



Howe Sound Átl'ka7tsem Marine Reference Guide

*An update we share with you in
celebration of World Oceans Day, 2020*

“Átl’ka7tsem is a vital component to the culture and well being of our Skwxwú7mesh people. It is the point of entry for the salmon beings to the rivers, our traditional highway and place to harvest resources and integral home to the countless animal and aquatic relatives. Átl’ka7tsem holds countless sacred places, histories and stories within it that are being revitalized just as Átl’ka7tsem is being revitalized. It is a sacred and special place.”

Charlene Williams,
Squamish Nation Working Group member

About Átl’ka7tsem

Howe Sound/Átl’ka7tsem is within the traditional, ancestral, and unceded territory of the Skwxwú7mesh Úxwumixw (Squamish Nation) and borders the Tsleil-waututh, Sechelt and Musqueam Nations’ territories. Átl’ka7tsem is one of three Squamish Nation place names for this deep-water fjord, and describes paddling out of the fjord toward the Salish Sea. The region’s waters are ecologically rich and support thriving cultures, livelihoods, and communities. Being directly adjacent to the growing metropolis of Vancouver, Átl’ka7tsem faces unique opportunities and challenges to preserving its social and ecological integrity.

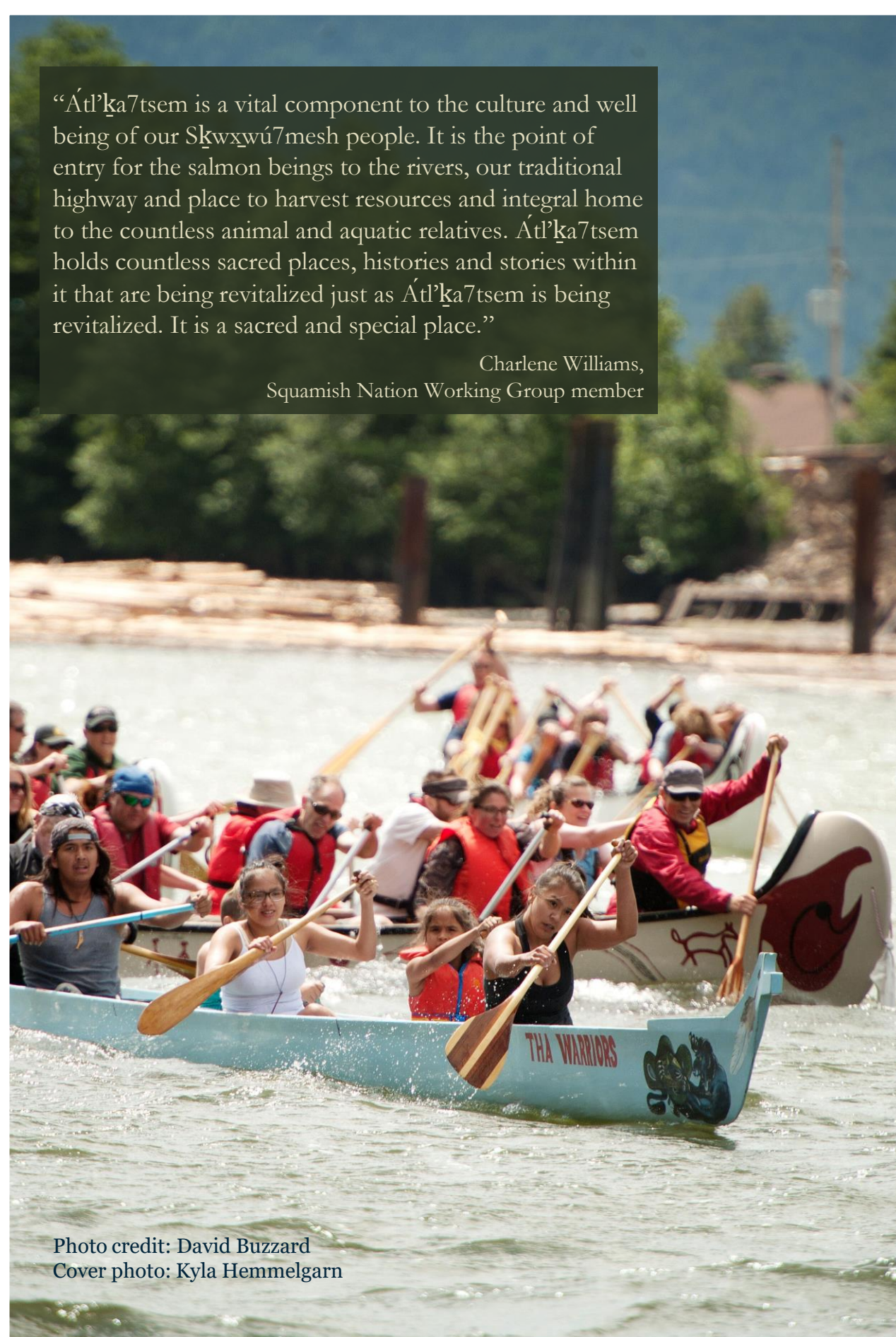
About the Guide

The Marine Reference Guide’s goal is to build capacity to protect, restore, and be stewards of the nature and communities that connect to Átl’ka7tsem’s ocean and freshwater. We conduct research, community engagement, and relationship building to create tools and resources that effectively transform knowledge into action and support decision-making and marine spatial planning.

The Guide is led by diverse governments, aquatic sectors, First Nations, and community members who support the project’s vision of working together to achieve positive outcomes that benefit current and future generations of human and aquatic life in Átl’ka7tsem. The Guide is a project on Tides Canada’s Shared Platform, and was inspired by the Ocean Watch Howe Sound report (2017) and marine spatial planning initiatives in British Columbia (e.g. Marine Planning Partnership, Gwaii-Haanas Land-Sea-People Management Plan).

The Guide is non-binding and respects the rights and title, jurisdictions, and processes of First Nations, governments, aquatic sectors and communities. Together we acknowledge a shared responsibility for ensuring the health of Átl’ka7tsem’s aquatic ecosystems and communities.

Photo credit: David Buzzard
Cover photo: Kyla Hemmelgarn

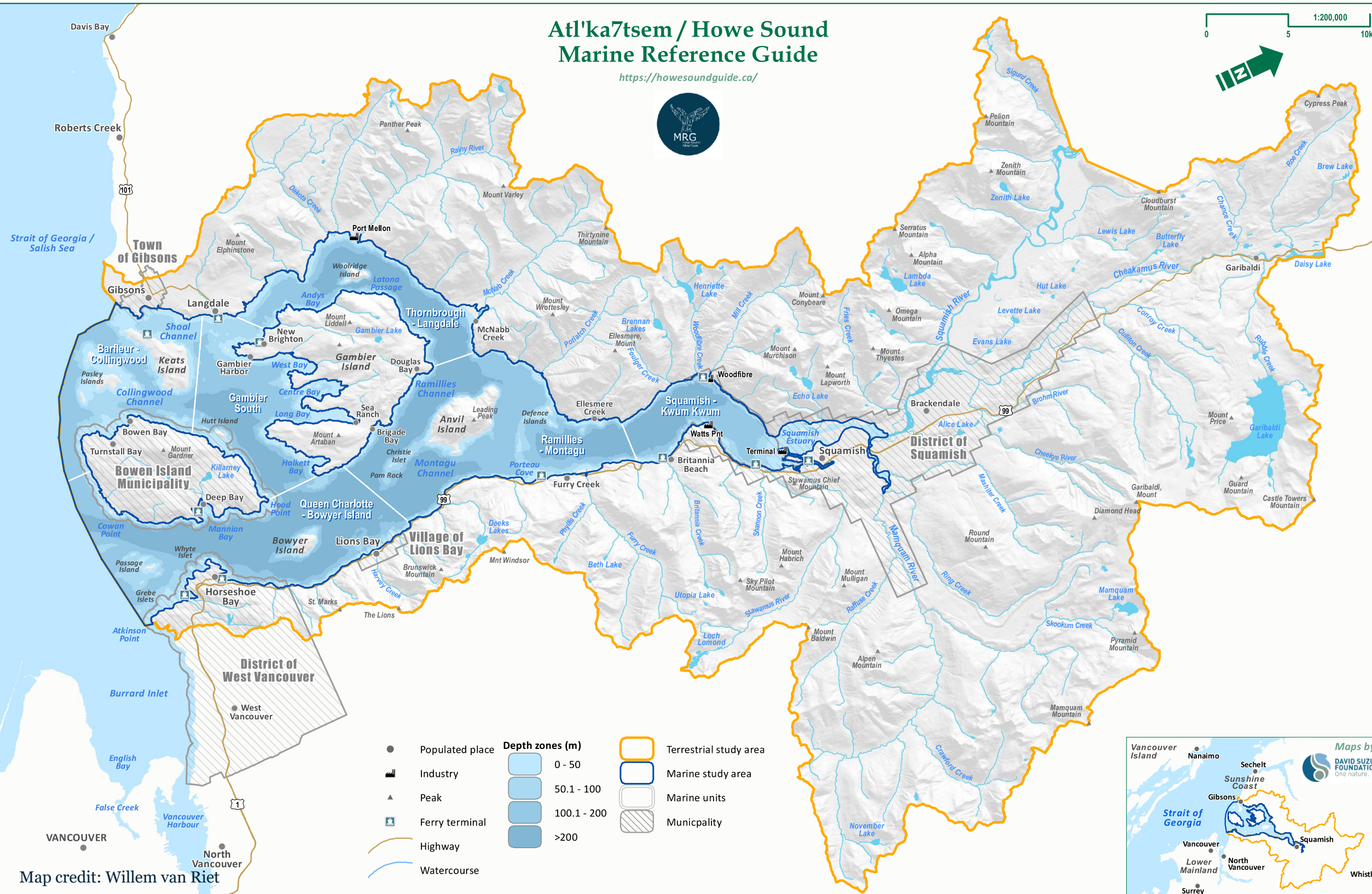
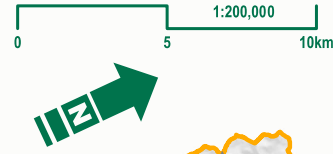


Our study area encompasses all the watersheds that flow into Átl'ka7tsem – we acknowledge the **holistic and intrinsic relationships between land, people, and the sea.**

“It is inspiring being a part of a team that focuses on collaborative and watershed approaches, providing a healthy mandate for future generations”
 Randall Lewis,
 Squamish River Watershed Society and Squamish Nation member

Atl'ka7tsem / Howe Sound Marine Reference Guide

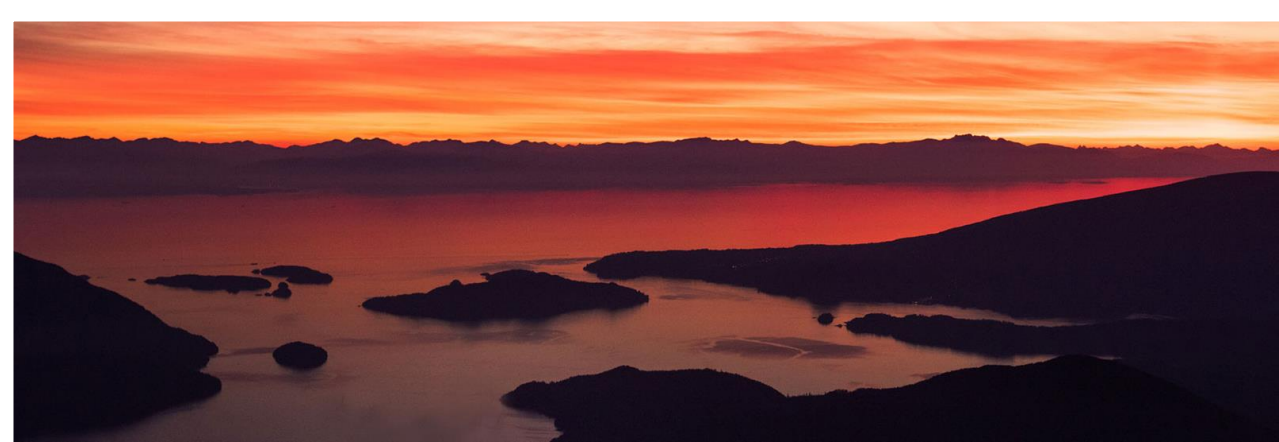
<https://howesoundguide.ca/>



- Populated place
 - Industry
 - ▲ Peak
 - ⚓ Ferry terminal
 - Highway
 - Watercourse
- Depth zones (m)**
- 0 - 50
 - 50.1 - 100
 - 100.1 - 200
 - >200
- Terrestrial study area
 - Marine study area
 - Marine units
 - Municipality

Map credit: Willem van Riet





Art credit:
Ryan Nickerson

On World Oceans Day, here are 5 things you can do to protect Átl'ka7tsem :

Click on the pictures and buttons to explore links and resources

1 Celebrate the Sound!

On June 8th the Guide is hosting a free story telling event from 6-8pm featuring videos, poems, songs, and stories from our community that all celebrate Átl'ka7tsem's incredible ocean!

Register here to 'Celebrate the Sound'

2 Learn and explore

Check out the amazing research and resources that document the marine life around you. Click the pictures on the next page to **start exploring!**

Learn about Indigenous stewardship and Guardian programs 

Dive into marine conservation maps 

3 Share your knowledge

Our strength is in community – we want to include **your** knowledge and values in our resources and tools! Visit our website or reach us at howesoundguide@gmail.com to share your perspective!

Explore the Strait of Georgia Data Centre 

Explore articles in the Ocean Watch: Howe Sound report 

4 Volunteer

Interested in building community? Looking to develop research skills? Passionate about making an impact? We are eager to work with you – please get in touch!


Donate here

Discover the magical world of eelgrass! 

Visit our website: howesoundguide.ca

5 Donate

Our project flourishes on the support and generosity of community members and organizations. A gift toward the Guide supports direct, positive action toward protecting Átl'ka7tsem's environment and community for generations to come.

Learn and practice Squamish Nation place names and language through their atlas 

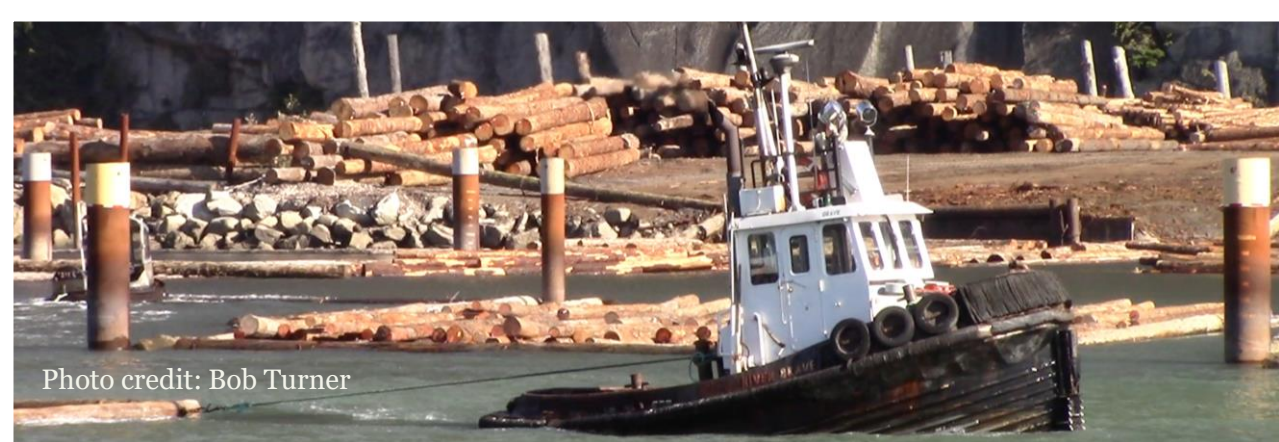


Photo credit: Bob Turner



Art credit: Ryan Nickerson

We are grateful for the guidance and leadership from the following governments, organizations, and individuals

Leadership Partners

- | | |
|--|---|
| Joyce Williams – Squamish Nation councilor | Kate-Louise Stamford – Islands Trust local trustee, co-chair Ocean Watch Task Force |
| Chris Lewis – Squamish Nation councilor | |
| Deanna Lewis – Squamish Nation councilor | Doug Race – District of Squamish councilor, co-chair Ocean Watch Task Force |

Steering Committee members

- | | |
|--|---|
| Sarah McJannet, Chair – District of Squamish | Ken Sneddon – Sechelt Creek Contracting Ltd. |
| Jessica Schultz – Ocean Wise Research | Bill Wareham – David Suzuki Foundation |
| Trevor Dunn – Sea to Sky Gondola | Randall Lewis – Squamish River Watershed Society |
| Adam Taylor – Underwater Council of British Columbia | Ruth Simons – Howe Sound/ Átl'ka7tsem Biosphere Region Initiative |
| Nadine Parker – Department of Fisheries and Oceans | |

Management Team

- | | |
|--|--|
| Fiona Beaty – Project Director | Nolan Rudkowsky – Indigenous Research and Engagement Coordinator |
| Bridget John – Research Assistant | |
| Myia Antone – Indigenous Research and Engagement Coordinator | Jonathan Williams – Indigenous Research and Engagement Coordinator |
| | Willem van Riet – GIS Analyst |

Project Partners

- | | |
|--|-------------------------|
| Ocean Wise Marine Conservation Association | David Suzuki Foundation |
|--|-------------------------|

Thank-you immensely to our partners and supporters





Photo credit: Jamie Smith,
Coastal Photography Studio

Our accomplishments

Connect information to action

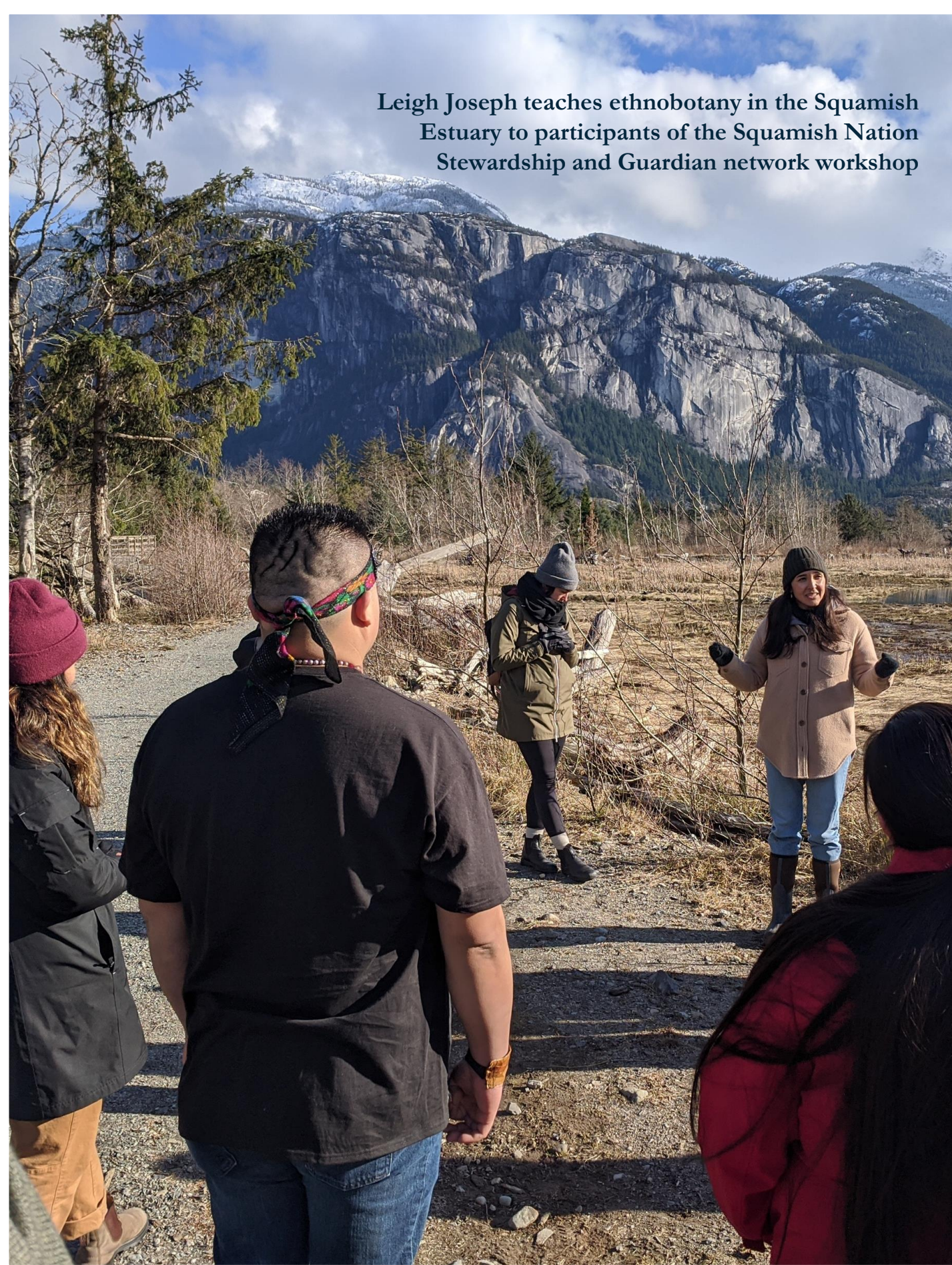
The Guide aims to create tools and resources that support marine spatial planning and decision-making by all governments, sectors, and communities, and that strengthen education and awareness of regional biodiversity and social values. In September 2019, the Guide **filled an important knowledge gap** by surveying the distribution of eelgrass along Átl'ka7tsem mainland coast. This critical baseline data has already informed policy and decision-making in Átl'ka7tsem, such as the Town of Gibsons' Coastal Resilience Project and harbour management plan.

Other research accomplishments include gathering **over 600 spatial data layers** of regional marine ecology and human activities that we are building into an online database and interactive map. One of these data layers is an online inventory of shoreline and marine debris, which we have shared with provincial and federal departments (e.g. MLA Sheila Malcolmson, Transport Canada, Coast Guard) to inform inform problem vessel inventories and policy development.

This comprehensive information will **build capacity for decision-makers and communities to protect important social and ecological values from pressures** such as climate change, development, and pollution.

“We have something truly special here and everything possible must be done to help Átl'ka7tsem recover. The Guide offers the ability to see patterns of data that will provide a pathway to the best management practices for communities around the Sound.”

– Kate-Louise Stamford
Islands Trust



Leigh Joseph teaches ethnobotany in the Squamish Estuary to participants of the Squamish Nation Stewardship and Guardian network workshop

Our accomplishments

Empower young leaders

The Guide seeks to braid Indigenous and settler world views and knowledge systems so that we create holistic information and resources, and build strong relationships. Over the past two years, Squamish Nation youth working on the Guide as Indigenous Research and Engagement Coordinators have **championed the inclusion of Indigenous youth voices, values, and perspectives in regional decision-making and stewardship**. They have organized shoreline clean-ups, field trips to culturally important areas in Átl'ka7tsem, and community workshops to learn about ethnobotany and Guardian Watchmen programs. Through Guardian programs, Indigenous stewards work together to monitor and maintain ecosystem health, and to ensure that rules, regulations, and Indigenous law are followed for the protection of both nature and culture.

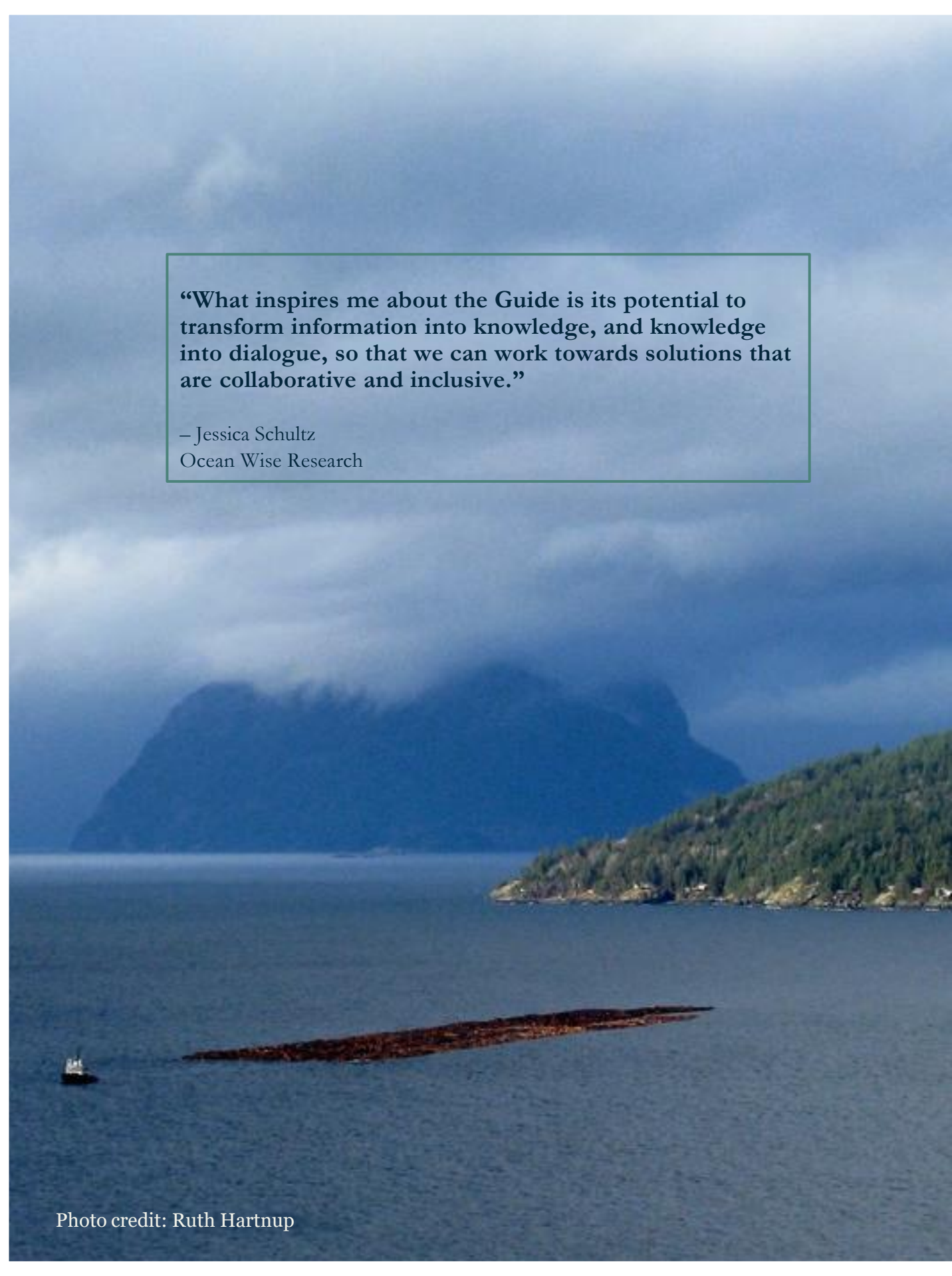
The youth are now leading a project to include the Skwxwú7mesh sníchim (Squamish language) and stories in the Guide's maps and resources so that the project reflects their values and culture and **creates educational resources for generations to come**.

“Átl'ka7tsem is home and has been home since time began to so many creatures, including us from the Squamish Nation. We have stories and knowledge about the Sound's ocean that are so important to listen to. Our Elders carry this knowledge and above anything else, this knowledge must be met with respect.”

– Myia Antone
Indigenous Research and Engagement Coordinator

“Átl'ka7tsem's ocean symbolizes who I am and where I come from... I want people to understand that it is itself a living creature, growing and healing compared to where it once was.”

– Nolan Rudkowsky
Indigenous Research and Engagement Coordinator



“What inspires me about the Guide is its potential to transform information into knowledge, and knowledge into dialogue, so that we can work towards solutions that are collaborative and inclusive.”

– Jessica Schultz
Ocean Wise Research

Our accomplishments

Strengthen collaborative decision-making and relationships

All sectors, communities, and persons are invited to participate in the Guide’s process to strengthen collaborative decision-making and relationships throughout Átl’ka7tsem. **Inclusivity and trust, shared responsibility, and transparency** are guiding principles for this project. To this end, we are engaging and collaborating with diverse partners. In addition to governments, Indigenous communities, and research and conservation groups, we are also working with **economic sectors** throughout Átl’ka7tsem (e.g. forestry, shipping and transportation, tourism and recreation) to bring their voices, knowledge and perspectives into the Guide’s deliverables. We are also collaborating with the **arts community and education groups** (e.g. school districts, non-profit organizations, Indigenous place-based learning programs) to support the development of curricula and education resources that strengthen awareness and connection to place.

“The Guide is a project that builds community and represents a collection of knowledge, past and present, in an easily accessible tool.”

– Ruth Simons
Átl’ka7tsem / Howe Sound Biosphere Region Initiative



Local knowledge holders annotate maps at a workshop co-hosted by Ocean Wise and the David Suzuki Foundation in April 2018

Our accomplishments

Support marine spatial planning

The Guide seeks to support regional marine spatial planning by connecting and leveraging the strengths of research organizations and decision-making entities throughout the Salish Sea. Accordingly, in February 2020, we organized a workshop to convene the organizations and governments who are leading local and regional marine spatial planning with the goal of building collaborative capacity. Coming out of this workshop, we identified the **need to link our deliverables with regional databases, maps, and frameworks** to produce centralized decision-support tools that contain high resolution data and accurately reflect local values and knowledge.

This regional coordination may evolve into a **marine spatial planning process that links nodes of community-based knowledge collection, research, and decision-support tools** into a comprehensive and regional planning framework and network.

“Átl’ka7sem is a great example of the capacity of nature to rebound if given a chance and the perfect place for city dwellers to connect with the marine environment. The fact that the Guide will enable better decision making and more holistic planning for the marine environment in the future is incredibly exciting.”

– Kilian Stehfest
David Suzuki Foundation

Milestones and team

July

April

June

Sept

January

March

April

June

July

2017

2018

2019



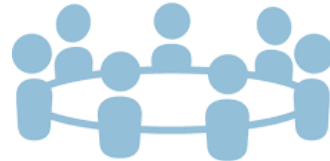
The Ocean Watch Task Force decides to support the creation of a marine guide for Howe Sound/ Átl'ka7tsem

The Howe Sound/ Átl'ka7tsem Marine Reference Guide becomes a project on Tides Canada Initiatives Society's Shared Platform, with Fiona Beaty as the Project Director



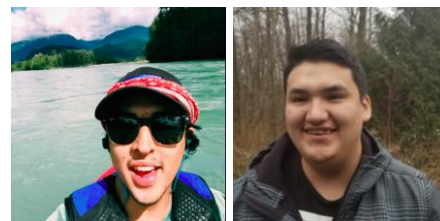
The Squamish Nation joins the Ocean Watch Task Force as leadership partners for the Marine Reference Guide

First roundtable Steering Committee meeting. The roundtable of advisors meets quarterly to review and guide the project's development.



Bridget John joins the team as a Research Assistant

Jonny Williams and Nolan Rudkowsky join the team as Indigenous Research and Engagement Coordinators



Coordinate a clean-up of over 630 kg of trash from the Squamish Estuary with the help of over 80 community members

Lead a canoe trip with Squamish Nation youth to do a shoreline clean-up on Kw'emkw'em (Defense Islands)



Create and ratify a project partnership agreement with Ocean Wise and the David Suzuki Foundation to secure in-kind contributions toward the Guide. Willem van Riet joins the team as GIS analyst

Lead a boat trip to culturally important places in Átl'ka7tsem and coordinate a workshop to discuss Indigenous youth engagement in regional non-profit and environmental initiatives



Survey eelgrass and marine debris along Átl'ka7tsem's mainland shoreline, with in-kind support from Ocean Wise, SeaChange Marine Conservation Society and the David Suzuki Foundation

Myia Antone joins the Indigenous Research and Engagement Coordinator team



Conduct a pilot plankton survey (the full survey has been postponed until 2021 due to COVID-19 travel restrictions)

Host a workshop to discuss marine spatial planning in the Salish Sea

Participate in a West Howe Sound industry workshop



Host the Squamish Nation stewardship and Guardian Watchmen network workshop

Contribute a poster and presentation to the virtual Salish Sea Ecosystem Conference



Participate in Coastal Asset Valuation pilot workshop led by the Town of Gibsons

Coordinate Celebrate the Sound/ Átl'ka7tsem celebration for World Oceans Day 2020

July

Sept

December

January

February

March

April

May

June

2019

2020

1,259

unique web visits

96

volunteers who support research and events

\$450,000

funds raised to date

3,500

social media engagements

16

media articles

participated in and provided advice at

21

events, conferences, and workshops

614

spatial data layers collected

14

research reports and blogs written and published on our website

19

presentations to communities, non-profits and businesses.

230

participants at our workshops and events

16

instances of sharing our data and resources to industry, provincial, federal, and local governments, and non-profit organizations

18

presentations to local, provincial, federal, and First Nations governments

“There is an incredible diversity of life in the Sound's ocean, including **over 750 species of marine animals and plants** that provide many benefits to people and communities. By taking care of oceans, we are also taking care of communities.”

– Jessica Schultz, Ocean Wise Research

2018-2020 at a glance

“There is literally an oceanic swell of connections being built around the Sound through this work. We are excited to be a part of this network - a constellation of passionate people working together to support the long-term health and revitalization of Howe Sound / Átl'ka7tsem.”

Sarah McJannet
District of Squamish

“Being on or around Howe Sound/ Átl'ka7tsem has always made me feel most alive and I want to ensure that Howe Sound is as magical as ever for all future generations to come.

I am continuously astonished by the strong sense of community around Howe Sound/ Átl'ka7tsem and the passion and wealth of knowledge that arises for the marine realm. I am excited for the Guide to showcase that connectedness.”

– Bridget John
Research Assistant

“Howe Sound is a favourite destination for scuba divers in the Lower Mainland and provides globally unique opportunities to dive and study glass sponge reefs within recreational SCUBA depths. The Guide not only provides an educational tool for the public, but is a reference for local and regional planners reviewing proposals that may impact the marine environment.”

– Adam Taylor
Underwater Council of British Columbia

“I'm excited to be witness to all the stories and history that will be shared both ancient and more recent. I'm excited to hear of all the beautiful work that's been done to revitalize Átl'ka7tsem and to have our Skwxwú7meshv history and stories shared with those who wish to learn.”

– Charlene Williams
Squamish Nation member



Art credit: Art by Di

Howe Sound/ Átl'ka7tsem Marine Reference Guide

www.facebook.com/marinereferenceguide
www.howesoundguide.ca

Thank-you for protecting our treasured region's oceans and communities!



Photo credit:
Kyla Hemmelgarn