



OCEAN CANADA

OCEANCANADA NEWSLETTER FALL 2019



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OCEANCANADA NEWS

Rashid Sumaila Named Fellow of Royal Society of Canada



Rashid Sumaila (r) with Ian Mauro, KM co-lead and member of Royal Society of Canada's College of New Scholars since 2015.

Congratulations to Rashid Sumaila for becoming a Fellow of Royal Society of Canada! Rashid is one of the world's most innovative researchers on the future of the oceans, integrating the social, economic and fisheries sciences to build novel pathways towards sustainable fisheries.

[Read more here.](#)

Nathan Bennett Spearheads Important Initiatives

Nathan Bennett, *OceanCanada* Postdoctoral Fellow, has recently released two important documents in collaboration with other ocean researchers:

- [***The Thriving Coastal Communities Initiative***](#), prepared with Megan Eadie of T. Buck Suzuki Foundation, with the support of UBC, T. Buck Suzuki Foundation, and the Vancouver Foundation, addresses some challenges in the health and well-being of BC coastal communities. The initiative identifies the following as key issues: "being disconnected from decision-making process, a changing climate, rapidly evolving ecosystems, increasing pollution, declining investment, loss of community infrastructure, increasing competition over marine space, loss of access to fisheries, and increasingly complex marine management regimes."
- [***Achieving a Safe and Just Future for the Ocean Economy***](#), an article in Science Daily News, is based on a paper published in [*Nature Sustainability*](#) with several *OceanCanada* member co-authors (see Publications below). It outlines five steps that need to be taken to

mitigate risks to communities and marine environments, and recommends “bold policies” be established to achieve a “sustainable and equitable ocean economy.”

Five Steps to Achieve a Safe & Just Future Ocean Economy

The rush to develop the oceans can produce substantial risks for the marine environment and the populations who depend on it. Bold policies and actions are needed to chart a course towards a sustainable and equitable ocean economy.

1

Establish a global coordinating body and develop international guidelines.

2

Ensure national policies and institutions safeguard sustainability.

3

Promote equitable sharing of benefits and minimize social harms.

4

Employ inclusive governance and decision-making processes.

5

Engage with insights from interdisciplinary ocean science.

Reference: N Bennett et al. (2019), Towards a sustainable and equitable blue economy. *Nature Sustainability*: <http://dx.doi.org/10.1038/s41893-019-0404-1av>

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📍 : Institute for the Oceans and Fisheries, University of British Columbia

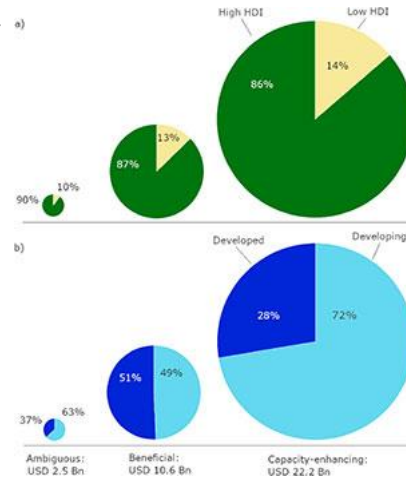
THE UNIVERSITY OF BRITISH COLUMBIA
INSTITUTE FOR THE OCEANS AND FISHERIES



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Marine Policy Articles Impact on WTO

Impactful work recently published by *Marine Policy* about fisheries subsidies, *i.e.*, [Busting myths that hinder an agreement to end harmful fisheries subsidies](#), and [Updated estimates and analysis of global fisheries subsidies](#) (see Publications below), are being relied upon by many delegates at the WTO in the effort to craft an agreement on how to discipline harmful fisheries subsidies globally. This work has taken the authors to scientific listening tours in nearly all continents of the world.



Two UBC OceanCanada HQP Complete Their Doctorates

Sarah Harper and Travis Tai have both successfully completed their PhDs.



The title of Sarah's dissertation is [The Contributions by Women to Fisheries Economies Worldwide](#). Her research brought attention to women as important stakeholders in the fisheries sector, as powerful agents of change in their communities and as major contributors to food and livelihood security. This work adds to an evolving policy discourse on human dimensions of fisheries that calls for specific attention to women and gender.

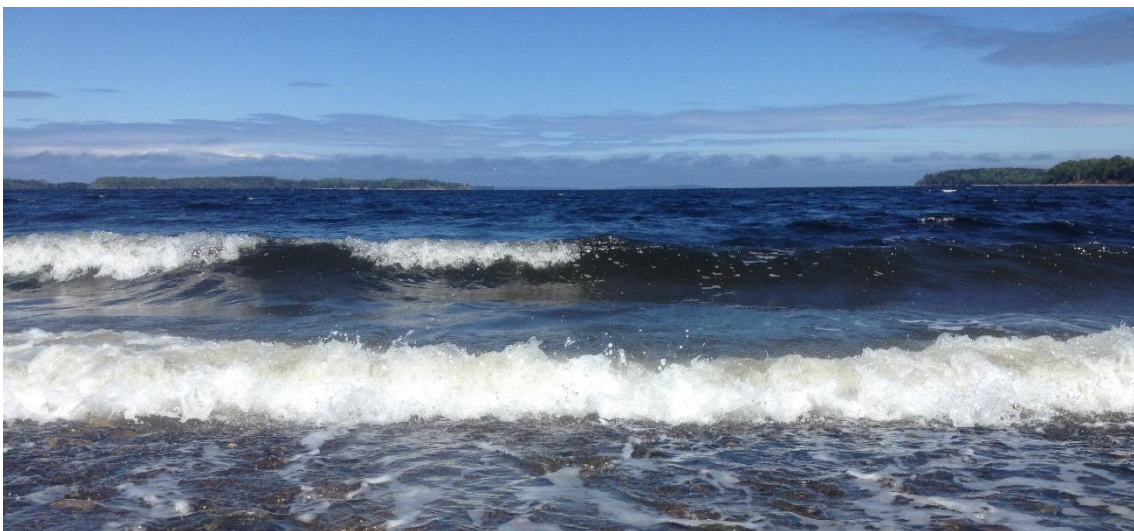
Sarah is currently co-leading the gender theme of the Illuminating Hidden Harvests Project that aims to identify hidden social, economic, environmental and governance dimensions of small-scale fisheries worldwide. She is also preparing to teach a course on Fisheries Co-management in the Pacific Northwest as part of the Haida Gwaii Institute's new marine conservation semester that starts in January 2020 in Sandspit, Haida Gwaii.

Travis' dissertation is [Building Tools to Model the Effects of Ocean Acidification and How It Scales from Physiology to Fisheries](#), which investigates marine species impacted by climate change and human exploitation for fisheries resources. There is a major gap in understanding how ocean acidification—amongst other climate-change impacts—will affect organisms and how impacts will scale from biology to fisheries. Using quantitative simulation models to determine how climate-change related stressors and fishing pressure affect the biology, population, and fisheries of commercially valuable marine species, he found that:



- Climate change has profound effects on global and regional fisheries, affecting potential catch and revenues; and
- Ocean acidification effects on species are variable across regions, and these impacts may be secondary to temperature effects.

Travis is working in Morioka, Japan as a joint Iwate University-UBC Postdoctoral Fellow with Gaku Ishimura, developing models to predict catch composition and economic value of Japanese longline fisheries. He will continue to work with his PhD supervisors Rashid Sumaila and William Cheung at UBC.



Atlantic Working Group Welcomes New Research Assistant



Rebecca Zimmerman is currently working as a Research Assistant with *OceanCanada* and the Community Conservation Research Network headed by Tony Charles at Saint Mary's University. Her research largely focuses on community engagement in coastal future planning. Rebecca holds a bachelors degree in Environmental Studies from the University of Waterloo, ON (2014) and a Master's in Resource and Environmental Management from Dalhousie University, NS (2015). Previously living and working in Whitehorse, YT, Rebecca has recently moved to Halifax to be closer to the ocean. Welcome Rebecca!



PARTNER & COLLABORATOR NEWS

Geomatics and Cartographic Research Centre (GCRC)

The GCRC at Carleton University, headed by Fraser Taylor of *OceanCanada's* Arctic Working Group, is involved in several funded research projects over the coming years:

GCRC



- 2019-2020 Chesterfield Inlet Knowledge Atlas Project.
- 2019 Documenting and Archiving the Music of St. Lawrence Island: An Endangered Record of History and Change, Henry Huntington Consulting.
- 2019-2020 Beyond Supervised Learning: Artificial Intelligence Tools to Help Public Health Stakeholders Serve Marginalized Populations, PI D. Lizotte, University of Western Ontario.
- 2019-2021 Preserving and Growing Kayenkehaka Spatiolinguistic Capasit through the Atlas of Haudenosaunee Space, PI K. Horn, Carleton University.
- 2019-2020 FAPESP SPRINT: Additional training component for An International Partnership for innovative Indigenous Cybercartgraphic Development, in partnership with co-applicant R. Machado, University Sao Paulo, Brazil.
- 2019-2023 FISHES. Fostering Indigenous Small-scale Fisheries for Health, Economy and Food, GENOME Canada, PI S. Schott, Carleton University.

Too Big To Ignore (TBTI) Studies of Small-Scale Fisheries in Asia and Oceania

Over the past seven years, TBTI has conducted in-depth, transdisciplinary research and global analysis to improve knowledge and understanding of various aspects of small-scale fisheries. By allocating considerable resources to conduct research, integrate data, and synthesize findings, TBTI researchers have published many books (including e-books), special journal issues, articles, and reports, which provide concrete evidence about the existence and importance of small-scale fisheries around the world. This research has developed more than [300 case studies from over 80 countries](#). One example of this is its [Regional Synthesis Report portraying small-scale fisheries from the Asia and Oceania](#), which includes a regional map depicting the various topics explored in 68 case studies, as well as a detailed list of TBTI publications about this region by country.



VIDEO UPDATE

On October 8, 2019, Rashid Sumaila was part of a panel titled [2020 Vision: How a Successful Conclusion of Fisheries Subsidies Negotiations Can Demonstrate that the WTO is Adapting to a Changing World](#), at the [WTO Public Forum 2019, Trading Forward: Adapting to a Changing World](#), which took place in Geneva. Other panelists included Ambassador Peter Thomson, UN Secretary-General's Special Envoy for the Ocean and Co-Chair of the Friends of Ocean Action; H.E. Mr. Stephen DeBoer, Permanent Representative of Canada to the WTO; and Alice Tipping, International Institute for Sustainable Development. Rashid appears from 11:56 to 18:00, 28:00 to 32:58, 36:48 to 37:28, 47:48 to 49:47, 1:01:33 to 1:04:42, 1:11:58 to 1:13:46, 1:21:51 to 1:24:42, and 1:26:19 to 1:27:33, but it's best to watch in context if you have the time! (1:29:10 total time.)



MEDIA COVERAGE

| | |
|---------------|--|
| November 25. | Technological creep doubles commercial fishing capacity every 35 years, pressuring stocks. Seafood Source. |
| November 22. | 5 motivi per cui il pesce apporta benefici alle persone e all'ambiente. Nonsoloambiente.it |
| November 19. | New tool helps fisheries enforcement track criminal fishing around the world. Seafood Source. |
| November 11. | Majority of global fishing subsidies 'harmful', report finds. Chinadialogue Ocean. |
| November 7. | Climate change and overfishing are boosting toxic mercury levels in fish. The Conversation. |
| October 30. | The climate crisis will present new management challenges for Arctic fisheries. The Ubysey. |
| October 29. | Poisonous puffer fish found in B.C. waters a first for the region, researchers say. Georgia Strait. |
| October 28. | Les subventions à la pêche accusées de vider les océans. Le Temps. |
| October 15. | Achieving a safe and just future for the ocean economy. Science Daily. |
| October 14. | Achieving a safe and just future for the ocean economy. UBC Institute for the Oceans and Fisheries News. |
| October 14. | Los océanos se quedan sin peces mientras los Gobiernos aumentan subsidios para pesca de arrastre. Fayer Wayer. |
| October 10. | Σεβόμαστε την ιδιωτικότητά σας. Gazzetta. |
| October 9. | The sea is running out of fish, despite nations' pledges to stop it. National Geographic. |
| October 6. | Océanos se ahogan; países tropicales, los más afectados. Excelsior. |
| September 30. | Publicité « irresponsable » sur le climat : une tête tombe à l'Université de l'Alberta. Radio Canada. |
| September 29. | Climate change threatens the world's fisheries, food billions of people rely on. Inside Climate News. |
| September 27. | UBC experts share views on global action on climate change. UBC Institute for the Oceans and Fisheries News. |

- September 26. [Trans Mountain oil tankers aren't the only thing endangering whales on the West Coast](#). CBC News.
- September 26. [Here's how climate change will impact the region where you live](#). Global News.
- September 26. [Rapidly changing Arctic fisheries potential requires comprehensive management](#). Mirage News.
- September 25. [Rapidly changing Arctic fisheries potential requires comprehensive management](#). UBC Science.
- September 25. [Unprecedented damage to oceans has Canada's marine life on the run](#). Canada's National Observer.
- September 25. [Avis de tempête sur la pêche mondiale](#). l'Humanité.
- September 25. [United Nations report links warming of oceans and polar regions to health effects](#). The Globe and Mail.
- September 20. [Canadá y Estados Unidos pierden 30% de sus pájaros en los últimos 50 años](#). Radio Canadá Internacional.
- September 20. [What would happen if Canada treated climate crisis like war](#). Vice News.
- September 19. [North America has lost 3 billion birds since 1970](#). CBC News.
- September 18. [What can we do to stop climate change? Experts share their views](#). UBC News.
- September 4. [Ending overfishing is opportunity to combat climate crisis](#). Phys.org.
- September 3. [Costa Rica ignora cuántos recursos hay en sus mares](#). Seminario Universidad.
- September 1. ['For every benefit, there is a similar kind of cost'](#). Global News.
- September 1. [Climate change might benefit Canada - but not enough to outweigh costs](#). Global News.
- September 1. [Worried about climate change? Here's what to ask political candidates](#). Chatelaine.
- August 29. [Forget oxygen - the Amazon's destruction could threaten rain and food growing](#). Global News.
- August 29. [Upset about Amazon wildfires? There's something you can do](#). CBC News.

RESEARCHER IN PROFILE



Dr. Nancy Doubleday, McMaster University, co-chairs the *OceanCanada* Arctic Working Group with Dr. Fraser Taylor, Carleton University. Nancy has served on *OceanCanada's* Management, Research, and Conference committees, and together with Rashid and Ian Perry, served on the interview with SSHRC that determined the project's success in the Partnership Grant competition, as well as served as co-applicant on the initial Partnership Development Grant.

Trained as a biologist, lawyer and social scientist, Nancy has a career that includes Arctic research and advocacy in areas of Inuit whaling rights, circumpolar environmental protection, climate change, land claims and governance in the Arctic and circumpolar north. She has completed research in partnership with northern communities to document oral history and traditional ecological knowledge, related to contemporary observations of changing environments and the negotiation and implementation of land claims, including self-government proposals.

Nancy works at the nexus of social-cultural-ecological systems, with a commitment to peace, sustainability, justice and health, and to reconciliation in policy and implementation. She has just completed her second term as the inaugural holder of the Hope Chair in Peace and Health, and is a member of the Department of Philosophy at McMaster University in Hamilton, Ontario. As a faculty member, Nancy currently serves as Director of Water Without Borders, a joint diploma program with the United Nations University - Institute for Water, Environment and Health (UNU-INWEH) where she is an Adjunct Professor.

RECENT PUBLICATIONS

JOURNAL ARTICLES

Bennett NJ, Blythe J, Cisneros-Montemayor AM, Singh GG, Sumaila UR. 2019. (*Sustainability*) [Just transformations to sustainability](#).

Bennett NJ, Cisneros-Montemayor AM, Blythe J, Silver JJ, Singh G, Andrews N, Calò A, Christie P, Di Franco A, Finkbeiner EM, Gelcich S, Guidetti P, Harper S, Hotte N, Kittinger JN, Le Billon P, Lister J, Lopez de la Lama R, McKinley E, Scholtens J, Solås A-M, Sowman M, Talloni-Álvarez N, Teh LCL, Voyer M, Sumaila UR. 2019. (*Nature Sustainability*) [Towards a sustainable and equitable blue economy](#).

Cisneros-Montemayor AM, Sumaila UR. 2019. (*Marine Policy*) [Busting myths that hinder an agreement to end harmful fisheries subsidies](#).

Newell SL, Nagabhatla N, Doubleday NC, Bloecker A. 2019. (*OIDA International Journal of Sustainable Development*) [The potential for locally managed marine area \(LMMAs\) as a participatory strategy for coastal and marine ecosystems - the global commons](#).

Singleton RL, Allison EH, Gough C, Kamat V, LeBillon P, Robson L, **Sumaila UR.** 2019. (*Global Environmental Change*) [Conservation, contraception and controversy: supporting human rights to enable sustainable fisheries in Madagascar](#).

Sumaila UR, Ebrahim N, Schuhbauer A, Skerritt D, Li Y, Kim HS, Mallory TG, Lam VWL, Pauly D. 2019. (*Data in Brief*) [A global dataset on subsidies to the fisheries sector](#).

Sumaila UR, Ebrahim N, Schuhbauer A, Skerritt D, Li Y, Kim HS, Mallory TG, Lam VWL, Pauly D. 2019. (*Marine Policy*) [Updated estimates and analysis of global fisheries subsidies](#).

WORKING PAPERS

Konar M, Gray E, Thuringer L, **Sumaila UR**. 2019. (*World Resources Institute*) [The scale of illicit trade in Pacific Ocean marine resources](#).

Schuhbauer A, Skerritt DJ, Ebrahim N, Le Manach F, **Sumaila UR**. 2019. (*UBC Institute for the Oceans and Fisheries Working Papers*) [The global fisheries subsidies divide between small- and large-scale fisheries](#)

Sumaila UR, Tai T. 2019. (*UBC Institute for the Oceans and Fisheries Working Papers*) [Ending overfishing can mitigate impacts of climate change](#).

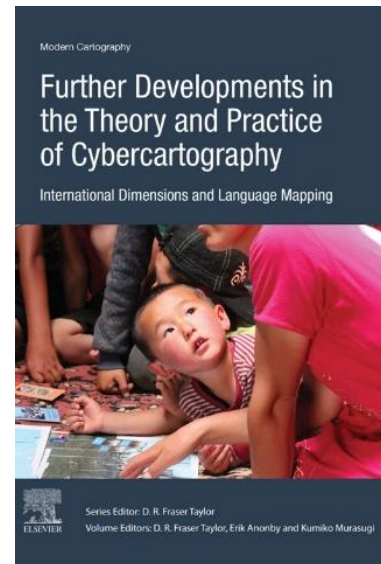
BOOK

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

BOOK CHAPTERS

Engler NJ, Scassa T, **Taylor DRF**. 2019. ([Further developments in the theory and practice of cybercartography: international dimensions and language mapping](#)) Cybercartography and volunteered geographic information.

Hayes A, **Taylor DRF**. 2019. ([Further developments in the theory and practice of cybercartography: international dimensions and language mapping](#)) Developments in the Nunaliit cybercartographic data management platform.



Ingram R, Anonby E, **Taylor DRF**. 2019. (*Further developments in the theory and practice of cybercartography: international dimensions and language mapping*) Mapping Kanyen'kéha (Mohawk) ethnophysiographical knowledge.

Lauriault TP, **Taylor DRF**. 2019. (*Further developments in the theory and practice of cybercartography: international dimensions and language mapping*) The preservation and archiving of geospatial data and cybercartography as a proactive preservation.

Oikle R, Taylor DRF. 2019. (*Further developments in the theory and practice of cybercartography: international dimensions and language mapping*) Cybercartography and the historical geography of Roman Britain.

Scassa T, Lauriault T, **Taylor DRF**. 2019. (*Further developments in the theory and practice of cybercartography: international dimensions and language mapping*) Cybercartography and traditional knowledge: responding to legal and ethical challenges.

Taylor DRF. 2019. (*Further developments in the theory and practice of cybercartography: international dimensions and language mapping*) Conclusions: what we have learned and what lies ahead.

Taylor DRF. 2019. (*Further developments in the theory and practice of cybercartography: international dimensions and language mapping*) Cybercartography revisited.

Taylor DRF. 2019. (*Further developments in the theory and practice of cybercartography: international dimensions and language mapping*) Some recent developments in the theory and practice of cybercartography: applications in Indigenous mapping: an introduction.

Taylor DRF. 2019. (*Further developments in the theory and practice of cybercartography: international dimensions and language mapping*) The theory and practice of cybercartography: an introduction.

Taylor DRF, Cowan C, Ljubicic GJ, Sullivan C. 2019. (*Further developments in the theory and practice of cybercartography: international dimensions and language mapping*) Cybercartography for education: the application of cybercartography to teaching and learning in Nunavut, Canada.

Taylor DRF, Lauriault TP. 2019. (*Further developments in the theory and practice of cybercartography: international dimensions and language mapping*) Conclusion and the future of cybercartography.

Thumbadoo RV, Taylor DRF. 2019. (*Further developments in the theory and practice of cybercartography: international dimensions and language mapping*) Storytelling with cybercartography: the William Commanda story.

Wong J, Taylor DRF. 2019. (*Further developments in the theory and practice of cybercartography: international dimensions and language mapping*) Cybercartography for governance: mapping traditional ecological practices in Naryn Province of Kyrgyzstan.

NEWSLETTER ARTICLE

Bennett NJ, Ramos Castillo A. 2019. (*A Call from the Wild: IUCN Species Conservation Action Newsletter*) [Recognising and supporting indigenous leadership in conservation.](#)

RESEARCH REPORTS

Bennett N, Eadie M, McIsaac J, Sutcliffe T, Nobels D, Vandeborne K, Harper S, Ban N, Bendickson C, Blake A, Ellis C, Gavenus E, Lem T, Harrison H, Osborne C, Pinkerton E, Reidlinger T, Splichalova D, Whitney C, Wilson G, Conger T, Kariya P, Tallio C. 2019. [The Thriving Coastal Communities Initiative: towards an action research agenda focused on well-being in coastal communities in British Columbia](#). T. Buck Suzuki Environmental Foundation and UBC Institute for the Oceans and Fisheries.

Cashion T, Alava JJ, Teh LSL, Cheung WWL, Sumaila UR. 2019. (*Status, trends, and the future of fisheries in the East and South China Seas*) [Global change and the fate of the East and South China Seas](#). UBC Fisheries Centre Research Reports.

Cashion T, Sumaila UR. 2019. (*Status, trends, and the future of fisheries in the East and South China Seas*) [The impact of biomass fishing for feed on catch and revenues from the East and South China Seas](#). UBC Fisheries Centre Research Reports.

Sumaila UR. 2019. (*Status, trends, and the future of fisheries in the East and South China Seas*) [Large marine ecosystems of Asia](#). UBC Fisheries Centre Research Reports.

Teh LSL, Cashion T, Cheung WWL, Sumaila UR. 2019. (*Status, trends, and the future of fisheries in the East and South China Seas*) [Taking stock: status and trends in East China Sea fisheries](#). UBC Fisheries Centre Research Reports.

RECENT PRESENTATIONS

Rome, Italy. November 20, 2019. Sumaila, Rashid.

The social dimension of the contribution of fisheries and aquaculture to the economy. Panel chair, Strengthening the Science-Policy Nexus, FAO International Symposium on Fisheries Sustainability.

Kochi, Kerala, India. November 18, 2019. Sumaila, Rashid.

State of the world's oceans, the landscape of fisheries subsidies, and the case of India. Ending Harmful Fisheries Subsidies in India: why it matters. Media Workshop.

Mnarani, Kenya. November 12, 2019. Sumaila, Rashid.

Fishing subsidies. Billfish Interaction, Livelihoods, and Linkages for Fisheries, Kenya Marine and Fisheries Research Institute and Western Indian Ocean Marine Science Association.

Vancouver, BC. November 1, 2019. Pinkerton, Evelyn.

Strategies and policies supporting access and conservation by small-scale fishermen in a neoliberal world. IOF Seminar Series, UBC.

Providence, RI. October 24-27, 2019. Andrews, Evan.

Weak governability of coastal fisheries as a policy problem: fisher behaviour as an alternative. Society of the Policy Sciences Annual Institute.

Providence, RI. October 24-27, 2019. Harper, Sarah; Andrews, Evan; Cashion, Tim; Palacios-Abrantes, Julian; Blythe, Jennifer; Daly, J; Eger, Sondra; Hoover, Carie; Talloni-Alvarez, Nicolas; Teh, Louise; Bennett, Nathan; Epstein, Graham; Knott, C; Newell, Sarah; Whitney, Charlotte.

Supporting interdisciplinary early career researchers: insights from the marine sciences. Society of the Policy Sciences Annual Institute.

Oslo, Norway. October 23, 2019. Sumaila, Rashid; Thomson, Peter; Kagia, Ruth; Prescott, Jennifer; Tipping, Alice.

Ending harmful fisheries subsidies by 2020: exploring the impacts of fisheries subsidies and potential reform. Our Ocean 2019.

Vancouver, BC. October 9, 2019. Cheung, William.

Unwrapping the Special Report on the Ocean and Cryosphere in a Changing Climate. Institute for the Oceans and Fisheries, UBC.

Geneva, Switzerland. October 8, 2019. Sumaila, Rashid; Thomson, Peter; DeBoer, Stephen; Tipping, Alice.

2020 vision: how a successful conclusion of fisheries subsidies negotiations can demonstrate that the WTO is adapting to a changing world. Panel at the WTO Public Forum 2019, Trading Forward: Adapting to a Changing World.

Mexico City, Mexico. October 3, 2019. Sumaila, Rashid.

Mejores subsidias para combatir la pesca ilegal y cumplir con los Objetivos de Desarrollo Sostenible (ODS). Keynote at Navegando entre datos: innovación para salvar los océanos. Oceana Mexico.

Vancouver, BC. September 24, 2019. Cisneros-Montemayor, Andrés.

A blue economy: achieving a socially equitable marine industrial revolution. Policy in Practice, Liu Institute for Global Issues, UBC.

Puerto Varas, Chile. August 27, 2019. Sumaila, Rashid; Jara, HEA.

Subsidies, sustainability and multilateralism: working towards an ambitious agreement on fisheries subsidies at the WTO. Pew Charitable Trusts.



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.