

# Office of Environmental Health Hazard Assessment



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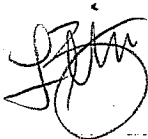


Edmund G. Brown Jr.  
Governor

## MEMORANDUM

**TO:** Charlton H. Bonham, Director  
California Department of Fish and Wildlife  
1416 Ninth Street, 12<sup>th</sup> Floor  
Sacramento, California 95814

Sonke Mastrup, Executive Director  
California Fish and Game Commission  
P.O. Box 944209  
Sacramento, California 94244-2090

**FROM:** Lauren Zeise, Ph.D.   
Acting Director

**DATE:** December 31, 2015

**SUBJECT:** DUNGENESS AND ROCK CRAB FROM MAINLAND COASTS OF SAN LUIS OBISPO COUNTY AND COUNTIES TO THE SOUTH

The Office of Environmental Health Hazard Assessment (OEHHA) has determined, in consultation with the Department of Public Health (DPH), that consumption of Dungeness and rock crab taken from the mainland coasts south of 35° 40' N Latitude (near Piedras Blancas Light Station, in San Luis Obispo County) no longer poses a significant human health threat for domoic acid exposure. This determination is based on data from repeated sampling of rock and Dungeness crab taken from areas along the coast of Santa Barbara County and in the Morro Bay area and analysis of these samples by DPH laboratories. Crab taken from state waters north of 35° 40' N Latitude and around the Channel Islands of Santa Cruz, Santa Rosa and San Miguel continue to have elevated levels of domoic acid and should not be consumed. These findings are consistent with data collected earlier this year by the DPH Harmful Algal Bloom and Monitoring Program which showed more pronounced algal blooms containing the *Pseudo-nitzschia* species that produces domoic acid north of San Luis Obispo County, and with data from shell and finfish monitoring of domoic acid by DPH.

As a precaution, even for crab caught along the mainland coast of San Luis Obispo and more southerly counties, OEHHA and DPH are recommending that people not eat the crab viscera – that is the internal organs, also known as “butter” or “guts” of crabs. We

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are also recommending that water or broth used to cook whole crabs be discarded and not used to prepare dishes 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 precaution is being recommended 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.

Current federal action levels for domoic acid are 20 parts per million (ppm) for all fish, with the exception of 30 ppm in the viscera of crabs. In contrast to levels seen earlier, levels of domoic acid in recent samples of viscera taken from Dungeness and rock crabs caught at locations along the mainland Santa Barbara and San Luis Obispo coasts all fall below the action level of 30 ppm. At each location sampled at least two sets of samples taken at least seven days apart show low or non-detectable levels of domoic acid. The sampling results are provided in the table below.

Thus, in consultation with the Director of the California Department of Public Health, OEHHA finds that consumption of Dungeness and rock crab taken from the mainland coast south of 35° 40' N Latitude (near Piedras Blancas Light Station, in San Luis Obispo County) does not pose a significant human health risk from high levels of domoic acid. As such, OEHHA recommends the opening of the rock crab fishery and Dungeness crab fisheries 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) and on November 5 and 6, respectively.

In general, levels of domoic acid are elevated but continue to trend downward in crab samples taken from the Channel Islands and at locations on the mainland coast north of San Luis Obispo County. Monitoring and analysis of Dungeness and rock crabs in these areas is continuing by CDFW, DPH and OEHHA to determine when the northern fisheries can safely be opened.

If you have questions, please contact me at [Lauren.zeise@oehha.ca.gov](mailto:Lauren.zeise@oehha.ca.gov) or (916) 322-6325.

PORT	SAMPLE COLLECTION DATE	NUMBER OF SAMPLES	VISCERA SAMPLE RESULTS: RANGE	AVERAGE LEVEL IN VISCERA	SAMPLES EXCEEDING ACTION LEVEL (30 ppm in viscera)
Morro Bay	10/28/15 (Dungeness)	1	10 ppm	10 ppm	0%
	10/28/15 (Sheep Crab)	5	<2.5-3.9 ppm	3 ppm	0%
	10/28/15 (Red Rock Crab)	5	3.0-12 ppm	6 ppm	0%
	11/16/15 (Dungeness)	5	<2.5-9 ppm	5.7 ppm	0%
	11/16/15 (Rock Crab)	5	<2.5-4.5 ppm	0.9 ppm	0%
	11/16/15 (Spider Crab)	2	Non-detectable	Non-detectable	0%
	11/21/15 (Dungeness)	6	<2.5-8.1 ppm	2.6 ppm	0%
	11/21/15 (Rock Crab)	5	<2.5-7.7 ppm	3.7 ppm	0%
Santa Barbara Coast (all samples Rock crab)	11/3/15	6	<2.5-64 ppm	36 ppm	50%
	11/4/15 (Block #656)	6	<2.5-240 ppm	49.5 ppm	17%
	11/11/15 (Block #710)	6	<2.5-160 ppm	36 ppm	16%
	11/23/15 (Block #656)	6	<2.5-3.6 ppm	0.6 ppm	0%
	12/2/15 (Block #656)	6	<2.5-14 ppm	6 ppm	0%
	12/10/15 (Block #656)	6	Non-detectable	Non-detectable	0%
	12/13/15 (Block #652)	6	<2.5-150 ppm	36 ppm	33%
	12/14/15 (Block #653)	6	<2.5-3.7 ppm	1.5 ppm	0%
	12/13/15 (Block #654)	6	<2.5-32 ppm	5.8 ppm	17%
	12/20/15 (Block #652)	6	<2.5-17 ppm	3 ppm	0%
	12/20/15 (Block #653)	6	<2.5-6 ppm	1.6 ppm	0%
	12/20/15 (Block #654)	6	<2.5-11 ppm	1.8 ppm	0%
	12/27/15 (Block #652)	6	<2.5-29 ppm	6 ppm	0%
	12/27/15 (Block #653)	6	Non-detectable	Non-detectable	0%
12/27/15 (Block #654)	6	<2.5-12 ppm	2 ppm	0%	

cc: Karen L. Smith, Director  
 California Department of Public Health

Matthew Rodriguez, Secretary  
 California Environmental Protection Agency