

# Studies on the reproduction of hybrids (OS) resulting from the intergeneric cross between *Oreochromis niloticus* (Linnaeus, 1758) female and *Sarotherodon melanotheron* (Rüppel, 1852) male in captivity

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**ABSTRACT:**

A study was conducted in a lagoon environment on second generation hybrids from the intergeneric cross between *Oreochromis niloticus* (female) and *Sarotherodon melanotheron* (male) in order to know certain reproduction parameters. The breeding was conducted in cages (3x2x1.5 m) installed in a pond bordering the Ebrié lagoon and in concrete tanks (2x2x1 m). The Gonado Somatic Index (GSI), the condition factor (K), the Hepato Somatic Index (HSI), the size of first sexual maturity, fecundity, the oocyte diameter and the sex ratio were determined. In females, the low values of HSI and the high values of GSI and 'K' recorded during vitellogenesis reflect the use of liver reserves as a source of energy. However, these parameters vary little in males. Males reach sexual maturity at larger sizes (11.61±0.08 cm) than females (10.11±0.09 cm). The absolute fertility is 1040±86 oocytes per female with a relative fecundity of 41.25±3.41 oocytes per gram of body weight. Egg diameter at egg-laying is 2.20 mm with a sex ratio at the hatch of 1: 1. These results suggest that these hybrids reproduce well in lagoon water and can be specimens of tilapia to be recommended to fish farmers.

**Keywords:**

Lagoon aquaculture, Oocyte diameter, Fecundity, Sexual maturity, Sex ratio.