

# 'Mystery goo' on shorebirds is nonpetroleum fat or oil, scientists say

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Scientists are a little closer to identifying the mystery goo that coated hundreds of birds along the Hayward and San Leandro shoreline in mid-January, ruling out petroleum oil, a state agency announced Thursday.

The goo was a mixture of non-petroleum fats or oils, the state Department of Fish and Wildlife said. But that's a wide category, covering synthetic oils such as silicone fluids, tung oils and resins, animal fats and oil, and plant seed oils.

"Those are all possible substances it could be. It can be difficult to narrow down," said Steve Gonzalez, a Fish and Wildlife spokesman. "We're going to continue testing until we learn more or hit a brick wall," he said.

The substance ranged in consistency from an oily or gummy substance to a hard varnish, and was difficult to remove from birds' feathers, the agency said.

The seabirds were first seen washing up on the shoreline on Jan. 16. International Bird Rescue took the lead in caring for 323 birds that were captured alive. Another 170 birds were found dead. Others may have sunk, been eaten or overlooked during searches.

Investigators do not know how much of the substance was spilled.

"The Coast Guard did a flyover and did not see a sheen on the water,"

said Mary Fricke of Fish and Wildlife.

Birds' feathers act as a kind of wetsuit to keep the animals warm, she said. When oil coats feathers, birds can lose their insulation and buoyancy. The oil also can cause hypothermia, starvation, drowning, suffocation, infections and death.

"Non-petroleum oil seems to have same effect as petroleum. When the [birds](#) get cold, they start washing up on shore to try to warm themselves," Fricke said.

Fish and Wildlife is working with the U.S. Environmental Protection Agency, the National Oceanic Atmospheric Administration and the state Department of Public Health to identify the [oil](#) and its source.

"This was like a giant jigsaw puzzle with thousands of pieces to put together," said Janna Rinderneck, an environmental scientist at the state Office of Spill Prevention and Response. "We had many possibilities of what this material could be. Working together, the laboratories have narrowed that list."

Gonzalez would not speculate on the cause of the spill.

"It could have been an accident, it could be intentional; we don't know," he said.

"If somebody saw something unusual or this information jogs their memory a little bit, please report it," he said.

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