

Flushed chemicals give fifth of male fish feminine traits

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Chemicals flushed down household drains have caused about 20 per cent of male river fish to have female characteristics, according to research.

Males are displaying feminised traits and producing eggs, a study by Charles Tyler at the University of Exeter has found. Some have reduced sperm quality and display less competitive behaviour, which affects breeding.

The chemicals causing this include ingredients in the contraceptive pill, by-products of cleaning agents, plastics and cosmetics. The study used specially created transgenic fish to view responses to the chemicals and found that

oestrogens in some plastics also affected heart valves. Tests showed 20 per cent of male freshwater fish, such as roach, had feminine characteristics.

More than 200 chemicals from sewage plants have been identified with oestrogen-like effects, and drugs such as antidepressants are altering fish's natural behaviour, the study found.

Professor Tyler, who will present the findings to the Fisheries Society of the British Isles at Exeter University today, also found that the offspring and grandchildren of affected fish could be more sensitised to the chemicals in subsequent exposures.