

A woman with long dark hair, wearing a light-colored sweater and a black apron with the UBC Botanical Garden logo, is smiling broadly. She is holding up several colorful paper decorations that look like leaves and flowers, some with handwritten messages. The background is a lush green forest with many trees and ferns. The overall scene is bright and cheerful.

UBC
Botanical
Garden

Biodiversity Days 2023

POST-EVENT REPORT | COMPILED BY BEN SCHEUFLER AND KATE SOTELO

Land Acknowledgment

This celebration was hosted on the traditional, ancestral and unceded territories of the xʷməθkʷəy̓əm (Musqueam) People.

The Musqueam people have been stewards and caretakers of this territory since time immemorial. UBC strives toward building meaningful, reciprocal and mutually beneficial partnerships with Musqueam and to learn from their traditional relationship with the land.

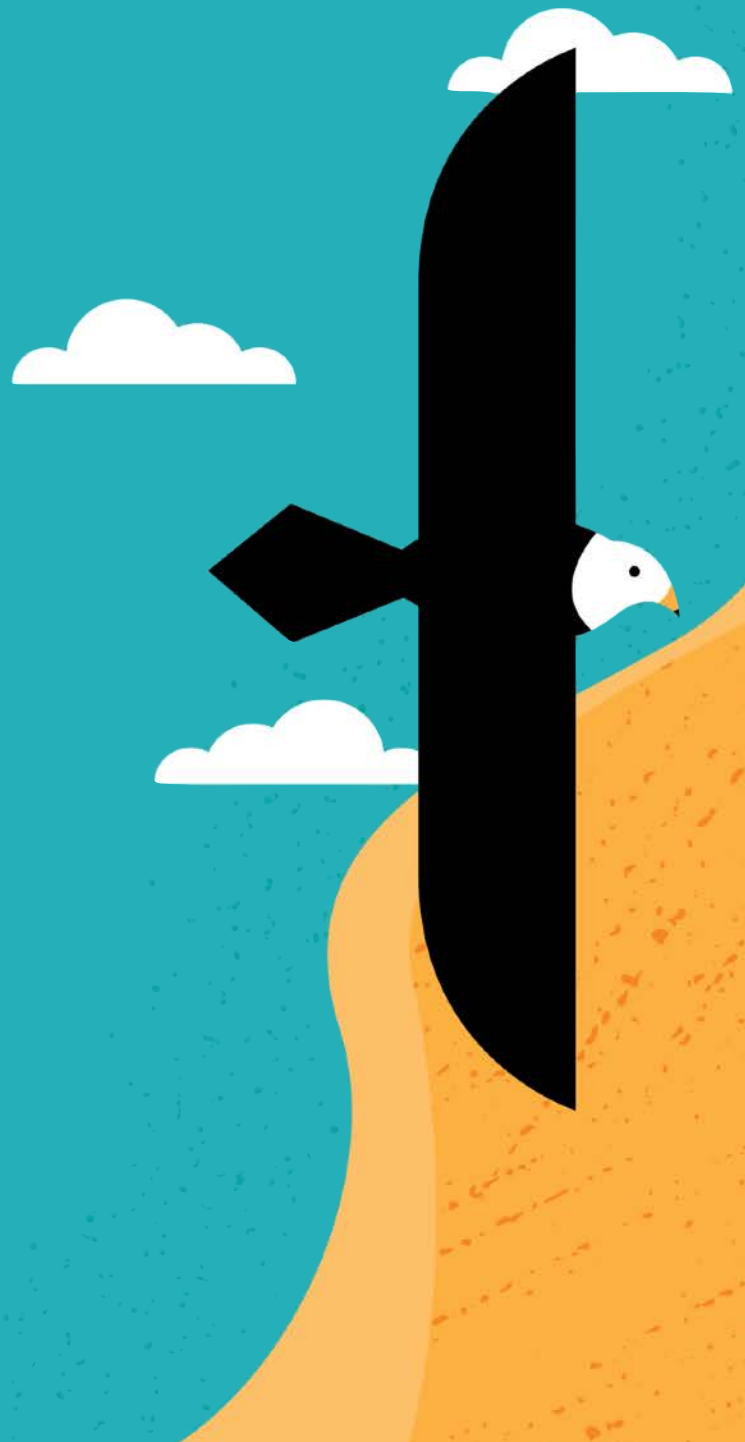


Table of Contents

Foreword: Dr. Tara Moreau	3
Global Context	4
Executive Summary	5
Event Engagement At-a-glance	6
It Takes a Village...	7
Introduction	9
Biodiversity Days by the Numbers	10
Summary of Outcomes	11
Individual Event Overview	13
Feeding the World Sustainably Webinar	14
UBC Tree Walk & Talk with Finn Köpf	14
Urban Biodiversity Research-to-Action Showcase	15
Beaty Nature Club: Vascular Plants at the Beaty Biodiversity Museum	15
Bat Walk with UBC Farm	16
Morning Bird Tour at UBC Botanical Garden	16
Science Rendezvous at the Beaty Biodiversity Museum	17
Grow Green Livestream: Biodiversity and Invasive Species in Your Garden	17
Beaty Nocturnal at the Beaty Biodiversity Museum	18
Goth Butterflies at UBC Farm	18
Pollinator Walk at UBC Farm	19
Campus-Wide Bioblitz	19
Event Spotlight: Family Nature Walk	20
Citizen Science Dashboard	25
Event Reflections	27
Conclusion	28
Future Directions	29
Appendix	32

Foreword

By Dr. Tara Moreau

Associate Director, Sustainability & Community Programs



Dear Reader,

In my own life, the natural world has always been a source of connection, purpose and inspiration. To be ‘at home on this Earth’ is to understand that as individuals and communities we are part of a complex system connected by seen and unseen relationships. And yet, our home is at risk, and our shared heritage is being lost at unprecedented rates through human-induced changes.

This past year has been pivotal for global biodiversity policy. In December, I was thrilled to be at COP 15 in Montreal for the signing of the new Kunming-Montreal Global Biodiversity Framework (KMGBF). The KMGBF has been in negotiation for many years and represents compromise and collaboration across diverse histories, values, privileges and lived experiences. The KMGBF was developed with a long-term vision to put the world on a path to live in harmony with nature by 2050. Respecting and recognizing the rights of Indigenous Peoples and local communities is key to this vision of the future.

Biodiversity Days is an annual event hosted every May that celebrates the ecosystems, species and genes that sustain us. The Garden’s wish in establishing Biodiversity Days in May 2021 was to set in motion at UBC Botanical Garden an annual event to honour the UN International Day for Biological Diversity (May 22). For this year, our 3rd annual event, we were thrilled to connect with individuals, leaders, innovators, students, volunteers, researchers and community groups working to protect biodiversity for current and future generations. This unique celebration continues to grow and to bring together a passionate group of nature-lovers, each of whom brings their own skills and generosity in sharing their knowledge and energy for collective impact.

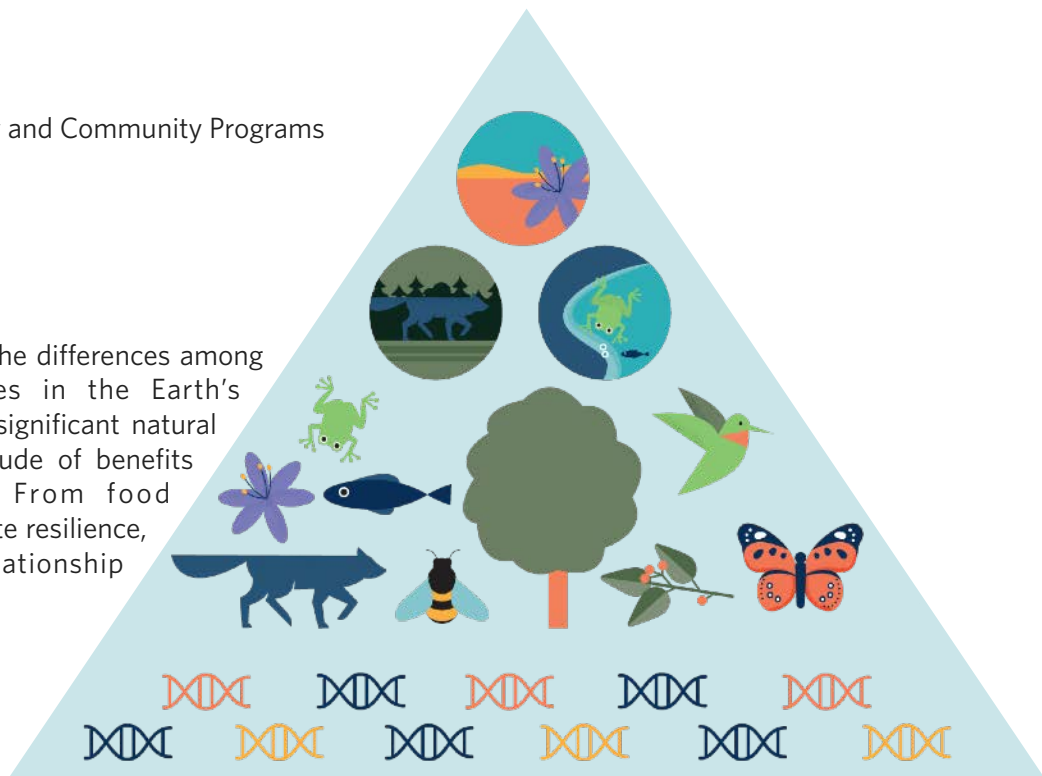
Conserving biodiversity relies on all of us. Thank you to our donors, to our community, and to all of our supporters who make this possible.

With warm regards,

Dr. Tara Moreau

Associate Director of Sustainability and Community Programs
UBC Botanical Garden

Caption: Biodiversity arises from the differences among ecosystems, species and genes in the Earth’s biosphere. It is the world’s most significant natural asset, and it supports the multitude of benefits that we gain from nature. From food provisioning, to medicine, to climate resilience, biodiversity underpins the relationship between people & planet.



Global Context

Policy Summary: Kunming-Montreal Global Biodiversity Framework

The recently-ratified Kunming-Montreal Global Biodiversity Framework has four long-term goals for 2050. These relate to their 2050 Vision for biodiversity, where “by 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people.” As we reflect on Biodiversity Days 2023, we continue to be inspired and guided by the ambitious goals outlined in the Kunming-Montreal Global Biodiversity Framework.

Goal A: Preserving Ecosystems and Species

- Protecting and restoring ecosystems to ensure their integrity, connectivity, and resilience.
- Preventing the extinction of threatened species and significantly reducing the risk of extinction for all species.
- Safeguarding the genetic diversity within wild and domesticated populations for their adaptive potential.

Goal B: Sustainable Use for a Balanced Future

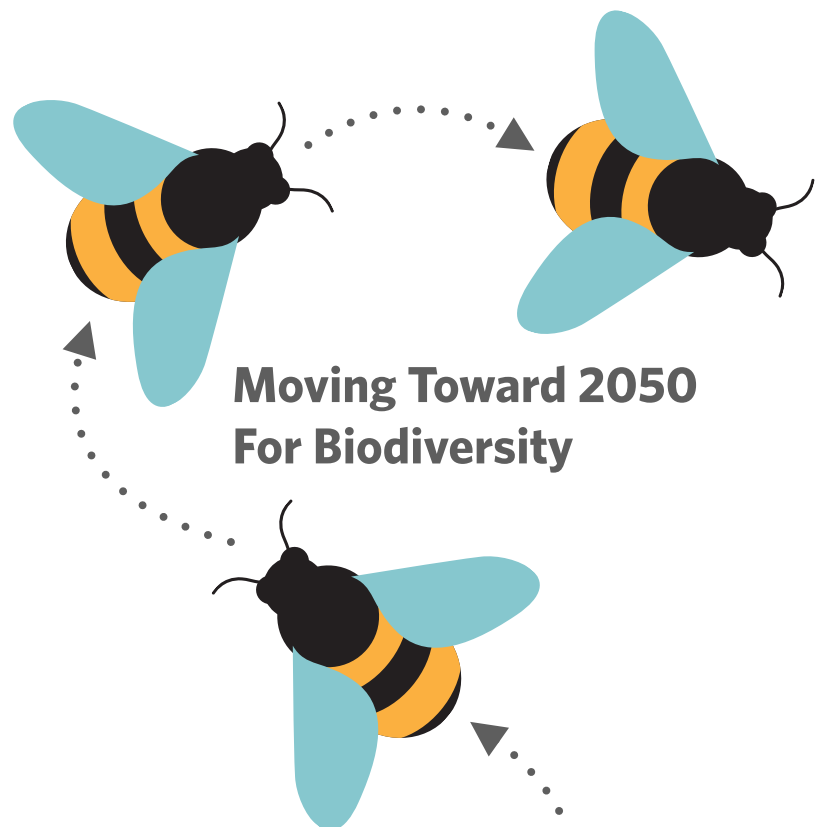
- Managing biodiversity sustainably, valuing and enhancing nature's contributions to people.
- Restoring declining ecosystem functions and services to support sustainable development for present and future generations.

Goal C: Fair Sharing of Knowledge and Resources

- Promoting the fair and equitable sharing of benefits from genetic resources and traditional knowledge.
- Increasing the sharing of monetary and non-monetary benefits, including with Indigenous peoples and local communities.
- Protecting traditional knowledge associated with genetic resources to contribute to biodiversity conservation and sustainable use.

Goal D: Implementation and Access for all

- Securing adequate means of implementation, including financial resources, technology, and capacity-building.
- Promoting access to and transfer of technology for implementing the Kunming-Montreal Framework.
- Closing the biodiversity finance gap and aligning financial flows with the Framework and the 2050 Vision.
- Ensuring equitable access to all parties, especially developing countries and countries with economies in transition.





Caption: Volunteers at our Family Nature Walk event shared their passions for nature by educating families about different aspects of global biodiversity. Here, a young volunteer describes the wonderful diversity of millet crops around the world!

Executive Summary

Celebrating a Bumper Crop Year for Biodiversity Protection.

To celebrate the diversity of life on this planet, in our region and on the Vancouver campus, UBC Botanical Garden co-hosted its' third annual celebration of Biodiversity Days in May.

Biodiversity Days 2023 consisted of 13 experiences for communities across Metro Vancouver, and brought together **over 23,000 community members**. This celebration was hosted in collaboration with the UBC Farm, SEEDS Sustainability Program, the Climate Crisis in Urban Biodiversity (CCUB) Initiative, and the Beaty Biodiversity Museum. The events were held following the ratification of the Kunming-Montreal Global Biodiversity Framework (GBF), and in celebration of the UN International Day for Biological Diversity on May 22nd. We are incredibly grateful for the support of the donors who continue to make this event possible.

The goals of Biodiversity Days are to:

- ▶ raise awareness of biodiversity and its importance;
- ▶ mobilize action to stop the loss of biodiversity;
- ▶ build a generation of stewards, scientists and citizens that actively protect and restore biodiversity.

This document summarizes the outcomes and compiles reflections on the Garden's third annual celebration of Biodiversity Days, to guide event planning for next year and to share our learnings with other interested organizations and supporters. Overall, Biodiversity Days 2023 was a great success, engaging **over 23,000 community members** across Metro Vancouver in learning about the wonders of nature and biodiversity.

Engagement Numbers At-A-Glance:

23,348 community members engaged (see breakdown in Table 3)

292 citizen science contributors (iNaturalist Observers + Identifiers)

216 people from **92** families participating in Family Nature Walk

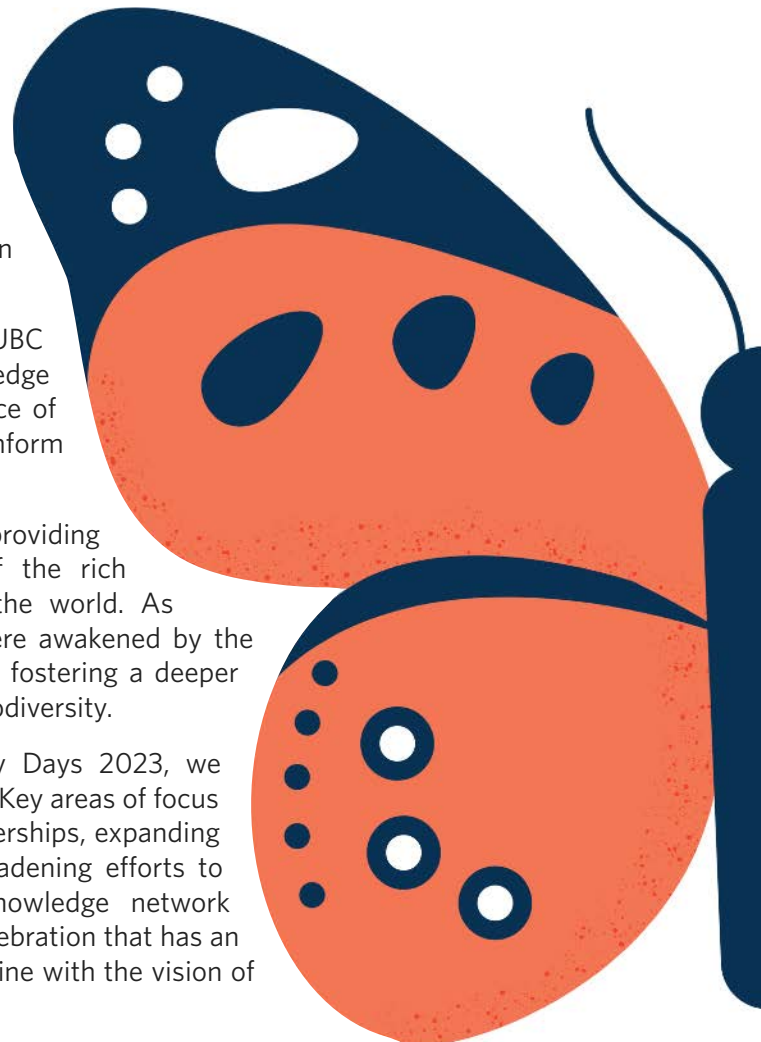
13 community events and experiences in 2023

The Biodiversity Days 2023 was a dynamic and engaging series of 13 community events and experiences. The month long celebration included a diverse mix of experiences, from student research showcases and educational webinars to field tours exploring birds, bats, nocturnal insects and pollinators across campus. The event series culminated with Family Nature Walk, a signature event that celebrated the wonders of biodiversity in the beautiful UBC Botanical Garden.

These carefully curated events ensured that Biodiversity Days 2023 engaged a wide range of audiences throughout Metro Vancouver. Highlights of the events included:

- ▶ a partnership with UBC Farm, attendees had the opportunity to immerse themselves in the fascinating world of animals on campus, with a special focus on bats, insects, and other pollinators.
- ▶ collaboration with the SEEDS Program to provide UBC students with a platform to showcase their leading-edge biodiversity research, shedding light on the significance of applied research projects and their ability to help inform campus policy and tangible practices.
- ▶ Family Nature Walk, which brought families together, providing children and youth with a firsthand experience of the rich biodiversity that thrives in Vancouver and around the world. As children strolled through the Garden, their senses were awakened by the sights, sounds, and scents of the diverse ecosystems, fostering a deeper appreciation for the importance of conserving global biodiversity.

Upon reflection of the achievements during Biodiversity Days 2023, we gained valuable insights that will guide our future planning. Key areas of focus will involve strengthening capacity through strategic partnerships, expanding and optimizing the involvement of citizen scientists, broadening efforts to recruit volunteers, and tapping into the extensive knowledge network supporting biodiversity research. Our goal is to create a celebration that has an even greater impact, and continues until at least 2050, in line with the vision of the Kunming-Montreal Framework!



It Takes a Village...

Biodiversity Days is hosted by UBC Botanical Garden in collaboration with SEEDS Sustainability Program and the Climate Crisis in Urban Biodiversity Initiative (CCUB). Biodiversity Days is made possible with funding provided through the UBC Botanical Garden Community Outreach Fund and the SEEDS Sustainability Program.

We would also like to thank our 29 volunteers, as well as TEALEAVES for the donation of their "Colour of Biodiversity" Tea to support our Family Nature Walk event.



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SEEDS Sustainability
Program

Table 1. Biodiversity Days 2023 Core Planning Team

Name	Role
Dr. Tara Moreau Associate Director, Sustainability & Community Programs, UBC Botanical Garden	Executive Producer
Lauren Jackson Education and Engagement Programming Assistant, UBC Botanical Garden	Administrative Lead
Delanie Austin Sustainability & Indigenous Engagement Educator, UBC Botanical Garden	Planning & Logistics Co-Lead
Alex Wong Sustainability & Indigenous Engagement Educator, UBC Botanical Garden	Planning & Logistics Co-Lead
Ben Scheufler Climate & Conservation Coordinator, UBC Botanical Garden	Reporting & Design Lead
Liska Richer Manager, SEEDS Sustainability Program	SEEDS Partnership Producer
Georgia Stanley Climate Response Applied Research Coordinator, SEEDS Program	SEEDS/CCUB Partnership and Events Lead



Key Personnel

We would like to especially thank the following people for helping to make Biodiversity Days a success. These tables are also intended to be used for reference when planning future celebrations.

Table 2. Key internal & external partners involved with event planning and execution.

Name	Affiliation	Role
Helen Eady Freelance Art Director	Q&A Creative	Design Lead, Biodiversity Days Brand Identity
Dr. Matthew Mitchell Research Associate	UBC Farm & Centre for Sustainable Food Systems	Producer, UBC Farm collaboration events
Jaylin Melnichuk Administration and Site Coordinator	UBC Farm & Centre for Sustainable Food Systems	Partnership liaison, UBC Farm
Derek Tan Manager of Exhibitions	Beaty Biodiversity Museum	Partnership liaison, Beaty Biodiversity Museum
Zachary Johnston Urban Biodiversity Applied Research Coordinator	SEEDS Sustainability Program	SEEDS Partnership and Events Support
An Hoang Urban Biodiversity Applied Research Coordinator	SEEDS Sustainability Program	Research Showcase Photography
Saori Ogura PhD Candidate	Peter Wall Fellow	Millet Exhibit Design & Facilitation
Kate Sotelo Sustainability and Community Programs Facilitator	UBC Botanical Garden	Education, Reporting & Design Support
Kai Owa Japanese Garden Education Coordinator	UBC Botanical Garden	Education & Design Support
Dane Kepler Sustainability and Community Programs Facilitator	UBC Botanical Garden	Education & Design Support

Introduction

Biodiversity can be defined as the differences among the ecosystems, species and genes of living things. It is a fundamental and irreplaceable asset of our natural world, often recognized as nature's most critical resource, and it plays a vital role in maintaining the health of the biosphere by fostering resilience. The loss of biodiversity has become a pressing global crisis as a result of widespread land development and the impacts of climate change. The consequences of this loss extend far beyond ecological concerns, and global biodiversity conservation is an opportunity to remedy many sustainability challenges. To foster climate resilience, ensure community health, secure food sources, maintain ecological integrity, and promote equity and justice, addressing the biodiversity crisis is of utmost importance.

From May 3rd to May 31st, 2023, UBC Botanical Garden hosted its' third annual celebration of Biodiversity Days in collaboration with the SEEDS Sustainability Program and the Climate Crisis in Urban Biodiversity (CCUB) Initiative. The month-long event series is designed to raise awareness of biodiversity and its importance, to inspire global connections, and to inspire action in our community — as stewards, scientists, or engaged residents. By cultivating a deeper understanding of the importance of biodiversity and its interconnectedness with our daily lives, Biodiversity Days 2023 aimed to mobilize a collective effort to protect the ecosystems, the species and the genetic resources that bring resilience, safety, and joy to the biosphere.

By carefully documenting the outcomes and reflections of Biodiversity Days 2023, valuable insights can be shared with other organizations and supporters. This summary report not only reviews key engagement metrics for each event but also establishes the connection between the celebration's achievements and UBC's Strategic Plan. The report provides an exploration of each event and experience that took place during Biodiversity Days 2023, offering reference information and metrics to highlight their impacts. In addition, a summary reflection has been included to facilitate informed decision-making and strategic planning for future celebrations, ensuring that each subsequent Biodiversity Days is even more impactful, inspiring, and effective in advocating for the preservation and restoration of biodiversity.

Caption: Kate Sotelo livens things up while teaching kids about biodiversity, among a display of cones, herbarium specimens and even a pickled newt on loan from the Beaty Biodiversity Museum! Photo courtesy of Ben Scheufler.



Biodiversity Days by the Numbers

Table 3. Summary of Engagement Metrics for each Biodiversity Days Event, organized chronologically.

Event Title	Metric	Reach	Source
Feeding the World Sustainably Webinar	Total Participants	100	Event Attendees
UBC Tree Walk and Talk with Finn Köpf	Total Participants	34	Event Attendees
UBC Research to Action Showcase: Urban Biodiversity	Total Participants	39	Attendees
Beaty Nature Club: Vascular Plants at the Beaty Biodiversity Museum	Total Participants	40	Event Attendees
Bat Walk with UBC Farm	Total Participants	37	Event Attendees
Morning Bird Tour at UBC Botanical Garden	Total Participants	12	Event Attendees
Science Rendezvous at the Beaty Biodiversity Museum	Total Participants	1550	Event Attendees
Grow Green Livestream: Biodiversity and Invasive Species in Your Garden	Viewers Engaged	21,000	Recorded as of May 25th
Beaty Nocturnal at the Beaty Biodiversity Museum	Total Participants	39	Event Attendees
Family Nature Walk	Total Participants	216	Event Attendees
Goth Butterflies at UBC Farm	Total Participants	38	Event Attendees
Pollinator Walk at UBC Farm	Total Participants	31	Event Attendees
Campus Wide Bioblitz	Total Participants	292	Unique Observers + identifiers in May
Biodiversity Days 2023	Total Engagement	23,428	Sum of all Events

Summary of Outcomes

UBC Botanical Garden Is Committed to Advancing the Four Core Areas of UBC's Strategic Plan:

People and Places

Biodiversity Days 2023 fostered a thriving community by bringing people together to learn about the spectacular biodiversity of the UBC Vancouver campus. For example, Finn Köpf's Tree Walk & Talk (photo right) organized by the SEEDS Sustainability Program, encouraged students, faculty and staff to take a closer look at many of the incredible and unique trees that support the Vancouver campus ecosystem.

The events brought new voices to inspiring spaces like the Garden, where over 90 families joined us to connect with nature at Family Nature Walk. By facilitating these connections with the people and natural places of UBC, we can continue to build a community that supports and advocates for climate adaptation and conservation in our region and beyond.



Research Excellence

Biodiversity Days 2023 advanced research excellence, a strategic priority for UBC, by providing the space for collaboration and enhancing student research experiences through events like the Student Research Showcase (photo left) and educational webinars.

The research also plays a vital role in mobilizing research to advance UBC's ambitious sustainability commitments, while also addressing critical societal issues.

This year's SEEDS Research Showcase was the first in-person one since the pandemic and provided a valuable opportunity for student researchers from across disciplines to showcase their work in a meaningful way, while supporting biodiversity on campus.

Transformative Learning

Biodiversity Days offered transformative learning experiences through its incredible diversity of programming. Pop-up education stations (photo right), online seminars, a research showcase and field tours of birds, bats, and insects each offered unique opportunities to engage with a different aspect of biodiversity learning.

These events allowed participants to apply their knowledge in real-world settings and fostered interdisciplinary education by highlighting the connections between biodiversity and various disciplines. We work to ensure that Biodiversity Days continues to drive transformative learning outcomes and a deep appreciation for the importance of biodiversity.



Local & Global Engagement

This year we specifically focused on the recently ratified Global Biodiversity Framework in our education stations. We were also proud to collaborate with PhD candidate Saori Ogura (left), whose work in occupational health and community resilience has helped to put the spotlight on millet farmers around the world.

At the local level, events like Family Nature Walk promoted public awareness of biodiversity and invited families and children from across Metro Vancouver to connect with nature. As a result of our Grow Green livestream in partnership with Metro Vancouver, we also succeeded in reaching over 21,000 viewers with educational materials about invasive species in the city.



Caption: Succulents like the ones pictured above were just one of many gifts that children received during the Family Nature Walk Event. Read on to find out more! Photo courtesy of Ben Scheufler

Event Programming Overview

Biodiversity Days 2023 was comprised of the following types of events:

- ▶ **Interpretive Learning Experience:** Participants learned about different facets of biodiversity through hands-on experiences and activities facilitated by event leaders.
- ▶ **Field Tour Experience:** Involved interacting directly with the special species of Vancouver and getting the chance to learn firsthand about ongoing biodiversity monitoring on campus. They were also a fantastic way for the most avid nature-lovers to get a chance to use iNaturalist, eBird, or other apps to contribute data to campus-wide biodiversity monitoring.
- ▶ **Research Showcase:** A student-led research showcase event is a great opportunity to learn about ongoing biodiversity research. These events were held online or in-person, and they consisted of several presentations and a facilitated conversation to identify opportunities for research findings to help advance and inform campus policies and practices.
- ▶ **Webinar:** These events offered the audience a chance to learn more in-depth information about a particular subject. One or more presenters lead talks, with opportunities for the audience to ask questions along the way.

Event 1: Feeding the World Sustainably Webinar

Type of Event: Webinar

Tags: [People and Places](#), [Research Excellence](#), [Local and Global Engagement](#)

Date: May 3rd from 12:00pm - 1:00pm

Partner Organization: Alumni UBC

Key Metrics:

► **100** Total Participants

Event Description: In a highly informative webinar, Dr. Navan Ramankutty offered expert insights and solutions to tackle the pressing global issues of rising food prices, food insecurity, and the impact of agriculture on climate change. He emphasized the importance of urgent action and the adoption of sustainable approaches to address these challenges effectively. Attendees gained valuable knowledge on shaping the future of food through data science and sustainable global food systems research.

[Link to Event Page](#)



Caption: A farmer grows crops in the Sahel region of Africa. Image courtesy of Annie Spratt.



Caption: Here, Finn describes some of their favourite trees on campus. Image courtesy of Ben Scheufler.

Event 2: UBC Tree Walk and Talk with Finn Köpf

Type of Event: Field Tour Experience

Tags: [People and Places](#), [Research Excellence](#), [Transformative Learning](#)

Date: May 3rd from 2:00pm - 4:00pm

Partner Organization: SEEDS Program

Key Metrics:

► **34** Total Participants

Event Description: Participants delved into the wonders of UBC's urban forest during a captivating walk-and-talk tour led by Finn Köpf, a Senior Bachelor of Urban Forestry student from UBC's Faculty of Forestry. Attendees were introduced to the diverse trees of UBC Vancouver campus and gained insights into their socio-cultural and ecological roles. The event also highlighted the valuable student-led applied research initiatives that contribute to assessing and monitoring UBC's urban forest.

[Campus Trees](#)



Caption: Georgia Stanley & Alex Wong introduce the student research teams. Photo courtesy of Ben Scheufler.

Event 3: UBC Research to Action Showcase: Urban Biodiversity

Type of Event: Research Showcase

Tags: [People and Places](#), [Research Excellence](#), [Transformative Learning](#), [Local and Global Engagement](#)

Date: May 5th from 2:00pm – 4:00pm

Partner Organization: SEEDS Program

Key Metrics:

► **39** Total Participants

Event Description: Participants learned about a range of biodiversity focused applied research collaborations on campus from four student research teams, including: Daniella (Jia Lu) Zhang's investigation into the effects of manufactured soil blends on urban forest resilience; Philip Bartha, Ryan Brehon, Mark Wen, and Timothy Wong's study on coexisting with endangered bats on campus; Finn Köpf, Alex Martin, Lukas Olson, Han Yan's work on improving the UBC Tree Inventory. This immersive experience allowed participants to appreciate the depth and breadth of the research initiatives while identifying opportunities for research findings to help advance and inform campus policies and practices

[SEEDS Sustainability Library](#)

Event 4: Beaty Nature Club: Vascular Plants at the Beaty Biodiversity Museum

Type of Event: Interpretive Learning Experience

Tags: [Transformative Learning](#), [Local and Global Engagement](#)

Date: May 6th from 10:30am – 1:00pm

Partner Organization: Beaty Biodiversity Museum

Key Metrics:

► **40** Total Participants

Event Description: Participants delved into the fascinating world of vascular plants, including trees, shrubs, flowers, and ferns, and learned about the intricate internal structures responsible for the transportation of water, sugar, and nutrients. The session highlighted the significance of the Beaty Biodiversity Museum's extensive herbarium, housing over 650,000 plant specimens. They provide a valuable record of the changing flora over time, including historical variations, distributions, and important anatomical, chemical, ethnobotanical, and molecular information.

[Link to Event Page](#)



Caption: Children enjoying the hands-on interpretive learning activities at the museum. Image courtesy of Beaty Biodiversity Museum.

Event 5: Bat Walk with UBC Farm

Type of Event: Field Tour Experience

Tags: [People and Places](#), [Research Excellence](#), [Transformative Learning](#), [Local and Global Engagement](#)

Date: May 10th from 8:30pm – 10:00pm

Partner Organization: UBC Farm

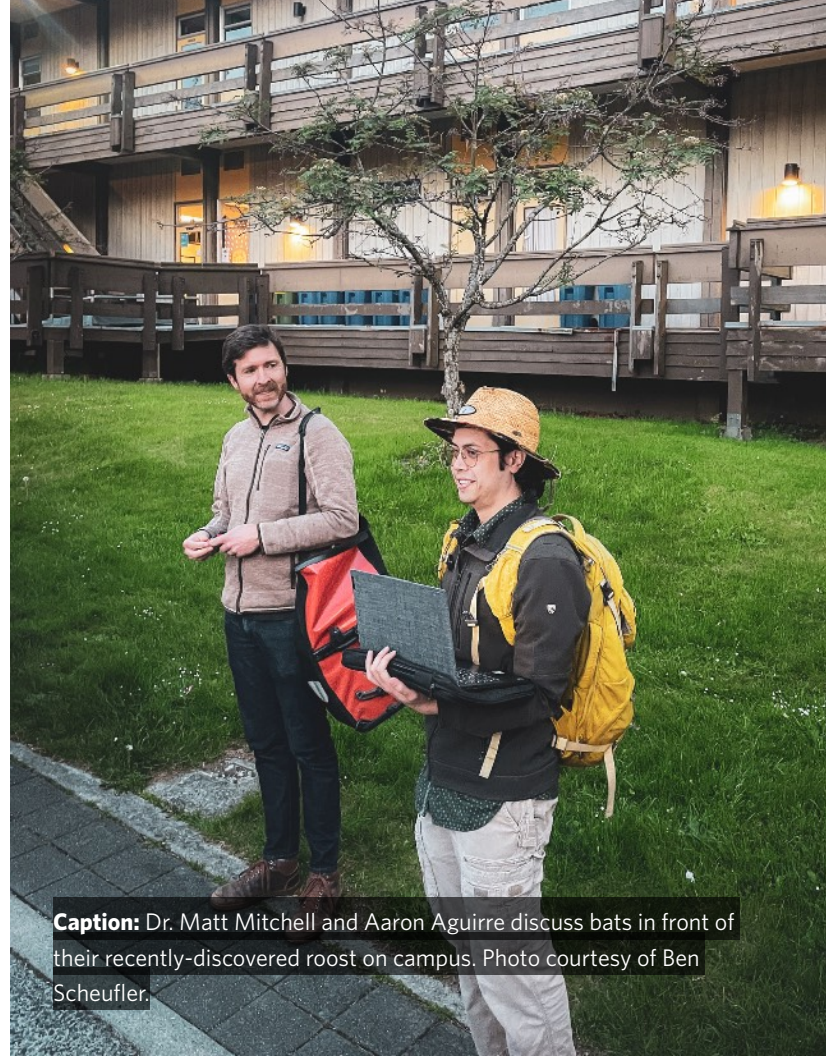
Key Metrics:

- ▶ **30** Little brown bats observed at roosting site
- ▶ **37** Total Participants

Event Description: Participants embarked on an immersive and educational journey to learn about bats with PhD student Aaron Aguirre — including their biology, behaviour, and their importance to ecosystems and people. They observed bats emerging from a nearby roost at dusk and listened to their ultrasonic calls using specialized microphones. This hands-on experience provided a unique and safe opportunity to deepen their understanding and appreciation of these remarkable nocturnal creatures.



[Link to Research Paper](#)



Caption: Dr. Matt Mitchell and Aaron Aguirre discuss bats in front of their recently-discovered roost on campus. Photo courtesy of Ben Scheufler.



Caption: Observers were able to find several unique and rare bird species, including a nesting Barred Owl! Photo courtesy of Lauren Jackson.

Event 6: Morning Bird Tour at UBC Botanical Garden

Type of Event: Field Tour Experience

Tags: [People and Places](#), [Research Excellence](#), [Transformative Learning](#), [Local and Global Engagement](#)

Date: May 13th from 9:00am – 11:00am

Key Metrics:

- ▶ **125** bird species observed in the Garden
- ▶ **12** guest observers

Event Description: Participants celebrated International Bird Migratory Day through an engaging introductory bird walk at UBC Botanical Garden. Led by experienced guides from Nature Vancouver, attendees explored the diverse bird species found in the area, identifying spring migratory birds, and listening to their songs. The event catered to beginner birders, providing valuable identification tips based on behaviour, size, shape, and sounds, while also highlighting different habitats preferred by specific species and offering insights into creating bird-friendly environments in gardens and homes.

[Link to Botanical Garden eBird Hotspot](#)

Event 7: Science Rendezvous at the Beaty Biodiversity Museum

Type of Event: Interpretive Learning Experience

Tags: [People and Places](#), [Research Excellence](#), [Transformative Learning](#), [Local and Global Engagement](#)

Date: May 13th from 10:00am – 5:00pm

Partner Organization: Beaty Biodiversity Museum

Key Metrics:

► **1550** Total Participants

Event Description: UBC hosted the nationally renowned Science Rendezvous, a vibrant festival bringing science to the streets. Participants enjoyed a full day of engaging programming, including guided museum tours, interactive science activities, and special screenings of "Raising Big Blue," the captivating story behind the arrival of the blue whale skeleton at UBC. With donation-based admissions, this welcoming event, was accessible and an enriching experience for all.

[Event Page](#)



Caption: Science Rendezvous is a national celebration of children's curiosity & interest in STEM. Image courtesy of Beaty Biodiversity Museum.



Caption: Visit the Metro Vancouver Grow Green Guide website to learn more about how you can biodiversity-friendly gardens in your own backyard! Image courtesy of Metro Vancouver.

Event 8: Grow Green Livestream: Biodiversity and Invasive Species in Your Garden

Type of Event: Field Tour Experience

Tags: [Research Excellence](#), [Transformative Learning](#), [Local and Global Engagement](#)

Date: May 18th from 12:15pm – 1:15pm

Partner Organization: Metro Vancouver

Key Metrics:

► **21,000** Viewers Engaged as of May 25th, 2023

Event Description: Participants had the opportunity to join a captivating discussion featuring Metro Vancouver Regional Parks Planner, Karin England, alongside Tasha Murray from the Invasive Species Council of Metro Vancouver and Alex Wong from UBC Botanical Garden. They learned about practical ways to support biodiversity and monitor invasive species in their gardens. The livestream, which took place on Metro Vancouver's Facebook page, provided a convenient platform for attendees to engage with the event. This informative session helped empower attendees with knowledge and resources to make a positive impact on their local ecosystems.

[Link to Recorded Live Stream](#)



Caption: "Big Blue" the blue whale skeleton is seen illuminated at a previous Nocturnal event. Image courtesy of Beaty Biodiversity Museum.

Event 9: Beaty Nocturnal at the Beaty Biodiversity Museum

Type of Event: Interpretive Learning Experience

Tags: [People and Places](#), [Research Excellence](#), [Transformative Learning](#), [Local and Global Engagement](#)

Date: May 18th from 5:00pm – 8:30pm

Partner Organization: Beaty Biodiversity Museum

Key Metrics:

► **39** Total Participants

Event Description: The museum extended its operating hours until 8:30 pm, offering visitors an enriching evening experience. A guided Collections Highlight tour was conducted at 7:00 pm, providing a deeper insight into the museum's notable collections — including tetrapods, fish, marine invertebrates, insects, plants and fossils. Admission by donation helped to make the event more accessible to individuals of all ages and backgrounds.

[Event Page](#)

Event 10: Goth Butterflies at UBC Farm

Type of Event: Field Tour Experience

Tags: [People and Places](#), [Transformative Learning](#), [Local and Global Engagement](#)

Date: May 25th from 9:30pm – 11:00pm

Partner Organization: UBC Farm

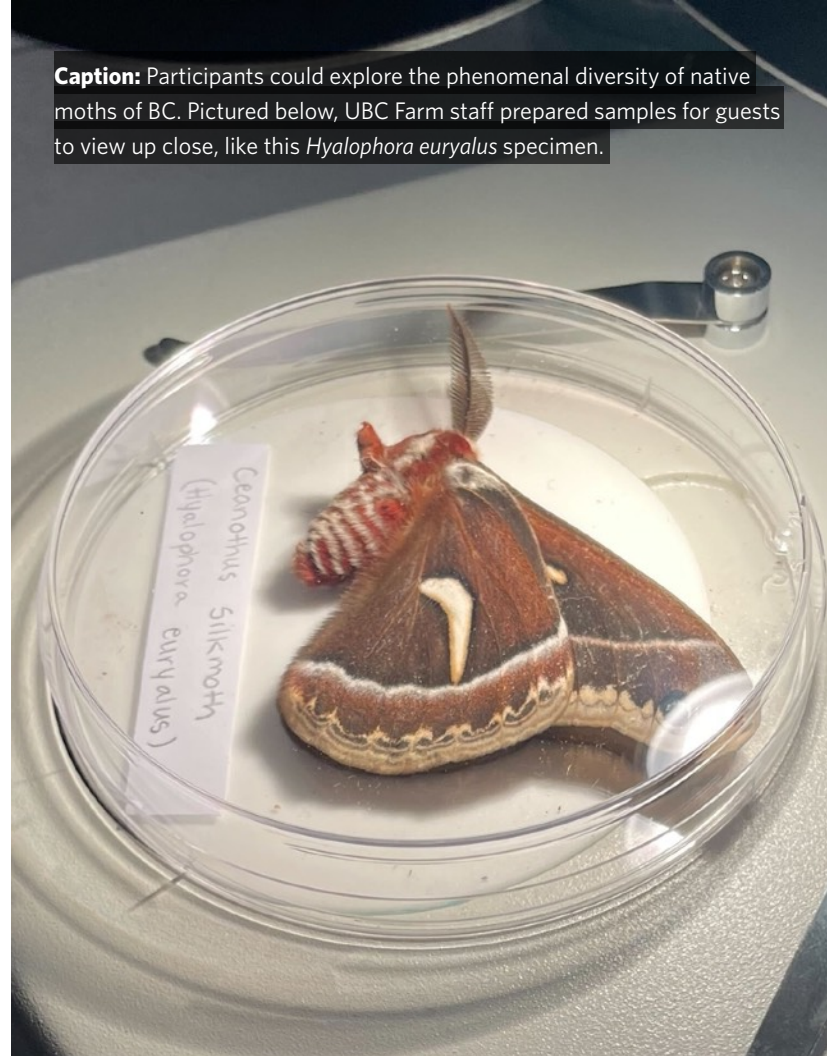
Key Metrics:

► **38** Total Participants

Event Description: Participants explored the intriguing world of nocturnal insects and their crucial role as pollinators during an engaging event held at the UBC Farm. Led by MSc students Hannah Anderson and Daphne Chevalier, and PhD student Matt Tsuruda, the event showcased the remarkable diversity of nocturnal bugs found in the Vancouver area through a series of nighttime surveys and observations. Attendees gained insights into the biology, identification, and fascinating adaptations of these creatures to thrive in darkness. This educational experience highlighted the invaluable contributions of these nighttime insects to both our well-being and the ecosystems they inhabit.

[Link to Event Page](#)

Caption: Participants could explore the phenomenal diversity of native moths of BC. Pictured below, UBC Farm staff prepared samples for guests to view up close, like this *Hyalophora euryalus* specimen.





Caption: Bumblebees like the one seen here are some of the most important native pollinators that support flowering plants across campus. Photo courtesy of Ben Scheufler.

Event 11: Pollinator Walk with UBC Farm

Type of Event: Field Tour Experience

Tags: [People and Places](#), [Research Excellence](#), [Transformative Learning](#), [Local and Global Engagement](#)

Date: May 27th from 2:00pm – 3:30pm

Partner Organization: UBC Farm

Key Metrics:

► **31** Total Participants

Event Description: Participants of the event gained insights into the diverse array of native pollinators that play a crucial role in pollinating plants and crops at the UBC Farm. Led by MSc students Terrell Roulston, Melissa Platsko, and Sarah Knoerr, the walk offered an engaging overview of native pollinator diversity, accompanied by hands-on activities including capturing and identifying native bumble bee species, providing a unique and interactive experience for attendees.

[Event Page](#)

Event 12: Campus-Wide Bioblitz

Type of Event: Field Tour Experience

Tags: [People and Places](#), [Research Excellence](#), [Transformative Learning](#), [Local and Global Engagement](#)

Date: May 1st — September 4th, 2023

Key Metrics:

- **927** Observations as of May 30th
- **340** Unique species as of May 30th
- **292** Participants as of May 30th

Event Description: Throughout Biodiversity Days 2023, we encouraged community members to use Citizen Science apps like iNaturalist to monitor biodiversity in their local areas. To help understand the biodiversity of the UBC Vancouver campus, we created a project page to track campus observations over the summer. By increasing the number of citizen scientists on campus, we can inspire knowledge and action about the campus ecosystem while giving participants their own hands-on, personalized learning experiences with the plants, animals and fungi that live in our community.

[iNaturalist Project Page](#)

Biodiversity Days 2023
MAY 1, 2023 - SEP 4, 2023

Stats

Overview	1,142 OBSERVATIONS	449 SPECIES	245 IDENTIFIERS	121 OBSERVERS
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Map | Grid | List | Identify | Search | Export Observations

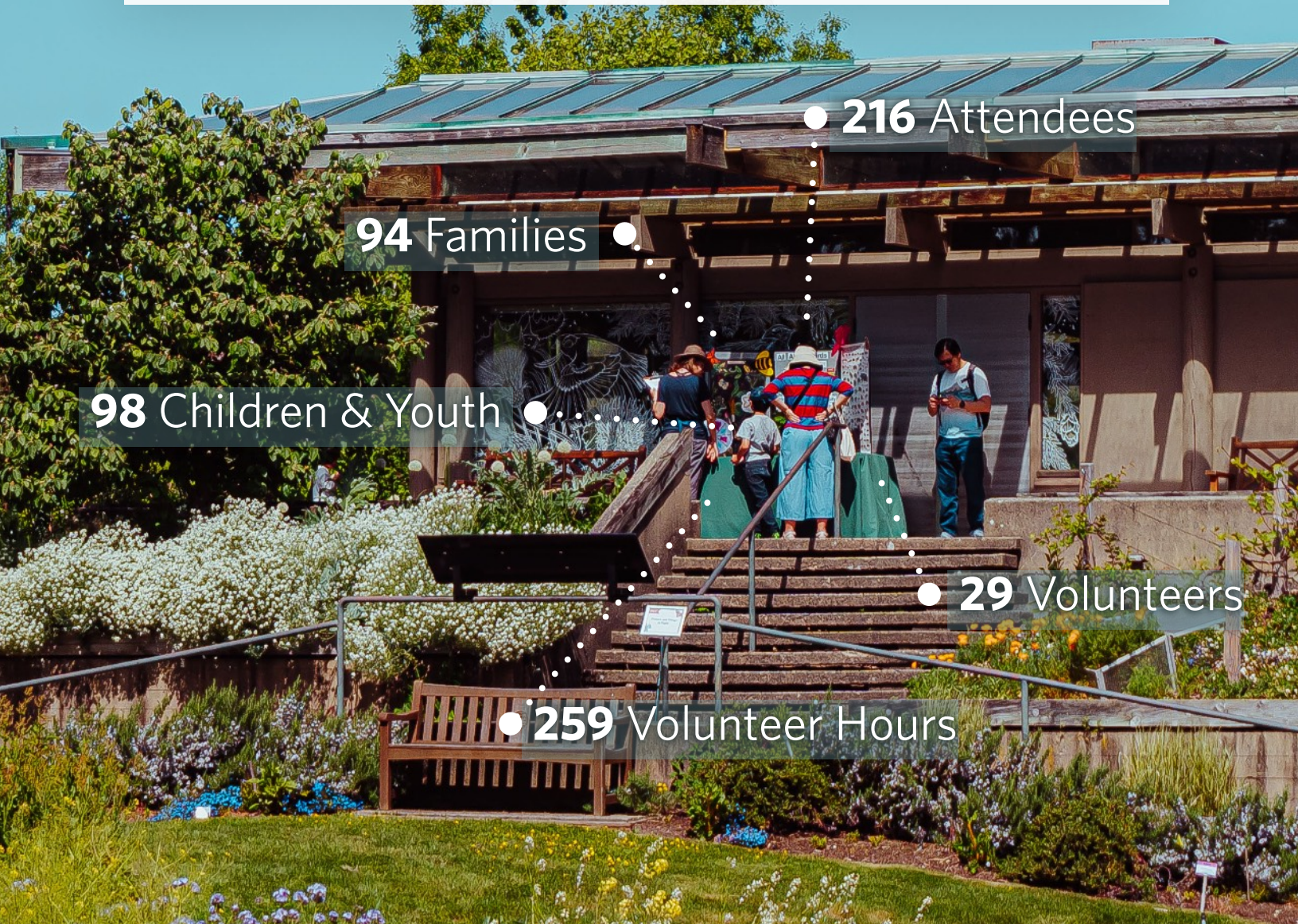
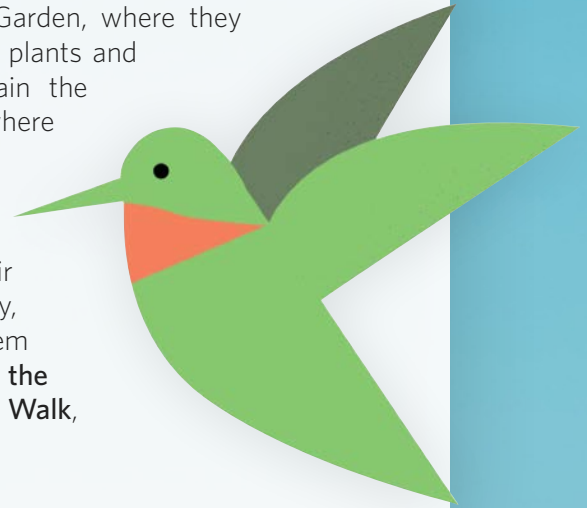
Observations:

- Jack-in-the-Pulpit (*Ansaema triphyllum*) - 1.3 hours ago
- Flowering Plants (Subphylum Angiospermae) - 1.3 hours ago
- Unknown - 3 hours ago
- Onions (Genus *Allium*) - 1.2 hours ago
- Unknown - 3 hours ago
- Unknown - 3 hours ago

Event Spotlight: Family Nature Walk

Family Nature Walk is the **signature event of Biodiversity Days**, and it **takes place every year on the May long weekend**. During their journey through UBC Botanical Garden this year, children explored **9 pop-up education stations** set up throughout the Garden, where they learned about the world of biodiversity, the delicious diversity of plants and their pollinators, and the carbon and water flows that sustain the biosphere. Families also embarked on the **Greenheart TreeWalk**, where they could view the stunning forest canopy up-close and personal.

To add to the excitement, children who joined the Family Nature Walk received a special **Kids Nature Kit**, complete with tools to further explore and discover biodiversity. As they embarked on their garden adventure, they collected delightful surprises along the way, including several **arts and crafts activities** designed to teach them about nature and biodiversity. The following pages will **explore the families' journey through the three "hubs" of Family Nature Walk**, sharing what children learned from each pop-up station.



● 216 Attendees

● 94 Families

● 98 Children & Youth

● 29 Volunteers

● 259 Volunteer Hours

Hub 1: The Wonders of Biodiversity

📍 Garden Entrance



1 Registration and Wayfinding

Goal: Familiarize families with navigating the Garden and introduce the importance that they play conservation efforts.

At this station: Thanks to the generosity of a private foundation, children received a biodiversity tote bag with: a hand-lens, fruit snacks, a choice of either “Animals from the Salish Sea” or “I am dreaming of...” by Musqueam artist Melaney Gleeson Lyall, and a succulent!

Special species: White Sturgeon (*Acipenser transmontanus*)

One of most important fish in the Salish Sea, sturgeon can live up to 150 years and appear armored with bony plates called scutes.



2 A World of Plants

Goal: Families learned about the significance of botanical gardens in supporting Life on Land (Sustainable Development Goal 15), and learned about what they would see on their journey.

At this station: Children received a Family Nature Walk fold-out map showing each of our stations!

Special species: Labrador Tea (*Rhododendron groenlandicum*)

We have over 450 types of Rhododendron species which represent the breadth of genetic diversity we are lucky to see in the Garden. This species is one of the only ones native to Vancouver — you can find it in Camosun bog!

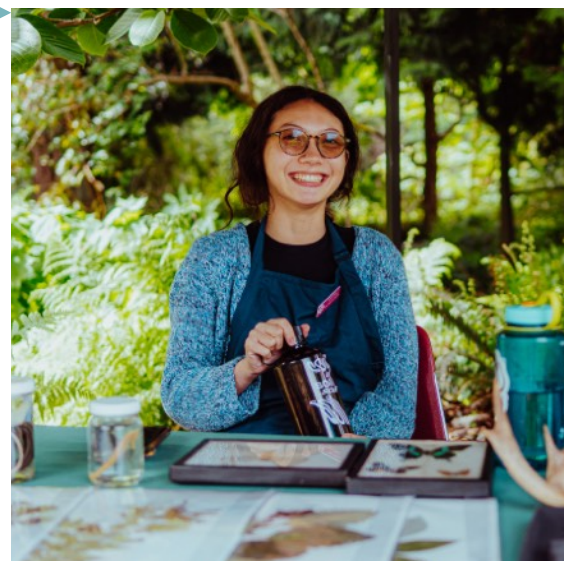
3 What in the World Is Biodiversity?

Goal: Families are introduced to the biodiversity of plants, birds, and animals throughout the world. Many of these items were loaned to us from the Beaty Biodiversity Museum.

At this station: Children could use their new hand-lenses to make biodiversity observations from a display of cones, needles, leaves, bird wings and fluid-preserved specimens.

Special species: Barn Owl (*Tyto alba*)

Due to the soft, lightweight wings of the barn owl their flight is virtually silent. These birds are one of the most widespread species in the world and a prime example of adaptations in practice.



Hub 2: Delicious Diversity of Plants & Their Pollinators

 Food Garden

4 Flowers and Things in Flight

Goal: Children understand the role of bees, birds, and butterflies in the pollination process.

At this station: Children were quizzed on their pollinator knowledge and received biodiversity buttons!

Special species: Monarch butterfly (*Danaus plexippus*)

These butterflies are known for their incredible long-distance migration, which can span up to 3,000 miles (about 4,828 km).



5 The Magic of Millets

Goal: By engaging with Saori Ogura's photography, families will learn about the International Year of Millets and the importance, production and uses of millets throughout the world.

At this station: Saori's project provided insight into the ways millets have been used for generations.

Special species: Barnyard Millet (*Echinochloa esculenta*)

A popular grain, also known as Japanese Millet, Barnyard millet is grown throughout many remote villages in Japan. Saori's photography helped to put the spotlight on this species and other millets grown around the world!

6 Delicious Diversi-TEA

Goal: Families learn about the Color of Biodiversity campaign; a global initiative aimed at raising awareness about the importance of biodiversity and the need for its conservation.

At this station: Families received some berry-filled muffins from Dough Girls Comfort Kitchen & Bakeshop, and "Color of Biodiversity" herbal tea by TEALEAVES.

Special species: Thimbleberry (*Rubus parviflorus*)

Similar to, but sweeter than a raspberry, this British Columbia plant represents the pink PANTONE Color of Biodiversity.



Hub 3: Photos & Flows

📍 Greenheart TreeWalk



7 Waterways & Watercolours

Goal: Children learn about the water cycle and the sources of our water for the ecosystems in Metro Vancouver.

At this station: Families could make and take their own watercolour painting.

Special species: Chinook Salmon (*Oncorhynchus tshawytscha*)

The largest of the 5 main salmon species found in the Salish Sea, an essential part of Vancouver's water ecosystems, and are an important food source for other animals.



8 Carbon & The Changing Climate in the Garden

Goal: Children conceptually understand the transition of carbon through global spheres via the carbon cycle and the accompanying photosynthesis relationships.

At this station: Children could plant & take their own native plant seed in a recyclable pot, or make & take a charcoal rubbing.

Special species: Nematodes (Phylum Nematoda)

The most abundant animals on earth — 4 out of 5 animals are nematodes. These microorganisms live in soils, and they are vital in decomposition of organic matter for plants.

9 Say Trees! Making Memories in Nature

Goal: Children and families reflect on their experience in the Garden, and share their wishes for the future of biodiversity.

At this station: Children could attach their own wishes onto our wishing tree, and take home a family polaroid photo.

Special species: Japanese Maple (*Acer palmatum*)

One of the star trees of the Garden's collection of maple species, Japanese maples are known for their beautiful red leaves in the fall. The branches of this species also supported the children's wishes at this station.





Special Thanks

Student Leadership in the
International Year of Millets

Saori Ogura

Saori Ogura, a PhD candidate in Rehabilitation Sciences at the University of British Columbia (UBC), has made remarkable contributions to both science and the arts. With a focus on revitalizing nutritious small grains in collaboration with Indigenous and local communities, she has worked in various regions worldwide, including the Eastern Himalayas, Zimbabwe, and Japan, aiming to enhance well-being, food security, and community resilience.

As an artist, Saori incorporates methods such as photography and documentary films into her research. Her photography exhibit at the Family Nature Walk event centred around millet farmers and their global significance, and successfully connected children with the importance of these farmers — fostering a deeper understanding of global agricultural issues (and an excitement for millet!). We express our utmost gratitude to Saori Ogura for her invaluable contributions to science, photography, millets, and the success of Family Nature Walk 2023.





Caption: The UBC Vancouver campus is world-renowned for the beauty of its natural landscapes. Citizen science research helps us to better understand and support biodiversity these landscapes. Photo courtesy of UBC

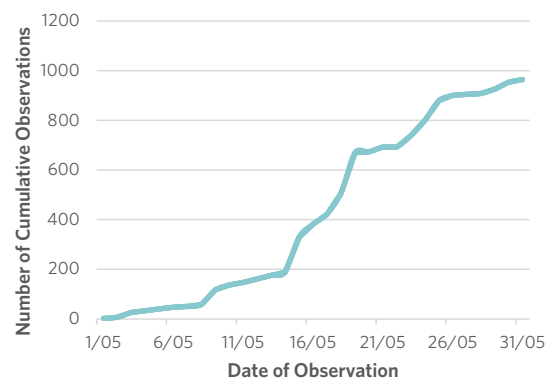
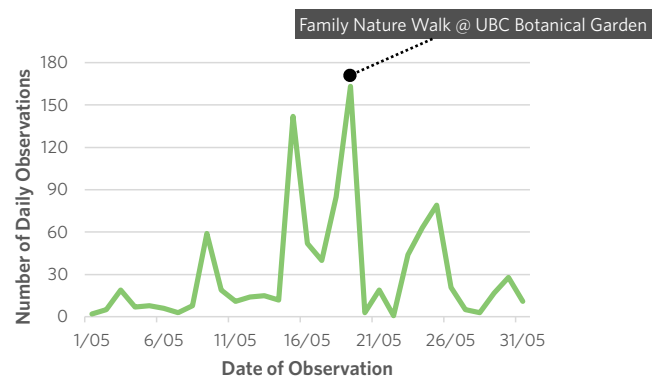
UBC Citizen Science Dashboard

2023 UBC Campus Bioblitz on iNaturalist

Throughout Biodiversity Days 2023, we encouraged attendees to report flora and fauna findings on iNaturalist. By creating an iNaturalist project page that automatically collected observations from across campus, UBC Botanical Garden was able to aggregate valuable biodiversity monitoring data from May 1st to May 31st. This data collection and monitoring will continue until September 4th, as we continue to encourage guests to report their findings on campus.

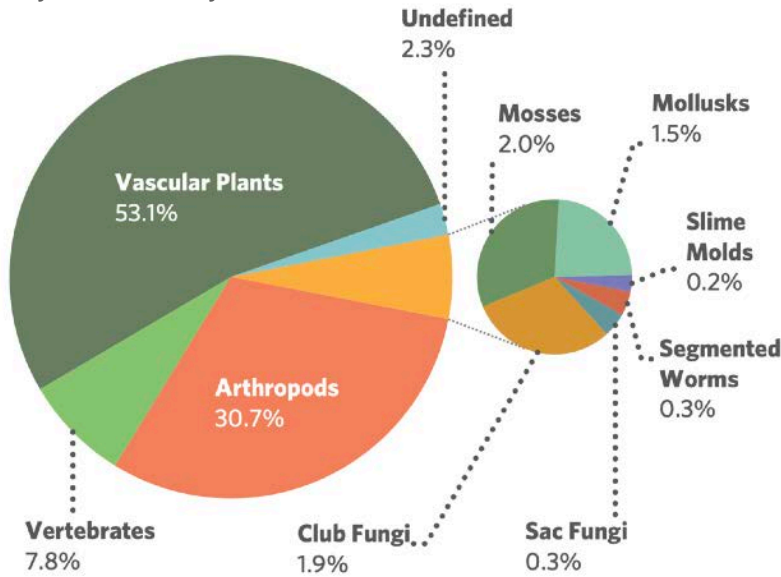
Key Metrics:

- ▶ **964** Cumulative Observations (May 1st — 31st)
- ▶ **340** Unique Species
- ▶ **200** Identifiers
- ▶ **93** Observers
- ▶ **10** Observations per person on average



iNaturalist Observations by Phylum*

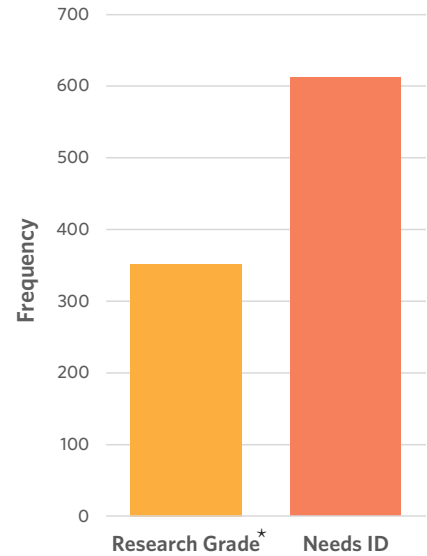
May 1st — May 31st, 2023



* A phylum is one of the broadest ways we can classify living organisms. It's one step below a kingdom, and a step above class.

iNaturalist Observation Quality

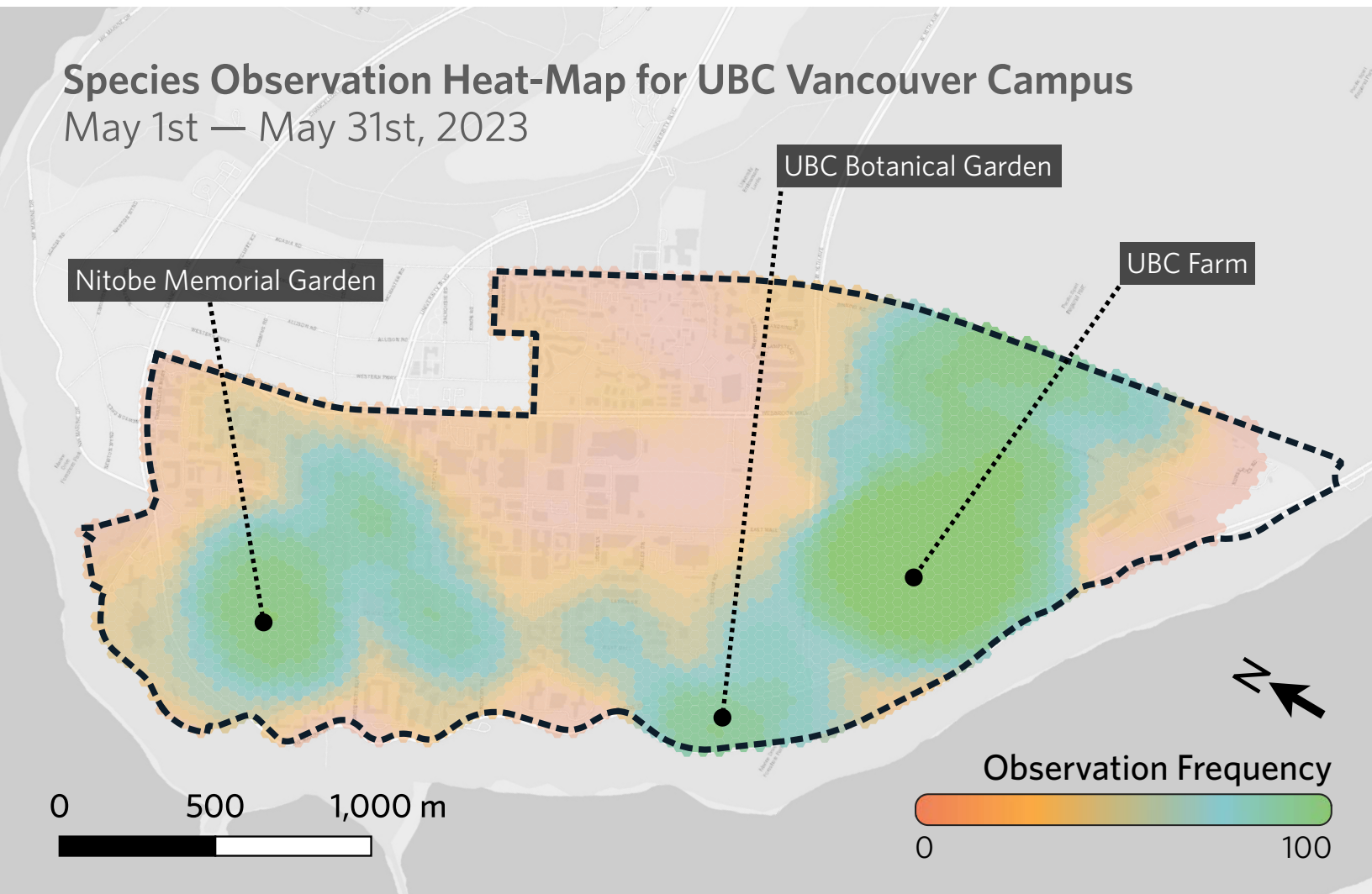
May 1st — May 31st, 2023



* Research Grade observations have been agreed on by more than one member of the online iNaturalist community.

Species Observation Heat-Map for UBC Vancouver Campus

May 1st — May 31st, 2023



Reflecting on Biodiversity Days 2023

Biodiversity Days 2023 surpassed our expectations in many ways. Drawing from the lessons learned in previous years, our aim was to make this year's celebration more inclusive and accessible to the community. We achieved this by forming new partnerships with organizations like the Beaty Biodiversity Museum, providing them with a platform to showcase their own events as part of Biodiversity Days, and by curating a more diverse range of events, including more opportunities for participants to engage in hands-on field tours of biodiversity on campus.

Biodiversity relies on all of us. Next year, we aim to showcase actions that individuals can take across their different roles in their communities. How can you help to grow biodiversity in your day-to-day life?



How can I support biodiversity...

...in my home?

...in my community?

...as a professional?

...on the move?

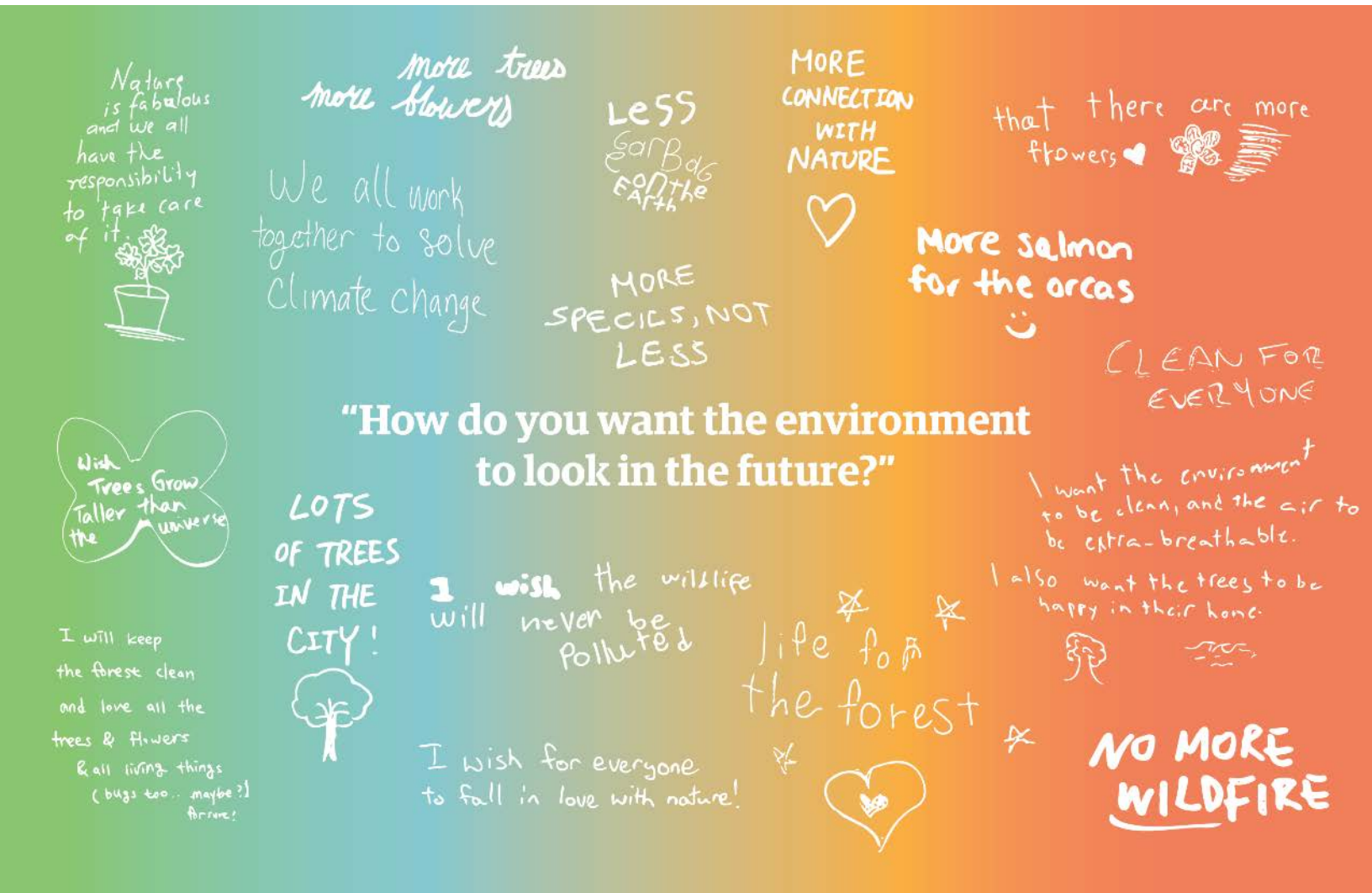
...as a consumer?



Conclusions

The annual celebration of Biodiversity Days has proven to be an incredible opportunity to engage our local community in the wonders of global biodiversity. We are grateful for the chance to both teach and learn from children and families across Metro Vancouver. One of the most heartwarming experiences has been our Wishing Tree, where children shared their dreams and hopes for biodiversity in the next 30 years (pictured right). The overwhelming number of hopeful and loving messages we received reminded us of the importance of our work as we plan for future celebrations. Below are a few of our favourite messages.

These heartfelt wishes reaffirm our commitment to nurturing and preserving our planet's rich biodiversity. They inspire us to continue our mission with even greater dedication. As we reflect on the success of this year's celebration, we would like to thank our donors who have made these events possible and we are excited about the future possibilities, strengthening the connection between our community and the invaluable natural world we all share. Together, we can create a thriving and sustainable environment for generations to come.



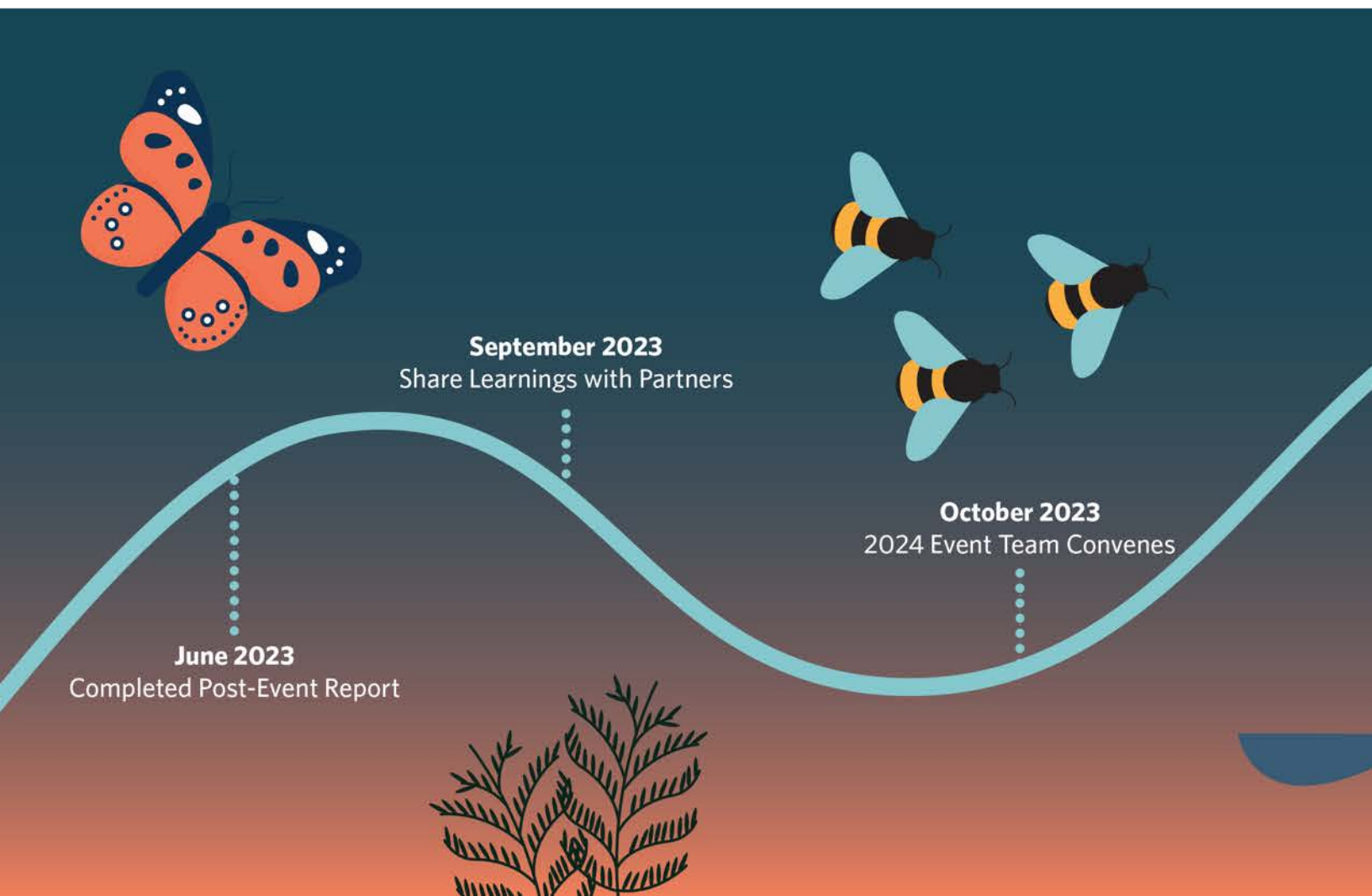
Future Directions

The celebration of Biodiversity Days 2023 was an outstanding success, leaving a lasting impact on our local community. As we wrap up this year's festivities, we are looking ahead to the future and planning for Biodiversity Days 2024. The world around us is changing, and we are committed to evolving alongside it.

We are excited for the future, following the United Nations Convention on Biological Diversity (CBD)'s ratification of the Kunming-Montreal Framework for global biodiversity. This framework will shape the agenda for the upcoming UN Biodiversity Summit in 2024. As we prepare for next year's events, we are determined to incorporate the outcomes of this framework and effectively communicate their implications for our region.

Biodiversity Days 2023 also highlighted the contributions of millet farmers and their significance in achieving global food security, reflecting the designation of 2023 as the UN Year of Millets. Going forward, we remain steadfast in our commitment to promoting diverse crops and sustainable agricultural practices.

Throughout the journey of Biodiversity Days, we have understood the significance of ecosystems from a holistic perspective. The Family Nature Walk event provided participants with immersive experiences, deepening their appreciation for the intricate relationships between species and their habitats. We will continue to nurture this understanding and we hope to inspire a profound



respect for the delicate balance of our natural world.

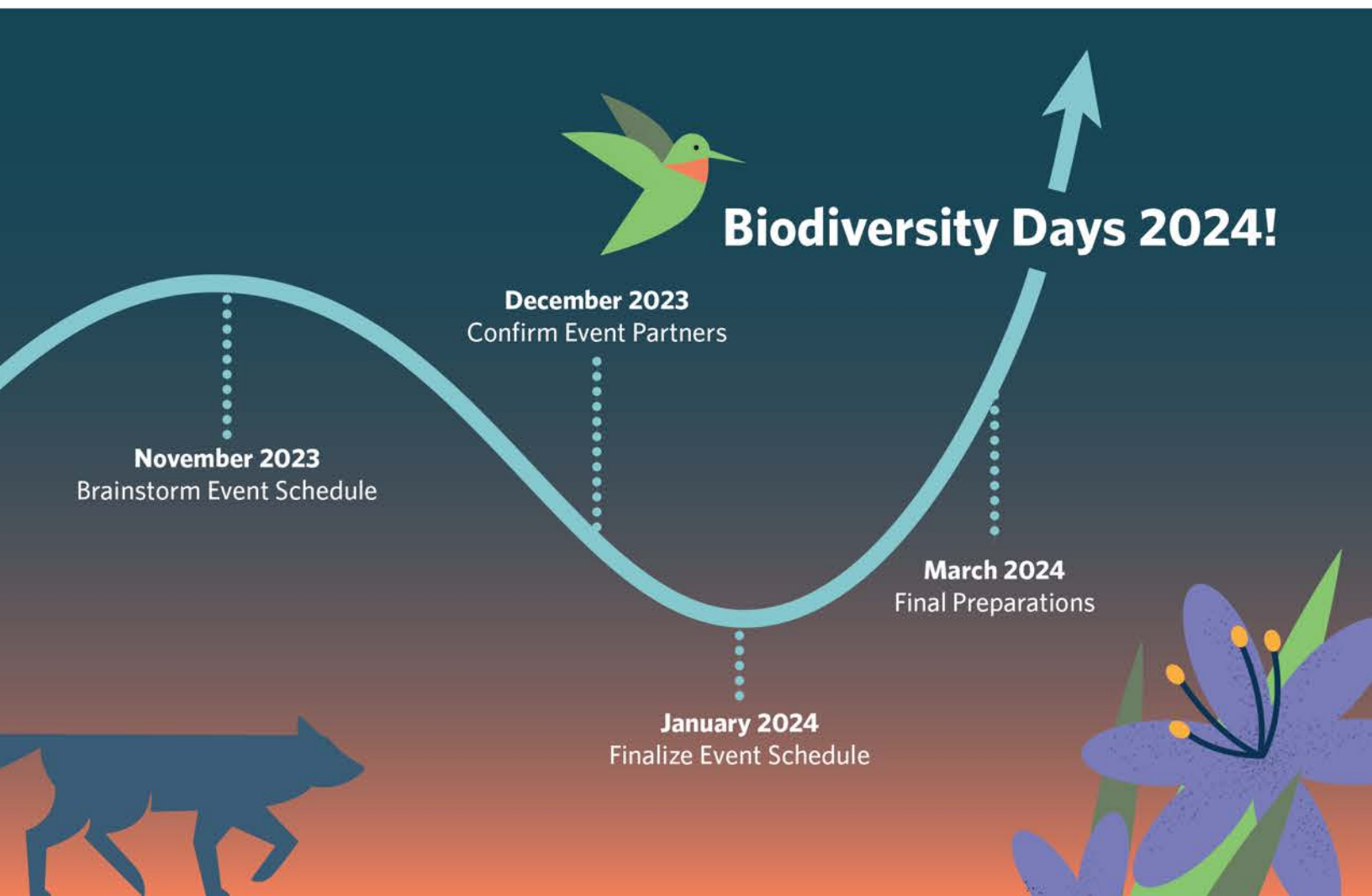
Collaboration has been at the heart of Biodiversity Days, and we are grateful for the support of our donors, partners and organizations that share our passion for preserving local biodiversity. We are thrilled to have expanded our network this year and eagerly look forward to forging new partnerships for Biodiversity Days 2024. If you are interested in joining our efforts, please do not hesitate to reach out to our team.

As we conclude this report, we invite you to explore the graphic below, which illustrates the planning process that will lead us to the upcoming Biodiversity Days 2024. It is a testament to the

dedication and collective efforts of all involved in creating an extraordinary celebration.

With profound gratitude, we extend our thanks to the community for their enthusiastic participation and unwavering support. Biodiversity Days 2023 has been a journey of learning, inspiration, and collaboration. Together, let us continue our relentless pursuit of halting biodiversity loss, shaping a sustainable future for generations to come.

Contact: garden.programs@ubc.ca



Appendix: 2023 Event Calendar

Event Key | ■ UBC Botanical Garden | ■ UBC Farm | ■ SEEDS Program | ■ Beaty Biodiversity

Sunday	Monday	Tuesday	Wednesday
Week 1: Growing Out			
	1	2	3 ■ Feeding the W Webinar: 12:00p ■ UBC Tree Wall to 4:00pm
Week 2: Thi			
7	8	9	10 ■ Bat Walk with 8:30pm to 10:00
Week 3: Ge			
14	15	16	17
Weeks 4 & 5: Taking			
21 ■ Family Nature Walk at UBC Botanical Garden: 10:00am to 4:00pm	22 ■ ■ ■ ■ International Day of Biological Diversity: ALL DAY	23	24
28	29	30	31

Museum

Wednesday	Thursday	Friday	Saturday
Urban Biodiversity Brains			
<p>World Sustainably m to 1:00pm k & Talk: 2:00pm</p>	<p>4</p>	<p>5</p> <ul style="list-style-type: none"> Urban Biodiversity Action: A Student-Led Research Showcase: 2:00pm to 4:00pm 	<p>6</p> <ul style="list-style-type: none"> Beaty Nature Club: Vascular Plants at the Beaty Biodiversity Museum: 10:30am to 1:00pm
Birds in Flight			
<p>UBC Farm: pm</p>	<p>11</p>	<p>12</p>	<p>13</p> <ul style="list-style-type: none"> Morning Bird Tour at UBC Botanical Garden: 9:00am to 11:00am Science Rendezvous at the Beaty Biodiversity Museum: 10:00am to 5:00pm
Get Outside!			
	<p>18</p> <ul style="list-style-type: none"> Beaty Nocturnal at the Beaty Biodiversity Museum: 5:00pm to 8:30pm 	<p>19</p>	<p>20</p> <ul style="list-style-type: none"> Family Nature Walk at UBC Botanical Garden: 10:00am to 4:00pm
Conservation & Sustaining Action			
	<p>25</p> <ul style="list-style-type: none"> Goth Butterflies at UBC Farm: 9:30pm to 11:00pm 	<p>26</p>	<p>27</p> <ul style="list-style-type: none"> Pollinator Walk at UBC Farm: 2:00pm to 3:30pm



UBC Botanical Garden 2023
In Collaboration with UBC SEEDS & CCUB Initiative