

Warming drives spread of toxic algae in U.S., researchers say

By TOM JAMES
Associated Press

SALEM (AP) — The words blasted to cellphones around Oregon’s capital city were ominous: “Civil emergency . prepare for action.”

Within half an hour, a second official alert clarified the subject wasn’t impending violence but toxins from an algae bloom, detected in Salem’s water supply.

Across the U.S., reservoirs that supply drinking water and lakes used for recreation are experiencing similar events with growing frequency. The trend represents another impact of global warming and raises looming questions about the effects on human health, researchers say.

“When water bodies warm up earlier and stay warmer longer ... you increase the number of incidents,” said Wayne Carmichael, a retired Wright State University professor specializing in the organisms. “That’s just logical, and it’s being borne out.”

Technically called cyanobacteria, the ancient class of organisms that create the blooms are present nearly everywhere water is found but thrive in warm, still bodies like lakes and ponds. They also create a unique class of toxins, the impact of which on humans is only partly understood.

Long linked to animal deaths, high doses of the toxins in humans can cause liver damage and attack the nervous system. In the largest outbreaks, hundreds have been sickened by blooms in reservoirs and lakes, and officials in some areas now routinely close water bodies used for recreation and post warnings when blooms occur.

But less is known about



Rick Egan/The Salt Lake Tribune via AP, File

In this June 12 file photo, a potentially toxic blue-green algae bloom in Provo Bay in Provo, Utah. Researchers and officials across the country say increasingly frequent toxic algae blooms are another bi-product of global warming. They point to looming questions about their effects on human health.

exposure at lower doses, especially over the long term.

Small studies have linked exposure to liver cancer — one toxin is classified as a carcinogen, and others have pointed to potential links to neurodegenerative disease. But definitively proving those links would require larger studies, said Carmichael, who helped the World Health Organization set the first safe exposure standards for the toxins.

“It’s absolutely certain in my mind that warming temperatures are going to end up causing more of these algal blooms,” said Steven Chapra, an environmental engineering professor at Tufts University.

Chapra led a team including scientists from the Massachusetts Institute of Technology and the U.S. Environmental Protection Agency in one of the most

comprehensive studies of the interplay between global warming and the blooms, published in 2017.

Because they prefer warm water, higher summer temperatures and more frequent heat waves help the organisms. More frequent droughts also cause reservoirs to be shallower in summer, causing them to warm faster.

And more intense rainstorms, also conclusively linked to climate change, can wash more nutrients into lakes and reservoirs, especially from farms where nitrogen and phosphorous-rich fertilizers are used, Chapra said.

In Utah, a 2016 algae bloom in a recreational-use lake sickened more than 100. When the story made national headlines, other states reached out.

“We started getting calls

from other health departments all over the country saying, ‘Hey, we’re dealing with an algal bloom in a lake that has never ever had one before,’” said Aislynn Tolman-Hill, Utah County Health Department spokeswoman.

Officials only recently started carefully logging the blooms, but they seem to be becoming more intense, said Ben Holcomb, a biologist for Utah’s environmental agency. “They’re starting earlier, they’re lasting longer, and their peaks seem to be getting bigger,” Holcomb said. “I don’t think any state is isolated.”

In Lake Erie, a major bloom in 2014 caused authorities to warn against drinking tap water in Toledo, Ohio, for more than two days, cutting off the main water source for more than 400,000 people.

SHIRT: Flagship store plans to open in October

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homesteaded in the Pendleton area in the late 1800s.

After talking with locals, the couple came to a crucial decision: they would open their first brick-and-mortar store for Old School Shirt Makers New York in Pendleton.

The new stores will sell shirts, bow ties and knitwear designed by Stewart and Davis. And although a fashion boutique from New York-based company might sound like an odd fit for South Main Street, Stewart maintains he’s always had a fascination for the American west.

Before he opened Old School Shirt Makers New York in 2007, Stewart was a fashion director for magazines like Details, Gear, and ESPN: The Magazine.

Dressing movie stars like Samuel L. Jackson, Pierce Brosnan, and Christian Bale, Stewart said he’d often set his photo shoots in southwestern states like Arizona because of its open spaces.

“It’s ingrained in my psyche,” he said.

Eventually he decided to strike out on his own and start his own apparel company, drawing on western themes like the California Gold Rush as inspiration for his clothing lines.

Stewart doesn’t classify his tops as “western shirts,” although they do incorporate western designs like



Photo courtesy of Kevin Stewart

yolks and inverted center back pleats.

In a town full of artisans that produce hats, saddles, and boots, Stewart thinks his unique sartorial style will help Old School Shirt Makers New York stand out from the crowd.

While Old School Shirt Makers New York will have its flagship store in Pendleton, it will its main-tain ties to the east coast. The company is dedicated to producing all of its clothes in the U.S., and that production facility will remain in New Jersey.

Simultaneously, Stewart said he is looking into finding a new production space in Portland or Seattle to expand into outerwear like jackets and sweaters.

While many Pendleton entrepreneurs rush to get their businesses open before the Round-Up brings in an onslaught of customers, Stewart and Davis are targeting October for their first day.

They’ll spend September beginning to set up the store on the 300 block of Main Street, by the Lavender Mercantile Co., while Stewart experiences some other rites of passage: his first rodeo.

“(The West) is ingrained in my psyche.”
— Kevin Stewart,
Old School Shirt Makers
New York

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