

## STAFF SUMMARY FOR DECEMBER 11-12, 2019

**35. MARINE ITEMS OF INTEREST FROM PREVIOUS MEETINGS****Today's Item****Information** ☒**Action** ☐

Standing agenda item to provide FGC with updates on items of interest from previous meetings. Today: Receive DFW overview of razor clam sampling for domoic acid levels.

**Summary of Previous/Future Actions**

- |  |                                    |
|--|------------------------------------|
| • Adopted emergency razor clam regulations                       | Apr 25, 2016; teleconference       |
| • Update on domoic acid levels                                   | Jun 22-23, 2016; Bakersfield       |
| • Update on domoic acid levels                                   | Aug 22-23, 2018; Fortuna           |
| • Update on domoic acid levels and request for sampling overview | Oct 9-10, 2019; Valley Center      |
| • <b>Today's overview</b>  | <b>Dec 11-12, 2019; Sacramento</b> |

**Background**

The recreational razor clam fishery has been closed since Apr 2016, when FGC adopted an emergency closure in Humboldt and Del Norte counties. The closure was in response to persistently high concentrations of domoic acid in clam meat and guts and a closure recommendation from the Office of Environmental Health Hazard Assessment to protect human health. Regular sampling has confirmed persistence of high levels of domoic acid.

In Oct 2019, FGC received an update that samples collected from Clam Beach on Aug 3, 2019 indicated concentrations had lowered overall; however, some samples remained above the alert level of 20 parts per million (ppm) and ranged from less than 2.5 ppm to 37 ppm (Exhibit 1). At the meeting, FGC requested that DFW provide an overview of razor clam sampling. In response, DFW has provided a description of sampling and a general location map where DFW collects samples of razor clam (Exhibit 2). Updated samples collected Oct 28, 2019 at Crescent Beach reflect that all samples had domoic acid concentrations above the alert levels with an average of 145 ppm (Exhibit 3).

**Significant Public Comments (N/A)****Recommendation (N/A)****Exhibits**

1. [Email and sample results from Joe Christen, California Department of Public Health, received Sep 4, 2019](#)
2. [Email from James Ray, DFW, and map of area sampled at Clam Beach, received Nov 22, 2019](#)
3. [Email and sample results from Joe Christen, California Department of Public Health, received Nov 6, 2019](#)
4. [DFW presentation](#)

**Motion/Direction (N/A)**

**To:** Ashcraft, Susan@FGC; Pope, Elizabeth@FGC; Miller-Henson, Melissa@FGC  
**Subject:** RE: Razor Clam Domoic Acid Results, Humboldt County

**From:** Christen, Joe@CDPH <[Joe.Christen@cdph.ca.gov](mailto:Joe.Christen@cdph.ca.gov)>

**Sent:** Wednesday, September 4, 2019 10:08 AM

**To:** Ashcraft, Susan@FGC <[Susan.Ashcraft@fgc.ca.gov](mailto:Susan.Ashcraft@fgc.ca.gov)>; Christine Cosby <[ccosby@yuroktribe.nsn.us](mailto:ccosby@yuroktribe.nsn.us)>; Walker, David@Wildlife <[David.Walker@wildlife.ca.gov](mailto:David.Walker@wildlife.ca.gov)>; Grant, Christina@CDPH <[Christina.Grant@cdph.ca.gov](mailto:Christina.Grant@cdph.ca.gov)>; Coe, Hannah-Contractor@Wildlife <[Hannah.Coe@Wildlife.ca.gov](mailto:Hannah.Coe@Wildlife.ca.gov)>; Jacque Smith [REDACTED]; Jaytuk Steinruck <[jaytuk.steinruck@tolowa.com](mailto:jaytuk.steinruck@tolowa.com)>; Grebel, Joanna@Wildlife <[Joanna.Grebel@wildlife.ca.gov](mailto:Joanna.Grebel@wildlife.ca.gov)>; Ken Graves [REDACTED]; Ramey, Kirsten@Wildlife <[Kirsten.Ramey@wildlife.ca.gov](mailto:Kirsten.Ramey@wildlife.ca.gov)>; Martel, Melissa (HUMBOLDT COUNTY) <[mmartel@co.humboldt.ca.us](mailto:mmartel@co.humboldt.ca.us)>; Rosa Laucci <[Rosa.Laucci@tolowa.com](mailto:Rosa.Laucci@tolowa.com)>; Klasing, Susan@OEHHA <[Susan.Klasing@oehha.ca.gov](mailto:Susan.Klasing@oehha.ca.gov)>; Suzanne Fluharty <[sfluharty@yuroktribe.nsn.us](mailto:sfluharty@yuroktribe.nsn.us)>; Tom Weseloh (<[Tom.weseloh@sen.ca.gov](mailto:Tom.weseloh@sen.ca.gov)>) <[Tom.weseloh@sen.ca.gov](mailto:Tom.weseloh@sen.ca.gov)>; Trevena, Eric@CDPH <[Eric.Trevena@cdph.ca.gov](mailto:Eric.Trevena@cdph.ca.gov)>; Ray, James@Wildlife <[James.Ray@wildlife.ca.gov](mailto:James.Ray@wildlife.ca.gov)>

**Cc:** Zubkousky, Vanessa@CDPH <[Vanessa.Zubkousky@cdph.ca.gov](mailto:Vanessa.Zubkousky@cdph.ca.gov)>

**Subject:** Razor Clam Domoic Acid Results, Humboldt County

Good morning –

Results for domoic acid in razor clam meat for clams collected by James Ray from Clam Beach in Humboldt County are tabulated below.

DA ranged from < 2.5 to 37 ppm with an average of 17 ppm; 3 out of 10 samples tested over 20 ppm.

Sample	Domoic acid (ppm)	Collection Date	Agency	Site
Razor Clam - Meat	< 2.5	08/03/19	CDFW	Clam Beach
Razor Clam - Meat	4.6	08/03/19	CDFW	Clam Beach
Razor Clam - Meat	6.5	08/03/19	CDFW	Clam Beach
Razor Clam - Meat	8.8	08/03/19	CDFW	Clam Beach
Razor Clam - Meat	9.2	08/03/19	CDFW	Clam Beach
Razor Clam - Meat	18	08/03/19	CDFW	Clam Beach
Razor Clam - Meat	18	08/03/19	CDFW	Clam Beach
Razor Clam - Meat	<b>22</b>	08/03/19	CDFW	Clam Beach
Razor Clam - Meat	<b>27</b>	08/03/19	CDFW	Clam Beach
Razor Clam - Meat	<b>37</b>	08/03/19	CDFW	Clam Beach

Joe Christen  
Senior Environmental Scientist  
California Department of Public Health  
Environmental Health Services Section  
850 Marina Bay Parkway, G-165  
Richmond, CA 94804



[Joe.Christen@cdph.ca.gov](mailto:Joe.Christen@cdph.ca.gov)

**From:** Ray, James@Wildlife <[James.Ray@wildlife.ca.gov](mailto:James.Ray@wildlife.ca.gov)>

**Sent:** Friday, November 22, 2019 11:54:30 AM

**To:** Pope, Elizabeth@FGC <[elizabeth.pope@fgc.ca.gov](mailto:elizabeth.pope@fgc.ca.gov)>

**Subject:** FW: Domoic Acid Razor Clam Results - Del Norte Co

Oct 2019 results for CCity. No Humboldt sample for Sept. or Oct.

Attached is a map showing the approximately 2 mile stretch of beach that samples can be collected from. Typically samples come out of the first mile (from Clam Beach parking lot north). When you came out, we walked that stretch. Sampling replicates recreational sampling, in that some clams come from close together (20ft), while others may be 100's feet apart. Effort is made to ensure not all clams come from within a small area.

J

---

**James Ray**

CDFW | Marine Region

**Office: (707) 441 5755**





Clam Beach Ponds

Clam Beach

Crannell

101

Central Ave

Data SIO, NOAA, U.S. Navy, NGA, GEBCO  
© 2016 Google  
Image © 2016 TerraMetrics

GOOG



**From:** Christen, Joe@CDPH <[Joe.Christen@cdph.ca.gov](mailto:Joe.Christen@cdph.ca.gov)>  
**Sent:** Wednesday, November 6, 2019 3:57 PM  
**To:** Ashcraft, Susan@FGC <[Susan.Ashcraft@fgc.ca.gov](mailto:Susan.Ashcraft@fgc.ca.gov)>; Christine Cosby <[ccosby@yuroktribe.nsn.us](mailto:ccosby@yuroktribe.nsn.us)>; Walker, David@Wildlife <[David.Walker@wildlife.ca.gov](mailto:David.Walker@wildlife.ca.gov)>; Grant, Christina@CDPH <[Christina.Grant@cdph.ca.gov](mailto:Christina.Grant@cdph.ca.gov)>; Jacque Smith [REDACTED] Jaytuk Steinruck [REDACTED]; Grebel, Joanna@Wildlife <[Joanna.Grebel@wildlife.ca.gov](mailto:Joanna.Grebel@wildlife.ca.gov)>; Ken Graves [REDACTED]; Ramey, Kirsten@Wildlife <[Kirsten.Ramey@wildlife.ca.gov](mailto:Kirsten.Ramey@wildlife.ca.gov)>; Martel, Melissa (HUMBOLDT COUNTY) <[mmartel@co.humboldt.ca.us](mailto:mmartel@co.humboldt.ca.us)>; Ray, James@Wildlife <[James.Ray@wildlife.ca.gov](mailto:James.Ray@wildlife.ca.gov)>; Rosa Laucci [REDACTED] Klasing, Susan@OEHA <[Susan.Klasing@oehha.ca.gov](mailto:Susan.Klasing@oehha.ca.gov)>; Suzanne Fluharty <[sfluharty@yuroktribe.nsn.us](mailto:sfluharty@yuroktribe.nsn.us)>; Tom Weseloh (<[Tom.weseloh@sen.ca.gov](mailto:Tom.weseloh@sen.ca.gov)> <[Tom.weseloh@sen.ca.gov](mailto:Tom.weseloh@sen.ca.gov)>); Trevena, Eric@CDPH <[Eric.Trevena@cdph.ca.gov](mailto:Eric.Trevena@cdph.ca.gov)>  
**Cc:** Zubkousky, Vanessa@CDPH <[Vanessa.Zubkousky@cdph.ca.gov](mailto:Vanessa.Zubkousky@cdph.ca.gov)>  
**Subject:** Domoic Acid Razor Clam Results - Del Norte Co

Hello –

Ken Graves submitted 8 razor clams collected on October 28 from Crescent Beach in Del Norte County for DA testing. Results for domoic acid in the meat are below. Results ranged from 110 to 180 ppm with an average concentration of 145 ppm.

Collection Date	Sample Site	Sample Type	Domoic acid (ppm)
10/28/19	Crescent Beach	Razor Clam Meat	180
10/28/19	Crescent Beach	Razor Clam Meat	130
10/28/19	Crescent Beach	Razor Clam Meat	130
10/28/19	Crescent Beach	Razor Clam Meat	160
10/28/19	Crescent Beach	Razor Clam Meat	130
10/28/19	Crescent Beach	Razor Clam Meat	110
10/28/19	Crescent Beach	Razor Clam Meat	160
10/28/19	Crescent Beach	Razor Clam Meat	160

Joe Christen  
Senior Environmental Scientist  
California Department of Public Health  
Environmental Health Services Section  
850 Marina Bay Parkway, G-165  
Richmond, CA 94804  
510 412-4638  
[Joe.Christen@cdph.ca.gov](mailto:Joe.Christen@cdph.ca.gov)



# Razor Clam Sampling for Domoic Acid Testing

Fish and Game Commission Meeting  
December 12, 2019

*Photo: James Ray CDFW*



# Sampling Effort

- California Department of Public Health (CDPH) responsible for Domoic Acid testing
- Local CDFW staff and other partners collect samples for CDPH
- In Humboldt County CDFW staff collects samples between Clam Beach and Moonstone Beach (red line)
- Sampling replicates recreational effort
- 6 clams sampled monthly (average 8 months/yr)







# Partners

- California Department of Public Health
- Office of Environmental Health Hazard Assessment
- California Department of Fish and Wildlife
- County of Del Norte
- Tolowa Dee-Ni' Nation
- Citizen Volunteers



*Photo: James Ray CDFW*