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Identification of invasive alien sailfin catfish (*Pterygoplichthys*, Loricariidae) in Sri Lanka based on morphological characteristics

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Sailfin catfish popularly known as 'tank cleaner or sucker mouth catfish' is believed to be an excellent algae grazer and have been introduced all around the world from South America by the aquarium trade. Occasional escapes due to carelessness of aquarium owners and hobbyists provided an opportunity for these fish to establish populations in Sri Lankan waters. Although listed as one of the most invasive species, the taxonomic status of sailfin catfish in Sri Lanka has never been described.

In this study, 11 morphometric and five meristic characteristics were used to identify sailfin catfish occur in freshwater habitats in Sri Lanka. Morphometric data of each fish were converted into a ratio of standard length for comparison. Fish sampling was carried out from September 2012 to March 2013 in Ragama lake, MudunEla, Attanagalu Oya, Dutch canal (Western province), Polgolla reservoir, Pinga Oya (Central province), Malwathu oya, Kala wewa (North central province) and Madampe lake (North western province) using electro fishing device and cast net. Body colouration (including spots and vermicular patterns in the ventral side of the body) were also investigated. Results were compared with existing literature on the fish in the family Loricariidae.

Total length, standard length and maximum height of fish varied from 17.1 – 43.2 cm, 10.1 – 34.3 cm and 1.7 - 6.5 cm, respectively. Fish investigated in the present study had a rough margined snout with 11 - 12 dorsal fin rays, 5 – 6 pectoral fin rays and 12 -14 lateral line scales. Loricariids with 10 or more dorsal fins rays are members of the genus *Pterygoplichthys* and are referred as sailfin catfishes. They were previously misidentified and reported in Sri Lanka as *Hypostomus plecostomus*. *H. plecostomus* has less than nine dorsal fin rays and a snout with a smooth margin.

According to the body colouration and vermicular patterns in the ventral side of the body sailfin catfishes occurring in Sri Lanka belonged to two species namely, *P. pardalis* and *P. disjunctivus*. *P. pardalis* has dark spots on the lateral and caudal peduncle coalescing, with ventral spots mostly discrete; and *P. disjunctivus* has dark spots on the lateral and caudal peduncle coalescing, while ventral spots coalesce to form vermiculations. However, these two species did not show significant differences in meristic and morphometric parameters (t-test, $P > 0.05$).

Keywords: Sailfin catfish, *Pterygoplichthys*, invasive, fish, identification

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