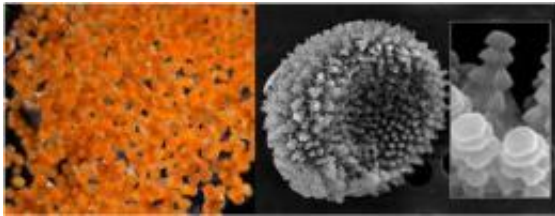


# Orange goo on Alaska shore was fungal spores

August 19 2011, By RACHEL D'ORO , Associated Press

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In this undated photo combination provided by the National Oceanic and Atmospheric Administration show magnified views of an orange goo that appeared Aug. 3, 2011 along the shore of the village of Kivalina, Alaska. The goo turned out to be fungal spores, not millions of microscopic eggs as indicated by preliminary analysis, scientists said Thursday, Aug. 18, 2011. (AP Photo/National Oceanic and Atmospheric Administration)

(AP) -- An orange-colored goo that streaked the shore of a remote Alaska village turned out to be fungal spores, not millions of microscopic eggs as indicated by preliminary analysis, scientists said Thursday.

Further tests with more advanced equipment showed the substance is consistent with spores from fungi that create "rust," a plant disease that accounts for the color, said officials with the [National Oceanic and Atmospheric Administration](#). The gunk appeared Aug. 3 at the edge of Kivalina, an Inupiat Eskimo community at the tip of a barrier reef on Alaska's northwest coast.

The substance quickly dissipated from the village lagoon and the Wulik River. But many of Kivalina's 374 residents worried about the long-term effect on the water quality - and some wildlife, fish and plants they use for food - from a phenomenon they had never seen before. There was a report of dead minnows found in the lagoon the night the substance appeared.

City administrator Janet Mitchell said those fears will only intensify with the latest analysis, which did not include toxicity tests. She herself is troubled about the community's dwindling reserves in village water tanks that will need to be topped off.

"We are going to have more concern from the public," she said. "If I'm concerned, then there will be others with concerns."

Rust fungus is a plant disease that creates a yellowish-orange or brown discoloration on leaves and stems before eventually growing spores that spread the infection. NOAA spokeswoman Julie Speegle said airborne spores could cause allergic reactions in humans or contribute to [respiratory diseases](#).

Scientists have not determined whether this spore is among the 7,800 known species of [rust fungi](#) or some kind of unknown [arctic species](#). To do that, they would need two other pieces of the puzzle: the host of the spores and the "fruiting body," akin to the mushroom stage, said Steven Morton, a scientist at a NOAA lab in Charleston, S.C., where the final tests were conducted.

A team at the lab found the spores to be unlike any they've examined, but Morton said many rust fungi in the Arctic have yet to be identified.

Morton said determining toxicity is beyond his area of expertise, but he "would definitely filter these spores out" of water sources. He said one

of the tests run on the substance was to determine if there were any mineral components, such as iron.

"There were no minerals at all," he told The Associated Press.

Alaska officials will discuss the mystery among state agencies to determine whether to what actions to take if a potential risk is seen, said Emanuel Hignutt, a chemist with the state Department of Environmental Conservation lab in Anchorage. Not knowing the exact species complicates the matter, he said.

With so much still unknown, Mitchell is determined to find out how safe the community is, even if it means sending out frozen and refrigerated samples of the substance for private testing.

"Who's to say it didn't settle to the bottom of the lagoon?" she said.

The gooey, slimy substance turned powdery once it dried and probably went airborne, said Kivalina Councilwoman Frances Douglas. The material was found on at least one roof and in buckets set all over the village to collect rainwater.

Douglas estimated the volume of the substance at more than a thousand gallons. She said it was widely spread along the Wulik River and the lagoon, which is a half mile wide and six miles long. Orangey water was reported as far away as the village of Buckland, 150 miles southeast of Kivalina.

She found no reassurance in the findings announced Thursday.

"The fact that they have not completely ID'd this thing still leaves more questions in my mind," she said. "I'm not comfortable with this thing."

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