

21 sea lions found dead on Orange County coast are a mystery in an otherwise seeming normal year for rescues

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Up and down the California coastline, centers that rescue seals, sea lions and other ocean life that has washed ashore are reporting a pretty normal

season—except for a mystery that unfolded in Orange County that still hasn't been solved.

When reports of a seizing adult California sea lion found in Newport Beach came in, staff at the Pacific Marine Mammal Center in Laguna Beach were concerned.

Most rescues between January and May are stranded and dehydrated sea lion pups born at the Channel Island rookeries the summer before.

But, this sea lion, later named Candle by the center's staff, was between 7 and 15 years old, Dr. Alissa Deming said. Candle had so many seizures, she was temporarily blinded.

Seizures often indicate the presence of [domoic acid](#) toxins in the brain, which are found when toxic algae blooms in the ocean and makes its way into the food chain. In 2016, hundreds of [sea lions](#) were found disoriented, seizing and dead along California's coastline because of toxic blooms—the National Oceanic and Atmospheric Administration later noted the rash of deaths "an unusual mortality event."

Deming immediately ordered extra anti-seizure medication.

Within days of Candle's Feb. 7 rescue, the center's rescue teams responded to more reports of sea lions. But all were dead.

Six animals were found dead in a single day, 21 were found that week, their distended stomachs filled with recently eaten squid. Typically, animals that are affected by domoic acid get it from their prey. The neurotoxin accumulates in small fish.

"It seemed like it was acute toxicity," Deming said, because a gradually sickening animal wouldn't eat so much.

But it wasn't the usual time for a toxic bloom, which generally form when the ocean temperature is warmer. The dead sea lions, all teenagers, were found from Laguna Beach to Newport Beach. Typically young sea lions are not affected by domoic acid.

"I'm still not completely convinced it was a domoic acid bloom," said Deming, who remains stumped even after initial autopsies were completed on the animals. Some domoic acid residue was found, but not at a high level. "Other contaminants could be a potential concern."

Deming said she's not sure if October's oil spill off Huntington Beach has anything to do with the sea lion deaths. She is waiting on more testing that might offer a clue.

Otherwise this has been a pretty typical season for rescues. Since January, PMMC staff have responded to 53 animals spotted along the Orange County—32 of them were live. Somewhat typical for this time of year, the first harbor and elephant seal pups have just been rescued.

Otto, the first elephant seal of the season to arrive at the Laguna Beach center, is now being fish schooled—where he learns to forage for fish—but Adrian, the harbor seal, still needs help eating.

The center also picked up a dead dolphin in Huntington Beach and a second one found in that area died during transport to the center. The center has also rescued three Guadalupe fur seals, one of which is now recovering at SeaWorld San Diego, a center equipped to rehabilitate the endangered species.

The deaths being seen in Orange County haven't been reported elsewhere along the coast, further confusing matters. Stranding centers from San Diego to Sausalito have reported somewhat usual rescue numbers for these first months of the year, and no other center has reported toxicity

issues or a large number of dead sea lions.

"Overall the California stranding numbers are within our moral range for this time of year," said Justin Viezbicke, California's marine mammal stranding coordinator at NOAA.

At SeaWorld San Diego, rescue teams have brought in 35 marine mammals Like PMMC, they also have one harbor seal and one elephant seal. They've rescued 28 sea lions and more than 120 birds.

At the Marine Mammal Care Center Los Angeles, 50 animals have been rescued so far, including 10 elephant seal pups, which Dr. Lauren Palmer, the center's veterinarian, said is about the same number the center has seen the last two years.

Up north at the Marine Mammal Rescue Center in Sausalito, the staff is in the thick of the season for elephant seal pups, which are born at the nearby rookeries close to San Simeon. The center has 60 pups on site now; while the numbers are trending slightly above their historical mean, they are below record heights from years past, officials said. For example, in 2016, the rescue center took in 234 elephant seals.

The center is also awaiting sea [lion](#) pups, which take longer to show up there since they are born on the Channel Island rookeries in Southern California.

Deming remains perplexed over what her Laguna Beach center is seeing, and said she is saving samples of the stomach contents found in the dead sea lions for future research. She's also awaiting more information on the tissues taken from the dead sea lions that were sent to pathologists.

"It's unfortunate so many animals died," Deming said. "It's our obligation to investigate when there are events like this and to figure out what these

animals are telling us about what's going on with our ocean."

A positive in all of this is Candle, who rallied after almost two weeks of intensive treatment. Her vision appears restored. To be 100% sure of that, Deming tested her hunting skills by giving her live fish to chase.

"We picked up some fish at the bait barge and man, she went after them," Deming said. "That was the turning point. Otherwise, she would have had to be euthanized. Our whole team watched from up on the balcony, thinking, 'Please chase the fish!'"

On March 23, Candle was released back to her home in the wild.

"She was beautiful and a little chubby," Deming said. "We sent her out with some reserves."

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