

## عنوان مقاله:

Research Article: Plasma levels of sex steroids (testosterone, progesterone and  $17\beta$ -estradiol) in Rohu Carp Labeo rohita broodstock from Khuzestan, Iran

## محل انتشار:

مجله علوم شیلات ایران، دوره 19، شماره 6 (سال: 1399)

تعداد صفحات اصل مقاله: 12

## نویسندگان:

H. Hosseinzadeh Sahafi - *Iranian Fisheries Science Research Institute, Agriculture Research Education and Extension Organization (AREO), Tehran, Iran*

S. Dehghan Madiseh - *Iranian Fisheries Research Institute, South Aquaculture Research Center, Agriculture Research Education and Extension Organization (AREO), Ahvaz, Iran*

S. Koohilal - *Department of Marine Biology, Graduate School of Marine Science and Technology, Science and Research Branch, Islamic Azad University (IAU), Tehran, Iran*

M. Hamidinejad - *Department of Fishery, College of Agriculture And Natural Resource, Ahvaz Branch, Islamic Azad University, Ahvaz, Iran*

M. Velayatzadeh - *Young Researchers and Elite Club, Ahvaz Branch, Islamic Azad University, Ahvaz, Iran*

## خلاصه مقاله:

Sex steroids (testosterone, progesterone and  $17\beta$ -estradiol) play important roles in controlling reproduction and sexual maturity in teleosts. The aim of the present study was to evaluate the seasonal changes of these steroids in Rohu Labeo rohita. Forty gravid females and males L. rohita reared in different seasons (spring, summer, autumn, winter) were caught by a net with 1 cm mesh from earthen ponds of Aquaculture Research Institute, in south of Iran. The highest levels of  $17\beta$ -estradiol ( $122.8 \pm 17.73$  ng mL<sup>-1</sup>), testosterone ( $0.11 \pm 0.003$  ng mL<sup>-1</sup>) and progesterone ( $0.86 \pm 0.01$  ng mL<sup>-1</sup>) in female fish were recorded in autumn. In addition, the highest concentration of testosterone in male was determined as  $0.84 \pm 0.003$  ng mL<sup>-1</sup> in autumn. The mean value of dissolved oxygen in four seasons (spring, summer, autumn, and winter) were  $9.21 \pm 0.77$ ,  $8.36 \pm 0.51$ ,  $10.41 \pm 0.9$  and  $13.14 \pm 0.72$  mg L<sup>-1</sup>, with temperature  $25.47 \pm 1.07$ ,  $29.88 \pm 1.42$ ,  $20.23 \pm 0.69$  and  $14.63 \pm 0.47$  °C, respectively. Therefore, it can be inferred that progesterone was considered as the critical index for seasonal breeding selection. There was an appropriate condition in the mid winter for broodstock selection and breeding of fish with hormones manipulation.

## کلمات کلیدی:

Sex steroids, Seasonal changes, Labeo rohita, Khuzestan, Iran

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1396956>



