

The Ocean Frontier Institute and the Global Challenge of Sustainable Ocean Use

MUN Research Week Discussion Panel

Tuesday, November 24, 2:00-3:00 p.m.

The global ocean plays a central role in Earth's life support system, yet humanity struggles to meet The UN Sustainable Development Goal 14 to "Conserve and sustainably use the oceans, seas and marine resources for sustainable development." Research leaders from the Ocean Frontier Institute will lead an interactive discussion on how our transdisciplinary research unites natural scientists, social scientists, and engineers to help understand a changing ocean and to use that knowledge to develop more sustainable resource benefits and more effective governance in fisheries, aquaculture, marine ecosystems, and coastal communities. Our focus on the Northwest Atlantic, a global hotspot for climate change and the engine of the Newfoundland and Labrador economy, will provide critical input to the UN Decade of Ocean Sciences for Sustainable Development, which will begin in 2021. Through short presentations and an interactive discussion, we will discuss how ocean research can support sustainable ocean development.

Join WebEx Meeting:

<https://mun.webex.com/mun/onstage/q.php?MTID=eec07515451ac7c305741aa1e3162f3b0>

Discussion Panelists:

[Dr. Paul Snelgrove](#), Associate Scientific Director, Ocean Frontier Institute, Departmental Science Advisor, Fisheries and Oceans Canada, University Research Professor, Department of Ocean Sciences and Biology Department

Different spatial management tools such as Marine Protected Areas can provide a mechanism to mitigate human activities, many of which are necessary for growing populations. Effective design of such spatial strategies requires engaging diverse stakeholders and seeks to address complex ecological and social challenges, necessitating transdisciplinary research.

[Dr. Ratana Chuenpagdee](#), Professor, Department of Geography

Policy and governance for sustainable ocean requires broad perspectives from all relevant stakeholders. Stakeholders vary, however, in terms of livelihood dependency on ocean resources, historical and cultural connection with ocean, and impact of their activities on ocean health. Careful consideration must be given to this diversity, as well as the complex relationship, including power-related, between ocean stakeholders in order to achieve, not only sustainable, but just ocean.

[Dr. Ian Fleming](#), Professor, Ocean Sciences Centre

One of the most rapidly growing ocean industries is aquaculture, particularly that of fishes, yet the industry faces numerous challenges to improve its sustainability. OFI and its partner institutions have taken a comprehensive and inclusive approach to addressing a number of these challenges, including disease mitigation, alternate feed sources, oceanographic conditions, monitoring of benthic impacts, waste recovery and escapes from net pens. All these factors influence the industry's social acceptability and licence, and shape the policies that aim at improving sustainability.

[Dr. Kelly Hawboldt](#), Professor, Process Engineering

The ocean is sink and source for human activities and to better manage our activities in/on ocean and protect the marine environment we need to understand these sinks (coastal communities, shipping activities, fishing, atmospheric deposition) and sources (fish, energy, sustaining coastal communities). OFI has adopted this holistic approach where we are assessing the health of the ocean through data collection and modelling and then using this information develop sustainable approaches to fishing, aquaculture, and coastal development. This includes research and development into recovering value added products from residues associated with fish processing, extracting more from less to aid in economic development of remote and rural regions and decrease discharges to the ocean (reducing the pollutant load)

[Dr. Brad deYoung](#), Emeritus Professor, Department of Physics and Physical Oceanography

The Northwest Atlantic plays a key role in the global ocean, providing water that moves around the globe and allowing the deep ocean to breathe from the atmosphere. Much remains to be learned about how this 'machinery' operates and the influences on our changing climate both locally and globally. Our understanding of ocean systems requires new approaches to measuring what is happening, think of the Labrador Sea in the middle of winter. We need new partnerships with people living by the ocean and working on it, both here in the Northwest Atlantic and around the Atlantic Basin.