

# 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  
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Valerie Termini, Executive Director  
California Fish and Game Commission  
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**FROM:** Lauren Zeise, Ph.D. *acting for*  
Acting Director

**DATE:** June 3, 2016

**SUBJECT:** RECOMMENDATION ON OPENING OF ROCK CRAB FISHERY NEAR  
CHANNEL ISLANDS

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The Office of Environmental Health Hazard Assessment (OEHHA) has determined, in consultation with the California Department of Public Health (CDPH), that consumption of rock crab taken from state waters (three nautical miles from shore) around the Channel Islands in areas that were previously closed (between Santa Rosa and Santa Cruz Islands) no longer poses a significant threat for domoic acid exposure. This area is bounded by straight lines connecting the following points in the order listed:

Point 1: 34° 7.75' N latitude 120° 0.00' W longitude;  
Point 2: 34° 7.75' N latitude 119° 50.00' W longitude;  
Point 3: 33° 53.00' N latitude 119° 50.00' W longitude;  
Point 4: 33° 53.00' N latitude 120° 0.00' W longitude; and  
Point 5: 34° 7.75' N latitude 120° 0.00' W longitude

Areas north of 36° 58.72' N Latitude remain closed to rock crabbing. This determination is based on data from repeated sampling of rock crab taken from California waters and analysis of these samples by CDPH laboratories.

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**California Environmental Protection Agency**

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[www.oehha.ca.gov](http://www.oehha.ca.gov)

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 rock crab caught from state waters around the Channel Islands in areas that were previously closed (between Santa Rosa and Santa Cruz Islands) did not test above the action level of 30 parts per million (ppm).

OEHHA, in consultation with CDPH, now finds that consumption of rock crab taken from these areas 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 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 rock crab caught in waters around the Channel Islands that were previously closed are provided in the table below.

OEHHA and CDPH are advising that people not eat the crab viscera – 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 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.

Monitoring and analysis of rock crabs in areas that remain closed are continuing by CDFW, CDPH, and OEHHA to determine when the rock crab fishery in these areas 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.

cc: Matthew Rodriguez  
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Charlton H. Bonham and Valerie Termini  
June 3, 2016  
Page 3

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### Sampling Results for Channel Islands Blocks 687 and 710

Channel Islands around Santa Barbara (Blocks 687 and 710)	SAMPLE COLLECTION DATE	NUMBER OF SAMPLES	VISCERA SAMPLE RESULTS: RANGE	AVERAGE LEVEL IN VISCERA	SAMPLES EXCEEDING ACTION LEVEL (30 ppm in viscera)
Block #687 North side Santa Cruz Island	11/11/15	6	<2.5-130 ppm	36 ppm	33%
Block #710	11/11/15	6	<2.5-160 ppm	36 ppm	16%
Block #687 North side Santa Cruz Island	12/2/15	6	4.5-190 ppm	79 ppm	50%
Block #687 North side Santa Cruz Island	12/10/15	6	<2.5-91 ppm	44 ppm	50%
Block #710 South side Santa Rosa and Santa Cruz Islands	12/19/15	6	<2.5-86 ppm	21 ppm	17%
Block #710 South side Santa Rosa and Santa Cruz Islands	12/27/15	6	<2.5-8.4 ppm	2 ppm	0%
Block #687 North side Santa Cruz Island	1/3/16	6	3.8-120 ppm	43.9 ppm	50%
Block #710 South side Santa Rosa and Santa Cruz Islands	1/3/16	6	<2.5-89 ppm	26.7 ppm	33%
Block #687 North side Santa Cruz Island	1/10/16	6	<2.5-180 ppm	37 ppm	17%
Block #710 South side Santa Rosa and Santa Cruz Islands	1/10/16	6	<2.5-460 ppm	99 ppm	33%
Block #687 North side Santa Cruz Island	1/17/16	6	<2.5-31 ppm	12 ppm	17%
Block #710 South side Santa Rosa and Santa Cruz Islands	1/17/16	6	2.8-31 ppm	13 ppm	17%
Block #687 North side Santa Cruz Island	1/24/16	6	<2.5-3 ppm	0.5 ppm	0%
Block #710 South side Santa Rosa and Santa Cruz Islands	1/24/16	6	<2.5-7.8 ppm	1.3 ppm	0%
Block #687 North side Santa Cruz Island	1/31/16	6	<2.5-23 ppm	6 ppm	0%
Block #710 South side Santa Rosa and Santa Cruz Islands	1/31/16	6	<2.5-89 ppm	15 ppm	17%
Block #710 South side Santa Rosa and Santa Cruz Islands	2/7/16	6	4.7-550 ppm	280 ppm	67%
Block #687 North side Santa Cruz Island	2/19/16	6	Non-detectable	<2.5 ppm	0%

<b>Channel Islands around Santa Barbara (Blocks 687 and 710)</b>	<b>SAMPLE COLLECTION DATE</b>	<b>NUMBER OF SAMPLES</b>	<b>VISCERA SAMPLE RESULTS: RANGE</b>	<b>AVERAGE LEVEL IN VISCERA</b>	<b>SAMPLES EXCEEDING ACTION LEVEL (30 ppm in viscera)</b>
Block #710 South side Santa Rosa and Santa Cruz Islands	2/19/16	5	Non- detectable	<2.5 ppm	0%
Block #710 South side Santa Rosa and Santa Cruz Islands	2/25/16	6	Non- detectable	<2.5 ppm	0%
Block #710 South side Santa Rosa and Santa Cruz Islands	3/13/16	6	Non- detectable	<2.5 ppm	0%
Block #687 North side Santa Cruz Island	4/10/16	6	<2.5-14 ppm	2 ppm	0%
Block #710 South side Santa Rosa and Santa Cruz Islands	4/10/16	6	<2.5-42 ppm	10 ppm	17%
Block #710 South side Santa Rosa and Santa Cruz Islands	4/18/16	6	<2.5-4.9 ppm	1 ppm	0%
Block #710 South side Santa Rosa and Santa Cruz Islands	5/1/16	5	<2.5-85 ppm	38 ppm	40%
Block #710 South side Santa Rosa and Santa Cruz Islands	5/18/16	6	Non- detectable	<2.5 ppm	0%
Block #710 South side Santa Rosa and Santa Cruz Island	5/25/16	6	<2.5-15 ppm	2.5 ppm	0%