lacking abdomen): **BRAZIL: Mato Grosso**; Chapada [dos Guimarães] [A ROBERT, XI/1902]; London. • ILLIES 1966:318. • KIMMINS 1970:344. Type in London.

lestagei {*Peltoperla*} (Šámal 1921):109, fig. 1 (♂ terminalia ventral). Two syntypes, ♂: **PARAGUAY** [D FIEBRIG]; Berlin, missing. • NAVÁS 1921:263. Translation of Šámal 1921 into Latin. • ILLIES 1966:460. Probably *Anacroneuria*. *Nomen dubium*.

lineata {*Neoperla*} (NAVÁS 1924b):73. Holotype, ♂: **COSTA RICA**. [PAUL SERRE, 1921]; Paris. • AUBERT 1956b:440. Type in Paris. • ILLIES 1966:487. Possibly an *Anacroneuria*. *Species inquirenda*. • {*Anacroneuria*} STARK 1998:572, figs. 61-65 (♂, head and pronotum, st9, penis lateral, dorsal, ventral). **COSTA RICA: Alajuela; Guanacaste; San José. MEXICO: Chiapas**. • STARK & KONDRATIEFF 2004:26, figs. 78-82 (head and pronotum; ♂: penis lateral, dorsal, ventral; ♀: st8-9). **BELIZE; GUATEMALA: Alta Verapaz, El Petén, El Progreso, Zacapa; HONDURAS: Atlántida, Cortés, Comayagua; MEXICO: Chiapas, Michoacán, Nayarit, Nuevo León, Oaxaca, Puebla, San Luis Potosí, Tabasco, Tamaulipas, Veracruz**. **sulana** NEEDHAM & BROUGHTON 1927:112. • ZWICK 1972a:1152 **Synonym** of *A. annulicauda*. • STARK & KONDRATIEFF 2004:26. **Synonym** of *A. lineata*.

litura {*Perla (Perla)*} (PICTET 1841):242, pl. 24, figs. 1-3 (head and pronotum; habitus, wings closed, wings expanded). Holotype: **MEXICO**; Berlin. • {*Perla*} HAGEN 1861:25. • ILLIES 1966:504. Possibly an *Anacroneuria*. *Nomen oblitum*. • {*Anacroneuria*} ZWICK 1972a:1159, fig. 5c (♂ holotype, penis dorsal, lateral). • ZWICK 1973b:272. • STARK & KONDRATIEFF 2004:30, figs. 83-87 (head and pronotum; ♂: penis lateral, dorsal, ventral; ♀: st8-9). **NICARAGUA: Chontales, Estelí; HONDURAS: Atlántida, Olancho; BELIZE; MEXICO: Chiapas, Guerrero, Morelos, Oaxaca, Tamaulipas**.

comanche STARK & BAUMANN 1987:345. • STARK & KONDRATIEFF 2004:30. **Synonym** of *A. litura*.

crenulata JEWETT 1958:171. • STARK & KONDRATIEFF 2004:30. **Synonym** of *A. litura*.

proxima Klapálek 1923:21. • STARK & KONDRATIEFF 2004:30. **Synonym** of *A. litura*.

llana STARK 1995:234, figs. 108-111 (♂, st9, penis ventral, lateral, dorsal). Holotype, ♂: **VENEZUELA: Bolívar**, La Escalera, 108 km S Río Cuyuni [CM FLINT, OS FLINT, 11-12/II/1976]; NMNH. • STARK 1999:77, fig. 64 (♀: st8-9). **GUYANA**.

longicauda {*Perla (Perla)*} (PICTET 1841):238, pl. 23, figs 1-4 (habitus, wings closed, wings expanded; head and pronotum; base of cercus). Holotype, ♀: **BRAZIL** [VON LANGSDORFF]; Berlin. • {*Neoperla*} ENDERLEIN 1909a (nec PICTET 1841, *fide* ZWICK 1972a):163, fig. 2 (contour of ♀ subgenital plate). **ECUADOR: Balzapamba, Baños**. • {*Perla*} ILLIES 1966:504. Possibly an *Anacroneuria*. *Nomen dubium*. • {*Anacroneuria*} ZWICK 1972a:1160, fig. 5d (♀ holotype: terminalia ventral). • ZWICK 1973b:272. **isoscelia** {*Nedanta*} (NAVÁS 1932c):88. • ILLIES 1966:341. **Synonym** of *Kemphyia varipes*. • ZWICK 1972a:1160. **Synonym** of *A. longicauda*.

longinqua {*Neoperla*} (NAVÁS 1911):226, fig. 5 (right wings). Holotype, ♀: **ECUADOR: Loja** [A POUJADE, 1909]; Paris. • AUBERT 1956b:440. Type in Paris. • ILLIES 1966:487. Possibly an *Anacroneuria*. *Species inquirenda*. • STARK 2001a:2. *Nomen dubium*.

loreto STARK & ZÚÑIGA 2001. In: STARK, ZÚÑIGA & SIVEC 2001:120, figs. 1-3 (head and pronotum, forewing, terminalia ventral). Holotype, ♀: **PERU: Loreto**, ca. Nauta [W REEVES, 22/III/2001]; NMNH.

lupaca STARK & SIVEC 1998:35, figs. 94-98 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: **PERU: Madre de Dios**, Manu, Pakitza, 250 m [OS FLINT & N ADAMS, 9-14/IX/1988]; NMNH.

luteicollis {*Perla*} (WALKER 1852):154. Holotype, ♀:

VENEZUELA; London • {*Macrogynoplax*} Klapálek 1916:73. • ILLIES 1966:344. • KIMMINS 1970:344. ♀ holotype in London. • STARK & ZWICK 1989:247. Probably not *Macrogynoplax*. • {*Anacroneuria*} FROEHLICH 2008:128, figs 5-7 (female holotype, head and pronotum, sterna 8-9, terminalia lateral). It does not belong to *Macrogynoplax*, position uncertain, transferred provisionally to *Anacroneuria*.

magnirufa JEWETT 1958:162, figs. 3, 3A, 3B (♀: head and pronotum, st8; ♂ hind leg). Holotype, ♀: PANAMA, Chiriquí, El Volcán [GERTSCH & LUTZ, 26/II/1936]; AMNH. Allotype, ♂: HONDURAS [W VON HAGEN, 1940]. Paratype: 1♂: HONDURAS. • ILLIES 1966:318. • STARK 1998:572, figs. 66-70, 144, 155, 173-174 (head and pronotum; ♂: st9, penis lateral, dorsal, ventral, details of penis; ♀: st8-9). COSTA RICA: Alajuela; Guanacaste; Puntarenas. PANAMA: Chiriquí.

major STARK 2001a:24, figs. 64-68 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: ECUADOR: Azuay, Río Llavinco, 16 km W. Cuenca, 3010 m [OS FLINT, 18/IX/1990]; NMNH.

makushi STARK 1999:77, figs. 27-31 (♂: head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: GUYANA: Kanuku Mountains, Moco Moco River [OS FLINT, 29/IV/1995]; NMNH. Paratypes: 2♂.

manauensis RIBEIRO-FERREIRA 2001. In: RIBEIRO-FERREIRA & FROEHLICH 2001:189, figs. 5-10 (♂: head and pronotum, hammer, penis dorsal, lateral; ♀: st 8-9). Holotype, ♂: BRAZIL: Amazonas; Manaus, Reserva Florestal Adolpho Ducke [MARLIER, 20/X/1963]; Illies, lost. Paratypes: 3 ♀, which belong to *A. amazonica* FROEHLICH 2003, q.v. • FROEHLICH 2003:130, figs. 1-3 (♂: head and pronotum; ♀: st8, st9). Amazonas • RIBEIRO & RAFAEL 2009:7, figs. 11-15, 36-45 (male habitus, female habitus, head and pronotum, forewing, hindwing; male: terminalia ventral; hammer ventral, lateral; paraproct; penis dorsal, ventral, lateral; female: sterna 7-8, sterna 9-10, vaginal sclerite). Neotype, male: BRAZIL: Amazonas, Manaus, Reserva Ducke, Igapó Ipiranga [Vidal J & Vidal J, 31/XII/2002]; Manaus. Neotype described, female redescribed. • RIBEIRO, J.M.F.; MAGALHÃES, C.; RAFAEL, J.A.; HENRIQUES, A.L. 2009:34. Neotype in Manaus.

HENRIQUES, A.L. 2009:34. Holotype in Manaus.

marca STARK 1998:575, figs. 71-75, 145, 175-176 (head and pronotum; ♂: st9, penis lateral, dorsal, ventral, details of penis; ♀: st8-9). Holotype, ♂: COSTA RICA: Heredia, Parque Nacional Braulio Carrillo, Río Peje, 480 m [R HOLZENTHAL, R BLAHNIK, F MUÑOZ, 29/V/1990]; NMNH. Paratypes: 9♂, 18♀, Alajuela; Cartago; Puntarenas; San José.

marginata STARK 1998:578, figs. 76-80, 177-178 (♂, head and pronotum, st9, penis, details of penis). Holotype, ♂: COSTA RICA: Guanacaste, Parque Nacional Guanacaste, Maritza, Río Tempisque, 550 m [CM FLINT, OS FLINT, R HOLZENTHAL, 17/VI/1988]; NMNH. Paratypes: 8♂, Guanacaste.

maritza STARK 1998:578, figs. 81-85, 146, 151-152 (head and pronotum; ♂: st9, penis lateral, dorsal, ventral; ♀: st8-9; nymph: head and pronotum, fore femur). Holotype, ♂: COSTA RICA: Guanacaste, Estación Maritza, Río Tempisque [11/II/1989]; NMNH. Paratypes: 24♂, 5♀.

marlieri FROEHLICH 2001 (*partim*, ♂). In: RIBEIRO-FERREIRA & FROEHLICH 2001:191, figs. 11-16 (♂: hammer, penis dorsal, lateral; ♀, st8-9). Holotype, ♂: BRAZIL: Amazonas; Manaus, Reserva Florestal Adolpho Ducke [MARLIER, 20/X/1963]; Illies, lost. Paratypes: 3 ♀, which belong to *A. amazonica* FROEHLICH 2003, q.v. • FROEHLICH 2003:130, figs. 1-3 (♂: head and pronotum; ♀: st8, st9). Amazonas • RIBEIRO & RAFAEL 2009:7, figs. 11-15, 36-45 (male habitus, female habitus, head and pronotum, forewing, hindwing; male: terminalia ventral; hammer ventral, lateral; paraproct; penis dorsal, ventral, lateral; female: sterna 7-8, sterna 9-10, vaginal sclerite). Neotype, male: BRAZIL: Amazonas, Manaus, Reserva Ducke, Igapó Ipiranga [Vidal J & Vidal J, 31/XII/2002]; Manaus. Neotype described, female redescribed. • RIBEIRO, J.M.F.; MAGALHÃES, C.; RAFAEL, J.A.; HENRIQUES, A.L. 2009:34. Neotype in Manaus.

marshalli STARK 2007:172, Figs. 1-5 (head, st9, penis ventral, lateral, dorsal). Holotype, ♂:

ARGENTINA: **Salta**, 15 km W Chicoana, Canyado Gotera [SA Marshall, II/1992]; Guelph.

marta ZÚÑIGA & STARK 2002:210, figs. 6-9 (δ : st 9, penis ventral, dorsal, lateral). Holotype, δ : **COLOMBIA:** **Magdalena**, Don Diego, 30 m [VII]; Carnegie. • ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:141, figs. 39-40 (δ : st9; nymph: head and pronotum).

media {*Neoperla*} (NAVÁS 1915):151. Holotype, δ : **ECUADOR:** **Pastaza**; Navás, lost. • AUBERT 1956b:441. Type not located. • ILLIES 1966:488. Possibly an *Anacroneuria*. *Nomen dubium*. • STARK 2001a:2. *Nomen dubium*.

melzeri {*Neoperla*} (NAVÁS 1932a):59, fig. 4 (head and pronotum). Holotype, δ : **BRAZIL:** **Mato Grosso**, São Martinho [MELZER, XI/1929]; DEI. • AUBERT 1956b:440. Type in Berlin. • ILLIES 1966:488. Possibly an *Anacroneuria*. *Species inquirenda*. • PETERSEN & GAEDIKE 1968:966. δ holotype in DEI. • {*Anacroneuria*} FROEHLICH 2007:16, figs 2-3 (head and pronotum, st8-9). Probably from **Mato Grosso do Sul**, Porto São Martinho.

menuda STARK 1995:236, figs. 112-116 (δ , head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, δ : **VENEZUELA:** **Amazonas**, Río Agua Blanca, 29 km S Puerto Ayacucho [P SPANGLER, W SANCHEZ, 20/II/1986]; NMNH.

meta STARK & ZÚÑIGA 1999. In: STARK, ZÚÑIGA, ROJAS & BAENA 1999:29, figs. 66-70, 140 (head and pronotum; δ : st9, penis ventral, lateral, dorsal; δ : st8-9). Holotype, δ : **COLOMBIA:** **Meta**, Quebrada Blanca, 3 km W Restrepo [OS FLINT, 11/II/1983]; NMNH. Paratype: 1 δ .

mindo ZÚÑIGA & VÁSCONEZ 2006. In: ZÚÑIGA, STARK, VÁSCONEZ, BERSOSA & VIMOS 2006:51, figs. 25-29 (head and pronotum; st9; penis ventral, lateral, dorsal). Holotype, δ : **ECUADOR:** **Pichincha**, Parroquia Mindo, Río Mindo, 1310 m, 00°03'59"S, 78°45'55"W [MC ZÚÑIGA, JJ VÁSCONEZ, RJ CARDOZO-ZÚÑIGA, 20/V/2003]; Cali, pro tempore.

minuta Klapálek 1922:89. Holotype, δ : **BRAZIL:**

Pará; Japagos (sic) [Tapajós] and Santarém [BATES]; London. • ILLIES 1966:319. • KIMMINS 1970:345. [δ lectotype, 1 δ paralectotype, FROEHLICH designated *i.l.*, 1968]; London. • RIBEIRO-FERREIRA & FROEHLICH 2001:188, figs. 1-4 (δ : head and pronotum, penis lateral, ventral; δ : st8-9). **Amazonas.** • FROEHLICH 2002b:80, figs. 18-21 (δ , head and pronotum, hammer, penis). **Amazonas.** • RIBEIRO & RAFAEL 2009:2, figs. 1-5, 16-25 (male habitus, female habitus, head and pronotum, forewing, hindwing; male: terminalia ventral; hammer ventral, lateral; paraproct; penis dorsal, ventral, lateral; female: sterna 7-8, sterna 9-10, vaginal sclerite). Male and female redescribed from new material.

mixteca STARK & KONDRATIEFF 2004:32, figs. 88-92 (δ : head and pronotum; st9; penis lateral, dorsal, ventral). Holotype, δ : **MEXICO:** **Oaxaca**, 145 km N Oaxaca [J.E.H. MARTIN, 22/V/1969]; Ottawa.

moche STARK & Sivec 1998:38, figs. 99-102 (δ , st9, penis ventral, lateral, dorsal). Holotype, δ : **PERU:** **San Martín**, Hera, 15 km SE Myobamba, Río Mayo-Río Jera junction. [F WOYTKOWSKI, 03/VI/1947]; NMNH. Paratype: 1 δ , **Huánuco**.

mochica STARK & Sivec 1998:38, figs. 103-107 (δ , head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, δ : **PERU:** **Madre de Dios**, Manu, Pakitzá, 250 m [OS FLINT, N ADAMS, 14-23/IX/1988]; NMNH. Paratype: 1 δ . • STARK 2004:79, fig. 54 (δ , st8-9). Putative δ .

mollis Klapálek 1922:92. *Perla hyalina* PICTET 1841:249. (partim). Syntypes: **BRAZIL:** **Espírito Santo**; 4 damaged δ ; Berlin; 1 δ **Rio de Janeiro**; Teresópolis, [27/IX/1897]; London; 1 δ , Teresópolis [22/IX/1897]; Greifswald. • ILLIES 1966:319. • ZWICK 1972a:1158. **Synonym** of *Anacroneuria hyalina*.

montera STARK & Sivec 1998:41, figs. 108-113 (head and pronotum; δ , st9, penis ventral, lateral, dorsal). Holotype δ : **PERU:** **Loreto**, Iquitos [FJ HERMANN, 16/IV/1944]; NMNH. Paratype: 1 δ . • STARK, ZÚÑIGA & Sivec 2001:121. **COLOMBIA:** **Amazonas.** **PERU:** **Loreto**. • STARK 2004:80. •

STARK, ZÚÑIGA & SIVEC 2001:121. FROEHЛИCH 2008:129. **Synonym** of *A. atrifrons*.
CO-1 STARK, ZÚÑIGA, ROJAS & BAENA 1999:42. • STARK, ZÚÑIGA & SIVEC 2001. Belongs to *A. montera*.

morena STARK & ZÚÑIGA. In: STARK, ZÚÑIGA, ROJAS & BAENA 1999:30, figs. 71-75 (head and pronotum, st9, penis ventral, lateral, dorsal). Holotype ♂;
COLOMBIA: Cundinamarca, Zipaquirá-Pacho [JA RAMOS, 06/III/1965]; NMNH.

morio {*Perla (Perla)*} (PICTET 1841):272, pl. 30, figs. 1-5 (habitus, wings closed; habitus, wings expanded; leg; part of cercus; right fore wing). Holotype ♂;
COLOMBIA [MORITZ]; Berlin. • {*Perla*} ILLIES 1966:505. Perhaps a Notonemourinae. *Nomen oblitum*. • {*Anacroneuria*} ZWICK 1972a:1162. • ZWICK 1973b:272. • STARK, ZÚÑIGA, ROJAS & BAENA, 1999:45. *Nomen dubium*. • FROEHЛИCH 2008:129. Position uncertain, probably not *Anacroneuria*.

muesca STARK 1995:236, figs. 122-126 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂; **VENEZUELA:** Aragua, Est. Exp. Cataurito, 32 km E Villa de Cura [OS FLINT, 28/I/1983]; NMNH. • MALDONADO, STARK & CRESSA 2002:225, figs. 15-17 (nymph: head and pronotum, terminalia, fore femur, cercus). **Mérida.** • STARK & ZÚÑIGA 2003:235, figs. 27-29 (penis ventral, dorsal, lateral).

munchique ZÚÑIGA & STARK 2002:211, figs. 10-14 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂; **COLOMBIA:** Cauca, Parque Natural Nacional Munchique, La Romelia, 63 km W Popayán, Quebrada San Julián, cuenca alta del Río San Joaquín, 1930 m [MC ZÚÑIGA, RJ CARDOSO-ZÚÑIGA, G MILLÁN, Y GUZMAN, 5-7/IV/1998]; Cali. Paratypes: 27♂; **Cauca, Valle del Cauca, Risaralda.** • ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:142. **Caldas, Risaralda.**

naomi NEEDHAM & BROUGHTON 1927:115, pl 12, figs. 6, 6A (wings; ♀ terminalia). Holotype, ♀;
GUATEMALA: Alta Verapaz, Senahú [CHAMPION]; Cornell. • JEWETT 1958:162.
GUATEMALA: Alta Verapaz. Description of ♀

and doubtful ♂. • ILLIES 1966:319. • STARK & KONDRATIEFF 2004:33, figs. 93-97 (head and pronotum; ♂: penis lateral, dorsal, ventral; ♀: st8-9). **GUATEMALA; MEXICO:** Oaxaca.

nazca STARK & SIVEC 1998:41, figs. 114-117 (♂, st9, penis ventral, lateral, dorsal). Holotype, ♂; **PERU:** Junin, Tarma, Utcuyacu, Agua Dulce, 1600-2400 m [F WOYTKOWSKI, 02/III/1948]; NMNH.

nigrocincta {*Perla (Perla)*} (PICTET, *partim*, 1841):236, pl.22, figs.5-8 (habitus, wings closed, wings expanded, head and pronotum, base of cercus). Syntypes: 1♂, 2♀, **MEXICO:** Berlin, 1 ?; Paris. • {*Perla*} HAGEN 1861:24. • {*Pseudoperla*} BANKS 1901:362. **MEXICO:** Morelos, Veracruz. • {*Neoperla*} ENDERLEIN 1909b (nec PICTET 1841):413. 1♂, **COLOMBIA:** Tolima, Natagaima. • {*Anacroneuria*} NEEDHAM & BROUGHTON 1927 (nec PICTET 1841, *fide* ZWICK 1972a):113, figs. 3-3B (♂: st9; ♀: subgenital plate, st9, 2 specimens). **MEXICO;** GUATEMALA; NICARAGUA; COSTA RICA; BELIZE; BRAZIL: Mato Grosso; Rio de Janeiro. • COSTA LIMA 1939:105. **BRAZIL:** no material. • JEWETT 1958 (nec PICTET 1841, *fide* ZWICK 1972a):164. **MEXICO;** GUATEMALA; uncertain: COSTA RICA, PANAMA. • ILLIES 1966:319. • ZWICK 1972a:1162, fig. 6f (♀ lectotype, terminalia ventral). Lectotype designated, ♀; **MEXICO;** Berlin. **Synonym** of *A. annulicauda*, *partim*, as one ♀ syntype is not *nigrocincta*. The ♂ syntype is missing. • ZWICK 1973b:272. **MEXICO;** previous records of other areas are uncertain! • STARK & KONDRATIEFF 2004:33.

nigrolineata JEWETT 1958:163, figs. 4, 4A, 4B (head and pronotum, st8, hind leg). Holotype, ♀; **MEXICO;** INHS. Paratype: 1♀. • ILLIES 1966:319. • STARK & KONDRATIEFF 2004:33, figs. 98-102 (head and pronotum; ♂: penis lateral, dorsal, ventral; ♀: st8-9). **MEXICO:** Guerrero, Sonora.

novateutonia JEWETT 1959a:158, figs. 6, 6A (♀, head and pronotum, st8-9). Holotype, ♀; **BRAZIL:** Santa Catarina, Nova Teutônia [PLAUMANN, I/1956]; CAS. Allotype, ♂: same data as holotype. Paratypes: 4♂, 147♀. • ILLIES 1966:320. • FROEHЛИCH 2002b:82, figs. 22-26 (♂, hammer,

penis dorsal, lateral; ♀: st8-9; egg). **Santa Catarina, Paraná; ARGENTINA: Entre Ríos, Misiones.**

ocellata {*Neoperla*} (NAVÁS 1926b):90, fig. 5 (head and pronotum). Holotype, ♂: **COLOMBIA: Valle del Cauca**, Cali [STIEGELMAYR & BANG-HAAS]; Navás, lost. • AUBERT 1956b:441. Type not located. • ILLIES 1966:489. Possibly an *Anacroneuria*. *Nomen dubium*. • {*Anacroneuria*} STARK, ZÚÑIGA, ROJAS & BAENA, 1999:46. *Nomen dubium*.

ochracea Klapálek 1923:23. Syntypes: 1♀: **MEXICO**: Hurrhi Huitle [BILIMEK, 1871]; Vienna; 1♀: Nexaca; DEI. • ILLIES 1966:320. • STARK & KONDRATIEFF 2004:1. *Nomen dubium*.

oculatila JEWETT 1959a:152, figs 5, 5A (♀, head and pronotum, st8-9). Holotype, ♀: **BRAZIL: Santa Catarina**; Nova Teutônia [PLAUMANN, XI/1956]; CAS. Allotype, ♂: same data as holotype. Paratypes: 5♂, 15♀. • ILLIES 1966:320. • FROEHLICH 2002b:83, figs. 27-31 (♂: hammer, penis dorsal, lateral; ♀: st8-9; egg). **Santa Catarina. ARGENTINA: Misiones.**

ofaye FROEHLICH 2007:16, figs. 4-9 (♂: hammer, penis dorsal, lateral; ♀: head and pronotum, st8-9; egg). Holotype, ♂: **BRAZIL: Mato Grosso do Sul**, Costa Rica, Fazenda Santo Antônio [SA VANIN, 21-27/X/1984]; São Paulo. Paratypes: 1♂, 3♀.

ohausiana {*Neoperla*} (ENDERLEIN 1909a):164, fig. 3 (♀, contour of subgenital plate). Syntypes: 1♂, 1♀: **ECUADOR: Loja**. [OHAUS, 19/VIII/1905]: Warsaw. • {*Anacroneuria*} JEWETT 1959b:110. **ECUADOR: Cuenca, El Oro; PERU: Huánuco, Cusco.** • {*Neoperla*} ILLIES 1966:489. *Species inquirenda*. • {*Anacroneuria*} ZWICK, 1973a:487, figs. 21, 22 (♂, penis dorsal, lateral). Designated ♂ lectotype; ♀ syntype may belong to another species. Comments on JEWETT 1959b. • STARK 2001a:25. Comments on ZWICK 1973a.

longicauda {*Neoperla*} (ENDERLEIN 1909a):163 (*partim*). 2♂: **ECUADOR: Baños**. • ZWICK 1973a:487. Belongs to *A. ohausiana*.

olmec STARK & KONDRATIEFF 2004:37, figs.103-107 (head and pronotum; ♂: penis lateral, dorsal, ventral; ♀: st8-9). Holotype, ♂: **MEXICO: Veracruz**, Fortín de las Flores, Cervecería Moctezuma [D RABAGO, 26/VI/1964]; Gainesville. Paratypes: 26♂, 150♀; **Puebla, Veracruz**.

oreja ZÚÑIGA & STARK 1999. In: STARK, ZÚÑIGA, ROJAS & BAENA 1999:31, figs. 76-80 (head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: **COLOMBIA: Valle del Cauca**, Río Azul, cuenca media Río Calima, 550 m [AM ROJAS, M BAENA, R ALDANA, 21/II/1994]; Cali. • ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:142. **Antioquia.**

orphana {*Neoperla*} (NAVÁS 1918):84. Holotype (lacking terminalia): **ARGENTINA: Misiones**; La Plata. • AUBERT 1956b:441. Type in Buenos Aires (i.e., La Plata). • {*Anacroneuria*} ILLIES 1964b:230. Type in bad condition. • ILLIES 1966:489. Possibly an *Anacroneuria*. *Nomen dubium*.

otun STARK & ZÚÑIGA 2007. In: ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:129, figs. 6-10 (head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: **COLOMBIA: Risaralda**, Municipio de Pereira, Parque Nacional Natural Los Nevados, El Jordán, Río Otún headwater basin, 3100 m, N 04° 42' 32", W 75° 29' 37" [MCZÚÑIGA, W CARDONA, GZABALA, CARDOZO-ZÚÑIGA, 27-28/VI/2006]; Cali. Paratypes: 3♂.

pacaje STARK & SIVEC 1998:41, figs. 118-121 (♂, st9, penis ventral, lateral, dorsal). Holotype, ♂: **BOLIVIA: La Paz**, Yungas, Río Mururrata to Suapi, 1400-1600 m [LE PEÑA, 28/XI/1984]; NMNH.

pachacuti STARK & SIVEC 1998:45, figs. 122-126 (head and pronotum; ♂: st9, penis ventral, lateral, dorsal; ♀: st8-9). Holotype, ♂: **PERU: Cusco**, Paucartambo, pte. San Pedro, 1600 m [OS FLINT, N ADAMS, 02-03/IX/1988]; NMNH. Paratypes: 2♂, **Cusco**; 3♂, **Junin**; 1♂, **BOLIVIA: Cochabamba**; 41♂, **La Paz**.

pacifica ROJAS & BAENA 1999. In: STARK, ZÚÑIGA, ROJAS & BAENA 1999:32, figs. 81-85 (head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: COLOMBIA: Valle del Cauca, Alto Anchicayá, 700 m [AM ROJAS, A RAMOS, 12/V/1994]; Cali. Paratypes: 3♂. • STARK & ZÚÑIGA 2003:235, figs. 30-32 (penis ventral, dorsal, lateral). • ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:142. Antioquia, Valle del Cauca.

paez ZÚÑIGA & STARK 1999. In: STARK, ZÚÑIGA, ROJAS & BAENA 1999:33, figs. 86-90 (head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: COLOMBIA: Cauca, Caldono, cuenca media Río Ovejas, 1430 m [Y BALLESTEROS, J LOAIZA, 15/IX/1993]; Cali. Paratype: 1♂.

paisa ZÚÑIGA & STARK 2006. In: ZÚÑIGA, STARK, VÁSCONEZ, BERSOSA & VIMOS 2006:52, figs. 30-34 (head and pronotum; st9; penis ventral, lateral, dorsal). Holotype, ♂: COLOMBIA: Antioquia, Municipio de Medellín, Parque Ecológico Piedras Blancas, Quebrada Matasano, 2350 m, 06°16'22"N, 75°30'06"W [MC ZÚÑIGA, JA POSADA, AJ CARDOZO-ZÚÑIGA, 13/X/2002]; Cali. • ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:143.

pakitza STARK & SIVEC 1998:45, figs. 127-132 (head and pronotum; ♂: st9, penis ventral, lateral, dorsal; ♀: st8-9). Holotype, ♂: PERU: Madre de Dios, Manu, Pakitza [OS FLINT, N ADAMS, 14-23/IX/1988]; NMNH. Paratypes: 9♂, 2♀, Madre de Dios; Cusco.

paleta STARK 1995:236, figs. 122-126 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: VENEZUELA: Mérida, 4 km S Santo Domingo [CM FLINT, OS FLINT, 19-23/II/1976]; NMNH. Paratypes: 6♂, Mérida, Barinas. • STARK 1999:80. Trujillo. • STARK, ZÚÑIGA, ROJAS & BAENA 1999:41, figs. 134-139 (head and pronotum; ♂: st9, penis ventral, lateral, dorsal; ♀: st8-9, as *A. sobra*). COLOMBIA: Santander. • MALDONADO, STARK & CRESSA 2002:227, figs. 18-20 (Nymph: head and pronotum, terminalia, forefemur, cercus). Mérida.

pallens Klapálek 1922:93. Syntypes 1♂, 1♀: COLOMBIA: Bogotá [LINDIG]; Berlin, now Prague. • ILLIES 1966:320. • STARK, ZÚÑIGA, ROJAS & BAENA 1999:20, figs. 15-19 (♂: st9, penis ventral, lateral, dorsal; ♀: st 8). Male lectotype, ♀ paralectotype designated.

pallida JEWETT 1958:161, fig. 2 (♀, st8-9). Holotype, ♀: GUATEMALA: Chimaltenango, Yepocapa, 1460 m [RL WENZEL, 12/V/1948]; Field. Paratypes: 4♀. Chimaltenango, Zacapa; MEXICO: Chiapas. • ILLIES 1966:320. • HARPER 1992:117, fig. 6 (putative ♂: penis dorsal, lateral). PANAMA: San Blas. • STARK & KONDRATIEFF 2004:38, figs. 108-109 (♀, head and pronotum, st8-9). Unlikely that the “putative male” of HARPER 1992 is *A. pallida*.

pareja STARK & KONDRATIEFF 2004:38, figs. 110-114 (♂: head and pronotum; st9; penis lateral, dorsal, ventral). Holotype, ♂: MEXICO: Chiapas, San Cristobal [D KRITSCH, 24/VII/1969]; Ottawa. Paratype: 1♂.

paria STARK 1999:80, figs. 32-37, 54 (head and pronotum, forewing; ♂: st9, penis ventral, lateral, dorsal; ♀: st8-9). Holotype, ♂: VENEZUELA: Sucre, Río Cocollar, 1.5 km SE Las Piedras de Cocollar, 810 m [R HOLZENTHAL, OS FLINT, 7-8/IV/1995]; NMNH. Paratypes: 18♀.

parilobata Klapálek 1922:90. Holotype, ♀: BRAZIL: Bahia [V.D. WEELE]; Prague. • ILLIES 1966:320.

parva STARK 2001a:25, figs. 69-73 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: ECUADOR: Napo, 5 km N Lago Agrio [A Langley, 26/IX/1975]; NMNH.

pastaza STARK 2001a:26, figs. 74-80 (head and pronotum; ♂: st9, penis ventral, lateral, dorsal; ♀: st8-9). Holotype, ♂: ECUADOR: Pastaza, Río Cononaco, 113 km SE Limoncocha [J COHEN, 28/V/1976]; NMNH. Paratypes: 1♂, 2♀, Pastaza; Napo. • FROEHLICH 2003:130, figs. 4-6 (♀: head and pronotum, st8-9; egg). BRAZIL: Amazonas. • BISPO & FROEHLICH 2004 c:192, figs. 1-7 (♂: head and pronotum, st9, penis dorsal, ventral lateral; ♀: st 8-9, egg). BRAZIL: Goiás.

pastora STARK & CARDONA 2007. In: ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:129, figs. 11-15 (head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: COLOMBIA: Risaralda, Municipio de Pereira, Parque Regional Natural Ucumári, Estación La Pastora, Río Otún headwater basin, 2400 m, N 04° 42' 32", W 75° 29' 37" [MC ZÚÑIGA, W CARDONA, G ZABALA, C CULTID, 11/III/2007]; Cali.

paulina {*Coeloperla*} (NAVÁS 1936):728, fig. 16 (head and pronotum, st9). Holotype, ♀: BRAZIL: São Paulo; Alto da Serra [R. SPITZ, XI/1928]; São Paulo. • AUBERT 1956b:441. Type in São Paulo. • ILLIES 1966:475. Genus *nomen dubium*; species inquirenda. • {*Anacroneuria*} FROEHLICH 2004:56, figs. 8-15 (♂: head and pronotum, st9, penis dorsal, lateral, ventral; ♀: st8, st9, contour of subgenital plate of second ♀).

payagua FROEHLICH 2007:22, figs 15-20 (♂: hammer, penis dorsal, lateral; ♀: head and pronotum, st8-9; egg). Holotype, ♂: BRAZIL: Mato Grosso do Sul, Rio Salobra, 20°41'35"S, 56°44'26"W [O FROEHLICH, 16-21/III/2004]; São Paulo. Paratypes: 14♀.

pehlkei {*Neoperla*} (ENDERLEIN 1909a):170, fig. 7 (contour of ♀ subgenital plate) Holotype, ♀: COLOMBIA: [Tolima], Natagaima [E PEHLKE]; Warsaw. • {*Anacroneuria*} (pehlke) JEWETT 1959b [not ENDERLEIN 1909a, *fide* ZWICK 1973a]:106 fig 1, 1A (head and pronotum; hind leg). PERU: Huánuco, Tingo María. • ILLIES 1966:321. • ZWICK 1973a:482, fig. 10 (♀ holotype, st8-9). • STARK, ZÚÑIGA, ROJAS & BAENA 1999:20. Comments.

pellucida Klapálek 1922:94. Syntypes: 3♀: PERU: Vilcanota and Marcapata; Klapálek; 3♂: BOLIVIA: Chaco; Berlin [missing]; 2♀: Río Juntas, Greifswald [missing]. • ILLIES 1966:321. • STARK & SIVEC 1998:48, fig. 133 (♀ syntype, Prague, st8-9).

pequena STARK 1995:215, figs. 12-18, 46, 49 (head and pronotum; ♂: st9, penis ventral, lateral, dorsal, detail of penis; ♀: st8-9; egg, detail of egg). Holotype, ♂: VENEZUELA: Amazonas, Cerro de

la Neblina, basecamp, 140 m [D DAVIS, T MCCABE, 1-10/III/1984]; NMNH. Paratypes: 11♂, 12♀.

perija STARK 1999:80, figs. 38-42 (head and pronotum; ♂, st9, penis ventral, lateral, dorsal). Holotype, ♂: VENEZUELA: Zulia, Parque Nacional Perija, Río Negro, Toromo, 360 m [R HOLZENTHAL, C CRESSA, RINCÓN, 15/I/1994]; NMNH.

perplexa STARK 1998:582, figs. 86-90, 179-180 (♂: head and pronotum, st9, penis lateral, dorsal, ventral, details of penis). Holotype, ♂: COSTA RICA: Limón, Río Barbilla, ca. 8 km W B-line, 30 m [R HOLZENTHAL, J MORSE, W FASTH, 31/I/1986]; NMNH. Paratypes: 13♂: Limón; Puntarenas; San José. • STARK & KONDRATIEFF 2004:38, figs. 115-119 (head and pronotum; ♂: penis lateral, dorsal, ventral; ♀: st8-9). BELIZE, GUATEMALA: Izabal; HONDURAS: Atlántida, Comayagua, Cortés; MEXICO: Chiapas, Tabasco.

dilaticollis; NEEDHAM & BROUGHTON 1927 (not BURMEISTER 1839):117, partim. *Fide* STARK & KONDRATIEFF 2004:38.

perpusilla Klapálek 1921:326. Holotype, ♂: PERU: Marcapata; Prague. • ILLIES 1966:321. • STARK & SIVEC 1998:48, figs. 134-137 (♂, st9, penis ventral, lateral, dorsal). Holotype redescribed. PERU: Madre de Dios.

peruviana {*Neoperla*} (NAVÁS 1915):150. Holotype, ♀: PERU: Loreto, Iquitos, Beloco [A CABRERA, V/1912]; Navás, lost. • AUBERT 1956b:441. Type not located. • ILLIES 1966:489. Possibly an *Anacroneuria*. *Nomen dubium*. • STARK & SIVEC 1998:2. *Nomen dubium*.

petersi FROEHLICH 2002b:97, figs. 77-81 (♂: head and pronotum, hammer, penis; ♀: st8-9). Holotype, ♂: BRAZIL: São Paulo; Santo André, Estação Biológica de Paranapiacaba [CG FROEHLICH, 15/X/1963]; São Paulo. Paratypes: 1♂, São Paulo; 1♀, Paraná. • FROEHLICH 2004:58. • BISPO & FROEHLICH 2004b:102, figs. 11-13 (penis dorsal, ventral, lateral).

phantoma {*Neoperla*} (BANKS 1914):609. Holotype, ♂:

GUYANA: Mallali [PARISH, March]; MCZ. •

ILLIES 1966:490. Possibly an *Anacroneuria*. *Species inquirenda*. • {*Anacroneuria*} STARK 1999:83, figs. 43-47 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). **GUYANA**.

pictipes Klapálek 1923:21. Holotype, ♀: **BRAZIL**:

Amapá, Alto Rio Calçoene (as Haut-Carsevenne, Guyane) [F. GEAY, 1898]; Paris, now in Prague. • ILLIES 1966: 321. • STARK 1999:83, figs. 48-53, 55 (♂, head and pronotum, forewing, st9, penis ventral, lateral, dorsal; ♀ holotype, st8-9). **GUYANA**.

pinza STARK 1995:216, figs. 19-25 (head and

pronotum; ♂: st9; penis ventral, lateral, dorsal; ♀: st8-9; egg). Holotype, ♂: **VENEZUELA**: Amazonas, Cerro de la Neblina, Camp IV, 760 m [OS FLINT, 15-18/III/1984]; NMNH. Paratypes: 7 ♂, 10 ♀.

pistacina {*Neoperla*} (ENDERLEIN 1909a):166, fig. 4 (♀,

contour of subgenital plate). Syntypes, 2 ♀ [1 as ♂]: **ECUADOR**: Balzapamba [R HAENSCH]; Warsaw. • ENDERLEIN 1909b:406. Key. • ILLIES 1966:490. Possibly an *Anacroneuria*. *Nomen dubium*. • {*Anacroneuria*} ZWICK, 1973a:481, fig. 6 (♀, st8-9). Designated ♀ lectotype, ♀ paralectotype. • STARK 2001a:27. Comments on ZWICK 1973a.

plagata {*Neoperla*} (NAVÁS 1926b):91, fig. 6 (head and

pronotum). Holotype, ♂: **COLOMBIA**: Agnatal [STIEGELMAYR & BANG-HAAS]; Navás, lost. • AUBERT 1956b:441. Type not located. • (*plagiata*) ILLIES 1966: 490. Possibly an *Anacroneuria*. *Nomen dubium*. • STARK, ZÚÑIGA, ROJAS & BAENA, 1999:46. *Nomen dubium*.

planada BAENA & ROJAS 1999. In: STARK, ZÚÑIGA,

ROJAS & BAENA 1999:34, figs. 91-95 (head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: **COLOMBIA**: Nariño, Reserva Natural La Planada, 1400 m [F ESCOBAR, IV/1994]; Cali. Paratypes: 1 ♂, Nariño; 1 ♂, Valle del Cauca. • STARK 2001:27. **ECUADOR**: Napo. Describes ♀. • ZÚÑIGA & STARK 2002:221. **COLOMBIA**: Nariño.

planicollis Klapálek 1923:22. Syntypes: 4 ♂, 3 ♀:

MEXICO: Sierra do Naya [=de Napa] [L DIGUET, 1898]; Vienna; Paris; Brussels. 1 ♀: **COSTA RICA**: San Mateu; Berlin. • ILLIES 1966:321. • STARK 1998:582, figs. 91-95, 147 (head and pronotum; ♂: st9, penis lateral, dorsal, ventral; ♀: st8-9). Of extant syntypes, one ♂ designated as lectotype, 1 ♀ as paralectotype: **MEXICO**; Prague. **COSTA RICA**: Monteverde; Alajuela; Puntarenas. **MEXICO**. **NICARAGUA**: Nueva Segovia. **PANAMA**: Chiriquí. • STARK & KONDRATIEFF 2004:41, figs. 120-124 (head and pronotum; ♂: penis lateral, dorsal, ventral; ♀: st8-9). **BELIZE**; **GUATEMALA**: Alta Verapaz, Baja Verapaz, El Progreso, Chiquimula; **MEXICO**: Chiapas, Durango, Guerrero, Jalisco, Michoacán, Nayarit, Oaxaca, Puebla, San Luis Potosí, Sinaloa, Veracruz.

chiapasa JEWETT 1958:172. • STARK 1998:582. **Synonym** of *A. planicollis*.

dampfi JEWETT 1958:165. • STARK 1998:582. **Synonym** of *A. planicollis*.

quadriloba JEWETT 1958:166 (partim) • STARK & KONDRATIEFF 2004. The ♂ allotype is *A. planicollis*.

plaumanni JEWETT 1959a:154, fig. 13 (♀ head and pronotum). Holotype, ♀: **BRAZIL**: Santa Catarina; Nova Teutônia [PLAUMANN, XI/1955]; CAS. Allotype, ♂: same data as holotype but X/1956. Paratypes: 2 ♀. • ILLIES 1966:321. • FROEHLICH 2002b:85, figs. 32-38 (♂ allotype, head and pronotum; ♂: hammer, penis dorsal, lateral; ♀ holotype, st8-9; *A. ampla*, ♀ holotype, st8-9; egg.). **Santa Catarina**. **ARGENTINA**: Misiones. • DE RIBEIRO & FROEHLICH 2007:56. **BRAZIL**: Rio Grande do Sul.

ampla JEWETT 1959a:156. • FROEHLICH 2002b:85. **Synonym** of *A. plaumanni*.

plutonis {*Neoperla*} (BANKS 1914):610, pl. 28, fig. 10

(♀, contour of subgenital plate). Holotype, ♀: **COSTA RICA**: [Guanacaste] La Trinidad, [Alajuela] Turrúcares and [Cartago] Orosí [GARLEPP]; MCZ. • ILLIES 1966:490. Possibly an *Anacroneuria*. *Species inquirenda*. • {*Anacroneuria*} STARK 1998:583, figs. 96-100, 148, 157, 181-182 (head and pronotum; ♂: st9, penis lateral, dorsal, ventral, details of penis; ♀: st8-9). **COSTA RICA**:

Alajuela; Cartago; Guanacaste; Puntarenas; San José.

tristani {*Forquilla*} (NAVÁS 1932d):29. • STARK 1998:583. **Synonym** of *A. plutonis*.

polita {*Perla*} (BURMEISTER 1839):879. Holotype, ♂ (not ♀): **BRAZIL**; Halle. • {*Perla* (*Perla*)} PICTET 1841:271, pl. 28, figs. 5-9 (habitus, wings closed, wings expanded; leg, part of cercus, right fore wing). • {*Perla*} ILLIES 1966:507. Possibly an *Anacroneuria*. *Nomen dubium et oblitum*. • {*Anacroneuria*} ZWICK 1972a:1163, fig. 5a (♂ holotype, penis dorsal, lateral, ventral). • ZWICK 1973b:272. • FROEHLICH 2002b:85, figs. 39-44 (♂ holotype, head and pronotum; ♂: hammer, penis dorsal, lateral; ♀: st8-9; egg). **Santa Catarina; Paraná. ARGENTINA: Misiones.** • FROEHLICH 2004:58. **São Paulo.** • BISPO & FROEHLICH 2004b:98, figs. 1-3 (penis dorsal, ventral, lateral). **São Paulo.**

portilla STARK & ROJAS 1999. In: STARK, ZÚÑIGA, ROJAS & BAENA 1999:35, figs. 96-100 (head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: **COLOMBIA: Cauca**, 18 km N Popayán, 1800 m [JF CLARKE, 26/I/1959]; NMNH. Paratype: 1♂. • STARK 2001a:28. **ECUADOR: Loja; Napo; Pichincha.** • ZÚÑIGA & STARK 2002:221. **COLOMBIA: Cauca.** • ZÚÑIGA, STARK, VÁSCONEZ, BERSOSA & VIMOS 2006:56, fig. 37 (putative ♀, st8-9). **Valle del Cauca, Cauca.**

posticata {*Neoperla*} (BANKS 1913):85. Holotype: **BRAZIL: Rondônia**; Abunã, Rio Madeira [MANN]; MCZ. • (*postica*) ILLIES 1966:490. Possibly an *Anacroneuria*. *Species inquirenda*.

profunda {*Neoperla*} (NAVÁS 1921):262. Holotype, ♀: **ARGENTINA: Mendoza** [MATILDE BRUCH, I-II/1918]; Navás, lost. • AUBERT 1956b:441. Type not located. • {*Anacroneuria*} ILLIES 1964b:231. • ILLIES 1966:490. Possibly an *Anacroneuria*. *Nomen dubium*.

proxima Klapálek 1923:21. Syntypes: 1♂, 1♀: **COSTA RICA**: Surrubres; DEI; 1 ♀, **MEXICO**; Berlin. • ILLIES 1966:322. • STARK 1998:603. Syntypes missing. *Nomen dubium*. • STARK & SIVEC

2001:36, figs. 1-2 (head and pronotum, st8-9). Lectotype designated, ♀ from **MEXICO**; Prague. • STARK & KONDRATIEFF 2004:30. **Synonym** of *A. litura*.

dilaticollis {*Perla*} (PICTET 1841):240 (*partim*). *Fide* Klapálek 1923:21. *crenulata* JEWETT 1958:171. • STARK & SIVEC 2001:36. **Synonym** of *A. proxima*.

pucallpa STARK 2004:73, figs. 28-32 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: **PERU: Loreto**, Pucallpa [P SPANGLER, P SPANGLER, 10-12/IV/1969]; NMNH. Paratype: 1♂, **Pasco**.

puna STARK 2001a:28, figs. 81-84 (♂, st9, penis ventral, lateral, dorsal). Holotype, ♂: **ECUADOR: Cotopaxi**, San Francisco de las Pampas, Otonga, 2000 m [E TAPIA, G ONORE, C YOUNG, 30-31/VII/1993]; Carnegie. • ZÚÑIGA & STARK 2002:218, figs. 32-36 (head and pronotum, ♀: st8-9; ♂: penis ventral, lateral, dorsal). **COLOMBIA: Valle del Cauca.** • ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:143. **Antioquia.**

quadriloba JEWETT 1958:166, figs 7, 7A (♀, head and pronotum; st8-9). Holotype, ♀: **MEXICO: Vera Cruz**, Metlac [HH HOBBES & FN YOUNG, 26/XII/1940]; Field. Allotype, ♂: Same data as holotype. Paratypes: 17♂, 5♀, **Chiapas, Vera Cruz**. • ILLIES 1966:322. • HARPER 1992 (nec JEWETT):117, fig. 3 (♂ penis dorsal, lateral). **PANAMA**. **Synonym** of *Anacroneuria annulipalpis*, *fide* STARK 1998:557. • STARK & KONDRATIEFF 2004:44, figs. 125-132 (head and pronotum; ♂: st9: penis lateral, dorsal, ventral; nymph: head and pronotum, forefemur, cercus). **GUATEMALA: Chiquimula, Suchitepéquez, Alta Verapaz;** **MEXICO: Chiapas, Oaxaca, Veracruz.** The ♂ allotype is *A. planicollis*.

quechua STARK & SIVEC 1998:51, figs. 138-142 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: **PERU: Cusco**, Paucartambo, pte. San Pedro, ca. 50 km NW Pilcopata, 1600 m [OS FLINT, N ADAMS, 23/IX/1988]; NMNH. Paratype, ♂: **Huánuco**.

quetzalcoatl STARK & KONDRATIEFF 2004:44, figs. 133-137 (♂: head and pronotum; st9; penis lateral, dorsal, ventral). Holotype, ♂: MEXICO: Chiapas, 16 km NE San Cristobal de las Casas [H J TESKEY, 25/V/1969]; Ottawa.

quijo STARK 2001a:29, figs. 85-91 (head and pronotum; ♂: st9, penis ventral, lateral, dorsal; ♀: st8-9). Holotype, ♂: ECUADOR: Napo, 5 km N Lago Agrio [A Langley, 26/IX/1975]; NMNH.

quilla STARK & ZÚÑIGA 1999. In: STARK, ZÚÑIGA, ROJAS & BAENA 1999:35, Figs. 101-104, 149 (♂: st9, penis ventral, lateral, dorsal; ♀: st8-9). Holotype, ♂: COLOMBIA: Risaralda, Termales de Santa Rosa de Cabal [OS FLINT, 29/II/1984]; NMNH. Paratypes: 2♂, 4♀, Valle del Cauca. • STARK 2001a:30. ECUADOR: Azuay; Carchi; Zamora Chinchipe. • ZÚÑIGA & STARK 2002:221. COLOMBIA: Cauca, Valle del Cauca, Risaralda. • ZÚÑIGA, STARK, VÁSCONEZ, BERSOSA & VIMOS 2006:56. Caldas. • ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:143. Risaralda.

quimbaya ZÚÑIGA & STARK 2007. In: ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:132, figs. 16-20 (head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: COLOMBIA: Risaralda, Municipio de Pereira, Parque Regional Natural Ucumari, Estación La Pastora, Río Otún headwater basin, 2400 m, N 04° 42' 32", W 75° 29' 37" [MC ZÚÑIGA, W CARDONA, G ZABALA, C CULTID, 10-11/III/2007]; Cali. Paratypes: 4♂.

ramealis {Neoperla} (NAVÁS 1927):67, fig. 5 [apex of forewing]. Holotype, ♀: COLOMBIA: [Cundinamarca], Fusagasugá; Villavicencio [H APOLINAR MARÍA, 1918]; Navás, lost. • AUBERT 1956b:441. Type not located. • ILLIES 1966:491. Possibly an *Anacroneuria*. *Nomen dubium*. • {*Anacroneuria*} STARK, ZÚÑIGA, ROJAS & BAENA, 1999:45. *Nomen dubium*.

ratcliffei STARK & KONDRATIEFF 2004:50, figs. 138-142 (head and pronotum; ♂: penis lateral, dorsal, ventral; ♀: st8-9). Holotype, ♂: MEXICO: Chiapas, 8 km N Ixhuatán [B RATCLIFFE & C

MESSENGER, 16/IX/1985]; Nebraska. Paratypes: 2♂, 6♀. Other material: 1♂, Veracruz.

rawlinsi STARK 2001a:31, figs. 92-95 (♂, st9, penis ventral, lateral, dorsal). Holotype, ♂: ECUADOR: Morona Santiago, Río Culebrillas, 34 km SE Gualaceo, 2200 m [J RAWLINS, C YOUNG, R DAVIDSON, 22-23/X/1987]; Carnegie.

reedi {*Neoperla*} (NAVÁS 1919a):4. Holotype, ♀: ARGENTINA: Tucumán [CS REED]; La Plata. • NAVÁS 1919b:5, fig. 1 (holotype: pronotum, forewing, apex of hindwing). • AUBERT 1956b:441. Type in Buenos Aires (i.e., La Plata) • {*Anacroneuria*} ILLIES 1964b:231. • {*Neoperla*} ILLIES 1966:491. Probably an *Anacroneuria*. *Species inquirenda*. • {*Anacroneuria*} CABO & WAIS. 1988:10. Catamarca.

regleta STARK & ROJAS 1999. In: STARK, ZÚÑIGA, ROJAS & BAENA 1999:36, figs. 105-109 (head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: COLOMBIA: Meta, Quebrada Blanca, 3 km W Restrepo [OS FLINT, 11/II/1983]; NMNH. • STARK & ZÚÑIGA 2003:235, figs. 33-35 (penis ventral, dorsal, lateral). ECUADOR: Zamora-Chinchipe, Carchi.

ricki ZÚÑIGA & STARK 2002:215, figs. 20-24 (head and pronotum; ♂: penis ventral, lateral, dorsal; ♀: st8-9). Holotype, ♂: COLOMBIA: Valle del Cauca, Buenaventura, Río Escaletete, Cuenca Río San Cipriano, 150 m, 16 km SE Córdoba [MC ZÚÑIGA, F MUÑOZ-QUESADA, G GUEVARA, C MATHURIAU, 01/XII/1997]; Cali. Paratypes: 25♂, 15♀. • ZÚÑIGA, STARK, VÁSCONEZ, BERSOSA & VIMOS 2006:56. ECUADOR: Esmeraldas.

rondoniae FROEHLICH 2002b:97, figs. 82-86 (♂: head and pronotum, hammer, penis dorsal, lateral; ♀: st8-9). Holotype, ♂: BRAZIL: Rondônia, creek 8 km S Cacaolândia [D PETR, 21/XI/1991]; NMNH. Paratypes: 7♂, 5♀.

rosita STARK & ROJAS 1999. In: STARK, ZÚÑIGA, ROJAS & BAENA 1999:38, figs. 110-114 (head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: COLOMBIA: Caquetá, Morelia, Río

Bodoquero, 430 m [DUCKWORTH & DIETZ, 19-20/I/1969]; NMNH. • STARK 2001a:32. ECUADOR: Pastaza.

rossi STARK 2004:74, figs. 33-34 (♀, head and pronotum, st8-9). Holotype, ♀: PERU: Huánuco, 69 km E Tingo María [EI SCHLINGER, ES Ross, 18/XI/1954]; CAS.

rugosa STARK 2001a 32, figs. 96-100 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: ECUADOR: Pichincha, Via Puerto-Quito km 113 [J COHEN, 24/VI/1970]; NMNH.

saltensis FROEHLICH 2002b:98, figs. 87-92 (♂: head and pronotum, hammer, penis dorsal, lateral; ♀: st8-9; egg). Holotype ♂: ARGENTINA: Salta, Pena Baya, Cañada La Gotera [OS FLINT, 16-17/X/1973]; NMNH. Paratypes: 1♂, 5♀.

schmidti {*Neoperla*} (ENDERLEIN 1909a):169, fig. 6 (♀, contour of subgenital plate). Syntypes: ECUADOR: Baños, 1♀ [E SCHMIDT, R HAENSCH, 03/VI/1899]; Balzapamba, 2♀ [E SCHMIDT, R HAENSCH, 11/VI/1899, 11/VII/1899]; Warsaw. • {*Anacroneuria*} JEWETT 1959b:109. VENEZUELA: Amazonas; ECUADOR: Pichincha; PERU: Huánuco. • {*Neoperla*} ILLIES 1966:491. JEWETT 1959b doubtfully ENDERLEIN 1909a; species inquirenda. • {*Anacroneuria*} ZWICK 1973a:480, fig. 5 (♀ holotype, st8-9). ECUADOR: Holotype, ♀: Balzapamba, 11/VII/1899; paratypes: 2♀, Balzapamba; Baños, 3/VI/1899. JEWETT 1959b doubtfully ENDERLEIN 1909a. • STARK, ZÚÑIGA, ROJAS & BAENA 1999:20. Comments. • STARK 2001a:33. Comments.

variegata Klapálek 1921:325. • ZWICK 1973a:480. **Synonym** of *A. schmidti*.

segnini STARK & MALDONADO 2002. In: MALDONADO, STARK, CRESSA 2002:221, figs. 1-9 (head and pronotum; ♂: st9, penis ventral, lateral, dorsal; ♀: st8-9; nymph: head, pronotum, terminalia; fore femur; cercus). Holotype, ♂, reared: VENEZUELA: Mérida, Quebrada La Astillera, 1260 m, 8°33'05"N, 71°13'36"W [V Maldonado, S Segnini, M Chacón, R Rivera, A Peña, I Correa, 06/IV/2000]; Maracay. Paratype: 1♀, reared.

senahu STARK & KONDRATIEFF 2004:50, figs. 143-147 (head and pronotum; ♂: penis lateral, dorsal, ventral; ♀: st8-9). Holotype, ♂: GUATEMALA: Alta Verapaz, Finca Trece Aguas, Senahú, 800 m [M DIX, 28/XII/1980]; NMNH. Paratype: 1♀.

shamatari STARK 1995:219, figs. 26-36, 50 (head and pronotum; ♂: st9, penis ventral, lateral, dorsal; ♀: st8-9; egg; nymph: head and pronotum, forefemur, mesal cercal segments, apical cercal segments). Holotype, ♂: VENEZUELA: Amazonas, Cerro de la Neblina, Camp IV, 760 m [OS FLINT, 15-18/III/1984]; NMNH. Paratypes: 12♂, 26♀, 7 nymphs.

shepardi STARK & KONDRATIEFF 2004:51, figs. 148-152 (head and pronotum; ♂: penis lateral, dorsal, ventral; ♀: st8-9). Holotype, ♂: BELIZE: Cayo District, Macal River, 9.3 km S Augustine [WD SHEPARD, 06/I/1996]; NMNH. Paratypes: 3♂, 1♀. BELIZE; HONDURAS: Comayagua; MEXICO: Chiapas.

signata {*Perla*} (WALKER 1852):157. VENEZUELA [Coll. DYSON]; London. • ILLIES 1966:507. Possibly an *Anacroneuria*. Species inquirenda. • {*Anacroneuria*} KIMMINS 1970:349. ♀ lectotype in London. • STARK 1995:243. ♀ holotype redescribed.

socapa STARK & ZÚÑIGA 1999. In: STARK, ZÚÑIGA, ROJAS & BAENA 1999:38, figs. 115-118 (st9, penis ventral, lateral, dorsal). Holotype, ♂: COLOMBIA: Risaralda, Termales de Santa Rosa de Cabal [OS FLINT, 29/II/1984]; NMNH. Paratypes: 1♂, Risaralda; 1♂, Antioquia. • STARK & ZÚÑIGA 2003:235, figs. 6, 36-38, 43 (penis ventral, dorsal, lateral, detail; ♀, st 8-9). Cauca, Valle del Cauca. • ZÚÑIGA, STARK, VÁSCONEZ, BERSOSA & VIMOS 2006:56. Antioquia, Cauca. • ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:143, fig. 41 (head and pronotum). Risaralda.

sonora STARK & KONDRATIEFF 2004:51, figs. 153-157 (head and pronotum; ♂: penis lateral, dorsal, ventral; ♀: st8-9). Holotype, ♂: MEXICO: Sonora, Maycoba River, Hwy 16 W Maycoba [RW

BAUMANN, BC KONDRATIEFF, SWELLS, BSARGENT, 29/VI/1987]; NMNH. Paratypes: 5♂, 7♀.

spangleri STARK 2001a:34, figs. 101-107 (head and pronotum; ♂: st9, penis ventral, lateral, dorsal; ♀: st8-9; egg). Holotype ♂: ECUADOR: Pichincha, 29 km W Santo Domingo de los Colorados [P SPANGLER, 06/V/1975]; NMNH. Paratypes: 9♂, 34♀, Pichincha; Los Ríos.

spectori STARK 2004:74, figs. 35-39 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: BOLIVIA: Santa Cruz, Prov. Caballero, Parque Nacional Amboró, 2030 m, 17°50'14"S, 64°23'38"W [S SPECTOR, J LEDEZMA, 20/X/2001]; AMNH (pro tempore). Paratypes: 4♂.

stanjewetti FROEHLICH 2002b:93, figs. 71-76 (head and pronotum; ♂, hammer, penis; ♀, st8-9; egg). Holotype, ♂: BRAZIL: Santa Catarina, Nova Teutônia [F PLAUMANN]; CAS. Paratypes: 8♂, 11♀. Santa Catarina; ARGENTINA: Entre Ríos; Misiones. • DE RIBEIRO & FROEHLICH 2007:56. BRAZIL: Rio Grande do Sul. • FROEHLICH 2008:130, figs. 12-15 (head and pronotum, penis dorsal, lateral; female: st 8-9). *A. atrifrons* "cotypes" of Hamburg (WEIDNER 1962).

starki FENOGLIO & MORISI 2001a:312, figs. 1-6 (head and pronotum; ♂: st9, penis dorsal, ventral, lateral; ♀: st8-9). Holotype, ♂: NICARAGUA: Zelaya, Cerro Saslaya (13.44°N, 85.01°W), 700 m [JM MAES, IV/1996]; Carmagnola. Paratypes: 5♂, 16♀. • STARK & KONDRATIEFF 2004:56, figs. 158-162 (head and pronotum; ♂, st 9; penis lateral, dorsal, ventral). HONDURAS: Olancho; NICARAGUA: Zelaya.

subcostalis Klapálek 1921:326. Syntypes, 2♀: BRAZIL: Espírito Santo; Vienna; Berlin, missing, but 2♀ in Vienna. • JEWETT 1960b:174. Amazonas, Rio de Janeiro. • ILLIES 1966:322. • FROEHLICH 2002b:86, figs. 45-46 (♀, st8-9; egg). Rio de Janeiro, Espírito Santo. JEWETT's specimens from Amazonas very doubtfully *A. subcostalis*. • FROEHLICH 2004:59, figs. 16-21 (♂: st9, hammer, penis lateral and dorsal; ♀: st8, st9). Comments. São Paulo. • BISPO & FROEHLICH 2004b:99. São

Paulo.

sulana NEEDHAM & BROUGHTON 1927:112, pl. 12, figs 2, 2A, 2B (subgenital plate, two specimens, egg). Holotype, ♀: BELIZE: Río Santa Ana [KARL P SCHMIDT]; Cornell. Paratypes: MEXICO: Vera Cruz, Paso del Macho; Chinadaga and Sula [?]. • JEWETT 1958:163. MEXICO: Hidalgo, Nuevo León, Oaxaca; GUATEMALA: Alta Verapaz; PANAMA: Chiriquí. ♂ and ♀ described. • ILLIES 1966:322. • ZWICK 1972a:1152. **Synonym** of *A. annulicauda*. • STARK & KONDRATIEFF 2004:26. **Synonym** of *A. lineata*.

tachira STARK & ZÚÑIGA 2003:231, figs. 4, 7-12 (head and pronotum; ♂: st9, penis ventral, lateral, part of dorsal, detail; ♀: st 8-9). Holotype, ♂: VENEZUELA: Táchira, tributary to Río Valle, 3.8 km SE El Zumbador, 2730 m [R HOLZENTHAL, C CRESSA, GUTIC, 21/IV/1995] Paratypes: 6♂, 1♀. sp.A MALDONADO, STARK & CRESSA 2002:230. • STARK & ZÚÑIGA 2003:231. Belongs to *A. tachira*.

takutu STARK 2000:306, figs. 1-7 (head and pronotum; ♂: st9, penis ventral, lateral, dorsal; ♀: st8-9; egg). Holotype, ♂: GUYANA: Mazaruni-Potaro, Takutu Mountains, 6°15'N, 59°6'W [Earthwatch Expedition, PJ SPANGLER, WE STEINER, 5-17/XII/1983]; NMNH. Paratypes: 7♀.

talamanca STARK 1998:585, figs. 101-105, 149 (head and pronotum; ♂: st 9, penis ventral, lateral, dorsal; ♀: st8-9). Holotype, ♂: COSTA RICA: San José, Reserva Biologica Carara, Río Carara, 200 m [R HOLZENTHAL, F MUÑOZ, J HUISMAN, 14/III/1991]; NMNH. Paratypes: 2♂, Heredia; 1♂, 3♀; PANAMA: Bocas del Toro. • FENOGLIO & MORISI 2001b:7, figs. 1-2 (head and pronotum, penis dorsal, ventral, lateral). NICARAGUA: Río San Juan.

tatama STARK & CARDONA 2007. In: ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:134, figs. 21-26 (head and pronotum; ♂: penis ventral, lateral, dorsal; ♀: st8; egg). Holotype, ♂: COLOMBIA: Risaralda, Municipio de Santuario, Parque Municipal Natural Planes de San Rafael, Río San Rafael middle basin, bridge, 2050 m, N

05° 07' 38", W 76° 00' 08" [MC ZÚÑIGA, W CARDONA, A LAINA, G ZABALA, C CULTID, 15-16/VII/2007]. Paratypes: 3♂, 4♀.

taylori STARK 2004:75, figs. 40-44 (head and pronotum; ♂: penis ventral, lateral, dorsal; ♀: st8-9). Holotype, ♂: PERU: Madre de Dios, Manu, Pakitza, 250 m [OS FLINT, N ADAMS, 09/IX/1988]; NMNH. Paratypes: Madre de Dios, 1♀. BOLIVIA: Santa Cruz, 2♂.

tayrona ZÚÑIGA & TAMARIS 2007. In: ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:134, figs. 27-31 (head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: COLOMBIA: Magdalena, Municipio de Santa Marta, Parque Nacional Natural Sierra Nevada Santa Marta, Estación San Lorenzo, Río Gaira headwater basin, 1560 m, N 11° 10' 02", W 74° 10' 41" [C TAMARIS, R TURIZO, 01/IX/2004]; Cali. Paratypes: 10♂.

tejon BAENA & STARK 1999. In: STARK, ZÚÑIGA, ROJAS & BAENA 1999:39, figs. 119-123 (head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: COLOMBIA: Nariño, Reserva Natural La Planada, 1400 m [F ESCOBAR, IV/1994]; Cali. Paratype: 1♂, Valle del Cauca.

tena STARK 2001a:35, figs. 108-111 (♂, st9, penis ventral, lateral, dorsal). Holotype, ♂: ECUADOR: Napo, Tena, 520 m [OS FLINT, 10-13/IX/1990]; NMNH.

timote STARK 1999:83, figs. 56-60 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: VENEZUELA: Tachira, Quebrada Los Mirtos, 8 km S El Cobre, 2400 m [R HOLZENTHAL, C CRESSA, GUTIC, 22/IV/1995]; NMNH. Paratypes: 4♂.

tincta {*Neoperla*} (NAVÁS 1916b):63, fig. 4 [apex of forewing, hind wing]. Holotype, ♂: COLOMBIA. [Fr. APOLLINARIS, 1915]; Navás, lost. • AUBERT 1956b:441. Type not located. • ILLIES 1966:492. Possibly an *Anacroneuria*. *Nomen dubium*. • {*Anacroneuria*}STARK, ZÚÑIGA, ROJAS & BAENA, 1999:45. *Nomen dubium*.

tinctilamella JEWETT 1959a:154, figs. 7, 7A (♀, head and pronotum, st8-9). Holotype, ♀: BRAZIL: Santa Catarina; Nova Teutônia [PLAUMANN, XI/1955]; CAS. Paratypes: ♀. Putative ♂. • ILLIES 1966:322. • FROEHLICH 2002b:88, figs. 47-49 (♀, st8-9; egg, Santa Catarina; egg, Misiones). Santa Catarina; uncertain: Paraná. ARGENTINA: Misiones.

tinga BISPO & FROEHLICH 2004c:194, figs. 13-17 (head and pronotum, st9, penis dorsal, ventral, lateral). Material. Holotype, ♂: BRAZIL: Goiás, Colinas do Sul, Serra da Mesa, 14°01'S, 48°12'W [SILVESTRE, DIETZ, CAMPANER, 2-15/XII/1995]; São Paulo.

tiwanaku STARK 2004:76, figs. 45-46 (♀, head and pronotum, st8-9). Holotype, ♀: BOLIVIA: La Paz, Yungas La Paz, Río Murarrata to Suapi, 1400-1600 m [LE PEÑA G, 26-28/XI/1984]; NMNH.

toni ZÚÑIGA & STARK 2002:213, figs. 15-19 (head and pronotum; ♂: penis ventral, lateral, dorsal; ♀: st8-9). Holotype, ♂: COLOMBIA: Cauca, Municipio de Inzá, Quebrada San Andrés, Cuenca Río Paez, 1 km S San Andrés de Pisimalá, 1730 m [MC ZÚÑIGA, F MUÑOZ-QUESADA, JH LÓPEZ, 20/XII/1997]; Cali. Paratypes: 17♂, 29♀.

toriba FROEHLICH 2002b:100, figs. 97-100 (♂, head and pronotum, hammer, penis). Holotype, ♂: BRAZIL: São Paulo; Campos do Jordão [J LANE, XII/1945]; NMNH.

tornada STARK 1998:585, figs. 106-110 (♂, head and pronotum, st9, penis lateral, dorsal, ventral). Holotype ♂: COSTA RICA: Cartago, Reserva Tapanti, Quebrada Palmitos, 1400 m [R HOLZENTHAL, R BLAHNIK, F MUÑOZ, 2/VI/1990]; NMNH.

trimacula JEWETT 1959a:155, fig 11 [♀, head and pronotum]. Holotype, ♀: BRAZIL: Santa Catarina; Nova Teutônia [PLAUMANN, X/1956]; CAS. Paratypes: 17♀. • ILLIES 1966:322. • FROEHLICH 2002b:88, figs. 50-54 (♂: hammer, penial armature; ♀: st8-9; egg). Santa Catarina. ARGENTINA: Misiones. PARAGUAY: Paraguári.

• DE RIBEIRO & FROEHLICH 2007:56. **BRAZIL: Rio Grande do Sul.**

trinervis {*Neoperla*} (NAVÁS 1934b):161, fig. 36 (♀, head and pronotum). Holotype, ♀: **ECUADOR: Quito** [R. BENOIST, 1930]; Paris. • AUBERT 1956b:441. Type in Paris. • ILLIES 1966:492. Possibly an *Anacroneuria*. *Species inquirenda*. • STARK 2001a:2. *Nomen dubium*.

tristani {*Forquilla*} (NAVÁS 1932d):29, fig. 25 (♀ hind wing). Holotype, ♀: **COSTA RICA: Santa María Dota** [TRISTAN]; Torino. • AUBERT 1956:168. Type in Torino. • {*Anacroneuria*} JEWETT 1958 (nec NAVÁS 1932d, *fide* STARK 1998):168, figs 8, 8A, 8B (head and pronotum; hind leg, ♀, st8). **COSTA RICA: Alajuela, Cartago**. • ILLIES 1966:323. • STARK 1998:583. **Synonym** of *Anacroneuria plutoonis*.

tunasi STARK & ZÚÑIGA 2007. In: ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:136, figs. 32-36 (head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: **COLOMBIA: Risaralda**, Municipio de Santuario, Parque Nacional Natural Tatamá, 2400 m [J CASTELLANOS, XI/2004]; Cali.

tungurahua STARK 2001a:37, figs. 112-116 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: **ECUADOR: Tungurahua**, 32 km E Baños [P SPANGLER & al., 28/I/1976]; NMNH.

tupi BISPO & FROEHLICH 2004b:105, Figs. 26-32 (♂: head and pronotum, st9, penis dorsal, ventral, lateral; ♀: st8-9; egg). Holotype, ♂: **BRAZIL: São Paulo**, Iporanga, Parque Estadual Intervales, Ribeirão Água Comprida [PC BISPO, CG FROEHLICH, 20/II/2000]; São Paulo. Paratypes: 2♂, 7♀.

tzapino STARK 2001a:38, figs. 117-120 (♂, st9, penis ventral, lateral, dorsal). Holotype, ♂: **ECUADOR: Pastaza**, Tzapino, 400 m [J COHEN, 22/V/1976]; NMNH.

uatsi STARK 1998:585, figs. 111-115, 150, 153-154 (head and pronotum; ♂: st9, penis lateral, dorsal,

ventral; ♀: st8-9; nymph: head and pronotum, forefemur). Holotype, ♂: **COSTA RICA: Limón**, Río Uatsi, 8 km W Bribri, 60 m [R HOLZENTHAL, S HAMILTON, M HEYN, 25/III/1987]; NMNH. Paratypes: 10♂, 22♀, **Guanacaste; Limón; Puntarenas**. • STARK & KONDRATIEFF 2004:56, figs. 163-167 (head and pronotum; ♂, st9; penis lateral, dorsal, ventral). **HONDURAS: Olancho**.

gr. *crenulata* HARPER 1992:115. • STARK & KONDRATIEFF 2004:32. Belongs to *A. uatsi* STARK 1998.

ucumari STARK & ZÚÑIGA 2003:232, figs. 13-17 (head and pronotum; st9; penis ventral, lateral, dorsal). Holotype, ♂: **COLOMBIA: Valle del Cauca**, Cali, Parque Nacional Natural Farallones de Cali, Peñas Blancas, Río Pichindé, cuenca alta del Río Cali, 2000 m, 03°25'06"N, 75°29'44"W [MC ZÚÑIGA, AJ CARDOSO ZÚÑIGA, G MARTÍNEZ, 29/IX/1997]; Cali. Paratype: 1♂, **Risaralda**. • ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:144.

undulosa STARK & ROJAS 1999. In: STARK, ZÚÑIGA, ROJAS & BAENA 1999:40, figs. 124-128 (♂: head and pronotum, st9, penis ventral, lateral, dorsal; ♀: st8-9). Holotype, ♂: **COLOMBIA: Chocó**, km 130, 86 km E Quibdó [OS FLINT, 17/II/1983]; NMNH. Paratype: 1♀.

unicolor Klapálek 1922:94. Holotype, ♂: **COLOMBIA: Hamburg**. • WEIDNER 1962:107. ♂ holotype in Hamburg. • ILLIES 1966:323. • ZWICK 1973a:483. **Synonym** of *A. angusticollis*.

uru STARK & Sivec 1998:51, figs. 143-147 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: **PERU: Cusco**, Hacienda María ca. Río Cosnipata, 900 m [F WOYTOWSKI, 11/III/1952]; NMNH. Paratypes: 10♂, **Cusco; BOLIVIA: Cochabamba**. • STARK & ZÚÑIGA 2003:237, figs. 39-41 (penis ventral, dorsal, lateral).

uruguaya {*Neoperla*} (NAVÁS 1923): 42. Holotype, ♀: **URUGUAY: Montevideo** [P SERRE, 1912]; Paris. • AUBERT 1956b:441. Type in Paris. • (*uruguayana*)

ILLIES 1966: 493. Possibly an *Anacroneuria*. *Species inquirenda*.

uyara FROEHLICH 2002b:100, figs. 101-106 (δ : head and pronotum, hammer, penis dorsal, lateral; φ : st8-9, egg). Holotype, δ : BRAZIL: Santa Catarina, Nova Teutônia [F PLAUMANN, I/1975]; NMNH. Paratypes: 4 δ , 27 φ . PARANÁ. ARGENTINA: Entre Ríos. • FROEHLICH 2004:59. BRAZIL: São Paulo. • DE RIBEIRO & FROEHLICH 2007:56. Rio Grande do Sul.

valle ZÚÑIGA & BAENA 1999. In: STARK, ZÚÑIGA, ROJAS & BAENA 1999:41, figs. 129-133 (head and pronotum, st9, penis ventral, lateral, dorsal). Holotype δ : COLOMBIA: Valle del Cauca, Río Azul, cuenca media Río Calima, 550 m [AM ROJAS, M BAENA, R ALDANA, 20/II/1994]; Cali. • ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:144.

vanini FROEHLICH 2004:61, figs. 22-29 (δ : head and pronotum, st9 and hammer, penis lateral and dorsal; φ : st8, st9). Holotype, δ : BRAZIL: São Paulo, Salesópolis, Estação Biológica de Boracéia, guest house [SA VANIN, 21/XI/1980]; São Paulo. Paratypes: 1 δ 1 φ .

variegata Klapálek 1921:325. Syntypes: 1 δ : PERU: Marcapata; Prague; 1 φ : COLOMBIA: Bogotá; Hamburg. • WEIDNER 1962:107. Paratype in Hamburg. • ILLIES 1966:323. • ZWICK 1973a:480. Male lost; female designated as lectotype. **Synonym** of *A. schmidti*.

varilla STARK 1998:595, figs. 116-120, 140, 183-184 (head and pronotum; δ : st9, penis lateral, dorsal, ventral; details of penis; φ : st8-9). Holotype, δ : COSTA RICA: Guanacaste, Parque Nacional Guanacaste, Maritza, Río Tempisque, 550 m [R HOLZENTHAL, J MORSE, P CLAUSEN, 19/VII/1987]; NMNH. Paratypes: 28 δ , 5 φ , GUANACASTE; 1 δ , PANAMA: Chiriquí.

ventana STARK 1998:597, figs. 121-125 (δ , head and pronotum, st9, penis lateral, dorsal, ventral). Holotype, δ : COSTA RICA: Alajuela, Río Peje, ca. 1 km SE San Vicente, 1450 m [R HOLZENTHAL,

F MUÑOZ, K KJER, 14/II/1992]; NMNH. Paratypes: 2 δ , Cartago; San José.

vespertilio Klapálek 1921:327. Holotype, φ : COLOMBIA: Bogotá [LINDIG]; Berlin. • ILLIES 1966:323. • STARK, ZÚÑIGA, ROJAS & BAENA 1999:21, fig. 20 (φ , st8-9). Redescription.

viduata {Neoperla} (NAVÁS 1916b):64, fig. 5 (right wings). Holotype, φ : COLOMBIA [F. APOLLINARIS, 1915]; Apollinaris, lost. • AUBERT 1956b:441. Type not located. • ILLIES 1966:493. Possibly an *Anacroneuria*. *Nomen dubium*. • {*Anacroneuria*} STARK, ZÚÑIGA, ROJAS & BAENA, 1999:46. *Nomen dubium*.

vilcabamba STARK & Sivec 1998:51, figs. 148-151 (δ , st9, penis ventral, lateral, dorsal). Holotype, δ : PERU: Junin, Tarma, Utcuyacu, Agua Dulce, 1600-2400 m [F WOYTKOWSKI, 06/III/1948]; NMNH.

viridis Klapálek (KEMPNY MSS.) 1921:327. Holotype, φ : No locality [label: Thor 853]; Vienna, missing. • ILLIES 1966:323. • *Nomen dubium*.

vistosa STARK 1995:220, figs. 37-44, 47, 51 (head and pronotum, fore wing; δ : st9, penis ventral, lateral, dorsal; φ : st8-9; egg, detail of egg). Holotype, δ : VENEZUELA: Amazonas, Cerro de la Neblina, basecamp, 140 m [PJ SPANGLER, PM SPANGLER, R FAITOUTE, W STEINER, 11/II/1985]; NMNH. Paratypes: 54 δ , 35 φ .

vitripennis Klapálek 1922:90. Holotype, δ [not φ]: PERU: Vilcanota; Prague. • ILLIES 1966:323. • STARK & Sivec 1998:55, figs. 152-155 (δ , st9, penis ventral, lateral, dorsal). Redescription of δ holotype.

v-nigrum {Forquilla} (NAVÁS 1932a):61, fig. 6 (head and pronotum). Holotype, φ : BRAZIL: Rio de Janeiro; Barão Homem de Mello [ZIKAN, 24/I/1927]; DEI, lost. • AUBERT 1956b:440. Type not located. • ILLIES 1966:324. • PETERSEN & GAEDIKE 1968:968. Holotype destroyed. • *Nomen dubium*.

wapishana STARK 1999:88, figs. 61-62 (head and pronotum, st8-9). Holotype, ♀: GUYANA: Potaro River, Kaieteur Falls, 410 m [OS FLINT, 21-23/VIII/1997]; NMNH.

wari STARK 2004:77, figs. 47-48 (♀, head and pronotum, st8-9). Holotype, ♀: PERU: Cusco, Hacienda María ca. Río Cosnipata, 900 m [F WOYTKOWSKI, 24/II/1952]; NMNH.

wellsi STARK & KONDRATIEFF 2004:56, figs. 168-172 (head and pronotum; ♂: penis lateral, dorsal, ventral; ♀: st8-9). Holotype, ♂: GUATEMALA: Alta Verapaz, 6.5 km W San Cristobal [P PERKINS, 03/VI/1974]; NMNH. Paratypes: 1♀, GUATEMALA: Alta Verapaz; 1♂, HONDURAS: Olancho.

wincha STARK & SIVEC 1998:56, figs. 156-160 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: PERU: Cusco, Paucartambo, pte. San Pedro, ca. 50 km NW Pilcopata, 1600 m [OS FLINT, N ADAMS, 02-03/IX/1988]; NMNH. Paratypes: 4♂.

wipukupa BAUMANN & OLSON 1984:489, figs. 1-7 (♂: terminalia ventral, dorsal; penis ventral, dorsal; ♀: terminalia ventral; egg; nymph, habitus). Holotype, ♂: USA: Arizona, Yavapai Co., Oak Creek, Red Rock Crossing [MW SANDERSON, 09/VI/1978]; allotype, ♀: same date as holotype except: Page Springs, 30/V/1978; NMNH. Paratypes: 7♂. Nymphs. • STARK & KONDRATIEFF 2004:57, figs. 173-177 (head and pronotum; ♂: st9; penis lateral, dorsal, ventral).

woytkowskii STARK & SIVEC 1998:56, figs. 161-164 (♂: st9, penis ventral, lateral, dorsal). Holotype, ♂: PERU: Cusco, Hacienda María ca. Río Cosnipata, 900 m [F WOYTKOWSKI, 27/II/1952]; NMNH. • STARK 2004:80. Madre de Dios.

xinguensis FROEHLICH 2002b:103, figs. 107-112 (♂: head and pronotum, hammer, penis dorsal, lateral; ♀: st8-9; egg). Holotype, ♂: BRAZIL: Pará, Rio Xingu Camp (52°22'W, 3°39'S), ca. 60 km S Altamira [P SPANGLER, OS FLINT, 1-21/X/1986]; NMNH. Paratypes: 2♂, 4♀.

x-nigrum Klapálek 1921:324. Syntypes: ♂, ♀: PERU: Marcapata and Callanga; Prague. BOLIVIA: Songo; Berlin, missing, now in Prague. • ILLIES 1966:324. • ZWICK 1973:474, figs. 8-9 (penis dorsal, lateral). A. sp., *x-nigrum* Klapálek? • STARK & SIVEC 1998:56, figs. 165-168 (♂ lectotype, st9, penis ventral, lateral, dorsal). Two ♂ syntypes, Mus. Prague, designated lectotype and paralectotype.

yameo STARK & SIVEC 1998:60, figs. 169-173 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: PERU: Loreto, Callicebus Research Station, Mishana, Río Nanay, 25 km SW Iquitos, 120 m [JB HEPPNER, 10-17/I/1980]; NMNH. Paratype: 1♂, BOLIVIA: Sara (now Santa Cruz). • ZÚÑIGA, STARK, VÁSCONEZ, BERSOSA & VIMOS 2006:57. COLOMBIA: Amazonas. • ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:145, figs. 42-43 (♀, st9; egg). Amazonas.

ypsililon Klapálek 1922:93. Syntypes: 2♀: BRAZIL: Rio Grande do Sul [STIEGELMAYR]; Vienna. • ILLIES 1966:324.

ytuguazu FROEHLICH 2002b:105, figs. 113-115 (♂, head and pronotum, penis). Holotype ♂: ARGENTINA: Entre Ríos, Salto Grande, Río Uruguay [OS FLINT, 16/XI/1973]; NMNH.

zaculeu STARK & KONDRATIEFF 2004:57, figs. 178-182 (♂: head and pronotum; st9; penis lateral, dorsal, ventral). Holotype, ♂: GUATEMALA: Alta Verapaz, Tamahu, 1100 m [EC WELLING, 11/XI/1963]; Peabody.

zaga STARK & KONDRATIEFF 2004:57, figs. 183-187 (♂: head and pronotum; st9; penis lateral, dorsal, ventral). Holotype, ♂: MEXICO: Veracruz, Fortín de las Flores [OS FLINT & ORTIZ, 24/VII/1966]; NMNH.

zamora STARK 2001a:39, figs. 121-125 (♂, head and pronotum, st9, penis ventral, lateral, dorsal). Holotype, ♂: ECUADOR: Zamora Chinchipe, Río Jamboe, 21 km S Zamora, 1340 m [OS FLINT, 22/IX/1990]; NMNH.

zapata STARK 1998:597, figs. 126-130 (δ , head and pronotum, st9, penis lateral, dorsal, ventral).
Holotype, δ : COSTA RICA: **Alajuela**, Río Bochinche, Cerro Campana, 600 m [R HOLZENTHAL, J MORSE, P CLAUSEN, 22/VII/1987]; NMNH. Paratypes: 11 δ , **Alajuela; Guanacaste; Puntarenas**.

zarpa STARK 1998:600, figs. 131-135 (δ , head and pronotum, st9, penis lateral, dorsal, ventral). Holotype, δ : PANAMA: **Bocas del Toro**, Miramar [H WOLDA, 21/II/1978]; NMNH.

zunigae STARK 2001a:40, figs. 126-130 (δ , head and pronotum, st9, penis ventral, lateral, dorsal).
Holotype, δ : ECUADOR: Napo, 18 km NW Lago Agrio [A Langley, J COHEN, 30/VIII/1975]; NMNH. Paratypes: 9 δ .

zwicki STARK & Sivec 1998:60, figs. 174-177 (δ , st9, penis ventral, lateral, dorsal). Holotype, δ : PERU: **Cusco**, Hacienda María ca. Río Cosnipata, 900 m [F WOYTKOWSKI, 26/II/1952]; NMNH. Paratypes: 49 δ , **Cusco; Huánuco; BOLIVIA: Cochabamba**.

sp. FIORENTIN & CORSEUIL 1994:37, fig. 6 (habitus).
BRAZIL: Rio Grande do Sul.

sp. NEEDHAM AND BROUGHTON 1927:119, figs. 10-10F (nymph: habitus, antenna, mandible, labrum, maxilla, labium, cercus). Nymph: COLOMBIA [JT LLOYD].

sp. ZWICK 1973a:474, figs. 8-9 (penis dorsal, lateral). (*x-nigrum* Klap.?!).

sp. A HARPER 1992:117, fig. 12 (φ : st8-9). Four δ , 4 φ ,
PANAMA: Darién.

sp. B HARPER 1992:118, fig. 13 (φ : st8-9). Three δ , 2 φ ,
PANAMA: Alajuela. • STARK 1998:568. Belongs to *A. harperi*.

sp. C HARPER 1992:118, fig. 8 (penis dorsal, lateral).
Two δ . **PANAMA: Chiriquí**. • STARK 1998:554.
Belongs to *A. acutipennis*.

sp. D HARPER 1992:119, fig; 15 (φ : st8-9). *apicalis* (ENDERLEIN)? 1 φ , **PANAMA: Chiriquí**. NMNH.

sp. E HARPER 1992:119, fig. 16 (φ : st8-9). One φ ,
PANAMA.

sp. F HARPER 1992:119, fig. 17 (φ : st8-9). One φ ,
PANAMA: Darién.

sp. A MALDONADO, STARK & CRESSA 2002:230, figs.
21-23 (head and pronotum, terminalia, fore femur, cercus). Nymph, δ : VENEZUELA:
Mérida.

sp. A STARK 2001b:406, figs. 1-5 (head and pronotum;
 δ : st 9, penis ventral, dorsal; φ : [half] st8-9).
ARGENTINA: Misiones.

"species" ROBACK 1966:202, pls. 1-2 (head and thorax pattern of 9 morphospecies; mothparts, leg and details, paraproct). PERU: **Huánuco, Loreto**.

CO-1 STARK, ZÚÑIGA, ROJAS & BAENA 1999:42, figs.
141-142 (head and pronotum, st8-9). 1 φ :
COLOMBIA: Amazonas. • STARK, ZÚÑIGA & Sivec 2001:121. Belongs to *A. montera* STARK & Sivec 1998.

CO-2 STARK, ZÚÑIGA, ROJAS & BAENA 1999:44, figs.
143-145 (head and pronotum, st8-9, egg). 1 φ :
COLOMBIA: Cundinamarca.

CO-3 STARK, ZÚÑIGA, ROJAS & BAENA 1999:45, fig. 146
(st8-9). 1 φ : **COLOMBIA: Antioquia**.

CO-4 STARK, ZÚÑIGA, ROJAS & BAENA 1999:45, fig. 147
(st8-9). 2 φ : **COLOMBIA: Antioquia**.

CO-5 STARK, ZÚÑIGA, ROJAS & BAENA 1999:45, fig.148
(st8-9). 6 φ : **COLOMBIA: Risaralda**.

CO-6 ZÚÑIGA & STARK 2002:222, figs. 37-38 (head and pronotum, st8-9). 1 φ : **COLOMBIA: Risaralda**.

CO-7 ZÚÑIGA & STARK 2002:222, figs. 39-40 (head and pronotum, st8-9). **COLOMBIA: Chocó**.

CO-8 ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO &

- ORTEGA 2007:145, figs. 44-46 (head and pronotum, st9; egg). **COLOMBIA: Risaralda**, 48♀.
- CO-9 ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:147, figs. 47-49 (head and pronotum, st9; egg). **COLOMBIA: Chocó**. 1♀.
- CO-10 ZÚÑIGA, STARK, CARDONA, TAMARIS-TURIZO & ORTEGA 2007:147, figs. 50-52 (head and pronotum, st9; egg). **COLOMBIA: Amazonas**, 2♀; **BRAZIL: Amazonas**, 1♀.
- GU-1 STARK 1999:88, fig. 65 (st8-9). **GUYANA: Kanuku Mountains**, 4♀. Kumu River and falls 1♀.
- GU-2 STARK 1999:88, fig. 66 (st8-9). **GUYANA: Dubulay Ranch, Aramatani Creek**, 2♀.
- GU-3 STARK 1999:89, figs. 67-68 (♀: head and pronotum, st8-9). **GUYANA: Mazaruni-Potaro District**, 2♀.
- GU-4 STARK 2000:308, figs. 8-9 (♀: head and pronotum, st8-9). **GUYANA: Kanuku Mountains**, 1♀.
- GU-5 STARK 2000:308, fig. 10 (♀, st8-9). **GUYANA: Paramakotoi Village**, 6♀.
- PE-1 STARK & SIVEC 1998:63, figs. 178-179 (head and pronotum, st8-9). **PERU: Huánuco**: 1♀.
- VZ-1 STARK 1995:244, figs. 140-141(st8-9; egg). **VENEZUELA: Mérida, Lara**; 5♀.
- VZ-2 STARK 1995:244, figs. 142-143 (st8-9; egg). **VENEZUELA: Mérida**; 1♀.
- VZ-3 STARK 1995:244, fig. 144 (st8-9). **VENEZUELA: Bolívar**, 1♀.
- VZ-4 STARK 1995:244, fig. 145 (st8-9). **VENEZUELA: Lara, Zulia**; 2♀.
- VZ-5 STARK 1995:246, Fig. 146 (st8-9). **VENEZUELA: Mérida**; 4♀.
- VZ-6 STARK 1995:246, fig. 147 (st8-9). **VENEZUELA: Amazonas**; 3♀.
- VZ-7 STARK 1995:247, fig 148 (st8-9). **VENEZUELA: Amazonas**; 2♀.
- VZ-8 STARK 1995:248, fig. 149 (st8-9). **VENEZUELA: Zulia**; 1♀.
- VZ-9 STARK 1995:249, fig. 150 (st8-9). **VENEZUELA: Sucre**; 1♀.
- VZ-10 STARK 1995:249, figs. 151-155 (nymph, head and pronotum, fore femur, cercal segments, penis ventral, dorsal). **VENEZUELA: Amazonas**, 11 nymphs.
- VZ-11 MALDONADO, STARK & CRESSA 2002:230, figs. 24-26, 29-32 (♀: head and pronotum, st8-9; egg; nymph: head and pronotum, terminalia, fore femur, cercus, proventricular armature). **VENEZUELA: Mérida**. 1♀, reared.
- VZ-12 MALDONADO, STARK & CRESSA 2002:234, figs. 27-28, 33-35 (♀: head and pronotum, st8-9; nymph: head and pronotum, terminalia, fore femur, cercus). **VENEZUELA: Mérida**. 1♀, reared.
- Genus ca. *Anacroneuria* ROBACK 1966:202, pl 1, fig. 3 (head and thorax pattern). **PERU: Loreto**.
- Genus *Enderleina* JEWETT
- Enderleina* JEWETT 1960b:174. Species typica: *Enderleina preclara* JEWETT (monotypy). • ILLIES 1966:332. • STARK 1989:153. Definition, discussion. • STARK 2001b:411, figs. 6-10 (*E. flinti*, head and pronotum; *E. yano*, ♂: terminalia dorsal, st 9, penis dorsal; ♀: st8-9). Diagnosis, comments, species list. • RIBEIRO & RAFAEL 2005:62. • STARK, FROEHЛИCH & ZUÑIGA 2009: 119.
- Distribution:** Guyana, Venezuela, North Brazil.
- bonita* STARK 1989:157, figs. 16-18 (♀, head and pronotum, female terminalia, ventral; egg). Holotype, ♀: **VENEZUELA: Aragua**, Maracay, 16 km E, 1000 m [JC ROSALIS, 21/X/1950]; Maracay.

Paratypes: 2 ♀, Rancho Grande.

flinti STARK 1989:155, figs. 1-5, 12-15 (putative nymph: head and pronotum, mesal and apical cercal segments, abdominal apex, dorsal, maxilla, thorax ventral; ♀: head and pronotum; st8-9; detail of st9; egg). Holotype, ♀: VENEZUELA: Amazonas, Cerro de la Neblina, Camp XI, 00°51'45"N, 65°58'52"W, 1450 m [PJ SPANGLER]; NMNH. Paratype: 1 ♀. • STARK 2001b:407, fig.6 (head and pronotum). • RIBEIRO & RAFAEL 2005:66. BRAZIL: Amazonas, Roraima.

froehlichi RIBEIRO-FERREIRA 1996:145, figs. 1-6 (♂, terminalia dorsal, t10; paraproct; penis dorsal, lateral, ventral). Holotype, ♂: BRAZIL: Amazonas, Manaus, Reserva Florestal Adolpho Ducke [ACR FERREIRA, 13/XI/1987]; Manaus. • RIBEIRO & RAFAEL 2005:62, figs. 1-5, 8-15 (♂, ♀ habitus; holotype, head and pronotum, wings; ♂: terminalia ventral, dorsal; paraprocts; penis dorsal, ventral, lateral; ♀: st6-8, vaginal sclerite). Amazonas, Amapá. • RIBEIRO, J.M.F.; MAGALHÃES, C.; RAFAEL, J.A.; HENRIQUES, A.L. 2009:34. Holotype in Manaus.

preclara JEWETT 1960b:175, figs. 5, 5A, 5B, 5C, 5D (right wings; head and pronotum; terminalia, lateral and ventral views; penis). Holotype, ♂: BRAZIL: Roraima, Mt. Roraima, 2100 m [RONDON, 05/XII/1927]; AMNH, missing. • ILLIES 1966:332. • STARK 1989:153. Holotype missing.

yano STARK 1989:154, figs. 6-11 (♂: terminalia dorsal, penis ventral, st9, paraproct; ♀, terminalia ventral, detail of st9). Holotype, ♂: VENEZUELA: Amazonas, Cerro de la Neblina, Camp IV, 00°56'20"N, 65°56'50"W, 760 m [OS FLINT, JR., 15-18/III/1984]; NMNH. Paratypes: 3 ♀. • STARK 2001b:407, figs 7-10 (♂: terminalia dorsal, st9, penis dorsal; ♀: st8-9). • RIBEIRO & RAFAEL 2005:66. BRAZIL: Amazonas.

Genus *Inconeuria* Klapálek

Inconeuria Klapálek 1916:74. Species typica, monotypy: *Inconeuria marcapatica* Klapálek. •

ILLIES 1964b:226. Redefinition, comments. • ILLIES 1966:337. • STARK 2001b:411, figs. 11-17, 51-52 (*I. porteri*: head and pronotum; ♂: terminalia dorsal, st9, penis ventral, dorsal; ♀: st8-9, st9 intersegmental membrane and microtrichia). *I. marcapatica*, ♀, st9 intersegmental membrane). Diagnosis, comments, species list. • STARK, FROEHLICH & ZUÑIGA 2009:121.

Inca Klapálek 1914:68. *Nomen praeoccupatum*. • Klapálek 1916:55. **Distribution:** Chile, Peru.

chimu STARK & KONDRATIEFF 2003:182, figs. 1-2 (♀, head and pronotum, st8-9). Holotype, ♀: PERU: Pasco, Chontilla, 22 km S Iscozazin [R Etheridge, 12/VIII/1961]; Los Angeles.

marcapatica Klapálek 1916:75. Holotype, ♀: PERU: Marcapata; Prague. • ILLIES 1966:337. • STARK 2001b:408, fig. 15 (♀, st9 intersegmental membrane and microtrichia).

porteri {*Neoperla*} (Navás 1919a):3. Holotype, ♀: CHILE: IX: Malleco, Curacautín (38° 26'S, 71° 53'W) [C PORTER, I/1917]; Navás, lost. • AUBERT 1956b:441. Type not located. • NAVÁS 1928:119. XIV: Panguipulli [17/XI/1924]; DEI. Data on ♂. • {*Inconeuria*} ILLIES 1964b:228, figs. 18-20 (right wings; ♂: head and pronotum; foreleg; terminalia ventral; penis; ♀: terminalia ventral; nymph: head, mandible, maxilla). Neotype ♂: XIV: Valdivia, Panguipulli (39°40'S) [FAZ, 17/XI/1924]; DEI. Additional material from Chile, between 35° and 43°S: VIII: Concepción; IX: Malleco, Cautín; XIV: Valdivia; X: Osorno, Llanquihue, Chiloé. • WERNER 1965:232. VII: Curicó. • ILLIES 1966:338. • JOOST 1976:206. VI: Cachapoal; VII: Cauquenes; VIII: Arauco; IX: Cautín. • STARK 2001b:408, 420, figs. 11-14, 16-17, 51-52 (head and pronotum; ♂: terminalia dorsal, st9, penis ventral, dorsal; ♀: st8-9, st9 intersegmental membrane and microtrichia). • VERA 2005:8, figs. 7a, 8a, 9a, 10 (nymph: maxilla, pronotum, cercal segments, paraproct and base of cercus). VII (Maule).

Genus *Kempnyella* ILLIES

Kempnyella ILLIES 1964b:218. Species typica, original designation: *Perla genualis* NAVÁS. • ILLIES

1966:338. • STARK 2001b:412, figs. 18-24, 57-58 (*K. genualis*: head and pronotum; ♂: terminalia dorsal, st9; penis ventral, dorsal, penial spines; ♀: st8-9. *K. walperi*, penis dorsal, egg). Diagnosis, comments, species list. • STARK, FROEHЛИCH & ZUÑIGA 2009:121.

Distribution: Chile and Argentina, from ca. 35° to 45°S.

genualis {*Perla*} (NAVÁS 1918):82. Syntypes, 2♀:
ARGENTINA: Río Negro, Nahuel Huapí [BRUCH, II/1898]; La Plata. Neuquén, Lago Lacar [BRUCH, III/1898]; Navás. • AUBERT 1956b:440. Type in Buenos Aires (i.e., La Plata). • {*Kempnyella*} ILLIES 1964b:220, figs. 11-14 (right wings; ♂: head and pronotum, foreleg, terminalia ventral, details of penis; ♀: terminalia ventral; nymph: head; mandible; maxilla. Distribution map). **CHILE and ARGENTINA.** • WERNER 1965:232. **CHILE: VI (O'Higgins); VII: Curicó; XI: Aisén.** • ILLIES 1966:339. • ZWICK 1972b:99. X: Llanquihue. • JOOST 1976:206. **CHILE: VIII: Biobío.** • STARK 2001b:409, 421, figs. 18-23, 58 (head and pronotum; ♂: terminalia dorsal, st9; penis ventral, dorsal, penial spines; ♀: st8-9). • VERA 2005:8, figs. 7b, 8b, 9b (nymph: maxilla, pronotum, cercal segments). **CHILE: VII (Maule).** *brundini* {*Pictetoperla*} ILLIES 1964b:215. • STARK 2001b. **Synonym** of *Kempnyella genualis*.

walperi ILLIES 1964b:222, fig. 15 (♀: head and pronotum; terminalia ventral). Holotype, ♀: **CHILE: XIV: Valdivia;** Fundo Walper ca. Punucapa (39°45'S), ca. 800 m [ILLIES, 16/II/1958]; Illies. Paratype ♀: **VII (Maule).** • ILLIES 1966:339. • STARK 2001b, fig. 57 (egg).

Genus *Kempnyia* Klapálek

Kempnyia Klapálek 1914:60, 68. [In key]. Klapálek 1916:60, 67. Species typica: *Kempnyia tenebrosa* Klapálek by original designation. • JEWETT 1960b:175. Key to species. • ILLIES 1966:339. • ZWICK 1972a:1164. Redefinition. • ZWICK 1973b:275. • FROEHЛИCH 1984c:44, Figs. 2, 8-10, 12 (nymph: head and pronotum, mandible, maxilla, labium, thorax ventral). • DORVILLÉ & FROEHЛИCH 1999:281, figs. 4, 5, 8 (Nymph: pronotum; T3 and

base of abdomen ventral; maxilla). • STARK 2001b:414, figs. 25-31, 59 (K. sp. A, head and pronotum, coronal line, ♀ st8-9; *K. (collosica)* ♂: terminalia dorsal, st9, penis dorsal, lateral, ventral). Diagnosis, comments, species list. • STARK, FROEHЛИCH & ZUÑIGA 2009:124.

Eutactophlebia Klapálek 1914:60, 67 [In key]. • Klapálek 1916:45, 66. Species typica, original designation: *Eutactophlebia reticulata* Klapálek. • ILLIES 1966:332. • FROEHЛИCH 1979:70. • ZWICK 1983:177. **Synonym** of *Kempnyia*.

Collampla NAVÁS 1929b:77. Species typica, monotypy: *Collampla petropolitana* NAVÁS. • ILLIES 1966:332. **Synonym** of *Eutactophlebia*. • ZWICK 1983:179. **Synonym** of *Kempnyia*.

Diperla NAVÁS 1936:729. Species typica, monotypy: *Diperla serrana* NAVÁS. • ILLIES 1966:476. • FROEHЛИCH 1979:70. **Synonym** of *Eutactophlebia*.

Forca NAVÁS 1925:310. Species typica, monotypy: *Forca barbiellinii* NAVÁS. • NAVÁS 1932a:61. Characters of ♀. • STARK 2001b:415. **Synonym** of *Kempnia*.

Laeissa NAVÁS 1934a:22. Species typica, monotypy, *Laeissa colossica* NAVÁS. • FROEHЛИCH 1988:154. **Synonym** of *Kempnyia*.

Nedanta NAVÁS 1932c (partim):86. Species typica, original designation: *Nedanta fusca* NAVÁS. • JEWETT 1960b:175. **Synonym** of *Kempnyia*.

Distribution: Central, Southeastern, South Brazil.

alterosarum FROEHЛИCH 1988:159, figs. 34-45 (♂: st9; t10; detail of t10; detail of paraproct; penis lateral, ventral, dorsal; ♀: terminalia ventral; st9; t10; st8 of second specimen; terminalia lateral, id.). Holotype, ♂: **BRAZIL: Minas Gerais;** Serra do Cipó, Rio Capivara [FROEHЛИCH, 22/IX/1976]; São Paulo. Paratypes: 46♂, 36♀.

auberti FROEHЛИCH 1996:117, figs. 1-8 (♂: head and pronotum; st9; t10; detail of t10; detail of paraproct; penis lateral, dorsal, ventral). Holotype, ♂: **BRAZIL: São Paulo,** Iporanga, Parque Estadual Intervales, Rio Poços Altos [FROEHЛИCH & PAPROCKI, 10/XI/1993]; São Paulo. Paratype: 1♂, **Paraná.** • BISPO & FROEHЛИCH 2004b:110.

aterrima {*Macrogynoplax*} Klapálek 1916:54, 73.

Syntypes: 1♂, 1♀, **BRAZIL: Espírito Santo; Vienna.** • JEWETT 1960b:172. Types similar to *Anacroneuria*. • ILLIES 1966:480. *Nomen dubium*. • ZWICK 1972a:1168. **Synonym** of *Kempnyia neotropica*.

barbiellinii {Forca} (NAVÁS 1925):311, fig. 38 (♂, hindwing, tibia and tarsus of hindleg). Holotype, ♂: **BRAZIL: São Paulo**, Thermas de Lyndoya [now Águas de Lindóia] [A. BARBIELLINI, II/1925]; Navás. • AUBERT 1956b:440. Type lost. • ILLIES 1966:476. *Nomen dubium*. • {*Kempnyia*} STARK 2001b:415.

brasiliaca {Forca} (NAVÁS 1932a):60, fig. 5 [hindwing]. Holotype, ♀: **BRAZIL: Rio de Janeiro**, Barão Homem de Mello [ZIKAN, 19/VII/1929; 25/IX/1930] DEI. • AUBERT 1956b:440. Type lost. • ILLIES 1966:476. *Nomen dubium*. • {*Kempnyia*} STARK 2001b:415.

brasiliensis {Perla (Perla)} (PICTET, KOLLAR MSS., 1841):216; pl. 18, fig. 3 (habitus, wings expanded). Holotype, ♀: **BRAZIL**; Vienna. • {*Kempnyia*} Klapálek 1916:69. • JEWETT, 1960b:176. Holotype: ♂, not ♀ as stated by PICTET. • ILLIES 1966:339. • ZWICK 1972a:1165, fig. 7a-7e (♂ holotype, penis dorsal and lateral; st9, t10, paraproct). • ZWICK 1973b:275.

calabriae JOOST 1980:73, figs. 1-4 (♂: wings, terminalia ventral, penis ventral, lateral). Holotype, ♂: **BRAZIL: Espírito Santo**, San[ta] Leopoldina [K. STAUDINGER]; Berlin. • ZWICK 1983:177. **Synonym** of *Kempnyia reticulata*.

colossica {Laeissa} (NAVÁS 1934a):22, fig. 34 (head and pronotum; terminalia, dorsal; subgenital plate). Holotype, ♀ [not ♂, as stated by NAVÁS]: **BRAZIL: Santa Catarina**, Blumenau, Nova Bremen [now Presidente Getúlio], Rio Laeiss [now in José Boiteux Municipality], 500 m [FRITZ HOFFMAN, 10/XII/1930]; DEI. • AUBERT 1956b:439. Type lost. • JEWETT 1959a:151, fig. 4 (♀, right wings). **Santa Catarina**. • ILLIES 1966:344. • {*Kempnyia*} FROEHLICH 1988:154; figs. 9-22 (♂: penis from 2 specimens, lateral, ventral, dorsal; st9; t10; paraproct; detail of t10; ♀: terminalia

ventral and lateral; st9; t10). **Santa Catarina; Paraná; São Paulo**. • PETERSEN & GAEDIKE 1968:965. Holotype destroyed. • STARK 2001b:413, figs. 27-31 (♂: terminalia dorsal, st9, penis dorsal, lateral ventral). • BISPO & FROEHLICH 2004b:110. **São Paulo**.

flava Klapálek 1916:72. Syntypes, 2♀: **BRAZIL: Espírito Santo** [FRUHSTORFER]; Vienna; Berlin, lost. • JEWETT 1960b:176, fig. 7, 7A, 7B (right wings, penis). ♀ syntype of Vienna designated as lectotype i.l.; ♂ allotype invalid. **Rio de Janeiro**. • ILLIES 1966:340. • ZWICK 1972a:1167, fig. 9d (♀, outline of subgenital plate; st9; t10). Lectotype designated. • ZWICK 1973b:276. • FROEHLICH 1988:153, figs. 1-4 (♂, penis lateral, ventral, dorsal; paraproct). **Rio de Janeiro; São Paulo**. • BISPO & FROEHLICH 2004b:109.

fulvata {Nedanta} (NAVÁS 1932c):88. Holotype, ♀: **BRAZIL: Santa Catarina**, Boiteuxburgo, 800 m [P. MISSFELDT, 1929-1930]; Hamburg. AUBERT 1956b:439. Type lost. • JEWETT 1959a:150. **Synonym** of *Nedanta fusca*. • JEWETT 1960b:176. **Synonym** of *Kempnyia klugii*. • WEIDNER 1962:108. Holotype in Hamburg. • ILLIES 1966:340. **Synonym** of *Kempnyia klugii*. • ZWICK 1972a:1169. ?**Synonym** of *K. neotropica*.

fusca {Nedanta} (NAVÁS 1932c):86, fig. 11 (♂, terminalia dorsal, subgenital plate lateral; ♀, terminalia ventral and dorsal). Syntypes, ♂, ♀: **BRAZIL: Santa Catarina**, Boiteuxburgo, 800 m [P. MISSFELDT, 1929-1930]; Hamburg. • {*Kempnyia*} JEWETT 1959a:150, figs 3, 3A, 3B (penis dorsal, lateral; right wings). **Santa Catarina** (mixed material, in part *K. neotropica*, *fide* ZWICK 1972a). • JEWETT 1960b:177. **Synonym** of *Kempnyia klugii*. • WEIDNER 1962:108. Two syntypes in Hamburg. • ILLIES 1966:340. **Synonym** of *Kempnyia klugii*. • ZWICK 1972a:1169. **Synonym** of *K. neotropica*. *varia* {Nedanta} NAVÁS 1932c:88. *Ad interim* name for the female of *Nedanta fusca* NAVÁS. No taxonomic status.

goiana BISPO & FROEHLICH 2004a:5, figs. 10-16 (♂: st9, t10, detail of t10, paraproct, penis dorsal, ventral, lateral). Holotype, ♂: **BRAZIL: Goiás**, Pirenópolis,

Córrego Inferno [LG OLIVEIRA, 09/X/1993]; São Paulo. Paratypes: 6♂.

gracilenta {*Acroneuria*} (ENDERLEIN 1909b):397. Holotype, ♂: BRAZIL: Espírito Santo [H. FRUHSTORFER]; Warsaw. • {*Eutactophlebia*} Klapálek 1916:67. • JEWETT 1960b:175, figs. 6, 6A, 6B, 6C (right wings; ♂: penis; ♀: terminalia ventral). Fig. 6D (♀ terminalia) does not refer to this species, *fide* FROEHLICH 1984a. Rio de Janeiro. • ILLIES 1966:332. • ZWICK 1973a:490, figs. 32-39 (partim, figs. 32-34 refer to *K. serrana*, *fide* FROEHLICH 1984a) (terminalia dorsal, st9, penis ventral, dorsal, lateral). • {*Kempnyia*} ZWICK 1983:179. • FROEHLICH 1984a:137, figs. 1-3 (♀, st8-9, t10). São Paulo.

guassu FROEHLICH 1988:158, figs. 23-33 (♂: st9; t10; detail of t10; paraproct; detail of paraproct; penis lateral, ventral, dorsal; ♀: terminalia ventral; st9; t10). Holotype, ♂: BRAZIL: Rio de Janeiro; Rodovia Petrópolis-Teresópolis Km 17 [O.S. FLINT, 19/IV/1977]; São Paulo. Paratype: 1♀.

jatim FROEHLICH 1988:169, figs. 79-90 (♂: st9; abdominal segment 9 lateral; t10; detail of t10; paraproct; penis lateral, dorsal, ventral; ♀: st8; st9; t10). Holotype ♂: BRAZIL: São Paulo; Guaratinguetá, Eng. Eugênio Lefèvre [Exped. Mus. Zool., 22-25/I/1963]; São Paulo. Paratypes: 4♂, 1♀. Additional material, Rio de Janeiro.

klugii {*Perla (Perla)*} (PICTET 1841):267; pl. 25, figs. 1-2 (habitus, wings closed, wings expanded). Holotype, ♂: BRAZIL [VON OLFERS]; Berlin. • {*Kempnyia*} Klapálek 1916 (nec PICTET 1841, *fide* ZWICK 1972a):49, 69. • JEWETT 1960b (nec PICTET 1841, *fide* ZWICK 1972a):176. • ILLIES 1966:340. • ZWICK 1972a:1167, figs. 7f-7k (♂ holotype: penis dorsal, lateral, ventral; st9; t10; paraproct). • ZWICK 1973b:276.

melagona Klapálek 1916:51, 71. Holotype, ♂: BRAZIL: Rio de Janeiro, Petrópolis; Helsinki, now Prague. • ILLIES 1966:340. • ZWICK 1972a:1168. *Nomen dubium*. • ZWICK 1988:140. *Synonym* of *Kempnyia neotropica*.

mirim FROEHLICH 1984a:140, figs. 7-16 (♂: head and pronotum; right wings; penis lateral, ventral, dorsal. ♀: head and pronotum, 2 specimens; st8-9, t10). Holotype, ♂: BRAZIL: São Paulo, Santo André, Estação Biológica de Paranapiacaba [CG FROEHLICH, 27/XI/1963]; São Paulo. Paratypes: 6♀.

neotropica {*Perla*} (JACOBSON & BIANCHI 1905):617. *Nomen novum* for *Perla (Perla) obscura* PICTET 1841 (*Nomen praeoccupatum*). • ILLIES 1966:505. Possibly an *Anacroneuria*; *nomen dubium*. • {*Kempnyia*} ZWICK 1972a:1168, figs. 8a-8g (♂ holotype: penis; paraproct; t10; other ♂, penis, t10; ♀: outline of subgenital plate; st9; t10). • ZWICK 1973b:276. • BISPO & FROEHLICH 2004a:2. BRAZIL: Goiás. • BISPO & FROEHLICH 2004b:107. São Paulo. • BISPO & FROEHLICH 2008:62, figs. 1-14 (nymph: head and pronotum, forefemur, details of cercus; male: head and pronotum, sternum 9, tergum 10, pegg-like hairs of tergum 10, paraproct, penis lateral, ventral, dorsal, spiny patch of penis tube; female: sternum 8). São Paulo, Minas Gerais, Goiás.

atterima {*Macrogynoplax*} Klapálek 1916:54, 73. • ZWICK 1972a:1168. *Synonym* of *Kempnyia neotropica*.

fulvata {*Nedanta*} (NAVÁS 1932c). • ZWICK 1972a:169. *Synonym* of *K. neotropica*.

fusca {*Nedanta*} (NAVÁS 1932c). • ZWICK 1972a:1169. *Synonym* of *K. neotropica*.

melagona Klapálek 1916:51, 71. • ZWICK 1988:140. *Synonym* of *Kempnyia neotropica*.

obscura {*Perla (Perla)*} PICTET 1841:269; pl. 28, figs. 1-4 (habitus, wings closed, wings expanded, leg, right fore wing). Holotype, ♂: BRAZIL [SELLO]; Berlin. • JACOBSON & BIANCHI 1905:617. Nec *Perla obscura* ZETTERSTEDT 1840; *Perla neotropica* nom. nov.

obtusa Klapálek 1916:51, 70. Holotype, ♂: [BRAZIL]: "Helm"; Vienna. • JEWETT 1960b:177. Rio de Janeiro. • ILLIES 1966:340. • ZWICK 1972a:1171, figs. 8h-8j (♂ holotype: penis ventral, lateral, dorsal; paraproct; t10). • ZWICK 1973b:277. • FROEHLICH 1988:153, figs. 5-8 (♀, st8-9, t10, terminalia lateral). Rio de Janeiro; São Paulo; Minas Gerais.

oliveirai BISPO & FROEHLICH 2004a:3, figs. 1-9 (♂: st9,

t10, detail of t10, paraproct, penis dorsal, ventral, lateral; ♀: st8, st9). Holotype, ♂: **BRAZIL: Goiás**, Pirenópolis, Córrego Inferno [LG OLIVEIRA, 08/IX/1993]; São Paulo. Paratypes: 2♂, 17♀. • BISPO & FROEHЛИCH 2007:214.

petropolitana {*Collampla*} (NAVÁS 1929b):78, fig. 21 (head and pronotum, left hind wing, terminalia ventral). Holotype, ♀: **BRAZIL: Rio de Janeiro**, Petrópolis [FR. OHAUS, I/1905]; Hamburg. • WEIDNER 1962:107. Holotype in Hamburg. • {*Eutactophlebia*} ILLIES 1966:332. • {*Kempnyia*} ZWICK 1983:179.

petersorum FROEHЛИCH 1996:119, figs. 9-15 (♂: head and pronotum; st9; t10; detail of t10; penis lateral, dorsal, ventral). Holotype, ♂: **BRAZIL: São Paulo**, Iporanga, Parque Estadual Intervales [E. TRAJANO, 07/II/1989]; São Paulo. Paratypes: 4♂, Paraná. • BISPO & FROEHЛИCH 2004b:110.

reichardti FROEHЛИCH 1984a:143, figs. 17-25 (♂: penis of two specimens, lateral, ventral, dorsal; ♀: st8-9, t10). Holotype, ♂: **BRAZIL: Minas Gerais**, Serra do Caraça, 1380 m [KLOSS, LENKO, MARTINS, SILVA, XI/1961]; São Paulo. Paratypes: 3♂, 2♀, Minas Gerais.

remota {*Neoperla*} (BANKS 1920):321, fig 70 (♀, subgenital plate). Holotype, ♀: **BRAZIL: Rio de Janeiro**, New Freiburg [Nova Friburgo] [BESCKE]; MCZ. • ILLIES 1966:491. *Species inquirenda*. • {*Kempnyia*} STARK 2001b:415.

reticulata {*Eutactophlebia*} (KLAPÁLEK) 1916:46, 66. Syntypes, 3♂: **BRAZIL: Espírito Santo**; Prague. • ILLIES 1966:333. • {*Kempnyia*} ZWICK 1983:177, figs 1-4 (♂ lectotype: penis lateral and dorsal, terminalia dorsal, st9). Extant ♂ syntype designated as lectotype.

calabriae JOOST 1980:73, figs. 1-4. • ZWICK 1983:177. *Synonym* of *Kempnyia reticulata*.

sazimai FROEHЛИCH 1988:163, figs. 58-66 (♂, st9, t10, detail of t10; paraproct; detail of paraproct; spinose patch of penis; penis lateral, ventral, dorsal). Holotype, ♂: **BRAZIL: Minas Gerais**, Serra do Cipó, Km 120 on road to Conceição do

Mato Dentro [I SAZIMA, 4/XI/1971]; São Paulo.

serrana {*Diperla*} (NAVÁS 1936):729, fig. 17 [right fore wing]. Holotype, ♂ (not ♀, as stated by NAVÁS): **BRAZIL: Rio de Janeiro**, Serra de Macaé [E. GARBE, 29/X/1909]; São Paulo. • AUBERT 1956b:439. Type in São Paulo. • ILLIES 1966:476. Perhaps an *Eutactophlebia*; *species inquirenda*. • {*Eutactophlebia*} FROEHЛИCH 1979:70. • {*Kempnyia*} ZWICK 1983:179. • FROEHЛИCH 1984a:139, figs. 4-6 (♂ holotype: penis lateral, ventral, dorsal). *gracilenta*; {*Eutactophlebia*} ZWICK 1973a:490 (*partim*: ♂ from Espírito Santo, Santa Leopoldina, figs. 32-34, *fide* FROEHЛИCH 1984a).

sordida Klapálek 1916:52, 72. Holotype, ♀: **BRAZIL** [Shtt]; Vienna. • JEWETT 1960b:177. • ILLIES 1966:340. • ZWICK 1972a:1171, fig. 9e (♀ holotype: outline of subgenital plate, st9, t10). • ZWICK 1973b:277.

tamoya FROEHЛИCH 1984a:145, figs. 26-31 (♂: penis lateral, ventral, dorsal; putative ♀: st8-9, t10). Holotype, ♂: **BRAZIL: São Paulo**, Guaratinguetá, Eng. Eugênio Lefèvre, 1200 m [TRAVASSOS Fº, TRAVASSOS, RABELLO, DENTE, 26/X/1963]; São Paulo. Paratype: Putative ♀, São Paulo.

taunayi {*Perla*} (NAVÁS 1936):726. Holotype, ♀: **BRAZIL: Rio de Janeiro**, Serra de Macaé [GARBE, 29/XI/1909]; São Paulo. • AUBERT 1956b:440. Type in Zaragoza [no!, São Paulo]. • JEWETT 1960b:177. *Synonym* of *Kempnyia klugii*. • ILLIES 1966:340. As *synonym* of *Kempnyia klugii*. • *Species inquirenda*.

tenebrosa Klapálek 1916:50, 69. Syntypes: **BRAZIL: Rio de Janeiro**, Theresiopolis [Teresópolis], 1♂, 2♀, London; **Rio Grande do Sul** [STIEGELMAYR], 4♀ (2 extant), Vienna. • JEWETT 1960b:177. *Synonym* of *Kempnyia klugii*. • ILLIES 1966:340. As *synonym* of *Kempnyia klugii*. • KIMMINS 1970:351. ♀ lectotype and paralectotype (without abdomen) designated. • ZWICK 1972a: 1172, figs. 9a-9c (♂: penis dorsal, lateral, ventral from 2 specimens; ♀: outline of subgenital plate; st9; t10). *Species propria*. **BRAZIL: Santa Catarina; Rio de Janeiro**. • ZWICK 1973b:277.

tijucana DORVILLÉ & FROEHLICH 1997:178, figs. 1-9 (right wings; ♂: st9, t10, detail of t10, penis ventral, lateral, dorsal; ♀: st8-9, t10). Holotype, ♂: **BRAZIL: Rio de Janeiro**, Rio de Janeiro, Parque Nacional da Tijuca [LFM DORVILLÉ, 25/X/1992]; Rio de Janeiro. Paratypes: 6♂, 9♀. • DORVILLÉ & FROEHLICH 2001:387, figs. 1-5 (nymph: habitus, dorsal view, metathorax and basal abdomen ventral with gill PT3, abdominal st7-9, cercomeres, gill PT2).

umbrina FROEHLICH 1988:164, figs. 67-78 (♂: st9; t10; detail of t10; paraproct; spinose patch of penis; penis lateral, ventral, dorsal; ♀: st8; st9; t10). Holotype, ♂: **BRAZIL: Minas Gerais**; Serra do Cipó [CG FROEHLICH, 17/XII/1974]; São Paulo. Paratypes: 17♂, 6♀, **Rio de Janeiro; São Paulo**.

vanini FROEHLICH 1988:162, figs. 46-57 (♂: st9; t10; detail of t10; paraproct; spinose patch of penis; penis lateral, ventral, dorsal; ♀: terminalia lateral; st8; st9; t10). Holotype, ♂: **BRAZIL: São Paulo**; Salesópolis, Estação Biológica de Boracéia, Ribeirão Coruja [CG FROEHLICH, 26/I/1974]; São Paulo. Paratypes: 8♂, 2♀, **São Paulo; Minas Gerais**. • BISPO & FROEHLICH 2004b:2. Goiás.

varia {*Nedanta*} NAVÁS 1932c:88. *Ad interim* name for the female of *Nedanta fusca* NAVÁS. No taxonomic status.

varipes Klapálek 1916: 52, 71. Syntypes: ♂, ♀: **BRAZIL** [Shtt]; Vienna. • JEWETT 1960b: 178, figs. 8, 8A, 8B, 8C [right wings; ♂, penis; ♀, terminalia, ventral]. **BRAZIL: Rio de Janeiro**. The ♂ figured (figs. 8A, 8B) belongs to *K. neotropicica*, *fide* ZWICK 1972a. • ILLIES 1966: 341. • ZWICK 1972a: 1174, fig. 9f-g (♂, paraproct; t10). Lectotype, ♂, paralectotype, ♀, designated, both in bad conditions. • ZWICK 1973:277.

sp. FIORENTIN & CORSEUIL 1994:36, fig. 5 (habitus). **BRAZIL: Rio Grande do Sul**.

sp. A STARK 2001b:414, figs. 25-26, 59 (♀: head and pronotum, coronal line, st8-9). 11♀. **BRAZIL: Paraná**, Rio Marumbi.

Sp. B STARK 2001b:414. One ♀. **BRAZIL: Paraná**, Rio Marumbi.

Genus *Klapalekia* CLAASSEN

Klapalekia CLAASSEN 1936:622. • ILLIES 1966:343. *Anacroneuria*? • STARK 2001b:416, fig. 32 (♀, st8-9). Diagnosis, comments, species list. • STARK, FROEHLICH & ZUÑIGA 2009:126.

Distribution: Colombia.

Microplax Klapálek 1914:61, 69 [In key]. • Klapálek 1916:54, 74. Species typica, monotypy: *Microplax augusti-braueri* Klapálek. *Microplax*: *nomen praecoccupatum*.

Microplagia Klapálek 1917:114. *Nomen praecoccupatum*.

augustibraueri {*Microplax*} (Klapálek 1916):54, 74. Holotype, ♀: [COLOMBIA]: Bogotá; Berlin, now in Prague. • {*Klapalekia*} CLAASSEN 1936:622. • ILLIES 1966:343 • STARK 1991:189, figs. 1-5 (♀ holotype; terminalia ventral, vagina, egg).

Genus *Macrogynoplax* ENDERLEIN

Macrogynoplax Enderlein 1909b:391 [key], 403. Species typica, monotypy: *Macrogynoplax guayanensis* Enderlein. • Klapálek 1916:53, 72. Key to species • ILLIES 1966:344. • FROEHLICH 1984c:44, figs. 3-7 (head and pronotum, foreleg, mandible, maxilla, labium) • STARK & ZWICK 1989:248. Redefinition, key to species. • DORVILLÉ & FROEHLICH 1999:281, figs 1, 3, 7 (Nymph: head; pronotum; maxilla). • STARK 2001b:416, figs. 33-38, 60 (*M. spangleri*: head and pronotum; ♂: terminalia dorsal, st9, penis dorsal, ventral; ♀: st8-9; egg micropyle). Diagnosis, comments, species list. • RIBEIRO & RAFAEL 2007:18. Comments, key to adults of Amazonas State. • STARK, FROEHLICH & ZUÑIGA 2009:127.

Distribution: Northern South America to southeastern Brazil.

anae RIBEIRO & RAFAEL 2007:26, figs. 35-43 (terminalia dorsal, ventral; hammer ventral, lateral; paraproct; penis dorsal, ventral, lateral, caudal). Holotype, ♂: **BRAZIL: Amazonas**, Manaus, Reserva Ducke, Igarapé Ipiranga [JMF RIBEIRO, J VIDAL, 13-20/V/2003]; Manaus.

Paratypes: 3♂. • RIBEIRO, J.M.F.; MAGALHÃES, C.; RAFAEL, J.A.; HENRIQUES, A.L. 2009:34. Holotype in Manaus.

delicata RIBEIRO-FERREIRA & FROEHLICH 1999:134, figs. 1-6 (♂: st9; paraproct; penis lateral, dorsal, ventral; ♀: terminalia ventral). Holotype, ♂: **BRAZIL: Amazonas**, Manaus, Reserva Florestal Adolpho Ducke [UC BARBOSA, 02/I/1989]; Manaus. Paratype: 1♀. • RIBEIRO & RAFAEL 2007:19, figs. 1, 4-5, 9-17 (habitus, head and pronotum, wings; ♂: terminalia ventral and dorsal, st9, hammer, paraproct, penis dorsal, ventral, lateral; ♀: terminalia ventral). Male neotype designated. **Amazonas, Pará**. • RIBEIRO, J.M.F.; MAGALHÃES, C.; RAFAEL, J.A.; HENRIQUES, A.L. 2009:34. Neotype in Manaus.

marauiia FROEHLICH 2003. RIBEIRO & RAFAEL 2007:19.

Synonym of *M. delicata*.

flinti STARK 1996:321, figs. 10-13 (♂: st9; penis]. Holotype, ♂: **GUYANA**: Aramatani Creek, Dubulay Ranch, 5°39.4'N, 57°55.5'W [OS FLINT, 15-18/IV/1995]; NMNH. Paratype: ♂, same data as holotype.

geijskesii ZWICK 1989. In: STARK & ZWICK 1989:253, figs. 19-23 (♂: terminalia ventral and lateral, paraproct, penis dorsal, ventral, lateral). Holotype, ♂: **SURINAM**: Table Mountain, H. Bier Falls [DC GEIJSKES, 30/III/1958]; Leiden.

guayanensis ENDERLEIN 1909b:403. Holotype, ♀: **GUYANA**: Demerara [R HAENSCH, II-III/1904]; Warsaw. • ILLIES 1966:344. • ZWICK 1973a:488, figs. 24-31 (♂ holotype, *M. laticeps*: paraproct, st9, t10, penis lateral, dorsal, ventral. ♀ holotype, terminalia).

laticeps {*Neoperla*} (ENDERLEIN 1909b):410. Holotype, ♂: **BRAZIL: Pará**; Warsaw. • ILLIES 1966:487. Possibly an *Anacroneuria*. Species inquirenda. • ZWICK 1973a:488. **Synonym** of *Macrogynoplax guayanensis*.

kanuku STARK 1996:321, figs. 14-18 (♂: st9, penis. ♀: st8-9). Holotype ♂: **GUYANA**: Kumu River, Kanuku Mountains 3°15.9'N, 59°43.5'W [O.S. FLINT, 28-30/IV/1995]; NMNH. Paratype: 1♀,

same data as holotype.

marauiia FROEHLICH 2003:132, figs. 15-18 (head and pronotum, forewing, st8-9, egg). Holotype ♀: **BRAZIL: Amazonas**, Rio Marauiá [EJ FITTKAU, I/1963]; São Paulo. • RIBEIRO & RAFAEL 2007:19. **Synonym** of *M. delicata*.

matogrossensis BISPO & NEVES 2005 In: BISPO, P.C.; NEVES, C.O; FROEHLICH, C.G. 2005:4, figs. 8-14 (♂: head and pronotum, st9, penis lateral, ventral, dorsal; ♀: st9, egg). Holotype, ♂: **BRAZIL: Mato Grosso**, Jaciara, Córrego Tenente Amaral [CO NEVES, 27/XI/1999]; Cuiabá. Paratypes: 4♂, 7♀.

neblina STARK 1989. In: STARK & ZWICK 1989:248, figs. 1-9 (♂: head and pronotum, st9, penis lateral and dorsal, paraproct; ♀: st8-9. Putative nymph, head and pronotum, abdominal apex dorsal, thorax ventral, foreleg). Holotype ♂: **VENEZUELA: Amazonas**, Cerro de la Neblina, Camp VII, 1800m [PJ SPANGLER, PM SPANGLER, R FAITOUTE, 30/I-10/II/1985]; NMNH. Paratypes: 4♂, 1♀, 2 nymphs, Cerro de La Neblina.

poranga RIBEIRO-FERREIRA & FROEHLICH 1999:136, 138, figs. 14-18 (♂: st9; paraproct; penis ventral, dorsal, lateral). Holotype, ♂: **BRAZIL: Amazonas**; Manaus, Reserva Florestal Adolpho Ducke [AC RIBEIRO FERREIRA, 15/IV/1995]; Manaus, lost. • RIBEIRO & RAFAEL 2007:22, figs. 6, 18-25 (wings; ♂: terminalia ventral, dorsal, st.9, hammer, paraproct, penis dorsal, ventral, lateral). Neotype designated. • RIBEIRO, J.M.F.; MAGALHÃES, C.; RAFAEL, J.A.; HENRIQUES, A.L. 2009:35. Neotype in Manaus.

pulchra RIBEIRO-FERREIRA & FROEHLICH 1999:134, figs. 7-13 (♂: st9; penis lateral, ventral, dorsal; paraproct; ♀: terminalia, ventral; detail of inner sclerite). Holotype, ♂: **BRAZIL: Amazonas**; Manaus, Reserva Florestal Adolpho Ducke [AC RIBEIRO-FERREIRA, 25/III/1987]; Manaus. Paratypes: 1♂, 4♀. • RIBEIRO & RAFAEL 2007:23, figs. 2, 3, 7, 26-34 (habitus, ♂ and ♀; wings; ♂: terminalia ventral, dorsal, hammer ventral, lateral, paraproct, penis dorsal, ventral, lateral; ♀: terminalia ventral). • RIBEIRO, J.M.F.; MAGALHÃES,

C.; RAFAEL, J.A.; HENRIQUES, A.L. 2009:35. Holotype in Manaus.

spangleri STARK 1989. In: STARK & ZWICK 1989:251, figs. 10-18 (♂: head and pronotum, t10, paraproct, st9, penis; ♀, st8-9. Egg). Holotype, ♂: VENEZUELA: Amazonas, Cerro de la Neblina, Basecamp, 140m [PJ SPANGLER, PM SPANGLER, R FAITOUTE, W STEINER, 1-9/II/1985]; NMNH. Paratypes: 15♂, 22♀. Cerro de la Neblina. • STARK 2001b:416, figs. 33-38, 60 (head and pronotum; ♂: terminalia dorsal, st9, penis dorsal, ventral; ♀: st8-9; egg micropyle)

truncata STARK 1996:318, figs. 5-9 (♂: st9; paraproct; penis. ♀: st8-9). Holotype, ♂: PERU: Loreto; Río Nanay, 25 km SW Iquitos, 120 m, Callicebus Research Station [JB HEPPNER, 10-17/I/1980]; NMNH. Paratype: ♀.

veneranda FROEHLICH 1984b:39, figs. 1-13 (♂: st9, t10, detail of t10, paraprocts, terminalia, penis; ♀: head and pronotum, st8-9, t10). Holotype, ♂: BRAZIL: São Paulo, Salesópolis, Estação Biológica de Boracéia [HM CANTER, 2/XI/1968]; São Paulo. • FROEHLICH 1984b:43-48, figs. 3-7 (nymph: head and pronotum, foreleg, mandible, maxilla, labium). • BISPO & FROEHLICH 2004b:111.

yupanqui STARK 1996:318, figs. 1-4 (♂: st9; paraproct; penis ventral, lateral). Holotype, ♂: PERU: Madre de Dios, Río Tambopata, 30 km SW Maldonado, 290 m [JB HEPPNER, 21-25/X/1979]; NMNH.

CO-1 ZÚÑIGA & STARK 2007:102, Figs. 1-3 (head and pronotum, ♀ terminalia, egg). COLOMBIA: Caquetá, 1♀.

Genus *Nigroperla* ILLIES

Nigroperla ILLIES 1964b:224. Species typica, monotypy: *Nigroperla costalis* ILLIES. • ILLIES 1966:345. • STARK 2001b:417, figs 39-44, 61-62 (N. *costalis*: head and pronotum; ♂: terminalia dorsal, st9; penis ventral, dorsal; ♀: st8-9; egg, posterior pole, micropyle). Diagnosis, comments, species list. • STARK, FROEHLICH & ZUÑIGA 2009:129.

Distribution: Chile.

costalis ILLIES 1964b:225, figs. 14,16, 17 (distribution map; right wings; ♂: head and pronotum; foreleg; terminalia ventral; penis; ♀: terminalia ventral). Holotype, ♂: CHILE: VIII: Arauco, Contulmo, Fundo Palo Botado (38°02'S) [PEÑA, 1-3/II/1958]; DEI. Paratypes: VII (Maule); VIII: Ñuble, Concepción, Arauco. • ILLIES 1966:345. • JOOST 1976:206. VII: Cauquenes; VIII: Arauco. • STARK 2001b:417. VIII (Biobío), IX (La Araucanía), X (Los Lagos). • VERA 2005:8, figs. 1-9 (nymph: head and pronotum, mandibles, maxilla, labium, abdomen dorsal, legs, cercal segments; *Inconeuria*, nymph: maxilla, cercal segments, pronotum; *Pictetoperla*, nymph: maxilla, cercal segments, pronotum; *Kempnyella*, nymph: maxilla, cercal segments, pronotum). Key to Perlidae nymphs.

Genus *Onychoplax* Klapálek

Onychoplax Klapálek 1914:61, 68 [In key]. • Klapálek 1916:56, 75. Species typica: *Onychoplax limbatella* Klapálek 1916 (monotypy). BRAZIL? • ILLIES 1966:346. Comments. • STARK 2001b:419. Diagnosis. • STARK, FROEHLICH & ZUÑIGA 2009:129.

limbatella Klapálek 1916:56, 76. Holotype, ♀: BRAZIL? "Par."; Vienna. • ILLIES 1966:346. • FROEHLICH 2008:126, figs. 2-4 (holotype: head and pronotum, ♀ st 8).

Genus *Pictetoperla* ILLIES

Pictetoperla ILLIES 1964b:210. Species typica, original designation: *Perla gayi* PICTET 1841. • ILLIES 1966:349. • STARK 2001b:419, figs. 45-50, 53-56 (*P. gayi*: head and pronotum; ♂: terminalia dorsal, st9, penis ventral, dorsal; ♀: st8-9; egg, posterior pole, anterior pole. *P. repanda*: ♀ st9 and intersegmental microtrichia). Diagnosis, comments, species list. • STARK, FROEHLICH & ZUÑIGA 2009:131.

Distribution: Chile and Argentina, south from ca. 35°S.

brundini ILLIES 1964b:215, figs 7-8 (♀: head and pronotum, terminalia ventral; nymph: head, mandible, maxilla). Holotype, ♀: CHILE: X: Llanquihue, Río Petrohue, 41°10'S [BRUNDIN,

11/I/1959]; Illies. Paratypes: 9 nymphs, 1 mature. • WERNER 1965:232. **VIII: Curicó; X: Chiloé.** • STARK 2001b:414. ♀ **synonym** of *Kempnyella genualis*. • 2005:12. The nymph of ILLIES 1964b is *Pictetoperla*.

gayi {*Perla (Perla)*} (PICTET 1841):235; pl. 10, fig. 3 (habitus, wings expanded). Holotype, ♀: CHILE; Paris, lost. • BLANCHARD 1851:99, pl. 1, fig. 4 (habitus). **IV: Coquimbo.** • {*Macrogynoplax*} Klapálek 1916:73. • {*Pictetoperla*} ILLIES 1964b:212, figs. 2-6, 14 (right wings; ♂: habitus; head and prothorax; foreleg; terminalia ventral; penis tip; detail of penis. ♀: terminalia ventral. Nymph: habitus; head; mandible; maxilla. Distribution map). On both sides of the Andes, south from ca. 39°S. • WERNER 1965:232. **VII: Curicó; XI: Aisén.** • ILLIES 1966:349. • ZWICK 1972a:1174. • STARK 2001b:418-420, figs. 45-50, 53-54 (head and pronotum; ♂: terminalia dorsal, st9, penis ventral, dorsal; ♀: st8-9; egg, posterior pole, anterior pole). • VERA 2005:8, figs 7c, 8c, 9c (nymph: maxilla, pronotum, cercal segments). **X (Los Lagos).** • MISERENDINO & PIZZOLÓN 2003:538. **ARGENTINA: Río Negro, Chubut.**

lacarina {*Neoperla*} (NAVÁS 1918):82. Syntypes: ♂, ♀: ARGENTINA: Neuquén, Lago Lacar [III/1898]. **Río Negro**, Río Caleufú [BRUCH, 1898]; La Plata, Navás. • AUBERT 1956b:440. Type in Buenos Aires (i.e., La Plata). • ILLIES 1964b:212. **Synonym** of *Pictetoperla gayi*.

magellanica {*Kempnyia*} (Klapálek 1916):69. CHILE: **XII: Magallanes**, Straits of Magellan [S.M.S. Alert, 24/II/1879]; London. • ILLIES 1964b:212. **Synonym** of *Pictetoperla gayi*. • KIMMINS 1970:345. ♂ holotype in London.

nahuelina {*Neoperla*} (NAVÁS 1918):83. Holotype, ♀: ARGENTINA: **Río Negro**; Nahuel Huapí [BRUCH, II/1898]; La Plata. • AUBERT 1956b:441. Type in Buenos Aires (i.e., La Plata)• ILLIES 1964b:212. **Synonym** of *Pictetoperla gayi*.

repanda {*Perla*} (BANKS 1920):320; pl. 4, figs. 46-47 (base of forewing; ♂ terminalia ventral). Holotype, ♂: CHILE [Hagen]; MCZ. • {*Pictetoperla*} ILLIES 1964b:217, figs. 9-10 (♂ holotype: terminalia ventral, detail of penis; ♀: terminalia ventral; nymph: head; mandible;

maxilla); CHILE and ARGENTINA, on higher parts of the Andes, from 33° to 45°S. • ILLIES 1966:350. • JOOST 1976:206. CHILE: **VII: Cauquenes.** • STARK 2001b:420, figs. 55-56 (♀ st9, intersegmental microtrichia).

Fossils

Gripopterygidae

†**Euxenoperlinae** RIEK 1976

†**Euxenoperlinae** RIEK 1976: 766

Genus ***Gondwanoperlidium*** PINTO & PURPER 1978

†***Gondwanoperlidium*** PINTO & PURPER 1978:79. Species typica, original designation: *Gondwanoperlidium argentinarum* PINTO & PURPER. **Distribution:** Argentina: Mendoza, Potrerillos Formation, Cacheuta Group, Upper Triassic.

argentinarum PINTO & PURPER 1978:80, Pl. I, fig. 3; Pl II, fig. 1 (distal half of forewing). Holotype: **ARGENTINA: Mendoza**, 14 km W Mendoza, Potrerillos Formation, Cacheuta Group, Upper Triassic; La Plata.

mendozensis PINTO & PURPER 1978:81, Pl. I, fig. 4; Pl II, fig. 2 (distal half of forewing). Holotype: **ARGENTINA: Mendoza**, 14 km W Mendoza, Potrerillos Formation, Cacheuta Group, Upper Triassic; Cordoba.

Genus †***Argentinoperlidium*** MARTINS-NETO & GALLEGOS 2003:236. Species typica, original designation: *Argentinoperlidium rogersi* MARTINS-NETO & GALLEGOS.

Distribution: Argentina, Mendoza.

rogersi MARTINS-NETO & GALLEGOS 2003:236, fig. 2E (wing fragment). Holotype: **ARGENTINA: Mendoza**, Cerro Cacheuta; Potrerillos Formation, late Middle Triassic to early Late Triassic. La Plata.

Perlapsocidae

Perlapsocidae PINTO & PIÑEIRO 2000:92

Genus †*Perlapsocus* PINTO & PIÑEIRO 2000:94.

Species typica, original designation: *Perlapsocus formosoi* PINTO & PIÑEIRO.

Distribution: Uruguay.

formosoi PINTO & PIÑEIRO 2000:94, figs. 4B1, 5, 7 (fore wing). Holotype: URUGUAY: Cerro Largo, Estancia "El Baron". Mangrullo Member, Melo Formation, Permian.

Perlidae

Anacroneuriinae

Genus †*Dominiperla* STARK & LENTZ 1992:94. Species typica, monotypy, *Dominiperla antigua* STARK.

Distribution: Dominican amber.

antigua STARK & LENTZ 1992:95, figs. 1-5 (fore wing, details of fore wings, ♀ terminalia ventral). Holotype, ♀: Dominican amber, exact locality unknown. NMNH.

Acroneuriinae?

Genus †*Euperlida* CIFUENTES-RUIZ 2007:674. Species typica, monotypy, *Euperlida parvicercifera* CIFUENTES-RUIZ.

Distribution: Oligocene Coatzingo Formation, Puebla, Mexico.

parvicercifera CIFUENTES-RUIZ 2007:674, fig. 2 (photograph and reconstruction).

Nomina nuda/oblita

Nemoura rufescens BLANCHARD 1851:102, pl. 1, fig. 5 (habitus). Holotype: CHILE: XIV: Valdivia; VIII: San Carlos. • AUBERT 1960:60. *Nomen nudum*. • ILLIES 1961:99. *Nomen nudum*. • ILLIES 1966:472. *Nomen oblitum*.

Perla infuscata BLANCHARD 1851 (nec NEWMAN 1838). In GAY, Historia Fisica y Politica de Chile, Zoologia 6:100. CHILE: XIV: Valdivia. *Nomen nudum*.

praeoccupatum.

Perla blanchardi JACOBSON & BIANCHI 1905:617. Nom. nov. for *Perla infuscata* BLANCHARD. • ILLIES 1964b:209. *Nomen nudum*. • ILLIES 1966:498. *Nomen oblitum*.

Perla lineatocollis BLANCHARD 1851. In GAY, Historia Fisica y Politica de Chile, Zoologia 6:101. CHILE. • (*lineaticollis*); ILLIES 1964b:209. *Nomen nudum*. • ILLIES 1966:504. On account of the small body size, probably not a Perlidae. *Nomen dubium*.

Perla mexicana GUÉRIN 1838:394. MEXICO; missing. • ILLIES 1966:505. Possibly an *Anacroneuria*. *Nomen oblitum*. • STARK & KONDRATIEFF 2004:1. A species that cannot be recognized.

Perla stictica BLANCHARD 1851. In GAY, Historia Fisica y Politica de Chile, Zoologia 6:100. CHILE: XIV: Valdivia. • ILLIES 1964b:209. *Nomen nudum*. • ILLIES 1966:508. On account of the small body size, probably not a Perlidae. *Nomen dubium*.

Appendix

NAVÁS' secondary citations

Diamphipnoa virescentipennis; NAVÁS 1930b. CHILE: Panguipulli [PIRIÓN, 01/XII/1929].

Gripopteryx Jaffueli; NAVÁS 1930b:353. CHILE: Panguipulli [01/I/1930; Long Long [01/1/1930]; Cunco [02/I/1930]; Marga Marga [X/1927] [PIRÓN].

Gripopteryx neofriburgensis; NAVÁS 1926d:331. [CHILE]: Talca [H. Flaminio, II].

Gripopteryx Panguipulli; NAVÁS 1930b:354. [CHILE]: Panguipulli [PIRÓN, 01-09/I/1930].

Gripopteryx tessellata; NAVÁS 1934b:163. CHILE: Santiago [A FAZ, XII/1925].

Klapopteryx armillata; NAVÁS 1930b:355. [CHILE]: Panguipulli [PIRÓN, 29/XI/1929].

Macrogynoplax Gayi BLANCH.; NAVÁS 1930b:355. [CHILE]: Long Long [PIRÓN, 10/I/1930].

Nemura Pirioni; NAVÁS 1930b:356. [CHILE]: Concepción [PIRÓN, X/1927].

Neonemura Barrosi; NAVÁS 1929c:23. CHILE: [Maule], Panimávida.

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