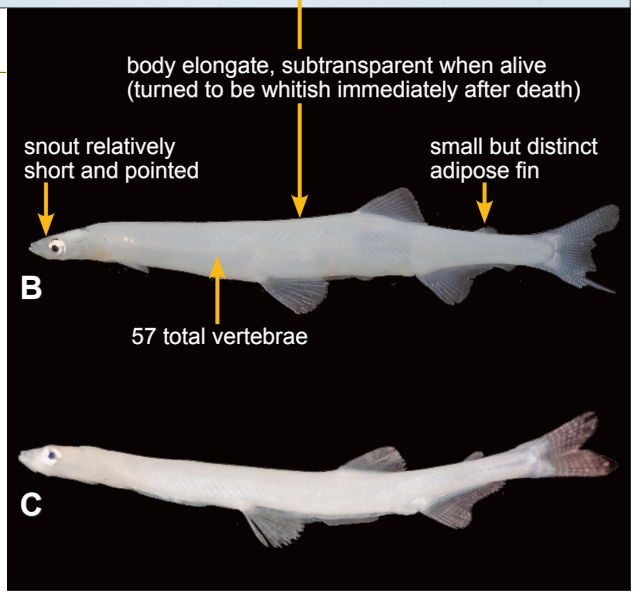
OSMERIFORMES – freshwater smelts

Classification of the osmeriform fishes is in a state of flux, and drastic changes are still being made to the phylogenetic hypotheses even in the recent yearas. For example, following the phylogenetic hypothesis proposed by Johnson & Patterson (1996), Nelson (2006) placed the salangid fishes in the tribe Salangini of the osmerid subfamily Osmerinae, together with *Mallotus villosus* (Capelin). However, recent analyses of molecular phylogeny (*e.g.*, Li *et al.*, 2010) contradict Nelson's classification within the Osmeriformes, and the Salangidae is currently accepted as a distinct family by many researchers. Within the Osmeriformes, only the single family Salangidae was recorded from the Mekong; the occurrence, however, probably represents the result of introduction from the non-Mekong Basin of China.

The Salangidae comprises small paedomorphic fishes, having a soft, elongate and transparent body (which turns to whitish immediately after death); due to its general appearance, the salangid fishes are commonly called "noodlefishes". Many of the salangid fishes occur in the brackish estuaries and adjacent freshwater areas or shallow coastal waters in the East Asian countries, but some are restrictedly found in freshwaters through all life stages. This family was revised taxonomically by Roberts (1984), but his Salangidae contained *Sundasalanx*, which is now regarded as a clupeid genus (see p. 68). Subsequenly the intrafamilial classification was modified by Zhang *et al*. (2007) and Fu *et al*. (2012). Seven genera and 20 species are currently recognized in the Salangidae, and, of these, at least a single species, *Neosalanx brevirostris*, is found in the Indochinese Mekong, which was probably introduced.



A and B) NUOL-P 1384 (photo: KS); C) IFREDI-P 3771 (photo: PT)

Neosalanx brevirostris (Pellegrin, 1923) Exotic

Family: Salangidae (FC: --)

Size: 8.5 cm SL (Kottelat, 2001a: 143, as *Neosalanx* sp.).

Distribution: Mekong Basin in China (Yunnan), Laos, Thailand, and Cambodia (probably introduced from non-Mekong Basin of China to the Yunnanese Mekong, and then widespread in the other countries).

Notes: A medium-sized species of noodlefish, found in slow-flowing, medium to large freshwater rivers.

Referring to W. J. Rainboth's personal communication, Kottelat (2000b: 88) reported a species of *Neosalanx* from the Bokeo Province of Laos, and suggested its possible introduction upriver in the basin in China. Subsequently Kottelat (2001a: 143) noted, "as *Neosalanx taihuensis* has been widely introduced in China, its presence in the Mekong Basin in northern Laos would not be impossible." The photographed specimens shown here were collected from Savannakhet of Laos (photos A and B) and of Kandal of Cambodia (C).

During our field surveys in 2007–2013, we collected many specimens of noodlefishes from the Mekong Basin in southern Laos (Savannakhet Province), Thailand (Ubon Ratchathani Province), and Cambodia (Kandal Province); in particular, it appears to be established and commonly captured in the Mun River (a tributary of the Mekong) around Ubon Ratchathani, Thailand (C. Grudpan, pers. obs.). Its relatively short snout and ca. 57 vertebrae indicate that it can be identified as *Neosalanx brevirostris* of Roberts (1984). Roberts' *N. brevirostris* contains *Neosalanx tangkahkenii* (as *Protosalanx tangkahkenii*) and *N. taihuensis* (as *N. tangkahkenii taihuensis*) as junior synonyms. In their taxonomic review of the salangid fishes, Zhang *et al.* (2007) recognized that *N. tangkahkeii* as valid, and *N. taihuensus* (as well as *N. pseudotaihuensis*) is a junior synonym of *N. tangkahkeii*. They, however, did not state about taxonomic status on *N. brevirostris*, and thus we do not follow their decision here. Note that Fu *et al.* (2012) regarded *Neosalanx* as a synonym of *Protosalanx*.

Neosalanx brevirostris is an important fish in freshwater fisheries in China (Liu, 2001, as *N. taihuensis*; Zhao *et al.*, 2008, as *N. taihuensis*), and, as noted by Kottelat (2000b: 88, 2001a: 143, as *N. taihuensis*), it was artificially introduced to many places of China since 1980's (Liu *et al.*, 2000, as *N. taihuensis*; Liu, 2001, as *N. taihuensis*).