



INTERNATIONAL OCEAN INSTITUTE



**TRAINING PROGRAMME ON  
*OCEAN GOVERNANCE: POLICY, LAW AND MANAGEMENT***

**2019  
COURSE REPORT**



**Dalhousie University, Halifax, Canada  
22<sup>nd</sup> May – 19<sup>th</sup> July, 2019**

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**INTERNATIONAL OCEAN INSTITUTE**

# **2019 COURSE REPORT**

**IOI-Canada  
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IOI Course Report

*Ocean Governance: Policy, Law and Management*

22<sup>nd</sup> May – 19<sup>th</sup> July 2019 • Dalhousie University, Halifax, Canada

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## INTRODUCTION

This report provides a record of the 2019 training programme on *Ocean Governance: Policy, Law and Management*, conducted by the International Ocean Institute (IOI) at Dalhousie University, Halifax, Canada. Held from 22<sup>nd</sup> May to 19<sup>th</sup> July, this was the 39<sup>th</sup> annual course since the training programme was instituted by Elisabeth Mann Borgese, Founder of the IOI.



The course was attended by 17 participants from nine countries in Africa, Asia, the Caribbean, North America and the South Pacific. They were drawn from a wide range of disciplines and backgrounds, and women were well represented in the group, slightly outnumbering the men. Lectures and presentations were delivered by over 100 speakers, and included local and international experts and practitioners. Content was organised thematically as follows:

- Module 1:** Orientation and Introduction to the Training Programme
- Module 2:** Law of the Sea and Principled Ocean Governance
- Module 3:** Integrated Coastal and Ocean Management
- Module 4:** Ocean Sciences
- Module 5:** Communication and Negotiation
- Module 6:** Fisheries and Aquaculture
- Module 7:** Maritime Security
- Module 8:** Marine Transportation
- Module 9:** Energy
- Module 10:** Round Table and Conclusion of Training Programme



## GROUP PHOTOGRAPH



*Photo credit: Nick Pearce, Dalhousie University*

**Front row (from left to right):** Peter MacKinnon, Interim President, Dalhousie University (Canada), Mallory Ross, 2019 Course Co-ordinator (Canada), Leigha Thurber (Canada), Kadin Snook (Canada), Nirisoa Nantenaina Ardo (Madagascar), Morlette Johnson (The Bahamas), Kong Mukwele Sheila (Cameroon), Indira Brown (The Bahamas)

**Second row:** Deng Kangqiao (China), Chaim Andersen (Canada), Joyce Samuelu-Ah Leong (Samoa), Yu Ying (China), Alisa Martin (St Vincent & the Grenadines), Jason Dicker (Canada)

**Third row:** Jiang Rui (China), Duan Xiaofeng (China), Dike Remigius Amarachi (Nigeria), Peter Wells, Senior Research Fellow (Canada), Abdul-Aziz A. Mussa (Tanzania), Chris Milley, Lecturer (Canada), Madeleine Coffen-Smout, Programme Officer (England)

**Back row:** Michael Butler, Director (England/Canada), Paul Boudreau, Senior Research Fellow (Canada), Kathryn M<sup>c</sup>Leod (Canada), Jennifer Barr, Finance Officer (Canada), David Griffiths, Senior Research Fellow (Canada), Andrew Williamson, Intern & Course Assistant (Canada), Hugh Williamson, Senior Research Fellow & 2019 Course Director (Canada)

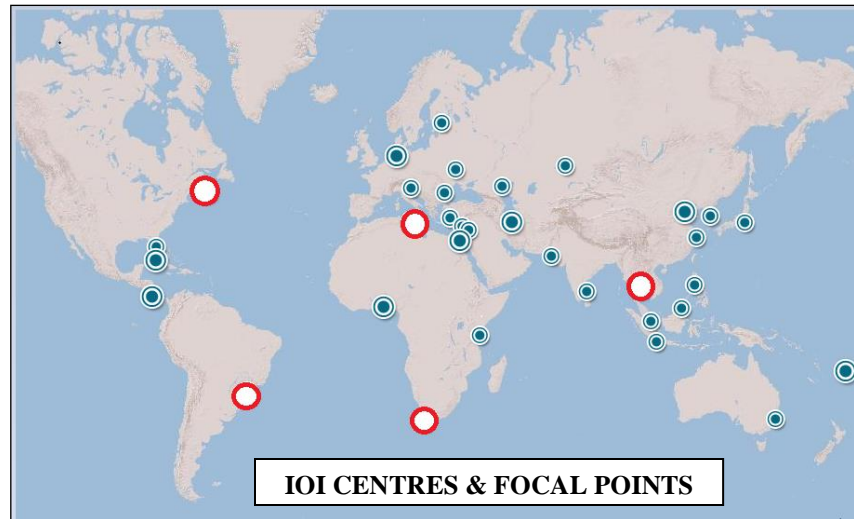


## INTERNATIONAL OCEAN INSTITUTE

IOI-Canada is a leading member of the International Ocean Institute's network of centres and focal points operating worldwide in over 30 countries. One of the earliest IOI centres to be established, it was set up by Elisabeth Mann Borgese in 1979 soon after she arrived at Dalhousie University in Halifax, Nova Scotia, and it has been based at the university for the four decades since then. It is one of the network's five Training Centres (see map).

Registered as the "IOI-Canada Association", IOI-Canada is a not-for-profit organisation, federally incorporated under the Canada Corporations Act and governed by a Board of Directors. It is guided by the IOI-Canada/Dalhousie Oceans

Advisory Committee and staffed by an experienced team of professionals, augmented by Senior Research Fellows and interns who contribute to its activities. IOI-Canada is the regional co-ordinator of the IOI centres in the Americas, namely IOI-Brazil, IOI-Costa Rica, IOI-Cuba and IOI-USA, in addition to the Canadian centre. The international headquarters of the IOI have been located in Malta since being founded in 1972 by Elisabeth Mann Borgese. Information on IOI headquarters and the network as a whole can be found at [www.ioinst.org](http://www.ioinst.org).

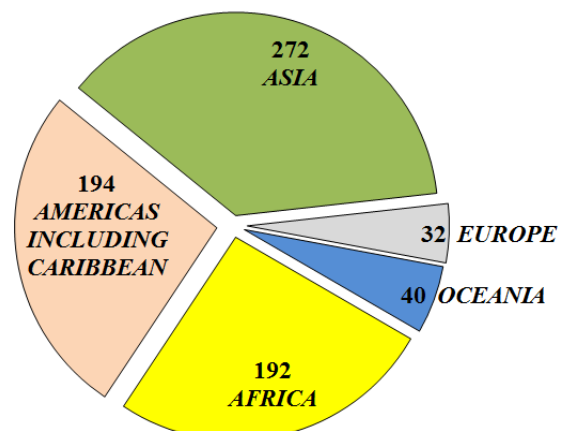


IOI-Canada's mission is to promote responsible ocean governance and the stewardship and sustainable use of coastal and ocean resources in Canada and around the world. Its goals are to encourage and develop the potential and capacity of individuals, institutions and communities to foster:

- a network of individuals dedicated to effective coastal and ocean governance;
- management, education, training, research and outreach; and,
- sustainable and prosperous coastal communities.

IOI-Canada accomplishes its mission and goals through three main activities: education and training, collaborative research and outreach. The provision of interdisciplinary training is its major focus, and through its flagship course in Halifax, it has trained nearly 740 individuals from over 100 countries around the globe.

### ALUMNI BY REGION



## THE TRAINING PROGRAMME

### **Purpose and Approach**

With the support of Dalhousie University, IOI has offered an intensive, interdisciplinary training programme in Halifax annually since 1981. This purpose of this flagship course is to:

- deepen understanding of the ever-increasing importance of the ocean and its resources in world politics and sustainable economic development;
- assist developing countries in the formation of a core of decision-makers fully aware of the complex issues of coastal and ocean management; and,
- maximise benefits to be derived from the United Nations Convention on the Law of the Sea through the proper integration of coastal and ocean management into national and international development strategies.

The programme emphasises the importance of viewing the ocean as a system with varied users and multiple, often competing and conflicting, uses. It also aims to increase awareness of the fact that ocean management requires broad interdisciplinary skills, new institutional and legal infrastructures, and new forms of intergovernmental and non-governmental organisation and cooperation at the local, national and international levels.

The course takes place on the campus of Dalhousie University, and consists of approximately 220 hours of intensive learning. While it is primarily lecture-based, it also includes interactive discussions, participant presentations, exercises and simulations, field trips and a round table.

### **Participants**

The training programme is primarily designed for developing country mid-career professionals with responsibility for some aspect of coastal or ocean governance. Given the under-representation of women in the upper echelons of administration and policy-making worldwide, particular emphasis is placed on trying to achieve equal numbers of female and male participants, and to creating a forum where men and women can learn together, sharing different perspectives and examining issues from different viewpoints.

### **Course Content**

The course is a foundational programme in a very important field of development strategy; it is not intended to provide specialised training. Participants are therefore expected to step out of their fields of specialisation and be exposed to broadly interdisciplinary work.

The 2019 training programme was organised into 10 modules covering a wide range of themes and issues, as set out in the following syllabus. When provided by lecturers, a brief summary of their presentation's topics was posted online at <http://internationaloceaninstitute.dal.ca/2019LectureTopics.pdf>.

## SYLLABUS



### MODULE 1 Orientation and Introduction to the Training Programme

#### Wednesday, 22<sup>nd</sup> May

10.00 – 10.30	Introductions & Administrative Matters	Ms Mallory Ross (Module Leader)
10.45 – 12.00	Killam Library Tour	Ms Michelle Paon
1.30 – 2.45	Understanding Canada	Dr Susan Joudrey
3.00 – 4.00	Introduction to Ocean Governance	Dr Tony George Puthucherril

#### Thursday, 23<sup>rd</sup> May

9.00 – 10.30	Intercultural Awareness	Ms Joanne Fraser
10.45 – 12.00	Managing at University	Ms Cynthia Murphy Dr David Pilon
1.30 – 4.00	Ethical Issues in Ocean Governance	Prof. Ian McAllister

### **Friday, 24<sup>th</sup> May**

9.00 – 12.00	Introduction to Training Programme	Mr Mike Butler Mr Hugh Williamson Module Leaders IOI staff
1.30 – 2.30	The Sea in Human History	Mr David Griffiths
4.00 – 6.00	Opening Ceremony with Keynote Address: <i>An Ocean of Opportunity</i>	Dr Anya Waite All

### **Saturday, 25<sup>th</sup> May**

All day      Free. Optional morning trip to Farmers Markets.

### **Sunday, 26<sup>th</sup> May**

All day      Free

<p style="text-align: center;"><b>MODULE 2</b>          Law of the Sea and Principled Ocean Governance</p>
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### **Monday, 27<sup>th</sup> May**

9.00 – 12.00	Introduction to Law of the Sea: Part 1	Mr Hugh Williamson
1.30 – 4.00	Precautionary Principle	Dr David VanderZwaag

### **Tuesday, 28<sup>th</sup> May**

9.00 – 12.00	Introduction to Law of the Sea: Part 2	Mr Hugh Williamson
1.30 – 2.45	UN Agencies	Dr Wendy Watson-Wright
3.00 – 4.00	Ecosystem Approach	Ms Olga Koubrak (Module Leader)

### **Wednesday, 29<sup>th</sup> May**

9.00 – 12.00	Legal Aspects of Maritime Boundary Delimitation	Prof. Phillip Saunders, QC
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1.30 – 2.45	Maritime Boundary Delimitation Exercises	Prof. Phillip Saunders, QC
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3.00 – 4.00	Maritime Biosecurity: Legal Issues	Dr Jiayu Bai
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**Thursday, 30<sup>th</sup> May**

9.00 – 10.30	The Arctic in International Law – A Canadian Perspective	Mr Wendell Sanford
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10.45 – 12.00	The Antarctic – A Unique Place in Fact and Law	Mr Wendell Sanford
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1.30 – 2.45	GHG Emissions Strategy to Decarbonise Shipping	Dr Aldo Chircop
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3.00 – 4.00	Ocean Governance	Dr Awni Behnam (via Skype)
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**Friday, 31<sup>st</sup> May**

9.00 – 12.00	ABNJ and BBNJ	Dr Susanna Fuller
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1.30 – 2.45	Simulation Exercise: Introduction	Mr David Griffiths
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3.00 – 4.00	Participant Presentations	Participants
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**Saturday, 1<sup>st</sup> June**

All day	Free	
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**Sunday, 2<sup>nd</sup> June**

All day	Free	
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<b>MODULE 3</b> Integrated Coastal and Ocean Management
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**Monday, 3<sup>rd</sup> June**

9.00 – 9.10	Introduction to Module	Mr Paul Boudreau (Module Leader)
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9.10 – 12.00	Introduction to ICOM	Mr Rodrigo Menafra
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1.30 – 4.00	Marine Spatial Planning	Mr Scott Coffen-Smout Mr Gary Pardy
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**Tuesday, 4<sup>th</sup> June**

9.00 – 10.30	Coastal Information Management	Dr Suzette Soomai
10.45 – 12.00	Ocean and Climate Change Action: Opportunities for Economic and Environmental Sustainability	Dr Peter Ricketts
1.30 – 2.45	Traditional Ecological Knowledge	Mr Phillip Prosper
3.00 – 4.00	Blue Economy	Dr Awni Behnam (via Skype)
4.00 – 4.30	Blue Economy and the Ocean Policy Research Institute	Dr Atsushi Watanabe

**Wednesday, 5<sup>th</sup> June**

9.00 – 12.00	GIS Web Mapping and Simulation ( <i>GIS Lab: Killam 2902</i> )	Mr James Boxall Ms Caitlin Cunningham
1.30 – 2.45	Working with Maps	Mr Bob Branton
3.00 – 4.00	Ocean Tracking Network	Dr Fred Whoriskey

**Thursday, 6<sup>th</sup> June**

9.00 – 12.00	Project Cycle	Prof. Ian McAllister
1.30 – 2.45	Blue Justice for Coastal Communities	Dr Ratana Chuenpagdee
3.00 – 4.00	Ocean Awareness and Literacy	Ms Kerri McPherson
4.00 – 4.20	Optional Briefing: Dalhousie's Marine Affairs Program	Ms Becky Field



### Friday, 7<sup>th</sup> June

All day	Field Trip: Bedford Institute of Oceanography	Mr Scott Coffen-Smout Mr Stephen Cole Dr César Fuentes-Yaco Mr Jon Griffin Dr Vladimir Kostylev Dr Hilary Moors-Murphy Mr Brian Robinson Mr Gary Sonnichsen Dr Alain Vézina Ms Mallory Ross
7.00 onwards	Elisabeth Mann Borgese Ocean Lecture – The “Blue Revolution”: Challenges and Opportunities	Ms Renée Sauvé Dr Ratana Chuenpagdee Dr Susanna Fuller Ms Sigrid Kuehnemund Dr Sean Brilliant

### Saturday, 8<sup>th</sup> June – World Oceans Day

All day	Free
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### Sunday, 9<sup>th</sup> June

All day	Free
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<p><b>MODULE 4</b> Ocean Sciences</p>
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### Monday, 10<sup>th</sup> June

9.00 – 12.00	Introduction to Ocean Sciences, and Health of the Ocean	Dr Peter Wells (Module Leader)
1.30 – 4.00	Fundamentals of Oceanography	Dr Anna Metaxas

### Tuesday, 11<sup>th</sup> June

9.00 – 12.00	Fundamentals of Climate Change	Mr Alexander MacDonald
1.30 – 4.00	Vulnerability Assessment and Adaptation to Climate Change	Dr Daniel Lane

### **Wednesday, 12<sup>th</sup> June**

9.00 – 10.30	Census of Marine Life, OBIS and Citizen Science	Mr Bob Branton Ms Lenore Bajona Mr David Ireland
10.45 – 12.00	LIDAR and Inshore Mapping	Dr Tim Webster
12.00 – 1.30	Optional session: QGIS Mapping Lunch & Learn	Mr Bob Branton
1.30 – 4.00	Land-Sea Interface	Dr Graham Daborn

### **Thursday, 13<sup>th</sup> June**

9.00 – 10.30	Ocean Acidification	Ms Krysten Rutherford
10.45 – 12.00	Participant Presentations	Participants
1.30 – 2.45	Plastics and the Ocean	Dr Tony Walker
3.00 – 4.00	Field Trip: the Aquatron	Mr John Batt

### **Friday, 14<sup>th</sup> June**

9.00 – 12.00	Remote Sensing of the Ocean	Mr Dirk Werle
1.00 onwards	Field Trip to Bay of Fundy: Sustainable Blue Fish Farm, Evangeline Beach	Mr David Roberts Dr Graham Daborn Ms Mallory Ross

### **Saturday, 15<sup>th</sup> June**

All day	Field Trip to Bay of Fundy: Annapolis Royal Marsh Nature Trail, Annapolis Tidal Power Station, Fort Anne, Habitation	Dr Jon Percy Mr Leslie Smith Ms Mallory Ross
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### **Sunday, 16<sup>th</sup> June**

All day	Field Trip to Bay of Fundy: Fundy Adventures, Port of Digby, Clean Annapolis River Project briefing	Ms Wanda van Tassel Mr Edwin Chisholm Mr Levi Cliche Ms Mallory Ross
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### **Monday, 17<sup>th</sup> June**

All day	Field Trip to Bay of Fundy: Acadian Seaplants, Nautical Seafoods, Kejimikujik National Park, Lunenburg Waterfront	Mr Will Neily Ms Charlotte Amero Mr Cory Robar Mr Paul Lalonde Ms Mallory Ross
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### **Tuesday, 18<sup>th</sup> June**

9.00 – 12.00	Recovery / Study Period	All
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**MODULE 5**  
 Communication and Negotiation

1.30 – 4.00	Introduction to Module, and Media	Mr Ian Porter (Module Leader)
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### **Wednesday, 19<sup>th</sup> June**

All day	Interview and Presentation Skills	Mr Ian Porter Mr Tim Tracey
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### **Thursday, 20<sup>th</sup> June**

9.00 – 12.00	Marine Managers and the News	Mr Ian Porter Mr Paul Withers
1.30 – 2.45	Communication	Mr Peter MacLellan
3.00 – 4.00	Participant Presentations	Participants

### **Friday, 21<sup>st</sup> June**

9.00 – 12.00	Negotiation Theory and Practice	Mr Hugh Williamson Dr Nayha Acharya
1.30 – 4.00	Negotiation Exercise	Mr Hugh Williamson Dr Nayha Acharya

### **Saturday, 22<sup>nd</sup> June**

All day	Free	
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## **Sunday, 23<sup>rd</sup> June**

All day      Free

<b>MODULE 6</b> Fisheries and Aquaculture
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## **Monday, 24<sup>th</sup> June**

9.00 – 10.30	Introduction to Fisheries Science	Dr Kent Smedbol
10.45 – 12.00	Ecosystem-based Fisheries Management: Part 1	Dr Nancy Shackell
1.30 – 2.45	Ecosystem-based Fisheries Management: Part 2	Dr Noreen Kelly
3.00 – 4.00	Participant Presentations	Participants

## **Tuesday, 25<sup>th</sup> June**

9.00 – 10.30	Ropeless Fishing Gear, Marine Mammals and Closures	Dr Sean Brilliant (Module Leader)
10.45 – 12.00	Certification of Fisheries	Mr Isa Elegbede
1.30 – 2.45	Participant Presentations	Participants
3.00 – 4.00	Fishing Fleet Economics	Dr Rob Parker

## **Wednesday, 26<sup>th</sup> June**

9.00 – 10.30	Policy Development	Ms Kerri Graham
10.45 – 12.00	Community-based Fisheries	Mr Chris Milley
12.10	Class photograph	All
1.30 – 4.00	Field Trip: Northwest Atlantic Fisheries Organisation	Mr Fred Kingston Dr Ricardo Federizon Ms Dayna Bell MacCallum

## **Thursday, 27<sup>th</sup> June**

9.00 – 12.00	Seafood Value Chain	Dr Megan Bailey
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1.30 – 2.45	Fisheries Management Cycle	Dr Suzette Soomai
3.00 – 4.00	Role of NGOs in Fisheries Management	Dr Bob Rangeley

**Friday, 28<sup>th</sup> June**

9.00 – 12.00	Sea-cage Aquaculture	Dr Jon Grant
1.30 – 4.00	Land-based Aquaculture	Mr David Roberts

**Saturday, 29<sup>th</sup> June**

All day      Free

**Sunday, 30<sup>th</sup> June**

All day      Free

**Monday, 1<sup>st</sup> July - Canada Day**

All day      Free – national holiday

**Tuesday, 2<sup>nd</sup> July**

9.00 – 10.30	Ecological Change in the Ocean and the Role of Fisheries and Climate Change	Dr Boris Worm
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<p><b>MODULE 7</b> Maritime Security</p>
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10.45 – 12.00	Introduction to Maritime Security	Cdr Bob Edwards (ret'd) (Module Leader) Mr Remi-Martin Gionet
1.30 – 4.00	Introduction to Maritime Security (cont.)	Cdr Bob Edwards (ret'd) Mr Remi-Martin Gionet

### **Wednesday, 3<sup>rd</sup> July**

9.00 – 12.00	Field Trip: NS Emergency Management Office (EMO)	Ms Erica Fleck Mr Marc Cayouette Ms Maria Nemer-Gonzalez Ms Murielle Provost Mr David Griffiths
1.30 – 4.00	Emergency Management in the Coastal Zone	Ms Murielle Provost Mr David Griffiths

### **Thursday, 4<sup>th</sup> July**

All day	Integrated Maritime Security Policy Exercise	Cdr Bob Edwards (ret'd) Mr Remi-Martin Gionet
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### **Friday, 5<sup>th</sup> July**

All day	Integrated Maritime Security Policy Exercise	Cdr Bob Edwards (ret'd) Mr Remi-Martin Gionet Participants
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### **Saturday, 6<sup>th</sup> July**

All day	Free	
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### **Sunday, 7<sup>th</sup> July**

All day	Free	
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<p><b>MODULE 8</b> Marine Transportation</p>
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### **Monday, 8<sup>th</sup> July**

9.00 – 12.00	Shipping Fundamentals	Capt. Jack Gallagher
1.30 – 2.45	Human Elements of International Shipping	Capt. Angus McDonald
3.00 – 4.00	Participant Presentations	Participants



### **Tuesday, 9<sup>th</sup> July**

9.00 – 12.00	Safety of Ships	Capt. Alan Knight
1.30 – 4.00	Port Governance and Reform	Dr Mary Brooks

### **Wednesday, 10<sup>th</sup> July**

9.00 – 12.00	International Maritime Organisation (IMO)	Mr Bud Streeter
1.30 – 2.45	Maritime Search and Rescue	Mr John Dalziel
3.00 – 3.30	Alumni Networking	Ms Madeleine Coffen-Smout Ms Anita Coady
3.30 – 4.30	Participant Presentations	Participants

### **Thursday, 11<sup>th</sup> July**

9.00 – 10.30	Field Trip: Eastern Canada Response Corporation	Mr Darin Connors Mr Addison Vickard Ms Mallory Ross
10.45 – 12.00	Field Trip: Survival Systems Training Ltd	Mr Dan Latremouille Ms Trish Gerrits Ms Mallory Ross
1.00 – 4.00	Field Trip: Port of Halifax	Mr Patrick Bohan (Module Leader) Ms Mallory Ross

<b>MODULE 9</b> Energy
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### **Friday, 12<sup>th</sup> July**

9.00 – 12.00	Introduction to Module	Dr Wayne Groszko (Module Leader)
1.30 – 2.45	Introduction to Geophysics	Mr Kris Kendell
3.00 – 4.00	Geology, Energy and Fracking	Mr David Brown

### **Saturday, 13<sup>th</sup> July**

All day	Integration Exercise: Preparation of Presentations	Participants
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### **Sunday, 14<sup>th</sup> July**

All day	Integration Exercise: Preparation of Presentations	Participants
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### **Monday, 15<sup>th</sup> July**

9.00 – 10.30	Exploration and Risk	Ms Jennifer Matthews
10.45 – 12.00	Regulation and the Canadian Environmental Assessment Agency (CEAA)	Ms Janice Ray
1.30 – 2.45	Tidal Power: Global	Dr Sue Molloy
3.00 – 4.00	Tidal Power: Bay of Fundy	Dr Dan Hasselman

### **Tuesday, 16<sup>th</sup> July**

9.00 – 10.30	Wind Power	Mr Kevin Doucette
10.45 – 12.00	Solar Power	Dr Wayne Groszko
1.30 – 4.00	Study Period	Participants

<b>MODULE 10</b> Round Table Conclusion of Training Programme
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### **Wednesday, 17<sup>th</sup> July**

All day	Round Table: Symposium	Ms Rosemarie Cadogan Dr Tony Charles Dr Dan Lane Dr Suzuette Soomai Mr David Griffiths Participants
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### Thursday, 18<sup>th</sup> July

9.00 – 12.30      Round Table: Group Sessions

Ms Rosemarie Cadogan  
Dr Tony Charles  
Dr Dan Lane  
Dr Suzuette Soomai  
Mr David Griffiths  
Participants

4.30 – 6.30      Closing Ceremony and Reception

All

### Friday, 19<sup>th</sup> July

9.30 – 1.00      Feedback, What Next? and Closing Remarks

Mr Hugh Williamson  
IOI Staff  
Module Leaders  
Participants



## COURSE DIRECTOR'S REPORT

### Introduction

This was the 39th offering of the International Ocean Institute training program on *Ocean Governance: Policy, Law and Management*, conducted, as it has been continuously for the last 39 years, at Dalhousie University in Halifax, Nova Scotia. While this was also my second year as Course Director, I have had an involvement with the program since its first offering in 1981, in the capacity of Course Co-ordinator, lecturer and Module Leader. I have seen the program evolve, with modifications to its curriculum, in response to emerging ocean issues and changing oceans management priorities. The course continues to be a unique, world recognized leader in capacity building in ocean management, identifying and attracting participants from different nations and backgrounds, who seek to enhance their capabilities to better manage the ocean on both a local and global dimension.

Critical to the viability of the program, has been its ability to identify emergent ocean issues, and provide the participants with up-to-date and very practical oceans management skills. It is notable that this specific program has remained at the forefront of oceans management education going into its 40th year. It has maintained its relevance and provided a major cadre of ocean decision-makers for much of the non-OECD world, and now also for the Indigenous populations of Canada.

As Course Director, my primary responsibility remained the overseeing of lectures and field trips. This entailed facilitating the continuity and integration of the varied subject materials, as well as emphasising the global relevance of modules and individual lectures. It is important to guide the lecture material and accompanying discussions to ensure that, while the course is conducted in Canada with many Canadian resource persons, it continues to be an oceans management course held in Canada, and not a Canadian oceans management course.



By way of illustration of this program's impact, it is worth noting that the first course in Halifax in 1981 had two young Mexican naval officers, just starting their careers. For the 2019 Closing Ceremony, we received congratulatory greetings for our latest graduates from these participants, both of whom had recently retired as vice admirals after long and successful careers. The stature which has been achieved by many of our early graduates, now at the end of their careers, while not necessarily directly attributable to their participation in the program, clearly demonstrates the quality of participant that the program continues to attract.



### **Course Staffing**

IOI-Canada's core staff – Michael Butler, Director, Madeleine Coffen-Smout, Programme Officer and Jennifer Barr, Finance Officer – provided the framework of course design, preparation, management and support including the selection and invitation of lecturers. They were assisted in the delivery of the 2019 program by: the Course Director, Hugh Williamson (Senior Research Fellow, IOI-Canada & Adjunct Professor, Marine Affairs Program, Dalhousie University); Course Co-ordinator, Mallory Ross (graduate student of Development Economics at Dalhousie University) with responsibility for day-to-day course logistics and participant/lecturer support; and Course Assistant & Intern, Andrew Williamson (film studies student at Carleton University) who helped the Course Co-ordinator, provided IT support for lectures and also prepared a video about the training programme, which can be viewed online at: <https://drive.google.com/file/d/1ujn8OgwcdAeQJUuoXli1M6wYBv25st3S/view>.

### **Course Participants**

Although 19 participants were offered places on the training program, two were unfortunately unable to obtain visas. The actual class was therefore made up of 17 participants, representing China, Africa, the South Pacific, the Caribbean, and Canada. The largest national groups included four participants from the People's Republic of China, and five from First Nations communities from Canada's Pacific West Coast to Northern Labrador.

The majority of the course participants were mid-career professionals involved in marine management. As with last year's Canadian Indigenous participants, several were senior university students or recent graduates. This provided a more diverse background and perspective for the class, providing a balance which is more reflective of general society with a greater diversity in age, experience, and national outlook. While this did provide some challenges for interpersonal dynamics, contrasting youthful exuberance with mature pragmatism, the overall benefits to the course of having a greater diversity of committed individuals far outweighed any differences in experience and maturity.

Most of the class had a science-based education with a lesser familiarity with law or formal education in resource management. By contrast, the job responsibilities of the participants were largely in the areas of marine resource management and economics, and covered a much wider scope of subject matter areas. As will be discussed later, this validates the IOI training program curriculum, which seeks to provide the greater exposure to the actual subjects of managerial responsibility.



## **Organization**

The course is organized in a series of modules and field trips. The timing and order are somewhat dependent upon the availability of lectures, but the intent is to introduce the participants to the fundamental principles and foundations of ocean governance: science, Law of the Sea, etc. building towards later modules which deal with the integration issues surrounding oceans and coastal management. It is recognized that some of the participants will have an initial familiarity with the subject materials in individual modules. Those having a science or law background for example, may have found some of the initial materials repetitive. However, as there is no overall consistency in the participants' backgrounds, it is not possible to eliminate some of the introductory material, as it is important that all participants have the necessary understanding of principles and terminology.

In recognition of the importance of Indigenous people nationally and globally, the program by including members of the Indigenous Canadian population, needed to provide a curriculum which includes both



issues of Canadian Indigenous concern, and the global recognition of the rights of Indigenous people on other continents. As the program is conducted at Dalhousie University on the unceded territory of the Mi'kmaq people, an IOI-Canada graduate who is also a Keptin of the Mi'kmaq Grand Council, was invited to provide a session on traditional rights, and also opened with a traditional spiritual ceremony. Throughout the program, including on field trips, issues of indigenous concern were regularly addressed, ensuring that the global relevance of these issues was highlighted for the benefit of the non-Canadian participants. This requires a delicate balance so as not to appear too parochial or involved in specific Canadian issues.

The typical classroom day involves the presentation of several lectures by resident local experts. An effort is made to ensure that there is adequate time for questions and discussions of relevant issues. Part of the Course Director's responsibility is to ensure that discussions do not evolve into areas of limited interest to one specific national group or area of expertise.

As with the previous year, each day starts with a brief news report of "what's going on in the oceans" by the Course Director. This provides a few minutes for the class to get settled, but also is intended to alert the participants to incidents and events taking place on the world's ocean, and to briefly question the



significance or relevance in the field of global oceans affairs. This might include significant accidents or incidents involving ships, regional or international conferences, and political situations which have an ocean impact.

### **Chronology of Modules**

The course curriculum was divided into 10 modules: Orientation and Introduction, Law of the Sea, Integrated Coastal and Ocean Management, Ocean Sciences, Communications and Negotiation, Fisheries and Aquaculture, Maritime Security, Marine Transportation, Energy, and a concluding Roundtable. Each of these modules was under the academic direction of a Module Leader, generally



an IOI Senior Research Fellow with expertise in a particular subject area. The Director of IOI-Canada in consultation with the Module Leaders undertook a curriculum review to ensure that the materials presented were up-to-date and included new developments in the sector. It was also the responsibility of the Module Leaders and Course Director to ensure continuity and thematic linkages between the modules. This allows for a progressive building of ocean literacy, minimises repetition of material, and helps ensure that necessary concepts can be integrated into subsequent modules.

### **Participant Presentations**

As a course requirement, each participant gives a short presentation to the class, 20 minutes in length followed by 10 minutes of questions and discussion. The subject is chosen by the participant and can cover an area of their particular expertise, or serve as an introduction to their country and some of its marine concerns. While these presentations are not graded, a detailed positive critique is provided to the participant on the effectiveness of their delivery, their use of visual materials, and the overall content. This is one of the mechanisms used by the course to help participants make more effective presentations, be it in an academic, public, or professional capacity.

### **Simulation**

Once again, the program curriculum included a course-long simulation exercise, which provided a tool for integration of material as well as the final course project and presentation. The simulation has been refined over a number of years, and where exercises or activities are presented during the modules, an effort is made to draw on the simulation scenario, geography and relevant issues as an ongoing theme throughout the program. At the end of the eight weeks, the output of the simulation is presented as a draft ocean policy to a committee of experienced professionals for their analysis and critique. This provided the

participants with an opportunity to demonstrate both their skills in ocean management, and their ability to present a complex analysis report using their acquired presentation and speaking skills.



### **Analysis**

For this year's program, both oral and online mechanisms were adopted to evaluate the quality and appropriateness of the modules and lectures as related to participants' work responsibilities. These were intended to provide a combination of quantitative and qualitative feedback on lectures, field trips and other academic matters. The general results indicated that most module content was either new information or significantly updated existing knowledge for the vast majority of participants. In addition, most participants were gaining information that was of immediate applicability to their job responsibilities, especially in the areas of management and governance.

At the end of the course, the final morning's discussion emphasized the participants' ongoing responsibilities in protecting and maintaining the oceans for future generations. In particular, the following requirements were identified:

1. The need to disseminate the knowledge that they had obtained during the course throughout their national and regional networks.
2. The need to ensure the relevance of the IOI training program by identifying the additional needs in ocean governance capacity building including:
  - a. subject areas that need to be introduced or augmented, and what areas may need to be de-emphasized,
  - b. emergent issues which need to be addressed in the curriculum including the effects of climate change: sea level rise, loss of territory, species migration, severe weather mitigation.
3. The enhancement of their oceans network by maintaining contact with course colleagues, consulting on issues, sharing information, and recommending future participation in this program.

### **New Areas of Participant Concern**

Throughout the program, careful note of was made of areas of specific interest and subjects which were felt should be included in future programs. Two specific subjects were regularly mentioned, and attracted the highest level of interest among the participants.

1. The issue of ocean awareness, ocean education, and ocean curriculum development.

Considerable concern was expressed on numerous occasions by the participants regarding the problem of getting oceans issues and their relation to such things as climate change, into overall public awareness, and especially into the curriculums of schools starting at the primary level. It was generally felt, and often raised, that the start of an effective national or international program would be in educating young people, and providing them with the awareness of the tools to make the necessary changes for their future. Specific concerns were expressed with the lack of availability of appropriate curriculum materials to be provided to schools, along with the professional training of educators. This was seen as a major future initiative by global organizations.

2. The issue of the place of Indigenous people in contemporary ocean governance, their rights duties and responsibilities.

There is an international recognition of the rights of Indigenous people, and the concerns expressed, not just by the Canadian participants, of the need to involve Indigenous people in matters of national and international ocean governance. Participants felt that there needed to be more detailed exposure to international legal and political developments in this area, and a better opportunity for participation of Indigenous people from other regions of the world.

**Hugh Williamson**  
**2019 Course Director**





## PARTICIPANTS



**The Bahamas:** Ms Indira N. BROWN, Fisheries Officer, Department of Marine Resources, Ministry of Agriculture and Marine Resources, Nassau

**The Bahamas:** Ms Morlette JOHNSON, Chief Counsel, Office of the Attorney-General, Nassau

**Cameroon:** Ms KONG MUKWELE Sheila, Senior Foreign Affairs Attaché, Ministry of External Relations, Yaoundé

**Canada:** Ms Chaim ANDERSEN, BSc Student, Memorial University of Newfoundland; & Community Climate Change Liaison – Imappivut Community Coordinator, Nunatsiavut Government, Nain, Newfoundland and Labrador

**Canada:** Mr Jason DICKER, Graduate Student, Memorial University of Newfoundland, Nain, Newfoundland and Labrador

**Canada:** Ms Kathryn B. M<sup>C</sup>LEOD, Lands Officer (*from autumn 2019*), Lands and Resources Directorate, Nisga'a Lisims Government, New Aiyansh, British Columbia

**Canada:** Mr Kadin SNOOK, Fisheries Program Manager, Mowachaht/Muchalaht First Nation, Gold River, British Columbia

**Canada:** Ms Leigha THURBER, Aquatic Science Technician Intern, St Andrews Biological Station, Fisheries and Oceans Canada, St Andrews, New Brunswick

**China:** Dr DENG Kangqiao, Project Manager, Department of Ocean Strategic Planning and Economy, Ministry of Natural Resources, Xicheng District, Beijing

**China:** Dr DUAN Xiaofeng, Associate Research Fellow & Deputy Director, Department of Marine Economy Research, National Marine Data and Information Service, Ministry of Natural Resources, Hedong District, Tianjin

**China:** Mr JIANG Rui, Deputy Director, Department of Natural Resources Survey and Monitoring, Ministry of Natural Resources, Xicheng District, Beijing

**China:** Ms YU Ying, Research Assistant, First Institute of Oceanography, Ministry of Natural Resources, Qingdao City

**Madagascar:** Mr NIRISOA Nantenaina Ardo, Site Leader – Mahajamba, Blue Ventures, Ampahibe, Antananarivo

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**Samoa:** Ms Joyce SAMUELU-AH LEONG, Fisheries Management Adviser, Pacific Islands Forum Fisheries Agency, Honiara, Solomon Islands

**St Vincent and the Grenadines:** Ms Alisa MARTIN, Fisheries Officer, Fisheries Division, Ministry of Agriculture, Rural Transformation, Forestry, Fisheries and Industry, Kingstown, St Vincent

**Tanzania:** Mr Abdul-Aziz Alawy MUSSA, Officer, Zanzibar Fisheries Company, Zanzibar



## FUNDERS



IOI-Canada wishes to acknowledge the very generous support for the 2019 training programme, which it received from a number of sources. Dalhousie University continued to provide invaluable in-kind assistance for this course, and major scholarship funding was made available by the Stiftung für Meereswissenschaft und -forschung (Ocean Science and Research Foundation) both generally and through the Danielle de St Jorre Scholarship. Acknowledgement is also gratefully given to the following organisations for their contributions towards individual participant expenses: The Bahamas Maritime Authority, Blue Ventures, Caribbean Regional Fisheries Mechanism, Ebony Shelters Nigeria Ltd, Fisheries and Oceans Canada through both its Oceans Management Contribution Program (2018-2019) and St Andrews Biological Station, Ministry of Natural Resources (China), Nunatsiavut Government, Ocean Frontier Institute, Pacific Islands Forum Fisheries Agency, Scientific Committee on Oceanic Research with support from US NSF, and World Wildlife Fund – US through its Russell E. Train Education for Nature Program. A brief profile of each of these organisations, listed alphabetically, is provided in the following pages.

Sincere thanks are also due to the various organisations and facilities which contributed to the 2019 programme by hosting the class and assisting with field trips. These included Acadian Seaplants, Annapolis Tidal Power Station, the Aquatron, Bedford Institute of Oceanography/Department of Fisheries and Oceans, Clean Annapolis River Project, Eastern Canada Response Corporation, Fundy Adventures, Halifax Port Authority, Kejimikujik National Park, Nautical Seafoods, Northwest Atlantic Fisheries Organization, Nova Scotia Emergency Management Office, Port of Digby, Survival Systems Training Ltd and Sustainable Blue/Sustainable Fish Farming Canada. Last, but not least, the 2019 EMB Lecture was organised and delivered in partnership with the Canadian Wildlife Federation, Oceans North, Too Big to Ignore and World Wildlife Fund – Canada, all of which are gratefully acknowledged.

### **The Bahamas Maritime Authority**

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The Bahamas Maritime Authority (BMA) was established in 1995 and the fleet has become one of the world's largest Registers with over 50 million gross tons of ships flying the Bahamas flag in every corner of the globe. The Authority's mission is to administer the registration and regulation of Bahamas ships, adopting international standards of safety, security and environmental protection to ensure a fleet of the highest quality. The BMA also represents The Bahamas at the International Maritime Organisation (IMO) and other international bodies such as the European Commission and the US Coast Guard.

The Authority's maritime services fall into five main categories:

- **Vessel Registration:** The BMA welcomes all types of vessels to the register while ensuring certain legal and safety standards are met. As part of the registration requirements, the technical suitability and age of a vessel are also taken into consideration before it is accepted to fly the Bahamas Flag.
- **Seafarers and Manning:** The Seafarers and Manning Department is responsible for ensuring that all seafarers employed onboard Bahamas ships/units are trained and certified in accordance with the requirements of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended (STCW).
- **Maritime Affairs:** The role of the Maritime Affairs Department is to represent the BMA in external bodies. Its main focus is on the IMO as the UN agency dedicated to technical and operational matters affecting the maritime world.
- **Investigations:** The Investigations Department was established in 2017 with one primary objective, namely to prevent further marine accidents or incidents from occurring. It is the responsibility of the Investigations Department to investigate marine casualties involving Bahamian vessels worldwide and vessels of any flag, at the time of the event, within Bahamian territorial waters.
- **Inspections and Surveys:** The BMA's Inspections and Surveys Department is primarily responsible for ensuring that registered ships are in compliance with all statutory requirements as set out in the international Conventions and Codes to which The Bahamas is a party.

The Bahamas Maritime Authority provided a full scholarship for travel and course expenses to enable a Bahamian lawyer from the Office of the Attorney-General to attend the training programme.

**Blue Ventures**

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Blue Ventures is an award-winning marine conservation organisation which develops locally led approaches to marine management that benefit people and nature alike. By listening and responding to basic needs, it designs models that catalyse and sustain marine conservation, unlocking the potential of coastal communities to manage their resources.

For over a decade, Blue Ventures has worked in places where the ocean is vital to local cultures and economies. It is committed to advancing the rights of vulnerable small-scale fishers throughout the coastal tropics and it has set itself the goal of reaching at least three million people by 2020. Its work plays a critical role in rebuilding coastal fisheries, empowering communities with the means to safeguard their futures, improving food and income security, and building resilience to climate change whilst reversing biodiversity loss.

Blue Ventures has piloted sustainable aquaculture businesses, and developed transformative approaches for integrating community health services with marine conservation. Its models have guided fisheries policy and are being replicated by communities, NGOs, businesses, donors and governments worldwide. Today these models are underpinning the largest community-based marine conservation areas on earth, and are supporting local partners to engage communities in conservation in nine tropical coastal countries.

Blue Ventures provided a grant towards travel and living expenses of a staff member from Madagascar who is in charge of their site in Mahajamba Bay.



**Caribbean Regional Fisheries Mechanism**

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Inaugurated in 2003 and headquartered in Belize, the Caribbean Regional Fisheries Mechanism (CRFM) is an intergovernmental organisation with a mission to “promote and facilitate the responsible utilization of the region's fisheries and other aquatic resources for the economic and social benefits of the current and future population of the region.” Its members are Anguilla, Antigua & Barbuda, The Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, St Kitts and Nevis, St Lucia, St Vincent and the Grenadines, Suriname, Trinidad and Tobago, and Turks and Caicos Islands.

The CRFM consists of three bodies – the Ministerial Council, the Caribbean Fisheries Forum, and the CRFM Secretariat. The Ministerial Council is the highest decision-making body of the CRFM, and is responsible for formulating the policy of the Mechanism. It is comprised of the Ministers responsible for Fisheries in each Member State. Supported by the Executive Committee, the Forum is made up of one representative from each Member, each Associate Member and each Observer. The CRFM Secretariat is the technical unit, located in offices in Belize and the eastern Caribbean (St Vincent and the Grenadines), comprising a permanent body of technical, scientific and support staff.

Under a Memorandum of Understanding with IOI, the CRFM helps with identification and selection of participants from the Caribbean and provides funding to cover travel expenses of participants from its member countries. This year's travel grants enabled fisheries staff from The Bahamas and St Vincent and the Grenadines to attend the course.

**Dalhousie University**

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Founded by the ninth Earl of Dalhousie in 1818, Dalhousie University has grown over the last 200 years from being the little “college by the sea” into one of Canada’s leading research and teaching universities. Spread over nearly 80 acres in Halifax and with an agricultural campus in Truro, it currently offers 4,000 courses in more than 200 degree programmes. Its 19,000+ students come from across Canada and more than 115 countries around the globe, and enjoy one of the lowest student-professor ratios in the country. Dalhousie’s graduates form a powerful network making important contributions in all walks of life, and include the first female Supreme Court of Canada judge, the first American woman to walk in space, and 91 Rhodes Scholars.

Dalhousie’s teaching and research strengths go hand in hand, with a strong core of talented and dedicated researchers conducting basic and applied research. As Atlantic Canada’s leading research university and a member of the prestigious U15 group, Dalhousie attracts more than \$150 million in external research grants and awards each year. Many of its researchers are nationally and internationally recognised for their work, and the university is home to 60 Canada Research Chairs – more than any other university in the region. Chairholders advance the frontiers of knowledge in their fields, not only through their own work, but also by teaching and supervising students and co-ordinating the work of other researchers.

Ocean studies are one of Dalhousie’s main focuses and strengths. Building on its proximity to the sea, Dalhousie played a pioneering role in oceans education as the first university in Canada with an Oceanography Department. Subsequent Canadian firsts have been its Marine and Environmental Law Program, its Marine Affairs Program and its undergraduate degree in Ocean Sciences. Linked to its ocean learning, Dalhousie has developed a broad range of expertise in ocean research and is increasingly defined as a world leader in this field. Its researchers work on discovering innovative answers to the world’s ocean-related questions in areas such as:

- Ocean Law and Governance
- Marine Affairs
- Marine Biological Resources and Conservation of Biodiversity
- Marine Technologies
- Ocean Environmental Processes
- Arctic Studies
- Atmospheric Science
- Marine Bio-Resources

Each year since the inception of the IOI course in 1981, Dalhousie University has provided crucial in-kind support to this training programme. With the ocean at its doorstep, and with ready access to one of the highest concentrations of marine experts in the world, the university is an ideal host for a course of this kind.

**Ebony Shelters Nigeria Ltd**

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Established in Nigeria in 2014, Ebony Shelters offers quality roofing sheets and full professional services including installation, repairs, maintenance and re-roofs. It prevents problems and increases performance with proper roofing sheets and regular roof maintenance. Its roofers are experienced, trained and qualified.

Ebony Shelters serves the following:

- Residential
- Retail
- Commercial Warehousing
- Office Buildings
- Hospitals & Medical Centers
- Manufacturing / Industrial
- Educational / Religious
- Storage / Food Processing

Ebony Shelters Nigeria provided some financial support for the Nigerian participant to help with the travel costs of attending the training programme.

### **Fisheries and Oceans Canada**

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Fisheries and Oceans Canada (DFO) is the federal lead for managing Canada's fisheries and safeguarding its waters. The department supports economic growth in the marine and fisheries sectors and innovation in areas such as aquaculture and biotechnology. It aims to ensure healthy and sustainable aquatic ecosystems through habitat protection and sound science. The Canadian Coast Guard (CCG), a special operating agency within DFO, contributes to the safety, security and accessibility of Canada's waterways.

Employees of DFO and the CCG work in over 400 locations across Canada. Their work is centered on the following four core responsibilities:

- **fisheries:** ensuring Canada's fisheries, including aquaculture, are protected, managed sustainably and support indigenous participation, and that the national network of harbours is open and in good repair;
- **aquatic ecosystems:** protecting Canada's oceans, freshwater and aquatic ecosystems and species from the negative impact of humans and invasive species through sound science and in collaboration with indigenous communities;
- **marine navigation:** maintaining waterways year-round so they are safely navigable by mariners and all Canadians;
- **marine operations and response:** responding to maritime incidents, such as search-and-rescue and environmental emergencies, through the Coast Guard fleet and in collaboration with indigenous communities.

Under the Oceans Management Contribution Program (2018-2019), the department provided funding which enabled four indigenous Canadians to participate in this year's course.

### **St Andrews Biological Station**

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Web: [www.inter.dfo-mpo.gc.ca/SABS](http://www.inter.dfo-mpo.gc.ca/SABS)

Founded in 1908, the St. Andrews Biological Station (SABS) is Atlantic Canada's oldest permanent marine research facility. Station scientists conduct ecosystem science in support of DFO's mandate to manage, regulate and support human activities in Canadian waters. Scientific study is focused on the Bay of Fundy and Gulf of Maine, as well as the coastal ecosystems and traditional fisheries of Nova Scotia and Prince Edward Island. Research themes include: Aquaculture, Biodiversity, Climate Change, Coastal Oceanography, Fisheries and Species at Risk. A large portion of the station's work is done in collaboration with universities, environmental groups, aquaculture and fishing industries.

Through DFO's Coastal Environmental Baseline Program, SABS funded the participation of their Aquatic Science Technician employed through DFO's New Brunswick Internship Program for students who are members of a New Brunswick Mi'kmaq, Wolastoqey or Peskotomuhkati community.

### **Ministry of Natural Resources, China**

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As a result of government restructuring, China's new Ministry of Natural Resources (MNR) was created in March 2018 to implement the strategies, policies, decisions and arrangements made by the central authorities for endeavours related to natural resources. As part of its portfolio, the MNR took over the functions of the State Oceanic Administration (SOA), formerly the administrative agency responsible for:

- supervising and managing sea area use, marine environment protection, marine disaster forecasting and mitigation;
- ensuring China's marine sovereignty and rights; and,
- promoting research in marine science and technology.

The new ministry exercises centralised responsibilities as:

- the owner of state-owned natural resource assets,
- the regulator of all territorial space uses and
- the protector and repairer of the ecology.

It aims to strengthen the protection and rational development and utilisation of natural resources, to establish and improve a working mechanism to combine protection of the origins and the whole-process repair and treatment, and realise overall protection, systematic repair and comprehensive treatment. New institutional measures to combine incentives and restraints will be introduced to promote conservation and intensive use of natural resources. It is intended that MNR will further streamline and delegate administrative approval matters, intensify regulation, give into full play the decisive role of market in allocating resources, play its own governmental role in a better way, strengthen the binding force of rules, standards and institutions in administering natural resources, and make natural resources title confirmation, registration and assessment more efficient and accessible.

For the 2019 course, the Ministry of Natural Resources provided four full scholarships. This funding enabled staff members to attend the course from the Department of Ocean Strategic Planning and Economy (Beijing), Department of Natural Resources Survey and Monitoring (Beijing), First Institute of Oceanography (Qingdao) and National Marine Data and Information Service (Tianjin).

### **Nunatsiavut Government**

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Canada

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The Labrador Inuit Land Claims Agreement set a precedent by including self-government provisions within the land claim. Nunatsiavut is the first of the Inuit regions in Canada to have achieved self-government. Although the region remains part of Newfoundland and Labrador, the government has authority over many central governance areas including health, education, culture and language, justice and community matters.

At the heart of governance is the power to make laws. In Nunatsiavut, the Labrador Inuit Constitution is the fundamental law of Labrador Inuit. All other laws made by the Nunatsiavut Government will be driven by the principles and guidelines of the Constitution. Fundamental principles which arise from this Constitution express core beliefs in: democracy and equality; preservation of their culture and language; pursuit of a healthy society; pursuit of a sustainable economy; and preservation of the lands, waters, animals and plants of their ancestral territory.

The Nunatsiavut Government operates at two distinct but connected levels: regional and community. The regional level is organised into seven departments:

- Nunatsiavut Secretariat
- Nunatsiavut Affairs
- Health and Social Development
- Education and Economic Development
- Lands and Natural Resources
- Culture, Recreation and Tourism
- Finance and Human Resources.

The community level of Nunatsiavut Government is comprised of five Inuit Community Governments representing Nain, Hopedale, Postville, Makkovik and Rigolet. Inuit Community Governments are responsible for serving all residents of their communities. The AngajukKâk of each Inuit Community Government represents his or her constituency in the Nunatsiavut Assembly.

Nunatsiavut is a consensus form of parliamentary democracy designed to ensure a separation of power between the political and operational levels of government. At the political level, the democratically elected representatives of the Assembly make laws and provide broad policy direction for the government. Hopedale is the legislative capital of Nunatsiavut. At the operational level, the government departments must enforce the laws of Nunatsiavut and turn policy direction from the Assembly into programmes and services tailored to serve Labrador Inuit and residents. Nain is the administrative capital of Nunatsiavut.

The Nunatsiavut Government provided funding towards living expenses for one of the Inuit participants from Nain who was working for their Department of Lands and Natural Resources.

**Ocean Frontier Institute**

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The Ocean Frontier Institute (OFI) is an international hub for ocean research which was established in 2016 through funding from the Government of Canada, the Governments of Nova Scotia and Newfoundland and Labrador, industry and eight international research organisations. It is headquartered at Dalhousie University and has an additional centre at Memorial University of Newfoundland in St John's.

As a collaborative research initiative to harness the vast potential of the world's ocean, the OFI has a mandate to:

- understand ocean and ecosystem change and develop strategic, effective solutions that can be applied both locally and globally; and,
- conduct research that advances policy decisions and the development of a sustainable, blue economy.

With its main focus on the North Atlantic and Canadian Arctic Gateway, the OFI brings together experts from both sides of the North Atlantic to conduct major research projects which will:

- improve prediction and mitigation of major storms;
- help manage human activities as they relate to ocean resources;
- improve the potential for fisheries and aquaculture industries to meet global seafood demand in a sustainable manner;
- strengthen marine safety; and,
- transform ocean monitoring with new data capture and IT tools.

OFI also prioritises education and the advancement of ocean literacy through a range of opportunities for “people exchange” such as its International Postdoctoral Fellows Program and Visiting Fellows Program, and Ocean School which develops ocean literacy exhibits, online and classroom-based learning resources, social media-driven dialogue and other activities that illustrate the complex relationship between humans and the ocean, and learning tools including short films, digital games and 360-degree ‘immersive’ ocean experiences using head-mounted virtual reality displays and tablets.

OFI agreed to sponsor a Fisheries Officer from The Bahamas with a scholarship for her course-related expenses in Canada.

**Pacific Islands Forum Fisheries Agency**

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Currently marking its 40<sup>th</sup> anniversary, the Pacific Islands Forum Fisheries Agency (FFA) was founded in 1979 in anticipation of the adoption of the UN Convention on the Law of the Sea. It was established to strengthen national capacity and regional solidarity, so its members could manage, control and develop their tuna fisheries in the present and the future. As an advisory body it provides expertise, technical assistance and other support to its members who make sovereign decisions about their tuna resources and participate in regional decision-making on tuna management through agencies such as the Western and Central Pacific Fisheries Commission.

FFA consists of the Forum Fisheries Committee (FFC) as the governing body comprising a representative from each member Country and Territory; and the FFA Secretariat based in Honiara, Solomon Islands. A Council of Ministers meets annually to provide strategic oversight of regional fisheries matters. Its original membership of 10 countries has now increased to 17: Australia, Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, New Zealand, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu and Vanuatu.

Approximately 90+ staff at the regional FFA headquarters in Honiara support their national contact points in departments of foreign affairs and fisheries in each member jurisdiction. FFA focuses its work on:

- Fisheries management – providing policy and legal frameworks for the sustainable management of tuna;
- Fisheries development – developing the capacity of members to sustainably harvest, process and market tuna to create livelihoods;
- Fisheries operations – supporting monitoring, control and surveillance of fisheries as well as treaty administration, information technology and vessel registration and monitoring;
- Corporate services - supporting the organisation's work through administration, human resources, budgeting and other corporate functions.

FFA provided the airfare for this year's Samoan participant, a staff member working at headquarters as a Fisheries Management Adviser.



### **Scientific Committee on Oceanic Research**

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The Scientific Committee on Oceanic Research (SCOR) is an international, non-governmental, non-profit organisation with a mission to help the global ocean science community advance knowledge of the ocean. Established in 1957 and originally known as the Special Committee on Oceanic Research, SCOR was the first interdisciplinary body to be formed by the International Council of Scientific Unions, renamed the International Science Council (ISC).

SCOR covers all areas of ocean science and co-operates with other organisations with common interests. Its activities focus on promoting international cooperation in planning and conducting large-scale ocean research projects studying complex natural phenomena, and it provides a mechanism to bring together international scientists for this purpose. SCOR also forms working groups to prioritise science within certain themes, conduct intercomparisons and developments of standards, and focus on solving methodological and scientific barriers to research. Scientists from 38 nations participate in its working groups and steering committees, with approximately 250 involved in SCOR activities on a voluntary basis at any given time.

Capacity development is a key activity and dates back to the very beginning of the organisation. The focus has primarily been on helping individual scientists from developing countries to be involved in SCOR activities and to network with scientists from developed countries. To facilitate these activities, the SCOR Committee on Capacity Building works to:

- provide direction for SCOR's capacity-building activities: participation of scientists from developing countries and countries with economies in transition in SCOR activities (e.g., guidelines for WG proposals), the POGO-SCOR Fellowship Program, travel grants (e.g., guidelines for grants), and provision of reports to libraries in developing countries;
- guide and assist the SCOR Executive Director in development of new capacity-building activities, particularly the Regional Graduate Networks of Oceanography activity;
- assist SCOR-sponsored projects and working groups in developing and implementing their capacity-building activities;
- help SCOR arrange funding for existing and new capacity-building activities; and,
- assist SCOR in interacting with regional and international groups related to capacity building in ocean sciences, such as the ISC regional centres, START, IOC regional programs, etc.

Through the Committee on Capacity Building, SCOR approved a grant towards the course living expenses of two female participants, one from Cameroon and the other from St Vincent and the Grenadines. The funding source for the grant was the US National Science Foundation.

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The Ocean Science and Research Foundation (OSRF) is a charitable foundation registered in Switzerland. Its general objective is to promote research in the social and natural sciences pertaining to the ocean by granting financial contributions to appropriate research and training projects.

OSRF provided training funds for the 2019 training programme, which covered a combination of full scholarships for the participants from Nigeria, Samoa and Tanzania (including airfare in his case) and partial “top-up” funding for a number of other participants. Some of the financial support was provided through the Danielle de St Jorre Scholarship (DDSJS) – see below.

Established by the IOI in 1999, the DDSJS honours the memory of the late Danielle de St Jorre, Minister for Foreign Affairs, the Environment and Tourism of the Republic of the Seychelles, and a member of the Governing Board of the IOI, in consideration of all she did in her short life for the benefit of her country, small island developing states (SIDS), and the world at large. With a value of Swiss Francs 10,000, this annual scholarship is open to women from SIDS who wish to attend the IOI training programme in Canada. Candidates are selected in consultation with the Alliance of Small Island States (AOSIS) and the scholarship is administered by IOI. The 2019 recipient from Samoa works as a Fisheries Management Adviser for the Pacific Islands Forum Fisheries Agency in the Solomon Islands. She used the award to help fund her participation in the IOI-Canada training programme.

**World Wildlife Fund - US**

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Founded in 1961, World Wildlife Fund (WWF) has been protecting the future of nature for nearly 60 years. The world's leading conservation organisation works in 100 countries and is supported by over one million members in the United States and nearly five million globally. WWF's unique way of working combines global reach with a foundation in science, involves action at every level from local to global, and ensures the delivery of innovative solutions that meet the needs of both people and nature. WWF is committed to reversing the degradation of our planet's natural environment and to building a future in which human needs are met in harmony with nature. Its mission is to conserve nature and reduce the most pressing threats to the diversity of life on Earth.

In recognition of the fact that effective policy, education, fieldwork, and other conservation initiatives depend on sound technical knowledge and skills, WWF's Russell E. Train Education for Nature Programme (EFN) was established in 1994 so is currently celebrating 25 years of conservation success. Dedicated to Russell E. Train, WWF's founding trustee, past president, and former chairman of the board, the programme aims to build a dynamic and highly qualified corps of conservation leaders in Africa, Asia and Latin America. Through a number of initiatives that help build the capacity of individuals and institutions, EFN provides proven and potential leaders with financial support to pursue degrees, attend short-term training, and conduct local conservation workshops. These initiatives provide conservationists with the skills they need to take on conservation challenges in their home countries and regions.

A Professional Development Grant was provided by EFN to the participant from Cameroon as a contribution towards her course expenses.

## LECTURERS AND FIELD TRIP CO-ORDINATORS

Special thanks are due to all the lecturers and field trip co-ordinators - and particularly those who also acted as Module Leaders - for their invaluable donation of time and expertise. With 30 new speakers this year, an impressive 1,000+ individuals have now contributed to the success of the training programme in this way since it started in 1981.



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