Office of Environmental Health Hazard Assessment

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Matthew Rodriquez
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Edmund G. Brown Jr.
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MEMORANDUM

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

DATE: November 3, 2015

SUBJECT: DOMOIC ACID THREAT TO PUBLIC HEALTH

Recent test results indicate an emergency situation involving a severe threat to public health and safety that necessitates prompt action. More specifically, the threat to public health and safety arises from the potential human consumption of crabs with high levels of domoic acid following the scheduled recreational fishery opening date of November 7, 2015, a commercial fishery opening date for Dungeness crab of November 15, 2015, and the year round rock crab fishery.

The Office of Environmental Health Hazard Assessment (OEHHA) has been provided test data from the Department of Public Health laboratories measuring high levels of domoic acid in Dungeness and Rock crabs caught along the California coast (see attached table). Domoic acid poisoning in humans may occur within minutes to hours after consumption of affected seafood and can in 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. Available data in Dungeness and rock crabs from the California coast north of Point Conception show that a significant percent of samples exceed one or both of these criteria, with levels in one yellow rock crab sample reaching 190 ppm and numerous other samples exceeding 100 ppm.[1] A list of the sample results is provided on page 3 of this memorandum.

In consultation with the Director of the California Department of Public Health, OEHHA finds that consumption of Dungeness and rock crabs is likely to pose a significant human health risk as a result of high levels of domoic acid. As such, OEHHA recommends that the Rock crab fishery be closed and the Dungeness crab season be delayed from the Oregon border to the southern Santa Barbara County line.

OEHHA anticipates making a recommendation to open a fishery or lift a closure based on further domoic acid testing conducted in crabs at each of the sampling locations, to include two sets of samples, collected at least seven days apart.

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

[1] Although the samples collected recently from Fort Bragg fall below action levels, domoic acid levels in crabs north and south of this area are elevated. Thus, further sampling from Fort Bragg is warranted before consumption of crabs from this area can be considered safe.

Summary of Domoic Acid Levels in Crabs

Port	Sample collection date(s) (Dungeness crab viscera only unless otherwise specified)	Number of Samples	Result-range (FDA Action level >30 ppm)	Average ppm (FDA Action level >30 ppm)	% of samples exceeding action level (>30 ppm)
Crescent City	9/23/15	6	<2.5-120 ppm	37 ppm	66%
	10/29/15	6	28-140 ppm	66 ppm	91%
Trinidad	9/11/15	6	23-140 ppm	95 ppm	83%
	10/26/15	2	Pending	Pending	Pending
Eureka	9/15/15	6	30-120 ppm	76 ppm	100%
	10/27/15	3	Pending	Pending	Pending
Ft. Bragg	10/30/15	6	<2.5-15 ppm	6.5 ppm	0%
Bodega Bay	10/20/15	6	21-40 ppm	30 ppm	50%
	10/31 - 11/1/15	6	Pending	Pending	Pending
Half Moon Bay/SF	10/26/15	12	16-130 ppm	56 ppm	83%
Monterey	9/16/15 (Red Rock Crab)	4	16-86 ppm	45 ppm	75%
	9/16/15 (Yellow Rock Crab)	1	190 ppm	190 ppm	100%
	9/16/15 (Dungeness)	2	6.8-74 ppm	40 ppm	50%
	10/31-11/1/15	?	Pending	Pending	Pending
Morro Bay	10/26/15	?	Pending	Pending	Pending
Santa Barbara	11/3/15 (Yellow Rock Crab)	6	Pending	Pending	Pending

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

Matthew Rodriquez, Secretary
California Environmental Protection Agency