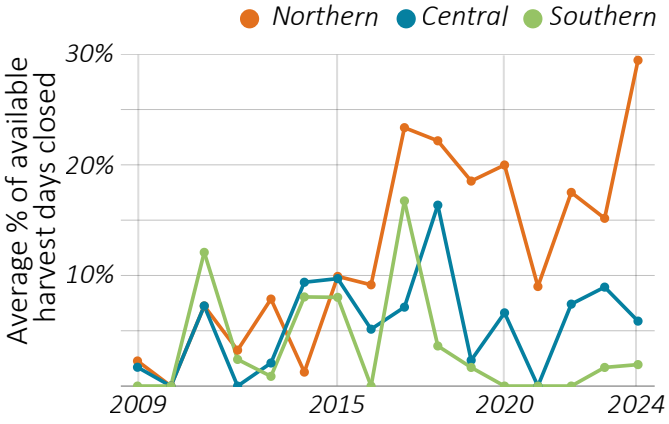
HARMFUL ALGAL BLOOMS

California Coast and Ocean Report
Status, Progress, and What's Ahead
2026

Harmful algal blooms, or HABs, happen when certain algae grow out of control and produce toxins. For Californians who fish, gather shellfish, or spend time near the coast, HABs are a direct health concern: the toxins accumulate in seafood and can make people and marine wildlife seriously ill. Climate change is making these events more frequent and severe. When toxins are detected, managers often close shellfish harvesting to protect public safety.

STATUS

In 2024, HAB-related shellfish harvesting **advisories or closures impacted 8 of the 15 coastal counties** in California, including four of the five Northern California counties. **Recreational shellfish harvesting closures due to HABs have been increasing in Northern California** since 2009 due to high levels of toxins in razor clams, however there was no change in the long-term trend for most coastal counties. In recent years, atypically high numbers of marine mammals have stranded in Central and Southern California due to suspected HAB toxins.



Percentage of areas with HABs-related recreational shellfish (oysters, clams, scallops, and mussels) advisories and closures.

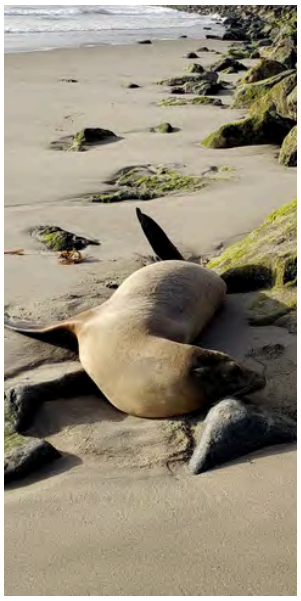
PROGRESS

California runs one of the most proactive HAB monitoring programs in the United States. Every year before the Dungeness crab season opens, the state tests for toxins along the entire coast, protecting both consumers and fishermen from the health consequences of a contaminated harvest. When **marine mammals strand** due to toxic algal blooms, **state-funded rescue and rehabilitation teams respond**. And a new forecasting effort is working to **predict where blooms will occur before they happen**, buying critical time for public health officials and fishery managers to respond.

LOOKING AHEAD

Warming and marine heatwaves are contributing to the northward expansion of HAB species, so **more HAB events in Northern California are anticipated**. In Central and Southern California **increases in marine mammal impacts** have been observed.

DEEPER DIVE: MARINE MAMMAL STRANDINGS



HAB toxins can make marine mammals, such as sea lions, dolphins, and whales, physically sick, disoriented, and stranded on beaches. Strandings have increased in recent years, suspected to be due to HAB toxins.

- Strandings are often caused by domoic acid poisoning, which can happen when marine mammals are exposed to toxic algae – often a byproduct of warming oceans. Domoic acid poisoning can result in abnormal or aggressive behavior in sea lions, putting people at risk if they interact with sick animals.
- In Southern and Central California, strandings were already higher in the first half of 2025 (numbers through June) than in the previous six years and included more strandings of whales and dolphins than previously observed.
- The public can report strandings to 415-289-SEAL.

NORTHERN CALIFORNIA

This region has experienced an uptick in marine mammal strandings three of the past four years (2022, 2023, and 2025), many of which were suspected to be associated with HAB toxin exposure.

CENTRAL CALIFORNIA

This region has experienced an uptick in marine mammal strandings three of the past four years (2022, 2023, and 2025), many of which were suspected to be associated with harmful algal bloom (HAB) toxin exposure.

SOUTHERN CALIFORNIA

As of 2025, this region experienced its 4th consecutive year of significant marine mammal strandings.

Number of HABs-related sea lion strandings in 2024.

DEEPER DIVE: DUNGENESS CRAB

In Northern California, Dungeness crab is a culturally and economically important fishery also impacted by HAB toxins. In 2024, health advisories against harvesting and eating Dungeness crab were issued all five Northern California counties. In addition to the routine in-season testing, the state conducts annual pre-season HAB toxin testing to help protect public health before the crab season begins.

CALIFORNIA OCEAN PROTECTION COUNCIL
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