

The effect of synthetic estrogen, 17 α -ethinylestradiol, on the gonadosomatic index of male and female mummichogs (*Fundulus heteroclitus*)

17 α -ethinylestradiol (EE2) is a synthetic estrogen that mimics the actions of natural estrogen. Found in low concentrations in the marine coastal environment (1-10 ng l⁻¹) it has been seen to elicit a variety of responses including vitellogenin production, altered reproductive cycles, changes in behavior, and changes in gonadosomatic index. My study examined the change in GSI of an estuarine species, *Fundulus heteroclitus* (mummichogs) when exposed to 4 concentrations of EE2 (0.5 ng l⁻¹, 5.0 ng l⁻¹, 50.0 ng l⁻¹, and 200 ng l⁻¹). Males and females were assessed by calculating GSI at the termination of the study. Though no statistically significant response was seen for either males or females, 3 out of 4 male treatment groups had lower GSIs than the control groups.