



## Reproductive Ecology of an Invasive Cichlid Fish *Oreochromis mossambicus*

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**Abstract:** Reproductive ecology of an invasive cichlid, *Oreochromis mossambicus* was studied using 654 specimens collected from Vembanad Lake, Kerala state. Females were predominant in the catches and the overall sex ratio was 1:1.40 ( $\chi^2=17.83$ ,  $p < 0.05$ ), which significantly deviated from theoretical 1:1 distribution with 41.74% males and 58.26% females. Males and females in reproductive activity occurred throughout the year, the peak spawning period occurring between May to August and November to December. The length at which 50% ( $L_{50}$ ) of the fish were mature was 154.88 mm TL for males and 141.72 mm TL for females. The absolute fecundity of *O. mossambicus* varied from 644-2210 eggs/fish with an average of 1469 and the relative fecundity ranged from 10.12-19.23 eggs/g with an average of 15.54. Continuous spawning pattern, extreme parental care, fast sexual maturation, comparatively small eggs, predominance of females and tolerance to a wide range of environmental conditions promote the high recruitment of this invasive species in the lake and the adjoining rivers.

**Keywords:** Cichlid fish, Reproductive ecology, Sex-ratio, Spawning season, Mozambique tilapia, Fecundity

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