# *Morphological flexibility of Pearl Zagros fish (Alburnus zagrosensis, Code, 2009) at Choghakhor wetland, ChshmehALi and HamzehALi areas, Charmahal Bakhtiari Province, Iran*

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*The main objective of this study was to evaluate the flexibility of form and body shape diversity between the three populations of pearl fish (A. zagrosensis) at Chaharmahal wetland, ChshmehALi and HmzehALi areas, Charmahal Bakhtiari Province, Iran. For this purpose, in the spring of 2014, 43 samples of fish were collected, ChshmehALi (14), wetland (14) and HamzehALi (15), using Salik nets with various streams. The profile of the lateral surface of the fish was determined, using a digital camera, and 14 landmarks were obtained. Landmarks were numbered by tpsDig2 software; Prokrast (GPA) was used for overlapping. Then morphological variety of fish populations were analyzed, using main components analysis (PCA) and canonical correlation analysis (CVA). The body shape data indicated that there is a significant difference between the studied populations. Among the most important differences observed between the studied populations were that wide body and larger head were recorded in the wetland population and low body height was observed at HamzehALi and especially ChshmehALi. Probably environmental factors, such as water temperature and food availability, could lead to such differences in the morphology of the three populations. This study showed that, due to differences in habitat and environmental conditions, the population of this species at the three studied areas is in a separate evolutionary path with respect to each other.*

***Keywords**: Morphological flexibility, pearl fish, geometric morphometric, Choghakhor wetland.*