



BioBlitz 2016 Final Report

The Community Foundation of Whistler looks forward to receiving final reports on the projects and programs we support. The purpose of the Final Report is to:

- Ensure accountability for the resources entrusted
- To learn from our experiences
- To gather information on the impact of our grants.

Please return your final report by the due date noted in your grant agreement. Final grant payments are issued upon receipt of a complete final report. If you require more time to complete your project or to complete your report, please notify the Community Foundation of Whistler of your situation.

We are particularly interested in sharing with the community your organization's stories. We like statistics but we also want to go beyond the numbers to understand how your program may have changed a certain person's life or created an impact on the participants and/or the community.

Stories make an impact! Thank you for sharing your story with us.

Grantee Name: Whistler Naturalists & AWARE

Grant Number: 20160008

Award Date: April 20, 2016

Final Report Due Date: December 31, 2016

Please answer the following questions on a separate sheet:



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YOUR PROJECT

1. What did the project accomplish? Did your goals and objectives change over the course of the project? If so, how? Why? If the project was unable to meet one or several objectives, why not? What happened?

Goals/Objectives	Outcomes
<p>Provide, encourage or support scientific research that benefits the environment.</p>	<p>BioBlitz brings provincial experts to Whistler to conduct scientific inventories of local species. These inventories provide up-to-date natural areas information that acts as a tremendous benefit in the development of greater environmental awareness within each community and, as a scientifically-defensible baseline for use in planning decisions and policy development.</p> <p>More detail to come in final report.</p>
<p>Provide, encourage or support public education or raise public awareness about environmental stewardship.</p>	<p>The BioBlitz Nature Festival at Alpha Lake Park is where we provided learning opportunities through nature interpretation. Despite the rainy weather, lots of people came by as BioBlitz scientists showcased common and curious species collected right here in Whistler.</p> <p>Local groups also partnered with us to provide interpretation on invasive species (Sea to Sky Invasive Species Council), nature crafts (Whistler Museum) and species at risk (South Coast Conservation Program).</p> <p>In addition to these interactive displays, we also held public events like 'Animal Tracks T-shirt Painting' and 'Wild Things Scavenger Hunt' as well as offered ongoing access to provincial experts on all things nature.</p> <p>The scientists roaming the valley to catalogue species in their distinctive t-shirts also got lots of attention from the public, which promoted impromptu interpretation opportunities.</p> <p>All our offerings raise awareness of how many different species call Whistler and the greater Sea to Sky Corridor home and</p>



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	<p>supports education through interpretation. Our goal is for BioBlitz to help promote understanding <i>about</i> our natural world; which helps develop appreciation <i>for</i> our natural world; which ultimately encourages environmental stewardship.</p>
<p>Map and inventory natural resources for environmental management planning purposes.</p>	<p>Inventory of Whistler species is an outcome of BioBlitz. BioBlitz is an extension of the efforts by the Whistler Biodiversity Project and Whistler Naturalists. New species are added to the catalogue kept by the Biodiversity Project for community use and benefit. This year over 500 species were inventoried, with at least 60 being new to the Whistler list.</p>

2. Were there any other unintended results? Please describe.

Because of rainy weather for our BioBlitz Nature Festival, we were able to find out how many participants came to the park specifically for BioBlitz vs. being at the park because it was a nice day. There was a strong crowd that came specifically for BioBlitz and included 15 kids plus parents painting their Animal Tracks T-shirts and 13 kids plus parents going on our Wild Things Scavenger Hunt.

3. What can your group do better now than it could do before?

Each year we meet new locals and visitors at BioBlitz that are really excited to get to know nature (and keep it worth knowing), which is one of our goals as a society. In addition, BioBlitz is a great chance to meet new people who want to volunteer with the Naturalists, which help us sustain our entirely volunteer organization. Finally, each BioBlitz teaches us about new species which helps us: (a) learn more about local species diversity; (b) plan future surveys; and (c) help guide conservation efforts.

4. What were the most important lessons learned?

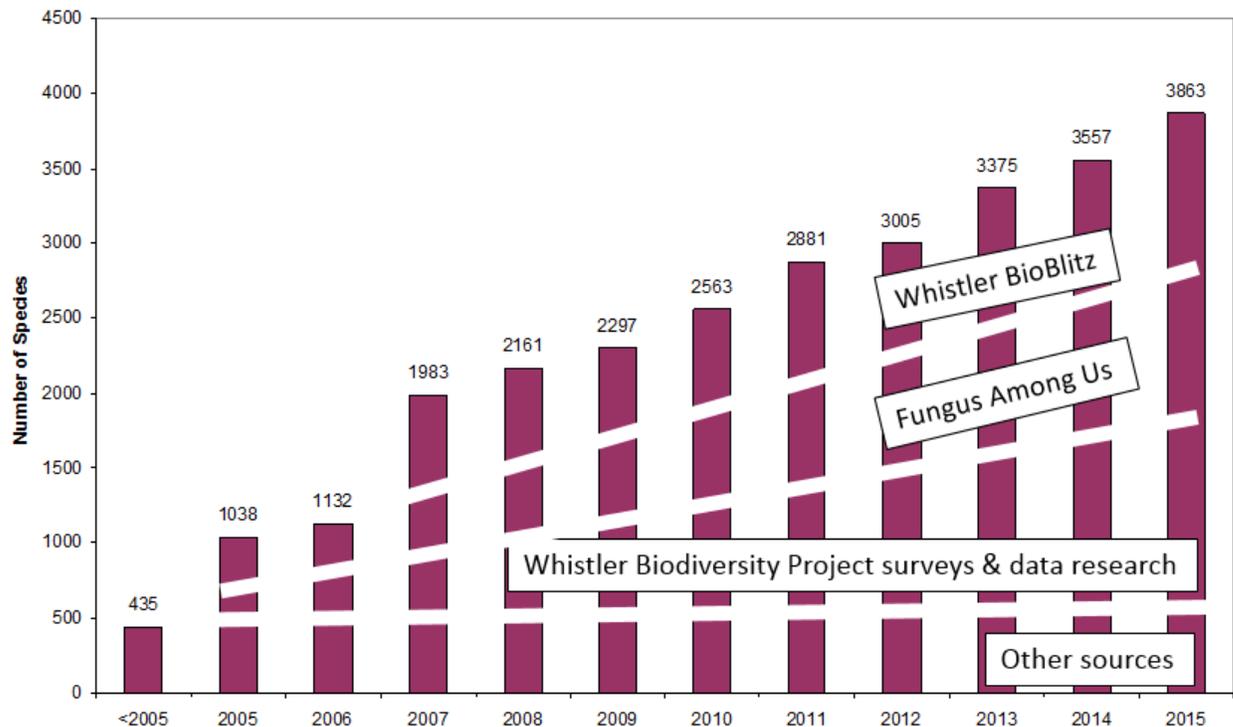
- Each year we're reminded of what a big appetite there is in the community and beyond for events like BioBlitz. It was terrific to see the positive responses in Squamish, Whistler and Pemberton.
- In spite of 9 years of events and separate expert surveying through the Whistler Biodiversity Project, this year's BioBlitz continued the trend of discovering new species.



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We can't protect species we don't know about. It's amazing to realize that about ½ of the known species in Whistler are from only 10 weekends of BioBlitz and 12 weekends of Fungus Among Us (see diagram below). It goes to show that a small group of dedicated volunteers and scientists can make a huge difference in our knowledge of, and ability to become successful stewards of, the natural world.

Known species in Whistler & sources of knowledge



5. How did the project promote partnerships and participation by people of diverse backgrounds?

- The BioBlitz Nature Festival attracted long-term locals, transient workers and visitor alike – and in Whistler that means, of course, people with diverse backgrounds. It didn't matter where people were from, if they had an interest in learning about the world we live in, they had fun at BioBlitz.



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6. How was the community involved in the evaluation process?

The community provided excellent feedback directly to BioBlitz organizers about how much they (and in many cases their families) enjoyed the event. Some feedback also included ideas for future BioBlitzes and requests on how to get access to all the data that is collected.

7. What were your indicators of success? How will you use the project evaluation results?

We had a few different indicators of success. 1) Because of rainy weather for our BioBlitz Nature Festival, we were better able to find out how many participants came to the park specifically for BioBlitz vs. being at the park because it was a nice day. There was a strong crowd that came specifically for BioBlitz and included 15 kids plus parents painting their Animal Tracks T-shirts and 13 kids plus parents going on our Wild Things Scavenger Hunt. 2) We also work to ensure the volunteer scientists & local volunteers have a good time since we ask so much of them, and we've had nothing but positive feedback. 3) Last but certainly not least, BioBlitz is all about the list of species that is generated during the event. After 10 years of BioBlitzing, we are amazed that new species keep getting discovered.

We will take all feedback into consideration when planning future BioBlitz events. Data that is collected will be incorporated into the work of the Whistler Biodiversity Project and the Sea to Sky Invasive Species Council.

THE IMPACT OF YOUR PROJECT

8. What effect has the project had on those who participated?

For novice naturalists: A chance to learn some nature basics, have fun and be inspired to become an environmental steward.

For nature lovers: A chance to have fun and deepen their knowledge on the natural world, which strengthens their commitment to environmental stewardship.

For visiting scientists & networking: There are many, many situations where someone met another person at one of the Whistler events and relayed their contact information to another person who needed assistance in some form or another.



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9. Please share testimonials, quotes, or stories that illustrate the impact of your project or program.

New this year was our intern program, where we hosted students from Whistler to intern for the day with scientists. We were fortunate to have four fabulous students take part, from grade 8 to post-secondary. Please see their stories below.

- **From Adam Brett, Junior Scientist (grade 8)**

“First I went to the legends hotel to meet the scientists, who were preparing to go out on their different quests to find new species. I met Jordan, the scientist I would be following around, as well as 4 young women who were eager to learn with us. We went out to Archibald (Crabapple) Creek first to find tailed frog tadpoles. To find these tadpoles you first need to find the habitat that they live in. Tailed frog tadpoles live in fast flowing cold water streams that do not have predatory fish living in them. Tailed frog tadpoles survive by sticking onto rocks in the stream using their mouth area which works as a suction cup and moving slowly along the rock. As they move along the rock their mouth scrapes algae off to eat.

To catch them you put your net in the water downstream of a smallish rock which you pick up in the hopes that the tadpole will be stuck on the bottom of the rock so that you can put it in your bucket or that it will fall off the rock and be swept into your net. Using this method we caught not only four tailed frog tadpoles but also caddisflies, predatory caddisflies, net spinning caddisflies, mayflies, and a flatworm. I thought that the net spinning caddisfly was particularly cool. This is a caddisfly who first sticks together small rocks to form its home on a bigger rock. Then, while underwater, it uses silk that it makes itself to form a small intricate web not unlike a spiders web that catches small algae and bugs being swept downstream which it then eats.

After that we drove to the pond beside the Alta Vista bike pump track that you can see from the highway. Four traps had been set the night before. When we pulled those up we found a northwestern salamander, along with some sticklebacks, a backswimmer and fingernail clams. We brought everything back to Alta Lake and showed it to the public. The north western salamander was very cool. It was a salamander who still had gills to breathe even though it was sexually mature. This means that it probably never will change its gills into lungs because it doesn't need to unless the pond it is living in dries up.

All in all I had a very fun day at BioBlitz. I learned a lot and I found that I enjoy doing this kind of stuff. I am hoping to come back to BioBlitz next year.”



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- **From Kristen Jones (recent post-secondary graduate)**

“This past July was my first introduction to the Whistler Naturalists annual BioBlitz. As an Environmental Studies graduate it was not only an inspiring conference but also a hands-on experience that far exceeded my expectations for such a condensed weekend.

I was fortunate to spend the duration of my day with scientist Jordan Rosenfeld whom gave us an in-depth look into some of the flora and fauna our whistler backyard has to offer. Specializing in fish and aquatic inverts, Rosenfeld brought us to three main zones including the Emerald Forest, Brio Creek and Alta Lake Pond. In these areas we discovered *Ascaphur* (Tailed Frog Tadpoles), a Northwestern Salamander, variations of *Limnephilidae* (Katus Flies), Fingernail Clams, Planarian (Flat Worm) and Stickleback, among many other species. Not only were some of these species new to me, I was surprised to learn that some amphibians, like the Tailed Frog Tadpoles, have actually adapted to thrive in some extremely high velocity river environments.

Furthermore, our team brought a few of the discovered species back to the Alpha Lake Park for public education and observation before they were returned to their original habitats. At this time we identified some of the insect’s defense mechanisms and had the opportunity to monitor their behaviours up close. For example, some of the aquatic insects repeatedly swam towards the surface of our tanks at a rapid pace. Rosenfeld identified this behaviour as an adaptation exercised in an attempt to catch a water current to relocate them further ‘downstream’ to a more desirable destination. It was also evident that as the water in the tanks began to warm the species possessing gills began to breathe quicker due to a lack of oxygen compared to colder waters.

Lastly, Jordan and I set off in a canoe at Alpha Lake and I was taught how to catch Zooplankton with a Zooplankton net to study this drifting organism. This was another species I was unfamiliar with and it amazed me to see the abundance of this plankton in a lake I so frequently visit.

The BioBlitz event was concluded with presentations to share everyone’s experience with other participants and attending community members. The presenters and crowd alike exuded passion and excitement and it was obvious how much interest was sparked even outside of everyone’s expertise. I left the festivities more intrigued than ever. The biodiversity of the Whistler area is immense and much of it has still yet to be discovered! The collaborative research and returning scientists speak for themselves, I am already counting down the days until next year.”



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- **Davina Dube (recent post-secondary graduate)**

“The weekend at BioBlitz Whistler was more than a surprise to me, not knowing what to expect. What I found was a great learning opportunity. As I am about to begin my second year as a student at the British Columbia Institution of Technology in the Fish, Wildlife, and Recreation program I am still very new to the field of biology. Not really knowing what direction I want to take my studies, this weekend opened up my mind to different possibilities.

Over the weekend, I had the opportunity to follow and help a few biologists that attended BioBlitz. On Saturday I joined Jordon Rosenfeld. We searched for Tailed Frog tadpoles in the gushing Archibald Creek in Brio, emptied minnow traps to find a neotene (non-metamorphosing) Northwestern Salamander, and explored the stagnant ponds of Whistler looking for zooplankton and giant aquatic bugs!

Although I knew a bit about Tailed Frogs from school, I had no idea how to find the tadpoles and the technique I had to use to catch them. Jordon not only took us along for the day but also taught us more than I could have learned in a day at school. It was like having a private teacher that enjoyed every moment of teaching and was fascinated about everything he found. I learned about aquatic bugs such as the Caddisfly, Mayfly, and Whirligig Beetle. I must say, I knew nothing about these bugs or what a true bug really was. Jordan showed me how much fun you can have with a simple bucket and goldfish net near a pond. It was unbelievable what we discovered in one scoop of mucky water! Jordan took the time to explain the role that each bug had in our ecosystem and why they looked the way they did.

The day didn't finish there, when I thought the night was over around 9pm, a bat biologist welcomed anyone to join him for a hike up Whistler Mountain. He used a bat detector to locate and name the bat species we came across. Felix Martinez explained what the different sounds meant and told us all about his work with bats. He also told me about his studies and how he became a bat biologist.

It was amazing how passionate these people were about their jobs and how eager they were to share their knowledge with strangers. It really inspired me to start thinking of what direction I would like to take my studies. Spending the weekend with 50 plus biologist all engaging and helping each other with their findings was quite impressive. Everyone seemed to be an expert in something. On Saturday night when they all shared their findings, you could really feel the passion for nature in the room.

Calling Whistler my home after 8 years of living here, I feel that our community is so lucky to have this expertise come to the valley every summer. This past weekend was



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a great opportunity for me and I am very grateful I got to participate. Thank you to all the funders and organizers that made it happen.”

- **From Shayna Ross-Kelly (recent graduate from Whistler Secondary)**

“The presence of three blue herons silently fishing for their breakfast seemed to me a good omen as I walked across the still dewy grass at Alpha Lake Park last Saturday July the 9th. The serene environment of the park turned into one of excitement as a chorus of voices coordinated tent set up and table placement. The gray sky and eventuality of rain did nothing to cloud the buzzing excitement as the scientists enthusiastically placed a variety of insects, plants, and aquatic life on their respective tables. Voices were high as set up finished and we all got the chance to move around, admiring the finds of the weekend.

The 10th anniversary of Whistler’s annual Bio Blitz festival was greatly appreciated by Mother Nature. She showed us her appreciation by blessing the day with great quantities of the very thing life relies on, lots and lots of water. The rain didn’t dampen spirits however, and many children and their parent showed up bright eyed in their “Wet Coast” uniforms and rain boots. Whenever I had the chance I was walking around to the different booths, which celebrated most of the areas of species diversity in our little valley. An outstanding array of mushroom species was most fascinating to me as our decomposing friends are still a mystery. Its mind boggling how something that aids in death can be edible. The gentlemen who had collected the species were able to, in detail, answer every question I had and his passion was infectious.

After passing by the mushrooms I entered the bottom of our lakes. Well not the real bottom of the lake, merely a sample. The North Western salamander looked apathetic at my obvious amusement as I watched him dance around his impermanent little habitat. Struck by a sense of wonder and comradery, this visit to my new friend marked the beginning of many throughout the day.

I have always had a hyper awareness for the great hunting prowess of snakes, and as such developed a kind of fear towards them. That ended, Thanks to Kristina and a Garter snake that I will always think of fondly. I was invited to hold it and did so cautiously, but as she burrowed in my hands for their warmth, my fear faded. This is a prime example of what must have been many kids’ experiences as they got up close and personal with the foreign creature wrapped up in my hands. I watched as an audience of tiny children formed around me, cooing and asking desperately to get a chance. I told them this would have to wait though as we didn’t want to traumatize our new friend.



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After the thrills of a discovery such as my newly found admiration for snakes, I wandered over to the invasive species table, fully expecting my gardening experience to give me all of the information these ladies could possibly relay. I was very wrong. I left feeling like I knew so much more about which plants are harmful, and how we can protect our native species. I also received a very cool; x-files esque alien sticker which I later relayed to my over joyed little brother.

I went back to my table, and was quickly transferred elsewhere as T-shirt painting started. I could tell that would not be a good situation for my new black rain jacket. I ended the lovely day at the bear smart table. Bears are a passion of mine, and being able to instill this passion in the guests of the event was such a superb feeling. Bio Blitz is not only an uber rewarding experience for those in attendance it is also a beautiful feeling for the scientists and volunteers. It really does seem to make a difference all around. Caring for the environment is a group effort, and I had never felt in a better place to share the energy of nature, in such a positive way.”

10. Will this project continue? How will your organization or the community take action as a result of this project?

Yes, we plan to continue this annual event. Our aim is to continue to improve our knowledge of the natural world through collecting data and then sharing our knowledge with the community through nature interpretation. Hopefully our efforts will inspire community members to become environmental stewards in whatever way works for them; small efforts are just as important as large ones.

FINANCIAL REPORT

Will be included with final report.



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SHARING OUR STORIES

Please tell us how you have acknowledged the Community Foundation of Whistler's support for your project. Please attach media coverage, photos, videos, reports, etc. that we may use in the promotion of CFOW grant success stories.

Video:

<https://www.youtube.com/watch?v=TVnQml5Mkyo&feature=youtu.be>

Created by: Toadally Awesome Video



The Whistler Naturalists present

whistler BIOBLITZ

10TH ANNUAL

Saturday July 9, 2016

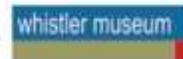
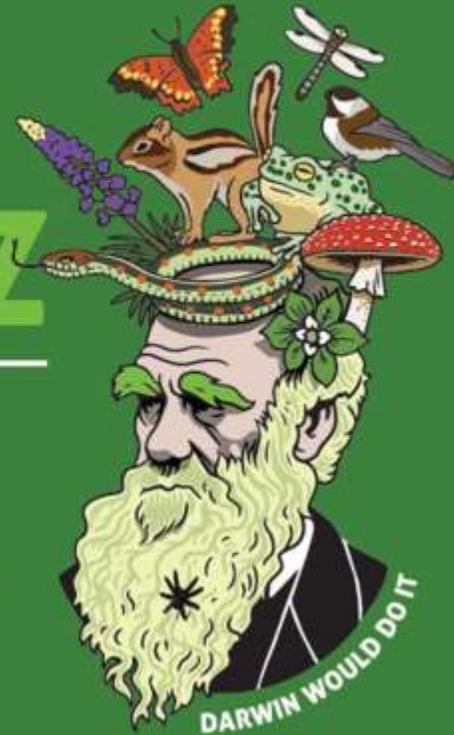
Nature Festival at Alpha Lake Park

- 12-5pm: Nature Festival**
Live critters, touching tables, working scientists, interactive displays, nature crafts and more!
- 1-2pm: Animal Tracks T-Shirt Painting**
Bring a plain shirt. Leave looking wild! (Some kids' shirts available for sale.)
- 2:30pm: Wild Things Scavenger Hunt**
Not your everyday hunt!

Nature Night at Legends Hotel

- 7:30pm: Fabulous Finds of the Day**
Scientists reveal their coolest finds.

Updated details at: www.whistlerbioblitz.ca



Media coverage:

- **Weaving Whistler's web of life – Canada's longest running BioBlitz has a hand in telling Whistler's natural story over the last decade**
 - **FEATURE STORY – FRONT PAGE**

Pique Newsmagazine: July 31, 2016 - By *Alison Taylor*

<http://www.piquenewsmagazine.com/whistler/weaving-whistlers-web-of-life/Content?oid=2797779>

FEATURES & IMAGES » FEATURE STORY

July 31, 2016

Weaving Whistler's web of life

Canada's longest running BioBlitz has a hand in telling Whistler's natural story over the last decade

By Alison Taylor

CLICK TO FLIP THROUGH (5)



ILLUSTRATION BY JON PARRIS

WEAVING WHISTLER'S WEB OF LIFE

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- **10th annual BioBlitz set for July 9 with kickoff at Alpha Lake Park**
Pique Newsmagazine: June 23, 2016 - By *Brandon Dupuis*
<http://www.piquenewsmagazine.com/whistler/western-toads-prepare-to-make-their-leap-from-shores-of-lost-lake/Content?oid=2795977>

NEWS » ENVIRONMENT

June 23, 2016

Western Toads prepare to make their leap from shores of Lost Lake

10th annual bioblitz set for July 9 with kickoff at alta lake park

By Braden Dupuis

[CLICK TO ENLARGE](#)



PHOTO BY CLARE OGILVIE

TOAD WARRIOR Whistler's Western Toads are making their annual migration.

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- **Whistler BioBlitz celebrates 10th anniversary** - Annual survey finds large number of new mushrooms, insects this year
Whistler Question: July 11, 2016 - *By Alyssa Noel*
<http://www.whistlerquestion.com/news/local-news/whistler-bioblitz-celebrates-10th-anniversary-1.2299439>

Whistler BioBlitz celebrates 10th anniversary

Annual survey finds large number of new mushrooms, insects this year

ALYSSA NOEL / WHISTLER QUESTION
JULY 11, 2016 07:16 PM



A group of kids examine some plaster casts of animal tracks at the Whistler BioBlitz Nature Festival at Alpha Lake Park on Saturday (July 9). Photo by David Buzzard/ www.media-centre.ca

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- **Museum Musings: Why learning about nature is important**

Whistler Question: July 25, 2016 - *By Shayna Ross-Kelly*

<http://www.whistlerquestion.com/opinion/columnists/museum-musings-why-learning-about-nature-is-important-1.2309639>

Museum Musings: Why learning about nature is important

SHAYNA ROSS-KELLY / WHISTLER QUESTION
JULY 25, 2016 06:38 PM



Shayna Ross-Kelly (middle) along with fellow BioBlitzers Kate Brandon (right) and Natalya Stone showing off some of the bear paraphernalia at this year's event. Photo by Photo submitted

- Letter to the editor

Letters to the editor for the week of July 14th



BIO-BLAST

The Whistler Naturalists' 10th annual (and Canada's longest-running) BioBlitz was a huge success, thanks to the quality and quantity of over 70 scientists and volunteers. BioBlitzes strive to achieve two goals: to increase public appreciation for biodiversity and also our knowledge of all the species that share the areas where we live. The 2016 BioBlitz again achieved those goals thanks to the efforts and support of many people and organizations.

Thanks to everyone who braved the weather and dropped by Alpha Lake Park on Saturday, July 9 to take part in the BioBlitz Nature Festival. On display were Whistler critters, plants, mushrooms and other life forms with scientists answering questions and providing lots of amazing info. Special thanks to the weather for clearing during our kids events — animal-tracks T-shirt painting and the wild-things scavenger hunt.



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Saturday night, it was great to hear from the scientists on their fabulous finds of the day as well as during the past nine years of BioBlitzing in Whistler. Over the years we've had species found during BioBlitz that had never been recorded before on the B.C. mainland, had never been recorded west of the Rockies, had never been recorded in Canada, and even species new to science!

Results from the weekend are now pouring in and we expect the total to be over 500, of which close to 100 will be new records for our area. The results will be collated by the Whistler Biodiversity Project and available online within the next few weeks at www.whistlerbioblitz.ca.

The Whistler Naturalists would like to thank all the scientists and local volunteers, plus our key sponsors: the Community Foundation of Whistler, AWARE, Resort Municipality of Whistler, Squamish-Lillooet Regional District and Whistler Blackcomb. We would also like to thank all the organizations and businesses who contributed to the event: Whistler Museum, Sea to Sky Invasive Species Council, South Coast Conservation Program, Get Bear Smart Society, Legends Hotel, Creekside Market, Nesters Market, Whistler Brewing, Riverside Café, Palmer Environmental Consulting, Avalanche Pizza, Purebread, Whistler Cooks, Whistler Creative, and Glacier Signs.

Kristina Swerhun, Bob Brett, Kathy Jenkins, and Julie Burrows
On behalf of the BioBlitz team

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Photos: by Joern Rohde



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Completed by: Kristina Swerhun **Telephone:** 604-935-7665

Please forward your report to us via email at info@whistlerfoundation.com

Alternatively, you may send a printed copy to our address below:

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