







# BC Invasive Mussel Defence Program









Martina Beck and Barb Leslie BC Ministry of Environment Osoyoos Lake Water Science Forum October 9<sup>th</sup>, 2015

### Legislation

### **BC** Wildlife Act

- Controlled Alien Species Regulations created in 2009
  - List of exotic animals such as tigers, lions, caimans, hot snakes and primates that can not be brought into, sold or breed in BC.
    - Reason- human health risks and ecological consequences

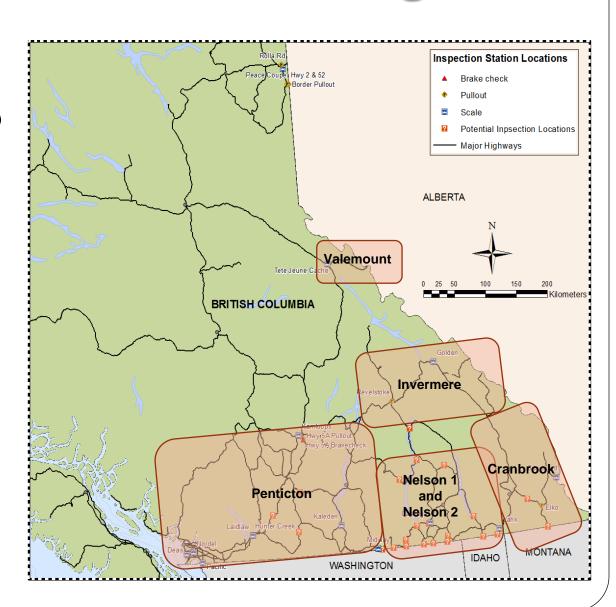
### 2012

- List expanded to include a number of aquatic invasive species that pose a significant risk to BC's native species, environment and, in some cases, infrastructure
- Prohibiting the possession, breeding, release or transportation of high-risk aquatic species such as the snakehead. Releasing a live snakehead into local waters could result in a fine of up to \$250,000.
- Requiring that no invasive zebra or quagga mussel, alive or dead, be present on boats or related equipment. Failure to clean mussels off boats or equipment could result in a fine of up to \$100,000

### BC Invasive Mussel Defence Program

- Six trained inspection crews (2 auxiliary conservation officers/crew) with mobile decontamination units.
- Based out of Nelson,
   Penticton, Cranbrook,
   Invermere and
   Valemount.
- Operational from late May to October 2015.





### **BC's Inspection Crews Priorities 2015**

- **Roadside Inspections** target location and times with highest number of boaters, preferably out of Province, identify suitable inspection locations for permanent stations.
- Education/Outreach of the boating community to follow <u>Clean</u>
  <u>Drain and Dry</u> of their boats to prevent AIS spread.
- Collaboration— other government agencies, Conservation Officers, Commercial Vehicle Safety and Enforcement (CVSE), Canada Border Services Agency (CBSA), Alberta and neighbouring jurisdictions.





## Watercraft Inspection

See the 100<sup>th</sup> Meridian
Initiative website inspection
and decontamination video
<a href="http://www.youtube.com/w">http://www.youtube.com/w</a>
atch?v=JX8TmwTx-tU



#### HIGH RISK (ANS) INSPECTION FORM

For use on High Risk Trailered Watercraft

Inspection Location:	Date/Time: Water Code:
Vessel Registration# (CL#):	ag #: Trailer Tag. #:
REASON FOR HIGH RISK INSPECTION (check all that apply)  Out of state registered or used out of state within last 30 days.	
☐ Been in infested waters within last 30 days:	(Name/State of water). Days since in infested:
☐ Leaving infested waters after more than 24 hours at an infested reservoir	
☐ Big/Complex boat ☐ Standing water present	☐ Vol Request ☐ Dirty/Crusty/Slimy below waterline
☐ Entering/Leaving marina ☐ Other:	
VESSEL INSPECTION (Inspect very methodically and carefully)	
Overall look and feel of the hull (check box):  □ Clean/Smooth □ Bumpy/Sandpaper feel □ Other:	
(if bumpy/sandpaper feet, then look at bumps with magnifying glass to see if mussels)	
☐ Vessel Exterior Checked	
☐ Entire hull ☐ Trim tabs (top and bot.)	☐ Through hull fittings Sailboats:
☐ Transom ☐ Transducers ☐ Anchors and ropes ☐ Depth sounders	Pitot tubes     Centerboard box     Water intakes/Outlets     Rudder and transom
☐ Water holding pockets ☐ Recessed bolts	☐ PWC—foot recesses ☐ Keel
☐ Motor well ☐ Cavitations plate(s)	☐ Lights ☐ Fittings
☐ Motor Checked	
☐ Exterior housings ☐ Propeller and assembly ☐ Prope	eller shaft 🔲 Prop., shaft supports 🚨 Propeller guards
☐ Rudders ☐ Propulsion system ☐ Lowe	r unit 🔲 Gimbel area 🚨 Water intake/Outlets
☐ Trailer Checked	
☐ Rollers, bunks, pads ☐ License plate ☐ Trailer Ii	
	and hollows   Wheels and tires   Hangers
□ Interior/Equipment Checked □ Bait and live wells □ Internal ballast tanks □ PFD's □ Float cushions/belts □ Rope and equipment lockers	
☐ Anchors ☐ Waterfowl decoys ☐ Nets	☐ Float cushions/belts ☐ Rope and equipment lockers ☐ Water skis and ropes ☐ Other equipment
□ Vessel Thoroughly Drained	
☐ Bilge plug or pump ☐ Bait and live wells ☐ Ballast tanks ☐ Drain lower unit on outboard	
☐ Drain inboard motors fully by pulling plugs. ☐ Drain water cooled generators, swamp coolers with plugs	
☐ Large boats, ask driver to activate bilge pump.	
If entering a reservoir with any standing water and from infested or out-of-state waters in last 30 days, send to decontamination!	
If entering a reservoir with standing water, require draining, if vessel cannot be drained and has more than 5 gallons, send	
to decontamination. For lesser volumes of water, assess risk to determine whether to decontaminate.	
If leaving, drain and educate about Clean/Drain/Dry.	
☐ Closeout (if nothing is found)	
☐ Ask owner to replace bilge or other plugs ☐ Yell 's	tand clear" Thank them for cleaning/draining/drying
VESSEL INSPECTION FINDINGS (check all that apply)	
☐ Did not find any identified or suspected ANS species	
□ Found: □ Large volume of water □ Suspected ANS in water □ Mussels □ Vegetation	
O Other:	
INSPECTION COMPLETED IN ACCORDANCE WITH STATE PROCEDURES:	
Inspected by (print # and name):	
Inspected by (signature):	
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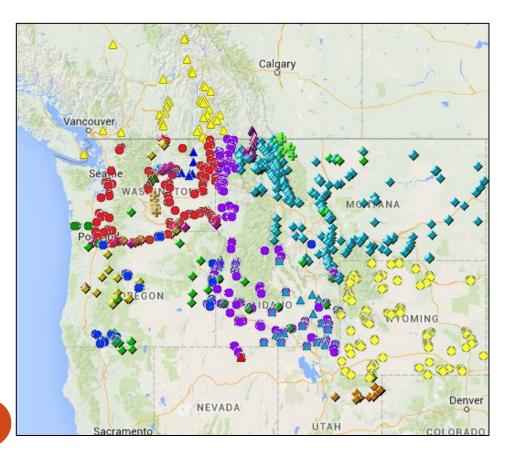
### Inspection Crew Data

- As of September 29<sup>th</sup> over 4,000 watercraft inspected across all 6 inspection crews and the crews interacted with over 9,400 people to promote CLEAN, DRAIN, DRY.
- 33 watercraft required decontamination, of which 15 watercraft contained invasive mussels or standing water and 6 were issued a 30-day quarantine order due to risk of live mussels.



### 2015 Mussel Veliger Monitoring

• Expanded monitoring this year with plankton tow samples being collected by regional committees and ministry staff in lakes across the Lower Mainland, Vancouver Island, Okanagan, East and West Kootenays, Columbia-Shushwap and Cariboo regions.



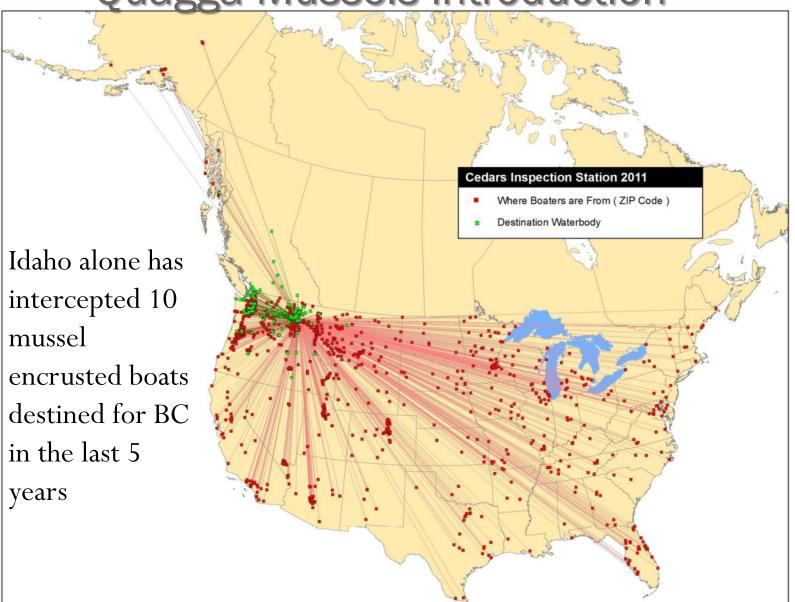


### Columbia River Basin Interagency Zebra and Quagga Mussel Rapid Response Plan

- Idaho
- Montana
- Oregon
- Washington
- British Columbia
- US Fish and Wildlife
- NOAA Fisheries
- Columbia River Inter-Tribal
   Fisheries Commission (US)

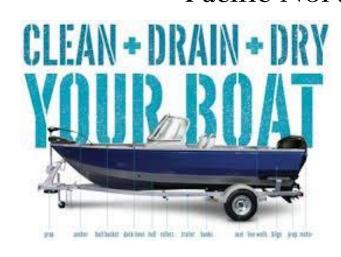


Issue: Increasing threat of Zebra and Quagga Mussels introduction



# Outreach efforts

Shared messaging across the western provinces, and the Pacific Northwest Clean, Drain, Dry









Aquatic invasive species (AIS) threaten aquatic habitats, fisheries and valuable recreational resources. They can spread through water and by attaching to watercraft, related equipment and gear, and aquatic plants.

HOW YOU CAN HELP: CLEAN, DRAIN, DRY

# Summary

- Provincial Invasive Mussel Defence Program has had a busy year.
- Inspection crews will remain operational until the end of October.
- Collaborations across jurisdictions and agencies will continue to grow for both the invasive mussel and AIS programs.





