



AU graduate student Jing Yuan takes a sediment sample at Wind Creek State Park's beach



AWW Director Eric Reutebuch tests samples for E. coli bacteria

Lake Martin added to swim guide site

Extensive Auburn University study affords 100 percent rating for Wind Creek State Park Beach

STORY BY BETSY ILER
PHOTOS & GRAPH COURTESY OF AU WATER RESOURCES CENTER

Lake Martin's Wind Creek State Park Beach last month joined theswimguide.org website with a 100 percent rating as one of a handful of clean freshwater swimming beaches in the interior of Alabama. The post came after several months of vigorous chemical and bacterial water sample tests conducted through the Auburn University Alabama Water Watch (AWW) office in the AU Water Resources Center and local Lake Watch volunteers.

AWW Director Eric Reutebuch

posted the results of the six-month testing program in mid-December, noting that bacterial levels remained well below harmful levels throughout the testing.

"Every time we sampled, the levels were well below the limit for E. coli," Reutebuch noted. "It was always well within the safe zone for human contact."

Levels under 200 E. coli colonies per 100 milliliters are deemed safe by AWW, with Alabama's Department of Environmental Management criteria at 235 E. coli

colonies per 100 milliliters of lake water.

The samples taken from Lake Martin were never higher than 33 colonies per 100 milliliters, Reutebuch said.

The study was funded by the U.S. Geological Society through the Water Resources Research Institute. Research was conducted by Auburn University microbiologist Dr. Luxin Wang and her graduate student Jing Yuan, along with Lake Watch Lake Martin volunteer water quality monitors. Samples were taken from

the site two times on one day each month from May through October, and test results can be found online at www.alabamawaterwatch.org.

“Click on water data; then, summary data and bacteria and site histories,” Reutebuch said.

“One of the biggest things that came out of the study was getting Lake Martin onto theswimguide site,” he added. “The guide lists swimming beaches from all over the U.S., Canada and Mexico. You can click on any site on the map and get a report of the cleanliness of that beach. There’s an app for it, too, so you can check it on your smart-phone.”

In addition to taking water samples in the morning and afternoon, the testing team took sediment samples in the morning on testing days, as recent research has indicated there could be E. coli concentrations below the water, Reutebuch said. The teams dipped up the sediment on the lake floor after taking their morning samples; then, they returned to the site in the afternoon to take additional samples.

“In general, the sediment tested did have higher levels, but again

in Lake Martin it was a non-issue. Levels were still substantially lower than limits,” Reutebuch reported.

One other lake in Alabama was part of the study; Logan-Martin north of Lake Martin. While some water quality issues were identified there – and preventative actions taken as a direct result – Lake Martin’s bacterial counts were never a cause of concern over the course of the testing program, Reutebuch said.

Another objective of the local testing program was to check and validate the procedures and test results of Lake Watch Lake Martin, said Ann Campbell, chair of water quality monitoring at Lake Watch.

“We took samples beside the Auburn testers, and we consistently had the same results,” Campbell said.

The Lake Watch program this year added six volunteer monitors and nine sites to their program. The non-profit watchdog organization now includes 18 volunteers who take monthly water samples at 23 sites around Lake Martin, including the state park beach.

Lake Watch will continue to test

the beach area and will post test results on theswimguide.org site, which also posts information of interest to visitors to the area.

Lake Watch Education Chair Dick Bronson said students in the gifted program at Alexander City’s Radney Elementary School also have been sampling and testing water at the state park beach.

“This swim guide site has given them a practical application for something they have been doing in the classroom for three years. It is meaningful and useful as a public service,” Bronson said.

Lake Watch hopes to add the D.A.R.E. Park beach to the program in the future, he added.

