

#### **GETTING AHEAD OF THE INVASION CURVE:**

Bridging the gap between research and management



**UBC OKANAGAN CAMPUS** *Kelowna, B.C.* | May 13 - 15



### Acknowledgement

We gratefully acknowledge that the land on which we are gathering and learning from one another is situated in the unceded and traditional territory of the Syilx (Okanagan) Peoples.

A special thank you goes out to the conference advisory team, which helped guide the development of this research conference:

Crystal Chadburn, BC Ministry of Forests

Dr. Thomas Therriault, Fisheries and Oceans Canada

**Dr. David Clements, Trinity Western University** 

**Dr. Wendy Gardner,** Thompson Rivers University

Dr. Michael Russello, University of British Columbia Okanagan

Dr. Paul Abrams, Agriculture and Agri-Food Canada



The Invasive Species Council of B.C. (ISCBC) convened the first Invasive Plant Research Conference in 2011. The Research Conference was deemed successful for both academic researchers and practitioners by linking science with operations. Based on the 2011 Research Conference, the B.C. Research Road Map was created to identify the future needs and priorities for invasive plant research relevant to B.C.

To build upon this work, TRU and ISCBC co-hosted the 2017 Invasive Species Research Conference which took place in June, 2017, in Kamloops, B.C.

In 2021, the Invasive Species Research Conference took place virtually in an online event portal. Attendees learned about current and published research from 40 presenters in a variety of themed sessions. The event facilitated connections between invasive species researchers and practitioners in the Pacific Northwest.

Now, we're happy to reconvene at the University of British Columbia Okanagan (UBCO) campus and online for 2025!

### Location

The conference will be taking place in the **Arts Building, Room 366**. Doors will open at 8:00 AM, with sessions starting at 8:30 AM each day of the conference.

Please refer to the maps of the University of British Columbia Okanagan (UBCO) Campus in the following page for detailed information on important rooms and parking.



### Maps of UBCO



#### Main Conference:

- Sessions will be taking place in room 366 of the Arts Building.
- Morning breaks will be taking place in the 3<sup>rd</sup> Floor Foyer of the Arts Building.

#### Parking:

- The closest parking lot to the Arts building is Lot G. <u>Parking</u> rates vary based on the lot.
- Guests staying overnight on campus receive a complimentary parking code at check-in.
- All other guests pay an hourly/daily rate through the HONK app or at a pay station.
- Be sure to register your vehicle's license plate, arrival and departure date through the HONK Mobile app or website, to avoid parking tickets.

### Maps of UBCO





#### Networking Lunch:

 Day 1 and 2 lunch will be taking place in the Campus Administration Building, across from the Arts Building.

#### Evening Reception & In-Person Poster Session:

 Cocktail reception and poster session of Day 1 will be hosted in the University Centre. Specializing in the thermal treatment and recycling of hydrocarbon contaminated soil, sediment and sludge at our facility in Princeton, BC.





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### Agenda at a glance

#### Day 1 - May 13

8:30 AM	Opening Remarks & Indigenous Welcome
8:45 AM	Keynote Presentation
9:25 AM	Hot Topics Presentations
10:25 AM	Break
10:40 AM	Session One: Prevention
12:00 PM	Networking Lunch
1:00 PM	Session Two: Monitoring & Surveillance
2:20 PM	End of Day: Closing Comments
2:30 PM	Field Trip: Summerhill Pyramid Winery
5:30 PM	Reception and In-Person Poster Session

#### Day 2 - May 14

8:30 AM	Opening Remarks & Indigenous Welcome
8:45 AM	Keynote Presentation
9:25 AM	Hot Topics Presentations
10:25 AM	Break
10:40 AM	Session Four: Management & Control
12:00 PM	Networking Lunch
1:00 PM	Session Five: Virtual Poster Session
1:30 PM	Session Six: Pathways & Vectors
2:30 PM	End of Day: Closing Comments
2:40 PM	Field Trip: John's Family Nature Conservancy Regional Park

#### **Day 3 - May 15**

8:30 AM	Welcome
8:40 AM	Hot Topics Presentations
9:20 AM	Session Seven: Impacts
10:20 AM	Break
10:40 AM	Session Eight: Lighting Talks
11:05 PM	<b>Workshop:</b> Invasive Species Research Roadmap
12:30 PM	End of Day: Closing Comments

### Day 1

### Keynote Speaker

### Dr. Carla D'Antonio

#### Distinguished Professor

University of California, Santa Barbara (UCSB)



Dr. D'Antonio is a Professor at UCSB in the Environmental Studies and Ecology, Evolution and Marine Biology Programs. Her research over 38 years has focused on the ecology of invasive plants, their influence on fire regimes and post fire recovery as well as on community structure, ecosystem processes and success of ecological restoration. Prior to UCSB 21 years ago, she worked for the USDA's Exotic and Invasive Weeds research program, and was on faculty at UC Berkeley for 13 years. She has worked in Hawaii, California and the Great Basin. Currently she teaches fire ecology and restoration ecology at UCSB, conducts research on post-fire landscapes as well as restoration of native species to degraded, grass-invaded landscapes in California and Hawaii.

### Day 2

# Keynote Speaker

### Dr. Stephanie Green

Associate Professor

University of Alberta (U of A)



Dr. Green is an Associate Professor and the Canada Research Chair in Aquatic Global Change Ecology and Conservation at the University of Alberta. Her lab investigates the causes and consequences of biodiversity change in marine and freshwater ecosystems. Dr. Green's research uses field studies and experiments, quantitative models, and stakeholder surveys to understand how biological invasions impact natural resources. For the past 15 years, she has worked collaboratively with non-profit and government partners on the ecological effects and management of prolific aquatic invaders including the European green crab on Canada's Pacific coast, the Northern Crayfish and Prussian carp in Canada's freshwater systems, and the Indo-Pacific lionfish in the Western Atlantic Ocean.



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### Day 1 - May 13

8:30 - 8:45 AM	Opening Remarks & Indigenous Welcome: Steve Thompson, ISCBC Board Chair Pamela and Grouse Barns, Westbank First Nation
8:45 - 9:25 AM Keynote Presentation:	Dr. Carla D'Antonio, UCSB   Invasive species management as part of native species restoration in grass invaded ecosystems: Lessons from California and Hawaii
9:25 - 10:25 AM  Hot Topic  Presentations:	Dr. Philip Weyl, Centre for Agriculture and Bioscience International (CABI)   Overview of the CABI - BC: Canada partnership over the years in developing biological control  Dr. Chandra Moffet, Agriculture and Agri Food Canada (AAEC)
	Dr. Chandra Moffat, Agriculture and Agri-Food Canada (AAFC)   Development of molecular tools for weed biological control
	Dr. Fabio Mologni, University of Vienna   Collating existing evidence on cumulative impacts of invasive plant species in riparian ecosystems of British Columbia, Canada
10:25 - 10:40 AM	Break
10:40 - 12:00 PM  Session One:	Dr. Miranda Hart, University of British Columbia (UBC)   Okanagan - Biofertilizers: Invasive Species underground
Prevention	Mark Apfelbacher, CD3 General Benefit Corporation   Building Capacity to Prevent AIS in the Columbia River Basin
	Steven Brownlee, Simon Fraser University (SFU)   Predicting potential invasion pathways and lake susceptibility for the arrival of zebra mussels (Dreissena polymorpha) into British Columbia
	Dr. Gwylim Blackburn, Canadian Forest Service (CFS)   Collaborative tool production for invasive species
	management: A review and two case studies in genetics
12:00 - 1:00 PM	Networking Lunch

1:00 - 2:20 PM  Session Two: Monitoring & Surveillance	Nicole Jeans-Williams, Synergy Semiochemicals Corporation   Optimizing release device technology for a multipheromone blend; Notes on chemistry and field trapping of longhorn beetles in British Columbia, Canada  Jocelyn Heywood, SFU   Influence of burrowing behaviour on population density estimates of the invasive Japanese mud snail (Batillaria attramentaria)  Dr. Dave Ensing, AAFC   Population genomic variation in spotted knapweed (Centaurea stoebe ssp. micranthos)
	Dr. Vicki Maloney, Envu   Monitoring Biodiversity Response to Invasive Annual Grass Control Across Several Western US Ecoregions
2:20 - 2:30 PM	Closing Comments:  Dr. Dave Ensing, AAFC & ISCBC Board Director
2:30 - 5:00 PM	Field Trip: Summerhill Pyramid Winery Tour & Tasting
5:30 - 7:00 PM	Reception and In-Person Poster Session: Join us for drinks and canapés while browsing the posters.



### Day 2 - May 14

8:30 - 8:45 AM	Opening Remarks & Indigenous Welcome:  Dr. Wendy Gardner, TRU and Conference Advisor
	Pamela and Grouse Barns, Westbank First Nation
8:45 - 9:25 AM	
Keynote	Dr. Stephanie Green, U of A   Functional eradication as a
Presentation:	framework for invasive species control
9:25 - 10:25 AM	Gregg Howald, Freshwater Life   Accelerating Mechanisms to Meeting Target 6 of the Global Biodiversity Framework:
Hot Topic	Preventing Species Extinctions
Presentations:	Elsa Cousineau, Lallemand Plant Care   Designing a Data- Supported Management Program for Emerald Ash Borer
	Dr. Fernando Hernandez, UBC   Rapid and repeated evolution during biological invasions is facilitated by crop to wild introgression in sunflower (Helianthus annuus L.)
10:25 - 10:40 AM	Break
10:40 - 12:00 PM  Session Four:	Emma Carey, UBC Okanagan (UBCO)   Who are you?: Embodied sensory engagements with 'invasive' plant species in the Okanagan
Management & Control	Dr. Rebecca Nelson, Utah State University   The effects of invasive goatgrass removal on plant-pollinator networks
	Dr. Brian Heise, TRU   Investigating Predation on Juvenile Chinook Salmon (Oncorhynchus tshawytscha) in the Okanagan Basin
	Adam Soames, TRU   Exterminating Bohemian Knotweed (Reynoutria × bohemica) Propagules Using Thermal Treatment and Anoxia
12:00 - 1:00 PM	Networking Lunch

### Day 2 - May 14

1:00 - 1:30 PM	Brandon Drucker, SFU   Forest in Flux: Tracking the Water Relations of Iconic Native vs. Invasive Trees
Session Five: Virtual Poster Session	Sumer Seiki, UBC   Environmental Impact: Preservice Teachers Changing Landscapes  Scott Walmsley, City of Port Coquitlam & AAFC   Potential Impacts of Biological Control Parasitoid Winsome Fly (Istocheta aldrichi) on Scarabs in Western North America
1:30 - 2:30 PM  Session Six: Pathways & Vectors	Selina Spence, UBCO   Nuclear competition? Investigating intraspecific competition between arbuscular mycorrhizal fungi isolates  Amy Kim, UBC   Two is better than one? — Disentangling the relationship between hybridization and invasion success in searockets  Dr. Brian Van Hezewijk, CFS   Using historical data to predict the
	introduction and growth of spongy moth populations in Western Canada
2:20 - 2:30 PM	Closing Comments: Gail Wallin, ISCBC Executive Director
2:30 - 5:00 PM	Field Trip: John's Family Nature Conservancy Regional Park



### Day 3 - May 14

8:30 - 8:40 AM	Welcome: Lindsay Barnett, ISCBC
8:40 - 9:20 AM	Dr. Jason Pither, UBC Okanagan   Assessing Transparency and Reproducibility in Invasion Science
Hot Topic	
Presentations:	Brennan Webster, Ministry of Forests   InvasivesBC; BC's provincial invasive species database!
9:20 - 10:20 AM	Dr. Sandra Gillespie, University of the Fraser Valley   Invasive
Session Seven:	pollinators: status of Bombus impatiens, the eastern bumblebee, in British Columbia
Impacts	
	Em Lim, SFU   What goes in must come out: European green crabs alter nutrient cycling dynamics in marine ecosystems
	Milène Wiebe, U of A   From optimizing trapping to determining management thresholds of Carcinus maenas
10:25 - 10:35 AM	Break
10:35 - 11:05 AM	Dr. Jen Baron, UBCO   Balancing Wildfire Resilience, Wildlife
Session Eight:	Habitat, and Invasive Plant Management through Ecosystem Restoration in Montane Forests
Lighting Talks	Nicholas Hivon, UBC & AAFC   Modeling infestation dynamics of the invasive fruit fly, spotted-wing drosophila, from valley-bottom to mountain top
	Owen Kui, SFU   Do invasive marine mud snails modify mud?  Density vs cage effects in a field experiment
	Andres Mancera Barreto, UBC & AAFC   Identifying geo-climatic factors and biological interactions influencing St. John's wort biological control
11:05 - 12:30 PM	Invasive Species Research Roadmap Workshop
12:30 PM	Closing Comments



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