

Four new records of fish species (Cypriniformes: Nemacheilidae, Balitoridae; Characiformes: Prochilodontidae) and corrections of two misidentified fish species (Tetraodontiformes: Tetraodontidae; Beloniformes: Belonidae) in Yunnan, China

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Abstract: In this study, six fish species of five families are reported for the first time from Yunnan Province, China. The nemacheilid *Schistura amplizona* Kottelat, 2000 is reported from the Luosuojiang River and Nanlahe River subbasins, Mekong basin; the prochilodontid *Prochilodus lineatus* (Valenciennes, 1837), the balitorid *Vanmanenia serrilineata* Kottelat, 2000, and the tetraodontid *Monotrete turgidus* Kottelat, 2000, from Nanlahe River subbasin, Mekong basin; the balitorid *Beaufortia daon* (Mai, 1978), and the belonid *Xenentodon canceloides* (Bleeker, 1854), both, from Black River subbasin, Red River basin. The freshwater puffer *M. turgidus* and the needlefish *X. canceloides* have been previously misidentified as *Tetraodon leiurus* (Bleeker, 1950) and *Tylosurus strongylurus* (van Hasselt, 1823), respectively.

Keywords: New record; Misidentification; Mekong basin; Red River; Yunnan

Yunnan Province is located in the Southwest within the People's Republic of China. Its name refers to its location south of the Yunling Mountain range. It shares international border with Myanmar in the West and Southwest, with Laos and Vietnam in the South; national borders with Xizang Autonomous Region to the Northwest, with Sichuan Province to the North, Guizhou Province to the East, and with Guangxi Province to the Southeast. Yunnan can be roughly divided into two different geological formations; the Yunnan-Guizhou plateau, a limestone plateau with karstic landscapes in the East, and deep mountainous gorges with basically north to south running major rivers in the West such as the Salween and Mekong. Due to its geological peculiarities the respective climate is highly variable ranging from alpine in more than 5000 m high northern plateaus to subtropical in lowland Xishuangbanna close to the Laotian border (Wikipedia contr., 2013).

The high diversity in terms of geology, topography and climate boost biodiversity as well as the diversity of fishes populating Yunnanese water bodies. The seminal monograph about the Yunnanese ichthyofauna, *The Fishes of Yunnan, China*, has been compiled by Chu &

Chen et al in 1989, respectively 1990 for the second volume, giving 226 species and subspecies accounts in the first volume plus an additional 173 in the second. Through extensive fieldwork and re-evaluation of institutionally stored lots the number of Yunnanese fish species is growing (for e.g. Endruweit, 2011; Zheng et al, 2012). Recent fieldwork has unveiled six fish species of five families not yet known to occur in Yunnan; two of those have been previously misidentified. Species are herein diagnosed and discussed.

MATERIALS AND METHODS

Counts, measurements, and terminology of morphological features follow Kottelat & Freyhof (2007: 15-21). One exception is that lateral line scales are counted in total including those pored located on the caudal fin. Measurements were taken with a dial caliper to the nearest 0.1 mm; counts were taken from the left

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side of a specimen wherever possible, in some cases with the help of a magnifying glass and a monocular microscope XSP-06. Examined specimens had been placed in the repository collection of the Kunming Institute of Zoology (KIZ), Chinese Academy of Sciences, and in the collection of the author (EPC).

RESULTS

Schistura amplizona Kottelat, 2000



Figure 1 *Schistura amplizona*, KIZ2012004193, 68.4 mm SL, lateral view, reversed, scale bar=5 mm

Examined material

Schistura amplizona Kottelat, 2000, KIZ 2010003103-9, EPC 0991-3, 10 ex., 50.1–73.8 mm SL, Menglun market, Luosuojiang River subbasin, Mekong basin, Xishuangbanna, Yunnan, China, collected by M. Endruweit, 2010-12-30 (considered for meristics and morphometrics); KIZ 2012004198-9, 2 ex., 63–71 mm SL, Luosuojiang River subbasin, Mekong basin, Xishuangbanna, Yunnan, China, collected by M. Endruweit & Wang Jing, 2010-6-3; KIZ 2012004193-7, 5 ex., 48.6–68.4 mm SL, Mengla market, Nanlahe River subbasin, Mekong basin, Xishuangbanna, Yunnan, China, collected by M. Endruweit & Jing Wang, 2010-6-5.

Diagnosis

Schistura amplizona is readily distinguished by its specific color pattern: Five to seven dark brown elongated blotches, much wider than interspaces and usually the widest at midline, superimposed by a broad, faint brown midlateral stripe on a yellowish body; blotches usually wider anteriorly than posteriorly; some blotches ovoid (autapomorphic characteristic); basal caudal bar prominent black, slightly oblique, restricted to the lower two-thirds; a black spot at the base of the upper principal caudal fin rays in some specimens; dorsal fin with a prominent dark brown horizontal blotch along the base; all fins with series of dark marks. Morphological characteristics are an elongate head and body; lower jaw without a notch; caudal-peduncle posteriorly with hard dorsal and ventral crests, 1.42–1.69 times longer than deep (Kottelat, 2000).

Habitat and distribution

Schistura amplizona is herein reported from three locations; Menglun and Mengla markets and the

Nanxinghe River, Luosuojiang River subbasin, Mekong basin, around 3 km downstream of Mengxing village, Xishuangbanna, Yunnan. For detailed information about this biotope see Endruweit (2011). Kottelat (2001) lists the northern Laotian Nam Tha and Nam Youan rivers as the natural occurrence range. The Nam Youan River drains from Laotian Luang Namtha Province into Xishuangbanna and is then called Nanrunhe River. It is a left bank affluent to the Nanlahe River, in which watershed also Mengla is located and which is in turn a left bank tributary to the Mekong. The herein reported occurrence within the Luosuojiang River subbasin extends the natural occurrence range of *S. amplizona* towards North.

Remarks

The examined species lots meet all characteristics required to identify *S. amplizona* despite a stouter caudal-peduncle of 1.25–1.41. In addition the basal caudal bar was not restricted to the lower two-thirds, but formed an almost complete bar, never reaching either dorsal or ventral extremities (e.g. KIZ 2012004193). The caudal bar proved to be resistant against fading in alcohol. Even when the dark brown blotches and all other color patterns started fading the basal caudal bar remained conspicuously intense black. The stouter caudal peduncle of 1.25–1.41 (vs. 1.42–1.69 in the original description) observed in the Luosuojiang River populations of *Schistura amplizona* may be seasonally and/or environmentally induced. It is regarded as an ecophenotypic variation.

Prochilodus lineatus (Valenciennes, 1837)



Figure 2 *Prochilodus lineatus*, KIZ2012000191, 120.6 mm SL, lateral view, reversed, scale bar=10 mm

Examined material

Prochilodus lineatus (Valenciennes, 1837), KIZ 2012000190-2, 3 ex., 120.6–141.7 mm SL, Mengla market, Nanlahe River subbasin, Mekong basin, Xishuangbanna, Yunnan, China, collected by M. Endruweit, 2011-1-2.

Diagnosis

The three examined specimens match well the diagnosis and figure given in the revision of Castro &

Vari (2004): Caudal fin hyaline; lateral line scales 40–50; circumpeduncular scales 17–21; lower, posterior area of flanks with horizontal zigzag lines; transverse scales to dorsal origin 7–10; and predorsal scales 14–20.

Habitat and distribution.

Introduced species; Nanlahe River subbasin, Mekong basin, Xishuangbanna, Yunnan.

Remarks

Prochilodus lineatus belongs to the order Characiformes, family Prochilodontidae. It is an alien species to China. It is originally described from the Rio de la Plata basin in Argentina. Its original range is limited to the Rio Paraná-Paraguay basin in Argentina, Brazil, Paraguay, and Uruguay (Castro & Vari, 2004). As a widespread species it possesses high ecophenotypic variation induced by abiotic and biotic environmental factors. Morphometric values may therefore differ tremendously between populations (Cabrera & Candia, 1964). The species attain a length up to 460 mm SL and is detritivorous. Chaloupkova et al (2010) reports *Prochilodus lineatus* in the Red River basin in Lang Son and Cao Bang Provinces, Vietnam, assumed to have escaped from aquaculture.

Three specimens (KIZ 2012000190-2) of *Prochilodus lineatus* were obtained off a large basket with a jumble of wild caught fishes. The seller, a local Dai woman, confirmed that these specimens were cast netted within the Nanlahe River subbasin, a left bank tributary to the Mekong in Xishuangbanna. She also confirmed that this was not the first time to catch this species which entails that there is a self-sustaining population of *Prochilodus lineatus* in the Mekong basin in China.

Vanmanenia serrilineata Kottelat, 2000



Figure 3 *Vanmanenia serrilineata*, KIZ2012004200, 64.9 mm SL, lateral view, scale bar=5 mm

Examined material

Vanmanenia serrilineata Kottelat, 2000, KIZ 2012004200, 1 ex., 64.9 mm SL, Nanlahe River subbasin, Mekong basin, Xishuangbanna, Yunnan, China, collected by M. Endruweit & Jing Wang, 2010-6-4.

Diagnosis

Kottelat (2001) gives two autapomorphic characters

for individuals larger than 25 mm SL of *Vanmanenia serrilineata*: An irregular, saw-toothed midlateral stripe; and 5 large saddles along back. The concerned specimen (KIZ 2012004200) meets both characters. In its original description a set of further synapomorphies is provided (Kottelat, 2000): Body deep (16.2%–20.3% SL); caudal-peduncle 1.2–1.4 times longer than deep, its depth 8.6%–9.7% SL; anus closer to tip of pelvic fin than to caudal fin origin; paired fins yellow with a series of dark marks in life; dorsal fin with 2–3 irregular rows of brown spots; branched pectoral fin rays 15–16; branched pelvic fin rays 8; lateral line pores 71–83. All these characters are present despite different number of branched pectoral and pelvic fin rays. The examined specimen has 14 branched rays in its left pectoral fin, while there are 15 branched rays in the right pectoral fin; branched pelvic rays were counted to 9.

Habitat and distribution

The spot from which *Vanmanenia serrilineata* is reported is located around 40 km north of Mengla, Xishuangbanna, Yunnan; the stream is called Nanyanhe River and is a tributary of the Nanlahe River within the Mekong basin. The stream forms the border of a National Reserve with flocks of dense primary rainforest. During the dry season it was approximately 8 m wide and up to 1 m deep with the average being around 0.5 m deep. Clear water (16 °C; pH 8.1; 250 µs/cm; measured on 2011-1-1 at 11:00 am) ran over boulders and rocks with moderate to fast current. There were no vascular aquatic plants. The caught specimen represents the total yield across three samplings at this particular spot (January 2010, June 2010, January 2011). This is uncommon for *Vanmanenia* spp. They usually have large populations, sometimes being the predominant species in suitable habitats. There was no other balitorid species present. Syntopic species included the nemacheilids *Schistura macrocephalus* Kottelat, 2000 and *Pteronemacheilus meridionalis* (Zhu, 1982), the snakehead *Channa gachua* (Hamilton, 1822), and cyprinids such as *Barilius pulchellus* Smith, 1931, *Devario chrysotaeniatus* (Chu, 1981), *Poropuntius huangchuchieni* (Tchang, 1962), and *Scaphiodonichthys acanthopterus* (Fowler, 1934).

Kottelat (2000, 2001, 2009) reports *Vanmanenia serrilineata* from the Nam Ou and Nam Tha, subbasins to the Mekong in Phongsali and Luang Namtha provinces, northern Laos.

Remarks

Geographically, Laotian Phongsali Province borders Xishuangbanna to the East and Luang Namtha Province to the Southwest. Hence, the confirmed occurrence of *V. serrilineata* in Xishuangbanna fills a zoogeographical gap.

The number of branched rays in pectoral and pelvic fin differ slightly from the original description. Unequal numbers in one specimen are rather common for balitorid loaches. With only 14 branched rays for the left pectoral fin the range given in the original description is not reached. Branched pelvic fin rays were counted to 9, equally in each fin. These slight deviations are based on just one specimen and must not be over-evaluated. Kottelat (2009: 17) erroneously listed this species as nemacheilid; *Vanmanenia* Hora, 1932 is a balitorid genus.

Zhou et al (2010) reported a *Vanmanenia* sp. from the upper Mekong in Yunnan based on 31 specimens collected from Laiyanghe River, Puer (5 ex.), Yangbijiang River, Dali (20 ex.), Bijiang, Dali (2 ex.), and Youdianhe River, Changning (4 ex.). Kottelat (2000) gives body depth as 16.2%–20.3% of SL for *V. serrilineata* while Zhou et al give it to 17%–18.9% in *V. sp.* and 17.1%–18.9% in *V. striata*. This character was measured to 20%–22.3% in *V. tetraloba*. I am unable to tell if *V. sp.* is conspecific with *V. serrilineata* since the original description of *V. serrilineata* is utterly scarce, and Zhou et al lack important diagnostic meristic and descriptive information, and do not provide institutional repository numbers for the concerned batch of specimens. Kottelat states in the species account of *V. crassicauda* (2000: 75) that examined material from the Yangbijiang River as used by Zhou et al is conspecific with Red River *V. striata*, which is followed herein.

Beaufortia daon (Mai, 1978)



Figure 4 *Beaufortia daon*, KIZ2012000011, 32 mm SL, dorsal, lateral, ventral view, scale bar=5 mm

Examined material

Beaufortia daon (Mai, 1978), KIZ 2012000011, 1 ex., 32 mm SL, Mengyejiang River, Red River basin, Puer Prefecture, Yunnan, China, collected by M. Endruweit, 2011-12-30; EPC0633-4, 2 ex., 29.9–31.3 mm SL, Mengyejiang River, Red River basin, Puer Prefecture, Yunnan, China, collected by M. Endruweit & Jing Wang, 2009-12-30.

Diagnosis

Beaufortia daon is distinguished from its congeners by the following set of characters: Snout obtusely rounded; mandibular structure without central concave; anus not covered by pelvic fins; caudal fin obliquely emarginated; body and head dark brown with paler spots; branched pectoral fin rays 25–26; branched pelvic fin rays 19–22; lateral line scales 75–85. The three concerned specimens meet all morphological characters. Branched pectoral fins rays were counted to 25–28 in EPC0633, while the other two specimens are within the specified range; branched pelvic fin rays were counted to 19–21 and are well within the specified range; lateral line scales were counted to 76–80 (Mai, 1978; Kottelat, 2001 [English translation of Mai, 1978]).

Habitat and distribution

Mai (1978) reported *Beaufortia daon* to be very common in streams of Phong Tho and Nam Na, Lai Chau Province, northern Vietnam. This region is located within the Black River (Lixianjiang River) subbasin and is very close upstream to the Mengyejiang River, where all three concerned specimens were collected. Although many days were spent fishing the Mengyejiang along different stretches just three specimens of *B. daon* were yielded. Local fishermen confirmed the scarcity of this fish. In December 2009 the Mengyejiang was approximately 40 m wide and 3 m deep with plenty of 0.40 m deep riffles over smooth rocks and boulders. There were backwaters with plenty of green algae and few patches of a *Potamogeton* species as the only vascular water plant. The water was clear and ran moderate to fast; its parameters were measured to 17 °C, pH 8.8, and 170 µS/cm on 2009-12-30 at 16:00. Two years later on 2011-12-28 at 09:00 am water parameters were 15 °C, pH 7.9, and 150 µS/cm. Syntopic balitorid fishes were *Vanmanenia tetraloba* (Mai, 1978), *Sinogastromyzon tonkinensis* Pellegrin & Chevey, 1935, and a not yet identified *Balitora* species. The range of natural occurrence of *Beaufortia daon* is hereby extended northwards into Chinese Yunnan Province.

Remarks

In addition to the description of morphological features Mai (1978) also provides a set of morphometrics.

But this information is of little value, since methods for measuring and counting are not explained and value ranges are not provided. An unambiguous repeatability is thus not assured. Mai gives head length/SL, eye diameter/head length, and interorbital distance/head length; all in percentages. The species lot he examined had 48–65 mm SL, while the specimens I examined were smaller (29.9–32 mm SL). It is unclear if Mai considered the dorsal, lateral or abdominal head length as head length. In considering the dorsal head length span linearly from the tip of snout to the posteriormost tip of occipital, the specimens I examined have the following output; head length/SL 26.2 (range: 25.6–26.8 [vs. 21.4%]), eye diameter/head length 18.8% (zero range [vs. 22.7%]), and interorbital distance/head length 43.8% (range: 42.5–45 [vs. 42.7%]). Although my values differ sufficiently from those provided in the original description, it may not affect the specimens' designation as *Beaufortia daon*. The species account of *Beaufortia daon* starts on page 216 in Mai's original description (1978) and erroneously displays a figure of *Homaloptera (Balitora) brucei*. The figure corresponding to *B. daon* is depicted on page 238. At the end of the book there are 49 pages giving a plate overview of all species treated in this monograph correctly depicting *B. daon* as figure 100.

Kottelat (2001) erroneously placed *B. daon* in the genus *Pseudogastromyzon* Nichols, 1925, a balitorid genus easily recognized by ventral fins not united to form a sucking disk vs. united to form a sucking disk in *Beaufortia* Hora, 1932. This is corrected in his later erratum (Kottelat, 2005).

Monotreta turgidus Kottelat, 2000



Figure 5 *Monotreta turgidus*, KIZ2012004201, 68.7 mm SL, lateral view, reversed, scale bar=5 mm

Tetraodon leiurus (nec Bleeker, 1950) Huang et al, 1988: 179 (Mekong, Xishuangbanna)

Monotreta leiurus (nec Bleeker, 1950) Chu & Chen et al, 1990: 274 (Mekong, Xishuangbanna)

Monotreta leiurus (nec Bleeker, 1950) Su & Li, 2002: 210 (Mekong, Xishuangbanna)

Examined material

Monotreta turgidus Kottelat, 2000, KIZ2012004201-3, 3 ex., 59.3–68.7 mm SL, Mengla market, Nanlahe River subbasin, Mekong basin, Kunming Institute of Zoology (CAS), China Zoological Society

Xishuangbanna, Yunnan, China, collected by M. Endruweit & Jing Wang, 2010-1-3; EPC0833, 1 ex., 58 mm SL, Nanmuwo River, Nanlahe River subbasin, Mekong basin, Xishuangbanna, Yunnan, China, collected by M. Endruweit, 2011-1-2; KIZ 1964000515-7, 3 ex., 43.3–83.7 mm SL, Mengla, Xishuangbanna, Yunnan, China; KIZ 1974001118-27, 10 ex., 53.8–76.5 mm SL, Manzhuang, Yunnan, China; KIZ 1986003745-50, 6 ex., 51.7–77.2, Mengla, Xishuangbanna, Yunnan, China; KIZ 1996003059-64, 6 ex., 25.6–62.1 mm SL, Mengla, Xishuangbanna, Yunnan, China; KIZ 2012001384-93, 10 ex., 54.3–88.5 mm SL, Mengla market, Xishuangbanna, Yunnan, China.

Diagnosis

In total, 39 specimens off seven lots were identified to be conspecific with *Monotreta turgidus*. This species is described as back greenish brown to black, with gradual or abrupt transition to a white abdominal region; head and body including back with numerous small black spots, some of them with a paler center (in life: orange to red); and a conspicuous ocellus or large blotch below dorsal fin origin absent (Kottelat, 2000).

Habitat and distribution

Specimen EPC0833 has been obtained from a 200 m long, 30 m wide and around 2 m deep pool-like extension of the Nanmuwo River, a left bank tributary of the Nanlahe River within the Mekong basin, south of Mengla. The water was clear and sluggish, and thick algae pads were attached to rocks and boulders. The habitat was surrounded by primary rain forest.

Monotreta turgidus is originally described from central Laotian Savannakhet Province, close to the border with Vietnam. It seems to be a widespread species since its natural range of occurrence is given with Mekong basin in Laos and Thailand (Kottelat, 2000). Huang et al (1988) display color photographs of *M. turgidus*, misidentified as *T. leiurus*, and give its distributional range with the Mekong basin in Xishuangbanna. Su & Li (2002) also misidentify this species as *Monotreta leiurus*. The distributional range of *M. turgidus* is hereby extended northwards into Xishuangbanna incorporating the Nanlahe River subbasin.

Remarks

Zhou (Chu & Chen et al, 1990) list *Monotreta leiurus* (Bleeker, 1950) as the sole tetraodontid species in Yunnan, reported from the Nanlahe River, which is congruent with my observations that there is only one puffer species in Xishuangbanna.

The correct name for this taxon (not for the species) should be *Monotreta leiurus* (Bleeker, 1850). Kottelat

(2011) corrected Bleeker's publication date to December 1850. The genus *Monotrete* has been erected by Bibron in the year 1855. In 1856 Troschel erected the genus *Monotretus*, which is a unnecessary latinization of the generic name *Monotrete*. This is followed by Hollard (1877), who provided another latinization with the generic name *Monotreta*. *Monotrete* as the earliest publication has priority over the two derivatives. Bleeker gave its original description in Latin. The English translation is as follows:

"A *Tetraodon* with oblong body depressed anteriorly, wider than high, 4 to 4.5 times in length; head obtusely depressed, 3.5 to 3 times in body length; snout profile straight or slightly convex; eye diameter about 4.5 times in lateral head length, 2 to 3 times in interorbital distance; nasal papillae long and uniquely bifid; head, opercula, dorsum, flanks and belly all armed with spines, snout and tail smooth; lateral line inconspicuous; dorsal and anal fin are about the same height, broad, blunt, rounded; caudal fin convex; upper body brownish red devoid of spots, below yellow; fins reddish or brownish. D 3/11; P 1/21 or 1/22 or 2/20; A 2/9; C 10; vernacular: Ikan Buntak; habitat: Jakarta, in the ocean and estuaries; length of 5 specimens: 60 mm to 98 mm".

Considering the set of characters given in the original description of the estuarine/marine *Monotrete leiurus* as largely spined, with long nasal bifid papillae and unspotted upper body portions, it is obvious that the Nanlahe River species has been misidentified by Zhou. In addition, the provided figure (Chu & Chen et al, 1990: 275, Figure 268) does not correlate to the original description neither. The correct identification for the freshwater puffer species inhabiting branches of the Nanlahe River is *Monotrete turgidus* Kottelat, 2000.

Xenentodon canciloides (Bleeker, 1854)



Figure 6 *Xenentodon canciloides*, KIZ2012004204, 143.2 mm SL, lateral view, scale bar=10 mm

Tylosurus strongylurus (nec van Hasselt, 1823) Chu & Chen et al, 1990: 231 (Red River, Hekou)

Examined material

Xenentodon canciloides (Bleeker, 1854), KIZ 2012004204, 1 ex., 143.2 mm SL, Mengyejiang River, Red River basin, Puer Prefecture, Yunnan, China, collected by M. Endruweit & Jing Wang, 2009-12-30; KIZ 1960000867, 1 ex., 242 mm SL, Hekou, Honghe Prefecture, Yunnan, China (specimen excluded from

meristics and morphometrics).

Diagnosis

Xenentodon canciloides is readily distinguished from its congener *X. cancila* Hamilton, 1822 by postorbital length of head 3.5 (2.95 in KIZ 2012004204) times in preorbital length (vs. 2.5 times in *X. cancila*), enlarged teeth in upper jaw 21–32 (32 in KIZ 2012004204; vs. 9–21 in *X. cancila*), dorsal fin origin slightly posterior to anal fin origin (vs. slightly anterior to anal fin origin), length of upper jaw 2.3–2.6 (2.55 in KIZ 2012004204) times in body length (this is SL minus lateral head length [vs. 2.6–3.2]), TL less than 30 cm (vs. TL exceeding 30 cm [Roberts, 1989; Serov et al, 2006]).

Habitat and distribution

Xenentodon canciloides was found syntopic with *Beaufortia daon*. For notes on the biotope please refer to details given for *Beaufortia daon* (Mai, 1978).

Kottelat (2001) lists *X. canciloides* for Laos, and Mai (1992) provides occurrence details for southern Vietnam. The presence of just two extant specimens in two lots in KIZ reflects its scarcity in Yunnanese waters.

Remarks

The value of postorbital length in preorbital length in KIZ 2012004204 was measured to 2.95 and lies in between the two specified ranges: 3.5 in *Xenentodon canciloides* and 2.5 in *X. cancila* (Serov et al, 2006). By definition, preorbital length is measure from the tip of the upper jaw to the anterior margin of the orbit. The 143 mm long specimen concerned seems to be a juvenile with a not yet fully developed upper jaw. During ontogenetic development of belonid fishes the lower jaw grows in advance of the upper jaw, which catches up somewhat later with the former. The lateral head length, in particular the preorbital length, is relatively shorter in juveniles than in adults (Fahay, 2007). The specimen concerned has a noticeably shorter upper than lower jaw.

Needlefish of the family Belonidae have *Xenentodon* as the only freshwater genus in Asia (Roberts, 1989), *Strongylura* van Hasselt, 1824 is marine. Zhou (Chu & Chen et al, 1990) reported *Tylosurus strongylurus* (van Hasselt, 1823) from the Red River basin in Yunnan, a species placed in the genus *Strongylura* by Parin (1967). The correct naming of this taxon is *Strongylura strongylura* (van Hasselt, 1823). The fish depicted in Chu & Chen et al (1990: 232, Figure 231) is actually a *Xenentodon*, rather than *S. strongylura*. *Strongylura strongylura* is recognized by a dorsal fin distinctively posterior to the origin of the anal fin (vs. slightly posterior in *Xenentodon*), a prominent black spot present at the caudal peduncle (vs. absent), and 100-130 predorsal

scales (vs. more than 200 [Roberts, 1989; Collette, 1999; Serov et al, 2006]).

Kottelat (2001) confirmed that specimen MNHN 1892-50 from the Black River subbasin in Vietnamese Lai Chau Province belongs to the genus *Xenentodon*. Lai Chau Province is located downstream and rather close to the biotope where the concerned specimen of *Xenentodon canciloides* was collected.

Roberts (1989) and Serov et al (2006) report one or more not yet described *Xenentodon* species. These species have large scales (140-160 predorsal scales vs. more than 200 in *X. cancila* and *X. canciloides*).

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