

# SPIRIT BEAR RESEARCH FOUNDATION | 2016



Visit our website  
[spiritbearfoundation.com](http://spiritbearfoundation.com)  
to learn more about  
SBRF, our research,  
job postings, and meet  
our team members,  
directors, and advisors,  
both past and present.

## Our Vision

- To advance **locally relevant scientific knowledge** of the ecosystems in Kitasoo/ Xai'xais Territory.
- To support and assist with the development of **local scientific monitoring capacity** within the Kitasoo/Xai'xais First Nation.
- To incorporate **perspectives, knowledge, and priorities** from the Kitasoo/Xai'xais First Nation into the development and implementation of our scientific programs.

## 2016 in Review

We are happy to report another successful year of research is completed. Through our research efforts we identified new and known grizzly, black, and spirit bears. This information contributes to our on-going collaborative population monitoring as well as to territory specific research questions designed to inform resource stewardship. We also developed a pilot research project to document the genetic diversity of chum salmon, an important component of bears' diets. This novel work aims to better inform fisheries management to maximize benefit to terrestrial wildlife. At the community level, this research project continues to offer employment to Kitasoo/Xai'xais First Nation members, from high school interns to research technicians and skippers.



## Our Team

Our research crew made our field season a great success. Robbie Duncan returned as a high school student intern, along with Jonny May for his first year on the team. Brandon Robinson returned to the crew as our research skipper. Santana Edgar joined the team as a full-time research technician and Krista Duncan worked casually as a technician. Christina Service & Rosie Child returned from Vancouver Island along with Emma Wilson who also joined the team this year.

## We're Hiring!

Job postings for the 2017 research season will be posted in March. Keep an eye out for the postings on our website, Facebook, and at the Band Office. We'll be looking for research technicians, student interns, and research skippers.



## Grizzly Bear Sighting Map

We are working to create an online map for the public to submit sightings of grizzly bears on islands. This will help us stay up to date on the latest observations of grizzly bear habitat use.

## Research Updates

With five successful years of research behind us, we now have a genetic inventory that includes many unique individual grizzly and black bears within Kitasoo/Xai'xais Territory. We are using this information to calculate population estimates and identify important habitat to be prioritized for conservation. We work with researchers at the University of Victoria, and the Nuxalk, Heiltsuk, Wuikinuxv, and Gitga'at Nations who all conduct bear research in the same way. Together we monitor ~ 25,000km<sup>2</sup>.



Robbie Duncan (left) & Santana Edgar (right) collecting samples of bear hair.

## Salmon & Bears

Our most recent analysis demonstrates how the presence of grizzly bears results in black bears eating much less (~40%) salmon. Additionally, we found that salmon diversity (number of species in a watershed) is an even stronger predictor of salmon consumption than salmon abundance. This is important as the amount of salmon in bears diet is directly related to their body condition, the number and health of their cubs, and eventually, population health; the more the better!

We also map large-scale patterns of where and how much salmon bears eat throughout the territory. Because salmon consumption is so important to population health, these hot-spots of salmon consumption are important areas to prioritize for conservation.

## Hair Snags

To identify individual bears, we set up 71 hair snags around groups of trees and place a non-reward scent inside each one to attract bears in the area. As bears enter or exit our site, a few strands of their shedding winter hair is snagged the wire. This hair gives us valuable information about the individual identity (DNA), sex, species, stress levels, presence of white genes (in black bears), and even the diet of each bear detected.

## Remote Cameras

This year we set up 42 remote cameras, which capture photos and videos that provide us with additional information about the animals that visit our hair snags. This includes the species, sex, number, and behaviour of these animals. In addition to bears, we sometimes see wolverines, cougars, wolves, and more! We are happy to contribute information about species we see to other non-profit organizations, such as the Coastal Crane Atlas.



# In the Community

We are grateful for all the interest and support SBRF receives from the community. We love sharing our research and findings in creative and fun ways. Our goal is to share our research beyond a university - to children and Elders, in Klemtu and around the world. Here are some of the highlights.

## Community Feast

In June, we hosted a community feast in partnership with the Kitasoo/Xai'xais Integrated Resource Authority. SBRF researchers Christina Service and Santana Edgar shared research findings, reflections from the season, and requested community feedback on our research programs. Best of all, we all shared great company and a feast of local traditional foods.

## Youth—Muscle to Mussel

This year we teamed up with Klemtu's Outdoor Adventure Program, a crew of almost 20 youth, on an epic adventure. We joined on the canoe *Gawagani's* (meaning peacemaker) two-day maiden voyage, visiting research sites along the way. Our favorite part of this memorable journey was watching our youth interns taking the lead in teaching their peers all about our research program in the field.

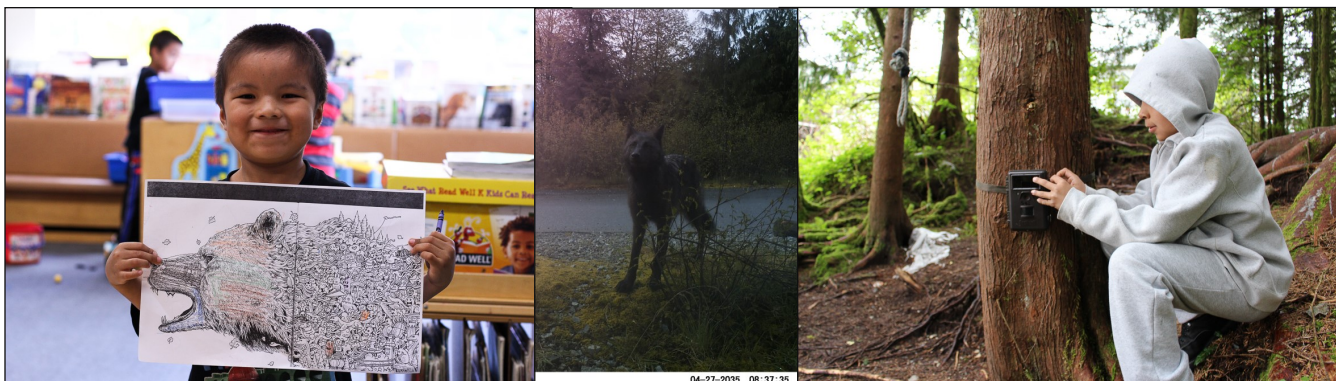
## Kitasoo Community School

### Kindergarten

This spring it was a joy to visit the next generation of researchers—the 4 & 5 year-olds of Klemtu. They already know how to spot the differences between black and grizzly bears! We watched videos from our remote cameras, talked about our research program, and spent time doing arts and crafts together.

### Middle School

Visiting the middle school class was another highlight for our research team. We got outside and the students helped choose locations for two research cameras that would have the best chance of capturing wildlife near the school. After programming and setting up their cameras, the students were excited to find that one of their cameras captured a wolf right in town!



# Outreach

We value outreach initiatives that give voice to our research and help to ensure the policy and management implications of our work are realized.

## LUSH Cosmetics

We are excited to be a Lush partner and recipient of their charitable giving program. In addition to financial support, Lush welcomed us as guests at their Nanaimo location for the day, where we shared what we do with their customers. Lush filmmaker, Inder Nirwan, came to Klemtu to film some of our research and interview our team for their new film, *Trophy*. We were also invited guests at the film debut in Vancouver, where we joined a panel of speakers discussing trophy hunting.

## Auditor General

In September, members of the Office of the Auditor General of British Columbia visited Klemtu as part of their inquiry into the management of grizzly bears in the province. SBRF staff and elected Kitasoo/Xai'xais leadership discussed our substantial level of investment in bear monitoring to inform local stewardship and how Klemtu's award winning bear viewing based ecotourism economy is not compatible with trophy hunting.

# Gratitude

We are so grateful to everyone who supports Spirit Bear Research Foundation, we couldn't do the work we do without you.

Thank you to the **community of Klemtu** for welcoming our out of town team members, supporting our youth interns and local team members, and attending SBRF events in town to learn about our research and to provide us with direction and community priorities.

We would also like to acknowledge our **volunteers** - everyone who helped put together the community feast in Klemtu, prepare for the field season, organize and attend public outreach events, analyze remote camera footage, and so much more.

Thanks to our **private donors** for investing in our vision and supporting our work. In addition to financial donations, we have also gratefully received donations of artwork, remote cameras and field gear, all of which directly benefit our research programs.

Finally, we extend our gratitude to **foundation partners and donors**. We are grateful to David Vernon, Lush Cosmetics, Kitasoo Forestry Corporation, Wilburforce Foundation, Tides Canada, and Hakai Institute/Tula Foundation for their on-going support. We would also like to thank our collaborators: the Kitasoo/Xai'xais Nation, Raincoast Conservation Foundation, and the Hakai-Raincoast Applied Conservation Science lab at the University of Victoria.



## Stay in Touch

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