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**Scientific Programme  
Lecture and Poster Abstracts  
List of Participants**

**Comparative study of the behaviour and the hormonal levels of females and sex reversed females *Oreochromis aureus* (Steindachner, 1864) (Pisces : Cichlidae)**

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In confined environments, the precocious reproductive efficiency of tilapias can rapidly lead to overcrowding and nanism. Various methods of monosexing have been used to control reproduction. *Oreochromis aureus* males are considered to be homogametic (ZZ) for sex determination. Thus, if a normale male (ZZ) is spawned with an estrogen sex-reversed female (ZZ), referred to as "pseudofemales", only male progeny should be produced.

29 *Oreochromis aureus* were used: 12 females, 12 pseudofemales and 5 males. They were maintained in aquaria (100-1000 l) at 26°C, under a 12L/12D photoperiod. Behaviours were observed with a remote controlled camera. The levels of circulating Testosterone (T), Estradiol-17 $\beta$  (E2), T3 and T4 were determined by radio-immunoassay.

When pseudofemales were placed in the same aquaria as females, they usually showed more aggressive behaviour ("lateral display", "biting", "pursuit") than females and were dominant. Sometimes, pseudofemales were more aggressive towards males than females. When they were placed in the same aquaria as females and one male, pseudofemales never spawned. The presence of a male increased the circulating T level of pseudofemales but not the females one. It might exist neuroanatomical and neurophysiological differences between the brain of females and pseudofemales, due to the hormonal treatment.