



2022 Aquatic Invasive Species Prevention Program

Society Background

The Okanagan and Similkameen Invasive Species Society (OASISS) is a non-profit organization dedicated to the prevention, detection and management of invasive species within the Okanagan-Similkameen region. Since the Society's establishment in 1996, OASISS strives to address invasive species through public education, outreach initiatives, and community stewardship programs.

Aquatics Program

The OASISS Aquatic Invasive Species (AIS) Prevention Program was founded in 2012 and strives to prevent the risks and impacts of aquatic invasive species primarily through outreach and education. The program operates within the Okanagan Valley Basin.



Partner Programs

The AIS Prevention Program works in partnership with two programs:

- 1 Okanagan Basin Water Board's (OBWB) campaign, "Don't Move a Mussel" (DMM)
- 2 BC Ministry of Environment and Climate Change Strategy Mussel Defense Program in conjunction with its "Clean, Drain, Dry" (CDD) program.

Program Overview

The AIS Prevention Program in 2022 consisted of:

- Distributing invasive mussel resources to businesses and organizations
- Developing new outreach tools
- Surveying boaters at boat launches
- Monitoring Okanagan lakes for invasive mussels through substrate monitors and plankton tow sampling
- Implementing a citizen science project for invasive clam shoreline surveys
- Presenting on aquatic invasive species topics at youth summer camps
- Setting up educational booths at community events, festivals, farmers markets and local businesses
- Social media outreach



Our Team

Training Activities



Lisa Scott
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Photo credit: Neil Bousquet



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Selena Carl
AIS
Assistant

The Aquatics Team conducted various virtual training sessions and on-site field training throughout the work period. Training covered topics such as aquatic invasive species identification, prevention, learning about partner programs, providing public information, safety, and more.



Guest speakers and organizations were also invited to present their expertise on the following topics:

- Rare wildlife and introduction to OSSS (Okanagan Similkameen Stewardship Society)
- Education on wildlife safety and sun safety (Regional District of Okanagan-Similkameen)
- Familiarity with various boat types and parts (Rob Mathews, Vernon Yacht Club)
- Education on the importance of restoring the Sockeye salmon population and the negative effects of invasive species (Okanagan Nation Alliance)
- Invasive Mussel Defense Decontamination Demonstration (Penticton Invasive Mussel Defense Crew)

Education and Outreach

Overview

Throughout the summer, the aquatics team helped spread awareness about aquatic invasive species (AIS) through in-person activities and online platforms. Overall, the team interacted with a total of **3,478 people!**

Material Distribution

Staff distributed Don't Move A Mussel (DMM) materials such as posters, rack cards, and information sheets to various businesses and organizations around the Okanagan valley.



212 businesses/organizations contacted



145 businesses and organizations received hard-copy materials



68 businesses/organizations requested digital resources

Community Events

Staff set up information booths at various community events, festivals and farmers markets throughout the summer and handed out DMM giveaways.



13 events



499 interactions



Kids Camps

Staff presented to kids at summer camps and taught important lessons about aquatic invasive species prevention.



9 kids camps






162 attendees

Don't Let It Loose Initiative

Staff consulted pet stores throughout the Okanagan on what sort of resources would meet their needs. Brochures, posters and FAQ sheets were created for pet stores to use and distribute. Social media posts were developed to spread awareness of harmful impacts of released pets.



Play your part - never release pets or aquarium plants into the environment.

-  Released pets can become invasive. They can prey on native species, often carry diseases, and compete with native species for food and habitat.
-  Released aquarium plants can grow and spread quickly, becoming invasive. They will compete with and push out native plant species and can permanently damage an ecosystem.
-  There are high costs associated with managing and removing invasive plants and animals. These costs are passed on to us in the form of additional taxes.

What can you do instead:

-  **Return** - contact the place where you bought your pet to see if they can take it back.
-  **Be Kind** - if there are no other options, have a qualified veterinarian authorize your pet.
-  **Dispose** - dry and freeze unwanted aquarium plants before putting them in the trash. Always bury deceased aquatic pets.



RBC Tech For Nature Interactive Video

A grant from RBC Tech For Nature gave the opportunity to develop an invasive mussel interactive video. The video educates users about how invasive mussels could affect the things we love most about the Okanagan.



Interactive video launched July 2022



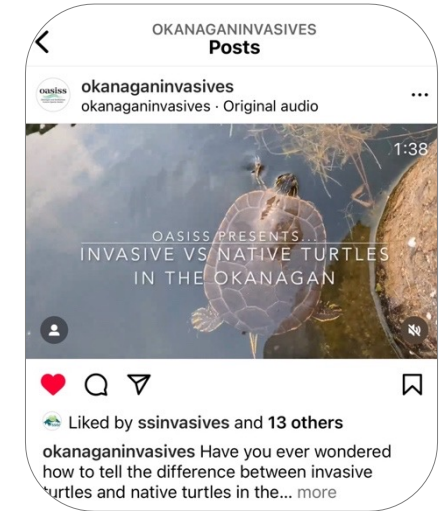
8 promotional videos shared to social media

Social Media Outreach

Social media outreach was enhanced through Instagram, Facebook, and YouTube. Posts and videos shared topics about AIS prevention, species identification, partnerships, and staff appreciation.



21 posts shared



Boat Launch Surveys

Boat Launch Interactions

Staff attended launches around the valley to educate boaters about the threat of invasive mussels and ask a survey questionnaire.



18 launches
attended



2,254
interactions



1,111 watercraft
surveyed



Where Boaters Were Coming From

One question asked on the survey questionnaire was where boaters were travelling from. Results showed that the majority of boaters interacted with were travelling from within the province (88%). Boaters travelling from outside the province mostly came from Alberta (11%), but also originated from Saskatchewan, Manitoba, Yukon, Ontario, Texas, Nevada, Washington, Arizona, and California (<1%).

Boater Knowledge of Aquatic Invasive Species and Clean, Drain, Dry

Boaters were also asked if they were aware of aquatic invasive species like zebra and quagga mussels and/or clean, drain, dry practices, with answers either being a 'yes' or 'no'.



69% of Boaters
Were Aware



31% of Boaters
Were Not Aware

Sources of Knowledge

For boaters who were aware of aquatic invasive species and/or clean, drain, dry practices, a follow-up question asked the source of their information. The top five sources of knowledge in 2022 were:



1. Previous Inspection in B.C. (18%)



2. OASISS (14%)



3. Highway Inspection Signs (9%)



4. Other (e.g. RCMP Volunteers) (9%)



5. Highway Billboard Signs (7%)

Other sources of knowledge mentioned were the internet, boat license exam, related work, personal experience, word of mouth, social media, TV advertising/news, signs at boat launches, and radio.

Out-of-Province Watercraft That Stopped at a B.C. Watercraft Inspection Station

Staff asked boaters if they had previously stopped at a B.C. watercraft inspection station with their watercraft. This was relevant for boaters travelling from outside of the province, who would encounter inspection stations on major highways entering the province. The results below demonstrate that while most of out-of-province watercraft received inspections, there are still a significant portion that did not and present a risk to Okanagan Lakes.

✓ 76% of boaters stopped ✗ 24% of boaters did not stop



Credit: www2.gov.bc.ca/gov/content/invasive-mussels



Boater Knowledge of the Don't Move A Mussel (DMM) Program

Boaters were also asked if they had heard of the Don't Move A Mussel Program, with answers either being a 'yes' or 'no'.

✓ 80% heard of the DMM Program ✗ 20% had not heard of the DMM Program

Sources of DMM Knowledge

For boaters who had heard of the Don't Move A Mussel Program, a follow-up question asked where they had first learned about it from. The top five sources were:

1. Highway Billboard Signs (23%)
2. Through OASISS (14%)
3. Signs at Boat Launches (12%)
4. TV Advertising/News (11%)
5. Internet (9%)






Other sources of knowledge mentioned were social media, related work, personal experience, word of mouth, and radio.

Aquatic Invasive Species Monitoring

Habitat Conservation Trust Fund Invasive Mussel Monitoring

Okanagan lakes were monitored for the presence or absence of invasive mussels through both plankton tows and substrate monitors. Monitoring was conducted from June-October, in partnership with several marinas, yacht clubs, and local governments.



-  5 lakes monitored
-  19 plankton tow sites
-  12 substrate monitor sites
-  148 samples collected
-  **No invasive mussels found!**

Volunteer Invasive Clam Shoreline Surveys

With the help of volunteers from the Osoyoos Water Quality Society, OASISS conducted shoreline surveys for invasive clams in Osoyoos Lake. OASISS provided training to staff and volunteers and on how to properly follow the BC Ministry of Environment and Climate Change Strategy (ECCS) protocol when conducting surveys for clams.



-  2 staff members and 4 volunteers
-  6 beaches
-  16 sites
-  **No invasive clams found!**

Thank You to Our Partners and Funders!

Thank you to the following partners, who provided access for invasive mussel sampling, provided administrative support, gave permission for attending boat launches, helped share messaging about aquatic invasive species prevention, conduct invasive clam shoreline surveys, and/or assisted with training of staff.

Thank you to our partners and funders!

BC Ministry of Environment and Climate Change Strategy
BC Ministry of Land, Water and Resource Stewardship
BC Parks
Canada Summer Jobs
City of Kelowna
City of Penticton
City of Vernon
City of West Kelowna
Desert Sunrise Marina
District of Coldstream
District of Lake Country
District of Peachland
Habitat Conservation Trust Foundation
Kelowna Yacht Club
Naramata Yacht Club

Okanagan Basin Water Board
Osoyoos Cottages Marina
Osoyoos Indian Band
Osoyoos Lake Water Quality Society
Peachland Yacht Club
Penticton Marina
RCMP Volunteers from the North Okanagan
Regional District of Central Okanagan
Regional District of North Okanagan
Regional District of Okanagan-Similkameen
Skaha Marina
Town of Osoyoos
Turtle Bay Marina
Vernon Yacht Club
West Kelowna Yacht Club



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