

Barton Chronicle 9-2-2020

Research and sampling needed to determine cause of lesions in bullhead

Dear Editor,

I am writing in response to published comments by Peter Emerson, Fish Biologist for the State of Vermont. In your article about his recent guided tour of the Black River, Mr. Emerson refers to the research done between 2012 and 2017 on Brown Bullhead in Lake Memphremagog, that found that 30% of the population have cancerous lesions. These lesions are rare but have been found in Brown Bullheads in waters that have been environmentally contaminated.

Mr. Emerson said, "The cancer isn't *likely* caused by landfill runoff" and that "While there are contaminants in the lake they *do not appear* to be coming from the landfill or the leachate", the liquid generated as water works its way through the tons of garbage in a landfill. "Likely?" "Do not appear?" This is surprisingly unscientific language coming from a biologist. Only research and sampling for all of the many toxic substances contained in leachate, including PFAS, can prove with certainty what is causing these lesions.

PFAS chemicals are called "forever chemicals" because they "persist, accumulate, and travel". They are a known environmental and health hazard and are proven to cause cancer. Landfills are one of the top four sources of PFAS pollution. In fact, up until last November, 15,00 gallons a day of leachate were poured into Newport's waste water treatment plant. In a sampling of effluent from Newport's WWTP in October 2019, PFAS levels were found to be three times the Vermont 20ppt standard for drinking water. Effluent is the liquid that leaves the WWTP and empties into rivers and lakes. Only Montpelier, which also accepts landfill leachate, had higher effluent PFAS levels than Newport. (Unfortunately, since last November, when Newport was no longer permitted to accept leachate into its WWTP, all the millions of gallons that used to go into Memphremagog now are ending up in Lake Champlain.)

No tests for PFAS have yet been done in the Brown Bullhead population in Lake Memphremagog, though the State says that is planned. Until that testing occurs in a scientific study, it is irresponsible to say without evidence that the landfill leachate or runoff is "likely" not the problem with these fish. Whether tests find PFAS or another toxic substance is the cause, clearly there is a big problem with environmental pollution of Lake Memphremagog, or the Brown Bullhead would not have these lesions. A permanent ban on pouring toxic landfill leachate into our lake via the Newport WWTP, which cannot filter them, is one obvious way to prevent further pollution of our cherished lake.

Peggy Stevens
East Charleston

PS: We can all learn a lot simply by doing a google search, where many scientific studies are available supporting everything I have said here. Here are two research articles to start:

<https://pubmed.ncbi.nlm.nih.gov/31724204/>; <https://cswab.org/wp-content/uploads/2019/11/Landfill-Leachate-Patterns-Trends-Sources-Benskin-July-2019.pdf>

I hope more people make an effort to find facts to inform their opinions on such a crucially important issue.