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Osmoregulatory function of gut in Pikeperch (*Sander lucioperca*) from Caspian Sea

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Osmoregulation is one of the most important links between environmental change and physiological response in fishes. Gut as an osmoregulatory organ plays an important role in fishes. The study examined the presence of NA^+/K^+- ATPase in different parts of juvenile *Sander lucioperca* (gut and pyloric caeca) digestive system. Experiment was done on fish with average 2 g weight. 3 fishes captured, sacrificed and immediately gastrointestinal tract fixed by immersion into Bouin solution for histology. Then, the samples were placed in paraffin. 4 µm sections of samples were provided for Hematoxiline-Eosin staining. Immunolocalization of NA^+/K^+- ATPase was done by fluorescent microscope. This study provided evidence that sander lucioperca have 6 to 9 pyloric caeca with highly immunofluorescence of NA^+/K^+- ATPase in the baso-lateral parts of their entrocytes. Gut also has immunofluorescence, but the role of pyloric caeca is more important than gut in osmoregulation.

Biography

Mohammad Ali Jafari completed his Bachelor's degree in marine biology in 2010 at the University of Tonekabon in Iran. Now, he is master student of marine biology in Tarbiat Modares University in Tehran, Iran. He works on fish osmoregulation and coral reef age and coral reef bioeroders in Persian Gulf Islands.

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