

عنوان مقاله:

Population Structure of Persian Sturgeon (*Acipenser persicus* Borodin, 1897) in the southern part of Caspian Sea

محل انتشار:

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خلاصه مقاله:

We estimated the genetic diversity and population structure of Persian Sturgeon across six regions of Caspian Sea along the coast of Iran using eight DNA microsatellite loci. Full genotypes were obtained for 195 individuals of Persian Sturgeon. Significant differences were detected between *A. persicus* specimens collected from Sefidrud River ($P \leq 0.0001$) and those collected from the southern fishery zones. According to the neighbor-joining tree *A. persicus* specimens collected from the Sefidrud River nested in one cluster and all other specimens placed in the second cluster. Mean diversity was greatest in the Sefidrud River (14 alleles per locus) collections, and lowest in the Kiashahr-Chaboksar (Zone 2) (8 alleles per locus). The average observed and expected heterozygosity indicated a high level of genetic variability in where regions. Pairwise F_{ST} values revealed genetic differentiation among the populations. Based on the results it might be concluded that two independent populations of *A. persicus* exist in the south coast of Caspian Sea which include the Sefidrud River population and zone 3 in which this calls for additional investigations on the genetic structure. These results and significant F_{ST} of genotypic differences between these pairs of collections support the existence of genetic structuring in this species along the south coast of Caspian Sea.

کلمات کلیدی:

Acipenser persicus, Microsatellite DNA, Population structure, Caspian Sea

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