

Office of Environmental Health Hazard Assessment



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Edmund G. Brown Jr.
Governor

MEMORANDUM

TO: Charlton H. Bonham, Director
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FROM: Lauren Zeise, Ph.D. 
Acting Director

DATE: April 22, 2016

SUBJECT: RECOMMENDATION ON OPENING OF DUNGENESS CRAB FISHERY
IN STATE WATERS OF MENDOCINO AND PORTIONS OF HUMBOLDT
COUNTIES

The Office of Environmental Health Hazard Assessment (OEHHA) has determined, in consultation with the California Department of Public Health (CDPH), that consumption of Dungeness crab taken from ocean waters south of 40°46.15' N Latitude (a line extending due west from the west end of the north jetty at the entrance of Humboldt Bay), including all ocean waters of Humboldt Bay, no longer poses a significant threat for domoic acid exposure. This determination is based on data from repeated sampling of Dungeness crab taken from California waters and analysis of these samples by CDPH laboratories.

Although crabs taken from the Samoa area recently did not test above federal action levels for domoic acid, Samoa is immediately adjacent to areas in Trinidad where samples are still elevated. Thus, we recommend the Samoa area remain closed at this time.

OEHHA and CDPH recommend that people not eat the crab viscera – that is the internal organs, also known as “butter” or “guts” of crabs. We are also recommending that water or broth used to cook crabs be discarded and not used to prepare dishes

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such as sauces, broths, soups, or stews. The viscera usually contain much higher levels of domoic acid than crab body meat. When whole crabs are cooked in liquid, domoic acid may leach from the viscera into the cooking liquid. This recommendation is intended to avoid harm in the unlikely event that some crabs taken from an open fishery have elevated levels of domoic acid. These recommendations will be provided in an advisory on domoic acid in crab being released concurrently by CDPH today.

Domoic acid poisoning in humans may occur within minutes to hours after consumption of affected seafood and can result in signs and symptoms ranging from vomiting and diarrhea to permanent loss of short-term memory (Amnesic Shellfish Poisoning), coma, or death.

The current federal action levels for domoic acid in Dungeness crab are 20 parts per million (ppm) in the body meat and 30 ppm in the viscera. In contrast to levels seen earlier, levels of domoic acid in recent viscera samples of Dungeness crab taken from ocean waters south of 40°46.15' N Latitude (a line extending due west from the west end of the north jetty at the entrance of Humboldt Bay), including all ocean waters of Humboldt Bay, do not exceed the action level of 30 ppm. OEHHA, in consultation with CDPH, now finds that consumption of Dungeness crab taken from these areas do not pose a significant human health risk from high levels of domoic acid. As such, OEHHA recommends the opening of the Dungeness crab fishery in these areas – in a manner consistent with the emergency regulations adopted by the Fish and Game Commission and the California Department of Fish and Wildlife (CDFW) on November 5 and 6, 2015, respectively.

The sampling results for Dungeness crab caught in waters south of 40°46.15' N Latitude are provided in the table below.

Monitoring and analysis of Dungeness and rock crabs in areas that remain closed are continuing by CDFW, CDPH, and OEHHA to determine when the crab fisheries in these areas can safely be opened.

If you have questions, please contact me at Lauren.Zeise@oehha.ca.gov or (916) 322-6325.

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Sampling Results for Key Areas

| Port | Sample Collection Date | Number Of Samples | Viscera Sample Results: Range | Average Level In Viscera | Samples Exceeding Action Level (30 ppm in Viscera) |
|---------------------------|------------------------------------|-------------------|-------------------------------|--------------------------|--|
| Eureka | 9/15/15 | 6 | 30-120 ppm | 76 ppm | 100% |
| | 10/27/15 | 12 | 37-140 ppm | 67 ppm | 100% |
| | 11/23/15 (Eel River) | 6 | 13-59 ppm | 34.6 ppm | 50% |
| | 12/16/15 (Eel River) | 6 | 29-54 ppm | 38.2 ppm | 50% |
| | 12/30/15 (Eel River) | 6 | 16-40 ppm | 31 ppm | 67% |
| | 1/21/16 (Eel River) | 6 | 13-29 ppm | 22.2 ppm | 0% |
| | 2/2/16 (Eel River) | 6 | 15-27 ppm | 21 ppm | 0% |
| Fort Bragg | 10/30/15 | 6 | <2.5-15 ppm | 6.5 ppm | 0% |
| | 11/22/15 | 6 | 46-270 ppm | 118 ppm | 100% |
| | 11/23/15 | 6 | 20-150 ppm | 61.5 ppm | 66% |
| | 12/16/15 | 6 | 8.2-37 ppm | 20.2 ppm | 17% |
| | 12/27/15 (Pt. Arena/Manchester) | 6 | 15-39 ppm | 26.8 ppm | 33% |
| | 12/30/15 (Usal) | 6 | 7.8-64 ppm | 28 ppm | 33% |
| | 1/25/16 (Usal) | 6 | 13-81 ppm | 45 ppm | 67% |
| | 1/26/16 (Pt. Arena/Manchester) | 6 | 4.7-57 ppm | 28.6 ppm | 50% |
| | 2/2/16 (Usal) | 6 | 11-41 ppm | 27 ppm | 50% |
| | 2/10/16 (Usal) | 6 | 9.6-71 ppm | 30 ppm | 33% |
| | 2/10/16 (Pt. Arena/Manchester) | 6 | 9.4-93 ppm | 35 ppm | 33% |
| | 2/16/16 (Usal) | 6 | 7.7-83 ppm | 31 ppm | 33% |
| | 2/21/16 (Pt. Arena/Manchester) | 6 | 8-85 ppm | 33 ppm | 50% |
| | 2/23/16 (Usal) | 6 | 12-55 ppm | 29 ppm | 50% |
| | 3/17/16 (Pt. Arena/Manchester) | 6 | 9.4-28 ppm | 17 ppm | 0% |
| | 3/18/16 (Usal) | 6 | 8.9-25 ppm | 19 ppm | 0% |
| | 3/26/16 (Usal) | 6 | 3.6-39 ppm | 18 ppm | 33% |
| | 3/31/16 (Pt. Arena/Manchester) | 6 | 4.8-28 ppm | 19 ppm | 0% |
| | 4/10/16 (Usal) | 6 | <2.5-13 ppm | 8 ppm | 0% |
| | 4/17/16 (Usal) | 6 | 5.4-28 ppm | 13 ppm | 0% |
| 4/17/16 (Shelter Cove) | 6 | 2.9-27 ppm | 11 ppm | 0% | |
| 4/17/16 (Ten Mile) | 6 | 6.5-30 ppm | 17 ppm | 0% | |