



# OCEAN CANADA

## OCEANCANADA NEWSLETTER SPRING 2019



### CONTENTS

• <a href="#">OceanCanada News</a> .....	2
• <a href="#">Partner &amp; Collaborator News</a> .....	4
• <a href="#">Video Update</a> .....	6
• <a href="#">Media Coverage</a> .....	7
• <a href="#">Researcher in Profile</a> .....	9
• <a href="#">Recent Publications</a> .....	11
• <a href="#">Recent Presentations</a> .....	15

# OCEAN CANADA NEWS

## ***Beyond Climate***

Ian Mauro has been touring and continues to tour the film he directed *Beyond Climate* with narrator David Suzuki. Several showings followed by Q & A sessions have been held in various locations. He and David Suzuki will be in attendance at a showing at the [Congress of the Humanities and Social Sciences at UBC in Vancouver on June 4, 2019](#). It has also been accepted at fourteen film festivals. [Click here for more information and to view the trailer](#).



## **Rashid Sumaila and William Cheung on the Benefits of the Paris Agreement**

Rashid Sumaila and William Cheung discussed their latest paper, [Benefits of the Paris Agreement to Ocean Life, Economies, and People](#) with Zack Graber of *Science Advances* via Facebook Live on March 14, 2019. Their study, co-authored with Travis Tai, Vicky Lam, Megan Bailey, Andrés Cisneros-Montemayor, Oai Li Chen, and Sumeet Gulati, showed that the worldwide plan to limit the average global temperature could have a wide range of benefits, including protecting millions of tons of top revenue-generating fish species. [View the video](#).

## **Nathan Bennett Named Chair of People and the Ocean Specialist Group; International Union for Conservation of Nature; Commission on Environmental, Economic and Social Policy**



Nathan Bennett has been appointed to chair the [People and the Ocean Specialist Group](#) which will address issues for Indigenous people, coastal communities, small-scale fishers and island nations that depend upon the world's oceans and coastal environments. Its focus will be on CEESP's themes of governance; equity and rights; human well-being and livelihoods; gender; indigenous peoples; and business, best practice and accountability. It will work closely with IUCN member organizations involved in ocean conservation, management and development issues.

## **Rashid Sumaila Receives 2018 Murray A. Newman Research Award**

Rashid Sumaila has been awarded the [Murray A. Newman Research Award](#) from the Coastal Ocean Research Institute, which researches and reports on the health of coastal ocean ecosystems and generates transformative knowledge on key ocean issues. Recipients are recognized for their contributions to understanding, conserving, and communicating information about the aquatic ecosystems of western Canada and the species that inhabit them.



## PARTNER & COLLABORATOR NEWS

### **Building Equity into Sustainable Seafood Sourcing**

On March 19, 2019, Too Big To Ignore (TBTI) Director Ratana Chuenpagdee participated in a special session at this year's [Seafood Expo North America](#) in Boston. The session encouraged critical thinking and discussions on the opportunities that the Sustainable Development Goals (SDGs) provide for responsible businesses to engage with the world's traditional, small-scale fisheries and the ways that businesses can demonstrate their commitment and contribution to the SDG. Other panelists included:

- Adam Baske – Director, Policy and Outreach, International Pole and Line Foundation
- Poull Brien – Partner / Co-Founder, Wild Fish Direct, LLC
- Nola Martin – Vice President Marketing, Ocean Brands
- Joe Zelasney – Fishery Officer, Food and Agriculture Organization

### **Candid Conversations: The Importance of Dialogue in Generating Impact**



Eric Solomon

Rashid Sumaila and Eric Solomon of Ocean Wise Conservation Association were panel members at UBC's [Knowledge Exchange. Candid Conversations: The Importance of Dialogue in Generating Impact](#), in Vancouver on May 15, 2019. The purpose of the event was to connect UBC researchers and non-academic partners to create opportunities for dialogues that transform knowledge into meaningful impact.

## **Welcome to HQP Libby Dean and Shannon Hicks, Saint Mary's University**

The Atlantic Working Group is pleased to welcome Libby Dean and Shannon Hicks, Research Assistants working with Tony Charles at SMU. Their study investigates the diverse ways coastal communities of Nova Scotia are building resilience and planning for their futures. Using a social-ecological systems lens, they emphasize interactions between coastal communities and their local marine environments.



Libby Dean



Shannon Hicks

## **Dalhousie University HQP Cecilia Engler-Palma Invited to ICES**

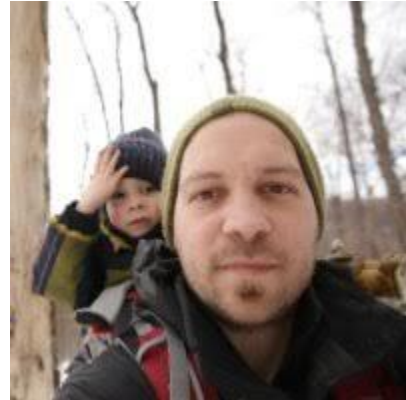
Cecilia Engler-Palma of the *OceanCanada* Law and Policy Working Group has been invited to participate in the International Council for the Exploration of the Sea (ICES) [Working Group on Environmental Interactions of Aquaculture](#) for a three-year term. The group aims to come to a better understanding of how aquaculture interacts with the environment as well as the effects of such interactions. The group's findings will support sustainable industry management.



## VIDEO UPDATE

*OceanCanada's* KM working group has several film projects on the go, led by Vincent L'Hérault. Most of them are in French:

- Le peuple de la mer (feature film).
- Modéliser le climat – l'utilisation de données climatiques pour la prise de décision éclairée.
- Verdir Montréal – combattre les îlots de chaleur urbains.
- Vers l'agriculture de demain – comment les changements climatiques affecteront-ils l'agriculture?
- Changements climatiques au Québec – collaborer pour faire face aux changements climatiques.
- Aquaculture and climate change: preparing an industry for the future.
- Fishing and climate change.
- Matériauteurque – hardware recycling reducing carbon footprint in a remote community.



## MEDIA COVERAGE

- May 8. [Greenhouse gas causing Canadian Arctic seas to acidify quicker](#). CBC.
- May 8. [Greenhouse gases are causing Canada's Arctic waters to acidify quicker, research suggests](#). Globe and Mail.
- May 6. [UN report warns of grim future for nature, biodiversity](#). CPAC.
- April 1. [Non aux subventions conduisant à la surpêche !](#) EurActiv.
- March 31. [Choisir entre la protection des océans ou sa destruction](#).  
Le Parisien.
- March 13. [Trust more important than ecology to gain local support for conservation](#). EurekAlert!
- March 11. [Perbudakan ABK dan Illegal Fishing di Laut Lepas](#). Darilaut.
- March 8. [Suzuki joins environmental filmmaker for TRU presentation](#).  
CFJC Today.
- March 8. [What to do in Kamloops this weekend](#). Infotel.ca.
- March 8. [David Suzuki implores young to act on climate change](#).  
Times Colonist.
- March 8. [Globally renowned fisheries economist Professor Rashid Sumaila visits UWA](#). University of Western Australia News.
- March 7. [Tata Kelola Perikanan Laut Lepas Harus Diperbaiki Menyeluruh](#). Medcom.
- March 7. [Indonesia Kaji Tata Kelola Perikanan di Sela World Ocean Summit](#). Tempo.
- March 6. [Have your say in how city supports the arts](#). The Daily Courier.

- March 5. [David Suzuki to speak in at UBC Okanagan.](#)  
Kelowna Capital News.
- March 5. [Mehr Klimaschutz brächte Fischerei Milliarden.](#) SonneSeite.
- March 5. [East China Sea fish stocks hit hard by global warming.](#)  
China Dialogue Ocean.
- March 4. [Heatwaves sweeping oceans 'like wildfires', scientists reveal.](#)  
The Guardian.
- March 4. [If you don't like eating fish, you might be a fan of global warming.](#) Popular Science.
- March 3. [Ideafest: what a warmer climate means to you.](#)  
Times Colonist.
- March 1. [Il riscaldamento globale sta già danneggiando la pesca in tutto il mondo.](#) Green Report Italy.
- March 1. [Mehr Klimaschutz brächte Fischerei Milliarden.](#)  
Wallstreet Online Germany.
- March 1. [Global warming decimating world fisheries—and studies warn it's on track to get worse without urgent action.](#)  
Common Dreams.
- February 28. [58 things to do in Metro Vancouver on Friday, March 1.](#)  
Georgia Strait.
- February 28. [The world is losing fish to eat as oceans warm, study finds.](#)  
The New York Times.
- February 28. [Earth's fish are disappearing because of climate change, study says.](#) CNN.



## RESEARCHER IN PROFILE

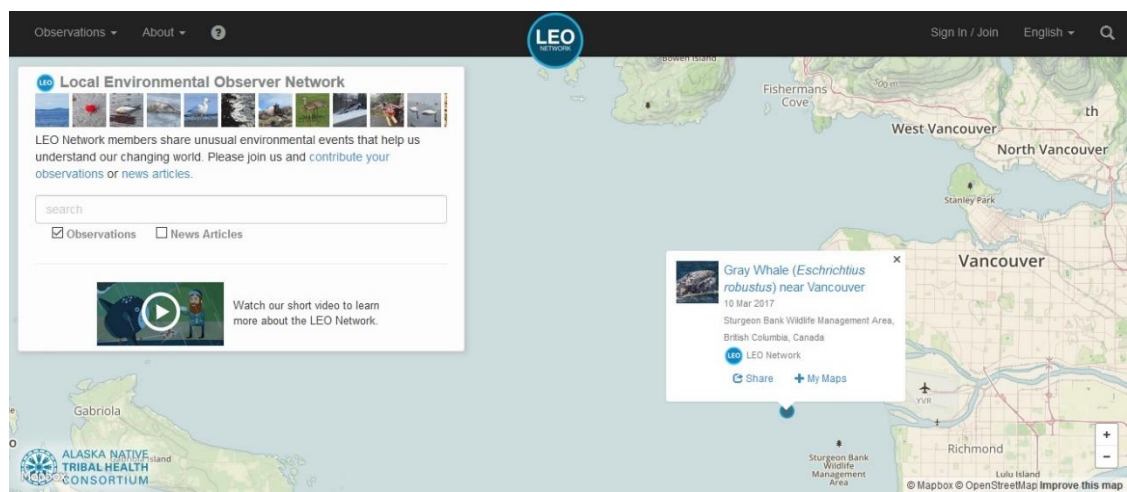


Dr. Tom Okey is Principal of Ocean Integrity Research and an Adjunct Associate Professor in the School of Environmental Studies at the University of Victoria. He is a Pew Fellow in Marine Conservation for his work on understanding climate change impacts in marine ecosystems, and a National Geographic Explorer for school-classroom implementation of the Local Environmental Observer (LEO) Network in Canada. He is partially supported by the First Nations Health Authority to implement the LEO Network in British Columbia generally. He was a co-applicant for *OceanCanada's* SSHRC grant, and serves on its Pacific Working Group to link his work assessing the health of Canada's Pacific marine ecosystems.

Dr. Okey is well-known internationally for his collaborative analytical approaches to ecosystem knowledge synthesis, and for constructing highly articulated marine fishery-ecosystem (Ecopath) models such as the newly updated 'U.S. South Atlantic Region' model for active management. He recently led a National Centre for Ecological Analysis and Synthesis working group on the social-ecological health and futures of the North Pacific Ocean relating to climate, fisheries, and pollution based in part on an updated version of his first Ecopath model (Prince William Sound), of which he led the collaborative construction in 1999 to understand impacts of the *Exxon Valdez* oil spill.

In the late 1980s, after stints as a commercial fisherman, and a seaman and researcher on research vessels, Dr. Okey conducted original submarine canyon research, leading to a unified understanding of how equilibrium and non-equilibrium forces structure biological communities. He developed and introduced the concept of Ecosystem-Based Fisheries Management in 1996; convened the first ever Scientific Advisory Panel on Marine Protected Areas in 1997; convened and led a U.S. national working group on Essential Fish Habitat; helped draft the California Marine Life Management Act of 1999; developed the first and most robust Keystoneness and Interaction Strength Indices for whole biological communities in 2004; led the first mapping of the vulnerability of Canada's Pacific marine ecosystems to climate change in 2015; and has convened many collaborative workshops and symposia as well as international conferences, some through PICES (North Pacific Marine Science Organization) and the IOC (International Oceanographic Commission).

His work on developing a framework for ecological indicators for Canada's Pacific Marine Ecosystems was the basis for the establishment of the Coastal Ocean Research Institute of Ocean Wise—a partner of *OceanCanada*. Like some of the polychaetes and crustaceans he has studied, Dr. Okey likes to think of himself as an ecological fence jumper and renegade.



The LEO Network ([link](#))

## RECENT PUBLICATIONS

### JOURNAL ARTICLES

Andrachuk M, **Armitage D**, Hoang HD, Le NV. 2019. (*Coastal Management*) [A network perspective on spatially clustered territorial use rights for fishers \(TURF\) zones.](#)

Bendriem N, Roman R, **Gibson D**, **Sumaila UR**. 2019. (*Fisheries Research*) [A review of the fate of southern British Columbia coho salmon over time.](#)

**Bennett NJ**, Di Franco A, Calò A, Nethery E, Niccolini F, Milazzo M, Guidetti P. 2019. (*Conservation Letters*) [Local support for conservation is associated with perceptions of good governance, social impacts, and ecological effectiveness.](#)

Biggs D, **Ban NC**, Castilla JC, Gelcich S, Mills M, Etienne M, Knight A, Marquet P, Possingham H. 2019. (*Global Ecology and Conservation*) [Insights on fostering the emergence of robust conservation actions from Zimbabwe's CAMPFIRE program.](#)

**Berkes F**, **Nayak PK**. 2019. (*Maritime Studies*) [Role of communities in fisheries management: "one would first need to imagine it."](#)

**Chuenpagdee R**, Rocklin D, Bishop D, Hynes M, Greene R, Lorenzi MR, Devillers R. 2019. (*Marine Policy*) [The global information system on small-scale fisheries \(ISSF\): a crowdsourced knowledge platform.](#)

**Gregr EJ**, **Palacios DM**, Thompson A, **Chan KMA**. 2019. (*Ecography*) [Why less complexity produces better forecasts: an independent data evaluation of kelp habitat models.](#)

Holden J, Collicutt B, Covernton G, Cox KD, Lancaster D, Dudas SE, **Ban NC**, Jacob AL. 2019. (*Marine Policy*) [Synergies on the coast: challenges facing shellfish aquaculture development on the central and north coast of British Columbia.](#)

Jiménez-Uzcátegui G, Wiedenfeld D, Valle CA, Vargas H, Piedrahita P, Muñoz-Abril LJ, **Alava JJ**. 2019. (*The Open Ornithology Journal*) [Threats and vision for the conservation of Galápagos birds.](#)

**Kidd JA**, Knysh KM, van den Heuvel MR, Gagnon J-M, **Courtenay SC**. 2019. (*Journal of Crustacean Biology*) [Identification of native and non-native grass shrimps \*Palaemon\* spp. \(Decapoda: Palaemonidae\) by citizen science monitoring programs in Atlantic Canada.](#)

Lennox RJ, **Engler C**, Kowarski K, Filous A, Cooke SJ, Auger-Méthé M. 2019. (*Canadian Journal of Fisheries and Aquatic Sciences*) [Optimizing marine spatial plans with animal tracking data.](#)

**Mauro IJ**. 2019. (*Landscapes/Paysages*) [Climate Atlas of Canada: listening to the landscape of the future.](#)

**Pinkerton E**, Salomon AK, Dragon F. 2019. (*Canadian Journal of Fisheries and Aquatic Sciences*) [Reconciling social justice and ecosystem-based management in the wake of a successful predator reintroduction.](#)

Pittman J, **Armitage D**. 2019. (*Ecological Economics*) [Network governance of land-sea social-ecological systems in the Lesser Antilles.](#)

Popova E, Vousden D, Sauer WHH, Mohammed EY, Allain V, ... **Sumaila UR**, et al. 2019. (*Marine Policy*) [Ecological connectivity between the areas beyond national jurisdiction and coastal waters: safeguarding interests of coastal communities in developing countries.](#)

Sakai Y, Yagi N, **Sumaila UR**. 2019. (*Fisheries Science*) [Fishery subsidies: the interaction between science and policy](#).

**Steiner NS, Cheung WWL, Cisneros-Montemayor AM**, Drost H, Hayashida H, **Hoover C**, Lam J, Sou T, **Sumaila UR**, Suprenand P, **Tai T, VanderZwaag D**. 2019. (*Frontiers in Marine Science*) [Impacts of the changing ocean-sea ice system on the key forage fish Arctic cod \(\*Boreogadus Saida\*\) and subsistence fisheries in the Western Canadian Arctic: evaluating linked climate, ecosystem and economic \(CEE\) models](#).

Schwartz MW, **Belhabib D**, Biggs D, Cook CN, Fitzsimmons J, Giordano AJ, et al. 2019. (*Conservation Science and Practice*) [A vision for documenting and sharing knowledge in conservation](#).

**Sumaila UR**, Freire KMF. 2019. (*Boletim do Instituto de Pesca*) [Economic potential of the Brazilian marine recreational fishery](#).

**Talloni-Álvarez NE, Sumaila UR**, Le Billon P, **Cheung WWL**. 2019. (*Marine Policy*) [Climate change impact on Canada's Pacific marine ecosystem: the current state of knowledge](#).

## **BOOKS**

Pyne S, **Taylor DRF**, editors. 2019. [Cybercartography in a reconciliation community: engaging intersecting perspective](#). Volume 8. Elsevier.

**Taylor DRF**, Anonby E, Murasugi K, editors. 2019. [Further developments in the theory and practice of cybercartography: international dimensions and language mapping](#). Volume 9, 3<sup>rd</sup> edition. Elsevier.

## REPORTS

AMAP. 2019. [AMAP assessment 2018: biological effects of contaminants on Arctic wildlife and fish: summary for policy-makers](#). Arctic Monitoring and Assessment Programme.

AMAP. 2019. [Arctic Ocean acidification assessment 2018: summary for policy-makers](#). Arctic Monitoring and Assessment Programme.

AMAP. 2019. [AMAP climate change update 2019: an update to key findings of snow, water, ice and permafrost in the Arctic \(SWIPA\) 2017](#). Arctic Monitoring and Assessment Programme.

**Harper S, Sumaila UR.** 2019. [Distributional impacts of fisheries subsidies and their reform: case studies from Senegal and Vietnam](#). International Institute for Environment and Development.

Merayo E, Porras I, **Harper S**, Steele P, Mohammed E. 2019. [Subsidy reform and distributive justice in fisheries](#). International Institute for Environment and Development.

Porras I, Mohammed EY, Milligan B, James P, **Harper S**, Pochet G, Vargas R, Merayo E, Steele P. 2019. [No hidden catch: mainstreaming values of small-scale fisheries in national accounts](#). International Institute for Environment and Development.

## POLICY BRIEF

**Bennett NJ.** 2019. [Marine social science and ocean sustainability](#).

## RECENT PRESENTATIONS

**Mauritius, May 27, 2019. Sumaila, Rashid.**

What would you tell WHITE HOUSE on Oceans; how would you prepare for it? UNEP Nairobi Convention, WIO Regional Science to Policy Workshop.

**Halifax, NS. May 24, 2019. Long, Rachel; Sumaila, Rashid; Charles, Anthony; Maharaj, Vishwanie.**

Fisheries economics in a world of interdisciplinarians. Frontiers and Futures for Fish, NAAFE Forum 2019.

**Halifax, NS. May 23, 2019. Cashion, Tim; Noack, Frederik; Sumaila, Rashid.**

Seafood watch recommendations effect on US ex-vessel prices. Frontiers and Futures for Fish, NAAFE Forum 2019.

**Halifax, NS. May 23, 2019. Sumaila, Rashid; Pierruci, Andrea; Oyinlola, Muhammed.**

Aquaculture over-optimism. Frontiers and Futures for Fish, NAAFE Forum 2019.

**Montreal, QC. May 22, 2019. Sumaila, Rashid.**

Interdisciplinary ocean and fisheries economics with examples from the trenches. 2019 World Conference on Natural Resource Modelling, GERAD Group for Research in Decision Analysis.

**Dakar, Senegal. May 14, 2019. Sumaila, Rashid.**

The current landscape of marine fisheries and fisheries subsidies around the world. WTO Negotiations on Fisheries Subsidies: Implications for West Africa.

**Denmark, Copenhagen. May 13, 2019. Sumaila, Rashid.**

Sustainably harvested and productive ocean. Panel member, UN Decade of Ocean Science for Sustainable Development 2021-2030, 1<sup>st</sup> Global Planning Meeting.

**Vancouver, BC. April 25, 2019. Sumaila, Rashid.**

So, resource governance priorities change over time. What are the key considerations nowadays? Utopia or Dystopia – What is the Future of Natural Resource Governance? RAW Talks, Canadian International Resources and Development Institute.

**Durban, South Africa. April 16-17, 2019. Sumaila, Rashid.**

MPAs as retirement and insurance policies. Marine Protected Areas, Ocean Risk and Climate Change, Wild Oceans and Republic of South Africa Environmental Affairs.

**Galway, Ireland. April 16, 2019. Eger, Sondra.**

Learning from experience to advance the operationalization of integrated coastal and marine management. International Council for the Exploration of the Sea (ICES) Marine Spatial Planning Working Group Meeting,

**Kharagpur, India. April 4-6, 2019. Nayak, Prateep.**

Transdisciplinary perspective on social-ecological wellbeing.  
2<sup>nd</sup> International Conference on Happiness and Wellbeing: The Road Beyond.

**Toronto, ON. March 28, 2019. VanderZwaag, David.**

Navigating the international legal and political seascapes of the Northwest Passage: conflict, cooperation, questions. Canadian Roundtable on Northern Low Impact Shipping Corridors and the Proposed Arctic Seaway Authority.



**Paramaribo, Suriname. March 19-21, 2019. Koubrak, Olga.**

Protecting sea turtles in the wider Caribbean: an observer's experience with the SPAW protocol. Wider Caribbean Sea Turtle Conservation Network Annual General Meeting.

**Fort Garry, MB. March 15, 2019. Baird, Natalie.**

Shifting our lens: engaging youth in oceans and climate change research through participatory video. Rising Up, A Graduate Students Conference on Indigenous Knowledge and Research, University of Manitoba.

**Vancouver, BC. March 15, 2019. Sumaila, Rashid.**

Is there a pathway to a sustainable ocean's economy? MP Joyce Murray's series Breakfast Connections.

**Kuala Lumpur, Malaysia. March 13, 2019. Teh, Louise; Teh, Lydia.**

Economic and social research in small-scale fisheries. Universiti Malaya.

**Belfast, Northern Ireland. March 6, 2019. Eger, Sondra.**

Learning from experience to advance the operationalization of integrated coastal and marine management. Queen's University.

**Ottawa, ON. February 28, 2019. Mauro, Ian.**

Restorying climate change: Indigenous knowledge, storytelling, and mapmaking. National Climate Change Science and Knowledge Priorities Workshop, Environment and Climate Change Canada.

**Winnipeg, MB. February 25, 2019. Mauro, Ian.**

Climate, cinema, and cartography: science, storytelling, and the future of adaptation. Manitoba Water and Wastewater Association Annual Conference.

**Bamfield, BC. February 23-24, 2019. Ban, Natalie.**

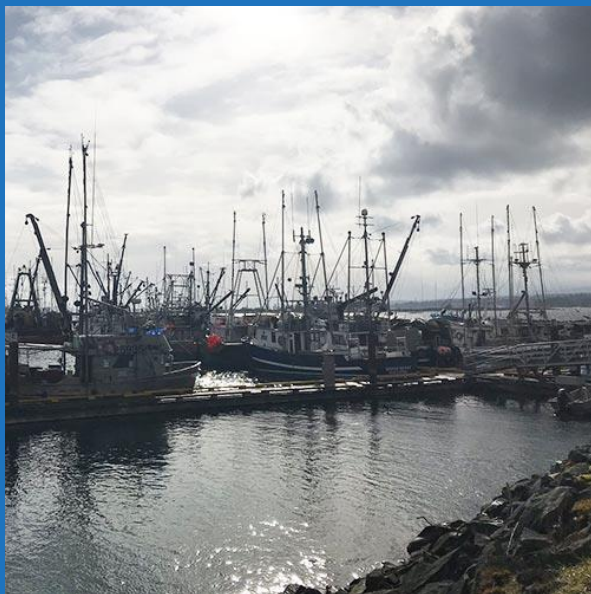
People in ecology. Pacific Ecology and Evolution Conference.

**Winnipeg, MB. February 8, 2019. Mauro, Ian.**

Climate, cinema, and cartography: science, storytelling, and the future of planning. Atmosphere Conference, University of Manitoba Faculty of Architecture.

**Victoria, BC. February 2-3, 2019. Ban, Natalie.**

Marine conservation research on BC's central coast: Indigenous-academic partnerships. Outer Shores Expeditions Symposium.



The *OceanCanada* Partnership is a Social Sciences and Humanities Research Council (SSHRC) project that brings partners from across Canada together to holistically study the challenges and opportunities facing Canada's oceans and coastal communities.