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Nomenclatural and systematic changes in the Neotropical caddisflies (Insecta: Trichoptera)

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Recent work on a catalog of the Neotropical caddisflies has resulted in the recognition of the need to make numerous lectotype designations, new names for homonyms, specific and generic synonymies, transfers of species between genera and genera between families, and placement of many long ignored names of Müller and others. Rationales are presented for all actions, many of which had been known for years as the result of examination of types, but no opportunity had arisen to publish them, others became apparent as a result of the cataloging. This opportunity is taken to present all of those known to us to avoid having them hidden in a general catalog. They are presented alphabetically by family and then alphabetically by the name of the species or genus requiring action. Acronyms of museums and collections cited in the text are detailed in the Acknowledgments.

Family Calamoceratidae

Murielia Hogue and Denning, in Denning, *et al.* 1983, synonym of *Phylloicus* Müller 1880a, **new synonymy**.

When *Murielia* was erected, *Phylloicus farri* Flint was designated type species. *Phylloicus farri* is a true species of *Phylloicus* and thus the genus

Murielia falls into synonymy. *Phylloicus farri*, however, does not belong to the same generic group as the other two species currently placed in *Murielia*.

acutiterga, *Murielia*, Denning and Hogue, in Denning, *et al.* 1983, transferred to *Banyallarga* Navás 1916. Correct name: *Banyallarga acutiterga* (Denning and Hogue), **new combination**.

The synonymy of *Murielia* results in the need to place its included species in other genera. This species, known to us in all stages, is a rather distinctive species of *Banyallarga*.

fortuna, *Murielia*, Resh, in Denning, *et al.* 1983, transferred to *Banyallarga* Navás 1916. Correct name: *Banyallarga fortuna* (Resh), **new combination**.

As with *B. acutiterga*, this species also is correctly placed in the genus *Banyallarga*.

Family Ecnomidae

Chilocentropus Navás 1934. Type species: *Chilocentropus disparilis* Navás (original designation). Transferred to Ecnomidae, **new placement**.

The true position of this enigmatic genus is very problematical. Navás provided a figure of the fore- and hindwing venation with the original description, but the sex and the disposition of the type were not stated (the assumption is that it remained in Navás' personal collection and has subsequently been destroyed). It was stated to be similar to the Nearctic genus *Phylocentropus*, but the venation, especially of the hindwing, is not congruent. Only two genera of psychomyoids (s.l.) are known from Chile: *Polycentropus* and *Austrotinodes*. The genus *Polycentropus* has fork 1 present in the hindwing, at least in the Chilean species: this is lacking in the figure of Navás. The hindwing venation matches that of *Austrotinodes* perfectly. The forewing venation as shown is very peculiar, with 3 veins, all forked, arising from Rs, and M with only a single fork. Nothing is known with this type venation. It seems most probable that he somehow connected the anterior branch of M to Rs. The apical fork of R2+3 could also have been another misinterpretation, this time of the apical fork of R1 in *Austrotinodes*. If one thus mentally rearranges the connections of the forewing forks, the total venation then agrees with *Austrotinodes* as does the given size and coloration. However, lacking any real proof of this scenario, we refrain from a formal synonymy, but do transfer the genus to the Ecnomidae in the proximity of *Austrotinodes*.

Family Glossosomatidae

Antoptila Mosely 1939, synonym of *Itauara* Müller 1888, **new synonymy**.

The name *Itauara* was first used by Müller in 1888 without included species or illustrations, but later (1921, fig. 173 lower) he gave a surprisingly accurate figure of the forewing venation of the female *Itauara*. Four genera of protoptiline glossosomatids are currently recognized from southeastern Brazil: *Antoptila*, *Canoptila*, *Mexitrichia*, and *Protoptila*. The venation of *Itauara* matches almost perfectly that of *Antoptila* and none of the others, as already noted by Ulmer (1957). All the figures and descriptions of cases and larval parts in the various works of Müller are of some protoptiline and fully compatible with, but not diagnostic for, *Antoptila*. We thus synonymize the two genera. No species has ever been placed in *Itauara*; we transfer the species *I. brasiliensis* (Mosely), *I. plaumanni* (Flint), *I. guarani* (Angrisano), and *I. amazonica* (Flint) to *Itauara* (all

new combinations), and designate *Antoptila brasiliensis* Mosely, the type species of *Antoptila* (original designation) as type species of *Itauara*.

armata, *Paraprotoptila*, Jacquemart 1963, transferred to *Mexitrichia* Mosely 1937. Correct name: *Mexitrichia armata* (Jacquemart), **new combination**.

The generic synonymy proposed below results in the transfer of *P. armata* to *Mexitrichia*. Although no species is currently known from the region whose genitalia match the original figures, we have no hesitation in making the transfer.

Paraprotoptila Jacquemart 1963, synonym of *Mexitrichia* Mosely 1937, **new synonymy**.

The putative type of *Paraprotoptila armata* Jacquemart was borrowed by Flint from IRSNB. A single slide, with mounting medium almost black, was sent: it is labelled to the left "S. Jacquemart det., 196 *Paraprotoptila armata* sp.n. [on the bottom right corner of this label, a small red label] TYPE", and to the right "S. Jacquemart det., 196 Argentine Rib sasso 11-IV-1959 I.G. 22893". Flint searched the slide repeatedly both under dissecting and compound microscopes, including any medium that had oozed out around the cover slip, without finding recognizable remains. The original figures of the genitalia are typical of many species of *Mexitrichia*, which is also reasonable on zoogeographic grounds.

primerana, *Rhiacophila* [sic], Weyenbergh 1881, transferred to *Protoptila* Banks 1904. Correct name: *Protoptila primerana* (Weyenbergh), **new combination**.

Weyenbergh's description of the larva, pupa and case of *R. primerana* is almost assuredly that of a protoptiline glossosomatid, as was also concluded by Ulmer (1957, p. 156). The figures of the larva (fig. 5), case (figs. 3, 4), and apex of the abdomen (fig. 10) are all typical of glossosomatids. The figures of the head (fig. 9), larva in case (fig. 8) and wings (fig. 13) are all pure fantasy. His given length of the larva, 6 mm, and length of ♂, 4 mm, ♀, 5 mm, are also concordant with a protoptiline, but the wingspreads of the ♂, 14 mm, ♀, 16 mm are out of proportion (perhaps the 1 was inserted before the 4 and 6 by the printer). In all the records Flint has of caddisflies from Córdoba, the only glossosomatid is *Protoptila dubitans* Mosely. Lacking any typical material we hesitate to synonymize the two species, but do place

R. primerana in the genus *Protoptila* where it most likely belongs.

Family Hydrobiosidae

Australochorema Schmid 1955b, synonym of *Apatanodes* Navás 1934, **new synonymy**.

Navás' (1934) figures of *Apatanodes sociata* are surprisingly good; the wing venation agrees with *Australochorema rectispinum* Schmid, the type species of *Australochorema* (original designation), in the forking of the veins and their relative lengths, and the figures of the male genitalia are fully compatible with species more recently described in the genus.

brachytergum, *Australochorema*, Flint 1974, transferred to *Apatanodes* Navás 1934. Correct name: *Apatanodes brachytergum* (Flint), **new combination**.

The synonymy of *Australochorema* under *Apatanodes*, necessitates transfer of the species *Au. brachytergum*.

falina, *Atopsyche*, Ross & King 1952, synonym of *A. spinosa* (Navás 1930b). Correct name: *Atopsyche* (*Atopsaura*) *spinosa* (Navás), **new synonymy**.

The male type of *Ventrarma spinosa* was found at UNLP. The abdomen was cleared and compared to the figures of the type of *A. falina* and found to agree in all respects. The type locality of *A. spinosa*, at the mouth of the delta of the Río de la Plata, is most likely erroneous, as the species is otherwise known only from the eastern foothills of the Andes in northwestern Argentina.

rectispinum, *Australochorema*, Schmid 1955b, synonym of *Apatanodes sociata* Navás 1934. Correct name: *Apatanodes sociata* Navás, **new synonymy**.

The figures of the species by Navás are unusually good; the wing venation agrees with *Australochorema*, and the figures of the male genitalia easily match any number of specimens of uncleared males of *A. rectispinum* in the NMNH. No type has been found of the Navás species in the Navás material at CSZ or MZBS when these collections were searched in 1974, but a syntype may yet turn up in some unexpected site.

schmidi, *Atopsyche*, Sykora 1991, junior homonym of *Atopsyche schmidi* Denning 1965, here renamed: *Atopsyche onorei* Sykora, **nomen novum**.

Atopsyche schmidi Denning was synonymized with *A. callosa* (Navás) by Flint in 1975. As a consequence, the prior use of the name was overlooked by Sykora in 1991. The authorship of the replacement name is to be credited to Dr. Sykora who requested it be renamed *Atopsyche onorei* in honor of the entomologist Dr. Giovanni Onore of the Universidad Católica del Ecuador who participated in the expeditions of the Carnegie Museum of Natural History to Ecuador whereby the type material was collected.

Family Hydropsychidae

bohio, *Hydropsyche*, Botosaneanu 1991, transferred to *Calosopsyche* Ross and Unzicker 1977. Correct name: *Calosopsyche bohio* (Botosaneanu), **new combination**.

The generic systematics of *Hydropsyche* and related genera is still unsettled and controversial. However, until a good worldwide review appears, we prefer to keep closely related species in one recognizable generic level taxon (assuming it already has a name) rather than have them scattered through several such taxa. For this reason this species is transferred to *Calosopsyche* where its most closely related species are to be found.

Chiasmodes Navás 1920, synonym of *Synoestropsis* Ulmer 1905a, **new synonymy**.

The only characteristic distinguishing *Chiasmodes* from *Synoestropsis* was the fusion of Rs with M for a short distance in the forewing. This condition has been seen in a number of examples of *Synoestropsis*, and represents an individual variation of no generic significance.

domingensis, *Hydropsyche*, Banks 1941, transferred to *Calosopsyche* Ross and Unzicker 1977. Correct name: *Calosopsyche domingensis* (Banks), **new combination**.

This species has had a varied generic history: described in *Hydropsyche*, transferred to *Plectropsyche* by Ross and Unzicker 1977, returned to *Hydropsyche* by Botosaneanu 1996, and now transferred to *Calosopsyche*. Now that more is known (the immature stages) of *Plectropsyche*, it is clear that this genus is very close to *Cheumatopsyche*;

C. domingensis is clearly in the *Hydropsyche* lineage. Because the phallus of *C. domingensis* is virtually identical to those species in *Calosopsyche*, we are placing the species in this genus. However, we wish to emphasize that the species is very distinctive and may need its own genus if detailed generic studies on the world fauna substantiate the division of the genus to any degree.

ecliptica, *Chiasmodes*, Navás 1920, transferred to *Synoestropsis* Ulmer 1905a. Correct name: *Synoestropsis ecliptica* (Navás), **new combination**.

The synonymy of *Chiasmodes*, for which *C. ecliptica* is the type species (original designation), results in the need to place its included species in other genera. This species, is clearly a member of the genus *Synoestropsis*, and quite probably the same as *S. vitrea* Navás. The type specimen, however, has not been found and we hesitate to make a formal synonymy without seeing it.

ferrugineum, *Centromacronema*, Bueno 1986, junior homonym of *Centromacronema ferrugineum* (Navás) 1924, here renamed: *Centromacronema oaxacensis* Bueno, **nomen novum**.

Leptonema ferrugineum Navás was transferred to *Centromacronema* by Mosely in 1933. The type has also been borrowed and studied by Flint; it is correctly placed in that genus, thus confirming Bueno's species as a homonym. The authorship of the replacement name is to be credited to Dr. Bueno who suggested it.

manicata, *Chiasmodes*, Navás 1920, transferred to *Synoestropsis* Ulmer 1905a. Correct name: *Synoestropsis manicata* (Navás), **new combination**.

This species is also clearly a member of the genus *Synoestropsis*, and may well be another synonym of *S. vitrea* Navás. Its type has not been found either and we hesitate to make the synonymy without seeing it.

parander, *Hydropsyche*, Botosaneanu 1996, transferred to *Streptopsyche* Ross and Unzicker 1977. Correct name: *Streptopsyche parander* (Botosaneanu), **new combination**.

For the reasons given under *C. bohio*, above, this species is also transferred to the generic entity which includes its closely related species, *S. antilles* Ross and Palmer and *S. davisorum* Ross and Unzicker.

Family Hydroptilidae

costaricensis, *Neotrichia*, Flint 1967, transferred to *Bredinia*, Flint 1968. Correct name: *Bredinia costaricensis* (Flint), **new combination**.

The genus *Bredinia* was erected by Flint (1968) for a species collected on the West Indian island of Dominica. The genus now contains an additional species from Grenada but several more are known from South and Central America (Harris and Flint, in preparation). The genus, in the adult stage, is characterized by the presence of a transverse suture on the mesoscutellum, a metascutellum as wide as the scutum and subrectangular, a tibial spur formula of 0,2,4, and a series of genitalic characteristics. In all these characters *B. costaricensis* agrees and is hereby transferred to the genus *Bredinia*.

Eutonella peltopsychoides Müller, 1921. Transferred to Hydroptilidae, **new placement**.

The monotypic genus *Eutonella* is only known from the figure of a pupal mandible. The mandible has an elongate blade with no serrations or teeth on its inner margin; Müller stated (1921, p. 532) that only the Hydroptilidae have mandibles without teeth, thereby implicitly placing the genus in the hydroptilids. Ulmer (1957, p. 316) associated this name with descriptions of unnamed cases in Müller's works of 1879b, 1880a, and 1880b. In the first paper, the case described could only be that of a leucotrichiine hydroptilid. In the second and third papers the cases described are also of the same nature, but he added that the pupa has spurs 2,4,4, and that the maxillary palpi and other [unspecified] characters prevented its placement in the Hydroptilidae but suggested it belongs to McLachlan's Section V of the Hydropsychidae. This section contains the genera of the Ecnomidae and Psychomyiidae. The former family has spurs 3,4,4, but the latter is usually 2,4,4. However, no Psychomyiidae are known from South America. It is our conjecture that he either miscounted spurs, or a specimen of some different taxon became mixed into his series leading to his suggested placement of the genus. Based on his descriptions of the cases we believe the genus belongs in the Hydroptilidae, tribe Leucotrichiini, a placement with which the figured pupal mandible could also agree.

Microsiphon Müller 1921, synonym of *Neotrichia* Morton 1905, **new synonymy**.

The genus *Microsiphon* was established by Müller in 1921, but without any included species, and none have ever been added. The name is preoccupied in 1907 by Del Guercio in the Homoptera: Aphididae, thus rendering it unavailable for the trichopteran in any case. In Müller's 1921 paper he cross-referenced the name to fig. 22 in his published works of 1880a and 1880b (the plate reference, LV, is probably a typo for IV in his 1880b paper). The figure of the larval head in 1921 and the cases in earlier years are all completely compatible with the synonymy under *Neotrichia*.

Family Kokiriidae

Rhynchopsyche fusca Schmid 1955b, synonym of *Pangullia faziana* Navás 1934. Correct name: *Pangullia faziana* Navás, **new synonymy**.

The genus *Pangullia* was originally placed in the Limnephilidae, and later tentatively transferred to the Hydrobiosidae (Schmid 1955b). The type of *P. faziana*, found in the collection of DEI, has been studied. It is labelled "Panguipulli 22.7.24", "Faz ded.27", "Panpullia [sic.] fazaniana [sic.] Nav. P. Navas S.J. det.", "Typus". It is a female, in fair condition and has been compared to examples heretofore known as *R. fusca* and seen to be identical in all details (the genitalia were not cleared as it was not deemed necessary). This results in both the generic and specific synonymy of Schmid's *Rhynchopsyche fusca*.

Family Leptoceridae

candida, *Leptocella*, Navás 1923a, secondary junior homonym of *Nectopsyche candida* (Hagen) 1861, here renamed: *Nectopsyche navasi* Holzenthal, **nomen novum**.

Many years ago Flint found and studied a specimen of Navás' *L. candida* in the MNHNP. It was labelled "Marga Marga (Chili) I.1919", "*Leptocella candida* Nav. P.Navás S.J.det", "MUSEUM PARIS LONGIN NAVAS LEGIT.19". Because the type locality was published as "Chile: Marga-Marga, Ian. 1919, P.Jaffuel leg." it was thought that this specimen was most likely part of the original type series that had been deposited in Paris. No types were found in the Navás collections at CSZ or MZBS when they were searched in 1974. Therefore, the specimen was labelled "LECTOTYPE ♀ *Leptocella candida* Nav. By Flint 78", but the

designation was never published, which is hereby done. This specimen automatically now becomes the holotype for *Nectopsyche navasi* Holzenthal, nomen novum for *Leptocella candida* Navás.

"grumichinha", Müller 1879a, suppressed as an unavailable vernacular name.

Müller in 1879a, p. 40 used the term "grumichinha" for a leptocerid and referenced it to figure 10 of his still unpublished work on Santa Catharinan caddisfly cases. However, he referred to it in the following manner "10. Grumichinha (d. h. kleine Grumicha)", the parenthetical phrase we interpret as "(that is, small Grumicha)". The ending -inha, being Portuguese for small and in agreement with his German statement, we interpret as producing a vernacular name and thus unavailable under the Code. Additional support for this interpretation comes from the fact that all the other generic names introduced in this paper are followed by "n.g.", i.e. new genus. Later in the same publication (1879a, p. 407) he introduced the "Gattung Grumichella m[ihi]" for the same taxon. This name has been in usage for several decades now and was selected by Holzenthal (1988) in the first revision of this generic taxon, this action also relegating "grumichinha" into synonymy under the First Revisor Principle of the Code.

lucipeta, *Leptocella*, Navás 1923b, synonym of *jenseni*, *Nectopsyche*, (Ulmer) 1905b. Correct name: *Nectopsyche jenseni* (Ulmer), **new synonymy**.

Flint found a topotypic example of *N. lucipeta* labelled "Typus" in the MACN. However, its date of collection "29-XII-25" was not included in the type series, so this is not the holotype. It, and many others from this and neighboring localities in Cordoba, Argentina, are all of the same species, *N. jenseni* which is the only species of the group known from this region. *N. lucipeta* is the name proposed by Navás for the female of the species.

mixta, *Leptocella*, Navás 1920, synonym of *jenseni*, *Nectopsyche*, (Ulmer) 1905b. Correct name: *Nectopsyche jenseni* (Ulmer), **new synonymy**.

The holotype of *N. mixta* was found by Flint in the MACN and compared to topotypic examples at the NMNH. Flint synonymized *N. mixta* with *N. punctata*, but we now believe, based on coloration and range, that *N. jenseni* and *N. punctata* are distinct, but very closely related, species. As a consequence, *N. mixta* is moved from the synonymy

with *N. punctata* to that of *N. jenseni* with which it is identical.

modesta, *Setodes*, Müller 1921, transferred to *Nectopsyche* Müller 1879a. Correct name: *Nectopsyche modesta* (Müller), **new combination**.

The name *Setodes modesta* was used by Müller (1921, fig. 186f) in a caption for a sketch of the fifth abdominal segment of the pupa. Ulmer (1955, p.32) referred to this species as "*Nectopsyche?* oder *Leptocella?* *modesta*". This equivocal statement did move the species out of *Setodes*, which is not found in the Neotropics, but left it ambiguously placed. The two genera mentioned by Ulmer are now considered synonymous, but, to place the species unequivocally, we take the above action. The illustration does appear to be that of some species of *Nectopsyche*, but beyond that it must remain a nomen dubium. Ulmer (1955) also doubtfully referred *Setodes?* sp. 3 of Müller (1879b, 1880a, 1880b) to this species, but there is no indication in any of these works that substantiates this assumption.

nivea, *Leptocella*, Navás 1920, secondary junior homonym of *Nectopsyche nivea* (Hagen 1861) [presently in the synonymy of *Nectopsyche albidula* (Walker)], here renamed: *Nectopsyche padrenavasi* Holzenthal, **nomen novum**.

Flint found examples from the type series of Navás' *L. nivea* in the MACN in the late 1970s. Most were nothing but bare pins, perhaps with pieces of thorax. The most valuable was a male with head, thorax and abdomen and left hindwing; the abdomen was cleared and stored in a microvial on the pin. This male was selected as lectotype, and it bears the labels: "Bolivia", "11866", "*Leptocella nivea* Nav. P.Navás S.J.det", "LECTOTYPE ♂ *Leptocella nivea* Nav. By Flint". This specimen automatically now becomes the holotype for *Nectopsyche padrenavasi* Holzenthal, nomen novum for *Leptocella nivea* Navás. The distinctive male genitalia in conjunction with the virtually white coloration permit specific identification of this species. The NMNH possess a short series of the species from near Manaus, Brazil, that is an excellent match in all characteristics.

pirioni, *Triplectides*, Navás 1935, synonym of *Hudsonema flaminii* (Navás 1926). Correct name: *Hudsonema flaminii* (Navás), **new synonymy**.

The figure of the forewing venation in the original description shows unequivocally that this

species is another synonym of *H. flaminii*, and does not belong in *Triplectides*.

Family Limnephilidae

extremus, *Limnophilus*, Navás 1932, synonym of *Verger appendiculatus* (Ulmer 1904). Correct name: *Verger appendiculatus* (Ulmer), **new synonymy**.

The type of *V. extremus* has not been found. However, with first-hand knowledge of the fauna around Punta Arenas, the type locality, Flint immediately recognized the description of the species and its genitalia as a male of the form of *V. appendiculatus*, dark with a few pale flecks in the forewing, which is predominant in the vicinity.

impluviata, *Phryganea*, Blanchard 1851, transferred to *Verger* Navás 1918a. Correct name: *Verger impluviatus* (Blanchard), **new combination**.

Phryganeids are lacking in the Neotropical Realm, yet the description and illustration of the type by Blanchard offers little to place the species firmly elsewhere in the present day classification. The coloration and size suggest either a species in the genus *Psilopsyche* in the Philorheithridae or *Verger* (especially *V. lutzi*) in the Limnephilidae. In support of the placement of the species in *Verger*, the following characters are pertinent: "protórax cubierto de pelos ásperos, como la cabeza", these segments are covered with very large, erect hairs in *Verger* (more slender and decumbent in *Psilopsyche*); "las piernas y los tarsos guarnecidos de espinas negras", the tarsal and tibial spines in *V. lutzi* are black, but the tibial spurs are pale as are all spines in *Psilopsyche*; the figure of the leg shows several spines between the two pairs of spurs, *Verger* has such, *Psilopsyche* does not; the size shown in the figure is typical of *V. lutzi* but quite a bit smaller than seen in most *Psilopsyche*. On the basis of this, admittedly, weak evidence, we transfer the species as a nomen dubium to the genus *Verger*, the only limnephilid genus where the described coloration is found.

latchani, *Psilopsyche*, Navás 1935, synonym of *Verger lutzi* (Navás 1918b). Correct name: *Verger lutzi* (Navás), **new synonymy**.

Although the type of *P. latchani* should be in the MNHNS, it is not (Camousseight, pers. comm.). However, the figure of the venation, size and description of the type could only apply to *V. lutzi*.

The venation is totally incompatible with *Psilopsyche* where it was originally placed.

limnophilus, *Magellomyia*, Schmid 1955b, synonym of *Verger vesperus* (Navás 1932). Correct name: *Verger vesperus* (Navás), **new synonymy**.

Flint has studied the type of *V. vesperus* found in MNHNP. It is a perfect match in color, size and female genitalia for examples of *V. limnophilus* in the NMNH collection from the same region of Chile.

lonquimayus, *Limnophilus*, Navás 1932, synonym of *Verger appendiculatus* (Ulmer 1904). Correct name: *Verger appendiculatus* (Ulmer), **new synonymy**.

Flint has studied the type of *L. lonquimayus* found in MNHNP. It is a perfect match in color, size and female genitalia for yellowish examples of *V. appendiculatus* in the NMNH from the same region of Chile.

Magellomyia Banks 1920, type species *M. moesta* Banks 1920, synonym of *Verger* Navás 1918a, **new synonymy**.

The synonymy of *Magellomyia* is discussed under the heading of *Nostrafilla*, below, to which one should refer.

Nostrafilla Navás 1918b, type species *N. lutzi* Navás 1918b, synonym of *Verger* Navás 1918a, **new synonymy**.

Both the genus *Verger*, type species *Halesus porteri* Navás 1907, and the genus *Nostrafilla*, type species *Nostrafilla lutzi* Navás 1918b, were described in the same year, 1918. However, the cover of the reprint from the *Memorias de la Real Academia de Ciencias y Artes de Barcelona*, in which was published *Verger*, states "Publicada en junio de 1918" (=Published in June of 1918), and the cover of fascicle from the *Revista de la Real Academia de Ciencias Exactas, Físicas y Naturales de Madrid* reads "números 10, 11 y 12: Abril, Mayo y Junio de 1918" (=numbers 10, 11 and 12: April, May and June of 1918). Since the latter, in which *Nostrafilla* was published, is a single fascicle, and since there is no indication in the volume (or the one following) of exact dates of issue, this must be June or later. The result is possibly simultaneous equal dates of issue. However, Navás always dated his papers (apparently the date of submission), and the Barcelona article is dated "27 de Enero de 1918" (=27 of January of 1918) and the Madrid article is dated "12 de Mayo de 1918" (=12 of May of 1918),

clearly indicating that the Barcelona article was completed first. We thus accept the priority of *Verger* over *Nostrafilla*.

Both of these names predate the generic name *Magellomyia* Banks 1920, type species *Magellomyia moesta* Banks 1920 [synonym of *Verger appendiculatus* (Ulmer) according to Schmid (1955a)]. Fischer's action (1967) placing these senior names as synonyms of the junior name is clearly a violation of the Law of Priority in the Code. As a consequence the generic name *Magellomyia* must also fall into the synonymy of *Verger* (not vice versa as cited by Fischer 1967), and all the species placed in *Magellomyia* transferred thereto (**new combinations**). Navás (1918b) gave no indication of the meaning of *Verger*; we treat it as masculine on the basis of the suffix "-ger", and transfer all the species placed in *Magellomyia* thereto (**new combinations**): *V. affinis* (Schmid 1955b), *V. armatus* (Ulmer 1904), *V. bispinus* (Schmid 1957), *V. bruchinus* (Navás 1918b), *V. capillatus* (Ulmer 1906), *V. curtior* (Schmid 1955b), *V. fuscovittatus* (Schmid 1955b), *V. kuscheli* (Schmid 1955b), *V. masafuera* (Schmid 1952), *V. michaelsoni* (Ulmer 1904), *V. modestus* (Schmid 1955b), *V. obliquus* (Schmid 1955b), *V. quadrispinus* (Schmid 1955b), *V. spinosus* (Ulmer 1904), and *V. stenopterus* (Schmid 1955b). In addition, the genus contains *V. porteri* (Navás 1907), the type species, and *V. appendiculatus* (Ulmer 1904), *V. impluviatus* (Blanchard 1851), *V. lutzi* (Navás 1918b), and *V. vespersus* (Navás 1932), all transferred to *Verger* elsewhere in this paper.

olens, *Monocosmoecus*, Döhler 1915, synonym of *Monocosmoecus pulcher* Ulmer 1906. Correct name: *Monocosmoecus pulcher* Ulmer, **new synonymy**.

Flint has studied the type of *M. olens*, now returned to ZMHU: it is a female in fair condition, with the left wings glued back to their bases and somewhat faded now. Both maculation and the female genitalia agree with the type of *M. pulcher* in the BMNH and many examples in the collection of the NMNH.

pirioni, *Psilopsyche*, Navás 1929, synonym of *Verg-er lutzi* (Navás 1918b). Correct name: *Verger lutzi* (Navás), **new synonymy**.

Flint studied the holotype of *V. lutzi*, the type species of the genus *Nostrafilla*, located in the MACN. Unfortunately it lacks its abdomen, but the wing maculation and size indicate a species that

could only be the species called *Magellomyia pirioni*.

pulcherrimus, *Monocosmoecus*, Schmid 1955b, synonym of *Monocosmoecus pulcher* Ulmer 1906. Correct name: *Monocosmoecus pulcher* Ulmer, **new synonymy**.

Flint has studied the holotype of *M. pulcher*, present in the collection of the BMNH, and compared it to examples called *M. pulcherrimus* in the NMNH whose genitalia exactly match the illustrations in the original description. Considering the degree of variability in maculation of this species, the type of *M. pulcher* falls well within the bounds and its male genitalia are a perfect match in the two nominal species.

stigmata, *Nostrafilla*, Navás 1918b, synonym of *Verger appendiculatus* (Ulmer 1904). Correct name: *Verger appendiculatus* (Ulmer), **new synonymy**.

Flint borrowed the type female of *N. stigmata* from the MACN, and found it to be typical in genital structure with examples of *V. appendiculatus*. It is a very dark specimen with a few pale flecks in the forewing; this coloration is common in examples from the far south of South America.

Family Philorheithridae

ruiziana, *Psilopsyche*, Navás 1926, synonym of *Psilopsyche kolbiana* Ulmer 1907. Correct name: *Psilopsyche kolbiana* Ulmer, **new synonymy**.

There are several topotypic examples labelled by Navás as this species in the collection at MZBS, one also labelled "Cotypus". Unfortunately this specimen consists of nothing more than head, thorax, and base of right forewing still adhering to the pin and is useless for the identification of the species. There is another specimen complete except for the left forewing, with male abdomen in a small balsam mount pinned under the body and with identical labels (except no cotype label). This example is typical of *P. kolbiana* and was labelled lectotype, but not published until now. It bears the labels: "Lonquimay (Chile) 1925", "Psilopsyche ruiziana Nav. P. Navás S.J. det", "LECTOTYPE ♂ *Psilopsyche ruiziana* Nav. By Flint 1975". Navás himself in 1928 synonymized *P. blanchardi* Navás with *P. ruiziana*, which now also falls into the synonymy of *P. kolbiana*.

macqueeni, *Psilopsyche* Navás 1935, synonym of *Psilopsyche molinai* Navás 1926. Correct name: *Psilopsyche molinai* Navás, **new synonymy**.

Although the type of this species is not present in the MNHNS (Camousseight, pers. comm.), the description and type locality serve to identify this species. Most of the color description serves equally well for both species, but the light fuscous tint in the apical quarter of the forewing is most common in *P. molinai*. The southernmost among dozens of collections of *P. kolbiana* at the NMNH is Enco, Valdivia or Bariloche, Argentina; in the case of *P. molinai* it is Coihaique, Aysen, some 650 kilometers further south and in the type province of *P. macqueeni*.

Family Sericostomatidae

Chiloecia Navas 1930a. Type species: *Chiloecia lacustris* Navás (original designation). Transferred to Sericostomatidae, **new placement**.

It is clear from even a cursory scan of the wing venation as shown in the original description that this genus is not a limnephilid, where it was originally placed. The venation, spur count and coloration are all perfectly concordant with the sericostomatoid genera *Myotrichia* or *Parasericostoma*. It is impossible to be certain which genus is a synonym, but the venation shown agrees more closely with examples of the latter as does the size given for the forewing. However, some examples of *Myotrichia* have a forewing length of 10 mm, the size given for *C. lacustris* Navás. Until the type is found, if it still exists, the genus and species will remain unrecognizable, placed in the close proximity of *Parasericostoma*.

grumicha, *Phryganea*, Vallot, 1855, transferred to *Grumicha* Müller 1879b, with the subsequent synonymy of *Dicentropus flavipes* Ulmer 1905a. Correct name: *Grumicha grumicha* (Vallot), **new combination**.

The history of the word "grumicha" has a long and confusing past. The word was first used in 1830 by St. Hilaire for cases of a caddisfly that were used by Brazilian Indians to form a bracelet. It was specifically stated to be a local name, thus vernacular and thereby unavailable under Art. 12 c of the International Code of Zoological Nomenclature. Neither was it binomial, nor did there seem to be any intention of introducing a scientific name, thus also failing Art. 11 c of the Code. The name was

made available by Vallot in 1855 under the combination, *Phryganea grumicha*, and reference was made to the cases described by St. Hilaire. This establishes "grumicha" as a valid species-group name, with author Vallot 1855. After studying cases from Bremi, Hagen (1864) transferred *P. grumicha* to *Leptocerus*?, and referred to both St. Hilaire's and Vallot's works. He mentioned that these cases are closed at each end by a quartz grain. This action is typical of the larvae of the leptocerid *Triplectides* which often uses empty cases of this species with a slight modification of the anterior and/or posterior openings. The presence of a leptocerid larva or pupa in the case probably misled Hagen into thinking that the cases were originally constructed by them (as was also explained by Müller 1880a, 1880b).

Grumicha next appeared in the work of Müller (1879b) as a generic name, without included species. Here he included details of the adult morphology as well as the case, both clearly referring to the sericostomatid subsequently described as *Dicentropus flavipes*. He also stated that the larvae had the tibia of the posterior leg divided. The latter is true of *Triplectides*, but not *Grumicha*; another confusion due to the habits of *Triplectides* larvae. In his later works (1880a, 1880b) he figured the cases, their closures, and the problem of secondary use of the cases by *Triplectides*. This work established "grumicha" as a valid genus-group name with author Müller 1879b, but with no included species. Ulmer (1905b) transferred his species, *Dicentropus flavipes*, into *Grumicha*, synonymizing his generic name. The genus appears to be monospecific, but now we must transfer *Phryganea grumicha* Vallot into *Grumicha*, synonymizing *D. flavipes* Ulmer with *G. grumicha* (Vallot). The type species of *Grumicha* has been *D. flavipes* by monotypy, but now must be considered *P. grumicha* by subsequent synonymy.

Family Xiphocentronidae

carmentis, *Machairocentron*, Schmid 1982, synonym of *Xiphocentron echinatum* Flint 1981. Correct name: *Machairocentron echinatum* (Flint), **new synonymy**.

This species was described twice in quick succession from localities only 40 km apart. The types of both species are now in the NMNH and have been compared in detail and found to be identical, resulting in the above synonymy.

saltuum, *Hydropsyche*, (Müller), 1921, transferred to *Xiphocentron* Brauer 1870. Correct name: *Xiphocentron saltuum* (Müller), **new combination**.

The name *Hydropsyche saltuum* appeared in Müller's 1921 work only as a label for fig. 184k, a pupal mandible. This figure was associated, probably correctly, by Ulmer (1957) with the cases described by Müller (1879b, 1880a, 1880b) as probably belonging to the genus *Tinodes*, a genus not known to occur in South America. However, the structure of these cases, where they are found, the larval "spinnerete", the pupal habits and the pupal mandible all agree with species of the genus *Xiphocentron*, to which *H. saltuum* is hereby transferred. It will remain a nomen dubium and unplaced to subgenus.

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References

- Banks, N.** 1904. A list of new neuropteroid insects, exclusive of Odonata, from the vicinity of Washington, D.C. *Proceedings of the Entomological Society of Washington*. 6:201-217.
- Banks, N.** 1920. New neuropteroid insects. *Bulletin of the Museum of Comparative Zoology*. 64:299-362.
- Banks, N.** 1941. New neuropteroid insects from the Antilles. *Memorias de la Sociedad Cubana de Historia Natural*. 15:385-402.
- Blanchard, E.** 1851. Trichopteros. In C. Gay, editor, *Historia Física y Política de Chile, Zoologie*. 6:135-142, Neuropteros plates 1 and 2.
- Botosaneanu, L.** 1991. Trichoptères d'Haïti. *Bulletin de l'Institut Royal des Sciences Naturelles de Belgique, Entomologie*. 61:113-134.
- Botosaneanu, L.** 1996. Caddis flies (Trichoptera) from the Dominican Republic (West Indies). II. All families except Hydroptilidae; with general observations for Hispaniola. *Bulletin de l'Institut Royal des Sciences Naturelles de Belgique, Entomologie*. 66:5-26.
- Brauer, F.** 1870. Ueber *Xiphocentron*, eine neue Hydropsychidengattung. *Verhandlungen der Kaiserlich-königlichen Zoologischen-Botanischen Gesellschaft in Wien*. 20:66.
- Bueno-Soria, J.** 1986. Estudios en Insectos Acuáticos VII: Cinco Nuevas Especies de Trichopteros de Mexico y Costa Rica (Trichoptera: Hydropsychidae). *Folia Entomológica Mexicana*. 68:53-65.
- Del Guercio, G.** 1907. Intorno ad alcune nuove divisioni del Gen. *Aphis* Linné. *Redia*. 4:190-192.
- Denning, D.G.** 1965. New Trichoptera from the United States and Mexico. *The Pan-Pacific Entomologist*. 41:262-272.
- Denning, D.G., V.H. Resh and C.L. Hogue.** 1983. New species of *Phylloicus* and a new Neotropical genus of Calamoceratidae (Trichoptera). *Aquatic Insects*. 5:181-191.
- Döhler, W.** 1915. Die aussereuropäischen Trichopteren der Leipziger Universitäts-Sammlung. *Deutsche Entomologische Zeitschrift*. 1915:397-412.
- Fischer, F.C.J.** 1967. Goeridae, Limnephilidae Pars 1. *Trichopterorum Catalogus*. 8:vi + 263. *Nederlandsche Entomologische Vereeniging, Amsterdam*.
- Flint, Oliver S., Jr.** 1967. Studies of Neotropical caddisflies, IV: New species from Mexico and Central America. *Proceedings of the United States National Museum*. 123(3608):1-24.
- Flint, Oliver S., Jr.** 1968. Bredin-Archbold-Smithsonian Biological Survey of Dominica 9. The Trichoptera (caddisflies) of the Lesser Antilles. *Proceedings of the United States National Museum*. 125(3665):1-86.
- Flint, Oliver S., Jr.** 1974. Studies of Neotropical caddisflies, XVIII: New species of Rhyacophilidae and Glossosomatidae (Trichoptera). *Smithsonian Contributions to Zoology*. 169:1-30.
- Flint, Oliver S., Jr.** 1975. Studies of Neotropical caddisflies, XX: Trichoptera collected by the Hamburg South-Peruvian Expedition. *Entomologische Mitteilungen aus dem Zoologischen Museum Hamburg*. 4:565-573.
- Flint, Oliver S., Jr.** 1981. Studies of Neotropical caddisflies, XXVIII: Trichoptera of the Río Limón Basin, Venezuela. *Smithsonian Contributions to Zoology*. 330:1-60.
- Hagen, H.** 1861. Synopsis of the Neuroptera of North America. *Smithsonian Miscellaneous Collections*. 4(1):xx + 347 pages.
- Hagen, H.** 1864. Ueber Phryganiden-Gehäuse. *Stettiner Entomologische Zeitung*. 25:113-144, 221-262.
- Holzenthall, R.W.** 1988. Studies in Neotropical Leptoceridae (Trichoptera), VIII: The Genera *Atanatolica* Mosely and *Grumichella* Müller (Triplectidinae: Grumichellini). *Transactions of the American Entomological Society*. 114:71-128.
- Jacquemart, S.** 1963. Deux Trichoptères nouveaux d'Argentine. Pages 339-342. In, C. Delamare Deboutteville & E. Rapaport editors, *Biologie de l'Amerique Australe*. Vol.2, 398 p. Paris: Centre National de la Recherche Scientifique.
- Morton, K.J.** 1905. North American Hydroptilidae. *New York State Museum Bulletin*. 86:63-75.
- Mosely, M.E.** 1933. A revision of the genus *Leptone-ma*. 69 p. London: British Museum (Natural History).
- Mosely, M.E.** 1937. Mexican Hydroptilidae (Trichoptera). *Transactions of the Royal Entomological Society of London*. 86:151-190.
- Mosely, M.E.** 1939. The Brazilian Hydroptilidae (Trichoptera). *Novitates Zoologicae*. 41:217-239.
- Müller, F.** 1879a. Über Phryganiden. *Zoologischer Anzeiger*. 2:38-40, 180-182, 283-284, 405-407.
- Müller, F.** 1879b. Notes on the cases of some south Brazilian Trichoptera. *Transactions of the Entomological Society of London*. 1879:131-144.

- Müller, F. 1880a. Sobre as casas construidas pelas larvas de insectos Trichopteros da Provincia Santa Catharina. Archivos do Museu Nacional, Rio de Janeiro. 3:99-134, 210-214.
- Müller, F. 1880b. Über die von den Trichopterenlarven der Provinz Santa Catharina verfertigten Gehäuse. Zeitschrift für Wissenschaftliche Zoologie. 35:47-87.
- Müller, F. 1888. Larven von Mücken und Haarfliegern mit zweierlei abwechselnd thätigen Athemwerkzeugen. Entomologische Nachrichten. 14:273-277.
- Müller, F. 1921. Briefe und noch nicht veröffentlichte Abhandlungen aus dem Nachlass 1854-1897. P. 383-642. In A. Möller, editor, Fritz Müller: Werke, Briefe und Leben. Vol. 2, xvii + 667 p. Jena: G. Fischer.
- Navás, L. 1907. Trichópteros nuevos. Boletín de la Real Sociedad española de Historia natural. 7:397-400.
- Navás, L. 1916. Neuroptera nova Americana. Series I, II. Memorie della Pontificia Accademia Romana dei Nuovi Lincei, serie II. 2:59-80.
- Navás, L. 1918a. Neurópteros nuevos o poco conocidos (Decima serie). Memorias de la Real Academia de Ciencias y Artes de Barcelona, tercera epoca. 14:339-366.
- Navás, L. 1918b. Algunos insectos de la República Argentina, Serie I. Revista de la Real Academia de Ciencias Exactas, Físicas y Naturales de Madrid, 2a serie. 16:491-504.
- Navás, L. 1920. Insectos Sudamericanos (1a Serie). Anales de la Sociedad Científica Argentina. 90:33-43.
- Navás, L. 1923a. Insecta nova. X Series. Memorie della Pontificia Accademia Romana dei Nuovi Lincei, serie II. 6:19-27.
- Navás, L. 1923b. Estudios sobre Neuroptera (Insectes). Arxius de l'Institut de Ciències. 7:179-203.
- Navás, L. 1924. Insectos de la América Central. Brotéria, Série Zoológica. 21:55-86.
- Navás, L. 1926. Insectos Neotropicos (2a Serie). Revista Chilena de Historia Natural. 30:326-336.
- Navás, L. 1928. Insectos Neotropicos (4a Serie). Revista Chilena de Historia Natural. 32:106-128.
- Navás, L. 1929. Algunos insectos de Chile (3a Serie). Revista Chilena de Historia Natural. 33:326-334.
- Navás, L. 1930a. Algunos insectos de Chile, 4a Serie (1). Revista Chilena de Historia Natural. 34:350-366.
- Navás, L. 1930b. Insectos de la Argentina, Sexta Serie (I). Revista de la Sociedad Entomologica Argentina. 3:125-132.
- Navás, L. 1932. Insectos de la Argentina y Chile, 3.a Serie (1). Revista de la Sociedad Entomologica Argentina. 5:79-86.
- Navás, L. 1934. Insectos Suramericanos, Novena Serie. Revista de la Academia de Ciencias, de Madrid. 31:155-184.
- Navás, L. 1935. Insectos Suramericanos, Decima Serie (I). Revista de la Academia de Ciencias Exactas, Físico-Químicas y Naturales de Madrid. 32:360-375.
- Ross, H.H. & E.W. King. 1952. Biogeographic and taxonomic studies in *Atopsyche* (Trichoptera, Rhyacophilidae). Annals of the Entomological Society of America. 45:177-204.
- Ross, H.H. & J.D. Unzicker. 1977. The relationships of the genera of American Hydropsychinae as indicated by phallic structures (Trichoptera, Hydropsychidae). Journal of the Georgia Entomological Society. 12:298-312.
- Saint-Hilaire, A. 1830. Voyage dans les provinces de Rio de Janeiro et de Minas Geraes (Voyages dans l'Intérieur du Brésil. Première Partie). Vol.2, vi + 478. Paris: Grimbart et Dorez, libraires.
- Schmid, F. 1952. Los Insectos de las Islas Juan Fernandez 4. Trichoptera. Revista Chilena de Entomologia. 2:29-34.
- Schmid, F. 1955a. Contribution à l'étude des Limnophilidae (Trichoptera). Mitteilungen der Schweizerischen Entomologischen Gesellschaft. 28 (supplement), 245 pages.
- Schmid, F. 1955b. Contribution à la connaissance des Trichoptères néotropicaux. Mémoires de la Société vaudoise des Sciences Naturelles. 11:117-160.
- Schmid, F. 1957. Contribution à l'étude des Trichoptères néotropicaux II. Beiträge zur Entomologie. 7:379-398.
- Schmid, F. 1982. La Famille des Xiphocentronides (Trichoptera: Annulipalpia). Mémoires de la Société Entomologique du Canada. 121:1-127.
- Sykora, J.L. 1991. New species of Hydrobiosidae from Ecuador (Insecta: Trichoptera: Annulipalpia). Annals of Carnegie Museum. 60:243-251.
- Ulmer, G. 1904. Trichopteren. In Hamburger Magalhaensische Sammelreise. Vol. 2(7), 26 p., 2 pl. Hamburg: L. Friederichsen & Co.
- Ulmer, G. 1905a. Zur Kenntnis aussereuropäischer Trichopteren. Stettiner Entomologische Zeitung. 66:1-119.

- Ulmer, G.** 1905b. Neue und wenig bekannte aussereuropäische Trichopteren, hauptsächlich aus dem Wiener Museum. *Annalen des kaiserlich-königlich naturhistorischen Hofmuseums*. 20:59—98.
- Ulmer, G.** 1906. Neuer Beitrag zur Kenntnis aussereuropäischer Trichopteren. *Notes from the Leiden Museum*. 28:1-116.
- Ulmer, G.** 1907. Neue Trichopteren. *Notes from the Leiden Museum*. 29:1-53.
- Ulmer, G.** 1955. Köcherfliegen (Trichopteren) von den Sunda-Inseln (Teil II). *Archiv für Hydrobiologie*. 21 (Supplement):408-608.
- Ulmer, G.** 1957. Köcherfliegen (Trichopteren) von den Sunda Inseln. Teil III. *Archiv für Hydrobiologie*. 23 (Supplement):109-470.
- Vallot, J.N.** 1855. Sur deux fourreaux hélicoïdes façonnés par les larves d'insectes. P. x-xii. In, *Compte-rendu des travaux de la section des sciences (année 1854-1855)*. *Mémoires de l'Académie des sciences, arts et belles-lettres de Dijon, Section des Sciences (année 1854)*. 2nd Ser., 3:v-xvi.
- Weyenbergh, H.** 1881. Over Argentijnsche Trichoptera. *Tijdschrift voor Entomologie*. 24:132-140, pl. 14.