

FIRST REPORT OF *LEPTODORAS ACIPENSERINUS* (GÜNTHER, 1868) (TELEOSTEI, SILURIFORMES, DORADIDAE) IN BOLIVIA.

PRIMER REGISTRO PARA BOLIVIA DE *LEPTODORAS ACIPENSERINUS* (GÜNTHER, 1868) (TELEOSTEI, SILURIFORMES, DORADIDAE)

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Thorny catfishes (Doradidae) of the genus *Leptodoras* Boulenger 1898 are widespread in the northern part of cis-Andean (east of the Andes) South America. Their known distribution range includes the rivers Amazonas, Orinoco and their tributaries as well as the Guianas (Sabaj, 2005). The genus can be readily diagnosed by its unique morphological features of barbels and associated tissue, first gill arch and gas bladder (see Sabaj, 2005 for a detailed description and identification key to the species). It currently includes 12 nominal species (Eschmeyer, 2012).

The genus *Leptodoras* has first been reported from the upper Madera basin by Fisher (1917) on three specimens identified as *Leptodoras acipenserinus* (Günther 1868) collected by Haseman in 1909 in the Guaporé river near Santo Antônio do Guaporé. This identification has later been confirmed by Sabaj (2005). Relatively recent reports of the same species stem from the Mamoré river at Rondonia near Guajará-Mirim in Brazil (Birindelli et al., 2008) and the Madre de Dios and Tahuamanu rivers in Peru (Sabaj, 2005). So far, no faunal survey could confirm the presence of the species in Bolivia (e.g. Lauzanne et al., 1991; Sarmiento & Barrera, 2004; Pouilly et al., 2010). In this article, we report the occurrence of *Leptodoras* in the upper Mamoré river. This not only confirms the expected presence of the genus in Bolivia, but may also represent the southernmost report of *Leptodoras*.

Species identification followed the terminology, measurements and the key in Sabaj (2005), under the consideration of more recent descriptions of new species of *Leptodoras* by Birindelli et al. (2008) and Birindelli & Sousa (2010). Measurements were taken with a manual calliper to the nearest 0.1 mm. The abbreviation MNKP refers to the ichthyological collection of the Museo de Historia Natural "Noel Kempff Mercado" in Santa Cruz de la Sierra (Bolivia).

A single specimen was examined: *Leptodoras acipenserinus*, MNKP 1934 (115.2 mm SL), Ichilo river (Mamoré drainage), Puerto Villarroel, about 16° 50' S 64° 48' W, Ichilo Province, Santa Cruz Department, Bolivia, 4 Oct 1996, M. A. Parada collector.

Its measurements are summarized in Table 1. Meristics were counted as follows: D I6, P I9, V i6, A 15, C i8/9i, dorsal procurrent caudal-fin rays 14, ventral procurrent caudal-fin rays 15, sum of midlateral plates 80.

The examined specimen from the Ichilo river coincides in color pattern (see Figure 1) and in shape of oral hood as well as in all meristic and most metric characters with the detailed re-description of *L. acipenserinus* (Sabaj, 2005). Slight deviations in morphometrics might be associated with the relatively elongated body of the specimen (body depth 13.0 % of SL vs. 13.4-15.0 % of SL in Sabaj, 2005), its small size (114.3 vs. 107.5-196.5 mm SL) or the relatively small sample size of the reference material (12 individuals; Sabaj, 2005). Considering earlier reports of *L. acipenserinus* in the upper Madera basin (Sabaj, 2005; Birindelli et al., 2008), we can conclude that the specimen from the Ichilo river indeed belongs to this species. The Ichilo is a typical white water river with visibility of less than 30 cm (Maldonado, 2002). This is consistent with an earlier remark by Sabaj (2005) who noted that *L. acipenserinus* inhabits mostly white waters.



Figure 1. *Leptodoras acipenserinus*, MNKP 1934 (115.2 mm SL), Puerto Villarroel, río Ichilo (Mamoré drainage), Bolivia. Scale bar = 1 cm.

Figura 1. *Leptodoras acipenserinus*, MNKP 1934 (115.2 mm LE), Puerto Villarroel, río Ichilo (cuenca del río Mamoré), Bolivia. Barra negra = 1 cm.

This new report of *L. acipenserinus* expands the known distribution range of the species about 500 km into the south and may even represent the southernmost report of the genus. Doradids typically have a wide distribution and there is currently only one species of this family (*Doras fimbriatus* Kner, 1855) known to be endemic to the upper Madera basin. This contrasts the distribution patterns of other fish families, such as Callichthyidae, Cichlidae or Characidae, which exhibit a high level of regional endemism.

The fish community of the upper Mamoré basin is still poorly known. Doradids are abundant in many low land tributaries with prominent sediment banks. However, species identification is often doubtful. More taxonomic research is needed to reliably identify the thorny catfishes of the upper Mamoré basin at the species level.

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Table 1. Morphometrics of *Leptodoras acipenserinus*. Dorsal spine is broken (see Figure 1).**Tabla 1.** Morfometría de *Leptodoras acipenserinus*. La espina dorsal está rota (véase Figura 1).

	MNKP 1934	range (n=12; Sabaj, 2005)
Standard length (mm)	115.2	107.5-196.5
Percentage of standard length		
Head length	25.8	25.6-30.0
Predorsal distance	32.4	31.6-35.6
Dorsal origin-adipose distance	50.5	48.9-52.4
Adipose-caudal distance	20.0	17.4-20.0
Prepectoral distance	20.6	21.7-25.9
Pectoral-pelvic distance	20.3	15.7-18.0
Pelvic-anal distance	29.7	27.9-30.8
Anal-caudal distance	18.5	15.5-17.6
Dorsal spine length	n.a.	17.5-23.1
Pectoral spine length	18.5	18.6-21.3
Pelvic fin length	15.2	14.2-16.3
Anal fin base	16.9	14.9-17.3
Body depth	13.0	13.4-15.0
Caudal peduncle depth	4.5	3.9-4.6
Percentage of predorsal distance		
Head length	79.4	80.3-84.5
Adipose eye diameter	17.8	15.4-18.1
Snout length	45.1	42.3-46.3
Snout-anterior nares distance	26.7	24.9-28.7
Snout-posterior nares distance	38.0	36.1-40.3
Snout-posterior orbit distance	60.4	56.5-60.8
Anterior nares-posterior orbit distance	33.7	32.6-35.1
Posterior nares-posterior orbit distance	22.6	21.4-24.1
Internares distance	12.7	10.7-13.0
Postorbital length	45.0	40.6-45.5
Postcleithral process length	21.7	16.2-20.5
Jaw-upper labial extension distance	35.0	20.9-29.0
Head width	47.7	47.1-55.0
Cleithral width	57.0	54.3-59.9
Interorbital width	11.3	8.7-13.5
Gape width	9.8	8.3-10.4
Percentage of body depth at 10th scute		
Scute depth from 10th scute	63.3	55.6-73.9