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Analyzing the trend of catch rate and reconstruction of carp and roach in the Iranian waters of Caspian Sea

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Abstract

The catch of Carp (*Cpinus carpio*) and Roach (*Rutilus caspicus*) in the southern waters of the Caspian Sea, especially in Golestan province, have been a special status because the major catch of these two species in the Caspian Sea are related to the eastern coast of the Golestan province. This study was conducted to investigate the effect of the size and numbers of fingerling released into the Gorganroud River, decline of the water level in the Caspian Sea and discharge of the river on cpue (catch per unit effort) of these two species. For this purpose, the data on catch and release of two species of carp and roach yearly during 1999-2017 from fisheries organization, the data of changes in the Caspian Sea level from the Caspian Sea Research Center and information related to discharge of river water from the Golestan Meteorological Office were prepared. The catch rate and the number of released fingerling of two species of carp and roach were fluctuated during this period. During the last four years, the catch share of *C. carpio* and *R. caspicus* in Golestan province was decreased in comparison to the total catch rate of these species in the Iranian waters of the southern coast, while the number of release in these four years was increased. The results of this study showed that different factors (sea level, released weight and released number) simultaneously affected the rate of catch per unite effort (cpue) of two species of carp and roach.

Keywords: Carp, Caspian Sea, Reconstruction and stocks, Roach

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