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Invasive Mussel Program Update



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2016 Invasive Mussel Program Expansion





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2015 Pilot Season vs. 2016 Expanded Season

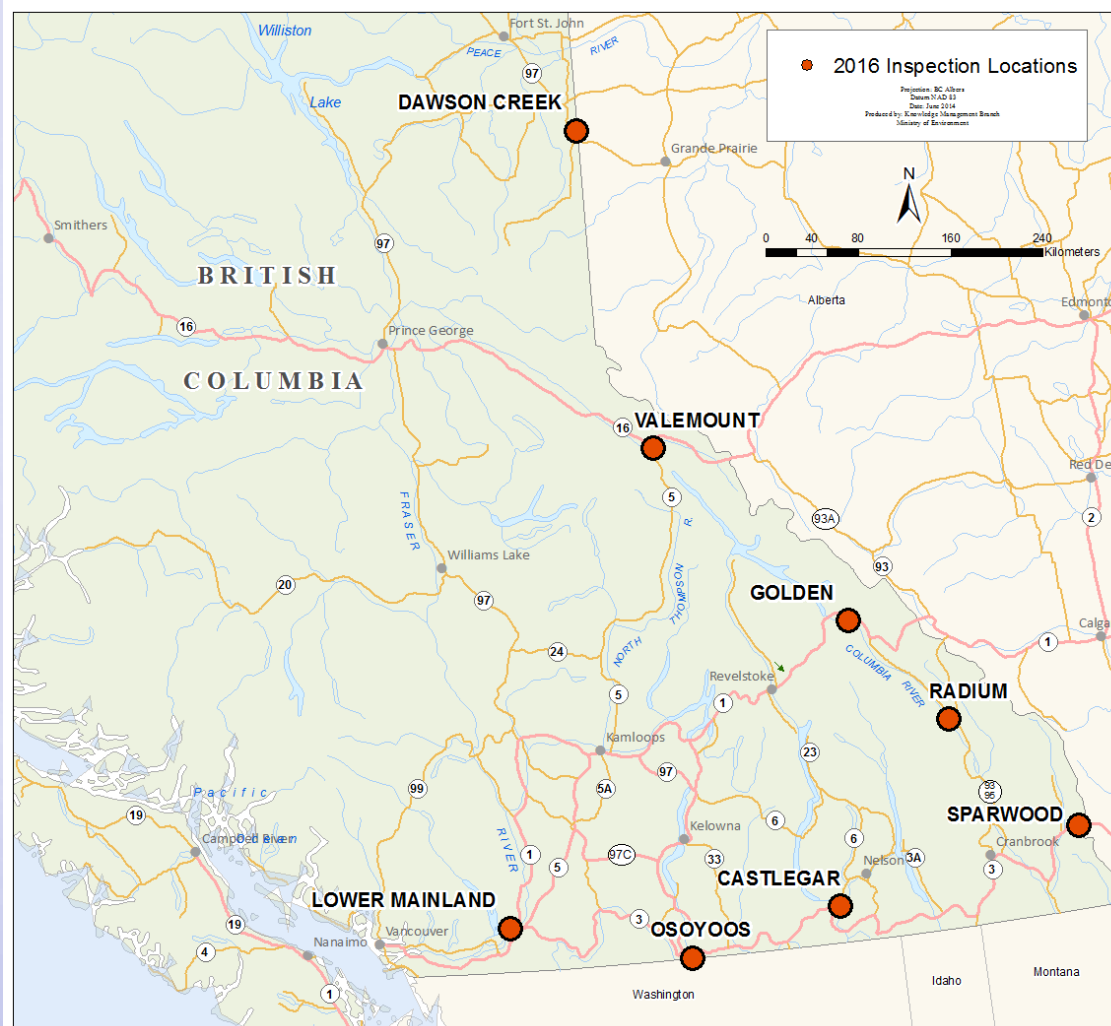
	2015	2016
Type of Inspection Stations	Roving (~ 30 locations)	Permanent (8 primary locations)
Number of Auxiliary Conservation Officers	12	33*
Inspection Crews with Mobile Decontamination Units	6	8
Level of Coverage	5 days/week & 7hrs/day, June-October	7 days/week & 10hrs/day, April to September/October

** 32 Auxiliary CO's and 1 full time program coordinator*



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Inspection Station Coverage for 2016





Prevention:

Controlled Alien Species Regulation BC *Wildlife Act* and *Federal Fisheries Act – Aquatic Invasive Species Regulation*

Schedule 4 Prohibited Species (Alive or Dead):

- Prohibited to possess, breed, transport or release

Family Dreissenidae

Zebra Mussel



Quagga Mussel



Conrad's false mussel





Auxiliary Conservation Officer Designations

- Regulation and additional authorities gives our auxiliary Conservation Officers the powers to:
 - Conduct mandatory roadside inspections,
 - Conduct mandatory boat decontaminations,
 - Issue 30 day quarantine periods, and
 - Issue Warning tickets





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Prevention: Invasive Mussel Program

Roadside Inspections -highway inspection stations at key entry points into the Province from the US and Alberta (Commercial vehicle safety, Canadian Border Services, Ministry of Transportation, Conservation Officers)

Education/Outreach to the boating community on Clean Drain and Dry messaging to prevent AIS spread (Invasive species councils, Ministry of Transportation, Parks Canada)

Early Detection Monitoring -ZQM veliger monitoring in BC lakes (Ministry staff, regional invasive species councils)

Collaboration— with other agencies and jurisdictions





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New in 2016 – Improved Signage





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New in 2016 - Marketing

- Internal marketing campaign including:
 - New mobile friendly website:
www.gov.bc.ca/invasivemussels
 - Facebook ad campaign
- Partnering closely with Invasive Species Council of BC and regional groups on outreach/education of Clean, Drain, Dry message

The image shows a Facebook advertisement from the Government of British Columbia. At the top left is the BC logo. To its right, it says 'Government of British Columbia' and 'Sponsored · *'. On the far right is a 'Like Page' button. The main text reads 'Stop the Spread of Invasive Mussels.' Below this is a large image of a boat being cleaned on a shore, with a car nearby. Overlaid on the right side of the image is the 'CLEAN DRAIN DRY' logo. In the bottom right corner of the image is the BC logo. Below the image, the text reads 'Boaters Beware' followed by 'Invasive Mussels are threatening BC Waters. Do your part to prevent the spread of invasive species. Clean, drain and dry your watercraft before transporting it.' At the bottom left is the URL 'WWW2.GOV.BC.CA' and at the bottom right is a 'Learn More' button.

Government of British Columbia
Sponsored · *

Stop the Spread of Invasive Mussels.

**CLEAN
DRAIN
DRY**

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Boaters Beware

Invasive Mussels are threatening BC Waters. Do your part to prevent the spread of invasive species. Clean, drain and dry your watercraft before transporting it.

WWW2.GOV.BC.CA

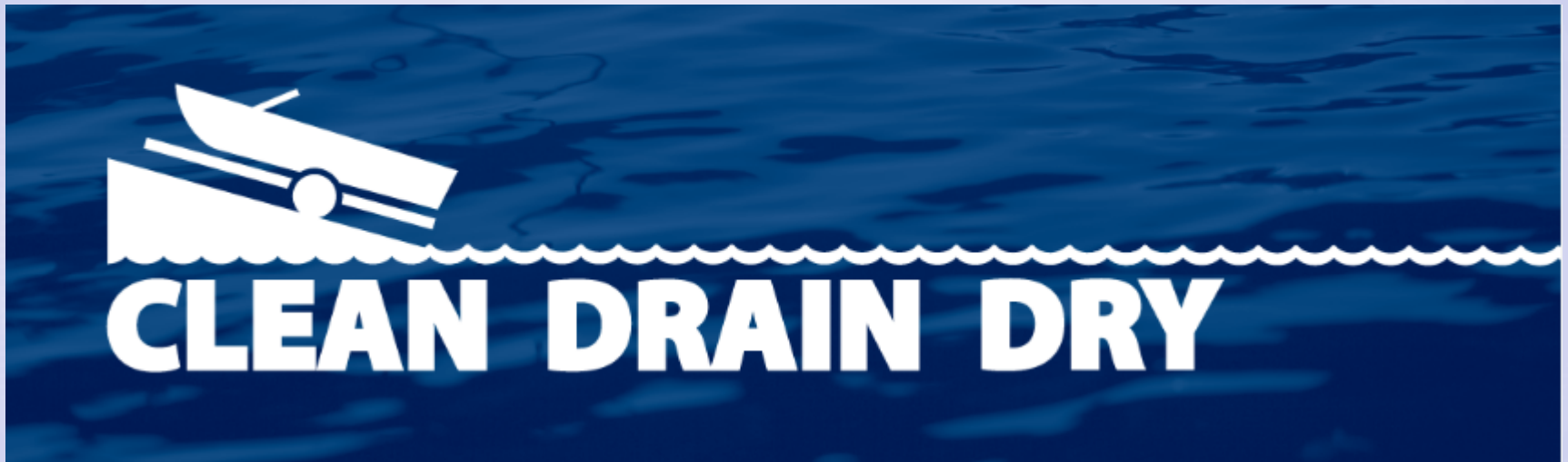
Learn More



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New Provincial CDD Logo





Watercraft Inspection Data 2016

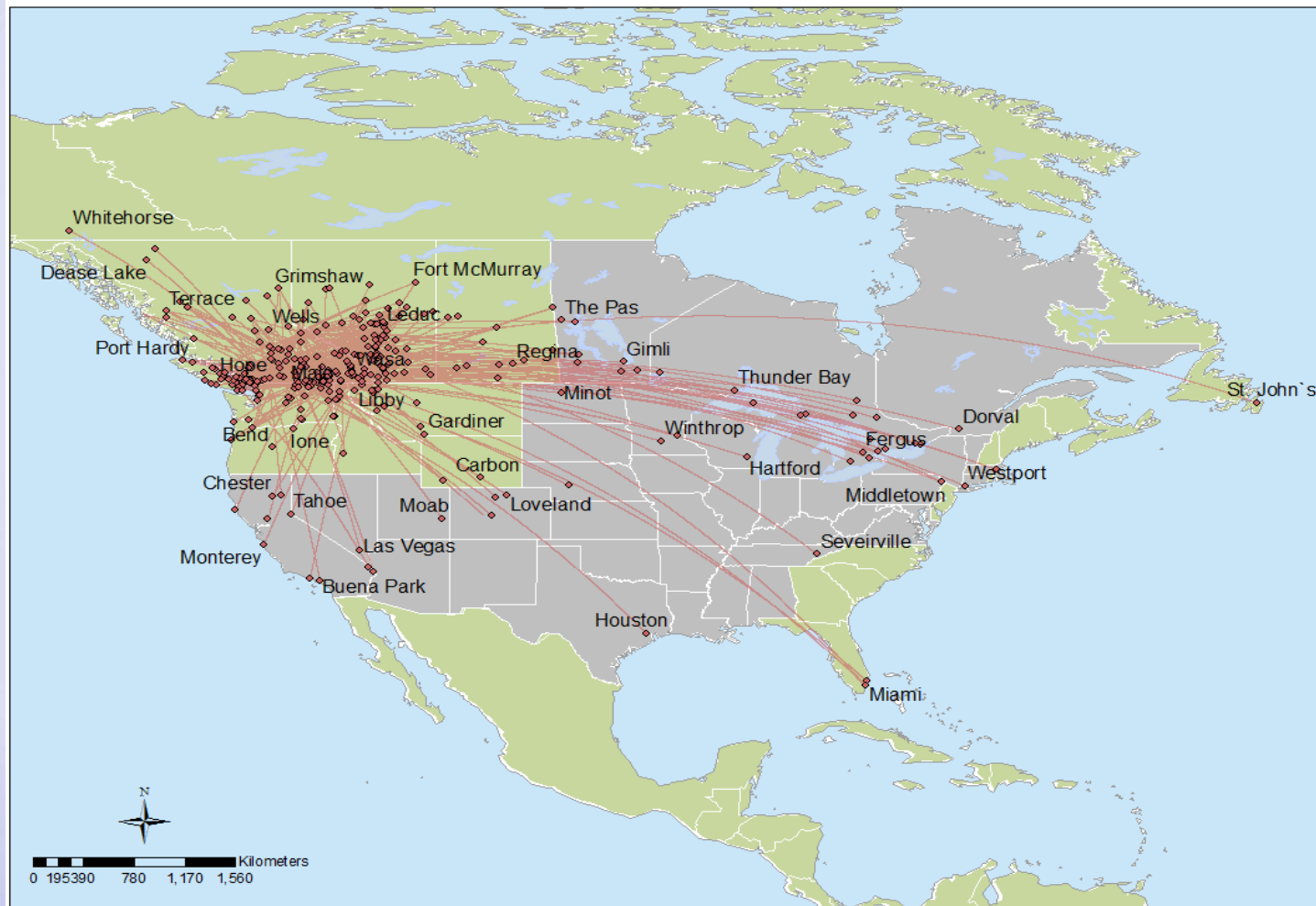
	2015	2016 *
Total Watercraft inspected	4,350	~24,500
Number of people interacted with	~10,000	~50,000
Watercraft from high risk jurisdiction	70	684
Mussel fouled boats (adults and/or larvae)	15	17

*These are not final numbers for the 2016 season as data analysis is still underway.



Source Location of All Watercraft Inspected

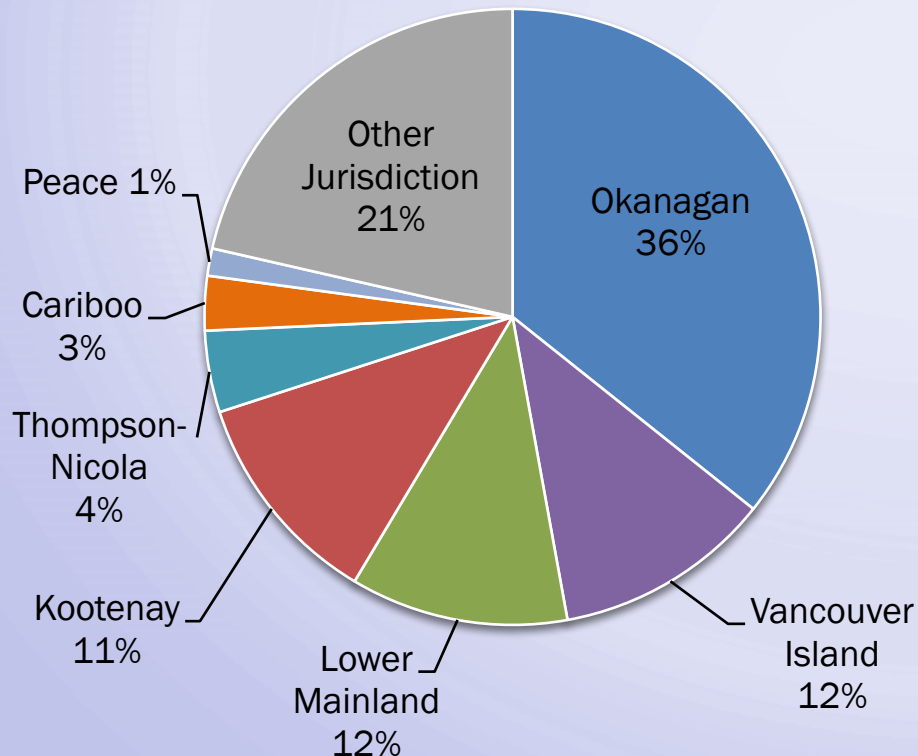
- 2015: Boats from 33 different jurisdictions
- 2016: Boats from 58 different jurisdictions



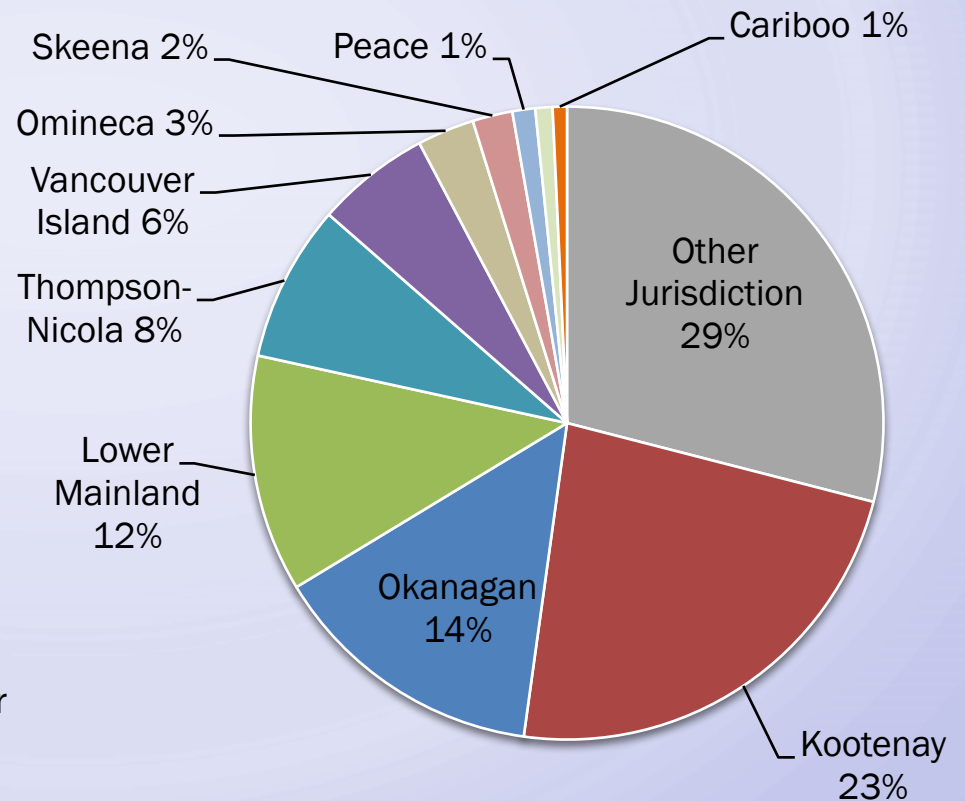


Destination of High Risk Watercraft

2015 Data



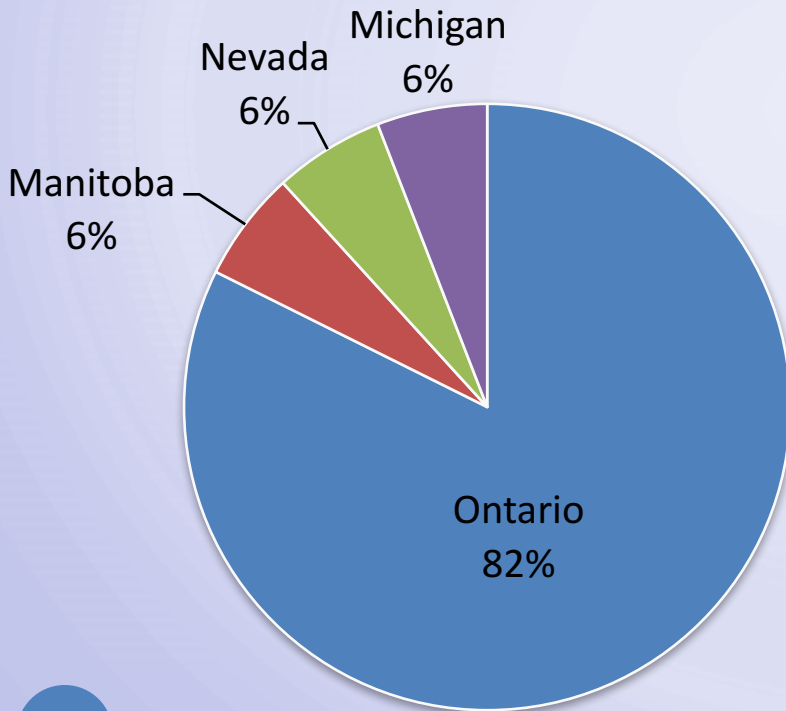
2016 Data



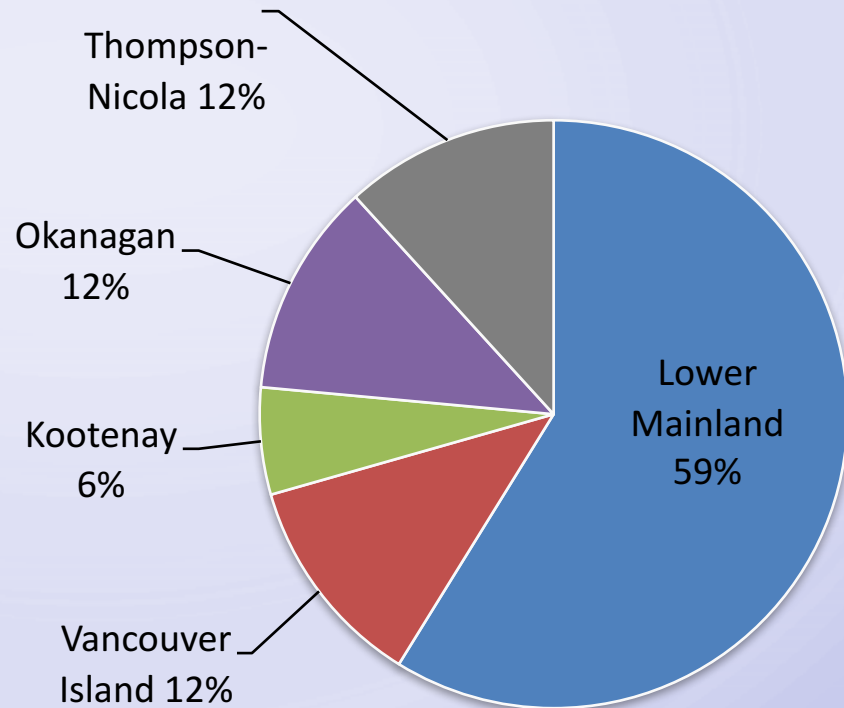


2016 Mussel Fouled Watercraft

Origin of Mussel Fouled Boats

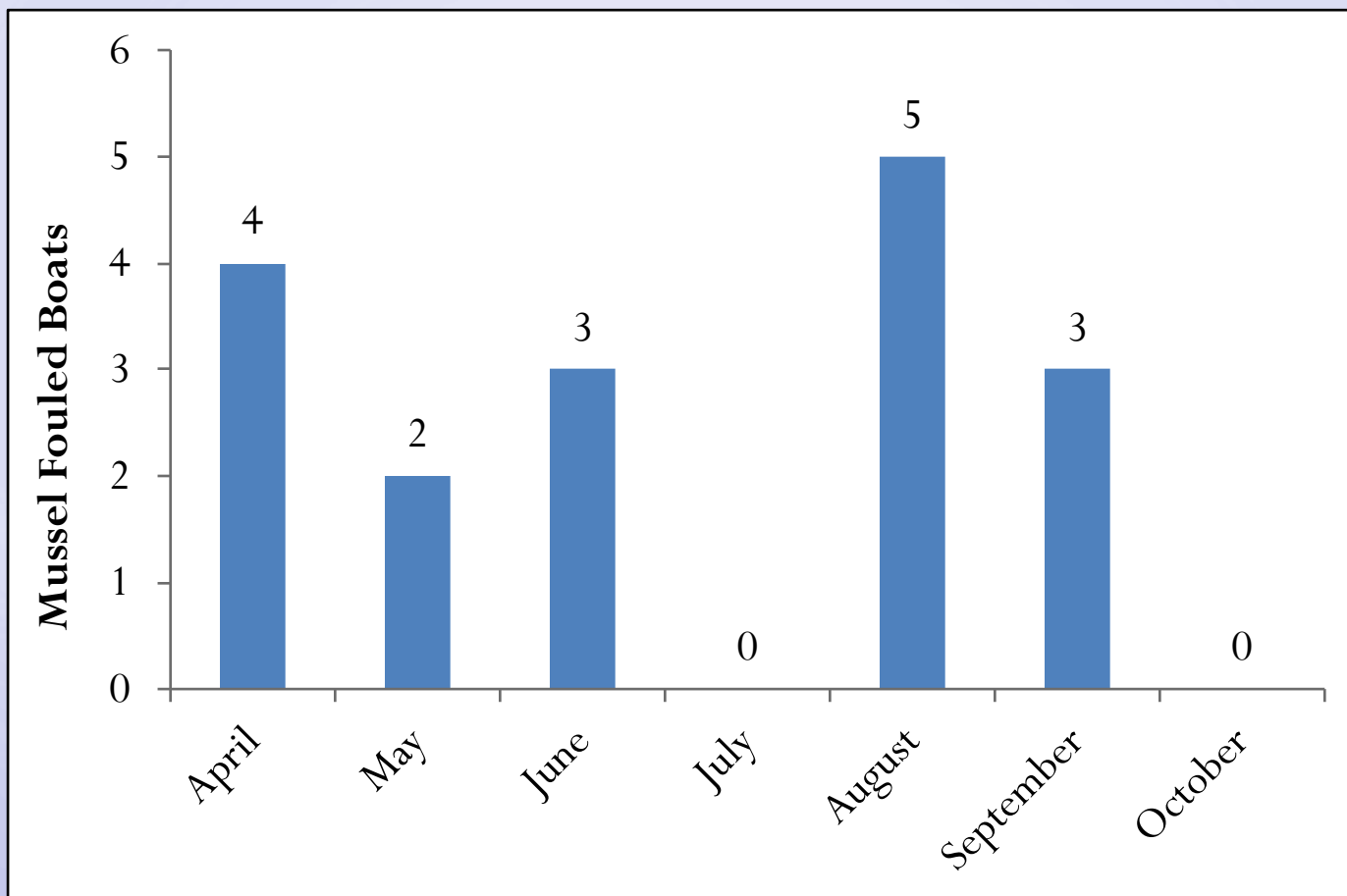


Destination of Mussel Fouled Boats



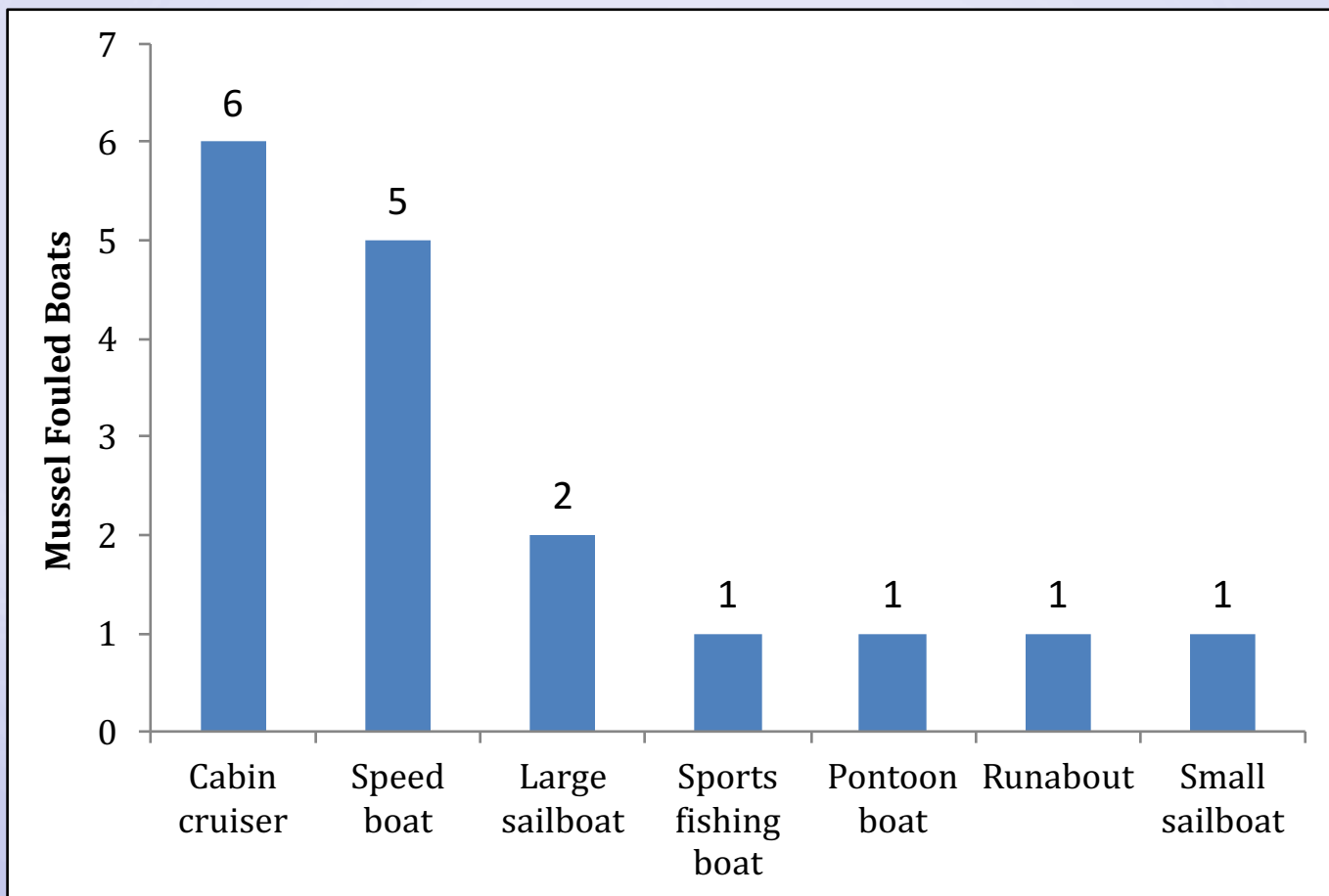


Mussel Fouled Boats by Month





Mussel Fouled Boats by Watercraft Type





Night Inspection Trial

- Wednesday Aug 24th at the Golden station on Trans Hwy 1
- Open from 10pm-5am and 3 boats came through, none were from a high risk jurisdiction
- 4 inspectors, 1 full time Conservation Officer and program coordinator on shift





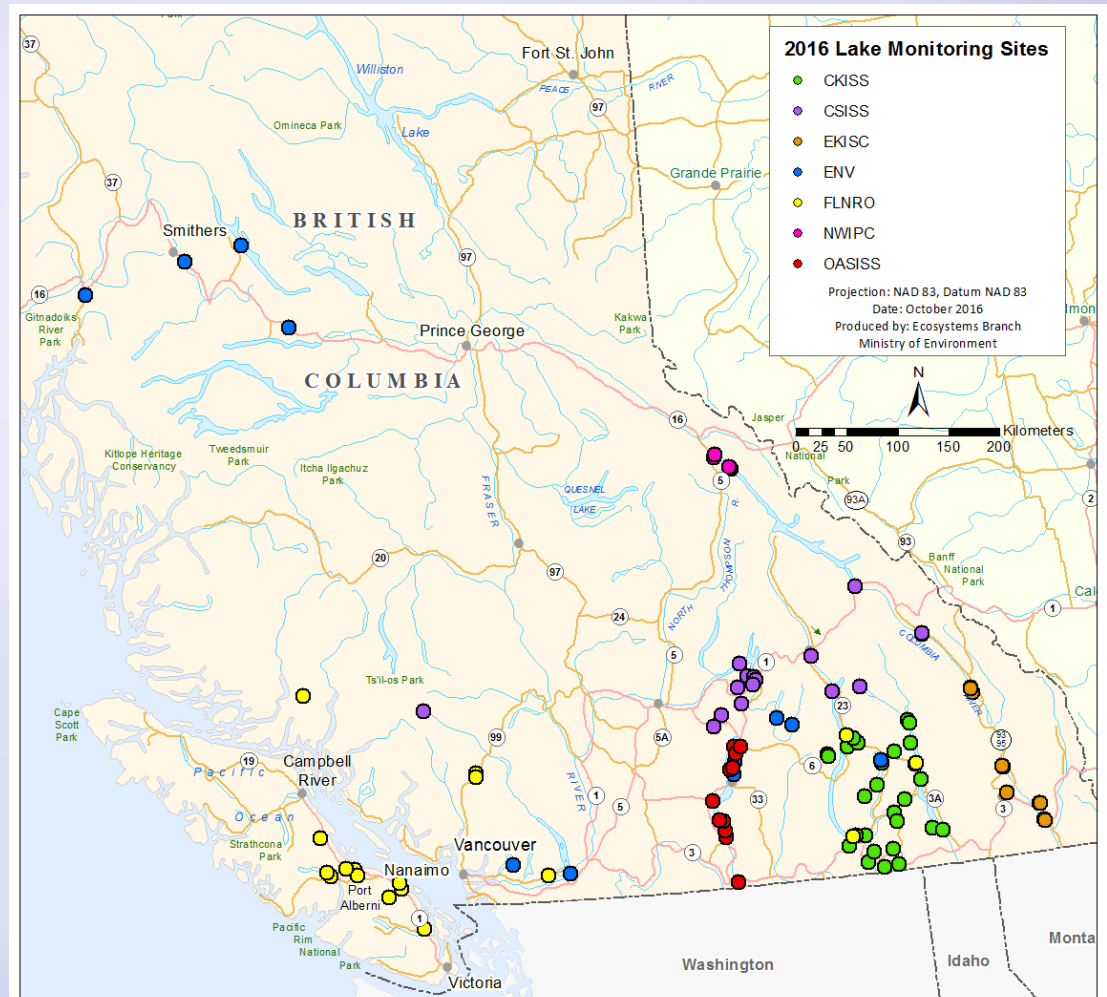
2016 Compliance and Program Effectiveness

- Average compliance across all inspection stations was 81% and up by 9% from the 2015 average of 72%.
- A total of 46 tickets and 36 warnings were issued to motorists for failing to stop at an inspection station.
- A total of 419 people voluntarily stopped at inspection stations without a boat to get more information about AIS.
- 62% of people that stopped at the inspection station had previous knowledge of Clean, Drain, Dry or Aquatic Invasive Species.



2016 Lake Monitoring

- 200 samples from 78 lakes have been collected to date.
- All samples negative for invasive mussel veligers.
- Samples collected by partnering agencies and Ministry staff.





Outreach & Education

- Mail-out to boating industry with letter & posters for display in businesses (**winter 2017**)
- Host workshops and webinars for boating industry including commercial haulers, boat brokers, marinas (**winter/spring 2017**)
- Working with wildfire management on decontamination protocols (**ongoing**)
- Working with international boating events taking place in BC (**ongoing**)





2016 Highlights & Lessons Learned

- 107 high risk boats were intercepted in April and May showing the importance of opening stations on April 1st.
- 2016 data shows the continued threat from the east with 82% of mussel fouled boats coming from Ontario.
- Provide more information on website for boaters bringing boats into BC.
- Continued coordination with international boating events taking place in BC.
- Watercraft inspection data being used to develop boater movement model in partnership with PhD student at University of Alberta



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Weird and Wonderful Watercraft





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QUESTIONS?

