

Contraceptive Hormones Mutating Fish in St. Lawrence River

By Hilary White

MONTREAL, September 18, 2008 (LifeSiteNews.com) - Estrogen from birth control pills in highly populated areas of Canada is washing into the water table and flooding the St. Lawrence River, a new study has found. University of Montreal researchers said that the St. Lawrence River near Montreal has an alarmingly high level of estrogens that are mutating male fish.

Downstream from the island of Montreal, one of Canada's most densely populated urban areas, estrogen levels in the water are "about 100 times more than the level known to have significant endocrine-disrupting effects," Sebastien Sauve, a professor of environmental chemistry, told the CBC.

The primary source of the estrogens is the contraceptive pill and other artificial hormones, said the researchers. "They're really pharmaceuticals, which are used either as contraceptives or in hormone replacement therapy," Sauve said.

Scientists have regularly reported in recent years that the excess of artificial hormones in the water system has caused lack of sexual differentiation among fish and other wildlife and a loss of their capacity to procreate.

Excess drugs that the body does not metabolise are excreted and flushed into sewage treatment plants, and then into streams and lakes, where they can be taken up by wildlife and drinking water supplies. Scientists are growing increasingly concerned about the long-term impact of estrogens, called "endocrine disruptors", and their impact on the development of fish, amphibians and reptiles.

The CBC reports that other research at Quebec's National Institute for Science Research has found ovaries in the testes of one-third of the males of a species of minnow in the same part of the river that the new study examined.

In 2006, the United States Geological Survey undertook the first nation-wide study of estrogens as a water pollutant and found a dramatic upsurge in the number of male fish growing female reproductive parts. A survey of bass in the Potomac River found almost 100 percent of the smallmouth bass species were feminized, or had eggs in their testes.

In 2001 and 2003, a group led by University of New Brunswick ecotoxicologist Karen Kidd spiked the water of a Canadian lake with the type of estrogen found in birth control pills, to find out how the hormone might impact the aquatic animals.

They added the hormone at a level of six parts per trillion, which is similar to levels that have been found in treated sewage water. The most alarming finding was that the lake's population of the common Fathead minnow plummeted from thousands to almost zero, because estrogen so thoroughly disrupted the minnow's reproductive abilities.

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