

Schistura porthos Kottelat, 2000, a new record of nemacheilid loach for China

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Abstract: A nemacheilid loach not recorded for China so far has been collected during a survey of the Nanxinghe River, Luosuojiang River subbasin, Mekong basin. The specimens could be identified as *Schistura porthos* Kottelat, 2000. The occurrence in the Luosuojiang River subbasin is a distributional range extension.

Key words: *Schistura*; New record; Mekong River; Nemacheilidae; River loach

中国条鳅新纪录种——*Schistura porthos* Kottelat, 2000

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摘要: 在对澜沧江的亚流域罗梭江支流南星河的考察中, 采集到一个中国条鳅新记录种。该物种经鉴定为 *Schistura porthos* Kottelat, 2000。该物种在罗梭江亚流域的发现延伸了其分布范围。

关键词: *Schistura*; 新纪录; 湄公河; 条鳅; 河鳅

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The genus *Schistura* McClelland, 1938 within the family Nemacheilidae, river loaches, contains numerous species inhabiting mainly the bottom strata of riverine environments and water bodies with stagnant movement. Zhu (1989) listed 17 species in the genus *Schistura* occurring in China. Since this publication a couple of new species of the genus *Schistura* has been described from China (Yang, 1990; Kottelat, 2000; Chen et al, 2005; Zhou & Kottelat, 2005; Chen et al, 2005; Chen et al, 2006).

During a survey of the ichthyofauna of the Nanxinghe River, a tributary of the Luosuojiang River, Mekong basin, a species of the genus *Schistura* could be collected, which I was unable to identify in the field. The key to species in Zhu (1989) was misleading in this case and led to dissatisfactory results. Further investigations of related literature unveiled the species as *S. porthos* Kottelat, 2000, a species herewith reported from China for the first time.

1 Materials and Methods

Meristics and morphometrics follow instructions given in Kottelat (1990). Measurements taken with dial caliper and recorded to 0.1 mm. Location coordinates defined with handheld device GPS Garmin, using a minimum of four satellites for enhanced precision. Examined specimens had been placed in part in the repository collection of the Kunming Institute of Zoology (KIZ), the Chinese Academy of Sciences, and in the collection of the author (EPC).

Examined material: *S. porthos* Kottelat, 2000, KIZ 2010003019-32, KIZ 2010003085-90, 20 ex., 67 – 54.8 mm SL, and EPC 0678, 80, 88, 3 ex., 64.7 – 59.3 mm SL; all material from Nanxinghe River (N 21° 53.457', E 101° 20.881', 556 m asl), Luosuojiang River subbasin, Mekong basin, 3 km downstream of Mengxing village, Mengla County, Xishuangbanna, Yunnan Province, China, collected by Wang J & Endruweit M, June 2010.

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2 Notes on Ecology

At the time of the visit (June 2010) the Nanxinghe River had a high water level, plenty of riparian vegetation was inundated. The water was muddy colored and highly turbid with parameters (measured in a depth of 20 cm) as follows: pH 8.1, 30 °C, 290 $\mu\text{S}/\text{cm}$. Due to upstream Mengxing village the river showed traces of pollution and eutrophication. It was around 40 m wide and 1 m deep, in some potholes up to 2 m deep. The water current was slow to moderate. The bottom was covered with sand, pebbles and rocks. In backwaters there was a muddy bottom layer, up to 20 cm deep. No vascular submerged plants were recorded. There were a total of four nemacheilid species syntopically occurring, viz. *Physoschistura meridionalis* (Zhu, 1982), *S. macrocephalus* Kottelat 2000, *S. kloetzliae* Kottelat, 2000 and *S. porthos*. Seemingly each loach species inhabits different niches or microhabitats within the stream. The quantified occurrence of *S. kloetzliae* was greatest in the riffle section, where the water current was fastest. It seems to be a highly adapted, rheophilic species. *Physoschistura meridionalis* and *S. macrocephalus* seem to prefer deeper and more sluggish water, while the frequency of *S. porthos* was highest in sections with moderate to fast current.

3 Results

The examined material matches well the diagnosis and figure of *S. porthos* given in its original description (Fig. 1): basic characteristics are a massive body with a hump in predorsal profile in individuals over 55 mm SL; caudal peduncle deep with a length/depth ratio of 0.8–1.14, median 0.93 (0.9–1.1 in original description), with distinct dorsal and ventral crests; top of head with dark brown vermiform pattern; body with 3–4 dark brown predorsal bars, 2–3 subdorsal bars, 3–4 postdorsal bars, all bars much wider than interspaces and frequently vertically split up creating up to 17 bars totally; black caudal bar broad and with anterior and posterior projections where it reaches dorsal and ventral midlines (Kottelat, 2000).

4 Discussion

Schistura porthos is originally described from the upper reaches of the Nam Tha River, a tributary of the

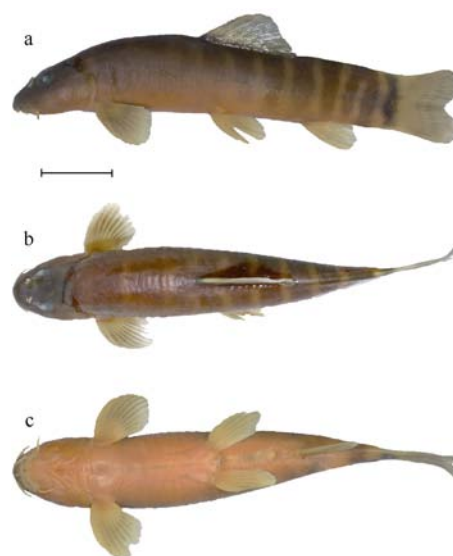


Fig. 1 *Schistura porthos*, KIZ 2010003032, 58.5 mm SL, Lateral (a), dorsal (b), ventral(c) view (scale bar 10 mm)

Mekong in Louangnamtha Province, northern Laos (Kottelat, 2000). Kottelat (2000; 2009) also reports this species from several collecting sites in the Nam Ou subbasin, Mekong basin, Phongsali Province, northern Laos. Guessing from the frequency of occurrence at plenty of collecting sites it seems to be a common species in northern Loatian streams. Both Laotian Louangnamtha and Phongsali Provinces are neighboring the southernmost tip of Xishuangbanna. Due to its geographical proximity and the absence of major topographical barriers a conjunct distributional pattern of *S. porthos* within the upper-middle Mekong basin can be assumed. This assumption entails the occurrence in suitable habitats within the Nanlahe River subbasin, Xishuangbanna. The herein reported occurrence in the Luosuojiang River subbasin extends its range and reflects a new northwestern boundary of its natural occurrence.

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