

## عنوان مقاله:

Evaluation of LHRH-a acute release implantation on final maturation and spawning in not-fully matured broodstocks of  
(Persian sturgeon (*Acipenser persicus* Borodin, ۱۸۹۷

## محل انتشار:

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## خلاصه مقاله:

The Persian sturgeon (*Acipenser persicus*) is considered as an endemic sturgeon of the south part of the Caspian Sea and provides the highest Iranian caviar production. Due to overfishing, degradation of the rivers conditions of the natural reproductive habitats, the fish stocks is decreasing. The immature breeders do not response to hormonal therapy at the sturgeon hatcheries as most having PI (above ۱۰) and large numbers of breeders caught and transported to the hatcheries were unable to reproduce. This study was attempted to find the effect of LHRHa implantation on oocytes maturation and spawning of Persian sturgeon. Broodstocks were caught from the southeast region of the Caspian Sea. The selected female broodstocks ( $PI > 10$ ) ranged in size from ۲۴.۰ to ۳۷.۵ kg were implanted with LHRHa cholesterol pellets at concentrations of ۰  $\mu\text{g}/\text{kg}$  (control), and treatments of ۱۰، ۱۵ and ۲۰  $\mu\text{g}/\text{kg}$  (in three replicates). The results from this study indicated that females treated with LHRHa hormone implantation at ۱۰، ۱۵، ۲۰  $\mu\text{g}$  per kg body weight reached final maturation. These results were observed for all fish from treatment numbers ۲ (۱۵  $\mu\text{g}/\text{kg}$ ) and ۳ (۲۰  $\mu\text{g}/\text{kg}$ ), however only one fish reached final maturation in treatment ۱ (۱۰  $\mu\text{g}/\text{kg}$ ). The current implantation of LHRHa was able to enhance breeders with PI above ۱۰ to final maturation which under normal condition at sturgeon's hatcheries this is not possible. The results suggested that final maturation can be achieved that lead to high fertilization ( $78.33\% \pm 13.87$ ،  $68.33\% \pm 4.16$  in treatment ۲ and ۳، respectively) and hatching rates ( $85.3\% \pm 9.07$ ،  $68.33\% \pm 7.64$  in treatment ۲ and ۳، respectively) and also total larvae production. Thus، the information from this study is very useful for artificial propagation of not-fully-matured females of Persian sturgeon at Sturgeon hatcheries especially in Iran.

## کلمات کلیدی:

*Acipenser persicus*, Broodstocks, LHRHa implantation, Artificial propagation, Fertilization, Hatching rates

## لینک ثابت مقاله در پایگاه سیویلیکا:

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