Canadian Shellfish Sanitation Program (CSSP)

Overview of Classification of Shellfish Areas

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Presentation Outline:

Overview of the Canadian Shellfish Sanitation Program (CSSP) and classification of shellfish harvesting areas with relevance to Cowichan Bay.

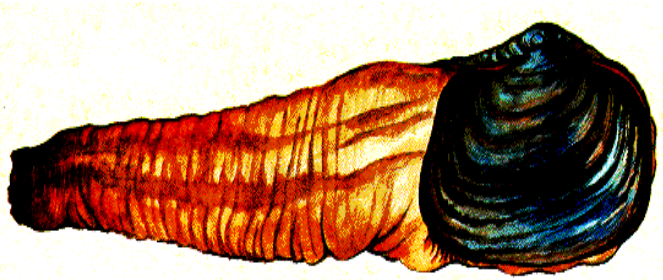
- What is the Canadian Shellfish Sanitation Program (CSSP)
- Shellfish species under the CSSP
- Overview- shellfish contamination
- CSSP partners and responsibilities
- EC marine water quality and sanitary surveys
- Shellfish area classification
- Cowichan Bay closure
- Questions

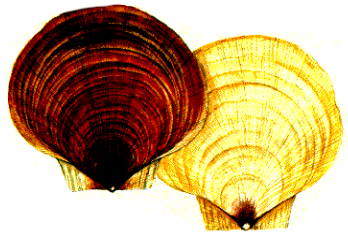
Objective & History of the CSSP

CSSP Program Objective

- To provide reasonable assurance that molluscan bivalve shellfish (e.g. clams, oysters, mussels, cockles, whole scallops) are safe for consumption by controlling their harvest and processing.





Objective & History of the CSSP

CSSP partners

- CSSP is a federal program led by the Canadian Food Inspection Agency (CFIA) administered jointly through an MOU among CFIA Environment Canada and Fisheries and Oceans Canada. Health Canada is also engaged.
- CSSP delivered in the Atlantic, Quebec and Pacific Regions

History

- Evolved since 1925 in response to illnesses (1,500) and deaths (150) due to typhoid fever resulting from consumption of oysters contaminated with sewage
- Led to the Canada-US Bilateral Agreement (1948)
  - Canada is subject to on-going audits by the US Food and Drug Administration (USFDA) and the EU as condition of access to international markets

Context, Shellfish within CSSP Scope

- Bivalve molluscs are “filter feeders” and can accumulate contaminants from their environment to levels that are unsafe to consumers.
- Does not include other “shellfish” such as crustaceans (crab, lobster, shrimp, etc.)
- Contaminants may be naturally-occurring or caused by pollution and include:
  - Marine Biotoxins (PSP, ASP, DSP)
  - Bacteria (fecal, non-fecal)
  - Viruses (eg. Hepatitis, Norovirus., etc)
  - Chemicals (metals, pesticides, etc)

Context, Shellfish within CSSP Scope

- The filtered material may be concentrated up to 100 times
- Shellfish are consumed whole, including digestive tract
- Often consumed raw (e.g. oysters) or undercooked (clams)
  - resulting in diarrhea, cramps, nausea & vomiting, to more serious symptoms including paralysis and death)

- Consumption of shellfish from areas that are **closed** to harvesting poses a serious health risk

CSSP Partners and their Responsibilities

- Canadian Food Inspection Agency (CFIA)
  - Program lead & Coordination
  - Biotoxin monitoring —recommendations lead to DFO closing areas (biotoxin closures), and shellfish meat testing
  - Inspection of Processing Facilities under *Fish Inspection Act*
- Fisheries and Oceans Canada (DFO)
  - Fishery Resource Management
  - Issuing Shellfish Closures under *Fisheries Act (MCF Regs)*
  - Licensing, Patrol, Enforcement
- Environment Canada (EC)
  - Marine water quality monitoring (fecal coliform) and pollution source identification
  - Recommendation of area classification leading to DFO closing areas (sanitary closures)

Regional Interdepartmental Shellfish Committee (RISC's)

- Coordinate CSSP priorities and make decisions on classification
- Biannual meetings
- Pacific RISC (PRISC) –

  CFIA (chair), DFO and EC

  non-voting representatives from the Province, BCCDC, shellfish industry

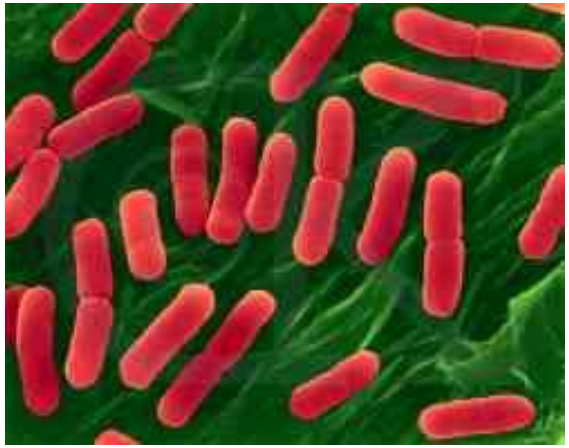
  invited stakeholders and First Nations affected by classification changes

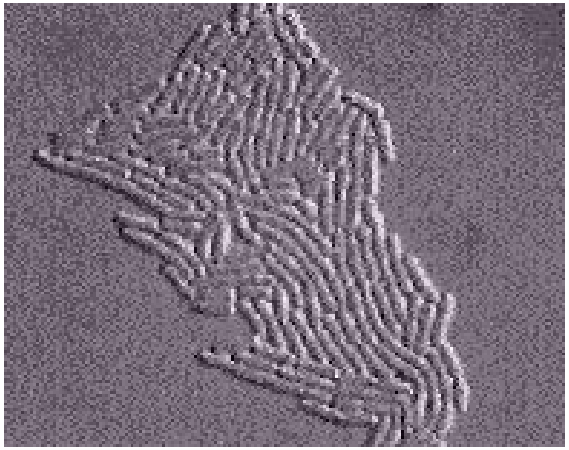
Sanitary surveys (EC)

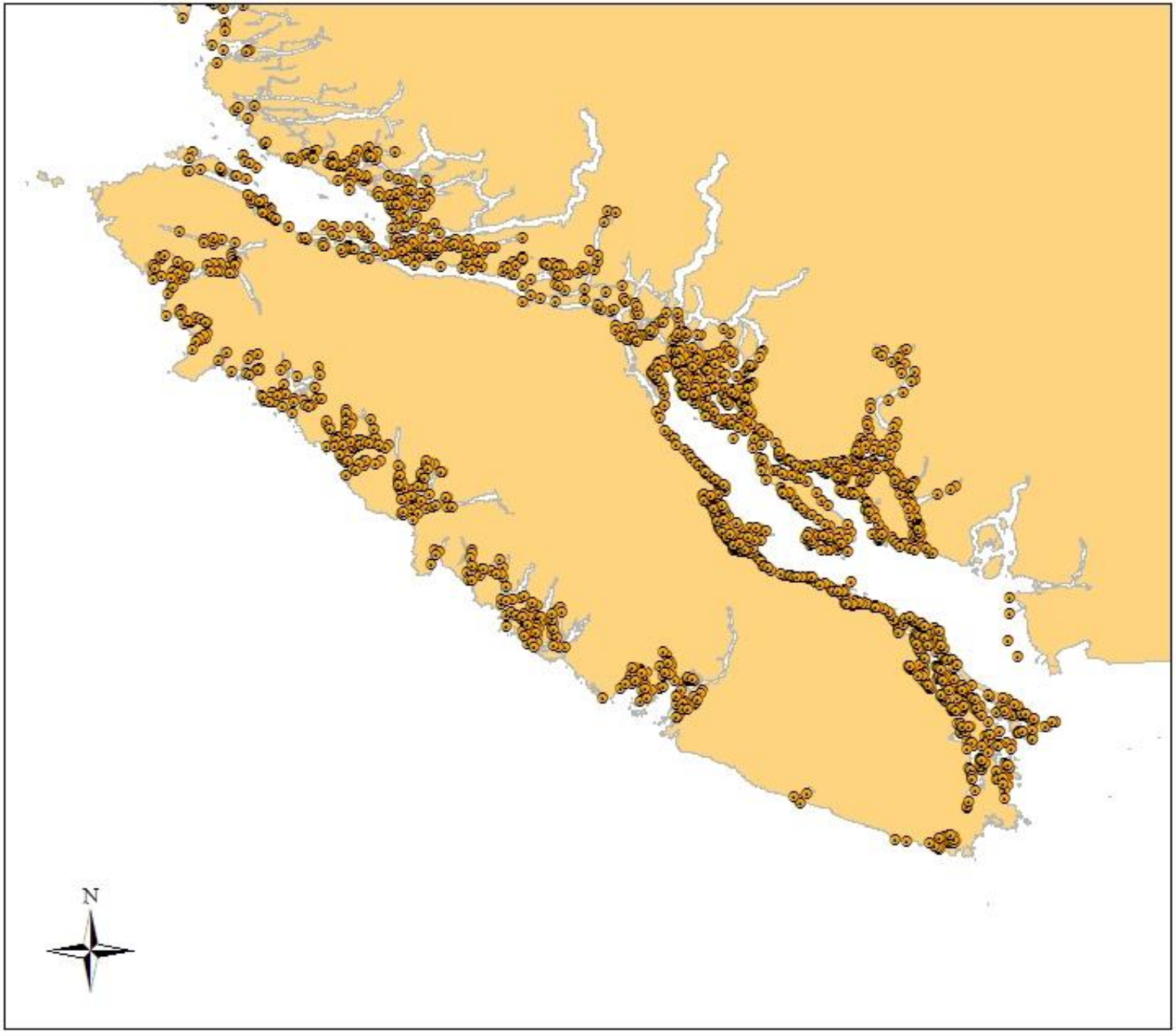
- Sanitary surveys conducted throughout BC's coast all year
- Shoreline assessment to identify actual and potential pollution sources.
- Bacteriological analysis (fecal coliform bacteria levels) of marine waters overlaying shellfish harvesting areas
- Viruses associated with human sewage is an increasing concern world-wide (e.g. norovirus, hepatitis, typhoid, diphtheria and cholera)
- EC makes recommendation on the appropriate classification for each shellfish area based on survey results and/or the potential for contamination.

Water Sample Analyses

- Measure for contamination by testing for fecal coliform
- Indicator organism
  - Indicates the potential for presence of other disease causing organisms
  - Associated with feces of warm blooded animals







Marine Water Quality Monitoring

Monitoring de la qualité des eaux marines

Marine monitoring stations

Projection: BC Albers Standard
Data Sources:
Basemap - © Canadian Hydrographic Service
Not For Navigation

0 15 30
Kilometers

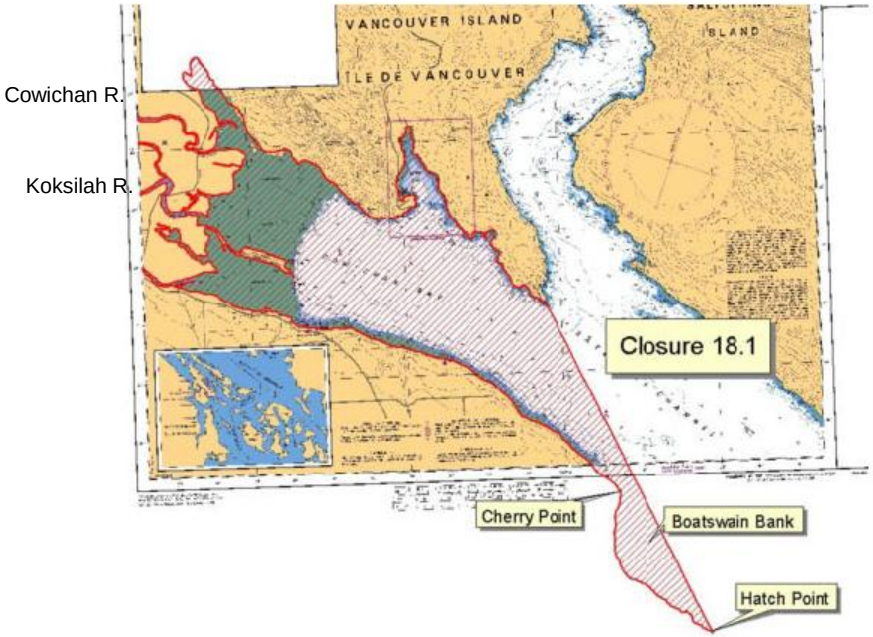
CSSP Classification Categories

- Approved
  - Areas where harvesting for direct consumption is permitted
- Restricted
  - Areas where harvesting for relay/depuration may be permitted
- Conditionally Approved
  - Areas where harvesting for direct consumption is allowed under the terms of a signed management plan
- Conditionally Restricted
  - Areas where harvesting for relay/depuration is allowed under the terms of a signed management plan
- Prohibited
  - Areas where harvesting is forbidden except for seed, spat and scientific purpose under license

Pacific Region
Regional Topics
- Aboriginal Fishing and Treaties
- Aquaculture
- Consultations
- Fisheries Management
- Oceans
- Salmonid Enhancement Program
- Science and Research
- Working Near Water

Regions
National Site
Media
Resources
- Proactive Disclosure

Area 18 - Pacific Region Sanitary Closures
Closure 18.1



Click Here for larger picture (232kb)

Closure 18.1

- Very high levels of contamination
- Wastewater treatment plants
- Industrial activity
- Agricultural inputs and land-wash
- Septic systems
- Storm drains
- Marinas , float homes, anchorages

Thank you!