

Boys Will Be Girls

In a recent study of the feminization of wildlife, the conclusion is that “Boys will be girls – eventually.” Blame has fallen on the increasing prevalence of a group of chemicals known as endocrine disruptors found in plastics, food packaging, shampoos, fragrance, lotions and pesticides. A reduction in the size of male genitals, a lower sex drive and parts of the testes turning into ovary tissue are among the symptoms that are leading to falling sperm counts and infertility among men. 13A

Boys Will Be Girls, Eventually, Mark Townsend, The Observer / Guardian Unlimited, 18 July 2004

COMPLETE TEXT

BOYS WILL BE GIRLS - EVENTUALLY

Extinction threat rises as creatures ingest 'gender-bending' chemicals from plastics and pesticides

Mark Townsend, The Observer

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The Observer

Mother nature is taking over. An extraordinary feminization process has begun to affect Britain's wildlife - and scientists warn it could ultimately dismantle the evolutionary process that has existed for 3.5 billion years.

A trend first noted in whelks is starting to spread rapidly among other wildlife species in the food chain.

The first national survey of 42 rivers by the Environment Agency has just been completed and it found **that a third of male fish are growing female reproductive tissues and organs**. Effects were most pronounced in younger fish, raising grave implications for future stocks.

Scientists now fear that seals, dolphins, otters, birds such as peregrine falcons and even honey bees are heading towards a uni-sex existence that would lead to extinction. Blame has fallen on the increasing prevalence of a

group of chemicals known as endocrine disruptors. These are found in plastics, food packaging, shampoos, fragrance, lotions and pesticides. Most of these contain chemicals that accumulate in the environment. They can mimic the female hormone oestrogen when ingested or rubbed on the skin.

A reduction in the size of male genitals, a lower sex drive and parts of the testes turning into ovary tissue are among the symptoms. As the effect of the chemicals starts to creep up the food chain, concern will mount over the potential effect on human health amid increasing evidence of falling sperm counts and infertility among men.

Charles Tyler, professor of environmental and molecular fish biology at the University of Exeter, who is leading an international team studying the impact of so-called 'gender-bending' chemicals warns that a point where a species can no longer reproduce is a very real concern.

'We have reached a crucial point. Now we are starting to see the effects while only just starting to understand what is happening. This poses a serious threat to species in some areas,' said Tyler.

Others studying the phenomena say the feminization process is a warning from nature that a nightmare is about to unfold. Pressure will again resume this week on ministers to curb the use of 'gender-bending' chemicals. Environmentalists will point to research revealing that honey bees, so vital for the pollination of plants, were found to display a lower sex drive with fewer eggs laid by the queen after exposure to endocrine disruptors. They also point to recent studies involving bottle-nosed dolphins in the North Sea. Again, the presence of chemicals has been linked to an increase in birth defects, most notable among male specimens, along with more infant deaths which has resulted in an ageing of the population.

So far the government has agreed to fund studies into suspicions that the otter's comeback after decades of decline will be hampered by the feminizing effects of the chemicals. A separate study has just been funded into the dipper which feeds on fish taken from the rivers.

Tyler is among those who have complained that the huge gap in scientific knowledge over gender bending pollutants has so far prevented any action in the outlawing of chemicals.

Toxicology expert Andreas Kortenkamp of the University of London's school of pharmacy, believes the government has 'grossly underestimated' the chemicals' effects. He believes that current safeguards to protect wildlife are grossly inadequate. In particular, he warns that nothing is being done to calculate how cocktails of chemicals react in the environment. More than 100,000 synthetic chemicals remain authorized for use, with the European Union holding a list of 550 potential endocrine disruptors. It is not yet known precisely which ones have altered the male reproductive organs of bream, carp, roach and gudgeon or caused hormone disruption among grey seal pups in the North Sea.

Bees were found to be affected by chemicals used commonly on crops in the UK countryside.

The findings coincide with renewed concern over fertility levels among men. Sperm counts have fallen by a third between 1989 and 2002, according to some studies, while one in six British couples now experiences difficulty in conceiving. Contaminated drinking water caused by the by-products of the contraceptive pill flowing back into the system is one of the explanations put forward.

Justin Woolford, a spokesman for the World Wildlife Fund, said: 'What we do to wildlife we ultimately do to ourselves.'

Yet almost two years have passed since the World Health Organization urged governments to investigate the effects of gender-bending chemicals.

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People are often unreasonable,
illogical and self-centered;
Forgive them anyway.
Mother Teresa