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A coastal health report mobilized community members to improve a marine environment

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A coastal health report mobilized community members to improve a marine environment

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If we conduct research, but are unable to communicate it to the broader community, then is it really making a sound? Because in reality, when it comes to environmental conservation, we need citizen mobilisation, as well a fundamental change in the way we collectively think and act, in order to achieve real outcomes.

I'm going to tell you a success story about what can happen when scientific knowledge is translated and delivered to a community, and how that can result in tangible conservation outcomes.

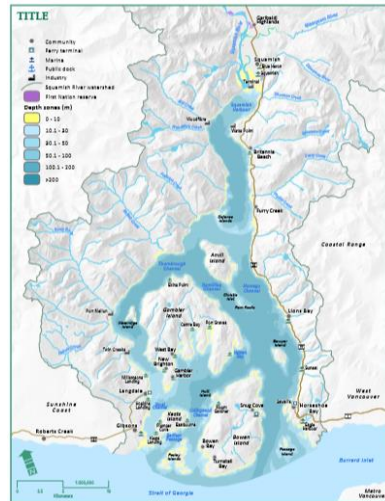
Atl'ka7tsem/Howe Sound



- Passionate local communities
- History of mining and paper production pollution
- Recovering ecosystem
- Species returning
- Growing in popularity—residents and visitors alike



Photo credit: Brittany Visona, Ocean Wise



Sheltered in the Salish Sea, just north of Vancouver B.C., Atl'ka7tsem/Howe Sound is a coastal fjord, dotted with islands. Howe Sound is home to many unique marine species and important habitats, and the local communities are full of passionate and dedicated individuals and groups. For those living in Vancouver, Howe Sound provides an opportunity to escape into the mountains to play. But there is a long history of contamination from industrial and mining developments within the Sound, which has led to degradation of the natural environment, and in some cases to population-level species impacts. The Britannia Mine has been described as one of the worst sources of water pollution involving metal contamination in North America's history. The Howe Sound Pulp and Paper (HSPP) mill raised levels of dioxins and furans by many orders of magnitude above regulation concentrations.

This contamination has since ceased, and changes in regulations, along with environmental remediation and monitoring, have led to the Sound returning to health. Howe Sound is still recovering, but rapid growth in the region continues to put pressures on the marine environment.

It is only in recent years that we have started to see some of the marine life rebound, such as the return of Orcas, herring, humpback whales and more. As bioindicators, these species tell us that the water quality is improving. But what does the data say?

How is the health of the Sound, really?

2017 Themes



- Marine Reference Guide
- Creation of new marine refuges e.g. New GlassSponge reef designations
- Data collected and contributed by citizen scientist and non-profit groups in conjunction with government groups

In 2017, an Ocean Watch report was released which summarized the coastal ocean health of Howe Sound using a variety of metrics, in the form of 32 articles, arranged in 7 themes. Each article was given a health rating based on various evidence and data. The articles also included recommended actions to improve the marine environment throughout the fjord. These actions were consolidated into an Action Plan containing seven key actions, for example, the creation of an online Marine Reference Guide.

Motivated local citizens, who had already been working for years to improve the health of the fjord, rallied behind the Action Plan. Bolstered by their impetus, forward movement has been seen on all seven of the key actions. The priority Marine Reference Guide is under development and supported by a management team, steering committee and advisors. Additionally, community support has led to new marine refuges being created to protect unique species in the Sound, and citizen scientists contributing data to various projects to help track the status and trends of key indicators.

Atl'ka7tsem/Howe Sound



Picture credit: Aroha Miller

Realised importance of dissemination of accessible knowledge in order to make waves and drive actions to improve coastal marine health.

There are often instances where data and research are undertaken but the information does not make it further than small academic circles. By consolidating and disseminating an array of information on a discrete geographic area for the purpose of increasing the knowledge of local citizens, actions are being observed. This solidifies the importance of providing accessible translations of scientific information to communities.

In 2020, an update to the 2017 report will be released. All indications thus far are that these actions are having a positive impact on the health of the fjord, for example, by the return of top trophic level species, and an increase in the number of critical fish observed. While there is still room to improve the mobilization of coastal health initiatives, the Howe Sound/Atl'ka7tsem community is an inspiration for other coastal areas.