




Lauren Zeise, Ph.D., Director  
Jared Blumenfeld, Secretary for Environmental Protection  
Gavin Newsom, Governor

## MEMORANDUM

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

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

**DATE:** January 18, 2019

**SUBJECT:** RECOMMENDATION TO OPEN THE LAST REMAINING AREAS  
CLOSED TO COMMERCIAL AND RECREATIONAL DUNGENESS CRAB  
FISHING

---

The Office of Environmental Health Hazard Assessment (OEHHA), in consultation with the California Department of Public Health (CDPH), has determined that consumption of Dungeness Crab taken from state waters from Patrick's Point (41° 8.00' N. latitude) north to the California/Oregon border (Humboldt and Del Norte counties) no longer poses a significant threat for domoic acid exposure. OEHHA, in consultation with CDPH, therefore recommends that the remaining portion of the commercial and recreational Dungeness Crab fishery be opened. This determination is based on data from samplings of Dungeness Crab and analysis of these samples by CDPH laboratories. A table showing the results of domoic acid sampling and analysis is shown below.

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 Dungeness Crabs.

CDPH and OEHHA recommend as a best preparation practice that consumers avoid eating the viscera (internal organs, also known as "butter" or "guts") because they usually contain much higher levels of domoic acid than the meat.

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

### Dungeness Crab Sampling Results

PORT	AREA	SAMPLE COLLECTION DATE	NUMBER OF SAMPLES	TISSUE TYPE	SAMPLE RESULTS: RANGE	AVERAGE LEVEL	SAMPLES EXCEEDING ACTION LEVEL*
Crescent City	George Reef	10/2/2018	6	Viscera	23 - 61 ppm	41.7 ppm	83%
		10/24/2018	6	Viscera	39 - 70 ppm	46.5 ppm	100%
		11/4/2018	6	Viscera	57 - 110 ppm	75.7 ppm	100%
		11/25/2018	6	Viscera	27 - 88 ppm	51.5 ppm	67%
		12/5/2018	6	Viscera	21 - 60 ppm	45.5 ppm	83%
		12/12/2018	6	Viscera	6.7 - 70 ppm	37.1 ppm	67%
		12/22/2018	6	Viscera	11 - 63 ppm	35.5 ppm	50%
		12/29/2018	6	Viscera	7.4 - 53 ppm	21.7 ppm	17%
		1/5/2019	6	Viscera	4.7 - 24 ppm	16.5 ppm	0%
	1/12/2019	6	Viscera	13 - 22 ppm	18.5 ppm	0%	
	Klamath River	10/2/2018	6	Viscera	19 - 28 ppm	24.8 ppm	0%

PORT	AREA	SAMPLE COLLECTION DATE	NUMBER OF SAMPLES	TISSUE TYPE	SAMPLE RESULTS: RANGE	AVERAGE LEVEL	SAMPLES EXCEEDING ACTION LEVEL*
Trinidad	Trinidad North	9/27/2018	6	Viscera	3.3 - 46 ppm	19.2 ppm	33%
		10/17/2018	6	Viscera	12 - 32 ppm	21.0 ppm	17%
		11/3/2018	6	Viscera	17- 48 ppm	29.2 ppm	33%
		11/19/2018	6	Viscera	23 - 53 ppm	39.3 ppm	67%
		12/2/2018	6	Viscera	11 - 110 ppm	43.7 ppm	67%
		12/9/2018	6	Viscera	13 - 48 ppm	27.5 ppm	33%
		12/22/2018	6	Viscera	2.9 - 15 ppm	8.6 ppm	0%
		12/29/2018	6	Viscera	4.2 - 44 ppm	14.1 ppm	17%
		1/6/2019	6	Viscera	4.8 – 12 ppm	6.7 ppm	0%
		1/13/2019	6	Viscera	7.1 – 30 ppm	19.2 ppm	0%

\*The action level for viscera is 30 ppm.