Morphological relationships of *Devario* (Family- Cyprinidae) morphotypes/ species

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Devario also known as *Danio* is a fish Genus that contributes to the diversity of freshwater fishes of Sri Lanka. *Devario* species is also important in aquarium trade mainly because of their bright colouration, body shape and small size. *Devario pathirana* is the most recently identified species, endemic to Sri Lanka and has restricted distribution in the Nilwala River. *Devario malabaricus* is the commonly found species. Presence of a third species *Devario aequipinnatus* is stated in literature, however the identity of this species is not clear and not confirmed. *D. malabaricus* has been synonymised with *D. aequipinnatus and* some consider that they are two species. In aquarium trade both names are used interchangeably. These uncertainties in *Devario* species are not much studied. Taxonomic categorization of individuals into species level mainly based on morphological characters and therefore present study conducted to reveal the morphological relationships of *Devario* morphotypes/species.

Devario pathirana and other two morphotypes (N= 46) were collected from five sites of Gin and Nilwala rivers of Sri Lanka. Twenty linear measurements were taken between 12 homologous points of the body which contribute to the size and shape of the fish. Ten meristic traits were scored from 40 specimens and seven different types of external banding patterns were recorded from 36 specimens. Morphometric, meristic and banding pattern data were analysed separately using hierarchical cluster analysis using SPSS 16 computer software package.

Devario aequipinnatus and most individuals of *D. pathirana* clustered together, showing that they share similar morphologies in size and shape. Most individuals of *D. malabaricus* formed a separate cluster indicating that they are morphometrically different from other two morphotypes. Meristic characters were not able to separate the three morphotypes indicating *Devario* morphotypes/species are closely related in meristic characters. External banding patterns clustered the three morphotypes into three distinct groups showed that external bands could separate the three morphotypes in accuracy closer to 100%. From the three categories of morphological characters morphometric and meristic are closely related while banding patterns are highly different among the three morphotypes /species of *Devario*.

Key words: *Cluster analysis, Devario, Meristic, Morphology*