A New Record of Anguillid Fish in Lancangjiang River, China: *Anguilla bicolor*

CHEN Zi-Ming\(^1,\#,*\), ZHANG Xiao-Yan\(^1,\#\), QI Wen-Long\(^2\), DENG Xiu-Mei\(^2\), XIAO Heng\(^1,*\)

(1. School of Life Science, Yunnan University, Yunnan Kunming 650091, China; 2. Fishery Management Station, Xishuangbanna Prefecture, Yunnan Jinghong 666100, China)

Abstract: One specimen was collected from Lancangjiang River in Jinghong, China on August 1st, 2006. It is identified as *Anguilla bicolor* McClelland, 1844, a new record of Anguillidae species occurring in Lancangjiang River in China. It could be distinguished from other *Anguilla* species by the character as: dorsal-fin origin located above vent vertically. It is an active nocturnal forager, feeding largely on a diet of crustaceans and mollusks.

Key words: *Anguilla bicolor*; Fish; New species record; Lancangjiang River; China

1 Morphological characteristics

Body length 365.2 mm; body height 18.8 in body length, head length 7.3 in body length, the vertical distance between the origins of the dorsal fin and anal fin 21.2 in body length, posterior-anal body length 1.9 in body length. Snout length 3.6 in head length, eye diameter 18.4 in head length, Interorbital width 3.7 in head length, and the vertical distance between the origins of dorsal fin and anal fin 2.9 in head length.

The body extended and snake-like, and tail laterally compressed. Head wide and flat, snout blunt and circularly wide. Two nostrils located on each side, separated far from each other, the anterior nostril short tube-like, on snout; the posterior nostril longitudinally long and oval-shaped, near anterior edge of eyes. Eyes small, round, laterally posited, the anterior margin of eye posterior to the central point of upper jaw. Interorbital space wide, and the central slightly concave. Mouth superior, lower jaw slightly protruding from upper jaw. Mouth large, tilted, far extending beyond the posterior
margin of eyes. Upper and lower jaws, vomer with sharp, thin conical teeth, arranged in teeth band; the central of front upper jaw-vomer teeth band wider than the upper jaw teeth band, longitudinal groove between them clear; the end of front upper jaw-vomer teeth band far separated from the end of upper jaw teeth band; lower teeth band divided with a longitudinal groove. Lip developed. Gill opening large, vertical, upper corner slightly higher than the middle of the pectoral fins base, lower corner extend slightly to belly.

The origin of dorsal fin at the upward side of vent, vent very near to the origin of anal fin, the origins of anal fin and dorsal fin close vertically, nearly symmetrical position. Dorsal and anal fins developed, low flat and extending to the tail, linking with tail fin and not easy to distinguish from with each other. Tail fin round. Pectoral fins small, outer edge a little convex, outer corner a little sharp. No pelvic fins. Body covered with slender small scales, the scales arraying paralleling to clusters, the scale clusters perpendicularly cross to each other, striated, buried under the skin. Lateral line pores are clear.

Color of the preserved specimen: no spot on the body, abdomen pale, and back grey-brown. Dorsal fin gray, other fins light gray.

2 Ecological characteristics
Anguilla bicolor is catadromous, spawn in tropical ocean waters. It usually inhabits in the deep sea, sandy and mud bottom water, estuarine, freshwater and coastal waters (Shao, 2009). It is an active nocturnal forager, and it mainly feeds on crustaceans and mollusks (Rainboth, 1996).

3 Distribution
It distributes in coast and freshwater estuary from Indian Ocean to the Pacific Ocean, the larvae lives in the ocean and river mouth, adult live in fresh water, and it is one of rare Mekong River fish species (Rainboth, 1996). This species had no record in the Lancangjiang River in China before, and currently it is only found in the lower reach of Lancangjiang River in Jinghong. In September 2007, a local fishermen caught one about 50 cm long, 2~3 kg of eel (estimated to be the species according to his description) in Lancangjiang River, where is near the estuary of the Luosuo River in Lancangjiang River, as never seen before, the fisherman felt a little fear, and throw it back to river.

4 Conclusion
The morphological characteristics and the proportion of the specimen is similar to the Anguilla bicolor in Fish Database of Taiwan (Shao, 2009) and the Anguilla bicolor in "Fishes of the Cambodian Mekong" (Rainboth, 1996). So in this paper, we treat the specimen as Anguilla bicolor.

Reference:

Shao KT. 2009/1. The Fish Database of Taiwan[DB]. WWW Web Electronic Publication.