

## Research Article

# Morphometric Landmark Measurements and Length Weight Relationship of Sail Fin Cat Fishes, *Pterygoplichthys* Species (Family Loricariidae) in Victoria and Kalawewa Reservoirs, Sri Lanka

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### Abstract

*Species of genus Pterygoplichthys; Pterygoplichthys disjunctivus and Pterygoplichthys pardalis, have been reported from seven provinces of Sri Lanka which have significant impacts on fish fauna and fisheries activities. The length weight relationship of P. disjunctivus in the current study is useful in identifying growth and mortality parameters where prediction of yields and corresponding exploitation rates. Fish specimen of P. disjunctivus were collected from Kalawewa and Victoria reservoirs during the period of January to December 2015, 2016 and 2017 for length weight analysis. Pterygoplichthys species were also collected for morphometric landmark measurements. Samples were preserved in ice and transferred to the laboratory. Fish specimens were grouped into five categories according to their abdominal spots and vermiculations. Thirty two morphometric landmarks measurements of fish specimen were measured with the use of digital venire caliper to the nearest 0.1 mm. Length weight relationships of both females and males of P. disjunctivus in Kalawewa & Victoria reservoirs indicated an allometric growth for both sexes. Condition factor value of both sexes was significantly different indicating a healthy condition. There was no significant difference between the five fish categories based on the 32 morphometric measurements, one-way multivariate analysis of variance (MANOVA) and canonical variate analysis were performed. MANOVA resulted a significantly different value for the morphometric landmark measurements. Canonical variate analysis and 95% significance regions showed five clusters for the five fish categories in Victoria and four clusters in Kalawewa. This shows five Pterygoplichthys fish categories are present in the Victoria reservoir and at least four fish groups were present in Kalawewa reservoir. The results should be further addressed using molecular approach.*

**Keywords:** *Pterygoplichthys* species, morphometric landmark measurements