Submitted via email

May 15, 2024

Janet Coit, Assistant Adm. for Fisheries
National Oceanic and Atmospheric Administration ("NOAA")
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Jennifer Quan, Regional Administrator
NOAA Fisheries West Coast Region
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RE: Request for Immediate Closure of the Pacific Loggerhead Conservation Area to California Drift Gillnets; 50 C.F.R. § 660.713(c)(2)

Dear Assistant Administrator Coit and Regional Administrator Quan:

On behalf of the Center for Biological Diversity and our millions of members and supporters, I am writing to request immediate closure of the Pacific Loggerhead Conservation Area to drift gillnets. The above-normal sea surface temperature anomalies in the Southern California Bight during the months of March and April 2024 compel NOAA Fisheries to make a determination of El Niño conditions and issue a rule implementing the closure, consistent with regulations at 50 C.F.R. § 660.713(c)(2)(ii).

NOAA's CoastWatch West Coast website shows that the sea surface temperature in the closure area is elevated (see screenshot copied below, taken May 14, 2024).[1]

Closure Area Sea Temperature

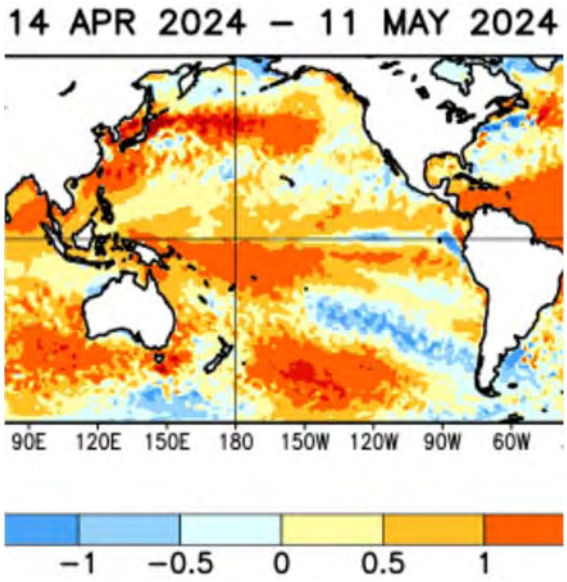
°C ◉ °F ○

	Nov	Dec	Jan	Feb	Mar	Apr
Temperature	17.9	16.4	15.5	15.6	15.4	15.1
Anomaly	0.7	0.9	0.7	1.1	0.9	0.5

Further, as of May 13, 2024, NOAA's Climate Prediction Center has declared an El Niño Advisory / La Niña Watch and provided a figure indicating that during the past four weeks, sea

[1] NOAA CoastWatch Regional Node, https://coastwatch.pfeg.noaa.gov/loggerheads/loggerhead_status.html.

surface temperature anomalies off Southern California remain elevated (see below).[2]



The elevated sea surface temperature data is corroborated by anecdotal reports this month from Southern California of the presence of animals associated with El Niño conditions, like tuna crabs and by-the-wind sailors.[3] In total, this evidence suggests that loggerhead sea turtles are likely present and at risk of being entangled and killed in drift gillnets off California.

Absent an indication from you that NOAA Fisheries will immediately take action to implement the closure by June 1, 2024, we will consider all available options to compel action. We look forward to your prompt response.

Thank you,

/s/ *Catherine Kilduff*
Catherine Kilduff
Senior Attorney
Center for Biological Diversity
ckilduff@biologicaldiversity.org

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[2] NOAA Climate Prediction Center / NCEP, ENSO: Recent Evolution, Current Status and Predictions, dated May 13, 2024. https://www.cpc.ncep.noaa.gov/products/analysis_monitoring/lanina/enso_evolution-status-fcsts-web.pdf

[3] Jules Jacobs, *Tuna Crabs, Neither Tuna Nor Crabs, Are Swarming Near San Diego*, New York Times, May 9, 2024; Laylan Connelly, *What are those odd-looking sea creatures washing up at the beach?Vellela vellelas have been spotted all over Southern California*, The San Diego Union-Tribune, May 2, 2024.

TRILOBITES

Tuna Crabs, Neither Tuna Nor Crabs, Are Swarming Near San Diego

Divers and marine biologists are getting a window into the lives of a red crustacean most often found in the guts of other species.

Photographs and Text by Jules Jacobs

Jules Jacobs photographed this rare tuna crab aggregation beneath the waters of La Jolla Shores, San Diego.

Published May 9, 2024 Updated May 13, 2024

When Anna Sagatov, an underwater cinematographer, goes on her usual night dives off La Jolla Shores in San Diego, she's used to spotting the "occasional octopus, nudibranch and horn shark." But what she witnessed on a late April plunge was shocking: a seafloor turned red by what she described as an "overlapping carpet of crabs." Swirling and shifting in the current, the creatures stretched "as far as my dive lights could illuminate," she said.

The swarming red crustaceans she and other observers have been spotting on San Diego's coast are called tuna crabs, but they are actually squat lobsters. And the shallows around Southern California are not their usual home.

The animals typically live on the high seas, around Baja California in Mexico. But this is their second appearance in six years in the area. Some experts say they may have been pushed to San Diego's near-shore canyons by nutrient-dense currents set off by El Niño, when warmer oceans release additional heat into the atmosphere, creating variable currents and air pressure fluctuations over the equatorial Pacific.

Anna Sagatov, an underwater cinematographer, with a swarm of tuna crabs 60 feet below the sea.

The event could signal shifts in the region's climate. At the same time, the aggregation of tuna crabs offers scientists and divers like Ms. Sagatov a close-up of a sea creature that usually turns up inside a tuna's stomach.

Some of the observations took twisted turns, like when she began to notice what she called "mass cannibalism" among the red crawlers. While tuna crabs are equipped to eat plankton, they are also opportunistic predators in the benthic stage of their life cycle, which can cause them to feed on their own species.

Tuna crabs are also known as red crabs, lobster krill and langostilla. They are more closely related to hermit crabs than to "true" crabs, even though they have evolved similar features. Their common name derives from their role as a favored food source for large species like tuna during the time in their life cycle when they live in the open ocean.

Tuna crabs typically live on the high seas, around Baja California in Mexico. But this is their second appearance in six years in the area.

A California red octopus feasting on the swarm.

In the final phase of their life cycle, the crabs descend from the open ocean and live just above the continental crust as bottom-dwellers. In this stage, they will take vertical journeys through the water column in search of plankton, making them susceptible to winds, tides and currents, which may have pushed many of the animals to the north.

On the floor of Scripps Canyon, these crabs form writhing piles, thousands of individuals thick. For local predators, this is a welcome bounty. While many bottom-dwelling tuna crabs are consumed, hundreds of thousands of individuals remain uneaten when the novelty of this new food source wanes.

This aggregation and the one that preceded it in 2018 are mysteries to science, said Megan Cimino, an assistant researcher at the Institute of Marine Sciences at the University of California, Santa Cruz. When tuna crabs last appeared, her team found that their movement in California was “related to unusually strong ocean currents originating from Baja,” sometimes but not always coinciding with El Niño.

She said the new event “signals something different is happening in the ocean.”

Because of cold water in Scripps Canyon, these crabs won’t last long here, either dying en masse in a stranding event on San Diego beaches, or possibly being swept back out to sea.

While the link between tuna crab aggregations and El Niño isn’t exactly clear cut, “when we think about climate change, the first thing to come to mind might be warming temperatures, but climate change can result in more variable ocean conditions” as well, Dr. Cimino said. She called tuna crabs an “indicator species” able to suggest evidence of large-scale changes in ocean currents and composition that may have positive and negative effects on animals in the area’s waters.

Because of cold water in Scripps Canyon, these crabs won’t last long after settling in San Diego. This mass dying creates stranding events in which tuna crabs wash onto the beaches in droves, turning the sand and the surrounding waters red. Alternately, the same currents that brought the swarm to San Diego could kick them back out to sea.

The end of this invasion could help scientists to one day create a forecasting system for future tuna crab aggregations. It can't yet be said exactly how long the tuna crabs will stay, or when they'll return to California's shores. But in a warming ocean, it may be sooner than anyone expects.

A version of this article appears in print on , Section D, Page 2 of the New York edition with the headline: California Crustaceans: Swarming Near San Diego, Tuna Crabs That Are Neither Tuna Nor Crabs

ENVIRONMENT

What are those odd-looking sea creatures washing up at the beach?

Dead “by-the-wind sailors” have been washing up on shore recently days across Southern California. (Laylan Connelly / Orange County Register)

Velella velellas have been spotted all over Southern California

By Laylan Connelly

May 2, 2024 12:33 PM PT

Beachgoers across Southern California may have came across a curious sight recently — thousands of shriveled jellyfish-looking sea creatures washed up on the shoreline.

Their scientific name is Velella velella and they are a tropical species at the mercy of the winds and currents that push them from warmer waters, earning them the nickname by-the-wind sailors.

Naturalist, boaters, surfers and swimmers out in the ocean have been seeing them in masses out at sea for the past week, their translucent “sails” sticking up toward the sky as they bob on the water’s surface.

They have been seen at various beaches , from Orange County to San Diego.

“When they hit the shore, they start to die and dry out, turning clear, looking more like a piece of plastic than a sea creature,” Jessica Rodriguez, education and communications manager for Newport Landing & Davey’s Locker Whale Watching, wrote in a post.

Velella velellas, jelly-like creatures known for their beautiful blue hues. (Laylan Connelly / Orange County Register)

Though they look like jellyfish because of their gelatinous nature, they are not, and they don't have the sting associated with jellies, though their tentacles on the bottom can irritate the skin, she noted. They are actually a colonial organism related to the Portuguese man o' war.

The sea creatures are not always around, but powerful spring storms often push them to coastal waters and then onto beaches. They often show up during El Nino years, when warm water from the tropics is pushed toward Southern California.

They are a feast for hungry Mola Mola fish who love to eat them, Rodriguez noted.

Newport Beach Chief Lifeguard Brian O'Rourke said the masses of by-the-wind sailors washed up last weeknd and have stuck around on the shoreline, prompting plenty of questions from the public.

“They are all over the place,” he said. “They are thick on the beach right now. They are drying up and they kind of smell.”

One of the lifeguards sailed out to Catalina Island over the weekend and said there were many more floating out in the ocean, O’Rourke said.

Connelly writes for the Orange County Register.
