

Inspecting Watercraft at the Emerson-Pembina International Border Crossing: Findings and Risks of American anglers

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Fisheries and Oceans
Canada

Pêches et Océans
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Introduction

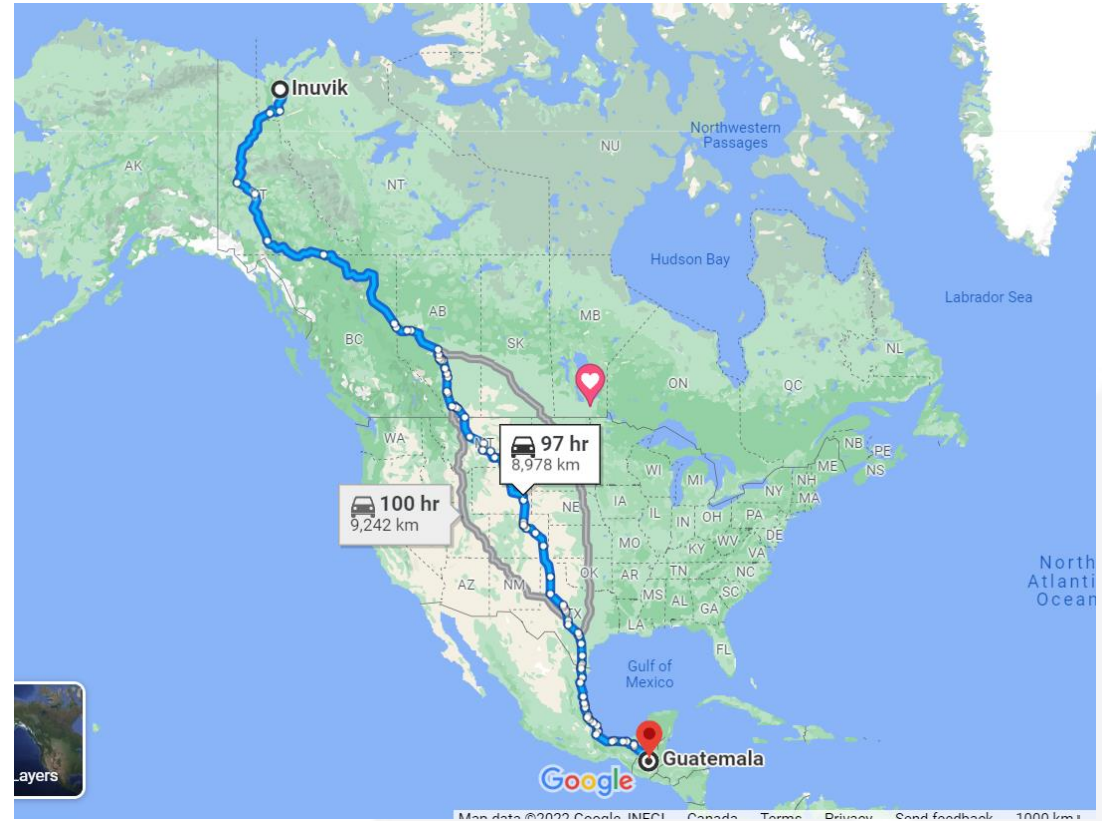
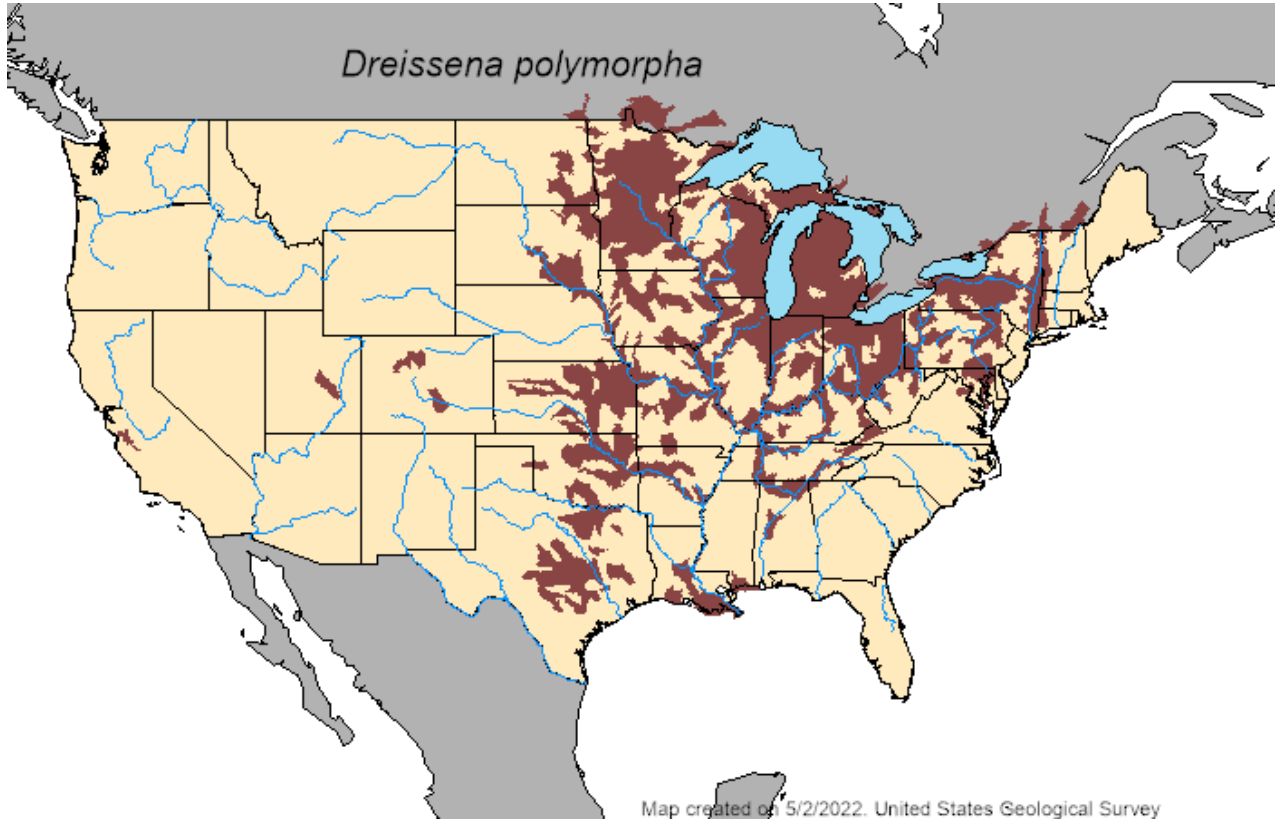
CESD 2019 Audit of DFO's AIS Programming

- DFO and Canada Border Service Agency (CBSA) must take better steps to prevent AIS from entering Canada
- DFO and CBSA agreed to work collaboratively to develop tools to support enforcement of the federal *Aquatic Invasive Species Regulations (AISR)*

Stowaway or Watercraft Overland Transport Pathway

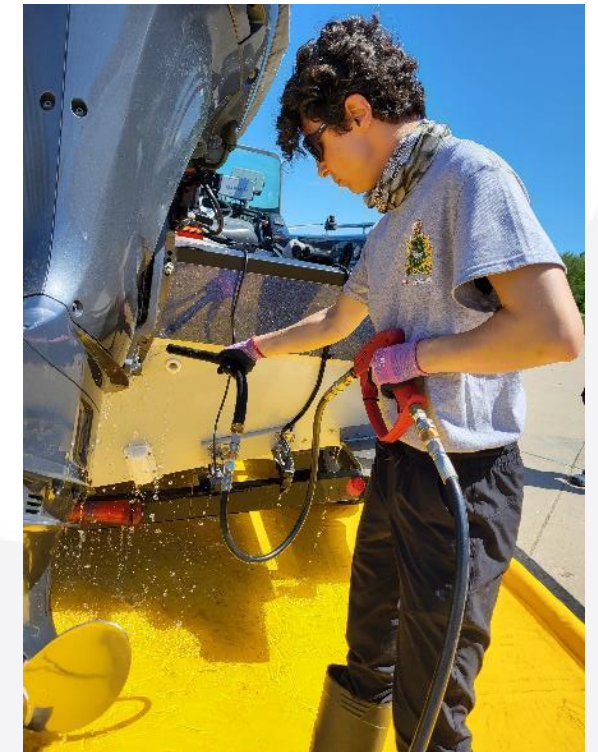
- Watercraft can harbour AIS, like Zebra and Quagga mussels, so watercraft entering Canada must be free of AIS
- Informal working group identified a pilot project to test existing and develop new tools





Stowaway Pathway Protection Pilot

Operationalizing Recommendations from the CESD Audit on Aquatic Invasive Species for the Stowaway Pathway



2022 Emerson POE Boat Traffic

Emerson-Pembina Port of Entry

Province/State Boundaries

Origin Waterbody



Destination Waterbody



Data: Fisheries and Oceans Canada (DFO) in partnership with the Canada Border Services Agency (CBSA)

Emerson CBSA's Role – Primary

Watercraft Cross-Border Transportation Form

Section A: Triage Questions – Completed by CBSA			
Date:	Time In:	POE:	Number of Boats:
When was the last time the boat was in the water: <input type="checkbox"/> 30 days or less <input type="checkbox"/> More than 30 days ago			
If 30 days or less; what was State or Province of last use? _____			
Is this State or Province free of AIS (refer to list on reverse)? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Is the watercraft CLEAN, DRAIN, and DRY? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Are all drain plugs removed on the watercraft? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Is any person in possession of live bait? (In the vehicle, watercraft, etc.) <input type="checkbox"/> Yes <input type="checkbox"/> No			
Section B: Secondary Inspection – Completed by DFO		Commercial Shipment:	<input type="checkbox"/> Yes <input type="checkbox"/> No

- Section A questions are completed by the BSO at Primary
- Traveller is handed the questionnaire to be completed at Secondary by DFO

DFO's Role – Secondary

Inspection Staff and/or Fishery Officers conduct a **verbal and physical inspection** at Secondary



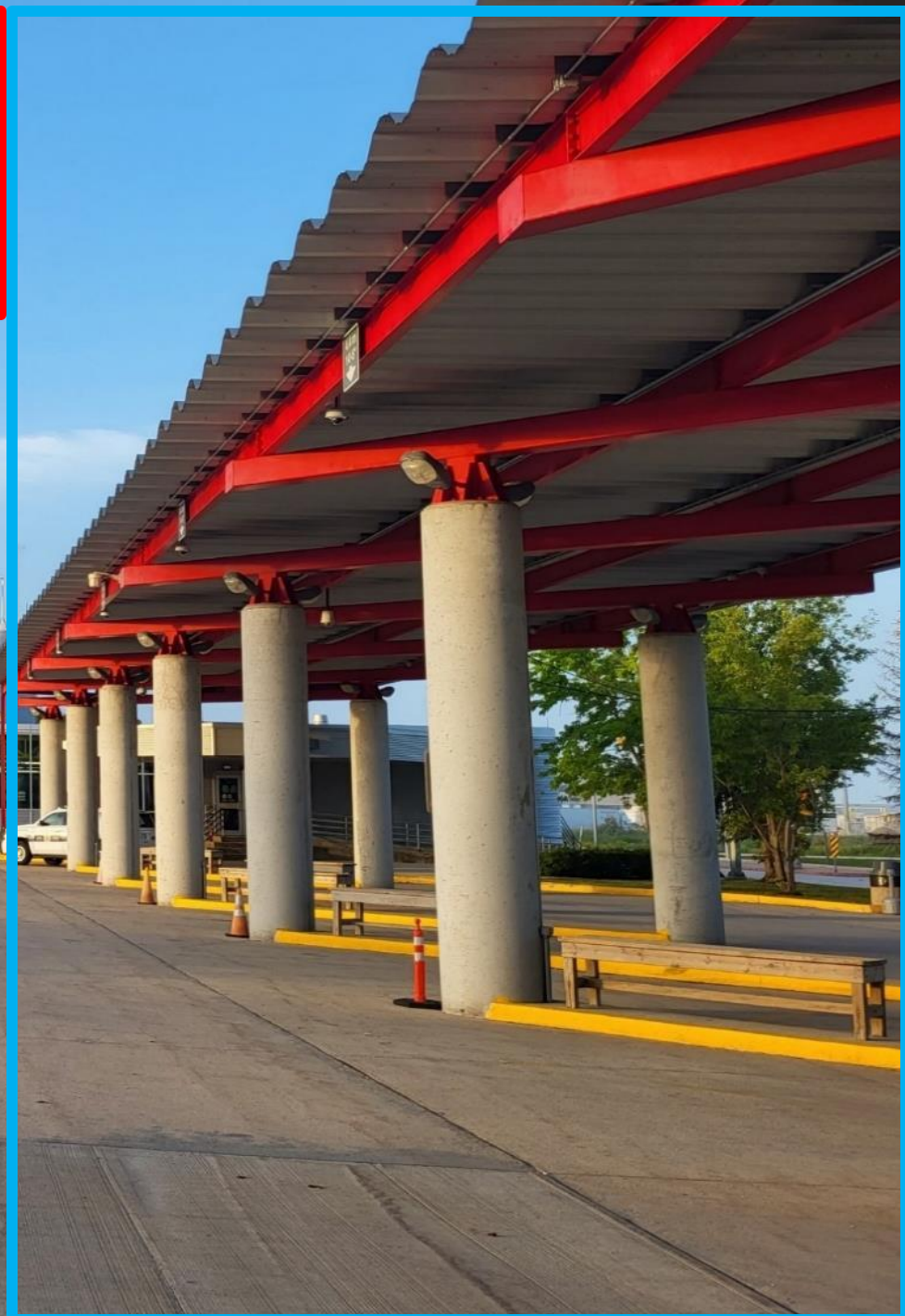
Step 1: Inspection Questionnaire by CBSA

Travelers self-report their watercraft as either Clean, Drain, Dry or not Clean, Drain, Dry to CBSA Border Service Officer at Primary ("The Booth") as per Memorandum D-19-8-5

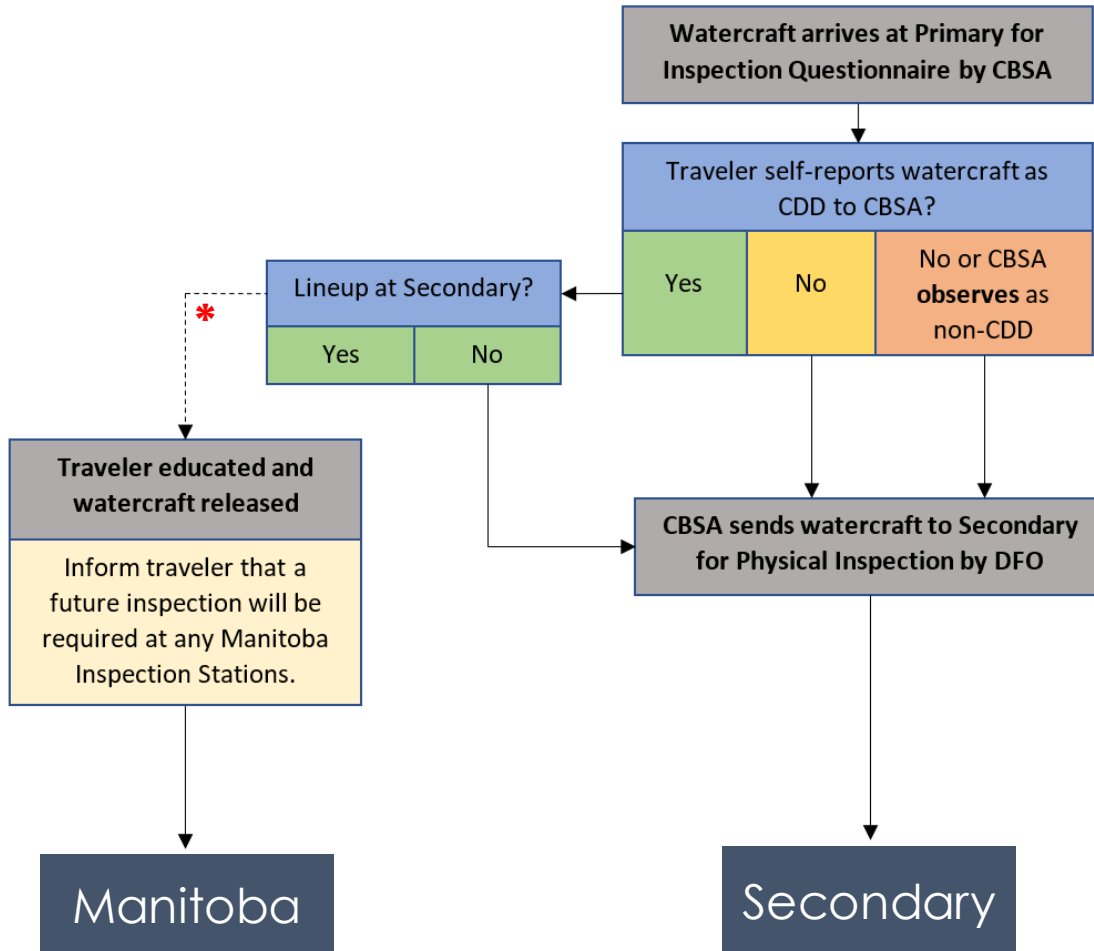


Step 2: Inspection Questionnaire and Physical Inspection by DFO

CBSA directs travelers to Secondary ("Under the Canopy") where DFO conducts a follow-up Inspection Questionnaire and a Physical Inspection of the watercraft



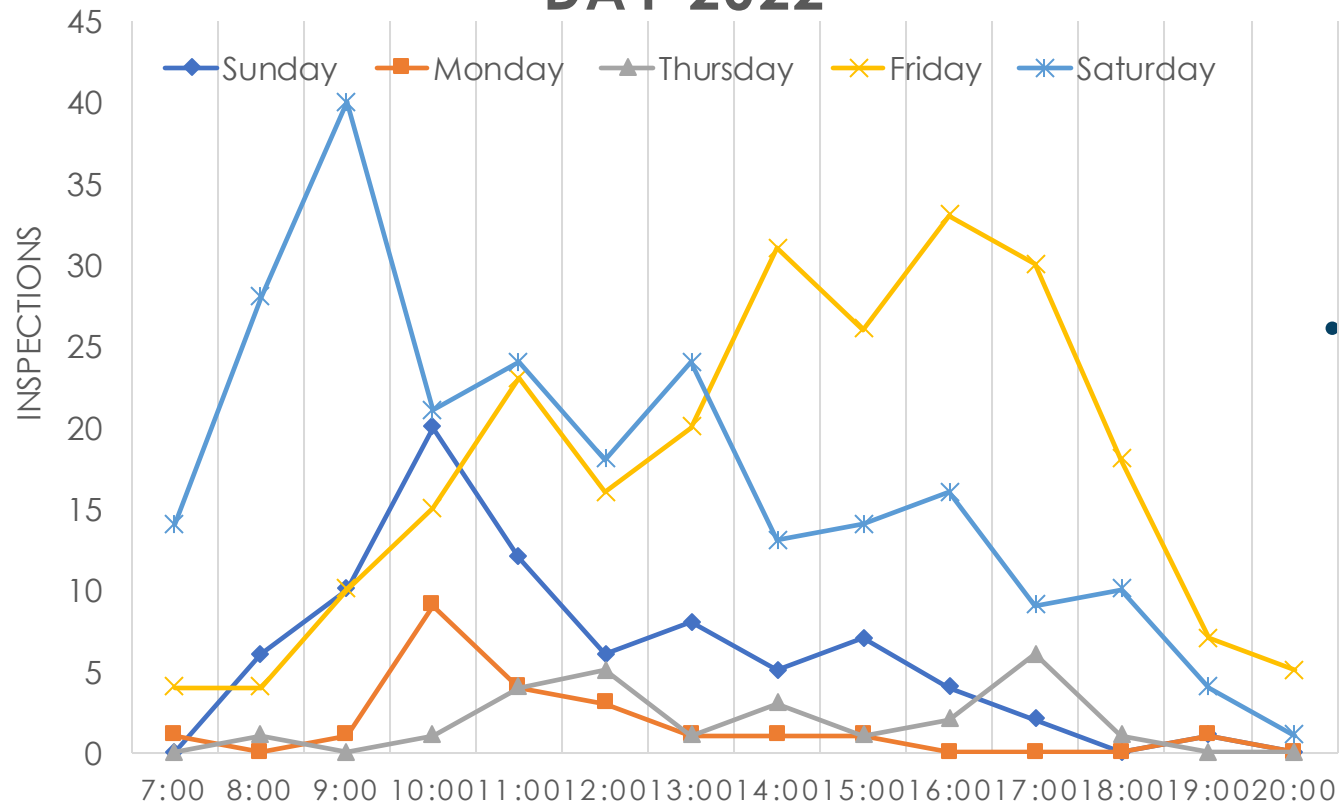
Emerson CBSA's Role – Primary



- **Memorandum D19-8-5** provides CBSA with the authority to refuse entry to any watercraft that is not CDD
- For the length of the Pilot, no matter the outcome, all boats were sent to DFO
 - Unless a line-up formed at Secondary, impeding traffic and CBSA's operations*
 - No watercraft were missed for this reason!
- CBSA's decision was recorded

Quick HR Overview

INSPECTION DATA BY HOUR AND DAY 2022



- **Pilot Season (2022):**
 - Two Crews (6x Staff) working 8 hour shifts
 - ~13 hours of coverage per day
 - Targeted Weekends (Thursday – Monday)
- **Second Season (2023)**
 - One Crew (3x Staff) working 10 hour shifts
 - ~9 hours of coverage per day
 - Targeted peaks in Y1 Data

CDD watercraft must be free of any...



Standing Water (including any wet gear)

Plant and/or Organic Debris

Mud, Soil, or Sediment

Aquatic Invasive Species (e.g., Zebra Mussel)

Drain plugs (i.e., must be able to drain freely)

What happens when watercraft pass?

- Traveller educated on AIS in Canada, provided with outreach materials, and released into Canada

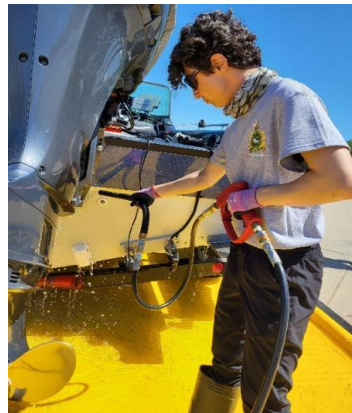


What happens when watercraft fail an inspection?

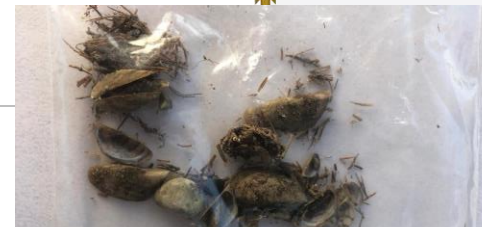
1. Brought into compliance without Decontamination



2. On-site full watercraft decontamination



3. Refused Entry by CBSA



Pilot Season: June 3 – October 22, **2022**

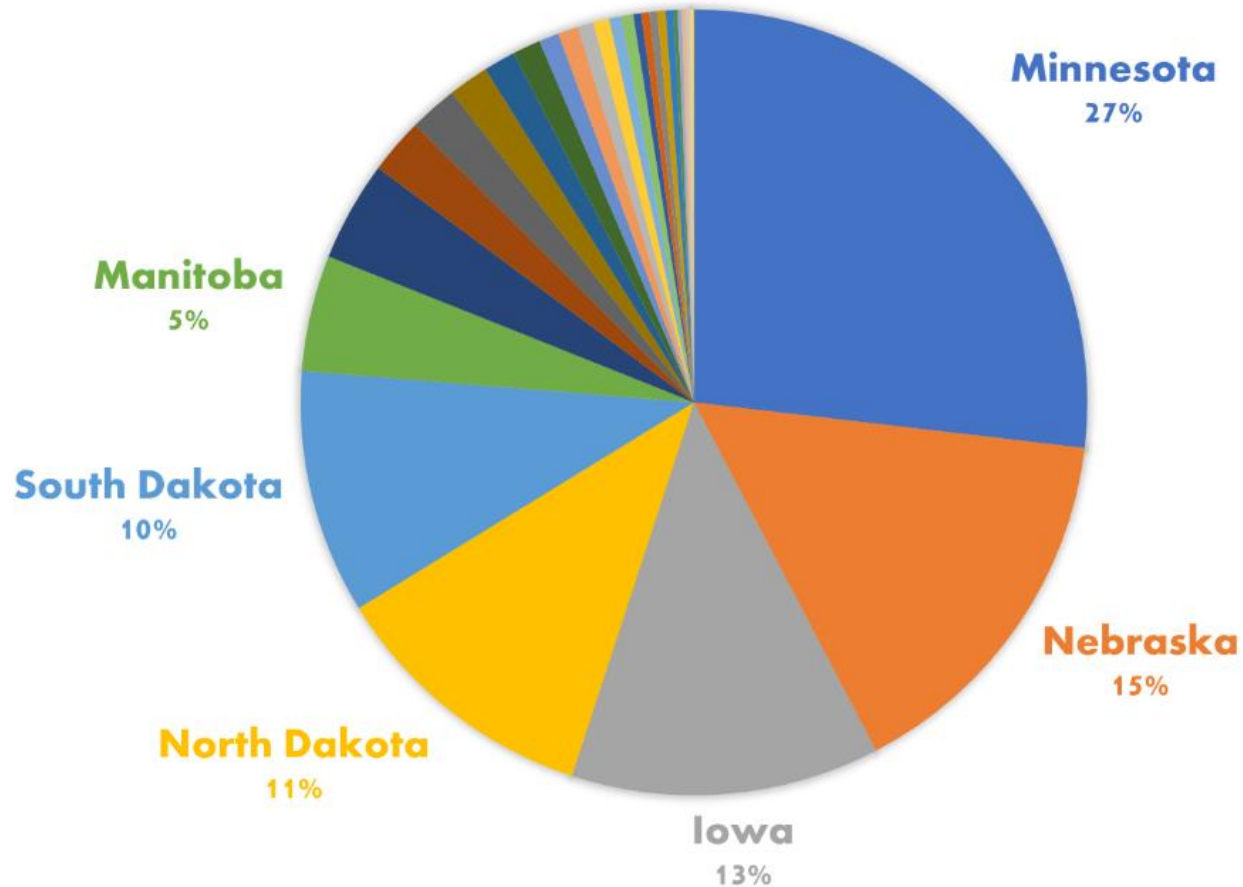
607 Watercraft Inspections

122 Watercraft Decontaminations

190 Failed Inspections (non-CDD watercraft)

**Total Operation Time: 725 Hours, 68 Days
(52 days with full team, 16 days 2-person team)**

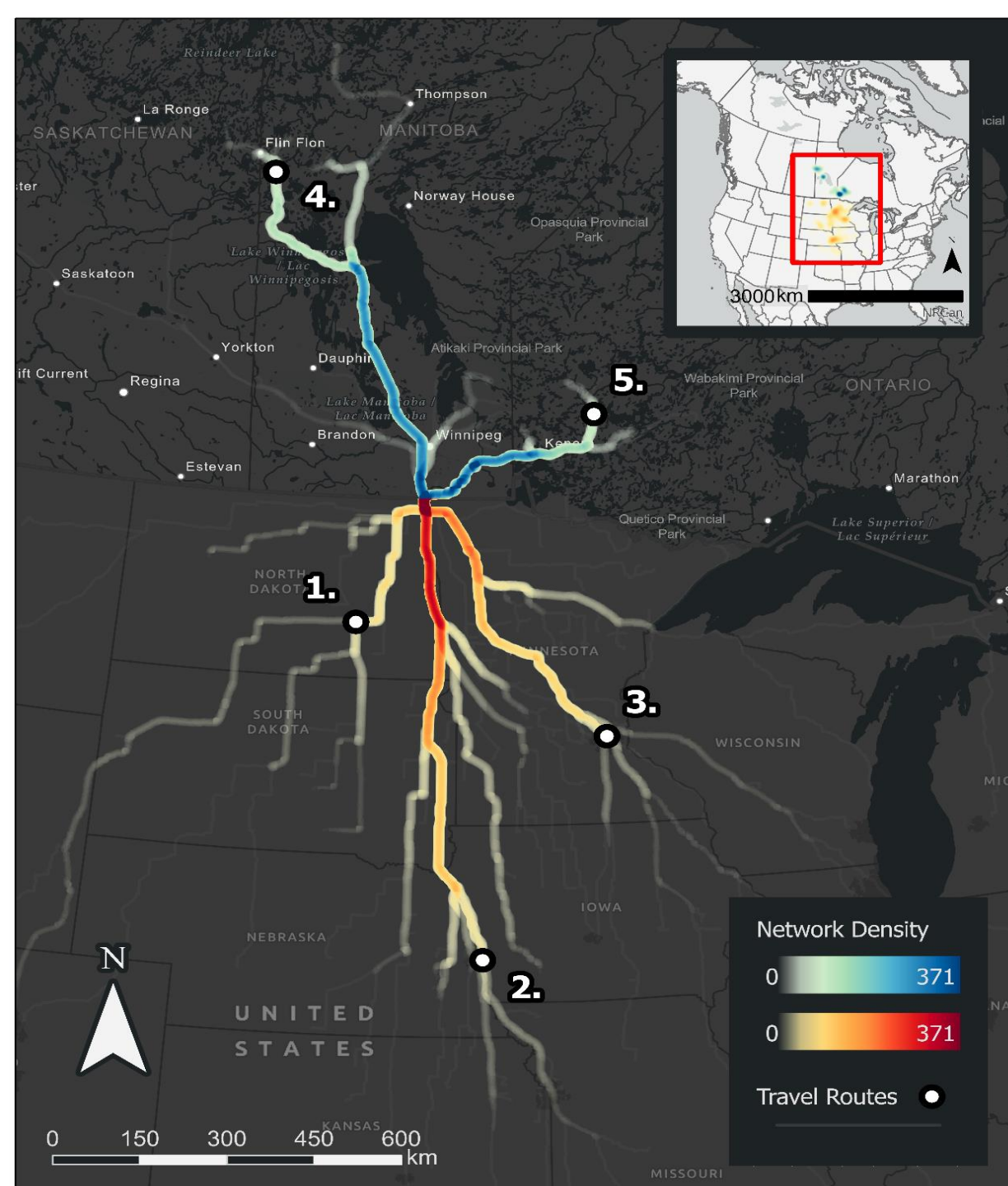
Inspections by Residence Jurisdiction – 2022 Season



- 77% of all inspected watercraft were from just five states
 - **Minnesota (162)**
 - **Nebraska (90)**
 - **Iowa (78)**
 - **North Dakota (61)**
 - **South Dakota (60)**

Road Network Analysis

- Watercraft were transported between..
 - 149 km and 4812 km (92 - 2990 miles)
 - **Mean: 1332 km (827 miles)**
 - Median: 1264 km
- Indicates that our dataset captures a demographic that is considered relatively rare and infrequent in the boater population and often unseen literature, as most trips involving boaters are relatively short (under 200 kms; Drake 2017)



What We Found: Inspections

- **69% CDD compliance (passed DFO inspection)**
- 22 (4%) claimed to pass through an inspection station in the United States on current trip; **9 of 22 failed DFO inspection**

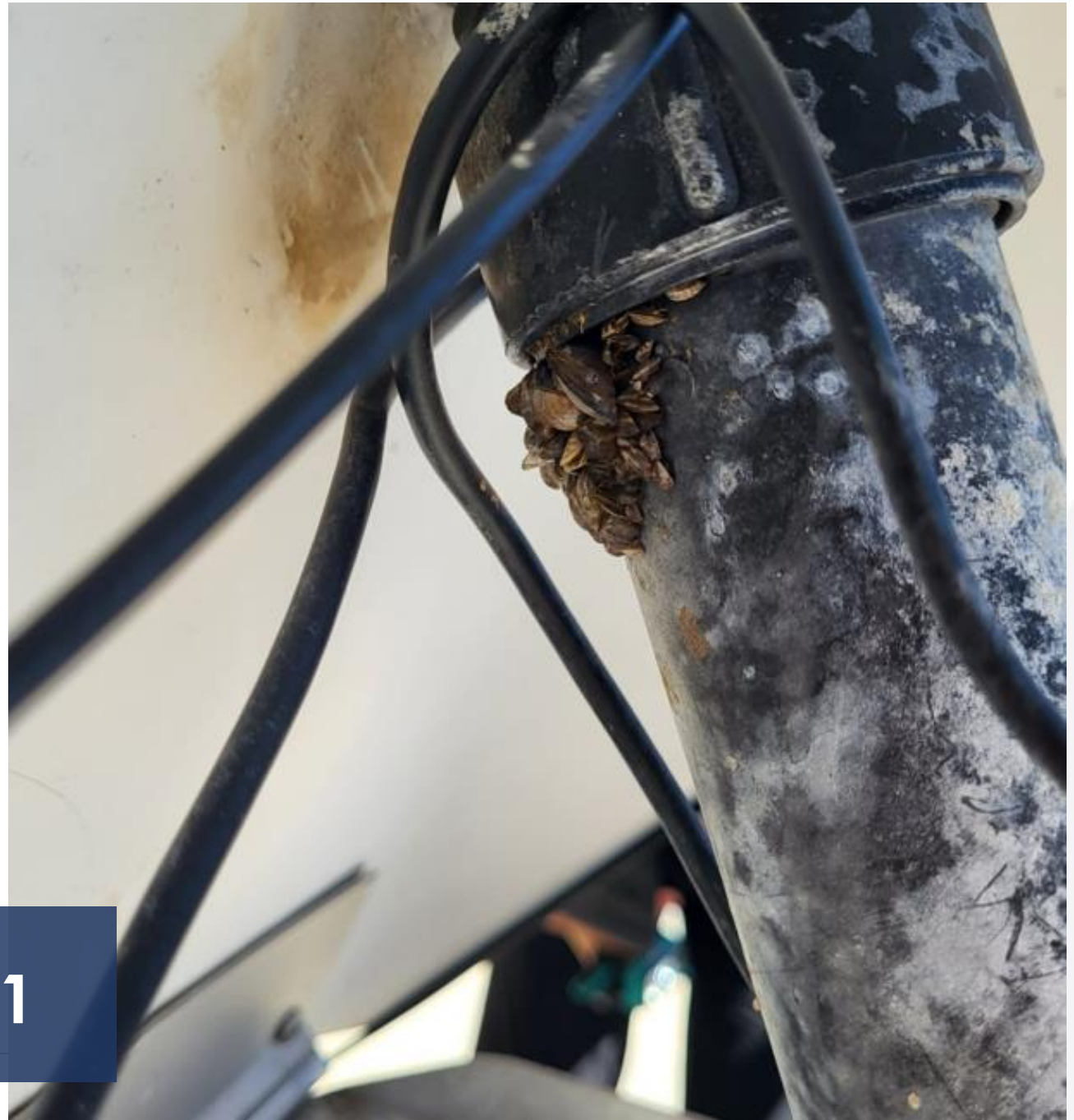


What We Found – Failed Inspections



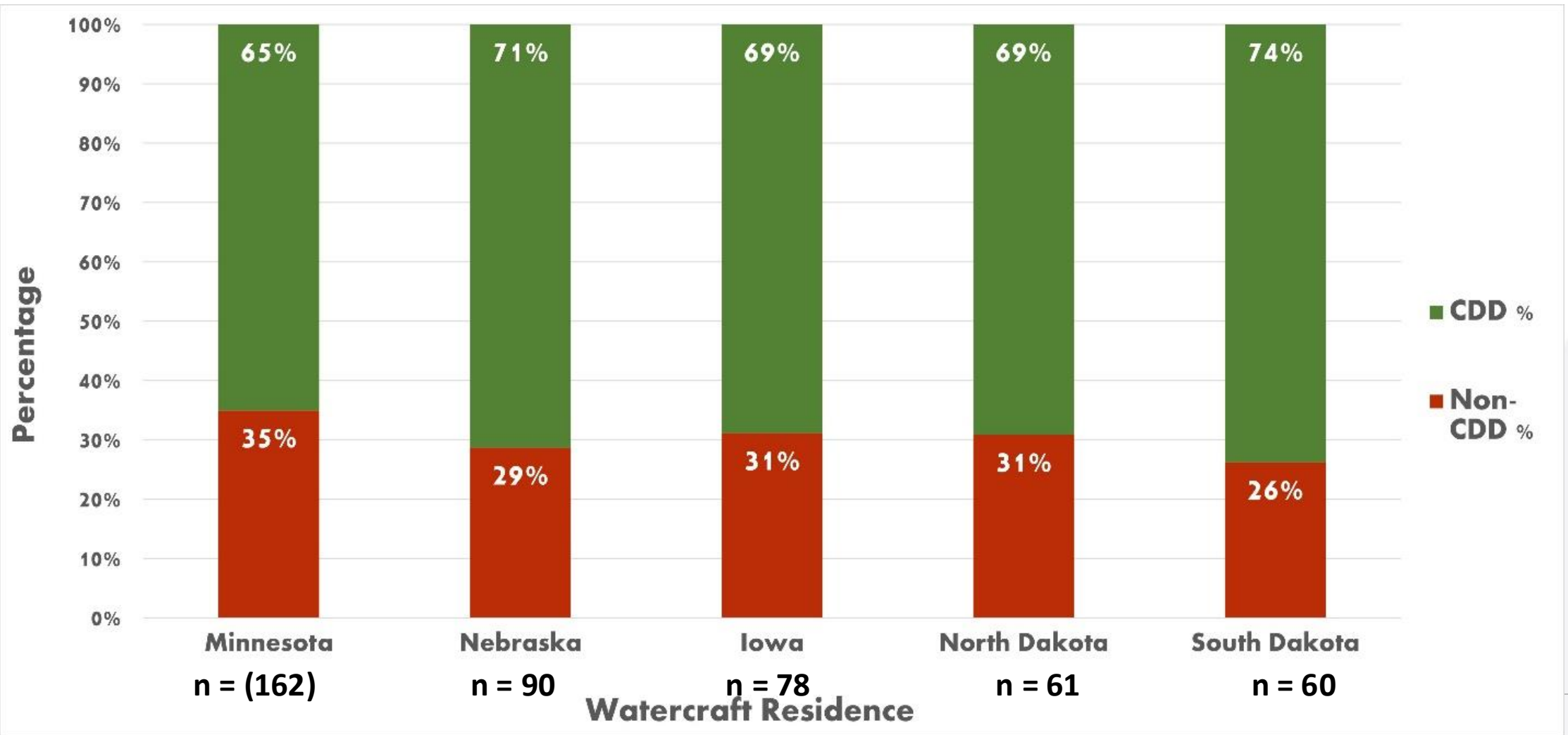
- “Clean”
 - Starry Stonewort
 - Eurasian Milfoil
 - Vegetation on boat trailer, motor intake, etc.
 - Desiccated and dried baitfish
 - Empty freshwater bivalve shell
 - **3 invasive mussel infested watercraft!**
- “Drain”
 - Drainplugs left in livewells, bilge areas,
- “Dry”
 - Hundreds of gallons of water in livewells, bilges, and motors





Mussel Infested Watercraft #1

CDD Compliance by Residence Jurisdiction



Locations of Inspection Failure

Location of Failure	Count	Reason
Live Well	108	not clean, drain, and/or dry
Bilge	82	not clean, drain, and/or dry
Engine/Motor	54	not clean and/or dry
General Interior	19	not clean and/or dry
Gear (incl. anchor)	7	not clean and/or dry
Hull	7	not clean
Trailer	7	not clean

Note: 84 inspections had a drain-plug (either in bilge or a live-well) that was not removed

98%

of travelers self-reported their watercraft as “CDD” to CBSA



69%

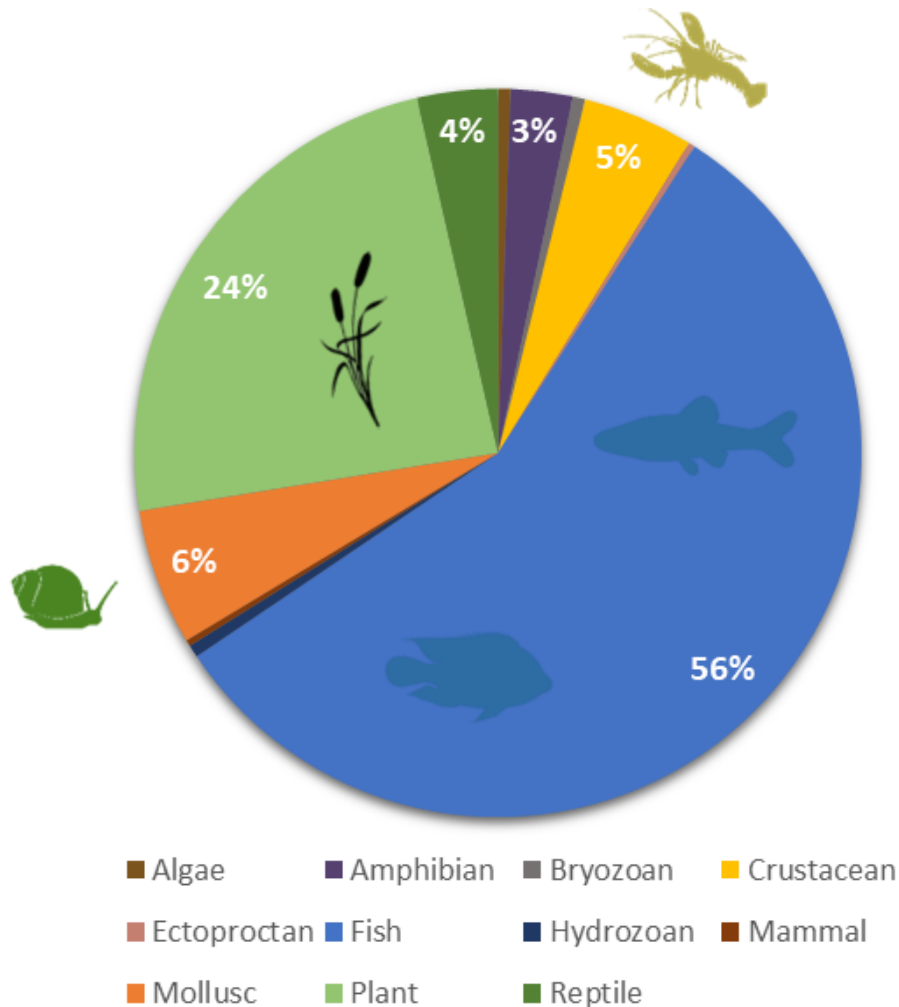
**Observed CDD Compliance,
based on DFO Inspections**



All six refusals of entry self-declared that they were CDD



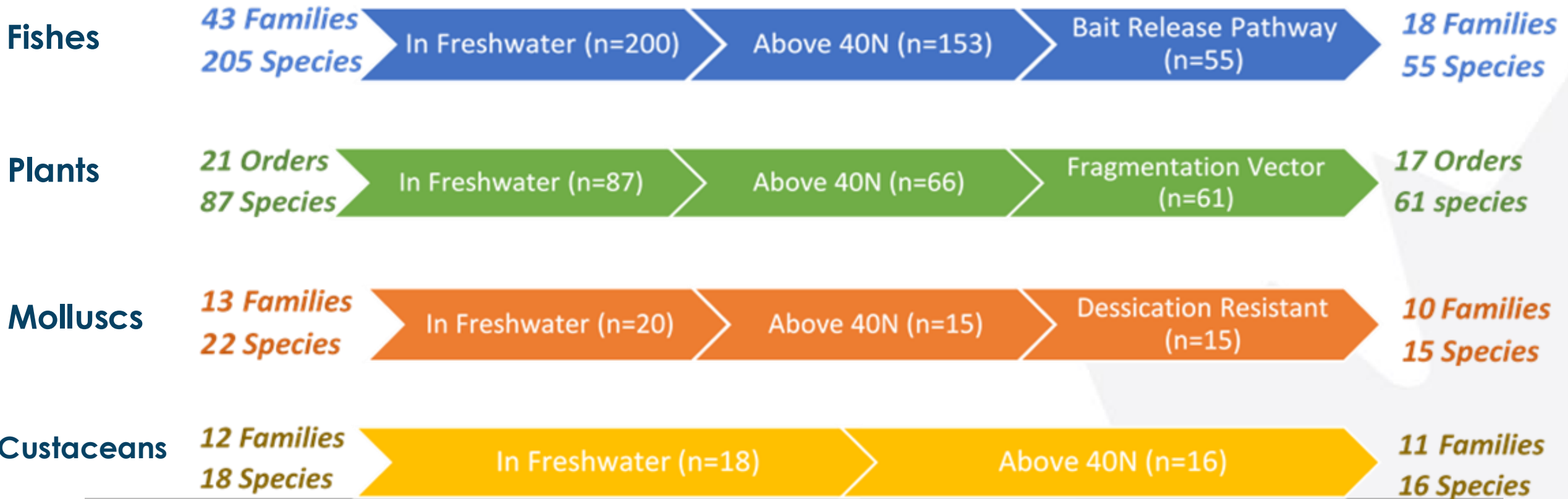
Potential AIS Interceptions



- Waterbodies identified in the study were summarized into 139 HUC8 subbasins
- Queried USGS NAS Database based on HUC8s, removed redundant, subspecies, sterile hybrids
- **363 AIS comprising eleven broad taxa were found in the study's origin subbasins (mean of 21 per subbasin)**
- No link to propagule pressure, more of a "what could have been here?"

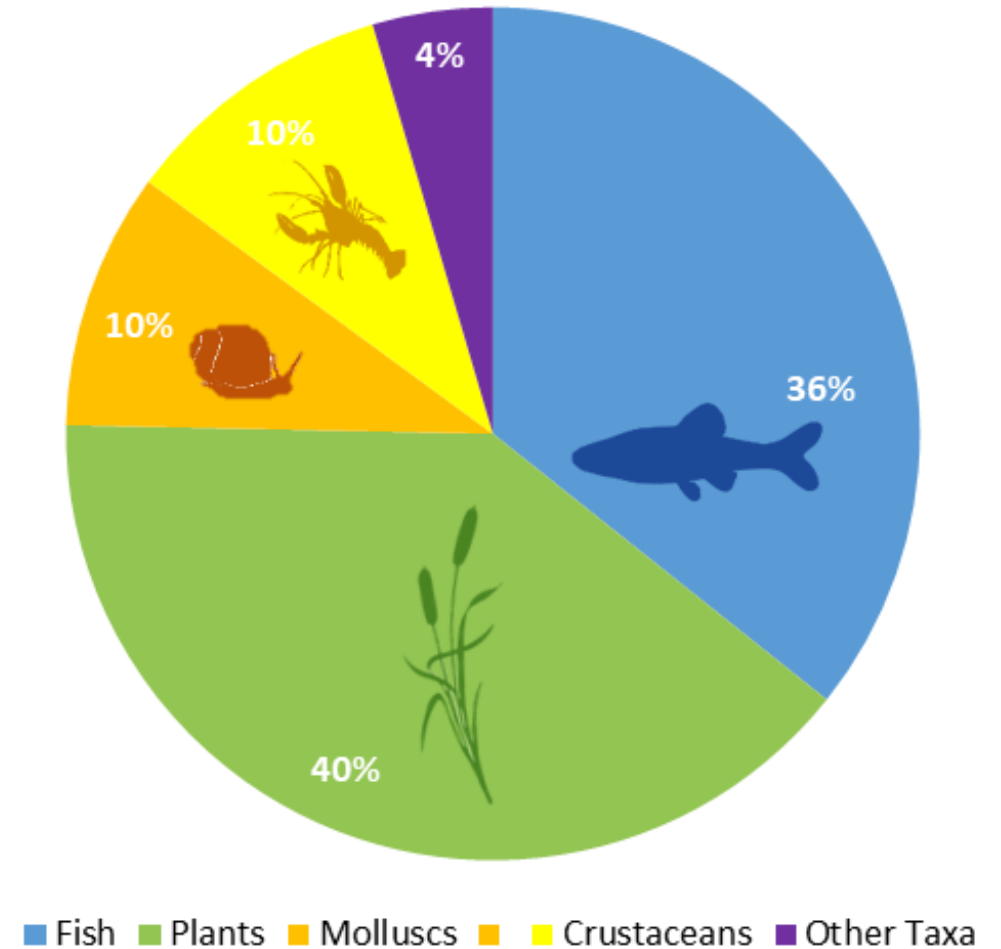
Potential AIS Interceptions

- A very broad climate matching analysis was completed
- Removed species that were unlikely to access stowaway pathway



Potential AIS Interceptions

- **Identified 154 species** that could be introduced into Manitoba via the stowaway pathway that could be sourced in the origin waterbodies encountered during this study
- Highlights the abundance of AIS that may be transported into Canada via visiting watercraft and illustrates the importance of promoting AIS awareness and CDD compliance to ensure propagule pressure is mitigated to prevent these AIS from becoming established in Canada



Season 2 – May 12th – October 4th **2023**

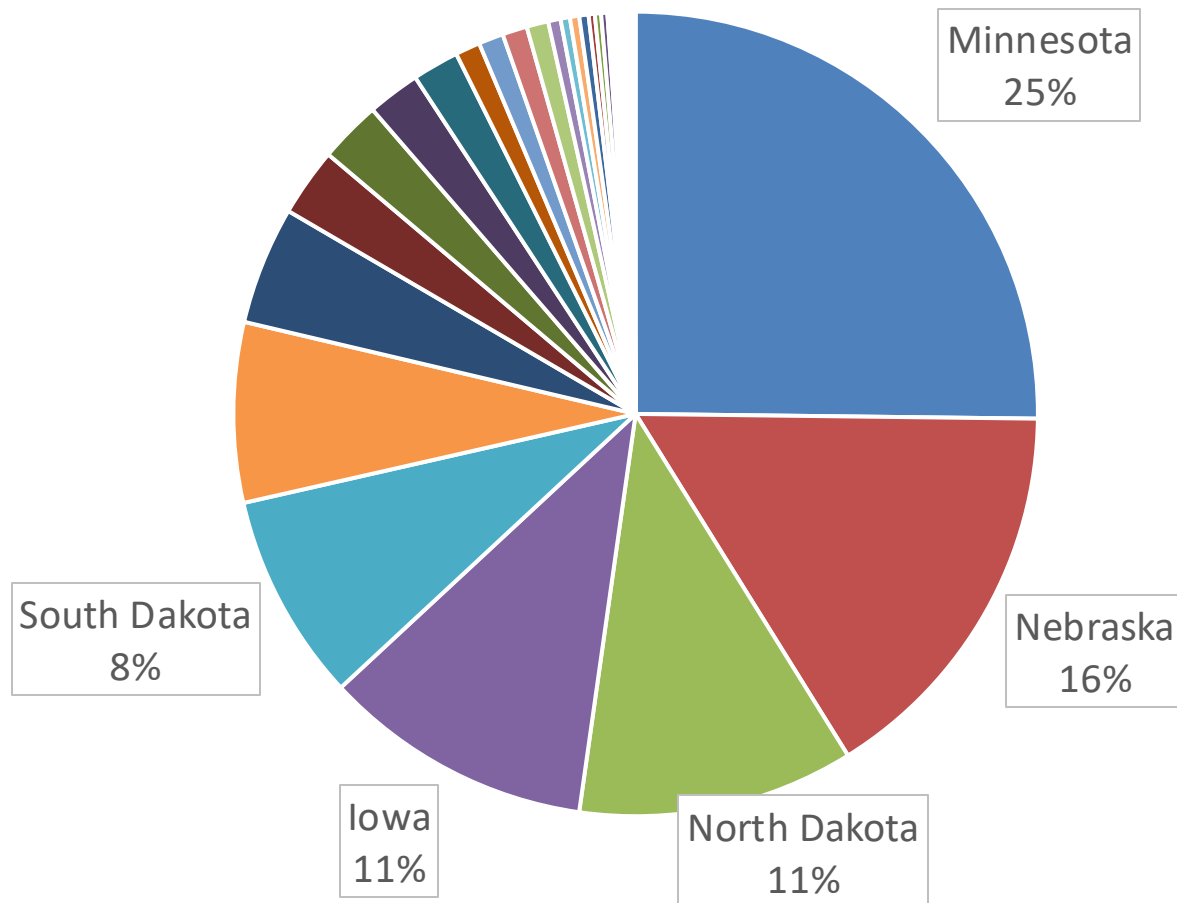
802 Watercraft Inspections

382 Failed Inspections (non-CDD watercraft)

139 Watercraft Decontaminations

6 Mussel Fouled Watercraft

Inspections by Residence Jurisdiction – 2023 Season



- 71% of all inspected watercraft were from just five states
 - **Minnesota (202)**
 - **Nebraska (128)**
 - **North Dakota (89)**
 - **Iowa (87)**
 - **South Dakota (67)**

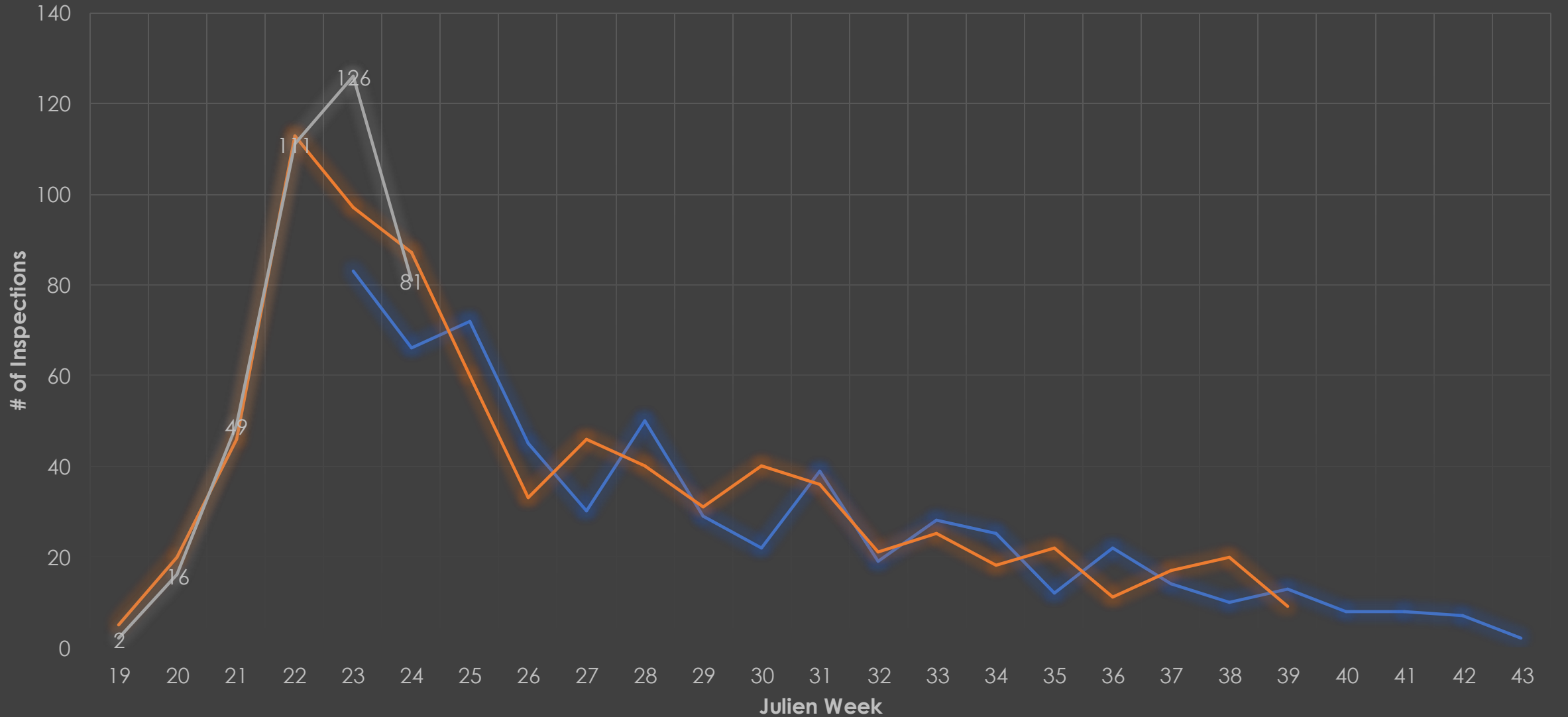
DFO Emerson Results – 2022, 2023...2024!

	2022 (Pilot –Covid Restrictions in place)	2023	2024 (6 Weeks in!)
Inspections	607	802	386
Self-reported CDD	594 (98%)	785 (97.7%)	TBD
Failed Inspections	190 (31%)	382 (48%)	125 (33%)
Decontaminations	122 (20.1%)	139 (17.3%)	54 (14%)
Mussel Fouled	3 (0.5%)	6 (0.75%)	3 (0.7%)

- Year over year results saw a **decrease** in CDD compliance and **increase** in mussel fouled watercraft.
- DFO staff are currently undertaking the third year of field operations at the Emerson POE

Watercraft Inspections 2022, 2023, 2024

— 2022 — 2023 — 2024



Next Steps!



- Is your failure data similar to ours?
- Are boaters that drive to Canada displaying similar behaviours when compared to the ones that stay in your jurisdiction?
- What does “Clean Drain and Dry” mean in your jurisdiction?
- Why is our “self declaration of CDD” rate so low?

Questions?



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