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Mass poisoning swamps marine animal rehab centers

An outbreak of toxic algae is called the worst on record; its cause is unclear. Sea lions and seabirds take a big hit.

By Kenneth R. Weiss, Times Staff Writer
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The current outbreak of toxic algae off the Los Angeles Harbor is the most virulent on record, scientists say, so overburdening animal rehabilitation centers that some sickened sea lions are temporarily left to fend for themselves on Los Angeles County beaches.

"We just don't have the space to accommodate them all," said Lauren Palmer, staff veterinarian at the Marine Mammal Care Center in San Pedro. "We could have four or five centers and they would all be full like this one," she said, surveying the cages crammed with seals and sea lions — many of them lying listlessly in piles after suffering convulsions brought on by the algae's powerful neurotoxin.

The decision to leave sea lions on the beach for 48 hours has posed problems for police, lifeguards and wildlife rescue workers trying keep a well-meaning public away from whiskered, doe-eyed sea lions that have beached themselves after suffering epileptic seizures and brain damage. If the animals don't die or swim away after two days, they are brought to a rehab center.

"LAPD called me last night when a dozen people were trying to feed a sea lion on Dockweiler Beach that was nipping and biting at them," said Peter Wallerstein, who rescues sea lions and other marine mammals for the Whale Rescue Team.

Wallerstein has filed a protest with federal officials over the policy that keeps sea lions on the beach for 48 hours, saying it is inhumane. But he agreed with authorities that beachgoers should avoid contact with sea lions, whose sharp teeth are designed for grabbing fish and ripping flesh.

"They are wild animals, and unpredictable," said Joe Cordaro, a wildlife biologist with the National Marine Fisheries Service in Long Beach. "Just because they look lethargic doesn't mean they cannot take a bite out of you."

Cordaro and others advise people who come across the animals on beaches to keep a distance of 50 feet and call lifeguards or wildlife rescuers. (See accompanying box.) Trying to pet or help a sea lion, he said, violates the Marine Mammal Protection Act's provision against animal harassment. "People need to understand that these animals are coming out to rest, and feeding them or pushing them back into the water is worsening the situation."

California sea lions, dolphins, porpoises, sea otters, pelicans, cormorants and other seabirds pick up the neurotoxin known as domoic acid by eating anchovies, sardines or shellfish that consume the algae that produce it.

The accumulation of the toxin in shellfish has prompted California health authorities to issue a public warning not to collect and eat mussels, clams or other shellfish from Southern California waters. They can be contaminated with domoic acid and cause amnesiac shellfish poisoning.

Commercial catches sold in stores are closely monitored for the toxin and deemed safe for human consumption.

Although the algae, called *Pseudo-nitzschia* have long been in ocean waters in diluted concentrations, a shift occurred in 1998 when dense, virulent blooms were followed by waves of

sick marine mammals and seabirds washing ashore in Central and Southern California. Similar episodes have recurred every year since, producing unusual growths of the algae that sometimes produce more of the toxin.

Scientists cannot explain the change. Some theorize that unusual currents are bringing nutrients up from the seafloor. Others attribute the problem to the influx of nitrogen and nutrients that spew from sewer pipes and wash off the land.

Many experts believe that over-harvesting of fish that used to keep algae in check contributes to the problem, and many blame coastal development that has removed 95% of California shoreline wetlands that once filtered coastal waters.

David Caron, a USC biological oceanographer, has been trying to discover the cause of the outbreaks. This spring, he and his assistants found the *Pseudo-nitzschia* bloom so thick off the mouth of the Los Angeles Harbor that it formed scummy clumps of the brown-green algae on the surface.

Blooms have been reported all along the West Coast this spring, but at four sites just outside the Los Angeles Harbor breakwater the neurotoxin spiked to levels never before recorded, Caron said.

"It's twice as hot as anything that we've ever seen before anywhere," Caron said. "And I mean anywhere. It's no wonder so many animals have been affected."

Wildlife rehab centers throughout Southern California have also been overwhelmed by hundreds of sick and dying pelicans, cormorants, Western grebes, loons and other seabirds.

The National Marine Fisheries Service has declared the wide variety of dead marine mammals an "unusual mortality" event. It's a designation that launches an investigation and ushers in experts and research dollars from around the country.

Michelle Berman, who coordinates the investigation from the Santa Barbara Museum of Natural History, said more than a dozen dolphins and porpoises and a minke whale are on the growing list of suspected domoic acid victims.

Sea lions are not part of the investigation because domoic acid poisonings have become so common that such deaths are no longer considered an unusual mortality event.

The Marine Mammal Care Center at Ft. MacArthur in San Pedro now has about 110 marine mammals in a facility built for a fraction of that number. So far about 35% of the sea lions have died, and veterinarians and vet technicians cannot do anything about surviving animals' long-term brain damage from the poison.

The mortality rate has been much higher at the Pacific Marine Mammal Center in Laguna Beach. Of the 52 sea lions and one dolphin rescued in Orange County, 47 animals have died.

Federal officials have yet to tally the number of dead sea lions and other marine mammals washed ashore this year.