

Howe Sound Átl'ka7tsem Marine Reference Guide



*An update we share with you in
celebration of World Oceans Day, 2021*

“Having all our regions and our municipalities come together, all our different governments come together so that we can effectively plan, not just for today, but for future as well is exciting, and I’m looking forward to the Guide helping us with all of our planning and decision making.”

– Joyce Williams
Councillor, Squamish Nation

About Átl’ka7tsem

Howe Sound/Átl’ka7tsem is within the traditional, ancestral, and unceded territory of the Sk̓wxwú7mesh 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 socio-economic, cultural, 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 MakeWay’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: Kieran Brownie
Cover art:: Art by Di

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.**

When you drive up the Sea-to-Sky highway and you look out at Howe Sound, it looks like a two-dimensional flat surface. But meanwhile, underwater there's all kinds of drama unfolding. The Guide is a way to pull back that curtain and see what's happening underwater, not just with the marine life, but also in terms of what it is that people care about, what they value and what's important when we go forward and make decisions about the Sound. – Jessica Schultz

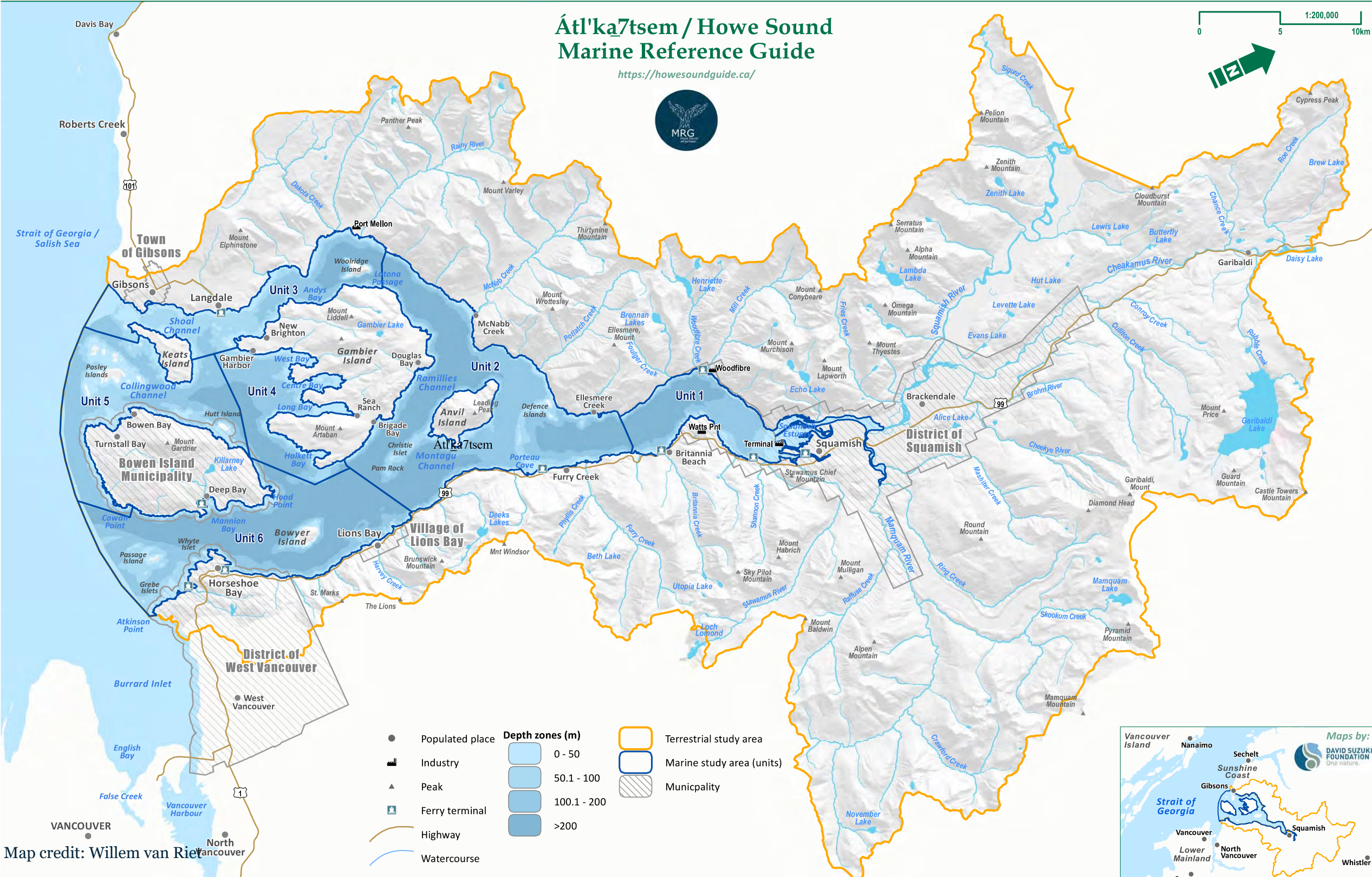




Photo credit:
Jenny Lee Silver



Art credit:
Art by Di

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

1 Celebrate the Sound 2.0!

Join us on **June 7th from 7-8pm** for a free virtual launch event as we share our project's accomplishments and stories to celebrate Átl'ka7tsem's incredible ocean and people!

2 Participate in our survey

Share your knowledge about the Sound's ocean and freshwater by participating in our online survey. See button on the next page →

3 Learn and explore

Explore some of the maps, blogs and reports we have produced over the past year to document the Sound's communities and water!

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!

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.

Click on the pictures and buttons to explore links and resources

Register here to
'Celebrate the Sound'

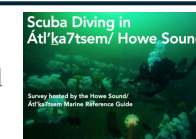
Participate in
our online
survey



Connect with likeminded
groups using our
community network map



Explore the Sound's
popular dive sites and
stories

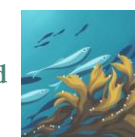


Dive into hundreds
of data layers in
our interactive map



Donate here

Discover the
magical world
of herring!



Visit our website:
howesoundguide.ca

Learn Squamish Nation place
names through our online
interactive map





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 | Trevor Dunn – Sea to Sky Gondola |
| Ruth Simons – Howe Sound/ Átl'ka7sem Biosphere Region Initiative | Ken Sneddon – Sechelt Creek Contracting Ltd. |
| Adam Taylor – Underwater Council of British Columbia | Jessica Schultz – University of Guelph |
| Janine Beckett– Department of Fisheries and Oceans | Randall Lewis – Squamish River Watershed Society |
| Bill Wareham – Sunshine Coast Conservation Association | Aroha Miller – Ocean Wise |
| | Jay Ritchlin - David Suzuki Foundation |
| | Kathleen Edwards – Squamish Nation |

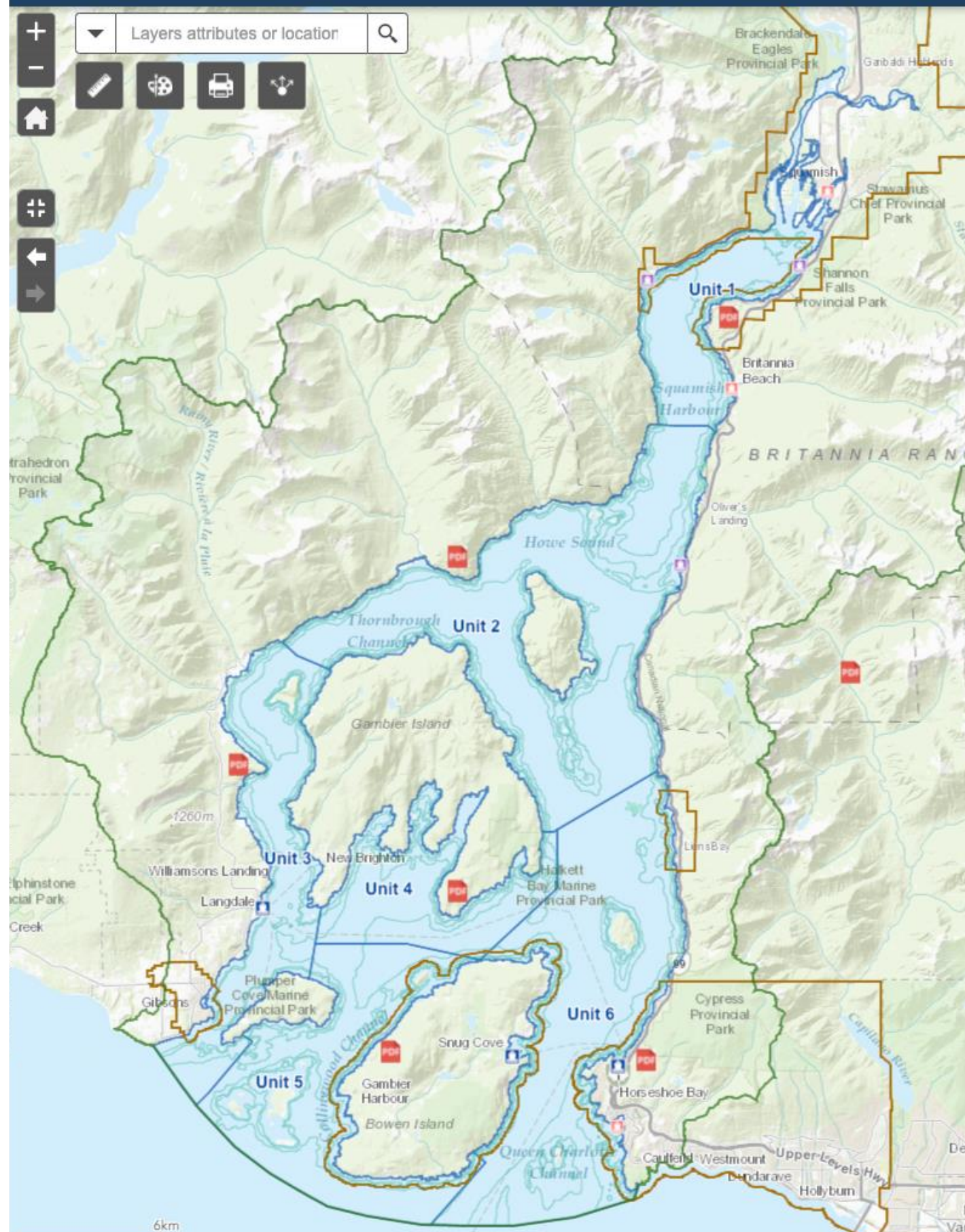
Management Team

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

Project Partners

- | | |
|--|-------------------------|
| Ocean Wise Marine Conservation Association | David Suzuki Foundation |
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Thank-you immensely to our partners and supporters



Our accomplishments

Support marine spatial planning & education

In 2021, the Guide launched an online interactive map that **contains over 400 spatial data layers and documents** associated with Átl'ka7tsem's ocean, freshwater, and communities. This decision-support tool informs marine spatial planning and community education by visualizing how economic, ecological, cultural, and social values and attributes interact with one another in space. Maps are fantastic tools for unveiling the mystery of the underwater world, which is out of sight and out of mind for many people.

The interactive map pulls together extensive data and knowledge that was previously held by separate governments, organizations, and individuals. It also contains non-spatial information (e.g., reports, videos, stories) that interpret and augment the data, and describe best practices for protecting human access and ecosystem health. Importantly, the Guide implemented a bottom-up and community-driven approach to creating the map, which strengthened the inclusion of high-resolution data and local and traditional knowledge about the ocean and communities.

By **centralizing and facilitating access** to this diverse place-based information, the Guide builds capacity for decision-makers and communities to protect important socio-economic, cultural, and ecological values from pressures such as climate change, development, and pollution.

“The Marine Reference Guide is a fantastic example of bringing knowledge together from multiple sources. It's individual groups, governments, traditional knowledge keepers. They each have a valuable piece of information about this complex area, but it isn't until it all comes together that you really see how truly amazing and diverse Átl'ka7tsem is. And that's what the Marine Reference guide does.”

— Kate-Louise Stamford
Islands Trust

An artistic illustration of an orca breaching the water. The orca is dark grey with a white patch on its chest. The water is depicted with stylized, wavy patterns in shades of blue and green. In the background, there are mountains and a body of water under a sky with soft, horizontal bands of color, suggesting a sunset or sunrise.

Our accomplishments

Bring together ways of knowing

To bring to life and reflect Átl'ka7sem's community knowledge about the ocean, the Guide conducted a participatory mapping process. This involved community members drawing and describing places that are important to them on maps. In 2020-2021, Guide **conducted over 30 interviews, hosted 8 workshops, and surveyed over 180 knowledge holders** throughout the Sound, including individuals from the Squamish Nation, industry, recreation, conservation, residents, and government.

The Guide's community-based and participatory approach enabled bringing together diverse ways of knowing, including local, Indigenous, and western scientific knowledge systems. It also advanced the meaningful inclusion of community voices, values, and knowledge in the Guide's decision-support tools, thus strengthening holistic awareness of the region's nature and communities.

"The Marine Reference Guide brings together all kinds of different ways of knowing all kinds of different values, and it makes it accessible for all different types of people. It's more than just a map. It's a catalyst for dialogue and conversations that include everyone that's part of the community, and that's what I find most exciting about it."

– Jessica Schultz
Biodiversity scientist, University of Guelph



“One of the things that I have learned is if there's herring,
there's hope.”

— Jonathan Williams

Photo credit: Kieran Brownie

Our accomplishments

Empower young people

The Guide has come to life through the leadership of young people in the Sound who are channeling their vision for the region's future into the project. They have strengthened the community's connection to place using engagement approaches grounded in **storytelling, social media, and art**. They are filling critical knowledge gaps by spearheading field research projects on plankton, stream health, herring, and eelgrass. And they have catalyzed conversations about Indigenous and community-led approaches to stewardship and caring for the region's land, waters, and people.

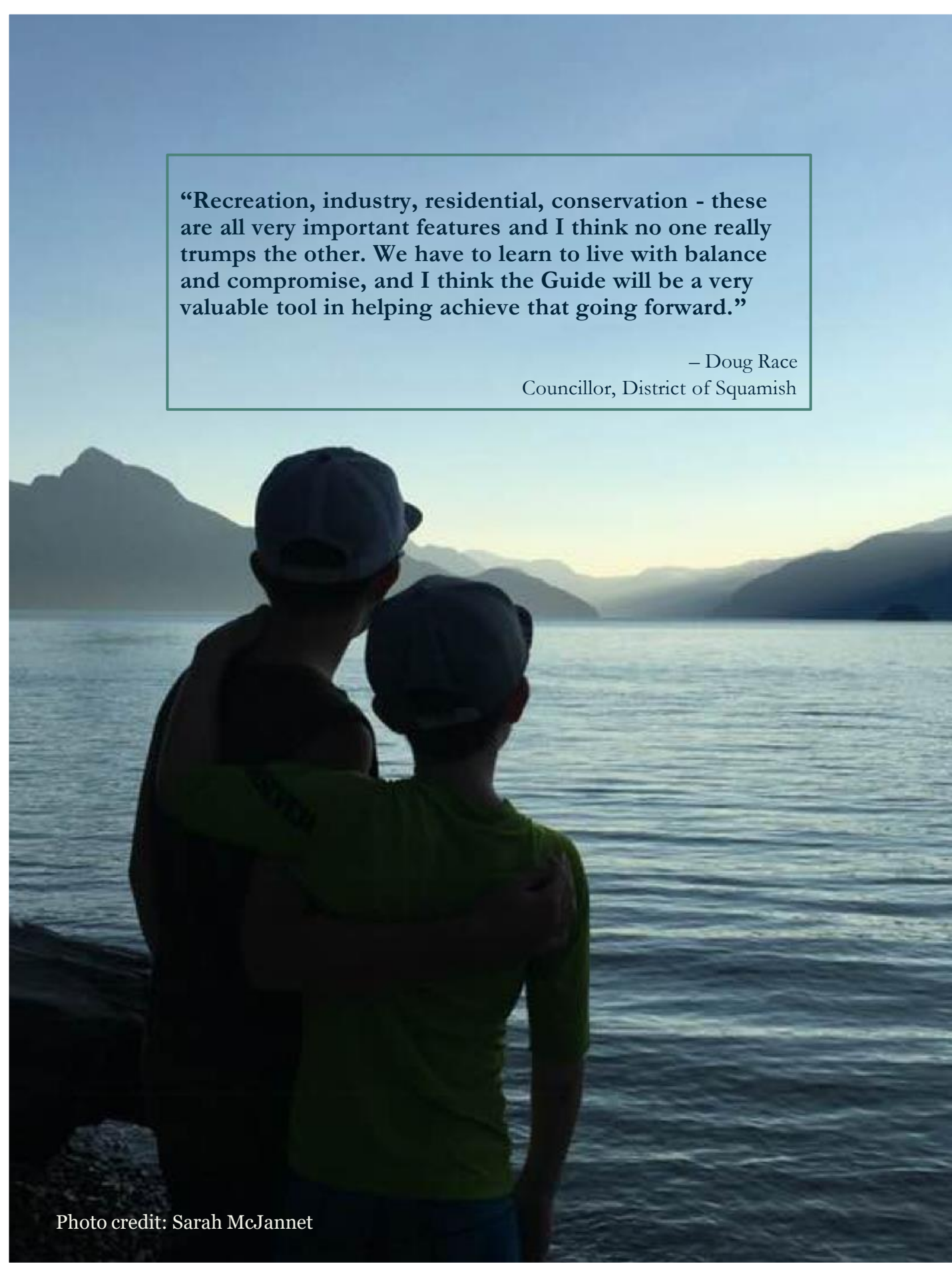
One particularly inspiring project in 2021 was led by youth from the Squamish Nation to understand the role of herring in their territory. After learning survey techniques from citizen scientists who have documented forage fish for decades, the youth transformed the research process by bringing their passion for the *Skwxwú7mesh sníchim* (Squamish language) and culture into the process. The data they collected about the value and distribution of *slhawt'* (pronounced th-lao-t, herring) and *ch'em'esh* (herring eggs) will be shared in the Guide's interactive map so that it is accessible to any groups who seek to better understand this culturally and ecologically important fish.

Throughout their work, **the young leaders embody principles of reciprocity, respect, and stewardship**. By nurturing partnerships and strengthening intergenerational and multisectoral knowledge sharing, they are contributing actively toward the protection of diverse ways of knowing and values held by sectors and communities throughout the Sound.

“We've really connected with the Squamish community and the people and the land here and in lots of different ways. We started a conversation on what it would mean and what it looks like to have *Skwxwú7mesh stélmexw*, to have Squamish people, back out on the territory and back out taking care of the lands and teaching others about the territory in the land.”

— Myia Antone

Indigenous Research and Engagement Coordinator



“Recreation, industry, residential, conservation - these are all very important features and I think no one really trumps the other. We have to learn to live with balance and compromise, and I think the Guide will be a very valuable tool in helping achieve that going forward.”

– Doug Race
Councillor, District of Squamish

Our accomplishments

Strengthen collaboration and community

Átl'ka7tsem is a complex and dynamic region in the heart of the Salish Sea. It spans four First Nations' territories and over nine municipalities, regional districts, and electoral areas, is home to **over 100,000 people**, and welcomes thousands more as visitors and tourists every year. It also supports hundreds of organizations whose work and livelihoods depend upon access to a healthy ocean.

Coordinating ocean-based activities across these territories, jurisdictions and organizations can be complicated and unwieldy. Accordingly, the Guide created a community network map to facilitate collaboration amongst Átl'ka7tsem's diverse government and stakeholder groups who connect with the region's ocean and freshwater. This map serves as a community directory that visualizes who is doing what work where.

In addition to creating tools and resources, the Guide established an MOU with the Squamish Nation and **hosted over 70** intergovernmental and multisector workshops, presentations, and community story-telling events to build connections and strengthen collaborative relationships. During the Covid-19 period, these virtual events provided a much-needed sense of connection and stewardship throughout Átl'ka7tsem.

“I think the Guide's greatest accomplishment is its collaboration, not only with elected officials and leaders, but also with the general community and with different organizations coming together to bring this initiative to fruition. I was really excited to see the community engagement that took place.”

– Joyce Williams
Councillor, Squamish Nation

2020-21 milestones and team

June



Published a report from Divers Weekend on important places for diving and recreation in the Sound



Aroha Miller (Ocean Wise) and Jay Ritchlin (David Suzuki Foundation) join the Guide's Steering Committee

July



Conducted 26 interviews over Zoom with local knowledge holders about the economic, social, cultural, and ecological values associated with the Sound's ocean & freshwater

Amy Kikuchi joins team through the Ocean Bridge Direct Action program and Melina Stokes joins as a volunteer

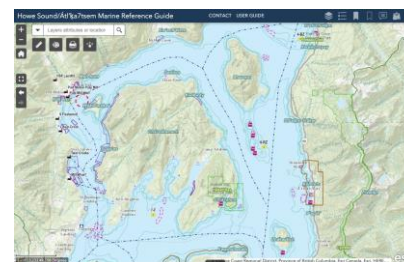


August



The Guide's Indigenous Research and Engagement Coordinators monitored stream health at Britannia Creek and Stawamus River in partnership with the Squamish Nation and Squamish River Watershed Society

Hosted a training workshop for local and regional government staff members who will use the Guide's interactive map to support decision-making and marine spatial planning



Janine Beckett (Department of Fisheries and Oceans) and Kathleen Edwards (Squamish Nation) join the Guide's Steering Committee

October

November

December

January

February

March

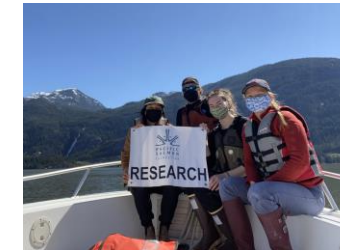
April

May

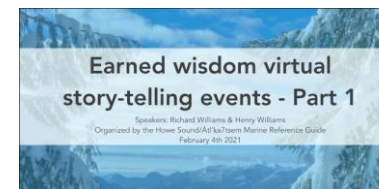
June



Hosted 'Stories from the Bay' storytelling event to discuss community stewardship in Mannion Bay/Kwil'akm



Began the plankton survey project to understand the seasonable distribution of plankton in the Sound



Hosted two story telling events with Squamish Nation elders, 'Earned Wisdom'

Conducted herring surveys to document the distribution of slhaw' (herring) and ch'em'esh (herring eggs)



Hosted training workshops with Squamish Nation and Provincial staff members to test and provide feedback about the Guide's interactive map

Completed an MOU between the Squamish Nation and Marine Reference Guide to document collaborative working relationships



Began interviews with Squamish Nation members after the Nation's council unanimously approved our research proposal



Launched the Howe Sound/ Átl'ka7tsem Aquatic Values survey, the Community Network Map and Interactive Map at Celebrate the Sound/ Átl'ka7tsem 2.0

2021

uploaded over

700

data layers and
reports into our
online maps

27

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

\$480,000

funds raised to date

37

presentations to
communities, non-
profits and
businesses

24

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

3,748

unique web visits

24

research reports and
blogs written and
published on our website

participated
in and
provided
advice at

32

events,
conferences, and
workshops

470

participants at our
workshops and events

22

media articles

“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, Squamish Nation member

34

days on the water
surveying herring,
plankton, stream
health and eelgrass

6,400

social media
engagements

2018-2021 at a glance

“What's really exciting about the Marine Reference Guide is **what started off as a mapping project turned into much more than that**. It became a way for people to engage in a collaborative approach to how we share information. It became a project that grew into other opportunities for research, for bringing the community together, and what's really exciting is that the project has been led by a really great team of young people.”

— Ruth Simons
Átl'ka7tsem / Howe Sound Biosphere Region Initiative

“It's going to provide a lot of information that we can use to **inform evidence-based decisions** that lead us toward our goals and objectives around sustainable development, stewardship, and protection of the important assets and community values of Howe Sound/ Átl'ka7tsem.”

— Sarah McJannet
Planner, District of Squamish

“The Guide provides an opportunity for people to access knowledge before making an application that impacts our waters. All parties have access to the information up front, which **encourages informed discussion and helps avoid potential conflict** and energy spent towards something that may be controversial or not permitted, such as building a dock on top of an eelgrass bed.”

— Adam Taylor
Underwater Council of British Columbia

Looking forward, **our goal is that the Guide will continue to provide service to the Sound's community**. We hope that it enables proactive decision-making to protect both ocean health and community access, that it catalyzes new research and education projects, and that it inspires other communities throughout the Salish Sea, B.C. and Canada to conduct similar bottom-up approaches to protecting their ocean and communities.

— Fiona Beaty
Project Director



Photo credit: Bridget John



Howe Sound/ Átl'ka7tsem Marine Reference Guide

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

Thank-you for working to
protect our treasured region's
ocean and communities!

Photo credit:
Taz, Sporkist