

## Scientific note

# *Hyphessobrycon melanopleurus uruguayensis* Messner, 1962, an available name and a senior synonym of *Cyanocharax macropinna* Malabarba & Weitzman, 2003 (Ostariophysi: Characidae)

Luiz R. Malabarba\*, Stanley H. Weitzman\*\* and Thomas Litz\*\*\*

*Hyphessobrycon melanopleurus uruguayensis*, *Astyanacinus platensis*, and *Astyanax stenohalinus*, published in a mimeographed paper by Messner in 1962 are considered available names. The subspecific name *H. melanopleurus uruguayensis* is recognized as a senior synonym of *Cyanocharax macropinna* Malabarba & Weitzman, 2003, and therefore referred to as *Cyanocharax uruguayensis* (Messner, 1962), new combination.

*Hyphessobrycon melanopleurus uruguayensis*, *Astyanacinus platensis* e *Astyanax stenohalinus*, publicados em um trabalho mimeografado por Emil Messner em 1962 são considerados como nomes disponíveis. O nome sub-específico *H. melanopleurus uruguayensis* é reconhecido como sinônimo sênior de *Cyanocharax macropinna* Malabarba & Weitzman, 2003, e referida como *Cyanocharax uruguayensis* (Messner, 1962), nova combinação.

**Key words:** *Astyanacinus platensis*, *Astyanax stenohalinus*, *Cyanocharax uruguayensis*.

During August 2003, Malabarba & Weitzman published the description of a new genus, *Cyanocharax*, with six new species of characid fishes from Southern Brazil, Uruguay, and Argentina. In September 2003, Thomas Litz and Stanley Weitzman have met at the National Museum of Natural History, Smithsonian Institution, in Washington, D.C., and was given a reprint of Malabarba & Weitzman (2003). In quickly leafing through it, Thomas saw the picture of a male of *Cyanocharax macropinna*, the type species of the genus, and instantly recognized it as a fish species referred among Uruguayan aquarists as a subspecies of *Hyphessobrycon*, first named *Hyphessobrycon melanopleurus uruguayensis* by Messner (1962).

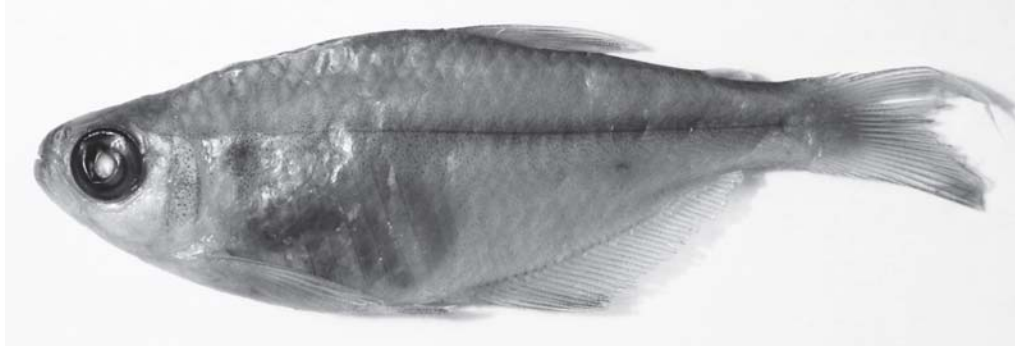
Emil Messner provided a short diagnosis of his new

subspecies, a diagnosis of two new characid species, *Astyanacinus platensis* and *Astyanax stenohalinus*, and a list of 15 other characid tetragonopterine species, all from Uruguay. The two new species and the new subspecies proposed by Messner so far have never been referred to in the Zoological Record, and were never mentioned in the current ichthyological literature as the comprehensive catalogs of species of fishes edited by Eschmeyer (1998) and by Reis *et al.* (2003). Nevertheless, they were cited in the Uruguayan literature (Vaz-Ferreira, 1969; Reichert-Lang, 2002; and Nion *et al.* 2002), as well as included in the type material of Messner species listed by Olazarri *et al.* (1970:3) as housed in the Museo Nacional de Historia Natural de Montevideo, Uruguay.

\*Laboratório de Ictiologia, Museu de Ciências e Tecnologia, PUCRS, Av. Ipiranga 6681, 90619-900 Porto Alegre, RS, Brazil, and Departamento de Zoologia, IB, Universidade Federal do Rio Grande do Sul, Av. Bento Gonçalves, 9500, bloco IV, Prédio 43435, 91501-970 Porto Alegre, RS, Brazil. e-mail: malabarba@pucrs.br

\*\*Division of Fishes, Department of Zoology, MRC-159, National Museum of Natural History, PO BOX 37012, Smithsonian Institution, Washington DC 20013-7012, U.S.A.

\*\*\*Krumphalder 47, 88448 Attenweiler, Germany



**Fig. 1.** Syntype of *Hyphessobrycon melanopleurus uruguayensis* Messner, 1962. MHNM 759, female, 33.2 mm SL.

The reasons for the omission of Messner's species in most scientific literature seem to be related to the limited distribution of the journal in which Messner's paper was published, the *Boletín de la Asociación Latino Americana de Ictiólogos y Herpetólogos*, (BALAIH), a mimeographed publication, published in Buenos Aires. Messner's paper was published in volume 2, number 1. We were unable to find references to this volume of this journal in any library, as well as through international document suppliers. We found only one reference in the Herpetological Library of the National Museum of Natural History, Smithsonian Institution, a "homonym" journal, the *Boletín de la Asociación Latino-Americana de Ictiologos y Herpetologos*, published in Argentina in 1961, that may constitute the first volume of the series. However, we have not been able to locate a copy of this volume or further volumes. So far, all copies of this journal available for use to us were obtained from personal libraries, through Uruguayan aquarists, or, in one case, from an ichthyologist who is uncertain of the source of his copy. The fact that Messner (1962) is a mimeographed contribution does not make its new names unavailable. According to Article 8.4 of the ICZN (1999), "a work produced before 1986 must have been produced on

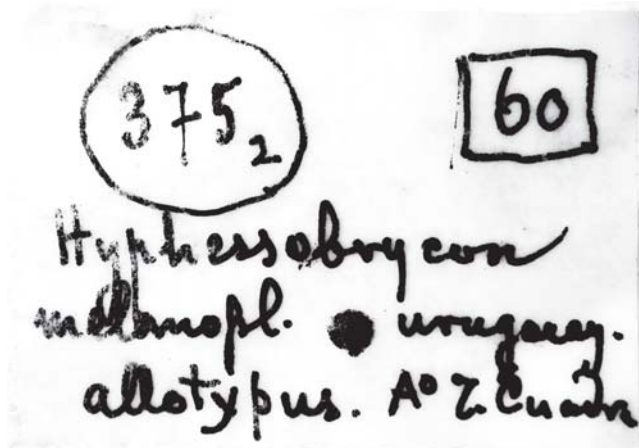
paper by a printing method then conventional," including mimeographing.

The BALAIH 2(1) is a typical society bulletin, containing a series of subjects related to an association, such as meeting schedules, various kinds of announcements, new members lists, and short announcements about fishes and herps. The paper about the Tetragonopterinae from Uruguay ["Lista de los peces Tetragonopterinae (fam. Characidae) del Uruguay"] is listed under the title "Investigación Científica" [scientific research] and seems to constitute the results of new and previously unpublished research. At the beginning of Messner's list it is stated that "Este estudio se publicará in extenso por el Museo N. de Historia Natural" [this study will be published in full by the Museo Nacional de Historia Natural] possibly in the *Comun. Mus. Hist. Nat. Montevideo*, but Emil Messner passed away in 1962 shortly after submission of the paper, which was never published (pers. comm. to T. Litz by Hebert Nión and Juan Reichert Lang, Montevideo).

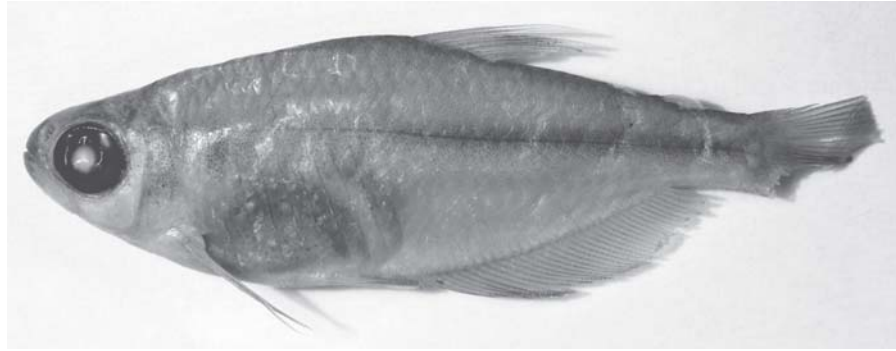
Although the projected manuscript referred to by Messner was never published, we consider that the mimeographed paper of 1962 meets the requirements of the ICZN (1999, Article 11) for recognition as a published work for nomenclatural and scientific purposes, and consider the three names proposed by Messner (1962) (*Hyphessobrycon melanopleurus uruguayensis*, *Astyanacinus platensis*, and *Astyanax stenohalinus*) as available. Here we also briefly further discuss certain questions related to the availability, homonymy, synonymy, and validity of *Hyphessobrycon melanopleurus uruguayensis*.

#### **The status of *Hyphessobrycon melanopleurus uruguayensis* Messner, 1962**

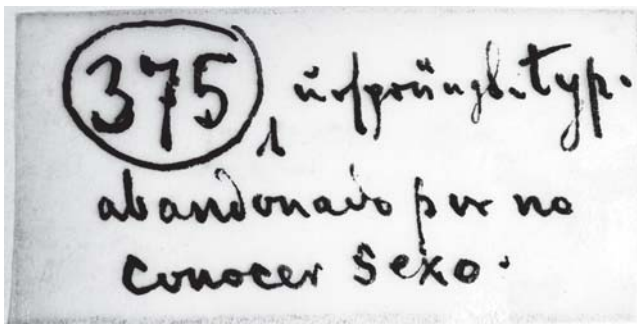
Weitzman & Palmer (1997), while reviewing a subgroup of *Hyphessobrycon*, recognized the species described by Fowler (1943) as *Megalampodus (Ectrepopterus) uruguayensis* as valid, and belonging to a clade designated by them as the Rosy-tetras. Weitzman & Palmer (1997) listed the species of Fowler in a new combination, *Hyphessobrycon uruguayensis* (Fowler, 1943). Through their action, *Hyphessobrycon melanopleurus uruguayensis* Messner, 1962, even though described as a subspecies, would become a secondary junior



**Fig. 2.** Original label found in the jar of the syntype of *Hyphessobrycon melanopleurus uruguayensis* Messner, 1962 catalogued under MHNM 759.



**Fig. 3.** Syntype of *Hyphessobrycon melanopleura uruguayensis* Messner, 1962. MHNM 758, possibly a male due to the large convexity of the anal fin, 35.3 mm SL.



**Fig. 4.** Original label found in the jar of the syntype of *Hyphessobrycon melanopleurus uruguayensis* Messner, 1962 catalogued under MHNM 758.

homonym and invalid, according to ICZN (1999: article 53.3). Thus the usage of both *Hyphessobrycon melanopleurus uruguayensis* Messner (1962) along with the usage of *Hyphessobrycon uruguayensis* (Fowler, 1943) in the lists published latter by Nion *et al.* (2002:11) and Reichert-Lang (2002) were erroneous.

However, we recognize herein that *Hyphessobrycon melanopleurus uruguayensis* Messner belongs to the same species described as *Cyanocharax macropinna* by Malabarba & Weitzman (2003). According to the ICZN (1999: Article 59.2), if the junior species-group name has not been replaced and the taxa are no longer considered congeneric, the junior name is not to be rejected, even if one species-group name was originally proposed in the current genus of the other. Thus, *Hyphessobrycon melanopleurus uruguayensis* Messner, 1962, placed as a secondary junior homonym of *Hyphessobrycon uruguayensis* (Fowler, 1943) by the action of Weitzman & Palmer (1997) as discussed above, is not to be rejected due to the action of Malabarba & Weitzman (2003) who considered its allocation to a different genus (*Cyanocharax*), and therefore we now refer to this species as *Cyanocharax uruguayensis* (Messner, 1962), new combination.

Characters that allows the recognition of Messner species as a senior synonym of *Cyanocharax macropinna* among

*Cyanocharax* species are the large number of branched anal-fin rays (31-32 in the syntypes and 28-35, mostly 29-33 according to Malabarba & Weitzman, 2003) and the convex profile of the anal fin (Figs. 1, 3).

#### The type material of *Hyphessobrycon melanopleurus uruguayensis* Messner (1962)

No types were designated in the diagnosis of *Hyphessobrycon melanopleurus uruguayensis* and only a broad reference was given to the locality of the examined specimens: “hasta ahora lo he encontrado solamente en la viertente del R. Uruguay” [up to now I have found only in the rio Uruguay drainage – our translation]. However, two specimens were listed as syntypes by Olazarri *et al.* (1970) in the holdings of the Museo Nacional de Historia Natural de Montevideo, numbered CI 758 and CI 759, and were collected by Messner in the arroyo Tomás Cuadra (a tributary of the rio Negro, itself a lower tributary of the rio Uruguay), Durazno, Uruguay (Lat. –33.38333; Long. –56.41667), that is herein recognized as the type locality of the species. There is no date of collection.

The two specimens listed as syntypes by Olazarri *et al.* (1970) are available at MHNM, and were examined by one of us (LRM). CI 759 is a female (Fig. 1) identified in a hand written jar label as “*Hyphessobrycon melanopl. uruguay. allotypus*” (Fig. 2). CI 758 (Fig. 3) has no species determination but a hand written jar label (Fig. 4) stating that “abandonado por no conocer sexo” [discarded due to unknown sex]. Both specimens belong to the same species described as *Cyanocharax macropinna* by Malabarba & Weitzman (2003). Due to the fact that CI 759 is identified in the hand written label as the “allotypus”, it seems reasonable to recognize that Messner had chosen a holotype, presently missing. The label of CI 758 stating that the specimen is “discarded due to unknown sex” does not make sure that the specimen does not belong to the type series, or only that it has not been selected as a primary type. Thus, we herein recognize both specimens as syntypes, as listed by Olazarri *et al.* (1970). Morphometric and meristic data of these syntypes are given in Table 1.

**Table 1.** Morphometric and meristic data of the two syntypes of *Hyphessobrycon melanopleura uruguayensis* Messner, 1962.

Character	MHNM 759		MHNM 758	
	(mm)	%SL	(mm)	%SL
Measurements				
Standard length (SL)	33.2	-	35.3	-
Snout to anal-fin origin	18.0	54.2	19.1	54.1
Snout to dorsal-fin origin	18.3	55.1	18.9	53.5
Snout to pelvic-fin origin	14.1	42.5	15.3	43.3
Caudal peduncle depth	3.8	11.5	3.4	9.6
Depth at dorsal-fin origin	12.1	36.5	11.9	33.7
Dorsal-fin height	7.8	23.5	8.8	24.9
Pelvic-fin length	4.2	12.6	4.7	13.3
Pectoral-fin length	7.4	22.3	6.9	19.6
Bony head length (HL)	8.6	25.9	8.6	24.4
		%HL		%HL
Snout length	1.7	19.8	1.6	18.6
Upper jaw length	3.0	34.9	3.3	38.4
Horizontal eye diameter	3.0	34.9	3.4	39.5
Least interorbital width	3.1	36.5	2.9	33.7
Counts				
Anal-fin rays	iv,32		iv,31	
Dorsal-fin rays	ii,8		ii,8	
Pelvic-fin rays	i,6		i,6	
Pectoral-fin rays	i,10		i,10	
Principal caudal-fin rays	19		19	
Lateral line perforated scales	7		7	
Longitudinal scales at lateral line series	35		-	
Scales between lateral line and dorsal-fin origin	6		6	
Scales between lateral line and pelvic-fin origin	6		5	
Predorsal scales	13		-	

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