



OCEAN CANADA

OCEANCANADA NEWSLETTER WINTER 2020



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OCEANCANADA NEWS



Congratulations to Dr. William Cheung, recipient of a 2019 UBC Killam Research Fellowship, enabling faculty to pursue full-time research while on study leave. William is a co-lead of *OceanCanada's* National Data and Integrated Scenarios (NDIS) Working Group, and heads the Changing Oceans Cross-Cutting Theme (CCT). He is Professor with UBC's Changing Ocean Research Unit and Director (Science) of the

Nippon Foundation-UBC Nereus Program. His main research focus is assessing impacts of fishing and climate change on marine ecosystems and their goods and services, and studying ways to reconcile trade-offs in their management. Award winners will be honoured at a reception on April 15, 2020 at UBC's Jack Poole Hall, Robert H. Lee Alumni Centre. [Read more here.](#)

On February 6, 2020, Sarah Newell, HQP at the University of Ottawa, was invited by the community of Chesterfield Inlet to share her *OceanCanada*-funded PhD research at the Northern Lights Trade Show in Ottawa. This was featured in [Nunatsiq News](#), and *OceanCanada's* generous funding was acknowledged in the talk.



Image Credit: Patricia Lightfoot/Nunatsiq News

PARTNER & COLLABORATOR NEWS



Oceana Canada has now released its third annual [Fishery Audit](#) which reports on the state of fish stocks and tracks progress on how well the government is meeting its policy and management commitments. Since the first audit was released in 2017, troubling declines are noted. Only 29.4% of Canada's fish populations are considered healthy, and 17% are in the critical zone, where conservation actions are crucial. Despite the decline, some progress has been made this past year when a modernized *Fisheries Act* became law in June 2019. For the first time in Canada's history, rebuilding plans will be required for depleted fish populations. [Watch the video Ocean Abundance is Ours to Protect and read more about the state of Canada's fisheries and recommendations for rebuilding fish populations.](#)



Community Conservation Research Network (CCRN) at Saint Mary's University has developed three new video resources. [Coastal Communities... At the Ready](#) is a film about coastal communities, marine hazards and climate change which examines how these communities are preparing for, and responding to, a range of climate change impacts and other hazards hitting the coast, including everything from hurricanes and other extreme weather, to floods and erosion, to tsunamis and oil spills. Two 5-minute animation videos explore how local communities around the world are taking action to conserve the natural environment on which they depend, and sustain their local

economies and livelihoods. [Local Communities Conserve Their Environment, Support Their Economy](#) highlights community efforts of two communities, the Eastport Peninsula in Canada and Koh Pitak in Thailand, to restore and safeguard local ecosystems and diversify economies, making the environment and community livelihoods more sustainable for current and future generations. [Communities Linking Conservation and Livelihoods - Ingredients for Success](#) focuses on how local communities engaged in environmental conservation are making their communities, and their livelihoods, more sustainable for current and future generations. Drawing on the experience of many communities in conserving their environment while sustaining their livelihoods, a series of “lessons learned” are described - ones that can be relevant around the world.

MEDIA COVERAGE

2020

- February 26. [Billions lost as illicit fisheries trade hurting nations who can afford it least.](#) Science Daily.
- February 26. [Illegal im Netz.](#) Der Tagesspiegel.
- February 19. [Identifying and ending subsidies for extinction.](#) Anthropocene Magazine.
- February 13. [Dumping drugs in the garbage hurts more than just the environment.](#) Kicker.
- February 12. [Ocean fish farming in tropics and sub-tropics most impacted by climate change.](#) Phys.org
- February 12. [Piscicultura oceânica nos trópicos e sub-trópicos mais impactados pelas mudanças climáticas.](#) Meio Ambiente Rio.
- February 11. [Climate change may alter aquaculture on BC's coast.](#) My Cowichan Valley Now.

- January 24. [Activism drives interest in climate change science.](#)
Mirage News.
- January 24. [Costa Rica se prepara para las negociaciones de la agenda marina internacional 2020.](#) El Mundo.
- January 10. [Marine protected areas not all good, says Vancouver Island fisherman.](#) Victoria News.
- January 5. [To save fish, ban high seas fishing, UBC professor suggests.](#) Vancouver Sun.
- January 2. [Fish products in European supermarkets connected to unsustainable fishing practices in India.](#) Mongabay.
- 2019**
- Fall 2019. [The key to a sustainable world fishery may well lie in our ability to monetize conservation.](#) UBC Trek.
- December 20. [A sea change: new technology, knowledge and ocean-related research.](#) Memorial University Gazette.
- December 16. [90 percent of fish used for fishmeal are prime fish.](#)
Wellston Journal.
- December 10. [Seas at Risk urges ending overfishing to mitigate climate impacts.](#) SDG Knowledge Hub.
- December 9. [The oceans are losing oxygen at an unprecedented clip.](#)
The Hill.
- December 7. [Ocean experts call for action now!](#) EU Today.
- December 7. [Oceans losing oxygen at unprecedented rate, experts warn.](#) The Guardian.
- December 7. [Warming waters, moving fish: how climate change is reshaping Iceland.](#) Today.
- December 4. [Catching fish to feed fish: Report details 'unsustainable' fishmeal and oil industry.](#) Mongabay.

- December 2. [Compliance with Paris Agreement would limit loss of productivity in fishing, agriculture](#). Science News.
- November 30. [A crisis in the water is decimating this once-booming fishing town](#). Fredericksburg.com.
- November 29. [Warming waters, moving fish: how climate change is reshaping Iceland](#). The Seattle Times.
- November 27. [Climate change threatens food production in countries that need it most](#). Kelowna Capital News.
- November 27. [Climate change threatens food production in countries that need it most](#). BC Local News.
- November 27. [Climate change threatens food production in countries that need it most](#). Victoria News.
- November 27. [Climate change threatens food production in countries that need it most](#). The Province.
- November 27. [Climate change threatens food production in countries that need it most](#). Vancouver Sun.
- November 27. [Climate change threatens food production in countries that need it most](#). Calgary Herald.
- November 27. [Climate change threatens food production in countries that need it most](#). Ottawa Citizen.
- November 27. [Climate change threatens food production in countries that need it most](#). Regina Leader-Post.
- November 27. [Climate change threatens food production in countries that need it most](#). The Star.
- November 27. [Climate change threatens food production in countries that need it most](#). 660 City News.
- November 27. [A crisis in the water is decimating this once-booming fishing town](#). Washington Post.

RESEARCHERS IN PROFILE

Libby Dean, Rebecca Zimmerman and Shannon Hicks work as Research Associates with Dr. Tony Charles at Saint Mary's University, on *OceanCanada* Partnership projects and for the Community Conservation Research Network. While Libby, Rebecca and Shannon have come to this work from various backgrounds, it turns out that all three have or are pursuing Master's degrees at Dalhousie's School for Resource & Environmental Studies.

Libby's background includes a degree in Human Ecology, and working as senior project coordinator with Inuit Tapiriit Kanatami (Canada's National Inuit organization). She continues related work doing graphic recording at meetings with Indigenous communities, often on wildlife and health topics in Labrador.

Rebecca comes from Ontario and has an undergraduate degree in Environmental Studies from University of Waterloo. She recently moved back to Nova Scotia to be closer to the ocean and to work in ocean-related research.

Shannon is a Nova Scotian and did her undergraduate Environmental Studies degree at Saint Mary's University. She has a wide array of interests, including means of increasing adaptive capacity at the community level.

This dynamic team is striving to better understand and support coastal communities as they plan for – or create a vision of – the community's future. The team's research investigates how coastal communities in Nova Scotia are addressing various aspects of their future, including economic, environmental, and social considerations. Dr. Tony Charles and the team of researchers hope that this research will contribute to larger, Canada-wide and even global conversations about how coastal communities can prepare for the future.



Libby Dean



Rebecca Zimmerman



Shannon Hicks

RECENT PUBLICATIONS

JOURNAL ARTICLES

Andrews EJ, Harper S, Cashion T, Palacios-Abrantes J, Blythe J, Daly J, Eger S, Hoover C, Talloni-Alvarez N, Teh L, Bennett N, Epstein G, Knott C, Newell SL, Whitney CK. 2020. (*ICES Journal of Marine Science*) [Supporting early career researchers: insights from interdisciplinary marine scientists.](#)

Bellido JM, Sumaila UR, Sánchez-Lizaso JL, Palomares ML, Pauly D. 2020. (*Marine Policy*) [Input versus output controls as instruments for fisheries management with a focus on Mediterranean fisheries.](#)

Cisneros-Montemayor AM, Ishimura G, Munro GR, Sumaila UR. 2020. (*Fisheries Research*) [Ecosystem-based management can contribute to cooperation in transboundary fisheries: the case of Pacific sardine.](#)

Coulter A, Cashion T, Cisneros-Montemayor AM, Popov S, Tsui G, Le Manach F, Schiller L, Palomares MLD, Zeller D, Pauly D. 2020. (*Fisheries Research*) [Using harmonized historical catch data to infer the expansion of global tuna fisheries.](#)

Dempsey J, Martin TG, Sumaila UR. 2020. (*Conservation Letters*) [Subsidizing extinction?](#)

Felizola-Freire KM, Belhabib D, Espedido JC, Hood L, Kleisner KM, Lam VWL, Machado ML., Mendonça JT, Meeuwig JJ, Moro PS, Motta FS, Palomares MLD, Smith N, Teh L, Zeller D, Zylich K, Pauly D. 2020. (*Frontiers in Marine Science*) [Estimating global catches of marine recreational fisheries.](#)

Laffoley D, Baxter J, Amon D, Currie D, Downs C, Hall-Spencer J, Harden-Davies H, Page R, Reid P, Roberts M, Rogers A, Thiele T, Sheppard C, **Sumaila UR**, Woodall L. 2020. (*Aquatic Conservation: Marine and Freshwater Ecosystems*) [Eight urgent, fundamental and simultaneous steps needed to restore ocean health, and the consequences for humanity and the planet of inaction or delay.](#)

Oyinlola MA, Reygondeau G, Wabnitz CCC, **Cheung WWL**. 2020. (*Global Change Biology*) [Projecting global mariculture diversity under climate change.](#)

Peñalosa Martinell D, **Cashion T**, Parker R, **Sumaila UR**. 2020. (*Marine Policy*) [Closing the high seas to fisheries: possible impacts on aquaculture.](#)

Sumaila UR, Zeller D, Hood L, Palomares MLD, Li Y, Pauly D. 2020. (*Science Advances*) [Illicit trade in marine fish catch and its effects on ecosystems and people worldwide.](#)

Thiault L, Mora C, Cinner JE, **Cheung WWL**, Graham NAJ, Januchowski-Hartley FA, Mouillot D, **Sumaila UR**, Claudet J. 2019. (*Science Advances*) [Escaping the perfect storm of simultaneous climate change impacts on agriculture and marine fisheries.](#)

BOOK CHAPTERS

Pulsifer PL, Kontar Y, Berkman PA, **Taylor DRF**. 2020 ([Governing Arctic seas: regional lessons from the Bering Strait and Barents Sea regions](#)). Information ecology to map the Arctic information ecosystem.

Raymond-Yakoubian J, Pulsifer PL, **Taylor DRF**, Brattland C, Mustonen T. 2020. ([Governing Arctic seas: regional lessons from the Bering Strait and Barents Sea regions](#)) Mapping and Indigenous peoples in the Arctic.

REPORTS

Cheung WWL. 2019. (*Dynamic integrated marine climate, biodiversity, fisheries, aquaculture and seafood market model [DIVERSE]*). [Dynamic integrated marine climate, biodiversity, fisheries, aquaculture and seafood market model \(DIVERSE\): introducing the framework](#). UBC Fisheries Centre Research Reports.

Cheung WWL, Oyinlola MA, editors. 2019. [Dynamic integrated marine climate, biodiversity, fisheries, aquaculture and seafood market model \(DIVERSE\)](#). UBC Fisheries Centre Research Reports.

Cheung WWL, Reygondeau G. 2019. (*Dynamic integrated marine climate, biodiversity, fisheries, aquaculture and seafood market model [DIVERSE]*). [Climate-living marine resources model to project future changes in fish stock biomass and catches](#). UBC Fisheries Centre Research Reports.

Lam VWY, **Cisneros-Montemayor AM, Cheung WWL.** 2019. (*Dynamic integrated marine climate, biodiversity, fisheries, aquaculture and seafood market model [DIVERSE]*). [Dynamics of fishing effort](#). UBC Fisheries Centre Research Reports.

Oyinlola MA, Wabnitz CCC, Lam VWY, **Cheung WWL.** 2019. (*Dynamic integrated marine climate, biodiversity, fisheries, aquaculture and seafood market model [DIVERSE]*). [Scenarios for the future of mariculture](#). UBC Fisheries Centre Research Reports.

Wabnitz CCC, Teh L, **Cheung WWL.** 2019. (*Dynamic integrated marine climate, biodiversity, fisheries, aquaculture and seafood market model [DIVERSE]*). [Scenarios for the future of the ocean and fisheries](#). UBC Fisheries Centre Research Reports.

POLICY BRIEF

Nagabhatla N, Perera D, Gheuens J, Wale C, Devlin M. 2019. [Managing disaster risk and water security: strategies for Small Island Developing States](#). UNU-INWEH Policy Brief, Issue 6.

RECENT PRESENTATIONS

New York, NY. February 7, 2020. Sumaila, Rashid.

The state of the world's oceans and the landscape of global fisheries subsidies: achieving SDG Target 14.6. Life Below Water: Achieving SDG Target 14.6 by June, Pew Charitable Trusts.

Vancouver, BC. January 31, 2020. Belhabib, Dyhia.

Spyglass App: citizen reporting of illegal fishing. IOF Seminar Series, UBC.

San José, Costa Rica. January 23, 2020. Sumaila, Rashid.

The state of the world's oceans and the landscape of global fisheries subsidies. Ministry of Foreign Trade.

San José, Costa Rica. January 23, 2020. Cisneros-Montemayor, Andrés.

Case study on shrimp in Latin America and the impact of fisheries subsidies reform. Ministry of Foreign Trade.

San José, Costa Rica. January 22, 2020. Sumaila, Rashid.

El estado de los océanos del mundo y el panorama de los subsidios a la pesca. MarViva, Taller de Agenda Azul, Ministerio de Relaciones Exteriores y Culto.

San José, Costa Rica. January 22, 2020. Cisneros-Montemayor, Andrés.

Estudio de caso sobre el camarón en América Latina y el impacto de una reforma a los subsidios pesqueros. MarViva, Taller de Agenda Azul, Ministerio de Relaciones Exteriores y Culto.

Vancouver, BC. January 9, 2020. Sumaila, Rashid.

The global struggle to discipline overfishing subsidies. IRES Seminar Series, UBC.

Hilo, Hawaii. December 14, 2019. Sumaila, Rashid.

Relative roles of SSF and LSF in food security; gender equity. Pew Fellows Meeting.

Hilo, Hawaii. December 12, 2019. Sumaila, Rashid.

Overview of the IUCN MPA standards of success. Pew Fellows Meeting.

Hilo, Hawaii. December 12, 2019. Sumaila, Rashid.

An overview of *OceanAsia*: the *OceanAsia* Team (Cashion, Alava, Teh, Cheung, Sumaila). Pew Fellows Meeting.

Hilo, Hawaii. December 10, 2019. Sumaila, Rashid.

Ideas on the valuation of the benefits of MPAs. Pew Fellows Meeting.

Halifax, NS. December 2-5, 2019. Murray, Maribeth; Christoffersen, Shannon; Pulsifer, Peter; Arthurs, David; Parrott, Jennifer; Barnard, Christine; Forest, Alexandre; Papakyriakou, Tim; Liang, Steve; Scassa, Teresa; Nickels, Scott; **Taylor, Fraser**; LeDrew, Ellsworth; Carpendale, Sheelagh; Vincent, Warwick; Herbert, Claire; Chu, Byron; Sokol, Jennifer; Wilson, Cameron; Duguay, Claude.

The Canadian Consortium for Arctic Data Interoperability 50. ArcticNet.



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.