A new species of highland loach, *Schistura sirindhornae*, from the upper Chao Phraya River basin, Thailand (Pisces: Ostariophysi: Nemacheilidae)

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**Abstract**

*Schistura sirindhornae*, a new species of nemacheilid, is described from the Nan River basin in northern Thailand. It is distinguished from all other species of *Schistura* in having overlapping scales on the entire body similar to scales of balitorids, transparent scales on the belly and thorax, a lateral-line canal that is similar to that of most cyprinids and balitorids in being present across the entire lateral-line surface of the scale instead of being represented only by a pore. It also has a unique color pattern of irregular brown bars on the back and side of the faint yellow-orange body, a bright triangular orange mark on the occiput, an orange crown-shaped mark between the eyes, an uninterrupted black mark along the base of the dorsal fin, a crescent-shaped bar on the base of the caudal fin, and bright iridescent orange areas on the upper and lower extremities of the caudal-fin base. *Schistura sirindhornae* is known only from the upper Nan River drainage, Nan Province, Thailand.

**Key words**: Nan River basin, conservation, fish diversity, freshwater fish, stream ecology

**Introduction**

The fish fauna of northern Thailand is largely undescribed, particularly that in the small mountainous streams at high elevations (Suvarnaraksha *et al.* 2011). Recent surveys of small streams in the upper Nan River basin near the Laos border have revealed a number of unnamed species (Kottelat 2004; Chen & Kottelat 2005). Herein a new species of loach in the genus *Schistura* is described from the Nan Province of northern Thailand.

Kottelat (2012) listed 46 genera of Nemacheilidae as valid. Bănărescu and Nalbant (1995) considered only 28 genera as valid. Nemacheilids found in Indochina have very distinct characteristics: *Acanthocobitis* has several rows of papillae and a papillated pad on each side of the lower lip, *Tuberoschistura* has well-developed tubercles around the eyes and in the interorbital area and enlarged scales along the lateral line, *Neonemacheilus* has hypertrophied lips, *Sectoria* has a horny sheath and sharp edges on both jaws, *Nemacheilus* has the lower lip continuous along the anterior margin or with a slight incision, *Physoschistura* has a triangular-shaped lower lip (Kottelat 1990), and *Pteronemacheilus* has elongated skinfolds on the dorsal side of the second and third branched pectoral-fin rays in males (Bohlen & Šlechtová 2011).

*Schistura*, with at least 193 species (Kottelat 2012) is distinguished from other nemacheilids in having a medially interrupted lower lip, a moderately arched mouth 2.0–3.5 times wider than long, usually a black bar (sometimes dissociated) on the caudal-fin base, and a dorsal fin with one or two black marks along its base (Kottelat 1990; Vishwanath & Laishram 2001). However, the black marks on the dorsal-fin base may be absent (e.g., in *S. geisleri*), continuous or discontinuous and sometimes separated by a reddish or orange blotch, and black bars on the base of the caudal-fin base in nemacheilids may be divided into three groups: dissociated, complete, and complete with forward and backward projections at the upper and lower extremities (Kottelat 1990a).

Overlapping scales as found in most teleosts are not known in Indochinese nemacheilids; instead, all described species have small and non-overlapping or embedded scales. However, herein a new species of *Schistura* with overlapping scales is described.