

2013

Paralytic Shellfish Toxin Monitoring Plan and Sampling Protocol for Commercially- Harvested Crab in Alaska



Alaska Department of Environmental Conservation (ADEC)
Division of Environmental Health

**Paralytic Shellfish Toxin (PST) Monitoring Program and Sampling Protocol
for Commercially-Harvested Crab in Alaska**

General Information for All Species

This protocol applies to whole, live as well as cooked, crab sales and distribution. There are no restrictions on distributing or selling eviscerated (sectioned) crab harvested from any of the areas outlined in this document.

PST Monitoring Program Action Levels

Action Level ($\mu\text{g}/100\text{ g}$)	Disposition
0 - <70	Acceptable. Fishery open. No further testing required after pre-harvest. Whole crab sales allowed (cooked or live).
> 70	Unacceptable. Fishery open. However, eviscerated product sales only until resampling establishes acceptable levels.

Sample Collection Protocol

- Samples must be randomly collected from at least two separate points in each area.
- Three whole crab represents one sample.
- Each sample must be accompanied by a completed copy of the Marine Toxins Sample Submission Form (*see Attachment 3*).
- All samples must be packaged and shipped to the Environmental Health Laboratory (EHL) in accordance with the lab's sampling instructions (*see Attachments 1 and 2*.)
- The firm/harvester pays for the cost of shipping.
- If a firm/harvester submits crab for pre-harvest/surveillance purposes, the firm/harvester will not pay for EHL analyses.
- If a firm/harvester submits crab for lot sampling, the firm/harvester will pay for EHL analyses.

Analysis, Reporting and Notification

- Samples are analyzed by EHL in Anchorage in the most expedient manner possible consistent with current analytical methods.
- Results are reported as micrograms of PST present per 100 grams of viscera.

Lot and Other In-Season Sampling

If sale of whole crab is desired and pre-harvest sampling was not conducted, the receiving processor may conduct lot sampling.

- The processor may coordinate with ADEC staff to schedule sample collection with other area processors on a rotation-basis, taking into consideration the product volume of

each facility and the number of facilities in each area (except as otherwise stated in this document).

- All lot samples must be taken directly from the commercial crab fishing vessel as it is off-loading at the plant.
- Lots may not be released into commerce pending sample results. Lots may be released into commerce only if all samples from that lot from that harvest area are below action levels.
- Six consecutive lots consisting of 1 sample (3 crabs) per lot must be collected.
- After receipt of six consecutive lot sample results found below the action level, a monthly monitoring schedule consisting of six samples per month goes into effect. Lots from monthly sampling may be released into commerce pending sample results. However, if the results are above acceptable levels, ADEC may require the firm eviscerate product not already in commerce and recall affected lots already in commerce. Alternatively, firms may elect to hold lots until the EHL notifies them of sample results.

In addition to the protocols described in this document, ADEC will require sampling of a district in response to a Paralytic Shellfish Poisoning (PSP) illness associated with that district.

Southeast Alaska

Dungeness Crab

Restricted Harvest

Based on high PST levels in crab samples analyzed in 2011 and 2012, ADEC is concerned that PST levels in crab viscera may be high in ADFG district 15 (located within ADEC area 3, see *Attachment 4*). To distribute or sell whole crab in ADFG district 15, pre-harvest screening or lot sampling results must be below action levels.

Sample Collection

ADEC will fund sample analyses for initial pre-harvest screening as well as samples submitted for surveillance. Industry may collect and submit lot samples if sale of whole crab is desired.

Pre-Harvest Sampling Requirements for Dungeness Crab by District

<u>ADEC AREA</u>	<u>ADFG DISTRICT/ SUB AREA</u>	<u>DESCRIPTION</u>	<u>NUMBER OF SAMPLES*</u>
3	115A Sub Area 115-32	North Lynn Canal/Chilkat Inlet	1
3	115A Sub Area 115-33	North Lynn Canal/Lutak Inlet	1
3	115A Sub Area 115-34	North Lynn Canal/Chilkoot Inlet	1
3	115A Sub Area 115-35	North Lynn Canal/Taiya Inlet	1
3	115B Sub Area 115-20	Bernes Bay	1
3	115C Sub Area 115-10	Central Lynn Canal	1
3	115C Sub Area 115-11	Central Lynn Canal	1
			Total Samples from All Areas: 7
			Total Animals From All Areas: 21
<i>*see General Information for All Species above</i>			

Tanner (Bairdi and Opilio) and King Crab

Restricted Harvest

The monitoring program for PST in commercially-harvested Tanner and King crab in Southeast Alaska for ADEC Areas 1-3 (ADFG Harvest Areas 1-16) is based on historical data of PST levels in Tanner and King crab. Southeast AK Tanner and King crabs are not routinely monitored for PST as they are predominantly entered into commerce eviscerated/sectioned. However, if a firm wishes to distribute Tanner or King crabs whole, the firm must submit lot samples.

Other Areas of Alaska

Yakutat to Southeast Kenai Peninsula

ADEC Area 4 - Yakutat (Cape Fairweather to Cape Yakutat)

ADEC Area 5 - Prince William Sound (Cape Yakutat to Seward)

ADEC Area 6 - Cook Inlet & Southeast Kenai Peninsula (Seward to Cape Douglas)

All Species

Unrestricted Harvest

The monitoring program for PST in commercially- harvested Dungeness, Tanner and King crab in ADEC areas 4-6 is based on historical PST data. Data shows that, for these crab species, levels are typically not detected or are well below action levels.

Kodiak to Aleutians

ADEC Area 7 – Kodiak (All Waters Around Kodiak Island between Lat 58° 48' 00" N and Lat 57° 15' 00" N)

ADEC Area 8 - Alaska Peninsula (Wide Bay to Cape Kumlik)

ADEC Area 9 - Aleutians (Cape Kumilk and south)

All Species

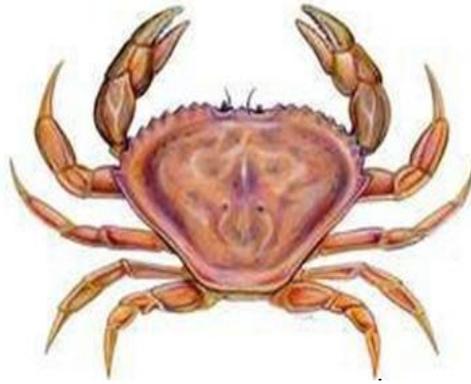
Restricted Harvest

The monitoring program for PST in commercially- harvested Dungeness, Tanner and King crab in ADEC areas 7-9 is based on historical PST data. Results of sampling data shows that, for these crab species, levels are typically above action levels. Only eviscerated crabs may be sold or entered into commerce, except for the eastern shore off the Alaska Peninsula from Cape Douglas to Wide Bay, an area designated as unrestricted.

Attachments

1. ADEC EHL Sampling Instructions for Crab Sample Collection
2. Shipping Notification Requirements for Sample Submission
3. Marine Toxins Sample Submission Form
4. ADFG/ADEC Shellfish Harvest Areas

Attachment 1



ADEC EHL Sampling Instructions for Crab Sample Collection

Packaging

- ✓ Place samples and submission form in a sturdy, leak-proof box. A Coleman cooler, fish box (or equivalent) works well for this purpose. Packaging samples in envelopes or other non-sturdy, non-leak-proof containers is not acceptable (or legal!) and will result in the samples being rejected by the laboratory.
- ✓ Add sufficient frozen gel packs or gel ice to keep samples cool during transport, even if samples are packed frozen. Assemble frozen gel-packs along the bottom and against the sides of the cooler/ insulated shipping container.
- ✓ Samples received $>10^{\circ}\text{C}$ interfere with the integrity of the analysis and will be rejected.
- ✓ Complete the Crab sample submission form provided.
- ✓ Place submission form in a separate Ziploc[®] bag.
- ✓ Bag the samples and add newspaper or other absorbent material in the shipping container for sweating of ice packs or any leaking.
- ✓ Sample must arrive within 24 hours of collection AND by noon the following day (Mon-Fri).
- ✓ Ship samples via airline for next day delivery.

Shipping and Notification (Follow Shipping Notification Instructions)

STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL HEALTH
ENVIRONMENTAL HEALTH LABORATORY

SEAN PARNELL, GOVERNOR

5251 Dr. Martin Luther King Jr. Ave
Anchorage, AK 99507-1293
Phone: (907) 375-8200 Fax: (907) 929-7335
<http://dec.alaska.gov/>

Shipping Notification Requirements for Sample Submission

Crab – Marine Toxins

Reminders!

- ✓ All samples submitted to the EH Lab are received by laboratory technicians within the Lab's Shipping & Receiving department. Our technicians require the following information as soon as your samples are shipped so they may arrange for courier pick-up and delivery to the lab:
 - Date shipped
 - Your name and contact telephone number
 - Number of pieces
 - Content of shipment
 - Test(s) requested
 - Freight carrier
 - Name of carrier
 - The waybill number (or other carrier tracking number)
 - Flight number, if available
 - Date delivery is expected, FOB Anchorage
- ✓ Please notify EHL Shipping & Receiving by phone, (907) 375-8231, or email the above information to: DEC.EH-Lab-ShippingReceiving@alaska.gov.
- *NOTE* this phone is not staffed 24 hours a day; please leave a detailed message.
- ✓ Address all sample shipping labels as follows:

ADEC – EH Laboratory
5251 Dr Martin Luther King Jr Ave
(or 5251 Dr MLK Jr Ave)
Anchorage, AK 99507-1293
NOA 375-8231

Thank you in advance for your cooperation,

EHL Staff



EHL WO# _____

MARINE TOXINS

CRAB SAMPLE SUBMISSION FORM

Business Name		Business Seafood -or- DEC Permit Number	
Business Contact Number		Processor's Permit Number:	
Processor/ Vessel Name:			
Collected By/Contact #		Date/Time Collected	
Test(s) Requested: <input type="checkbox"/> Diarrhetic Shellfish Toxin (DST) <input type="checkbox"/> Paralytic Shellfish Toxin (PST) <input type="checkbox"/> Domoic Acid (AST)		Sample Type: <input type="checkbox"/> Pre-Season Harvest (FSS) <input type="checkbox"/> Surveillance (FSS) <input type="checkbox"/> Lot sample (Industry)	
CHECK EACH SAMPLE TYPE TO BE TESTED		Lot Number	LAB USE ONLY
<input type="checkbox"/> DUNGENESS CRAB			LAB ID#
<input type="checkbox"/> TANNER (Bairdi & Opilio) CRAB			LAB ID#
<input type="checkbox"/> KING CRAB			LAB ID#
<input type="checkbox"/> OTHER CRAB (please specify)			LAB ID#
<input type="checkbox"/>			LAB ID#
<input type="checkbox"/> OTHER:			LAB ID#
Client Comments (Lat/Long, if known):		AKDF&G DISTRICT/SUBDISTRICT	
For Lab Use Only			
Shipped Via _____ Tracking# _____ Courier # _____			
Temp on Arrival: _____ Thermometer _____ Coolant: Gel Ice Wet Ice Dry Ice None Other: _____			
Date/Time Received _____ Received By _____			

5



ADF & G

Chart 5 - Region 1, Southeast Alaska

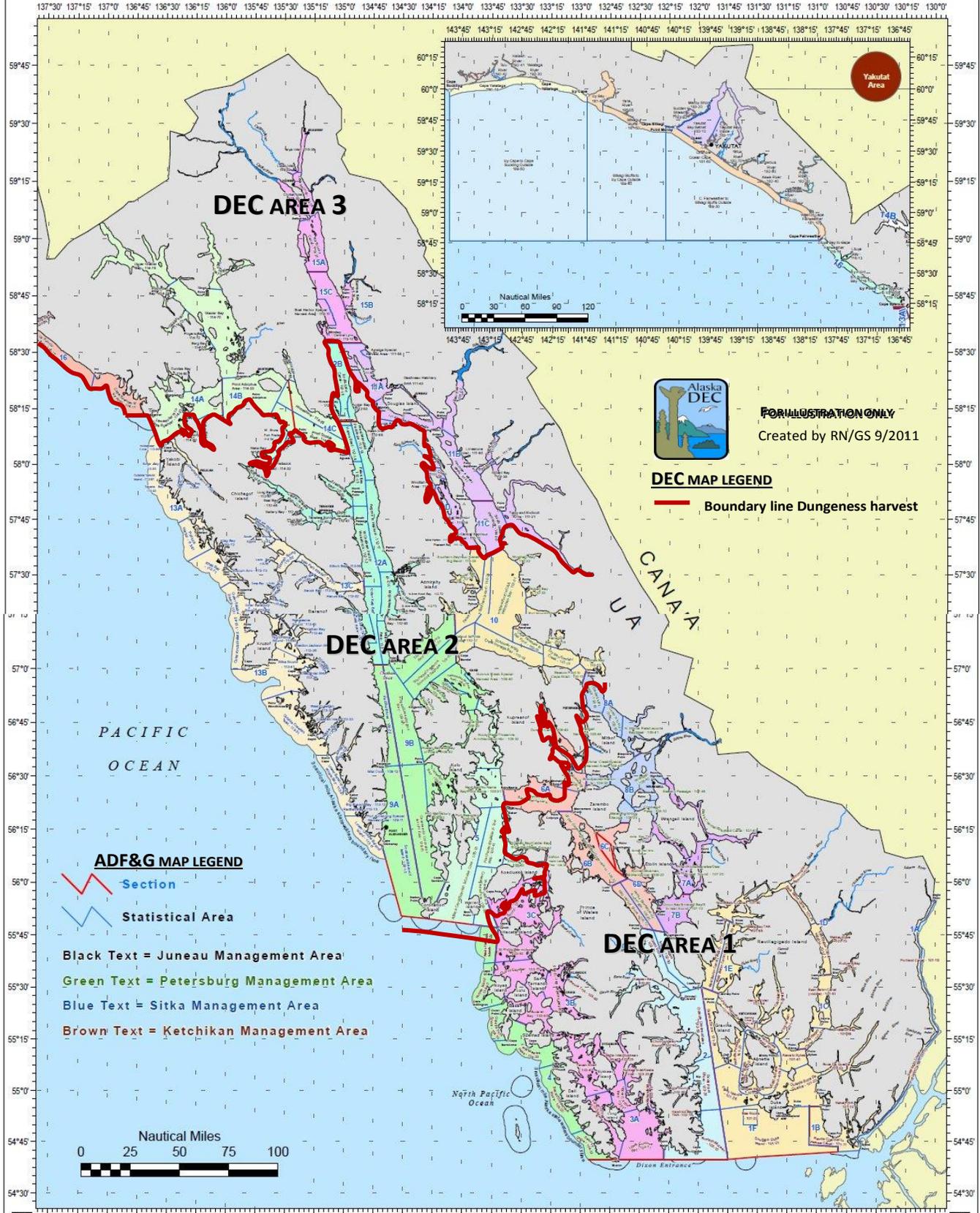
© 2011 Alaska Dept. of Fish and Game
Juneau, Alaska 99915-5555
907.465.6133
www.adfg.state.ak.us

5

Salmon and Shellfish Fisheries



2nd Ed., March 2011
Not for navigational use



ADF&G MAP LEGEND

- Section
- Statistical Area

- Black Text = Juneau Management Area
- Green Text = Petersburg Management Area
- Blue Text = Sitka Management Area
- Brown Text = Ketchikan Management Area



FOR ILLUSTRATION ONLY
Created by RN/GS 9/2011

DEC MAP LEGEND

- Boundary line Dungeness harvest

5

5