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Lysozyme and morphological variation between *Puntius dorsalis* (long-snouted barb) and its presumably conspecific red-fin variety

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The present study analyses the morphology and isozyme variation of *Puntius dorsalis* and the red-finned variety presumed to be conspecific to *P. dorsalis*. The external appearance of the red-finned variety is closer to that of *P. dorsalis* than of any other formally described congener. However, one distinctive autapomorphy in morphology of the red-finned variety is the presence of 3½ transverse rows of scales above lateral line (along the dorsal-anal fin diagonal), while it is 4½ in *P. dorsalis*. Among the putative isozyme loci resolved for seven enzymes, *Idh*, *Mdh*-1 and *Pgm* display fixed allelic differences between the two varieties indicating reproductive isolation and species-level divergence. Red-finned variety is morphometrically distinguishable from *P. dorsalis* by having a longer snout (8.7%SL Vs. 5.9%SL) and longer head (28.6% Vs. 25.8%). Morphology based classification function correctly classified 100% of the fish into their *a priori* groups indicating a reliable morphological discrimination between the two varieties. Present results provide evidence against the erroneously presumptive recognition of the red-finned variety as a color morph of *P. dorsalis*, and display species-level divergence between the two varieties.

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