

GRATIOT COUNTY

Data shows E. Coli impact on fishermen

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Although it is known that the Pine River has a history of high E. coli levels, the question of how that impacts those recreating in the river has not been studied extensively until now.

Preliminary data from a study done by Alma College students and professors who fished on the

Pine River upstream of the Alma dam — also known as the Alma Impoundment — found that 78 percent of nine volunteer anglers who dipped their hands in the water had E. coli on them, and 100 percent of the anglers in the study had traces of fecal coliform bacteria at some point. Coliform bacteria lives in the intestines of warm-blooded animals.

The study, led by Alma College student Hunter Wilson, was done

via two fishing trips, one on July 28 and another on Aug. 8. The information presented Thursday at a meeting of the Healthy Pine River Group at the Alma Public Library is based on the nine volunteers who participated in fishing on Aug. 8.

However, the state Department of Natural Resources' website classifies the site as "family-friendly fishing waters" and indicates that Alma has no fish

consumption advisories.

"The designation of family-friendly fishing waters has to do with availability of shore and peer fishing. It has nothing to do with the water quality," said Jim Baker, the fisheries unit manager for southern Lake Huron fisheries management unit in the DNR's Bay City office.

More of the group's preliminary results included that shore locations — where many chil-

dren fish — had higher numbers of E. coli, and that fecal coliform bacteria and E. coli were found on hands even when a fish hadn't been caught yet, meaning it was found on fishing lines being touched, and on fishing bait and water.

"People who hadn't even caught a fish had signs of E. coli," Wilson said Thursday.

Baker commented on this in re-

E. COLI » PAGE 2

E. Coli

FROM PAGE 1

sponse.

"Anglers simply need to use simple common sense and wash their hands before eating or smoking," he said. "Thorough cooking of the fish kills the bacteria."

On the first trip, 19 fish were caught at the Golfside location along the river by boat and at Pine River and Luneak parks on shore combined. Baker said the DNR conducts fish surveys at this location but water quality tests are done by the state Department of Environmental Quality.

The testing group stressed some caveats about its results, including that the data has to be assessed by toxicologists.

"Making a clear, cause-and-effect link is very difficult," said Amanda Harwood, Alma College assistant professor of biology and environmental studies.

After catching them, the fish were swabbed with a sterile swab on each side of it. Also, anglers' hands were swabbed after catching their first fish and at the end of the fishing day, which was about four hours long starting at 8 a.m.

On the second fishing trip, the same locations



COURTESY PHOTO

Data from a study led by an Alma College student Hunter Wilson found an impact on anglers who use the Pine River for recreation in regard to exposure to E. coli and thermo-tolerant fecal coliform bacteria. For example, the preliminary data found that fecal coliform bacteria and E. coli were present on the hands of testing volunteers even when a fish had not been caught yet, including touching a fishing line, on bait or in the water.

were used, however anglers were assigned to specific treatment methods. On this trip, 28 fish were caught.

The first treatment was to swab hands after the first and last fish caught; the second treatment swabbing hands every 30 minutes; and the third treatment, for everyone, was to

bleach their hands then dip them directly into the river to be swabbed.

Harwood said there is no scientifically-accepted method for how to swab fish.

After each sample was taken, they were transferred into a bottle of Coliscan Easvael, then the bottle

was swished around for 10 seconds and poured into a petri dish for incubation for 48 hours at 37 degrees celsius, or 98.6 degrees fahrenheit, the average human body temperature.

The group wants to continue its study next summer by traveling further upstream of Honevove Creek.