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Acknowledgments

The accomplishments and success of this organization can be attributed to our dedicated staff, Board of Directors, the generous funding agencies that contributed to the project, our expert contractors, consultants and numerous volunteers. Special thanks to our 2024 outstanding Board Directors whose dedication and direction has continued to guide the CSISS on its trajectory of growth: Chris Cochran (Town of Golden), Diane Millar (MoF), John Braisher (Golden Area Rancher), Mike Manson (City of Revelstoke), Adam Croxall (BC Hydro), Chris Gill (Shuswap resident and environmental consultant), Erin Vieira (Shuswap Watershed Council), Jeromy Schuetze (District of Sicamous), Peter Tarleton (Parks Canada), and Laurel Corrigan (Revelstoke resident) (Appendix A). A special thanks to outgoing Board member in 2023 Hamish Kassa (CSRD) – Hamish was instrumental in the founding of CSISS and we will miss is his special enthusiasm and care for the organization, and wish him all the best. We would like to thank Katie Dezyngel, Emma Wiebe and Marlee Verleih, CSISS summer assistants through Canada Summer Jobs, for their exceptional effort engaging residents across the CSRD in invasive species outreach activities, hard work at field activities, and adaptability to ongoing changes. Emma Wiebe and Marlee Verlieh are continuing with CSISS until end of August 2024 thanks to a special Science Horizons wage subsidy, and Marlee was promoted to Field Technician.

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Figure 1. The 2019-2024 CSISS Strategic Plan goals, along with CSISS mission and vision statements.

Thank you to all of our funders and partners in 2023!

CSRD
COLUMBIA SHUSWAP REGIONAL DISTRICT

FESBC
Forest Enhancement Society of BC

BC hydro

BRITISH COLUMBIA | BC Parks

CITY OF SALMON ARM

SHUSWAP watershed council

CITY OF REVELSTOKE

Columbia Basin trust

Canada

isc Invasive Species Council of BC

NATURE TRUST BRITISH COLUMBIA

The Shuswap TRAIL

TOWN OF GOLDEN Kicking Horse Country

FWCP Fish & Wildlife COMPENSATION PROGRAM

Environment and Climate Change Canada | Environnement et Changement climatique Canada

Executive Summary

April 2023 marked the start of the eleventh operational season of the Columbia Shuswap Invasive Species Society (CSISS). Thanks to dedicated staff, diligent directors, knowledgeable partners and inspired volunteers, the CSISS expanded its programming and made significant progress on each goal identified in the 2019-2024 CSISS Strategic Plan:

Goal 1: Implement a collaborative and coordinated program

Strengthened and expanded its network of partners;
Collaborated with all levels of government, stakeholders, residents and NGO's;
Worked with over 300 organizations, 26 of whom were new in 2023.

Goal 2: Educate, engage and inspire participation

Completed targeted outreach to stakeholders and land managers;
Hosted training workshops for government staff, contractors and the public;
Engaged with over 3,650 people in the region and attended 74 events;
Directly targeted outreach to various stakeholders through in-person and online.

Goal 3: Prevent the introduction of new invasive species

Delivered the 'Plant Wise' message to 23 garden centers;
Visited boat launches, marinas, and campgrounds with 'Clean Drain Dry';
Completed six press releases and was featured in 50 news pieces;
Regularly created engaging posts on Facebook, Instagram and Twitter.

Goal 4: Maximize the probability of detection and eradication

Completed 685 targeted invasive plant surveys across the region;
Collected 137 water samples at 25 locations across 15 waterbodies for invasive mussels;
Deployed substrate samplers at 11 sites across 9 waterbodies to monitor for adult invasive mussels.

Goal 5: Slow or reverse the spread of existing invasive species

Completed mechanical treatment at 39 priority locations;
Administered 4 herbicide spray contracts, treating 51 priority sites;
Installed 'Do Now Mow' signage across the region;
Supported 7 weed pulls with six partner organizations.

Goal 6: Ensure program sustainability

Seven staff members in 2023 and 11 volunteer Board Directors;
Maintained a similar operating budget;
Employed new funding sources and support from existing funding sources allow CSISS to continue and expand work in the Columbia Shuswap region;
Followed a long term funding strategy, a detailed annual workplan and Strategic Plan;
Helped lead annual updates to the regional 2020-2025 CSISS Operational Plan.

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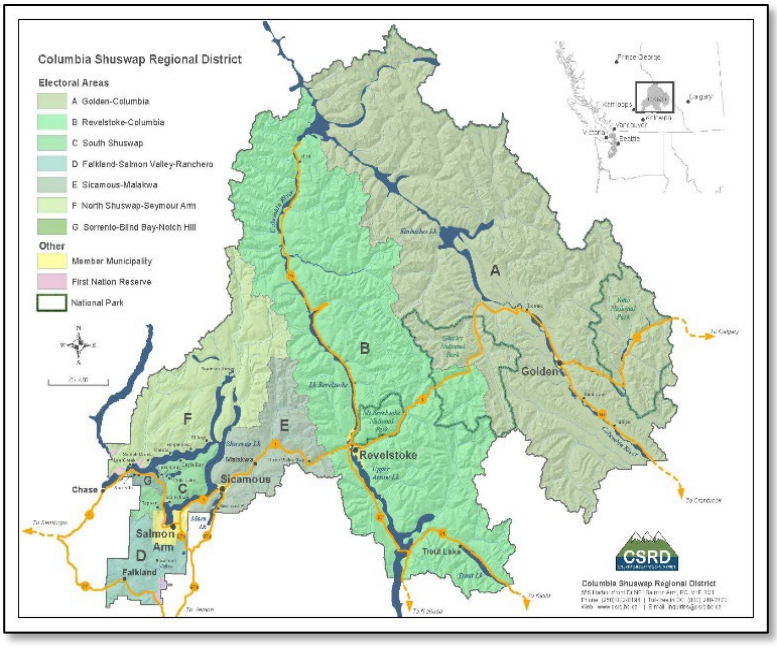
Introduction

The CSISS was established in April of 2013 after a series of meetings and consultations with land managers, residents and other stakeholders with the aim to develop a collaborative and coordinated approach to invasive species management in the region. The CSISS joins a network of 12 regional invasive species groups in BC. These groups work in cooperation with each other, the Invasive Species Council of BC (ISCBC) and government agencies to inspire action, coordinate management and prevent the spread of invasive species within their jurisdictions.

Based on its constitution, the objectives of the CSISS are:

1. To educate and engage public, private landowners, land and aquatic managers, First Nations and others about invasive species and their impacts.
2. To establish and operate invasive species management programs.
3. To do all other things as are incidental and ancillary to the attainment of the above purposes.

The summer of 2023 marked the Society's eleventh season in operation. The seven CSISS staff in 2023, including five returning staff, found new and innovative ways for the organization's ability to engage community members and residents, as well as invest a presence in smaller communities across the regional district. The CSISS built and expanded connections within local communities and filled knowledge gaps regarding invasives on the landscape. In 2023, the CSISS continued operations, providing fee for service contract work to treat and monitor invasive plants, as well as grants to monitor waterways for aquatic invasive species, such as invasive zebra and quagga mussels.



Project Area

The Society's jurisdictional boundary includes the boundaries of the Columbia Shuswap Regional District (electoral areas A, B, C, D, E and F) (Figure 2). The CSISS operational area is divided into three Invasive Plant Management Areas (IPMAs) for planning purposes (Craig, 2013). This broad, ecologically diverse area includes the Ponderosa Pine (PP), Interior Douglas Fir (IDF), Interior Cedar Hemlock (ICH), Montane Spruce (MS) and high elevation Engelmann Spruce-Subalpine Fir (ESSF) biogeoclimatic zones (Craig, 2013).

Figure 2. The CSISS operating area, including the three IPMA boundaries in the region (CSRD,2023).

Goal 1: Collaborative and Coordinated Programming

The CSISS maintains a priority plant list for each IPMA within the CSRD (Figure 2) to help partners coordinate programming and treatments. In addition to the plant lists, the CSISS maintains a regional species watchlist tracking the presence or absence of invasive mammals, birds, fish, amphibians, reptiles, invertebrates, fungi and diseases. The CSISS continues to seek and engage partners to participate in collaborative planning and management. In doing so, the CSISS is the "one-stop-shop" for invasives in the CSRD: the CSISS is the point of contact and lead on many invasive species related issues in the region.

To maximize efficiencies, ensure program sustainability and secure joint funding, the CSISS collaborates with invasive species groups within the Columbia Basin, regional committees across the province, the ISCBC, the Columbia Basin Trust (CBT), First Nations and various stewardship groups and non-governmental organizations. The CSISS currently partners with over 280 groups, including over 470 subscribers to the CSISS newsletter. These partnerships expanded the CSISS' successful outreach program, which include PlantWise, Clean Drain Dry, Play Clean Go, and Don't Let It Loose campaigns.

The CSISS has been working in collaboration with the East Kootenay Invasive Species Council (EKISC) and the Central Kootenay Invasive Species Society (CKISS) to implement coordinated invasive species strategies within the Columbia Basin. This includes designing shared outreach materials to maintain consistent messaging throughout the region, collaborating on advertising and promotion, attending regional meetings and training opportunities.

To maintain and grow awareness across the region, CSISS staff attended and/or hosted over 50 regional meetings, training opportunities and workshops (Appendix B). The CSISS worked closely with the regional municipalities (City of Salmon Arm, City of Revelstoke, District of Sicamous, and Town of Golden/Wildsight Weed Coordinator) to provide staff training on invasive plant identification, provide high priority treatment lists and discuss other invasive plant management options. The CSISS continued to work closely with the Columbia Shuswap Regional District to conduct extensive invasive plant surveys and respond to landowner requests/reports. The CSISS also collaborated with neighbouring regional groups to coordinate the invasive mussel monitoring program, participated in the Columbia Basin Aquatic Invasive Species (AIS) Steering Committee and Shuswap Water Quality Monitoring Meetings.

Indigenous Peoples Engagement

In 2023, the CSISS continued to develop Indigenous Peoples partnerships and collaborations. Staff cultivated relationships with various indigenous groups through networking at conferences and trail meetings, as well as undertook indigenous perspectives cultural training.

Engagement included:

- Shuswap Trails Working Group Meetings and networking with First Nations participants who included: Splatsin, Neskonlith, Skwlāx te Secwepemcúl̓ecw and Adams Lake Indian Bands;
- Indigenous engagement meeting and trainings with the Skwlāx te Secwepemcúl̓ecw staff and Guardians program.

All Indigenous Peoples within the CSISS region were invited to our Annual General Meeting and Workshops. Any Indigenous Peoples interested in participating in the CSISS or receiving training within the CSISS region are encouraged to contact CSISS staff.

Goal 2: Educate, Engage and Inspire

The CSISS continues to educate, engage and inspire residents and others to participate in invasive species management. CSISS staff continue to receive significant numbers of requests for information and presentations; in the past year, the CSISS received 109 requests for information and presentations.

In 2023, CSISS education and outreach activities continued to focus on target audiences and pathways of spread. The CSISS was represented at a total of 142 events including 33 community events, attended 70 partner and stakeholder meetings, hosted 21 workshops/presentations, attended 12 farmer's markets, supported 7 community weed pulls, and hosted 14 youth/school events (Figure 3).

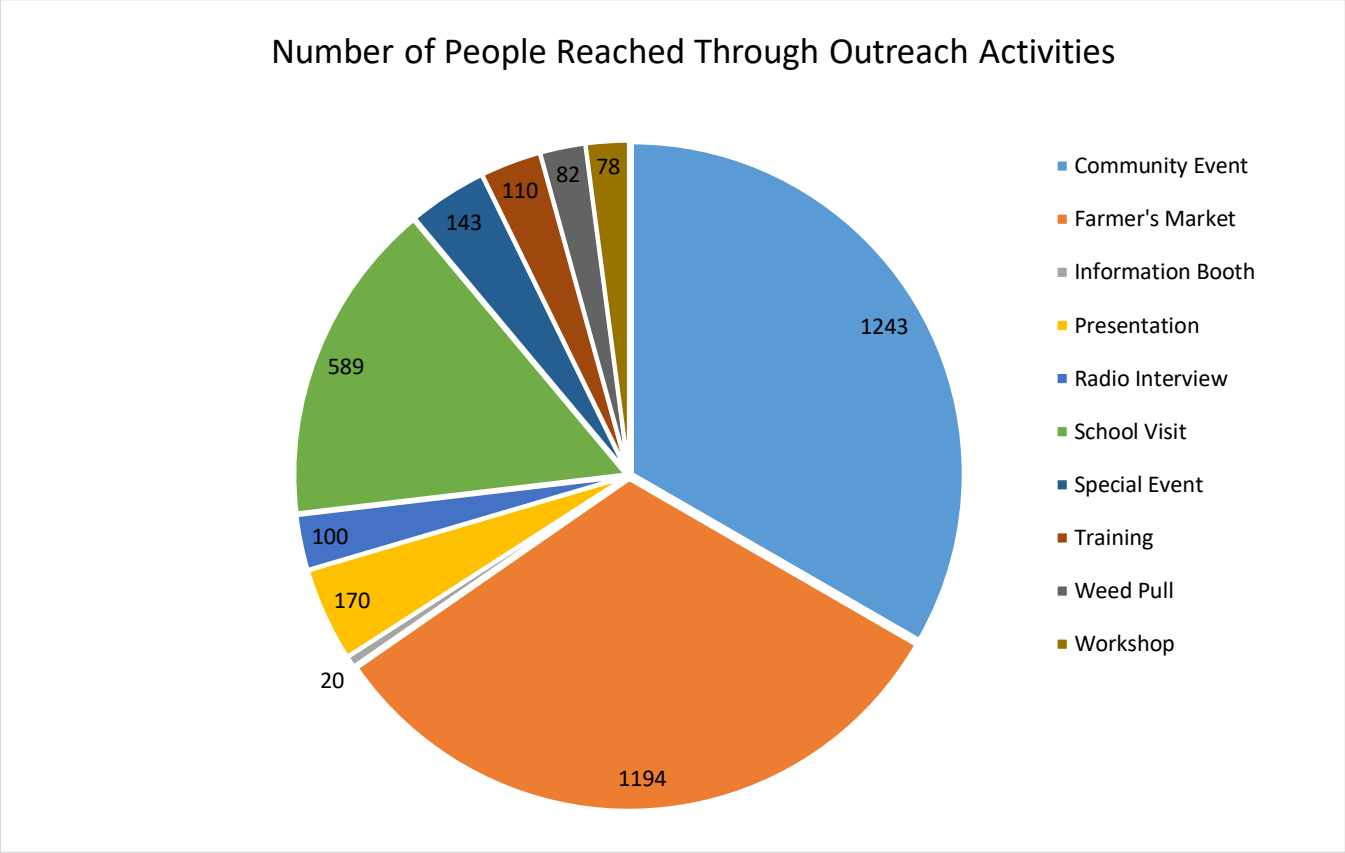


Figure 3. Summary of outreach activities completed by the CSISS in 2023.

In total, the CSISS had direct interactions with 3,657 people: (Table 1). The CSISS outreach program continues to review and evaluate for improvements annually. After presentations and workshops, CSISS staff distributed feedback forms to participants and will work to incorporate suggestions for the 2024 season.

Table 1. Community events and activities attended by the CSISS between January and November 2023. Note: Generally, all campaigns (PlantWise, Play Clean Go, Clean Drain Dry and Don't Let It Loose) are delivered at Youth Events, Farmer's Markets/Festivals and Forums/Radio Interviews.

Type of Event Hosted/Campaign Delivered	# Events	Direct Interactions
Youth Education Sessions *(10 within Columbia Basin)*	14	597
Weed Pulls *(4 within Columbia Basin)*	7	78
Farmer's Markets and Community Events *(22 within Columbia Basin)*	33	2,457
Presentations, Training and Workshops (10 within Columbia Basin)	21	501
PlantWise Outreach *(23 Garden Centers received outreach/ 12 Columbia Basin)*		
Clean Drain Dry and Don't Let It Loose *38 Marina, and Campground visits (6 Columbia Basin)* *9 Boater outreach events (4 Columbia Basin)* *3 Pet stores visits*		
Online/ Digital Outreach *6 Media Releases* *4 Newsletters* *50 Media Articles/ Features* Social Media Reach *Instagram – 1,179 followers / 8,890 impressions* *Facebook- 834 followers / 15,109 impressions*		
Events total in the Columbia Basin	46	2,024
Events total for CSISS 2023	**74**	**3,657**

Media Coverage

Since January 2023, the CSISS delivered four e-newsletters, six press releases, and has been mentioned in 50 news pieces (See Appendix C for a full listing of media interactions). Behaviour change 'Play Clean Go' and 'Clean Drain Dry' messaging was shared in the following publications:

- BC Backroad Mapbooks, Thompson Nicola/ Kootenay Rockies editions: circulated for a 3-year period 2021-2023 to thousands of residents and visitors to the region;
- BC Backroad Fishing Mapbooks, Thompson Okanagan edition: circulated for a 3-year period 2022-2024 to thousands of residents and visitors to the region;
- The Kootenay Mountain Culture magazine: completed a collaborative advertisement with other Columbia Basin invasive species groups;
- Play Clean Go messaging placed in hiking maps supplied by Tourism Golden, See Revelstoke and Shuswap Tourism.

See Revelstoke supported media coverage with a dedicated 'Sustain the Stoke' website page to promote messaging to prevent the spread of invasive species in the Revelstoke area and highlighting CSISS campaigns. See Revelstoke shared a series of social media posts and event promotion for Wildflower Festival, including inviting a social media influencer "The Nature Educator" to participate in the 'Wildflower Festival- Invasive Plant Speed Weed' who produced a video from the event amassing 26,851 views, reaching 23,975 accounts, 1,807 likes, 92 comments and 26 shares and saves! (Figure 4).

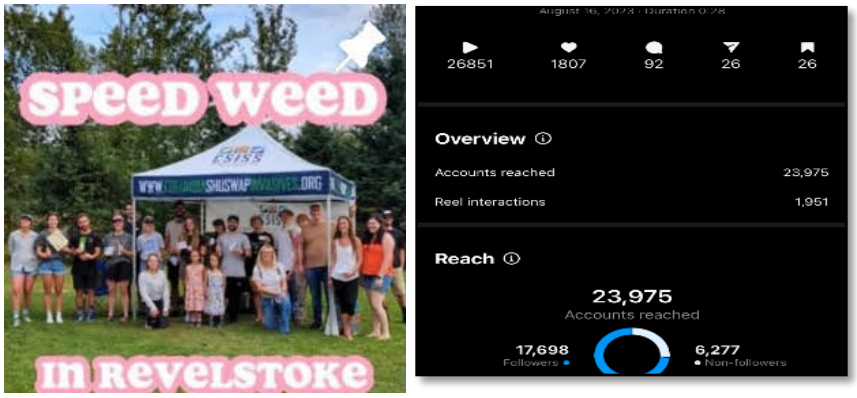


Figure 4. Screenshot of Instagram Reel by 'The Nature Educator' at the Speed Weed Event (left). Instagram Reel Insights (right).

Community Outreach

The CSISS collaborated with numerous non-profit groups to raise awareness about invasive species in the Columbia Shuswap region. The CSISS provided outreach brochures to partner organizations to distribute at workshops and information booths throughout the region, as well as at accommodation and tourist locations, such as marinas, campgrounds and resorts.

The CSISS shared invasive species education by connecting with communities through:

- Six Community Radio Segments on Stoke FM
- 12 Community Farmers Markets
- HCTF Wild Schools Program Earth Day Field Trip and two school workshop days (200 students)
- Seven Community Weed Pulls
- Revelstoke Paddle Festival
- Earth day Events
- Boater and Aquatic Outreach Days
- Council Delegations throughout CSRD

See Appendix B for a complete list sessions attended.

Figure 5. Participants of the inaugural "Speed Weed" event held in Revelstoke during Wildflower week. (left). Jess Booth educating community members on a plant ID walk (right). (Photo: Katee Pederson).

The CSISS coordinated seven community weed-pull events, throughout the region in 2023. Community weed-pull events provide a unique outreach opportunity for connecting individuals to their local environments. Weed-pull events also present a meaningful way for residents and visitors to make positive improvements to local biodiversity. With support from partner organizations, the CSISS was able engage volunteers in removing priority species (Table 2).

Table 2. The CSISS supported 7 weed pulls and mechanical treatment contracts in collaboration with community groups.

Target species	Location	In collaboration with:
Burdock, hawkweed	Revelstoke Forestry Museum	Tourism Revelstoke
Yellow flag iris	Little White Lake	ISCBC Salmon Arm, Shuswap Trails Alliance and Skwlax Guardian Program
Burdock	Golden	Wildsight Golden
Burdock	Herald Provincial Park	BC Parks
Burdock, Spotted Knapweed	Golden	Wildsight Golden
Spotted Knapweed	Shuswap Lake Provincial Park	Invasive Species Council of BC, Skwlax Guardian Program
Yellow flag iris Himalayan balsam	Salmon Arm	Salmon Arm Bay Nature Enhancement Society & Nature Conservation Trust
Himalayan Balsam	Revelstoke Greenbelt	Illecillewaet Greenbelt Society / See Revelstoke and Revelstoke Wildflower Festival

Workshops and Events

To build capacity amongst partners, interested residents and stewardship groups, the CSISS hosted various workshops and training opportunities in 2023.

The CSISS attended and hosted in-person workshops, conferences and events including

- Invasive Species Council of British Columbia Annual Forum
- Columbia Mountains Institute Conference Presentation
- CSISS 10th Year Anniversary Celebration
- Invasive plant Walk and Flower Pounding Workshop
- Invasive plant Natural Dye Workshop
- Benthic Barrier Workshop for Yellow Flag Iris
- Edible Invasive Plant ID Walk with Revelstoke Wildflower Festival
- Speed Weed Event Revelstoke Wildflower Festival

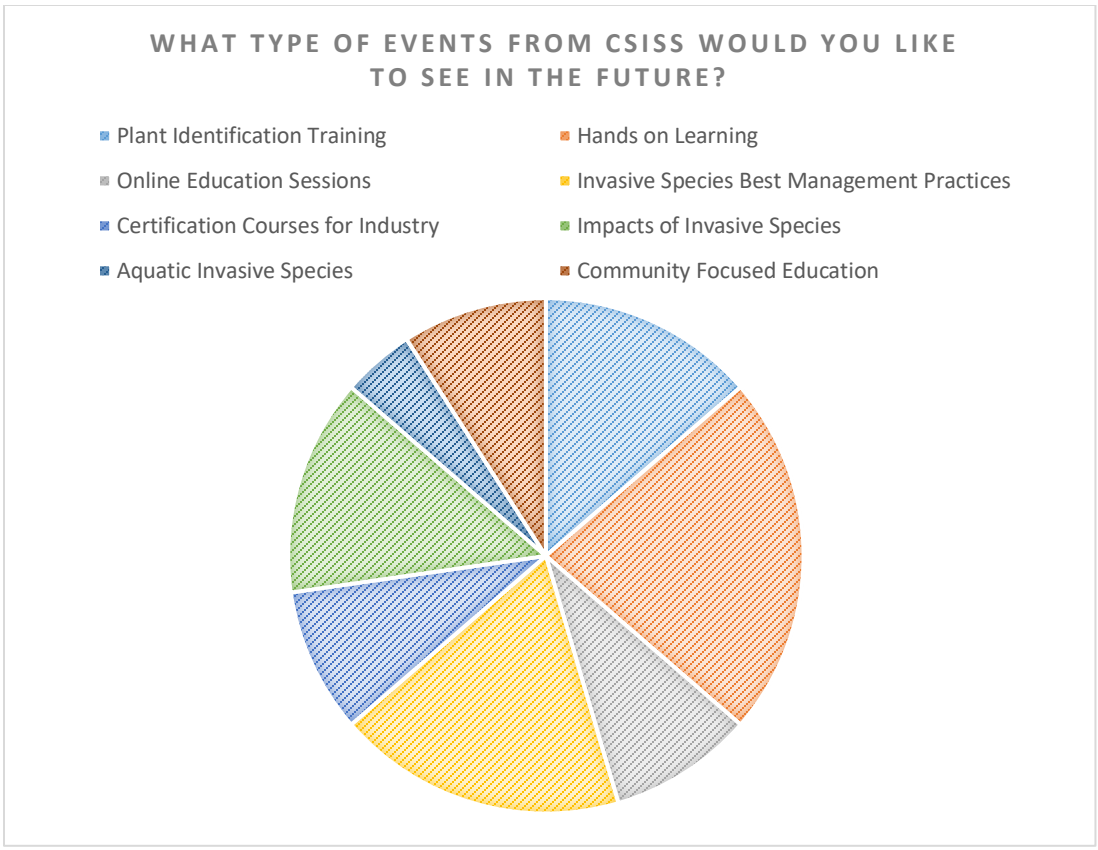
Interested and diverse members of the community attended workshops and events, such as invasive plant identification walks. Local invasive species workshops delivered throughout the region, are an interactive and tangible way to add value to individuals understanding of and connection to natural spaces and local ecosystems. At these workshops participants learn about the importance of biodiversity, foster stewardship and learn how to implement measures that help prevent the spread of invasive species. The CSISS collaborated with other environmental groups for some events and workshops, which proved to be beneficial for all organizers in the way that resources could be shared and bigger audiences could be reached.

Figure 6. Left: CSISS staff and board members celebrating the 10th anniversary of CSISS. Centre: Volunteers bagging Bittersweet Nightshade at a weed pull along the SABNES trail in Salmon Arm. Right: Field Technician Marlee and Outreach Program Assistant Emma installing a benthic barrier at a workshop with the Nature Trust BC in September.

Measures of Success

Outreach Program Evaluations

The CSISS continues to use feedback to help evaluate the effectiveness of our workshops and programs. Understanding and reviewing results from surveys help guide our future outreach programming. In general, the CSISS received positive feedback from workshop participants (Figure 8).



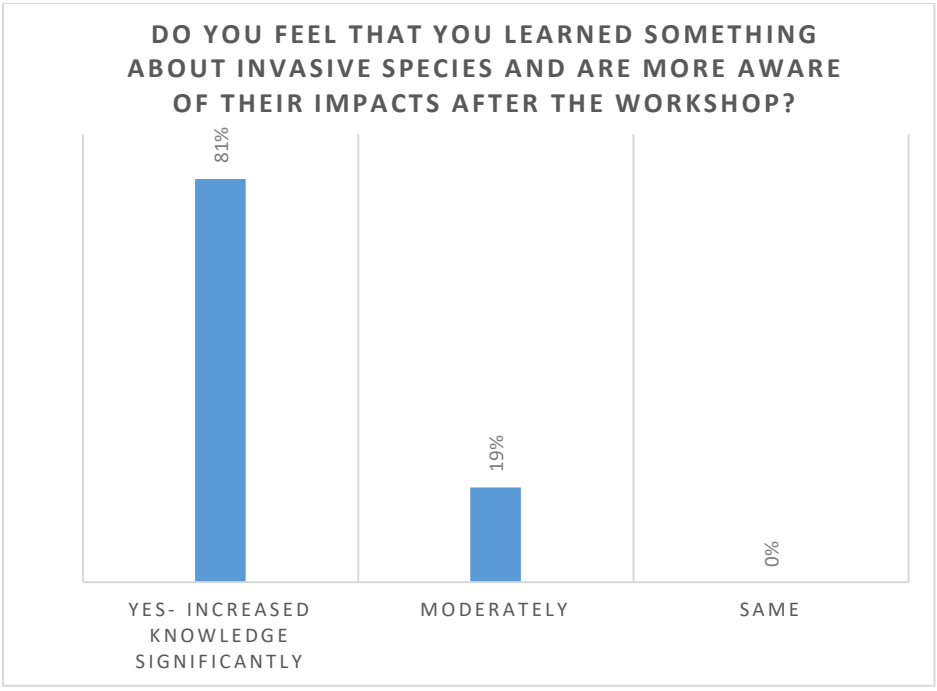


Figure 7. Survey Results from CSISS evaluation forms in 2023.

Website and Social Media

The website continues to be a user-friendly platform for both public and land managers to enable people to connect with events and resources for the management of invasive species (Figure 8). The CSISS website, which is updated regularly with news and events, is found at: www.columbiashuswapinvasives.org.

The CSISS consulted a graphic designer to improve the consistency in messaging and resources that the CSISS produces and shares at Outreach presentations events and presence via newsletters, websites, press releases and social media platforms.

The CSISS also hosts a Facebook page and posts updates of events, information and reminders of behavior change activities throughout the year (Figure 8). The CSISS Facebook page now has 836 followers and the CSISS Instagram has 1,181 followers. The CSISS continues to deliver quarterly e-newsletters to more than 540 recipients highlighting our local and regional events and activities. Social media accounts actively encourage best practices, promote events and share relevant news with followers.

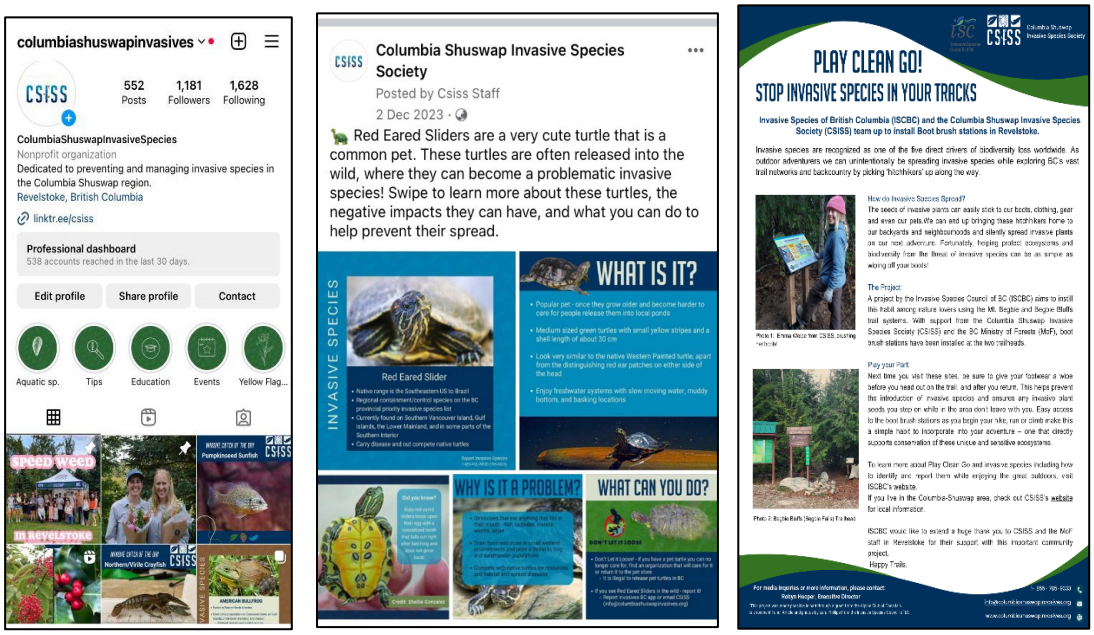


Figure 8. Preview of the CSISS Instagram page (left). Facebook Post on Red Ear Sliders with updated graphics (centre). Updated graphic template for Press Releases (right).

Social Media Metrics

The CSISS utilizes Facebook analytics to help develop engaging content and guide future social media campaigns. In 2023, the CSISS reached 16,192 people through Facebook and engaged with many others through posting to targeted groups, such as gardening pages, outdoor recreation groups, community pages and aquatic-related pages. The CSISS' presence on Instagram improved in quality with the new graphics and template to utilise and the pages' reach increased overall from 2022. (Figure 9).

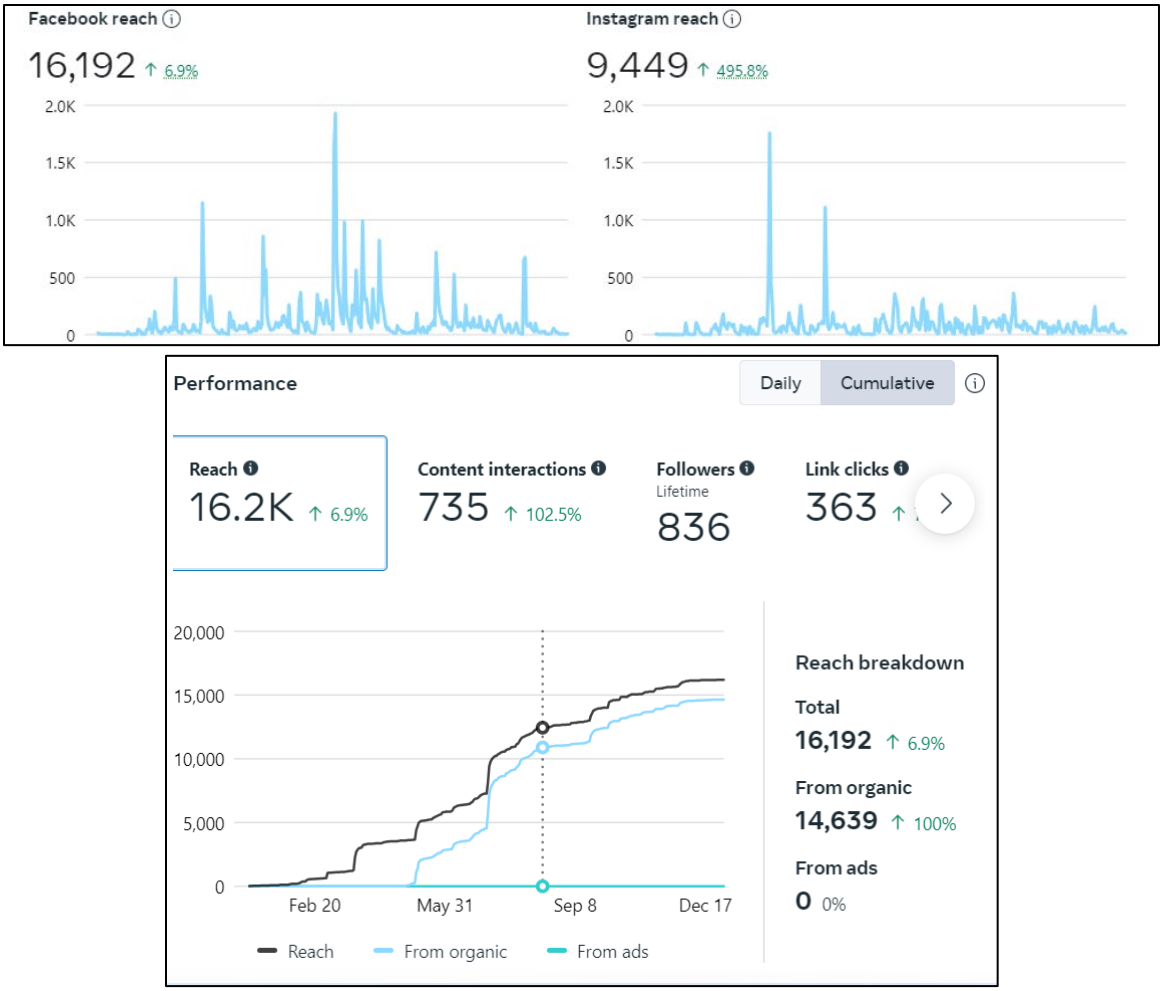


Figure 9. Number of people reached through @ColumbiaShuswapInvasives Facebook (top left) and Instagram (top right) pages in between January- December 2023. Overall Facebook Performance in 2023 (bottom centre).

Website Google Analytics

Google Analytics results show 7,300 website visits in 2023. The CSISS website welcomed 3,500 new website visitors. Metrics were used to determine which pages were most trafficked by user. Audience behavior data was used to determine the most frequently visited webpages (Figure 10).

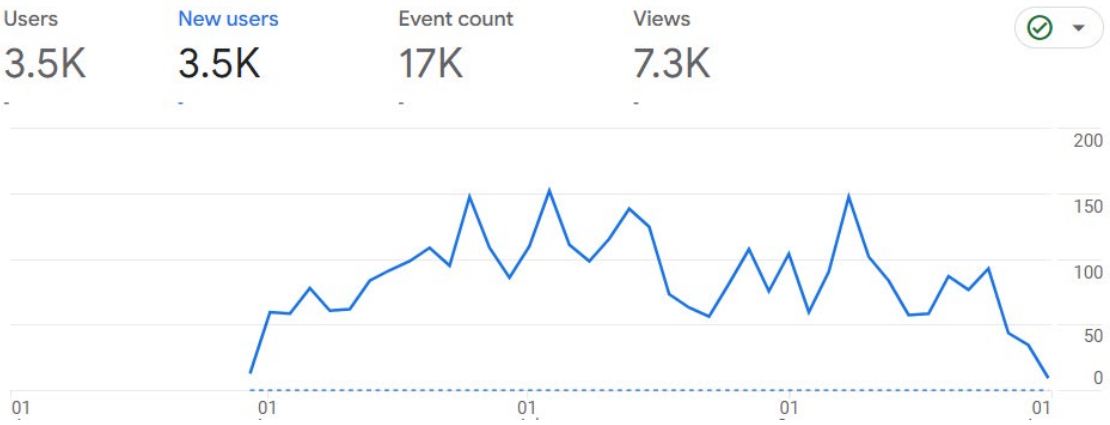


Figure 10. Number of page views of www.columbiashuswapinvasives.org webpage from Jan-Dec 2023.

Data from Google Analytics will continue to be used to reconfigure website layout and content in order to optimize public access to important resources and information regarding invasive species awareness and management.

Goal 3: Prevent the Introduction of New Species

The CSISS focuses on various behaviour change programs in partnership with others to help prevent the introduction of new species. The CSISS provides training, resources and best management practices to partners in order to help prevent new introductions (*see Workshops and Events section above*).

PlantWise Program

The CSISS continued to actively partner with the ISCBC to deliver the PlantWise program, encouraging key groups, such as the horticulture industry and consumers, to commit to choosing and utilizing only native or non-invasive plants instead of their invasive alternatives.

CSISS staff delivered the PlantWise message and distributed PlantWise Brochures at 79 community-based events, workshops and meetings, speaking to youth, home gardeners, land managers, and stewardship groups, directly reaching 3,789 individuals (Table 1).

In April and May, the CSISS visited 23 garden centres and nurseries to providing PlantWise materials and assessing inventory. Seed mixes were found to be the most common source of invasive plants in the region and many garden centers had removed invasive seed mixes, including Baby's Breath and English Ivy from their stock. Feedback from garden centres emphasized the importance of consumer demand; when packs are removed from shelves and returned to suppliers, some suppliers automatically discontinue distributing those seeds the subsequent year. In general, most garden centres in the region are interested in following PlantWise practices.

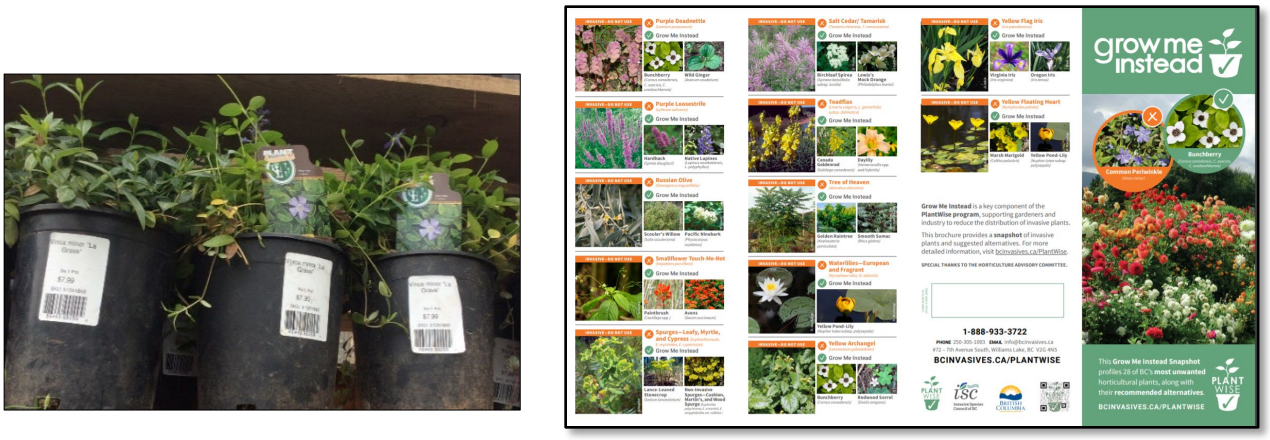


Figure 11. Invasive Plants being sold at Garden Centres (left). The 'Grow Me Instead' brochure distributed across the region at events (right).

Play, Clean, Go Program

In 2023, the CSISS continued to promote Play Clean Go, a program encouraging trail users to reduce the spread of invasive species by cleaning equipment, clothing, vehicles and pets when arriving at and leaving a recreation site. Through partnerships with trail user groups, race organizers, and youth outdoor education programs, the CSISS successfully delivered the Play Clean Go message at 79 community events, directly reaching 3,069 individuals (Table 1).

The CSISS continued to attend trails meetings to engage with local trail users and provide input on regional activities. The CSISS attended local sporting events to target recreational and competitive cyclists encouraging them to wash their bikes when using new trails (Figure 12).

Figure 12. New boot brush station installed at Begbie Falls trailhead in Revelstoke (left). Play Clean Go poster displayed at outreach events (centre). Outreach Co-ordinator Jess discussing invasive species with youth (right).

Clean Drain Dry Program

The Clean Drain Dry (CDD) program encourages aquatic recreationists and watercraft owners to recognize the potential for watercraft to act as vectors of spread and to prevent the spread of harmful aquatic invasive species in BC.

The CSISS promotes the CDD program across the CSRD by contacting aquatic-focused industries and organizations, such as marinas, campgrounds and recreational groups. Most marinas and lakeside campgrounds were contacted by phone or visited in person in the spring (Appendices D and E). A selection of aquatic-focused materials including CSISS brochures, provincial aquatic invasive species (AIS) booklets, AIS wallet cards, zebra and quagga mussel rack cards and invasive clam alert cards were distributed where requested. Business owners and staff were also reminded of the impacts of AIS on tourism in B.C. and the best practices to prevent the spread of AIS (i.e. provincial watercraft inspection stations and CDD program).

Boater Surveys and Dock Outreach

Boater outreach days are important for the CSISS to maintain a presence in the region and connect with watercraft owners (local and visitors). Boater outreach days consist of setting up an information booth (Figure 13) at boat launches across the watershed where watercraft (both motorized and non-motorized) owners can receive important information about AIS. A total of 6 in person days were spent at 4 boat launches across the Shuswap region, speaking with 115 watercraft owners and parties this season. Drain plug observations were not conducted this season.

Figure 13. A typical AIS Outreach Booth will display information about high-priority AIS, such as Zebra and Quagga Mussels (ZQM), in addition to species of regional interest, such as Invasive Freshwater clams, Yellow perch and Smallmouth bass. A variety of resources are available for boaters, paddlers and anglers.

In past years, the busiest boat launches in the region were visited for boater outreach. While this is worthwhile, often these interactions lack quality engagement with busy boaters. This season, the Education and Outreach Coordinator focused on spreading outreach effort across the Shuswap region as we did in 2022; this helped us gain an understanding of water access sites and water users around the Shuswap, especially in the North Shuswap.

Resources and information provided to watercraft owners promote the “Clean, Drain, Dry” message. Stickers (Figure 5) were given to every watercraft owner and CSISS staff encouraged them to place the sticker on the boat trailer coupler or near the trailer hitch; stickers in this location provide a timely reminder to “Clean, Drain, Dry” at each launch and retrieval of their watercraft. Chamois cloths were also given out to encourage and aid boaters to thoroughly dry their watercraft. Whenever possible, these behaviour change resources were paired with information resources, such as highly informative fold-out wallet cards, brochures and species booklets. Whistles provided by the Shuswap Watershed Council and key floats were also given to watercraft parties to promote recreational water safety.

Figure 14. Watercraft owners are encouraged by CSISS staff to place a Clean Drain Dry sticker in an appropriate location on their boat trailer that will provide a timely reminder every time they remove their watercraft from a waterbody.

During outreach surveys, watercraft owners and parties are asked their place of origin to determine whether they are local to the Shuswap region, the province of B.C., from elsewhere in Canada or the United States. Through their summer outreach program, CSISS staff found that only 10% of boaters (86 surveyed) were local to the Columbia Shuswap region, 55% were from other areas of B.C., and 30% were from Alberta; with half of the visiting Albertans keep their boat in the Columbia-Shuswap year-round. During interactions, watercraft owners were informed about provincial watercraft inspection stations.

We emphasized that every watercraft, including small non-motorized and inflatable craft, must be inspected. Ongoing feedback from staff over several years that it can be challenging to connect with boaters at boat launches in a higher stress and busy environment. We have several recommendations to address these barriers. These recommendations are elaborated on in the recommendations section of this report. They include reviewing delivery of boater outreach, as well as continuing and extending the focus on zebra and quagga mussels (ZQM) at all outreach events and evaluating boater outreach data.

In addition to the boaters surveyed at boat launches within the Shuswap region, community members and visitors surveyed classified as general public and non-motorized users represented 39% of all survey participants.

When sampling for ZQM veligers as part of our lake monitoring program, CSISS staff are often approached by people curious about our activities. CSISS staff are always prepared to give information and resources to encourage behavior change in these interactions. Staff spoke with 38 people while sampling for ZQM this season.

Don't Let It Loose Program

The Don't Let It Loose (DLIL) program promotes returning or rehoming unwanted pets rather than releasing them into the environment where they may become invasive. The program also focuses on ensuring live bait fish and other non-native species are not released by anglers and hunters. Most pet/aquarium and fishing stores were contacted by phone or visited in person in the spring (Appendix D). Staff at pet stores were reminded about the mussel-infested moss balls that appeared in 2021 and to continue to remain vigilant.

The CSISS also deployed 'Don't Let It Loose' Signage. These posters served as warning for invasive American bullfrogs, goldfish, and red eared sliders. These posters were installed at 20 sites and pet stores across the CSRD. These sites were identified as sensitive wetland areas that could serve as potential dumping or release sites for unwanted pets or wildlife, such as bullfrogs. American bullfrogs are not present in the CSRD; pet releases or transfer of wildlife from other areas of B.C. are considered to be the primary potential vector of spread for bullfrogs into the CSRD.

Goal 4: Maximize the Probability of Detection and Eradication of New Invasives

The CSISS maximized the probability of detection and eradication of new invasives by raising public awareness and delivering invasive species workshops described above. Additionally, CSISS staff responded to invasive species reports and conducted terrestrial and aquatic targeted invasive species surveys on behalf of partner agencies.

Public Reports

The CSISS categorizes reports from the public in four ways: 1) requests for information, 2) invasive plant reports, 3) noxious weed complaints and 4) landowner outreach. Depending on the nature and priority of the report, the CSISS confirmed the report by a site visit and/or responded with landowner extension, an outreach letter, or by enacting the provincial Early Detection Rapid Response (EDRR) protocol.

In total, the CSISS had:

- 109 requests for information;
- 32 invasive plant reports and 15 invasive non-plant reports;
- 2 noxious weed complaints; and
- 11 landowner outreach visits.

Targeted Invasive Plant Surveys

In 2023, the CSISS inventoried 164 sites and completed 685 invasive plant surveys. Priority invasive plants were found in all three of the CSISS' IPMAs. Priority invasive plants inventoried in 2023 include: brown knapweed, blueweed, bohemian knotweed, cypress spurge, field scabious, Fullers teasel, garlic mustard, giant knotweed, Himalayan blackberry, hoary alyssum, leafy spurge, marsh plume thistle, plumeless thistle, poison hemlock, policeman's helmet, rush skeletonweed, scotch thistle, short-fringed knapweed, tree of heaven, wild chervil, wild parsnip and yellow flag iris (Figure 15). The CSISS entered all invasive plant surveys, site surveys, treatment records and monitoring records completed on behalf of partner/ funding agencies into the new provincial Invasives BC database.

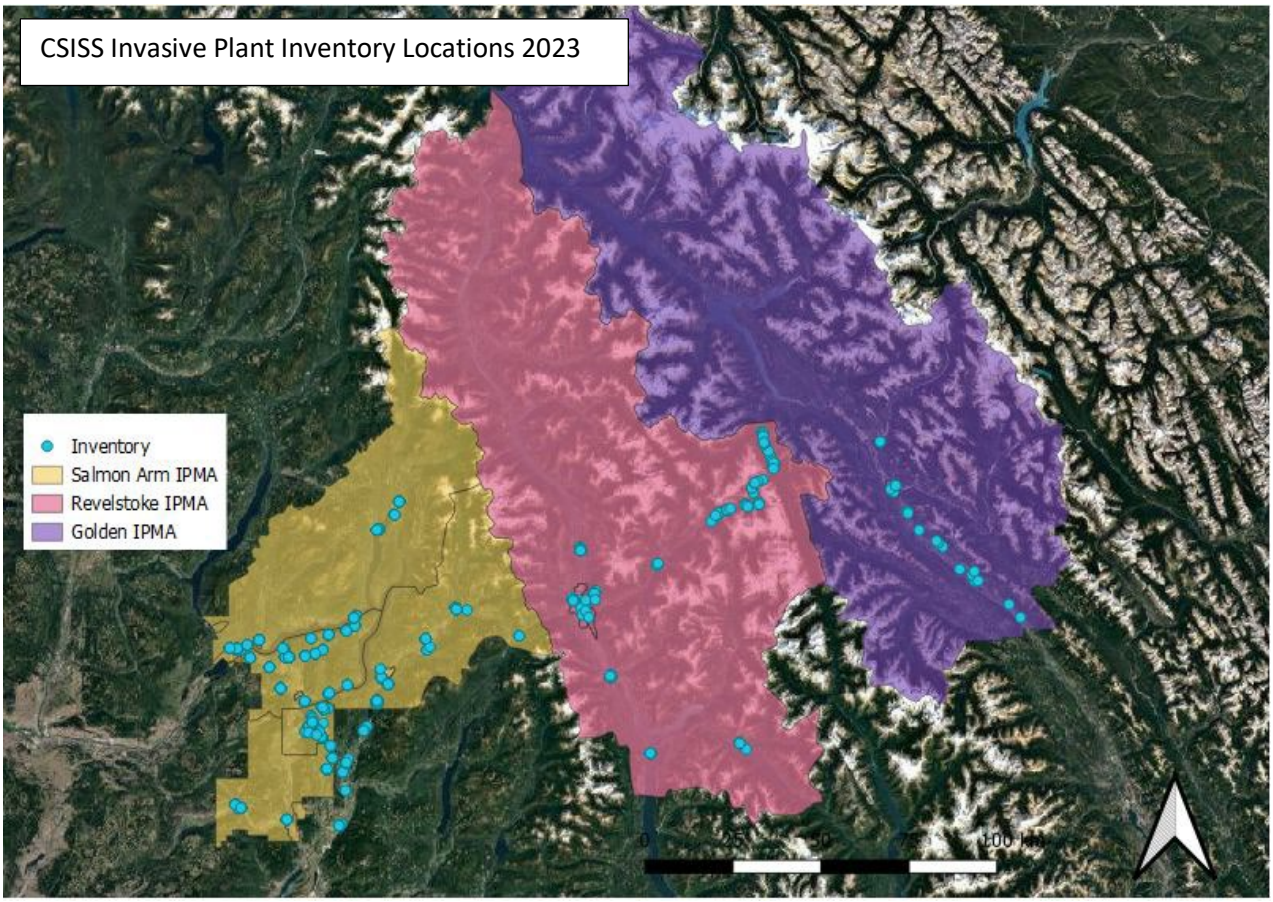


Figure 15. Invasive plant inventories in the Columbia Shuswap region in 2023.

Field Operations Funder Updates

CSRD Overview

The CSISS completed in depth invasive plant inventory and management of facilities for the CSRD including CSRD Parks, fire halls, land parcels, landfills and transfer stations. For full details, please see the CSISS-CSRD 2023 Invasive Plant Management Report (available upon request).

BC Parks Overview

The CSISS completed in depth invasive plant inventory and management of facilities for the BC Parks across both the Columbia and Shuswap regions. Parks in the Columbia region include Martha Creek, Blanket Creek and Shelter Bay Provincial Parks. For full details, please see the CSISS-BC Parks Columbia Region 2023 Report (available upon request). Parks in the Shuswap region include Herald, White Lake, Tsútswecw, Silver Beach, Albas, St. Ives Provincial Parks. For full details please see the CSISS-BC Parks Shuswap Region 2023 Report (available upon request).

Shuswap Yellow Flag Iris Project Overview

The CSISS completed an in depth Yellow Flag Iris inventory and conducted various management efforts across several water bodies within the Shuswap region including Gardom Lake, McGuire Lake, Turner Creek, White Lake, Little White Lake, and an isolated case on Shuswap Lake on the Salmon Arm Foreshore. This project is ongoing and the goal is full-site level treatment and eradication of known infestations. For full details, please see the CSISS- HCTF-Restoration Grant Report 2023 (available upon request).

City of Salmon Arm Overview

The CSISS staff completed invasive plant inventories of municipal properties, administered and monitored the City's herbicide spray contract, completed mechanical removal of priority invasive plants, installed Do Not Mow signage for knotweed infestations along City right-of-ways and assisted with community outreach and education including ensuring communications with private landowners are respectfully and appropriately managed. For full details, please see the CSISS-City of Salmon Arm 2023 Report (available upon request).

Ministry of Transportation and Infrastructure Overview

The CSISS continued with installation of Do Not Mow signs prior to roadside mowing in the spring and removal and storage in the autumn. Additionally, tailgate and information sessions were completed with all Columbia Shuswap MoTI contractors in the spring. For full details, please see the CSISS-MOTI 2023 Annual Report (available upon request).

Parks Canada Overview

The CSISS completed invasive plant herbicide monitoring in Mount Revelstoke and Glacier National Parks at sites allocated for spot application of herbicide treatment. The sites monitored are found within the integrated control zone on the highway corridor. For more details, please see CSISS-Parks Canada 2023 Report (available upon request).

Nature Trust Overview

The CSISS completed a comprehensive inventory of priority invasive plants on the Salmon Arm Foreshore property and mechanically treated high priority invasive plants. A benthic barrier was also installed as a management approach to a new patch of yellow flag iris. The CSISS facilitated a community

weed pull in conjunction with Salmon Arm Bay Nature Enhancement Society (SABNES) treating priority invasive species. For more information, please see CSISS-Nature Trust 2023 Report (available upon request).

BC Hydro Overview

The CSISS completed invasive alien plant inventory and identification of areas for noxious and invasive weed control initiatives on BC Hydro transmission line corridors, determined treatment plans and administered herbicide treatment contracts to a certified pesticide applicator, monitored effectiveness of weed control treatment and provided recommendations for future management plans for BC Hydro. For full details, please see the CSISS-BC Hydro 2023 Report (available upon request).

Shuswap North Okanagan Rail Trail Overview

The CSISS, working on behalf of Splatsin te Secwépemc, Columbia Shuswap Regional District and Regional District of North Okanagan, delivered an invasive plant management plan for the 50km non-motorized Shuswap North Okanagan Rail Trail Corridor between Sicamous and Armstrong. High priority invasive plant inventories were conducted. Please see CSISS-North Okanagan Rail Trail Invasive Plant Management Plan 2023 for additional details (available upon request).

Aquatic Invasive Species Surveys

Invasive Dreissenid Mussels

Zebra (*Dreissena polymorpha*) and quagga (*Dreissena rostriformus bugensis*) mussels, also known as Dreissenid mussels (and hereafter referred to as ZQM), are two of the most widespread invasive species that have notoriously transformed freshwater ecosystems across North America (Strayer, 2009). ZQM are not currently known to be found in BC but their introduction would certainly have negative environmental, economic and social welfare impacts. A new study in 2023 put the economic impacts of a ZQM invasion to be between 64-129 million annual costs (WLRS 2023).

Monitoring is critical for early detection of new invasive species introductions, including ZQM, in the province. As a signatory on the *Columbia River Basin Interagency Invasive Species Response Plan*, the province of BC has been conducting early detection monitoring for ZQM since 2011. With support from the Ministry of Water, Lands and Resource Stewardship, the Habitat Conservation Trust Foundation and the Shuswap Watershed Council, the CSISS has been monitoring for ZQM across the CSRD since 2015.

The CSISS follows the province of B.C.'s *Dreissenid Mussel Lake Monitoring Field Protocol* to monitor for ZQM at priority waterbodies across the CSRD. Waterbodies are chosen for monitoring based on a list of priority waterbodies, which rank at-risk waterbodies based on probability of ZQM invasion, probability of ZQM survival and overall vulnerability (environmental, economic and social) of the waterbody. Funding provided by the Shuswap Watershed Council has enabled the CSISS to expand the Invasive Mussel Lake Monitoring Program to include additional waterbodies outside of the CSISS' operational region (Mabel Lake, Sugar Lake, Little Shuswap Lake and Adams Lake). The CSISS sampled these locations because no other agency was available for monitoring; however, they are of interest to the CSISS because they are in the Shuswap watershed and could have impacts on the CSRD.

The CSISS collected veliger samples at 25 sites across 15 waterbodies. A total of 137 samples were collected over the 2023 field season (Figure 16). Substrate samplers were installed at 11 sites on 9 waterbodies. No ZQM were detected by our monitoring program this year. For more information on 2023 invasive mussel lake monitoring, please see reports CSISS-HCTF Invasive Mussels Lake Monitoring Fund Grant 2023 and CSISS-SWC AIS 2023 (available upon request).

Figure 16. CSISS field technician, Nolan Novotny, sampling for ZQM veligers in the Golden region.

Goal 5: Slow and Reverse the Spread and Minimize the Impact of Existing Invasives

The CSISS works hard to slow and reverse the spread of existing invasive species and reduce their impacts. Collaboration, clear and effective communication, community participation and establishing realistic, obtainable treatment goals all play a role in minimizing the impact of invasives.

Mechanical Treatment

In 2023, the CSISS, mechanically treated 39 priority invasive plant sites, removing a total of 0.0851 Ha of material. The invasive plants treated include: bittersweet nightshade, blueweed, bull thistle, Canada thistle, common burdock, common comfrey, English Ivy, field scabious, Fuller's teasel, Himalayan blackberry, hoary alyssum, leafy spurge, marsh plume thistle, mullein, myrtle spurge, poison hemlock, policeman's helmet, rush skeletonweed, scotch thistle, and spotted knapweed. As part of mechanical treatment, the CSISS supported 7 terrestrial weed pulls throughout the Columbia Shuswap region.

Yellow flag iris was treated in conjunction with the Shuswap Trail Alliance, the Nature Trust and other volunteer groups, sites include Little White Lake, White Lake, Gardom Lake, Turner Creek, McGuire Lake, and a small site on Shuswap Lake (Salmon Arm Foreshore) (Figure 17). A total of 0.0102 Ha of yellow flag iris was removed from above waterbodies across the Shuswap region.

Figure 17. Yellow flag iris removal from Shuswap Lake, Salmon Arm foreshore trail 2023.

Chemical Treatment

In 2023, the CSISS administered four herbicide spray contracts treating 51 priority sites. All treatments were carried out by a certified herbicide applicator and monitored by CSISS staff. Invasive plants treated include: blueweed, Bohemian knotweed, bull thistle, common burdock, common tansy, field bindweed, field scabious, Fuller's teasel, Himalayan blackberry, hoary alyssum, leafy spurge, marsh plume thistle, meadow buttercup, poison hemlock, policeman's helmet, rush skeletonweed, spotted knapweed and yellow hawkweed species.

Signage

In May 2023, with support from CBT, the CSISS had a Watercraft Inspection billboard reinstalled near Kicking Horse canyon, approximately 10 km before the Watercraft Inspection station at Golden, BC (Figure 18). The billboard faces west-bound traffic and is a timely reminder that all travelers with watercraft must stop at the inspection station ahead. The billboard was in place from May to October and is planned to be reinstalled each summer. This billboard is in addition to the three supported directly by the Shuswap Watershed Council at Craigellachie, Malakwa, and Chase.

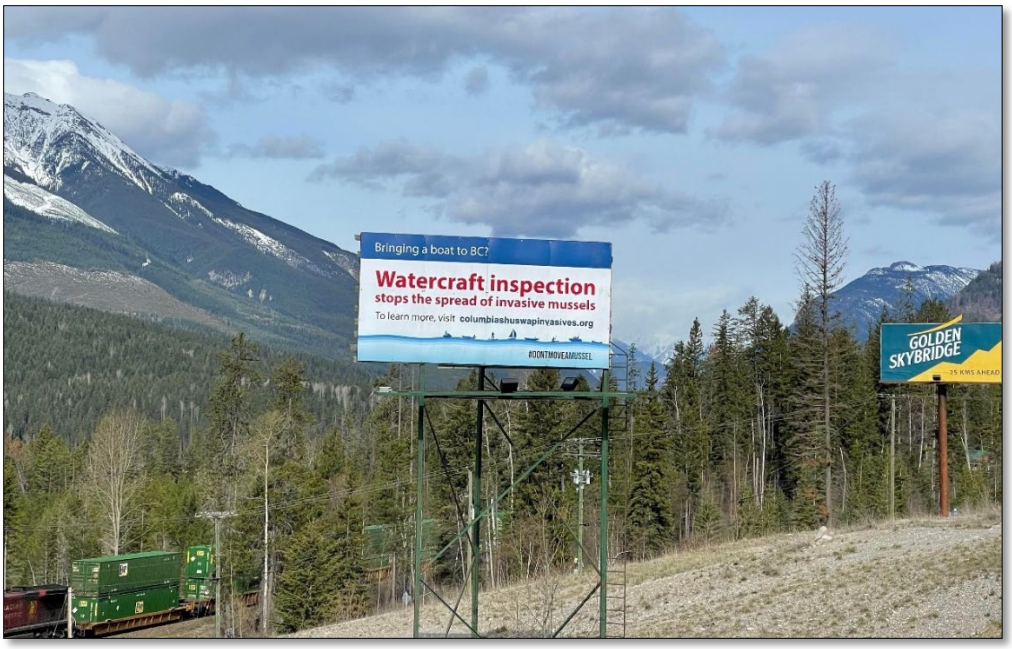


Figure 18. A billboard advertising and encouraging watercraft inspections approximately 10 km before the Watercraft Inspection Station in Golden, B.C.

Goal 6: Program Sustainability

In 2023, the CSISS gratefully received in-kind and financial support for invasive species related programming in the region from over 32 sources and maintained a similar operating budget. We acknowledge the financial support of: the Province of British Columbia through the Ministry of Forests (Coordination and Awareness Grants through CSISS and CSRD), BC Parks (Capital funds and Park Enhancement Funds in Columbia and Shuswap regions) and the Community Gaming Grant; the Columbia Shuswap Regional District; the Columbia Basin Trust; The Shuswap North Okanagan Rail Trail (Splatsin te Secwépemc, Columbia Shuswap Regional District (2019-2024 agreement and Operational Funding for Landfills/Transfer Stations), Regional District of North Okanagan); The Forest Enhancement Society of BC, the Habitat Conservation Trust Foundation (Invasive Mussel Lake Monitoring and Restoration grants); The Nature Trust of BC; Living Lakes Canada; The City of Salmon Arm; The City of Revelstoke; Parks Canada; BC Hydro; the Shuswap Watershed Council (Aquatic outreach and Mussel monitoring); Environment and Climate Change Canada; Employment and Social Development Canada (Canada Summer Jobs wage subsidies for 4 projects); Eco Canada (Environmental Pathways and Science Horizons Wage Subsidies). Small contributions were also received from: Mustang Powder Auction fundraiser, Stella-Jones Inc., Shuswap Watershed Owners Association, and small cash donations from outreach booths. In-kind support was received from a number of sources and all in-kind and financial support will be recognized in the CSISS 2023 Financial Report. Additional funding sources are being pursued for the 2024 season. We acknowledge the in kind support and partnership with several other organizations across the region.

The CSISS staff team in 2023 (Figure 29) included five continuing/returning staff members, Robyn Hooper (Executive Director), Laura Gaster (Field Operations Manager), Jess Booth (Outreach Program

Coordinator), Nolan Novotny (Field Technician), and Marlee Verleih (Field Technician starting September, Invasive Species Program Assistant May-August). Invasive Species Program Assistants Katie Dezyngel (May-June) and Emma Wiebe (started July) were welcomed additions to the team this season. We are very grateful for all staff contributions this year and the excellent teamwork.

Retaining a quality staff team is important for the CSISS. Similarly, the CSISS has been fortunate to have received direction from a knowledgeable, diverse Board of Directors (Figure 20). Each individual brings a unique perspective to the organization and has been instrumental in helping the CSISS address many aspects of invasive species management in the region.

The CSISS Policy Manual was reviewed and updated in 2023; the manual helps to facilitate orientation of new staff and directors (Stafl, 2015, updated Hooper annually). The manual is reviewed and signed by the Board Directors annually and updated as necessary. The Employee Handbook was reviewed and updated, which helps to further guide CSISS staff on organizational, human resources and administrative standards.

In 2023, CSISS staff continued to improve on handbooks for each coordinator position (Outreach, Aquatics, and Field Operations) and CSISS Executive Director handbook to assist with new staff training in each role. Coordinators and Director have developed several “How To” documents for reference and training purposes. There are also various outreach planning documents that inform CSISS outreach targets, performance measures, staff work plans, calendars for specific outreach programming and help to determine gaps in stakeholder groups and pathways of spread. Staff also work diligently from individual workplans and an organizational workplan that links to the CSISS Strategic Goals.

Figure 19. 2023 CSISS Staff. Left to right: Robyn Hooper, Katie Dezyngel, Laura Gaster, Nolan Novotny, Jess Booth and Marlee Verleih. Not pictured: Emma Wiebe

Figure 20. 2023 Board of Directors. Left to right: Chris Cochran, Mike Manson, Hamish Kassa, Erin Vieira, Peter Tarleton, Jeromy Schuetze, Adam Croxall, Laurel Corrigan, John Braisher. Not pictured: Diane Millar.

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Additional Resources:

CSISS Resources (Operational and Strategic Plans, Aquatic Survey Reports): http://columbiashuswapinvasives.org/about-csiss/csiss-resources/

Information on high priority regional species: http://columbiashuswapinvasives.org/invasive-species/high-priority-invasives/

Appendix A: CSISS Board of Directors and Staff

2021-2023 CSISS Board of Directors

Hamish Kassa	Chair 2021-2022	Columbia Shuswap Regional District
Chris Cochran	Vice-Chair 2021-2022, Chair 2022-2023, HR/Finance Committee (Treasurer)	Town of Golden
John Braisher	Board Director	Rancher and Golden Resident
Adam Croxall	Board Director	BC Hydro
Mike Manson	Board Director	City of Revelstoke
Diane Millar	Board Director, HR/Finance Committee	Ministry of Forests
Chris Gill	Board Director	Environmental Consultant and Shuswap Resident
Laurel Corrigan	Board Director, HR/Finance Committee	Revelstoke Resident
Peter Tarleton	Vice Chair 2022-2023, HR/Finance Committee	Parks Canada
Erin Vieira	Board Director	Shuswap Watershed Council and Fraser Basin Council
Jeromy Schuetze	Board Director	District of Sicamous

2023 CSISS Staff

Robyn Hooper	Executive Director
Laura Gaster	Field Operations Program Coordinator
Jess Booth	Education and Outreach Program Coordinator
Nolan Novotny	Field Program Technician
Marlee Verleih	Invasive Species Program Assistant
Emma Wiebe	Outreach Program Assistant
Katie Dyzngel	Outreach Program Assistant

Appendix B: Events attended and partners contacted by CSISS staff

Events highlighted in grey pertain to the Columbia Basin Region of the CSISS Area

Date	Event	# of Attendees	# of Direct Interactions
27-Feb-23	ISCBC Annual Forum	300	40
03-Mar-23	Shuswap Seed Swap	100	70
11-Mar-23	Golden Seed Swap	100	50
21-Mar-23	British Columbia Timber Sales Presentation	10	10
14-Apr-23	Revelstoke Winter Market	100	65
16-Apr-23	Little White Lake Turtle Festival	200	200
20-Apr-23	Work BC Jobs Fair	80	20
22-Apr-23	Salmon Arm Earth Day Event	200	50
24-Apr-23	Columbia Basin Trust Community Open House	10	10
26-Apr-23	Emcon Training	2	2
28-Apr-23	Stoke FM Radio Interview	100	2
07-May-23	Shuswap Lake Fishing Derby	2	2
08-May-23	Herbicide Contractor Meeting	2	2
09-May-23	Columbia Mountains Institute Conference Presentation	140	140
09-May-23	Revelstoke Secondary Careers Day	10	10
10-May-23	AIM Contractor Roadside Training	20	20
11-May-23	Parks Canada Training	15	15
13-May-23	Salmon Arm Car Trunk Sale	100	30
13-May-23	Salty Dog Bike Fest	500	0
16-May-23	BC Parks Rangers Training	15	15
19-May-23	Forestry Museum Kick Off Event	100	38
20-May-23	Revelstoke Farmers Market	300	135
26-May-23	Revelstoke Garden Centre Outreach	30	16
27-May-23	North Shuswap Spring Event	150	60
31-May-23	Tourism Revelstoke Info Session and Weedpull	4	4
01-Jun-23	Stella Jones Forestry Invasive Species Training	12	12
03-Jun-23	Revelstoke Farmers Market	66	66
17-Jun-23	Skimikin Lake Info Session and Weed-pull	12	12
21-Jun-23	Wild Schools Day Bastion Elementary Presentation	330	345
23-Jun-23	Big Eddy Glassworks Event	300	86
24-Jun-23	Salmon Arm Farmers Market	200	95
29-Jun-23	Secwepemc Knowledge Keepers Yellow Flag Iris Weedpull	10	10
01-Jul-23	North Shuswap Summerfest Event	400	130
07-Jul-23	Community Weedpull	10	10
13-Jul-23	Visual Arts Centre Revelstoke Summer Camp	17	17
15-Jul-23	Invasive Species Plant Walk and Flower Pounding workshop	8	8
19-Jul-23	BC Student Ranger Training	4	4
20-Jul-23	Stoked on Science Youth Summer Camp	16	16
22-Jul-23	Revelstoke Farmers Market	300	145

26-Jul-23	Youth Summer Camp	11	11
29-Jul-23	Community Weedpull	6	6
30-Jul-23	Natural Dye Workshop	7	10
02-Aug-23	Golden Farmers Market	200	51
04-Aug-23	Benthic Barrier Workshop	20	20
05-Aug-23	Revelstoke Craft Market	400	130
08-Aug-23	Shuswap Lake Provincial Park Boater Outreach with ISCBC trailer and Weed pull	48	15
09-Aug-23	Celista Market with ISCBC Trailer	300	170
10-Aug-23	Wildflower Festival Education Booth with ISCBC trailer and Edible Invasives Workshop	540	215
11-Aug-23	Wildflower Festival Plant ID Walk and Speed Weed Event	20	20
12-Aug-23	Revy Paddle Festival	22	40
14-Aug-23	South Canoe Boater Outreach	60	60
14-Aug-23	SABNES, Nature Trust, ISCBC Weedpull	11	11
16-Aug-23	Local Food Initiative Youth Summer Camp	7	7
19-Aug-23	Salmon Arm Farmers Market	75	58
26-Aug-23	Golden Visitor Centre Saturday Showcase Series	30	6
31-Aug-23	Visual Arts Centre Revelstoke Summer Camp	10	10
02-Sep-23	Local Food Initiative Revelstoke Farmers Market	500	150
06-Sep-23	Golden Farmers Market	100	40
09-Sep-23	Salmon Arm Farmer's Market	350	89
16-Sep-23	Revelstoke Timber Days	200	87
20-Sep-23	Herald Park Plant ID Walk with BC Parks Rangers	15	7
21-Sep-23	Salmon Arm Bay Enhancement Society Trail Plant ID Walk and Info Session	80	45
23-Sep-23	Golden Wild Bear Festival Plant ID walk	25	22
24-Sep-23	Revelstoke Luna Rail Event	900	116
05-Oct-23	Begbie View Elementary Grade 4 Presentation	24	24
05-Oct-23	Revelstoke Secondary Environmental Action Team Presentation	10	10
12-Oct-23	Arrow Heights Elementary Grade 4 Presentation	23	25
13-Oct-23	Kootenay and Rockies Tourism Association Presentation	20	20
16-Oct-23	Begbie View Elementary Grade 3/4 Presentation	17	17
18-Oct-23	South Canoe Outdoor School Grade 3/4/5 Presentation	42	42
25-Oct-23	Arrow Heights Elementary Grade 4 Presentation	23	25
27-Nov-23	Columbia Park Elementary Grade 3 Presentation	22	25
28-Nov-23	Revelstoke Volunteer Fair	50	32

Appendix C: Media coverage of CSISS activities

Date	Publisher	Headline
2022-01-14	Wildsight Revelstoke	One Revolution Sparks Many In Revelstoke
2022-01-21	Stoke FM	Local Radio Interview with Stoke FM
2022-01-18	Castanet	Waterways mussel free
2022-01-19	Vernon morning star	Shuswap water advocates push Ottawa for more action against invasive mussels
2022-01-19	Castanet	Waterways mussel free
2022-01-31	Castanet	Invasive Mussels IN Focus
2022-03-10	Wildsight Revelstoke	Trunks, turtles and toads!
2022-03-25	Wildsight Golden	Hiring Golden Invasive Plant Program
2022-03-28	Stoke FM	Local Radio Interview with Stoke FM
2022-04-19	Times Review Interview	Interview re: Whirling disease
2022-04-20	Vernon Morning Star	Concerns raised about possibility of invasive fish disease in B.C. waters
2022-04-20	Surrey Now-Leader	Concerns raised about possibility of invasive fish disease in B.C. waters
2022-04-20	Castlegar News	Concerns raised about possibility of invasive fish disease in B.C. waters
2022-04-20	Terrace Standard	Concerns raised about possibility of invasive fish disease in B.C. waters
2022-04-20	Revelstoke Review	Concerns raised about possibility of invasive fish disease in B.C. waters
2022-04-20	Salmon Arm Observer	Concerns raised about possibility of invasive fish disease in B.C. waters
2022-04-25	Stoke FM	Local Radio Interview with Stoke FM
2022-05-02	Eagle Valley News	Prevent aquatic invasive species with these steps: Clean-Drain-Dry and stop for watercraft inspection
2022-05-02	Salmon Arm Observer	Prevent aquatic invasive species with these steps: Clean-Drain-Dry and stop for watercraft inspection
2022-05-02	The North Shuswap Kicker	Prevent the introduction of a deadly fish disease
2022-05-20	The Salmon Arm Observer	It makes you feel good to contribute
2022-06-13	The North Shuswap Kicker	Be PlantWise
2022-06-14	Vancouver Is Awesome	Things to do during the Revelstoke Wildflower Festival
2022-06-29	Wildsight Golden	Ways to Take Action Against Invasive Species
2022-06-30	Wildsight Golden	Wildsight brings back weed pull program to combat invasive species
2022-07-07	Revelstoke Review	Wildflower Festival to bring a splash of colour to Revelstoke
2022-07-12	Penticton Western News	Algal Bloom or Pollen

2022-07-28	Revelstoke Review	The Fish and Wildlife Compensation Program Funds Invasive Species Research
2022-07-28	Golden Star	The Fish and Wildlife Compensation Program Funds Invasive Species Research
2022-08-04	Revelstoke Review	Columbia Shuswap Invasive Species Society Commence Wildflower festival with a hike
2022-08-05	Revelstoke Mountaineer	Revelstoke Wildflower Festival events in full swing for the weekend
2022-08-12	Revelstoke Review	Tourism Revelstoke brings back visitor volunteer campaign
2022-08-14	Revelstoke Mountaineer	Brief: Tourism Revelstoke campaign incentivizes tourists to give back to the community
2022-08-16	Revelstoke Review	Wildflower Week Celebrates another successful year
2022-10-11	Castanet	Invasive beetle species found in Oregon puts B.C. trees at risk, CSISS says
2022-10-31	Revelstoke Mountaineer	Tourism Revelstoke hosts successful regenerative tourism campaigns
2022-11-03	Stoke FM	Interview with Robyn re: CSISS AGM and CSISS programs
2022-11-04	Revelstoke Review	Tourism Revelstoke's campaign worked to foster regenerative tourism
2022-22-08	The Golden Star	Invasion of the Iris: Shuswap invasive species project ongoing
2022-11-17	Vernon Morning Star	Shuswap group asks B.C. government for more resources to keep invasive mussels out of province
2022-11-29	The Golden Star	No invasive mussels in Columbia Shuswap waters
2022-11-29	The Revelstoke Review	No invasive mussels in Columbia Shuswap waters
2022-11-29	The Golden Star	No invasive mussels in Columbia Shuswap waters
2022-12-01	Salmon Arm Observer	Okanagan lakes remain mussel-free
2022-12-11	Castanet Vernon	Invasive Iris can kill an ecosystem

Appendix D: Aquatic industries contacted by CSISS staff

Businesses highlighted in grey are within the Columbia Basin Region of the CSISS Area

Aquatic Industry Name	Location
Anglemont Marina	North Shuswap
Bayside Marina and Grill	Blind Bay
Blind Bay Resort	Blind Bay
Bosley's by Pet Valu	Sicamous
Brewed in Canada Fishing Derby	Blind Bay
Canoe Boat Club	Canoe
Captains Cove Marina	Canoe
Captain's Village Marina	North Shuswap
Cottonwood Cove RV Resort	North Shuswap
Critters Pet Store	Salmon Arm
Finz Resort	Blind Bay
Get Wet Rentals	Sicamous
Kinbasket Resort	Donald
Little River Boatworld	Sorrento
Old Town Bay Marina	Sicamous
Pet Valu	Salmon Arm
Red's Rentals	Sicamous
Revelstoke Paddlesport Association	Revelstoke
Rivermouth Marina	Kingfisher
Sea Dogs Boat Sales and Services	Sicamous
Shuswap Fishing Derby	Sicamous
Shuswap Marina	Blind Bay
Sicamous Houseboats	Sicamous
Sugar Lake Recreational Properties	Sugar Lake
The Point on Adams Lake Resort and Marina	Adams Lake
Twin Anchors Houseboats	Sicamous
White Lake RV and Fishing Resort	White Lake

Appendix E: Campgrounds contacted by CSISS staff

Businesses highlighted in grey are within the Columbia Basin Region of the CSISS Area

Campground Name	Location
Blind Bay Resort	Blind Bay
Boulder Mountain Resort	Revelstoke
Campers Haven RV	Donald
Cedars RV Resort	Malakwa
Cottonwood Cove RV Resort	North Shuswap
Crazy Creek Resort	Malakwa
Eagle River Campground	Malakwa
Finz Resort	Blind Bay
Golden Municipal Campground	Golden
Kinbasket Resort	Donald
Lamplighter Campground	Revelstoke
Magna Bay Resort	North Shuswap
Pierre's Point Campground	Tappen
Revelstoke Campground	Revelstoke
Sandy Point Campground	Tappen
Scotch Creek Cottages	North Shuswap
Shuswap Lake RV Resort	North Shuswap
Sky Blue Waters Resort	Sunnybrae
Smoky Bear Campground	Revelstoke
Sugar Lake Recreational Properties	Sugar Lake
Sunnybrae Bible Camp	Sunnybrae
Viewpoint RV Park and Cottages	Tappen
Whispering Spruce Campground	Golden
White Lake RV and Fishing Resort	White Lake
Williamson Lake Campground	Revelstoke