

BOTTLING SPRING WATER WITHOUT FURTHER PURIFICATION POSES A CLEAR & PRESENT DANGER

Springs Bring Mystery Illness - St. Petersburg Times, Thursday, August 24, 2006

By CRAIG PITTMAN Times Staff Writer

Some swimmers in Florida's most famous springs are developing skin rashes, and state officials are investigating whether the cause could be pollution fueled algae blooms. Many of the victims were children, but adults who reported problems ranged from a 20-year-old man to a woman in her 50s, according to state records obtained by the St. Petersburg Times.

Some of the swimmers reported something worse than a rash - nausea, swelling, dizziness, breathing problems, stomach pains. Some were treated by paramedics or taken to a hospital. Officials say pollution problems in places like Ichetucknee Springs and Wakulla Springs have worsened in recent years, and they now have growing concerns about the effects on human health. It has prompted the state Department of Health to launch an epidemiological study that may begin in the next two to three weeks.

State officials suspect the culprit may be a type of blue-green algae called *Lyngbya wollei*, but at this point there is only anecdotal evidence, said Andrew Reich, coordinator of the aquatic toxins program at the state Department of Health. Reich said the department will focus its study at Ichetucknee Springs near Lake City, which has produced the most complaints about rashes. His staff hopes to interview perhaps as many as 200 park visitors. The goal, he said, is to "assess the frequency of exposure to *Lyngbya*."

Department of Environmental Protection spokesman Anthony DeLuise pointed out that rangers have documented just 34 incidents of park visitors developing skin rashes, compared to the 6million other visitors who showed no apparent ill effects.

However, Jim Stevenson, who until his retirement three years ago was in charge of the DEP's Florida Springs Task Force, said there are probably a lot more incidents that park rangers haven't heard about. "If you get sick while tubing on the Ichetucknee, the first thing you do when you get off the river is not going to be to look for a park ranger," he said. "You're going to be going to your car and heading to a doctor." Until state officials can get to the bottom of the mystery, Stevenson said, "if I was prone to allergies, I would be careful about swimming in these springs."

The reports of swimmers with rashes came from Wakulla Springs, Ichetucknee Springs, Wekiwa Springs, Rainbow Springs, Fanning Springs, DeLeon Springs and Blue Spring in the state park system. State records also show one incident that involved a snorkeler at Alexander Springs in the Ocala National Forest. The earliest report of a rash at Ichetucknee Springs occurred in June 2002, according to state records. A 13-year-old boy emerged from the water with bright red welts on his back, sides and lower body. His mother gave him Benadryl, a common allergy medicine, and the symptoms subsided. There have been earlier reports going back to 1999 at other springs, but the problems at Ichetucknee spurred the state to begin keeping records.

The most recent incident occurred Aug. 11 at Wakulla Springs State Park south of Tallahassee, where an unidentified man who had been swimming broke out in hives. Another victim was Brian Polk, manager of the DeLeon Springs State Park, who one evening in 2003 "felt a moderate itch on his ankles and feet" about an hour after he waded in the water. "Overnight, a rash developed, which subsided after about two days," according to state records. Polk could not be reached for comment Wednesday.

Florida's limestone foundation is riddled with more than 400 springs and sinkholes, more than any other place in America. Some have become extremely popular spots for swimming, diving or floating in inner

tubes. Because the springs come gushing from deep beneath the earth, "we look at that pretty water flowing out of the ground and think it's got to be pure, and it's not anymore," Stevenson said. Instead, Florida's springs are increasingly polluted by nitrates, which come from fertilizer, sewage and animal waste. The pollution seeps through the porous limestone and contaminates the aquifer, then mingles with the water shooting back to the surface in springs.

This year a dye test found that the 20million gallons of Tallahassee sewage that was being sprayed on a 4,000-acre field every day was flowing into the aquifer and surfacing about 40 days later and 10 miles away as pollution in Wakulla Springs, one of the deepest springs in the world. Nitrates fuel the growth of algae. The DEP has teamed up with the state Department of Health to investigate the possibility that the rashes are a reaction to the Lyngbya that has shown up in a number of North Florida springs and rivers.

Lyngbya wollei grows in dense mats at the bottoms of some lakes and spring-fed systems. These mats produce gases that can cause the mats to rise to the surface, where winds pile them against shorelines. A saltwater cousin, Lyngbya majuscula, grows attached on estuary or sea bottom. Both are known to produce toxins that irritate the skin. The other thing the two versions have in common is that pollution is fueling a rapid spread, both in the springs and along the coast, said Hans Paerl, an environmental science professor at the University of North Carolina who has studied the algae for the St. Johns River Water Management District.

At Ichetucknee, Stevenson said, "that algae is taking over the river and the springs. It's shading out the native plant life." The state has spent about \$2.5-million a year over the past six years to study how to protect its springs from pollution, Stevenson said, but it's going to take a much bigger commitment to clean up the problem. "It just goes to show that we're very poor housekeepers," he said. "We're sloppy with our fertilizer and our sewage disposal. We need to do better."