

OCEANCANADA NEWSLETTER FALL 2018





CONTENTS

- OceanCanada News
- Partner & Collaborator News
- Video Update
- Media Coverage
- Researcher in Profile
- Recent Publications
- Recent Presentations

OCEANCANADA NEWS



OceanCanada held its most recent conference at Dalhousie University in Halifax this past summer from August 27 to 30, with over 60 of our members in attendance, including partner representatives. Several presentations were made about past and current projects we have been involved in throughout the country, ten of which can

be viewed here. We also collectively created a plan for the remainder of the partnership to March 2020, which largely involves the publication of a book tying together the research of our Working Groups through the Cross-cutting Themes of Access to Resources, Changing Oceans, and Governance.

Conference delegates also enjoyed



Photo credit: Rachel Wang (via Twitter

a guided bus tour to Lunenburg and Peggy's Cove to get a firsthand look at fishing communities on the east coast. All in all, a very productive conference!

William Cheung Named Member of Royal Society of Canada



William Cheung, co-lead of the National Data and Integrated Scenarios Working Group and Changing Oceans CCT Coordinator, has been named a Member of the Royal Society of Canada's College of New Scholars, Artists and Scientists. The College recognizes mid-career leaders in Canada who excel in their fields. The Society includes members at different stages of their careers, providing the capacity to address national and global challenges and embrace new opportunities.

Congratulations, William! More information.

Cecilia Engler Appointed to Expert Panel, Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean



In April 2018, Cecilia Engler, PhD Candidate at the Marine and Environmental Law Institute at Dalhousie University, and member of the Law and Policy Working Group, was appointed to the Expert Panel established under the Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean. The panel's mandate was to review the objection filed by Ecuador against a conservation measure adopted by

the South Pacific Regional Fisheries Management Organization (RFMO). Ecuador objected to a decision adopted by the RFMO's Commission that allocated quota shares in the Jack mackerel fishery for the period 2018-2021. More details.



David VanderZwaag Participates in First Session of the Intergovernmental Conference on Biological Diversity of Areas Beyond National Jurisdiction



From September 4 to 17, 2018, David VanderZwaag, co-lead of the Law and Policy Working Group, participated on the International Union for Conservation of Nature (IUCN) delegation to the first negotiation session at the United Nations for a legally binding instrument on the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction. The session took place in New York City. Read more.

Rashid Sumaila to Serve on Expert Group for a Sustainable Ocean Economy

Rashid Sumaila has been invited to be on the Expert
Group of the High Level Panel on Building a
Sustainable Ocean Economy. The Panel consists of
thirteen heads of government from Australia, Chile,
Fiji, Ghana, Guinea, Indonesia, Jamaica, Japan,
Namibia, Norway, Mexico, Palau, and Portugal, with
support from the UN Secretary General's Special
Envoy for the Ocean. The deliberations, work and
operations of the High Level Panel are being
supported by a Secretariat led by the World
Resources Institute. The goal is to advance a new
contract between humanity and the sea that protects



the ocean and optimizes its value to humankind. Panel website.

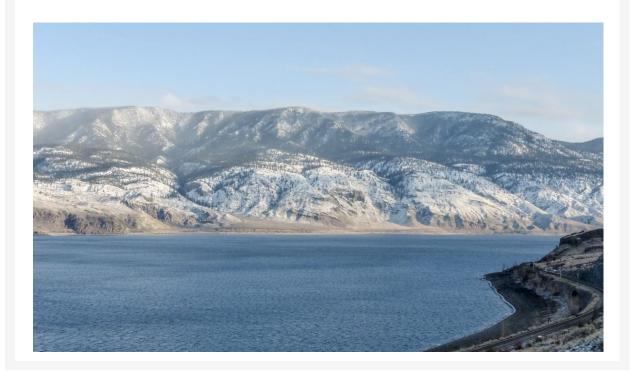


HQP Sarah Newell Completes Doctorate



Congratulations to Dr. Sarah Newell, member of the Arctic Working Group, who recently completed her doctorate at McMaster University. The title of her dissertation is Social, Cultural, and Ecological Systems' Influence on Community Health and Wellbeing. The chapter, Qaujimajatuqavut: the impacts of shipping and climate change on food security, cultural continuity, and community health and wellbeing for Chesterfield Inlet, Nunavut, was largely funded by OceanCanada. Sarah's supervisor was Nancy Doubleday, Arctic WG co-lead; and Nidhi Nagabhatla of the United Nations University Institute for Water, Environment

and Health, an *OceanCanada* partner, was on her committee. She is continuing her research as a Postdoctoral Fellow with <u>Boreal Water Futures</u>, a project which is part of <u>Global Water Futures</u>, where she will work with Nancy Doubleday and Brent McKnight, also of McMaster University.



PARTNER & COLLABORATOR NEWS

OCEANA Protecting the World's Oceans

A global review of seafood fraud conducted in 2016 that included over 200 studies from 55 countries showed that 20% of seafood in retail shops and restaurants was mislabelled. Oceana Canada did its own testing from 2017 to 2018 in Canada and found that 44% of seafood samples were mislabelled. Restaurants had the worst record, where 52% of the samples were mislabelled. Read more here.



The Port of Vancouver has several "Connecting people" programs related to the wellbeing of the marine and terrestrial environments, where people with different backgrounds are brought together to tackle issues that affect communities in and around Vancouver. One such initiative is "Connecting people to protect whales," where a BC Coast Ship Pilot and a member of the Port's Enhancing Cetacean Habitat and Observation (ECHO) program collaborate in an initiative to lessen underwater noise in order to improve the feeding habits of and communication between southern resident orcas. Read about this and other initiatives here.



TBTI is pleased to announce the publication of <u>Transdisciplinarity for Small-Scale</u> <u>Fisheries Governance: Analysis and Practice</u>, edited by Ratana Chuenpagdee and Svein Jentoft, TBTI project director and founding member, respectively. The main premise of the book is that policies for small-scale fisheries should be firmly based on relevant transdisciplinary research, and must support the capacity for governance at all levels (local, national, global). This edited volume, with contributions from several *OceanCanada* members, is part of the Springer MARE book series.

New Collaborators

OceanCanada is pleased to welcome two new collaborators:
Jennifer Silver, University of Guelph; and Philippe Tortell, UBC. Dr.
Silver's areas of expertise align with OceanCanada's mandate and cross-cutting themes, in particular through her research on topics related to ocean governance, access and allocation on the Pacific coast of Canada. Dr. Tortell is leading OxyNet, an international project which examines impacts of ocean deoxygenation; and Year of Polar Prediction, which uses field-based observations, modelling and remote sensing data to better understand changes to the Arctic Ocean.







VIDEO UPDATE



Congratulations to Ian Mauro, co-lead of the Knowledge Mobilization Working Group, on the completion of the feature documentary <u>Beyond Climate</u>. This film, narrated by David Suzuki, examines the effects of climate change on Canada's Pacific coast. It was premiered at the <u>Planet in Focus Film Festival</u> in Toronto on October 26, 2018.









MEDIA COVERAGE

October 31. Ocean shock: big aquaculture bulldozes Borneo. Malay Mail.

October 19. <u>Climate change will exacerbate pollutant woes for southern resident orcas</u>. The Ubyssey.

September 18. Managing the ocean. CBC Radio.

September 10. <u>Warming seas, falling fortunes: stories of fishermen on the front lines of climate change</u>. Center for American Progress.

September 10. Wait, so how much of the ocean is actually fished? The Atlantic.

September 6. <u>Fishing on the open ocean is rarely profitable</u>, and comes with a huge <u>list of environmental issues</u>. Vue Weekly.

September 3. High seas need to get fishy again. The Pioneer.

September 2. The rule of law on the high seas. Cyprus Mail.

August 30. Négociations à l'ONU pour protéger la haute mer. Le Monde.

August 30. Treaty to regulate fishing on high seas laudable. The Province.

August 29. Establishing the rules on the high seas. Merritt Herald.

August 28. How the U.N. should regulate high-seas fishing. Japan Times.

August 23. <u>The South China Sea's marine environment in decline amid territorial spats</u>. Radio Free Asia.

August 9. Are wealthy nations hoarding the world's fish supply? Pacific Standard.

August 5. <u>Rising water temperatures have sharks moving north away from Florida</u>. WPLG Local 10.

August 4. <u>Sharks are changing where they swim, breed and hunt along American</u> coasts, say experts. ABC News.

August 3. <u>Rich and poor divide: which nations benefit from global fishing?</u> News Deeply.

July 19. <u>Scientist sees harmful fisheries subsidies taking toll on global fish stocks</u>. Pew Trusts.

July 12. Sharks honoured on new Canadian postage stamps. The Star Vancouver.

RESEARCHER IN PROFILE



Dr. Louise Teh is a Research Associate at the Fisheries Economics Research Unit (FERU), UBC Institute for the Oceans and Fisheries. At FERU, Louise is engaged in multidisciplinary research which examines how interactions between humans and marine ecosystems impact fisheries' sustainability. Her research areas include small-scale fisheries, socioeconomic analysis, climate change scenario development, and livelihood assessments. Louise is also part of *OceanCanada*'s National Data and Integrated Scenarios (NDIS) Working

Group, where her main research is related to developing scenarios to investigate how Canadian oceans and coastal communities will be impacted under alternative climate and social-economic development pathways. One of her recent projects involves conducting an economic analysis of rebuilding Canadian fisheries for six stocks assessed as having a critical status. She is also involved in an ongoing project to better understand First Nations fisheries in British Columbia. Outside of Canada, Louise is part of local and regional scale projects investigating the sustainability of fisheries in the East China Sea, and assessing the potential economic and livelihood impacts future global change scenarios will have on fishing communities in Tonle Sap Lake, Cambodia. Louise enjoys working with fishing communities, and has done numerous socio-economic surveys and interviews with coastal communities and stakeholders in Malaysia, Hong Kong, and Fiji.

RECENT PUBLICATIONS

JOURNAL ARTICLES

Alava JJ, Cisneros-Montemayor AM, Sumaila UR, Cheung WWL. 2018. (Scientific Reports) Projected amplification of food web bioaccumulation of MeHg and PCBs under climate change in the Northeastern Pacific.

Bennett NJ. 2018. (*Marine Policy*) Navigating a just and inclusive path towards sustainable oceans.

Bennett NJ, Roth R. 2018. (*Biological Conservation*) Realizing the transformative potential of conservation through the social sciences, arts and humanities.

Bennett NJ, Satterfield T. 2018. (*Conservation Letters*) Environmental governance: a practical framework to guide design, evaluation, and analysis.

Blythe J, Silver J, Evans L, **Armitage D**, **Bennett N**, Moore M, Morrison T, Brown K. 2018. (*Antipode*) The dark side of transformation: latent risks in contemporary sustainability discourse.

Cheung WWL, Jones MC, Reygondeau G, Frölicher TL. 2018. (*Global Change Biology*) Opportunities for climate-risk reduction through effective fisheries management.

Cullain N, **McIver R**, Schmidt AL, **Milewski I**, **Lotze HK**. 2018. (*PeerJ*) <u>Potential impacts of finfish aquaculture on eelgrass (*Zostera marina*) beds and possible monitoring metrics for management: a case study in Atlantic Canada.</u>

Gavin MC, McCarter J, **Berkes F**, Mead A, Sterling E, Tang R, Turner NJ. 2018. (*Sustainability*) Effective biodiversity conservation requires dynamic, pluralistic, partnership-based approaches.

Guerrero AM, **Bennett NJ**, Wilson KA, Carter N, Gill D, Mills M, Ives CD, Selinske MJ, Larrosa C, Bekessy S, Januchowski-Hartley FA, Travers H, Wyborn CA, Nuno A. 2018. (*Ecology and Society*) Achieving the promise of integration in social-ecological research: a review and prospectus.

Harper S, Salomon AK, Newell D, Waterfall PH, Brown K, Harris LM, **Sumaila UR.** 2018. (*Maritime Studies*) <u>Indigenous women respond to fisheries conflict and catalyze change in governance on Canada's Pacific Coast.</u>

Jarre A, Shannon LJ, Cooper R, Duggan GL, Gammage LC, Lockerbie EM, McGregor ES, Ragaller SM, Visser N, Ward C, Watermeyer KE, Weller FG, **Ommer RE**. 2018. (*Journal of Marine Systems*) <u>Untangling a Gordian knot that must not be cut: social-ecological systems research for management of southern Benguela fisheries</u>.

Jiménez PJ, **Alava JJ**, Castro C, Samaniego J, Fair P. 2018. (*International Journal of Fisheries Science and Research*) <u>Stranding of small cetaceans with missing fins raises concerns on cetacean conservation in Ecuador: bycatch or targeted fisheries?</u>

Khan FN, Collins AM, **Nayak PK**, **Armitage D**. 2018. (*Maritime Studies*) <u>Women's perspectives of small-scale fisheries and environmental change in Chilika lagoon, India.</u>

Okey TA. 2018. (*Science of the Total Environment*) <u>Indicators of marine ecosystem</u> integrity for Canada's Pacific: an expert-based hierarchical approach.

Tai TC, Robinson JPW. 2018. (*Frontiers in Environmental Science*) Enhancing climate change research with open science.

Teh LSL, Bond N, KC K, Fraser E, Seng R, **Sumaila UR**. 2019. (*Fisheries Research*)

The economic impact of global change on fishing and non-fishing households in the Tonle Sap ecosystem, Pursat, Cambodia.

BOOK CHAPTERS

Agapito M, **Chuenpagdee R**, Devillers R, Gee J, Johnson AF, Pierce GJ, Trouillet B. 2019. (*Transdisciplinarity for small-scale fisheries governance: analysis and practice*) Beyond the basics: improving information about small-scale fisheries.

Alava JJ, Ross PS. 2018. (*Marine mammal ecotoxicology: impacts of multiple stressors on population health*) Pollutants in tropical marine mammals of the Galapagos Islands, Ecuador: an ecotoxicological quest to the last Eden.

Berkes F. 2018. (*Marine fishes of Arctic Canada*) Arctic fish, northern cultures, and traditional ecological knowledge.

Chuenpagdee R, Jentoft S. 2019. (*Transdisciplinarity for small-scale fisheries governance: analysis and practice*) <u>Transcending fisheries knowledge: from theory to integration</u>.

Loring PA, Fazzino DV II, Agapito M, **Chuenpagdee R**, Gannon G, Isaacs M. 2019. (*Transdisciplinarity for small-scale fisheries governance: analysis and practice*) Fish and food security in small-scale fisheries.

Nayak PK, **Berkes F**. 2019. (*Transdisciplinarity for small-scale fisheries governance: analysis and practice*) <u>Interplay between local and global: change processes and small-scale fisheries</u>.

Pinkerton E. 2019. (*Transdisciplinarity for small-scale fisheries governance: analysis and practice*) <u>Strategies and policies supporting small-scale fishers' access and conservation rights in a neoliberal world</u>.

Said A, **Chuenpagdee R**, Aguilar-Perera A, Arce-Ibarra M, Gurung TB, Bishop B, Léopold M, Márquez Pérez AI, Gomes de Mattos SM, Pierce GJ, **Nayak PK**, Jentoft S. 2019. (*Transdisciplinarity for small-scale fisheries governance: analysis and practice*) The principles of transdisciplinary research in small-scale fisheries.

Satumanatpan S, **Chuenpagdee R**, Suebpala W, Yeemin T, Juntarashote K. 2019. (*Transdisciplinarity for small-scale fisheries governance: analysis and practice*) Enhancing the stewardship in Trat Bay, Eastern Thailand: a transdisciplinary exercise.

Schuhbauer A, Cisneros-Montemayor AM, Sumaila UR. 2019. (*Transdisciplinarity for small-scale fisheries governance: analysis and practice*) <u>Economic viability of small-scale fisheries: a transdisciplinary evaluation approach.</u>

REPORT CHAPTERS – in <u>AMAP assessment 2018: Arctic Ocean acidification</u>
Bellerby R, Anderson LG, Osborne E, **Steiner N**, et al. 2018. Arctic Ocean acidification: an update.

Huntington HP, Dale T, Hansel MC, Kaiser BA, Osborne EB, **Steiner N**, et al. 2018. Socio-economic impacts of Arctic Ocean acidification on fisheries.

Kaiser BA, Azetsu-Scott K, Burmeister A, Falkenberg LJ, Meire L, Ravn-Jonsen L, **Steiner N**. 2018. The Greenland shrimp (*Pandalus borealis*) fishery.

Nicholls M, Anderson LG, Bellerby R, Falkenberg LJ, Hänsel MC, Huntington HP, Kaiser BA, Osborne EB, **Steiner N**, et al. 2018. Conclusions, knowledge gaps and recommendations.

Steiner N, Cheung WWL, Drost H, **Hoover C**, Lam J, Miller L, **Cisneros-Montemayor A**, Sou T, **Sumaila UR**, Suprenand P, **Tai T, VanderZwaag DL**. 2018. Changing ocean impacts on the key forage fish species Arctic cod in the Western Canadian Arctic: linking climate model projections to subsistence fisheries.

WORKING PAPER

Epstein G, **Andrews E**, **Armitage D**, Foley P, Pittman J, Brushett R. 2018. The impacts of species portfolios and democratic rulemaking on fisher support for addressing ecosystem trade-offs in fisheries: lessons from Northern Peninsula, Newfoundland. OceanCanada Working Paper Series #2018-1; Vancouver, BC.

RECENT PRESENTATIONS

Tokyo, Japan. November 8, 2018. Sumaila, Rashid.

Fisheries subsidies and the sustainable supply of seafood. Emerging Opportunities for Marine Sustainability in Japan. Pew Fellows Program in Marine Conservation, University of Tokyo.

Bali, Indonesia. October 30, 2018. Sumaila, Rashid.

The current landscape of global fisheries subsidies. A Closed-Door Breakfast on Fisheries Subsidies, Pew Charitable Trusts.

London, UK. October 17, 2018. Sumaila, Rashid.

Can subsidies work for fish and for people? Fish Night 5, International Institute for Environment and Development.

Ottawa, ON. October 12, 2018. Taylor, Fraser; Hayes, Amos.

Nunaliit Atlas framework and digital atlas development at GCRC. Canadian Foundation for Innovation (CFI), Carleton University.

Rovaniemi, Finland. October 10, 2018. VanderZwaag, David.

Implications of the UN high seas negotiations for the Central Arctic Ocean: cooperative currents, foggy waters. Panel on Biodiversity in the high seas of the Central Arctic Ocean: advancements in scientific understanding and future management, Arctic Biodiversity Congress.

Vancouver, BC. October 5, 2018. Tortell, Philippe.

A new generation of ocean observing approaches to link plankton dynamics to fisheries science and management. Institute for the Oceans and Fisheries Seminar Series, UBC.

Aguascalientes, Mexico. October 2, 2018. Taylor, Fraser.

Geoinformation in the 21st century: challenges and opportunities for national mapping and statistical agencies. INEGI National Statistics and Mapping Agency, President and Senior Leadership.

Aguascalientes, Mexico. October 1, 2018. Taylor, Fraser.

The importance of geoinformation and mapping in the age of location. Geography and INEGI National Statistics and Mapping Agency, Environmental Programs Directorate.

New York, NY. September 20-21, 2018. VanderZwaag, David.

Sustaining wild salmon in the North Atlantic: progressions and depressions. Common Currents: Examining How We Govern the Ocean Commons Conference, Columbia University.

Halifax, NS. September 19-21, 2018. Sumaila, Rashid.

Is the Paris Agreement good for fish, fishers, seafood workers, and consumers? Frontiers in Ocean Sustainability: Co-designing Research and Solutions, National Research Council of Canada.

St. John's, NL. September 18, 2018. Sumaila, Rashid.

Managing the seas for people and nature. Taking Stock Dialogue, Memorial University.

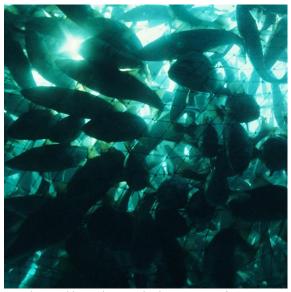
Copenhagen, Denmark. September 17-18, 2018. VanderZwaag, David.

Governance of the Central Arctic Ocean: cooperative currents, foggy waters. Second International Conference on Transatlantic Maritime Emissions Research Network (TRAMEREN), Frontiers of Ocean Governance: Private Actors, Public Goods, University of Copenhagen.

Kiel, Germany. September 3-7, 2018. Sumaila, Rashid.

Fish, ocean oxygen depletion and the food security of current and future generations. Ocean Deoxygenation: Drivers and Consequences, Past, Present, Future.





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.