



Fisheries and Oceans Canada
www.dfo-mpo.gc.ca



Risk Management and Communication for Biotoxin and Sanitary Closures Fisheries and Oceans Pacific Region

DSP Symposium

November 27, 2012



Shellfish Contamination Page

Shellfish Contamination

Always check for both [Biotxin \(PSP, ASP, DSP\)](#) and [Sanitary Contamination Closures](#) if you plan on harvesting and consuming any shellfish

[-The DANGERS of illegal harvesting](#)

[-Harvest Shellfish Safely – Reminder to Shellfish Harvesters: Risk of Vibrio Parahaemolyticus \(Vp\), PSP \(Red Tide\) and other Marine Biotoxins](#)

[-News Release: Harvest Shellfish Safely](#)

<http://www.pac.dfo-mpo.gc.ca/fm-gp/contamination/index-eng.htm>

COOKING DOES NOT DESTROY THE PARALYTIC SHELLFISH TOXIN.

Shellfish Contamination

[ASP Biotoxins](#)

[DSP Biotoxins](#)

[PSP Biotoxins](#)

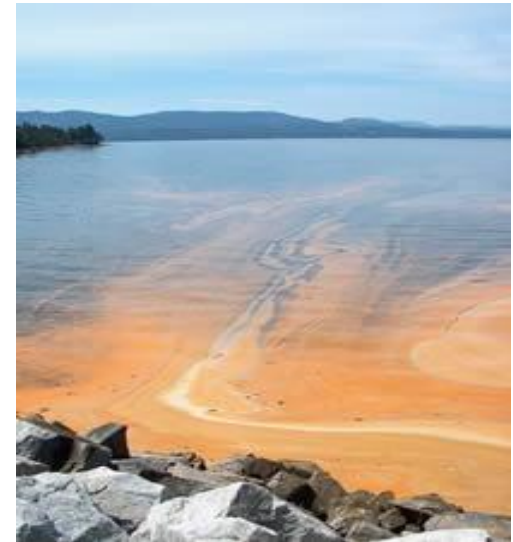
[Shellfish Biotoxins](#)

[Sanitary Contamination](#)

[PSP, ASP, and DSP Biotxin Closures](#)

[Sanitary Closures](#)

[Pacific Shellfish](#)



DSP Biotoxin Page

Eating contaminated Shellfish can be life threatening: Always check for [Biotoxin \(PSP, ASP, and DSP\) and Sanitary Contamination Closures](#) if you plan on harvesting and consuming any shellfish.

[Latest Biotoxin Contamination update](#)

Agent: Diarrhetic Shellfish Poisoning (DSP)



Classification: Marine Biotoxin

Fish Species Most Affected: Filter feeding molluscan bivalve shellfish:

Mussels

Clams

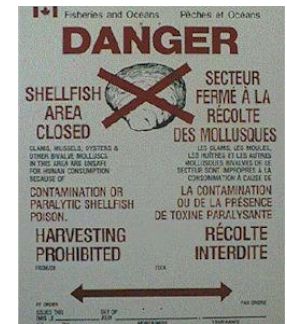
Cockles

Oysters

Scallops

Crab hepatopancreas

Whelks



Most of the toxin within shellfish is normally found within the digestive gland.

<http://www.pac.dfo-mpo.gc.ca/fm-gp/contamination/dsp-idm-eng.htm>



DSP Biotoxin Page – Control Measures

Control Measures – How to protect yourself from contamination

The single most effective control measure is responsible harvesting, i.e. that molluscan bivalve shellfish come only from open harvest areas.

[Check to ensure that the area where you intend to harvest is open,](#)
immediately prior to harvesting.

Call before you harvest



Information is also available on the Fishery Report Record Line at: 1-866-431-3474

Fishery Notices website –

<http://www.pac.dfo-mpo.gc.ca/fm-gp/contamination/biotox/index-eng.htm>

For more information, please visit the [Canadian Shellfish Sanitation Program](#) page (Canadian Food Inspection Agency site)

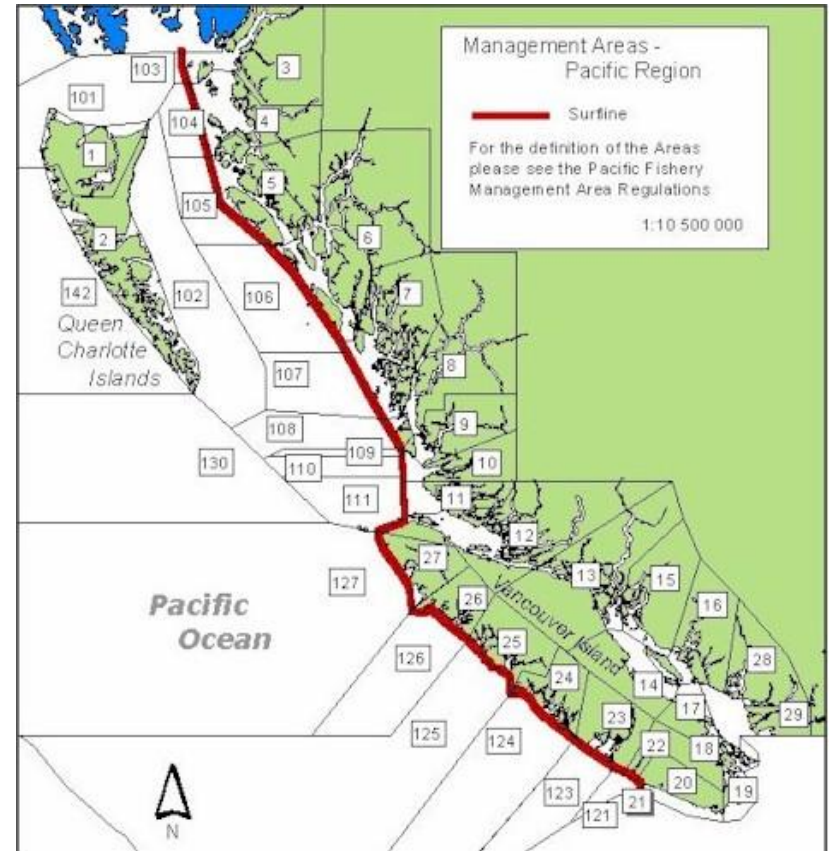


Biotoxin (PSP, ASP, DSP) & Sanitary Contamination Closures – Pacific Region

- [Latest Biotoxin Contamination update](#)

To see a detailed map of the Area you are interested in, click on the Area number on the map or the Area number in the table below. Check for PSP, ASP and DSP or Sanitary contamination closures in the table below or choose an Area number on the pull down menu box.

Area 1



<http://www.pac.dfo-mpo.gc.ca/fm-gp/contamination/sani/index-eng.htm>



Example of a Fishery Notice Biotoxin Update

<http://www.pac.dfo-mpo.gc.ca/fm-gp/contamination/biotox/index-eng.htm>

Fishery Notice

Category(s): ABORIGINAL - General Information
COMMERCIAL - Invertebrates: Clam - Razor
COMMERCIAL - Invertebrates: Geoduck and Horseclam
COMMERCIAL - Invertebrates: Scallop by Dive
COMMERCIAL - Invertebrates: Scallop by Trawl
COMMERCIAL - Invertebrates: Clam - Intertidal
PSP (Red Tide) /Other Marine Toxins
RECREATIONAL - Shellfish
COMMERCIAL - Invertebrates: Oyster

Subject: FN1121-Bivalve Shellfish: Marine Biotoxin - Update for Area 7, and Summary for all Areas - November 26, 2012

UPDATE: Maps of Fishery Management Areas and Subareas can be found at:

<http://www.pac.dfo-mpo.gc.ca/fm-gp/contamination/biotox/index-eng.htm>

Area 7 Effective immediately the harvest prohibition for manila clams, littleneck clams, oysters and mussels is lifted in Subarea 7-17. The most recent marine biotoxin results were acceptable.

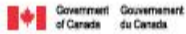
SUMMARY:

The following information in this fishery notice reflects Paralytic Shellfish Poisoning (PSP, red tide) and other marine toxin closures as of November 26, 2012 for bivalve shellfish (oysters, clams, scallops, mussels, and geoducks). Note that this fishery notice does not describe sewage contamination closures. For information on sewage contamination closures please go to:

<http://www.pac.dfo-mpo.gc.ca/fm-gp/contamination/index-eng.htm>



The DANGERS of Illegal Harvesting



THE DANGERS OF ILLEGAL HARVESTING

ENJOY SAFE SHELLFISH – CHECK BEFORE YOU HARVEST

Bivalve molluscan shellfish have two hinged shells and include oysters, clams, scallops, mussels, and cockles. Because bivalve shellfish feed by filtering microscopic plankton from the water, changes in water quality can result in unsafe marine biotoxins, bacteria, or viruses building up in their tissue.



The Canadian Shellfish Sanitation Program (CSSP) is designed to minimize the health risks associated with the consumption of contaminated bivalve molluscan shellfish. The program is delivered by the Canadian Food Inspection Agency, Fisheries and Oceans Canada, and Environment Canada.

The CSSP routinely monitors the level of marine biotoxins, bacteria and other harmful contaminants and closes bivalve shellfish areas when levels of these substances exceed safe limits.

While the CSSP has controls in place to prevent contaminated bivalve shellfish from reaching consumers, harvesters also have a role to play by maintaining safe practices. There can be serious consequences if bivalve shellfish are harvested from an area that is closed for harvesting.

Harvesting shellfish from closed or prohibited areas is illegal

Apart from risks to human health, illegally harvesting bivalve shellfish can also damage the reputation of the Canadian bivalve shellfish industry and harvesters who work hard to provide a safe, high quality product.

Areas that have been assessed and determined to be contaminated are generally clearly marked by signs. However, if you are planning to harvest bivalve shellfish, it is your responsibility to check with the nearest Fisheries and Oceans Canada office to find out whether the area is closed.

Harvesting of shellfish is prohibited within 125 metres (410 feet) of a wharf, aquaculture operation (salmon growing cages) or floating accommodation, such as a float home.

Eating contaminated shellfish can cause potentially serious or fatal illness. Consumers should be aware of potential food safety issues associated with eating bivalve shellfish:

MARINE BIOTOXINS

Biotoxins, if present in the water, can accumulate in bivalve shellfish. Paralytic Shellfish Poisoning (PSP), Amnesic Shellfish Poisoning (ASP) and Diarrhetic Shellfish Poisoning (DSP) are the most common illnesses associated with marine biotoxins in Canada. **Even cooked shellfish can still contain biotoxins.**

Symptoms of PSP include tingling and numbness of the lips, tongue, hands and feet, drowsiness, dizziness, headache and difficulty swallowing. In severe cases, this can proceed to incoherent speech, difficulty walking, muscle paralysis, respiratory paralysis, and death.



Symptoms of ASP include severe nausea, vomiting and diarrhea within six hours, muscle weakness, disorientation, memory loss, abdominal pain, and dizziness.

DSP symptoms include diarrhea, nausea, vomiting and cramps.

BACTERIA AND VIRUSES

Bacteria and viruses that may be present in the water in which shellfish live are capable of causing illness in humans. These include *Vibrio parahaemolyticus* (Vp), Norovirus, and Hepatitis A.

Vp is a naturally occurring bacterium found in our coastal waters. The presence of Vp can increase in warm waters to levels that can make people sick, particularly during the summer months. Symptoms of an infection of Vp include diarrhea, abdominal discomfort, nausea, vomiting, fever, and headache.

Norovirus symptoms include diarrhea, abdominal discomfort, nausea, vomiting, fatigue and fever.

Hepatitis A symptoms can include abdominal discomfort, nausea, fatigue, fever, and jaundice. Persons with liver conditions are at risk for more serious illness.

FREQUENTLY ASKED QUESTIONS:

How can I avoid getting sick or causing illness in others from unsafe bivalve shellfish?

The single most effective method of avoiding illness is responsible harvesting. Ensure that bivalve shellfish you harvest come only from open harvest areas.

What is meant by a "closed" area?

When an area is officially "closed," it is illegal and unsafe to harvest in that area. As a general rule, areas that have been assessed and deemed contaminated are clearly posted with signs indicating the area is closed. It is your responsibility to find out if an area is closed to shellfish harvesting.

How can I find out if an area is safe for harvesting?

Your first line of defense is to scan the area for signs that indicate the area is closed to bivalve shellfish harvesting. These signs are generally posted in areas most accessible to the public. Notices about the closing of harvest areas are also communicated to the fishing industry and the public through direct communications with bivalve shellfish harvesters, processors, local media, and the Fisheries and Oceans Canada website. Harvesters can also access the most up-to-date information from their local Fisheries and Oceans Canada offices.

On the web, visit the Shellfish Safety page at: www.dfo-mpo.gc.ca/fm-gp/sustainable-durable/aquaculture/safety-shellfish-eng.htm

PACIFIC (BRITISH COLUMBIA)
Telephone: 604-666-0384 or
1-866-431-3474

QUEBEC
Telephone: 418-648-2239
www.mollusca.gc.ca

GULF (ALL WATERS ADJACENT TO NEW BRUNSWICK, PRINCE EDWARD ISLAND AND NOVA SCOTIA IN THE SOUTHERN GULF OF ST-LAWRENCE)
Telephone: 506-851-6227

MARITIMES (ALL WATERS ADJACENT TO NOVA SCOTIA ON THE ATLANTIC COAST AND BAY OF FUNDY (INCLUDING NEW BRUNSWICK))
Telephone: 902-426-3550

NEWFOUNDLAND AND LABRADOR
Telephone: 709-772-4423

What do I do if I feel sick after eating shellfish?

Anyone who feels sick after eating bivalve shellfish should seek medical assistance. Individuals who feel ill should also contact their local public health department to report their illness.



Fish 686/2013 (2nd #)
916-1-100-6437 (2) (ISSN #)

Canada

Before you go Fishing –Recreational Fishing

- Updates: Openings and Closures
- Getting a Licence
- Recreational Fishing Gear
- Fishing Responsibly
- Identify your Catch
- Unlawful Actions
- Report a Violation
- Transporting / Packaging
- DFO Contacts
- Questions?

<http://www.pac.dfo-mpo.gc.ca/fm-gp/rec/opportunities-possibilites/contamination-eng.htm>



How to sign up to the DFO Fishery Notice System

http://www-ops2.pac.dfo-mpo.gc.ca/fns_reg/index.cfm

Application to Receive Fishery Notices

Fill in: First Name
Last Name
Mailing Address
City
Province
Postal Code
Phone
Email

Under Categories:

Choose the category you wish to receive Fishery Notices about and click on it to highlight it.

Note: If you want to choose more than one category click the first choice so it is highlighted and then hold the Ctrl button down (bottom left corner of computer keyboard) and select another choice by clicking on it.

Note: Choose Red Tide/Other Marine toxins and Sanitary/Other Contamination Closures to be notified of all possible shellfish closures.

Under Areas:

Choose all Areas or if you only care to get information regarding a specific area then choose that area

Enter the text in the image below:

Click Submit

Note: If done correctly next page will say: "This is a confirmation that you have successfully signed up for the Fishery Notification System"

You will also receive a confirmation email.



Fishery Notices

Choose between the following **three** ways to search for Fishery Notices:

1. [Browse Notices by Fishery](#) and Management Areas.
2. **Browse by Notice Number.** select a year and click "Get Notice List" to see all notices sorted by notice number. The most recent notices are shown first.
3. [Search Notices by Keyword\(s\)](#). Search by words which may be found in the notice text (examples: Strait of Georgia, conservation, sockeye). You can also restrict your search to fisheries you select.

Not quite sure where an "Area" or "Subarea" is located?...Check out our BC Area map for help! [BC Area Map](#)

Documents:

- [FN0331-Announcing Launch of New Fishery Notice Voice-Information System \(pdf\)](#)
- [New Fishery Notice Voice-Information System Q&A \(pdf\)](#)

The recreational fishery notices posted here update information published in the hard copy of the British Columbia Tidal Waters Sport Fishing Guide. Information contained in these notices are incorporated into the [on-line version](#) of this guide within 24 hours of the issuance of the fishery notice.

Openings & Closures (24 hour Recordings)
Recreational Fisheries
Shellfish Red Tide Updates - PSP (Bil)
Vancouver.....604-666-2828
Or Toll Free.....1-866-431-3474



Communication Sources

DFO Shellfish updates on Twitter - https://mobile.twitter.com/DFO_Pacific



2011-2013 British Columbia Sport Fishing Guide- <http://www.pac.dfo-mpo.gc.ca/fm-gp/rec/SFG-GPS-eng.htm>

PSP, ASP and DSP Biotoxin updates - www.pac.dfo-mpo.gc.ca/PSP

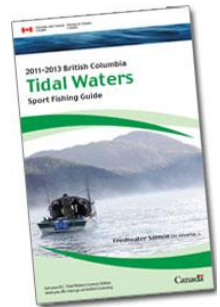
Information is also available on the Fishery Report Record Line at 1-866-431-3474

Fishery Notice System - http://www-ops2.pac.dfo-mpo.gc.ca/fns_reg/index.cfm

Fishery Notice Update - <http://www.pac.dfo-mpo.gc.ca/fm-gp/contamination/biotox/index-eng.htm>

DSP Biotoxin Page - <http://www.pac.dfo-mpo.gc.ca/fm-gp/contamination/dsp-idm-eng.htm>

Mapster - DFO mapping program - <http://www.pac.dfo-mpo.gc.ca/gis-sig/maps-cartes-eng.htm>



Questions?

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