

## Reproductive cycle and plasma levels of steroids in male Eurasian perch

From April 1995 to April 1996, the annual reproductive cycle of male Eurasian perch *Perca fluviatilis* was studied at the Lindre Center (Moselle, France). At monthly intervals, five males (mean body weight of  $133 \pm 43$  g and total length of  $175 \pm 9$  mm) were caught. From sampled organs, the gonadosomatic (GSI), hepatosomatic (HSI) and viscerosomatic indexes (VSI) were calculated and plasma testosterone (T) and 11-ketotestosterone (11KT) levels were measured. After the spawning period in mid-April, GSI and HSI dropped and VSI increased to  $3.8 \pm 0.1$  %. In September, GSI reached its maximum ( $8.5 \pm 1.8$  %). At this time, spermatocytes, spermatids and spermatozoa were abundant, whereas in June only spermatogonia were observed. During winter, GSI was stable at approximately 5 %, HSI reached its maximum ( $1.9 \pm 0.3$  %) and VSI was low ( $2.6 \pm 0.2$  %). From April to November 1995, plasma T and 11KT concentrations were low ( $< 0.5$  ng·mL<sup>-1</sup>). Plasma T levels increased significantly in December and reached peak levels ( $12.3 \pm 2.1$  ng·mL<sup>-1</sup>) in January, then decreased in February and increased again until spawning in April ( $6.8 \pm 2.1$  ng·mL<sup>-1</sup>). This second elevation could be related to the beginning of a new spermatogenic cycle. Plasma levels of 11KT increased significantly from October to February 1996 ( $4.9 \pm 1.1$  ng·mL<sup>-1</sup>). From February to the spawning period (April 1996), plasma 11KT decreased significantly, but values were significantly higher than those measured in fall. Males were spermiating from January to spawning in April.

**Auteurs du document :** Isdy Sulisty, Pascal Fontaine, Jacques Rinchar, Jean-Noël Gardeur, Hervé Migaud, Bruno Capdeville, Patrick Kestemont

**Obtenir le document :** EDP Sciences

**Mots clés :** Reproductive cycle, sex hormones, steroids, male

**Date :** 2000-03-15

**Format :** text/xml

**Source :** [https://doi.org/10.1016/S0990-7440\(00\)00146-7](https://doi.org/10.1016/S0990-7440(00)00146-7)

**Langue :** Anglais

**Télécharger les documents :** [https://www.alr-journal.org/10.1016/S0990-7440\(00\)00146-7/pdf](https://www.alr-journal.org/10.1016/S0990-7440(00)00146-7/pdf)

**Permalien :** <https://www.documentation.eauetbiodiversite.fr/notice/reproductive-cycle-and-plasma-levels-of-steroids-in-male-urasian-perch0>

Evaluer cette notice: