

krill and mussels to the list of unusual marine deaths in Alaska

By [Alex DeMarban, Anchorage Daily News](#) July 9, 2019 [Climate Change](#) [Environment](#) [Fisheries](#) [Northwest](#) [Oceans](#) [Science & Tech](#) [Weather](#) [Wildlife](#)

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A swarm of krill. ([Creative Commons](#) photo by [Norkrill](#))

Residents from two Northwest Alaska villages say they found large numbers of dead mussels and krill washed up along shores in June, contributing to fears in the region that record warm waters may be causing a wide range of ecosystem changes, including unusual wildlife deaths. The discoveries come amid profound changes in the ocean environment in Alaska linked to climate change, including a dramatic early ice melt, warmer water temperatures and record high air temperatures. There has been a string of unusual mortality events this season including deaths of seabirds and seals. Scientists are working to pinpoint what killed the animals and whether the deaths are related.

Mike Brubaker, director of the Center for Climate and Health at the Alaska Native Tribal Health Consortium, oversees a network of local environmental observers in Alaska and elsewhere. He wrote in late June that “an ecosystem scale event appears to be playing out” off Alaska’s coasts, related to unusual ocean conditions.

“We do not know if these events are connected or what the cause or causes are. There are a number of possibilities,” wrote Brubaker, an environmental health professional.

The northern Bering Sea in May and June has never been warmer than this year, according to Rick Thoman, a climatologist with the University of Alaska Fairbanks. Following years of low sea ice, those and other waters near the Seward Peninsula late last month were 6 to 12 degrees above normal.

Lucy Oquilluk, a tribal president in the village of Teller, said she was part of a group that came across what she estimated was 2 million dead mussels lining a channel near the ocean on the Seward Peninsula in late June.

“It’s something we never imagined,” she said.

The blue shellfish were “floating everywhere” in the water, clinking against the group’s metal skiff. In some places, thick clumps of mussels were piled up along beaches like plowed gravel. They found mussels for about four miles, the meat inside the shells rotting and causing a stink that filled the area, she said.

Mussels aren’t a subsistence food like salmon, but their deaths raise questions about the health of the ecosystem, she said.

“The salmon that we eat were running, but it’s still kind of concerning,” she said.

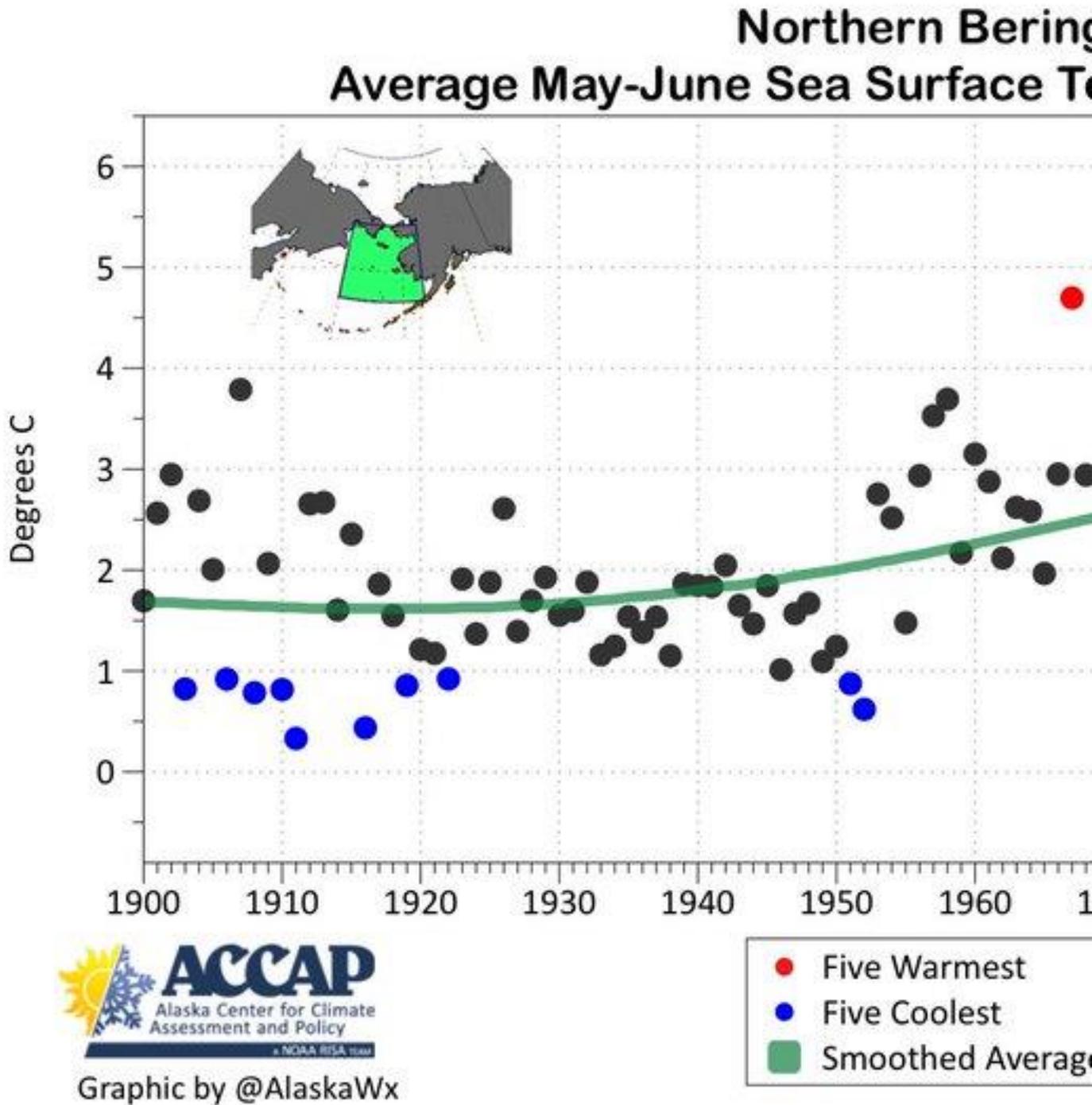
George Scanlan, recently retired shellfish specialist for the state, said he’s seen pictures of the rafts of mussels, taken by Oquilluk and others. In 15 years focused on shellfish in Alaska, he’s never seen mussels dying in such large numbers, or heard reports of it, he said.

“It certainly raises concerns,” he said. “These are resources where we need to know what’s going on.”



[Rick Thoman](#) @AlaskaWx

The northern Bering Sea near Alaska during May & June has never been warmer than this year. Six of the ten warmest May-Junes in the past 120 years have been the past six years. Community and ecosystem impacts continue. #akwx #Arctic @Climatologist49 @amy_holman @ArcticResearch



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Residents in the village of Shishmaref, about 70 miles north of Teller, have found mounds of dead krill along beaches on the barrier island, they've reported on the site. They've also occasionally found small prey fish — eaten by seabirds and larger fish — washing ashore. More than 30 dead seabirds — murrelets, auklets and puffins — have been found near the village in recent weeks, said Ken Stenek, a high school science teacher from the village. That comes atop the thousands of seabird deaths recorded in Western Alaska waters in recent years, many showing signs of starving.

In recent weeks, dozens of [dead ice seals](#) have been found off Western and Northwest Alaska coasts. That includes 39 seals in the Shishmaref area discovered around July 1 that likely died weeks or months earlier, said Barbara Mahoney, acting stranding coordinator in Alaska for the National Oceanic and Atmospheric Administration.

The deaths are reminiscent of an ice seal die-off in Alaska waters that ended three years ago and prompted NOAA to declare an “[unusual mortality event](#)” for the animals.

Scientists will collect samples of the various animal carcasses for testing, according to the LEO network.

In southern Alaska waters, scientists have confirmed [15 gray whale deaths](#), part of an unusual mortality event for gray whales from Mexico to Alaska, Mahoney said.

NOAA is working with other groups to investigate possible connections between the deaths of the seals, whales and other animals in Alaska, she said. Potential contributing factors include warm waters, a lack of prey, and harmful algal blooms that can allow toxins to enter the food web, she said.

“They are all possible factors to be examined,” Mahoney said.

Stenek said that in late June he found “millions” of dead krill stretching for several miles along beaches near Shishmaref. Stenek said he's heard reports of miles-long stretches of dead krill also being found on nearby islands.



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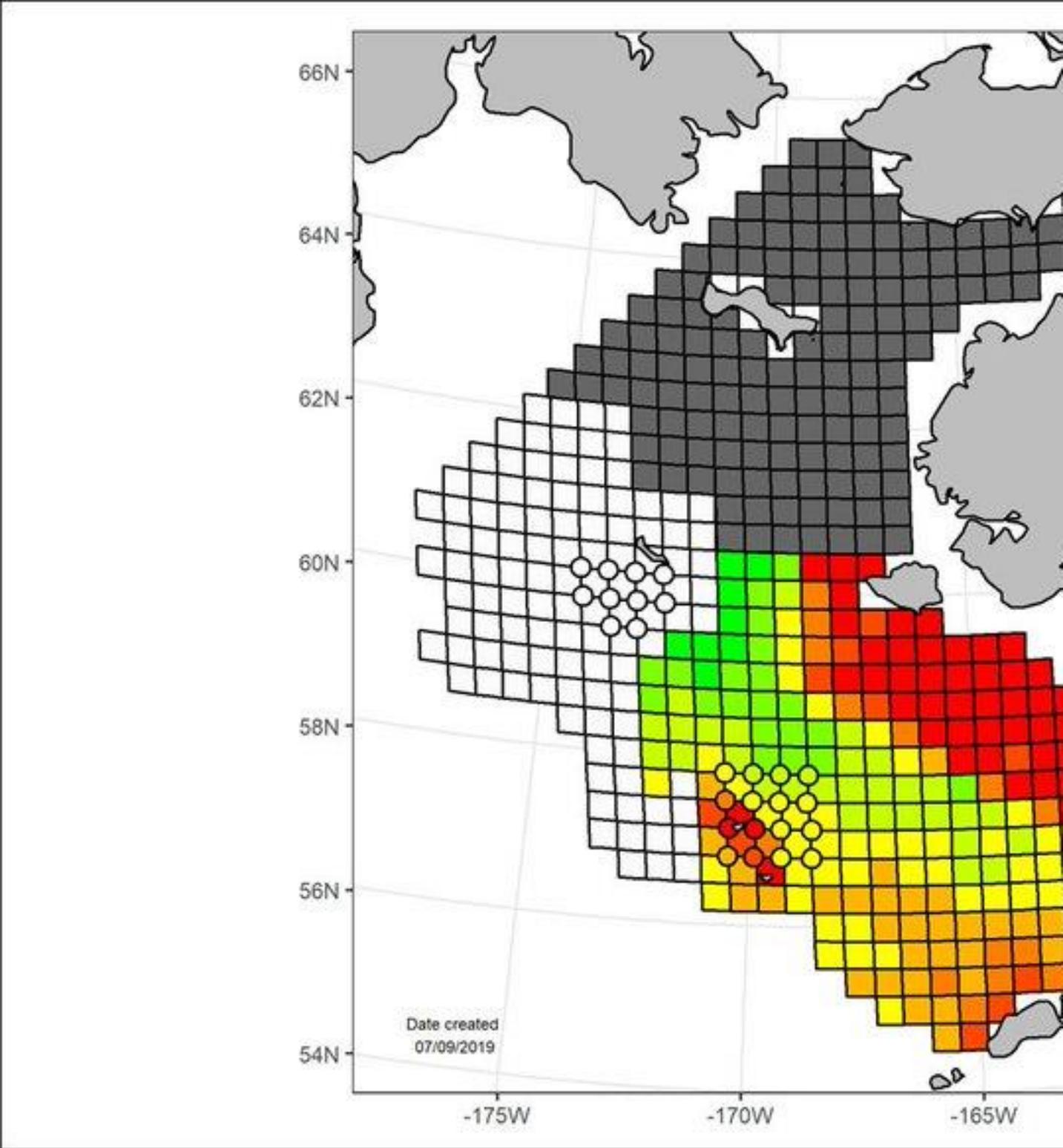
HEATMAP UPDATE

The latest temperatures near the sea floor as recorded during our Southeastern Bering Sea bottom trawl survey. <http://bit.ly/2WTLuLC>

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Julie Keister, an oceanographer at the University of Washington, said it's not unusual for krill to wash ashore in large numbers. But the high water temperatures near Shishmaref late last month — 12 degrees above normal — would be enough to stress the animals.

Stenek said he's been walking beaches in Shishmaref for years.

"I've never seen them piled up like this," said Stenek, who reported his findings on the LEO network.

Many ocean animals eat the shrimp-like krill, including whales, seabirds and the valuable pollock fish harvested by commercial fishermen in Western Alaska waters.

"It's a worry," Stenek said. "Is there a toxin being produced by algae because the water is warm? There's something wrong in the environment that all these things are dying and washing up on our beaches."

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