

Drug-resistant E. coli found in harbour

ERIC MCGUINNESS

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Antibiotic-resistant E. coli bacteria of the sort challenging hospitals have been found in Hamilton Harbour and the Detroit River with resistance at what researchers call breakpoint levels -- high enough that the best available antibiotics might not kill them.

Tom Edge, an Environment Canada scientist based at the Canada Centre for Inland Waters in Burlington, told a Hamilton audience on the weekend that 10 to 20 per cent of the E. coli in treated sewage flowing from the Woodward Avenue wastewater plant show significant levels of antibiotic resistance.

It's not clear yet what the findings mean, because they're among the first using new DNA fingerprinting tools to identify different kinds of E. coli, a bacterium commonly found in human and animal intestines.

Most forms are harmless, but some can be deadly, such as the O157:H7 strain that killed people in Walkerton.

Edge said O157:H7 wasn't found in the harbour, but 29 per cent of the E. coli sampled -- "a surprisingly high number" -- consisted of types associated with illnesses such as urinary tract infections.

Fourteen per cent contained at least one gene for antibiotic resistance.

After the surprising number turned up here, federal researchers sampled water near the Detroit sewage plant and found similar results.

"I expect we will find that's common around the Great Lakes, not just Hamilton Harbour," Edge told participants in a Bay Area Restoration Council workshop on concerns about the harbour.

He said researchers want to know, among other things, where the bacteria showing up in hospitals can be found in the human food chain, where resistance is evolving and whether the natural environment acts as a reservoir for the microscopic bugs.