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The evaluation of the fecundity changes during the breeding season of silver carp females, *Hypophthalmichthys molitrix*

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The present study focuses, on one hand, on evaluating the changes of females' relative fecundity through the breeding season. On the other hand, it investigates the relationship between the spawning periods and the females' relative fecundity, weight and age. The induced breeding operations were performed during two consecutive breeding seasons (2016 and 2017). The broodfish, used in this study, originated from the Deroua Fisheries Station, Morocco. fish breeders were reared in earthen ponds and feed on phytoplankton (Diatomophyceae and Chlorococcales) available naturally in those ponds. During the two seasons, 44 and 36 females were manipulated respectively. The mean of ova production of these two sets of females, was respectively $135.78 \pm 5, 64$ g (ova / kg of female body weight) and 142.80 ± 10.69 g (ova / kg of female body weight). The results revealed that there is no period effect on fecundity through the breeding season. However, the correlation test showed that the females' relative fecundity correlated positively with the spawning periods. For the two successive seasons, the correlation (r^2) was 0.18 and only 0.085 respectively. Furthermore,

Females' fecundity was negatively related to their age (-0.283 and -0.108, respectively). Contrariwise and through the two breeding seasons, the females' weight and oocytes weight were significantly positively correlated. At the first season, the correlation was 0.668, while at the second season the correlation has recorded 0.536.



Biography

Fatima Zahra Majdoubi has completed her graduation on food processing engineering at the age of 24 years from Agronomic and Veterinary Institute Hassan II. Presently, she is pursuing her PhD degree on biology at the Faculty of Sciences and Techniques, University of Sultan Moulay Slimane, Morocco.

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