

Welcome to the summarized report for the 2021 season. The goal of the IMDP is to mitigate the risk of invasive zebra and quagga mussel introduction into B.C. Piloted in 2015, the program consists of three main components: watercraft inspections, lake monitoring, and public outreach and education. The program is carried out by staff from the B.C. Conservation Officer Service (COS) and the Environmental Sustainability Division (ESD) within the Ministry of Environment and Climate Change Strategy. The COS enforces the program and has two detection dogs, Kilo and Major.

We would like to recognize the ongoing funding provided by BC Hydro, the Columbia Power Corporation, and the Columbia Basin Trust that makes this program possible. For more information about the IMDP, please visit: [www.gov.bc.ca/invasivemusshells](http://www.gov.bc.ca/invasivemusshells) Suspected invasive mussels should be reported to the COS Report All Poachers and Polluters (RAPP) hotline at 1-877-952-7277.

### Watercraft Inspection Stations

The 2021 season was a busy one, with crews completing approximately 33,000 inspections and interacting with more than 61,000 people to promote Clean, Drain Dry practices – a preventative step all boaters should take when moving between lakes in B.C.

During the inspections, 244 watercraft were identified as high-risk, 100 decontamination orders were issued, and 18 watercraft were issued quarantine periods to meet the required drying time. The COS Aquatic Invasive Species inspectors completed 153 decontaminations.

Seventeen watercraft were confirmed to have invasive mussels. These watercraft came from: Ontario (7), Manitoba (2), Quebec (1), Colorado (1), Illinois (1), Michigan (1), Minnesota (1), Missouri (1), Ohio (1) and Wisconsin (1). The watercraft were destined for: the Okanagan (8), Lower Mainland (4), Vancouver Island (3), Kootenays (1) and Skeena (1) regions.

The IMDP received advanced notification on 7 of the 17 mussel-fouled boats, either from another jurisdiction or by the Canada Border Services Agency.

Invasive mussel inspection stations were operational from April 1 to October 24, 2021.



AIS crews work at inspection stations at key border crossings along the Alta. and U.S. borders, like this one in Douglas.



BY THE NUMBERS	2020	2021
TOTAL WATERCRAFT INSPECTED	29,900	33,300
NUMBER OF PEOPLE INTERACTED WITH TO PROMOTE CLEAN, DRAIN, DRY	55,900	61,600
HIGH-RISK INSPECTIONS	158	244
DECONTAMINATION ORDERS ISSUED	27	100
QUARANTINE ORDERS ISSUED	17	18
MUSSEL-FOULED WATERCRAFT	16	17

## Lake Monitoring

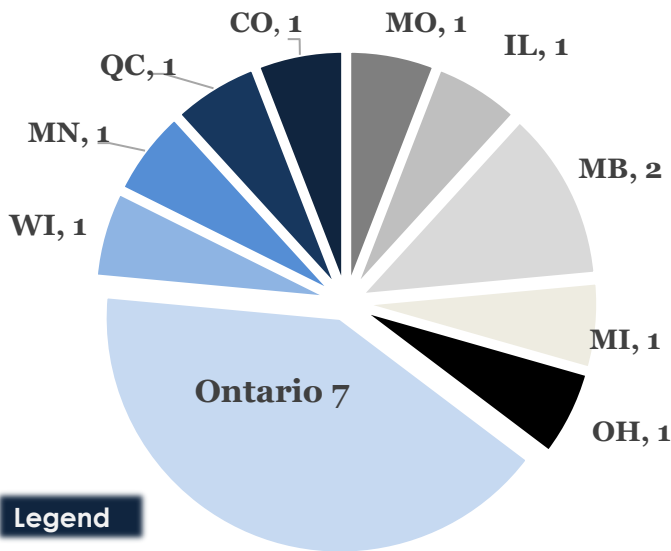
Lake monitoring is a critical step for the early detection of invasive mussels.

In 2021, grants were administered by the [Habitat Conservation Trust Foundation \(HCTF\)](#) to partner organizations for the collection of water samples in priority waterbodies across the province.

From June until October, ministry staff and partner organizations carried out sampling for invasive mussels. Sampling is conducted following the provincial [lake monitoring protocol](#). All samples are analyzed by a Ministry designated lab.

Despite challenges accessing sample sites due to the unprecedented wildfire season this year, 900 water samples were collected from 75 waterbodies. All samples have tested negative for invasive mussels.

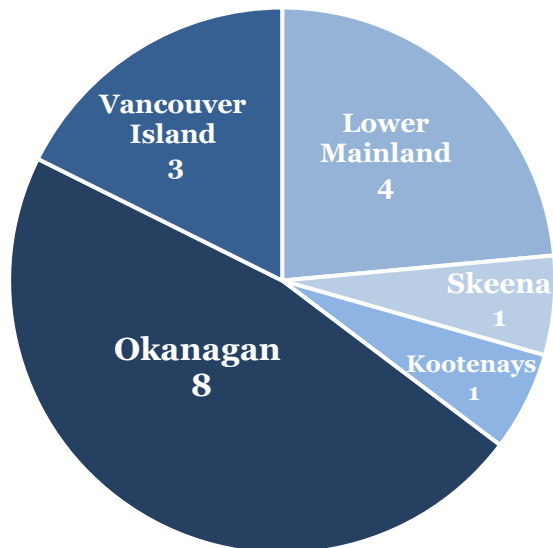
To date, there has been no reported introduction of live zebra or quagga mussels in B.C. waterways.



**Legend**

WI – Wisconsin	MN – Minnesota	QC – Quebec
CO – Colorado	MO – Missouri	IL – Illinois
MB – Manitoba	MI – Michigan	OH – Ohio

**THE SOURCE (TOP) AND DESTINATION (BOTTOM) OF 17 WATERCRAFT FOUND WITH INVASIVE MUSSELS IN 2021**



## Program Effectiveness

Despite provincial travel restrictions and the closure of the Canada-U.S. border, the IMDP finished the year with more inspections than last season.

In Golden and Radium, crews reported an increase in the number of inspections compared to both the 2020 and 2019 seasons. This increase likely reflects a boost in domestic travel within Canada due to the border closure for the majority of the AIS season.

This year, the average compliance rate across all inspection stations was 88.8% - representing a slight increase from 87% in 2020.

Of the motorists who failed to stop at an inspection station, 86% had non-motorized watercraft - such as canoes, kayaks and paddleboards - which pose a significantly lower risk of invasive mussels.

Overall, Conservation Officers issued 85 violation tickets and 45 warnings to motorists for failing to stop at inspection station(s), which is mandatory when transporting watercraft in B.C.

To further help raise awareness, permanent signs were installed at the Olsen (Hwy 3) inspection station in September. The updated signage provides increased visibility of the inspection stations ahead for the travelling public, as well as enhanced safety for staff when setting up the stations.



## Other Program Highlights

In early March 2021, zebra mussels were confirmed in 'moss balls' (Cladophora species) in B.C., as well as across Canada and the U.S.

The aquarium and water-garden moss balls were sold in pet stores and garden centres. Conservation Officers and the ministry's science experts worked closely with our Canadian and American counterparts to address the situation.

The COS made contact with more than 1,100 aquatic retailers and distributors throughout the province and conducted hundreds of on-site inspections to prevent the sale of potentially contaminated moss balls.

To date, more than 9,000 moss balls that were suspected or confirmed to be contaminated with zebra mussels have been seized or surrendered to the COS. For information on how to check and dispose of moss balls, please visit: [www.gov.bc.ca/invasivemussels](http://www.gov.bc.ca/invasivemussels)

Lastly, the IMDP would like to welcome Sgt. Denny Chretien to the team, with the retirement this year of Sgt. Cynthia Mann. Sgt. Chretien is currently in training as the new handler for COS detection dog Major. The pair are expected to officially begin duties when inspection stations resume in spring 2022.



Sgt. Chretien will be the new handler for COS K9 Major. The pair are based in Cranbrook.



Left: Sgt. Dan Bartol and COS detection dog Kilo inspect seized and surrendered moss balls for aquatic invasive species.

Above: Sgt. Cynthia Mann inspects moss balls for aquatic invasive species.