



THE BAY CITY TIMES

MSU biologist in town to collect muck and bay water samples

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Saginaw Bay may become ground zero for a national study on muck.

Ongoing problems with the washup of dead algae and sand at the Bay City State Recreation Area in Bangor Township brought researchers from Michigan State University and a university in Venezuela to town on Tuesday.

Joan Rose, a water microbiologist from MSU, said a total of eight, 1-liter samples of turbid water close to the shore and muck along the shoreline were taken at the local state park's public beach.

The samples will be analyzed for everything from E. coli bacteria to DNA, in hopes of shedding light on the many theories of what's behind the green and gray gunk along the state park shoreline.

Rose hopes to turn the muck study into an ongoing project, funded with a \$600,000 grant from the U.S. Environmental Protection Agency.

The money would be used to do further ecological studies of the bay, sampling algae, algal blooms and sediments and looking at the influence of water levels and climate on the muck.

"We think it's worthwhile and it's a very interesting system," Rose said.

For now, the samples taken Tuesday will be analyzed for colonies of E. coli and other fecal bacteria, which can make swimmers sick.

Preliminary results should be available as soon as next week.

Other studies will look at the DNA of the muck and the species of the algae.

More samples likely will be needed for DNA studies, to find how much bacteria in the muck can be traced to humans and how much can be traced to animals, like cows.

The tests are being paid for by the MSU Center for Water Sciences, of which Rose is co-director.

She's traveled all over the world doing water quality studies at beaches, including Asia, Australia and South America. She brought along a colleague from Venezuela on Tuesday because that country is having similar muck issues along its coastline.

Rose said the beach at the local state park is nice, and she understands why people want to see it cleaned up.

Ernie Krygier, head of a property rights group called Save Our Shoreline, has encouraged Rose to test the

muck. Krygier and other volunteers have scooped out 4-foot-deep piles of muck from the park shoreline in recent weeks.

Krygier's theory is that the muck is mostly sand, made up of old dredgings dumped in the bay decades ago by the U.S. Army Corps of Engineers.

Rose said it's difficult to say how old sand in the muck is, but there are tests that may give researchers an idea.

Rose headed a science committee for the state-organized Saginaw Bay Coastal Initiative, and has said Saginaw Bay muck is a possible public health concern, based on high amounts of E. coli found in muck from the Thumb.

The Bay County Health Department has issued a muck advisory for the state park beach, urging people to avoid the washup and wash with soap and water if they come into contact with it.

Rose said she felt a need to take a closer look at the state park beach after hearing comments from the public at a May 2 Coastal Initiative meeting in Bay City.

"The citizens said a couple of things and it really stuck with me," Rose said. "I thought they were right on target. That was, we really should characterize what's going on and what this stuff is."

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