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Site selection for Great sturgeon (*Huso huso*) hatchery and cultural farms in Khuzestan province using geographic information system (*GIS*)

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Abstract

At present, the main species of sturgeon breeding in the country is *Huso huso*, due to its rapid growth and the possibility of producing enough juveniles in sturgeon breeding centers and high meat prices, especially caviar, in most sturgeon farms in the area. Considering the favorable results obtained in two sturgeon breeding and breeding centers in recent years in the north of Khuzestan province, the present study aims to conduct basic studies for site selection for the development of huso breeding and breeding centers In Khuzestan province. It was designed using Geographic Information System (*GIS*). Concerning site selection, several indicators were used and by combining two models of fuzzy logic and *AHP*, first each layer was divided in the environment of fuzzy geographic information system and finally in (*GIS*) of the fit class. Based on the results, the highest weight was given to ecological indicators of 0.321, followed by climate 0.205, economic and social 0.179, natural 0.167 and barriers and constraints 0.129, respectively. According to studies, the most suitable places for the development of sturgeon farming in the northern regions and East and the most unsuitable in some southern and western regions of the province.

Keywords: Elephant fish (beluga), Fuzzy model, GIS, Location

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