VOICEPIPE

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The Newsletter of the BIO-Oceans Association

Patrick Meslin receives his Beluga

Jenna Higgins, Chair of the BIO-OA's Beluga Award Committee presents Patrick Meslin with his Beluga at the 4 June 2024 Award ceremony in the William Ford Auditorium. Photo Credit: Kelly Bentham

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Testimonial for Patrick Meslin

by Jenna Higgins, Chair BIO-OA Beluga Award Committee

I am delighted to be here to tell you all why Patrick Meslin is so very deserving of the Beluga award. Although, for all of you here today that know Patrick (although, if you are from the GSCA, from DFO and use NavNet or the 4K camera, from DRDC and work with AUV, from the BIO gardening committee, or if you've participated in the Parker Street food bank efforts by BIO – chances are you know Patrick), I'm sure you don't need me to explain it.

I'd like to start on a personal note:

Leading up to this ceremony, I wanted to put together a little slide show of Patrick photos to play while we had our reception. Admittedly, I was late to ask others for photos, I only asked a few people, but I was so confident that I had a nice selection of Patrick photos from fieldwork, social events, and so on that I wasn't too worried about it. So (later last night) when I went to go put pictures together, I was disappointed to find I did not find this treasure trove of photos I thought I had….like from the time Patrick got a couple of emu eggs from the market then made like 120 mini emu egg quiches and brought them to a work potluck to share….or the time he brought out maple liquor (from Quebec, of course) in the field for everyone to try, and then brought cases of it back to Dartmouth after his next trip home….although I didn't have the photos, the amazing memories and stories of Patrick are so vivid I can see them right now. What I did find was a series photos of the BIOS menus of one of my computers in the lab, and these are part of a pretty typical Patrick story. As it usually goes, you never really realize something needs fixing until you need it. And, as I often do when I'm having computer issues, I called Patrick in a panic. Unfortunately, Patrick wasn't at work - he was laid up at home….but of course he was willing to help. With a few text messages and a phone call, I was off to the races. Here he was helping me in his moment of need. It's just so Patrick.

The letters of support in Patrick's nomination truly outlined how Patrick exhibits unselfish dedication to community spirit at the Bedford Institute of Oceanography (BIO). He really crosses departmental boundaries by helping everyone that he can, and always uncomplaining. So, If I may, I'd like to share some of what others had to say:

"Patrick has all the qualities that the Beluga Award recognizes: dedication to community spirit, exceptional contributions to the success of projects, initiatives and programs, and unselfish effort that encourages cooperation and fosters the team-work approach of BIO" – Patrick Potter

"In his formal role as Marine Electronics Technologist, he has supported marine programs within the Geological Survey of Canada (GSC-NRCan) on all three of Canada's coasts for the last 16 years. As an expert technologist, he has found ways to support programs of other departments, provide novel computer and electronics support to staff, and has become the go-to person for many an obscure technical issue. He always responds without complaint and is happy to help-out" – Calvin Campbell

Jenna Higgins, delivers the testimonial for Patrick Meslin. Photo Credits: Kelly Bentham

"Patrick's willingness to offer to help when things go wrong that raise him above the norm. He has saved more than one mission by taking apart the gear and reassembling it and showing amazing generosity (working over shift and never complaining – I don't think he knows the word!)" -Ellen Kenchington

"Having known Patrick for 20 years, it is clear to me that he cares deeply about people and recognizes the value in an environment where kind deeds begets more kindness. Patrick is a person that quietly keeps the engine running smoothly, continually making enhancements to optimize performance. He is always looking for ways to make a process more efficient, so he can do more to help more. He's a person that every team wishes they had, and I count myself fortunate to have served along side him." – Andrew Cogswell

"He is an absolute team player and a delightful colleague. His friendships are genuine and once back ashore it was not uncommon to hear Patrick down in our wing offering food, plants and a whole variety of oddities that made work that much more enjoyable. As the landscaping was being done in the courtyard near my office I recall seeing Patrick come in after hours with fruit trees he had purchased and wanted to plant for all of us to share in as they matured. I don't know anyone at BIO who is that generous and who embraces the BIO as family." - Ellen Kenchington

"As a volunteer organizer with the BIO gardening committee for the past 7 years, Patrick has played a pivotal role in fostering a culture of environmental stewardship and community engagement. His passion for sustainable gardening practices has inspired fellow volunteers and contributed to the creation of a thriving green space that enriches our institution and strengthens our sense of community." – Peter Pledge

Congratulations Patrick. This is well-deserved.

Photo Caption: In the audience for the 2024 Beluga Award Ceremony were several past Beluga Award Recipients. From the left: Barry MacDonald (2015), Bruce Anderson (2009), David McKeown (2004), Andrew Cogswell (2018), Patrick Meslin (2024), Robert J. Murphy (2013), Kate Jarrett (2017), Borden Chapman (2008) and Kelly Bentham (2022). Photo Credit. Kelly Bentham.

New Leadership at the OA

The BIO-OA AGM saw new faces on the Executive and membership and new roles for some long time members of the Executive. Jennifer Mudge (standing on right in lower left photo) is the BIO-OA's new President. She is keeping her Membership position on the Executive. Bruce Anderson (standing on left in lower left photo) is now Vice President and President Elect. The top picture on the left shows Patrick Potter (now Past President) (left) and David McKeown (Secretary) conducting the AGM's business. In the top right photo, on left is Alice Gilson (Executive Member at Large) and on right is our newest member Kendra Gauvin and her daughter Ava Gauvin. John Shaw is a new Member at Large.

THE ORIGIN OF *HUDSON*

by Don Gordon

The origin of *Hudson* can be traced back to 1944. This was the year that the Fisheries Research Board of Canada (FRBC) created the Atlantic Oceanographic Group (AOG) in St. Andrews, NB, and the Pacific Oceanographic Group (POG) in Nanaimo, BC, an important milestone in the development of Canadian oceanography. Their early programs dealt primarily with physical oceanography but later expanded to include geology, chemistry and biology. Ship support for these new federal oceanographic programs was provided by the Royal Canadian Navy with the CNAV *Sackville* being the principal vessel used on the east coast. Shortly after, in 1946, the Joint Committee on Oceanography (JCO) was established. This body was composed of representatives from federal agencies with programs in marine research and tasked to coordinate the development of oceanography in Canada. Subsequently, Institutes of Oceanography were created at the University of British Columbia in 1949 and Dalhousie University in 1959 to conduct academic research and train the new oceanographers needed in Canada.

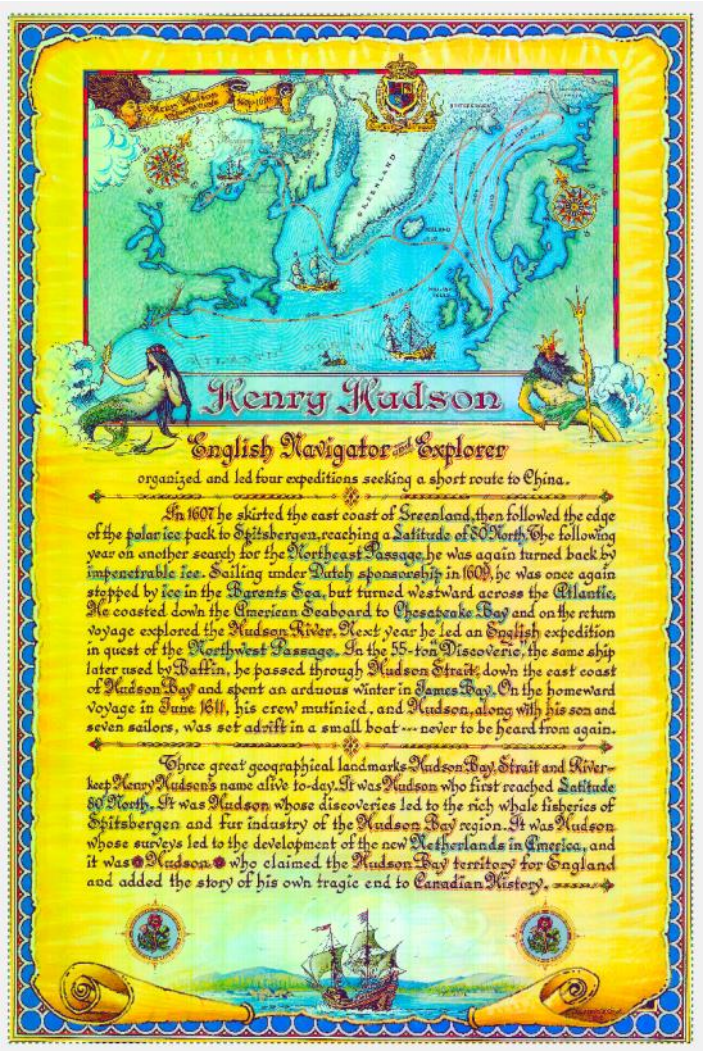
Another important milestone in the development of Canadian oceanography occurred in 1956 when William E. van Steenburgh joined the Department of Mines and Technical Surveys (DMTS) as the Director-General of Science Services. He was given the responsibility for supervising the department's scientific programs and developing new projects. He was originally trained as an entomologist and came to DMTS from the Department of Agriculture. How his attention was turned to marine science is not clear but soon after arriving he was promoting the intention of DMTS to develop a program in oceanography. At the 30th meeting of the Joint Oceanography Committee in 1958, he announced that DMTS was planning to establish a new oceanographic laboratory on the east coast to lead the advancement of Canadian oceanography. The coast was clear to do so because the Fisheries Research Board was not interested in expanding its existing oceanographic programs in AOG and POG. Van Steenburgh felt that Halifax was the best site for such an establishment because it was already the location of the Defence Research Establishment Atlantic (DREA), AOG was in the process of planning to move from St. Andrews to Halifax, the well-established Canadian Hydrographic Service was in the process of opening a regional office, and discussions were well underway to establish the Institute of Oceanography at Dalhousie University.

Van Steenburgh wasted no time in proceeding on this exciting venture. He realized that a new state-of-art oceanographic research vessel would be required and submitted a request for funding to the Treasury Board which was approved in December 1958. And soon after, in June 1959, the Treasury Board also approved funding for the new east coast oceanographic laboratory on the shore of Bedford Basin in Dartmouth, NS.

Portrait of William E. van Steenburgh

In 1960, the Joint Oceanography Committee, now chaired by van Steenburgh, morphed into the Canadian Committee of Oceanography (CCO) and its membership expanded to include the academic community. As well as coordinating and directing Canadian work in oceanography, it was given the mandate to represent Canada in international organizations which operated oceanographic programs such as the Scientific Committee on Ocean Research (SCOR) and the Intergovernmental Oceanographic Commission (IOC). At the 34th meeting of the CCO in early 1960, van Steenburgh reported that a contract for the construction of the new oceanographic research vessel would be awarded shortly and that construction of the new Dartmouth laboratory, to be named the Bedford Institute of Oceanography (BIO), was underway.

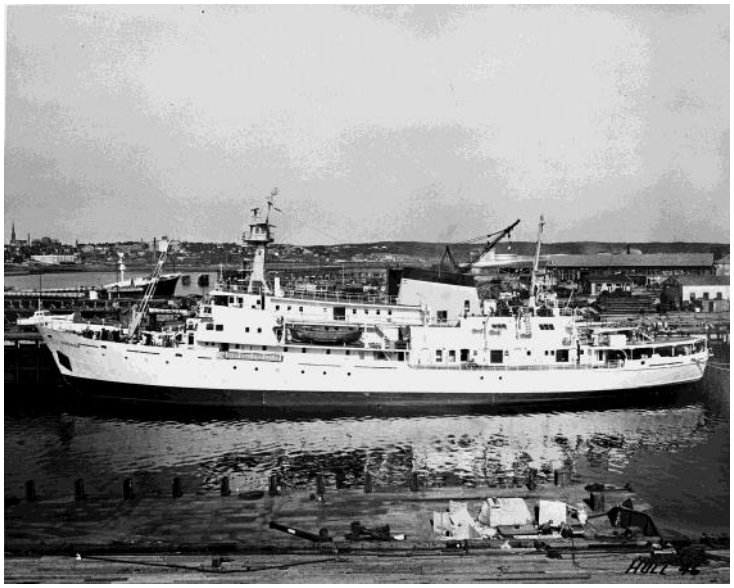
There is no available information on the details of the design and construction process for this new oceano-



graphic ship. Nothing could be found in the JCO/CCO minutes from this period. Therefore, it appears that this process was probably handled entirely within DMTS under the lead of van Steenburgh.

The firm of Gilmore, German and Milne in Montreal, a well-respected and experienced Canadian company, was selected as the marine architect to design the new ship. There appears to be no record of the design specifications that they were given or how they were developed. This was just the first ship designed specifically for hydrographic and multidisciplinary oceanographic research in Canada. The CSS *Baffin* had been built in 1956 but she was primarily a hydrographic vessel with limited ability to conduct oceanographic research. This new vessel had to be capable of working in the North Atlantic and adjacent Arctic waters but also in the world's ocean in general. Accordingly, the design specifications must have included factors such as size, endurance, stability, accommodations, laboratories and ability to work in ice-infested waters.

The ship was built by Saint John Shipbuilding and



Hudson at the Saint John Shipbuilding and Drydock in Saint John, NB

Drydock Ltd in Saint John, NB at the cost of $7,500,000. She was launched on 28 March 1963 and christened CSS *Hudson* in honour of Henry Hudson, the English explorer who made numerous voyages to the New World during the early 17th century while seeking a northwest passage to Asia. The naming ceremony was performed by Mrs. Marc Boyer. When she was launched, *Hudson* was considered to be the most modern oceanographic vessel in the world.

When ready for sea in late December, *Hudson* sailed from Saint John for Halifax under the command of Capt. Jack Vieau. Festooned with flags, she arrived at BIO on 23 December 1963 and a small group of staff were on the jetty to catch the lines. She was a wonderful Christmas present for the fledgling institute. BIO was just over one year old at the time, with only about fifty professional scientific and technical staff in the Canadian Hydrographic Service (CHS), the Atlantic Oceanographic Group (AOG) and the newly established Marine Sciences Branch (MSB), but growing rapidly. It was truly a situation of 'the cart before the horse' for here was a brand new top-of-the-line oceanographic vessel but with few scientific staff available to use her. However, this situation changed quickly as BIO staff and seagoing programs expanded rapidly during the years ahead. Also, it had been agreed that universities would be offered ship time at no charge and the Dalhousie Institute of Oceanography quickly took advantage of this.

Hudson joined the fleet of five other government vessels already based at BIO. Four of these were dedicated to hydrography and operated by the Marine Sciences Branch (MSB) of DMTS, now the lead agency at BIO. The CSS *Acadia* had been built in 1913 in Newcastle-on

-Tyne, UK expressly for hydrographic surveying. The CSS *Kapuskasing* had been built as a minesweeper in Port Arthur, ON in 1943 but was converted for conducting hydrographic surveys soon after World War II. The CSS *Baffin* had been built by Canadian Vickers in Montreal, QC in 1956 for offshore hydrographic surveys while the CSS *Maxwell* had been built in Halifax, NS in 1960 for inshore hydrographic surveys. The only BIO ship available for oceanographic research at that time was the CNAV *Sackville*. Built in 1941 in Saint John, NB, she was a 'Flower-class' corvette which had seen extensive action on convoy duty across the North Atlantic during World War II. After the war, she was converted for oceanographic research and heavily used by the Atlantic Oceanographic Group (AOG) and later by the Dalhousie Institute of Oceanography. While part of the BIO research fleet, the CNAV *Sackville* was operated separately by the Royal Canadian Navy. In addition to these vessels, BIO staff were also able to use Department of Transport icebreakers such as the CCGS *Labrador* for arctic research, as well as charters for hydrographic surveys.

The arrival of *Hudson* marked a huge increase in the ability of the newly founded BIO, other government laboratories and Canadian universities to conduct fundamental oceanographic research in all scientific disciplines.

CSS *Hudson* arrives at BIO on 23 December 1963 for the first time.

Trekkers Notebook: "Gareth Harding, formerly of MEL, DFO-BIO, and partner Renee Lyons, of Dalhousie University, recently trekked the Southern Upland Way in Scotland, a 314 km coast to coast, highly challenging, long distance route. Completed in late May, they deserve our congratulations. While we can, let's keep walking, it is good for our bodies and our spirits". Submitted by our BIO-OA trekker Peter Wells

Interim Editor's Keyboard Wow! Issue 96. We are only four issues away from 100 editions of the BIO-OA Newsletter. Issue 100 will be my last edition as Interim Editor so please consider trying out the role as a guest editor. The next issue is scheduled for October. Peter Wells has promised me an article about his recent walk in Scotland. Thank you for the contributions to this issue from Peter Wells, Don Gordon and David McKeown. I think David has part three of his Mid Atlantic Ridge Saga yet to come. A article from you, my esteemed reader of any length, would be welcome. *Andy Sherin*

Expeditions to the Mid-Atlantic Ridge

by D.L.McKeown

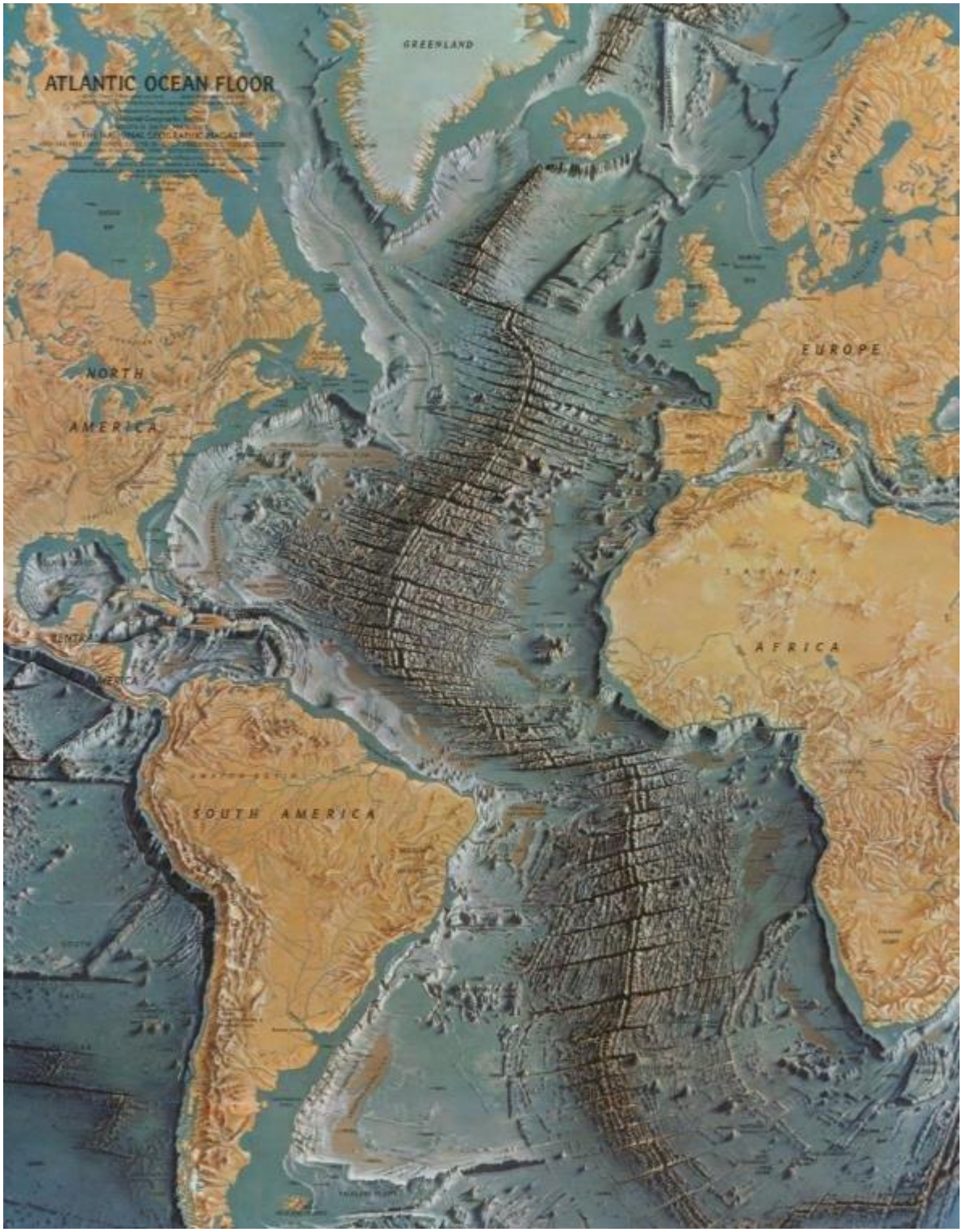
In the '60's, '70's and '80's, BIO and Dalhousie University carried out an extensive geoscience program on the Mid-Atlantic Ridge (MAR) at 45° north to first confirm, then study the phenomenon of seafloor spreading. As Dr. Ford stated in his introduction to the 1967-68 BIO Biennial Report, this research program formed part of a "long term continuing project, Hudson Geo-traverse, to study the structure beneath the Atlantic Ocean in a one-degree wide strip, 45° to 46°N, from Cape Breton Island, across the Tail of the Banks to the eastern flank of the Mid-Atlantic Ridge" in order to "understand the deep-seated processes presently active under the mid-oceanic ridge system, the formation of the deep ocean floor, and the interaction of the oceanic and continental crust at the margin". If you pause to think about it, this sets out a very broad vision of the type of scientific thinking that was common at BIO in those earlier and halcyon days when scientists were encouraged to investigate whatever their curiosity dictated. I doubt a program of this magnitude would ever be undertaken by our Institute today. In this article, I plan to describe the work that was carried out during that period.

While BIO scientists have carried out a broad range of scientific studies in the vicinity of the MAR, my intention is to focus only on the geoscience we did there. For those who want a more thorough description of the science than I am capable of giving, I recommend referring to the following BIO Annual/Biennial reports that are available online at the BIO Library website:
BIO Report 1975-76, *Project MAREX*, Bosko Loncarevic, page 165-180; and
BIO Report 1986,*Twenty-five Years of Seafloor Spreading*, Mike Keen, page 27-31.
The first describes in considerable detail the scientific motivations and outcomes of the BIO program at 45° north and the latter a more general discussion of subjects in the context of the wider world. For those looking for a deeper dive into the BIO's contribution to the science of the MAR, I recommend:
Loncarevic, B.D., "Brief Review of Exploration of the Mid-Atlantic Ridge near Latitude 45N and Partly Annotated Bibliography of the study area, 1960-1975."; in Mid-Atlantic Ridge, ed. P.A. Rona, Geol. Soc. Am. Microform Publ. 5: pp 451-479, 1976
which is also available through the BIO Library.

BIO's first cruise to the MAR took place in 1965 on board *CSS Hudson* under the leadership of Bosko Loncarevic as part of more widespread geophysical investigations in the North Atlantic. Technological firsts included collecting gravity, magnetic and bathymetry data via GEODAL, a pre-microprocessor era logging system, and navigating via an array of sea-surface radar transponder buoys positioned via celestial navigation fixes.

In late July 1966, *Hudson* departed on its second MAR trip again under the leadership of Bosko Loncarevic. As before, the program included the collection of bathymetric, magnetic and gravity data. This time, a more advanced data logging system, BIODAL, was employed and the survey data were processed on board via a recently installed shipboard mini-computer to produce on-the-spot maps. These maps were used to identify promising locations for bottom photographs, cores and dredge tows during the cruise.

In 1968 *Hudson* and a chartered vessel, MV *Theta*, made a the third trip to the MAR, again under the leadership of Bosko Loncarevic. This year two major refraction seismic experiments were carried out in collaboration with scientists from Dalhousie and Cambridge universities. In addition to these extensive seismic experiments, additional reflection seismic survey lines were run independently by both ships. Prior to this trip, a state-of-the art Raytheon Transit Satellite navigation system was installed. To quote from Bosko's daily journal "The delivery of SatNav was impressive. Their 'box' was too big to go on an American Airlines flight so they chartered a plane and flew directly to Halifax!". Think about that in the context of the comparable GPS technology within our cellphones today. Its installation for this trip resulted in *Hudson* becoming the first non-USA and non-military ship in the world to be navigated by satellite. More importantly from the science perspective, it went a long way toward eliminating the position uncertainty of past cruises which had relied on spotty celestial fixes in an area which suffered from frequent fog and overcast skies. First, *Theta* moored an array of sea surface radar transponder and seismic recording buoys which were then geolocated by *Hudson* via satellite fixes. *Theta* then dropped explosive charges along predetermined lines defined by the radar transponder buoys while *Hudson* served as the receiving station sitting in the middle of a widespread array of surface seismic recording buoys. Extensive geophysical data were also collected and bottom photographs, dredge samples and cores were obtained. The survey data showed that the ridge consisted of high, rugged, steep and very young mountains and clear evidence of past volcanic activity was observed. Subsequent study of dredge samples confirmed the increasing age of the seamounts away from the axis of the ridge. While no longer noteworthy today given the wide acceptance of the concept of seafloor spreading, these were remarkable observations at that time. Hopefully



The Atlantic Ocean Floor showing the Mid-Atlantic Ridge after Heezen, B. and Tharp, M., (1968) National Geographic Magazine.

Bosko won't mind me extracting this quote from his private journal he kept during the cruise "*I am convinced that SatNav and onboard computers are going to revolutionize oceanography and data collection – and we are right there in in fore-front. The only trouble is that we would need about three times the staff in Geophysics to keep up with it all*".

In 1969 *Hudson* again visited the MAR, this time under the leadership of Bernie Pelletier as part of a multidisciplinary cruise to study the broader subject of Atlantic seafloor spreading and continental drift . During their time on the Ridge, a total of 12 bedrock core samples were obtained using BIO's hydrostatic rock core drill in

addition to the usual collection of geoscience data, photographs, sediment cores and dredge samples.

In 1971 Fab Aumento of Dalhousie University organized a *Hudson* expedition to the MAR for further geoscience studies in collaboration with BIO. The work included the collection of rock cores from the median valley using the hydrostatic rock core drill, as well as extensive data via camera stations, piston coring, autonomous free-fall or boomerang cameras, corers and grab devices, and heat flow measurements.

Dalhousie and BIO scientists under the leadership of Fab Aumento returned to the Ridge on *Hudson* in 1974 to survey a site on the fringe of the Ridge which had been proposed for the first deep penetration of oceanic crust as part of the international Deep Sea Drilling Project (DSDP). Then, in 1979, as part of a physical oceanographic cruise and again in 1980, as part of *Hudson* cruise to the Sohm Abyssal Plain, BIO engineering staff had the opportunity to conduct trials of a new deep-sea electric rock core drill on the MAR.

In 1979, in recognition of their outstanding service as Masters on *Hudson* during BIO's extensive work on the MAR, as well on as many other science cruises, seamounts on its eastern flank were named after Walter Kettle and Jack Vieau. A chart showing their locations is included in BIO's 1975-76 Biennial Report on page 173.

By 1980, the previous wide ranging intellectual and geographic type science undertaken at BIO was becoming more parochial in response to government policy dictates. However, our scientists and engineers continued their involvement in MAR studies by expanding their collaboration with colleagues at Dalhousie University under the leadership of Pat Ryall who had participated as a graduate student on early expeditions.

In 1982 Pat Ryall led a major multidisciplinary cruise of Dalhousie and BIO scientists back to the MAR but this time to a more southern study location at about 36° N. The main objective of this trip was to carry out a drilling program with the deep sea electric rock core drill to collect samples on the western inner wall of the median valley. Seven cores were recovered on the Ridge from depths ranging from 400 to 1,720 m as well as an extensive range of other samples and data.

In 1985, *Hudson* made its last voyage to the Ridge under the leadership of Larry Mayer of Dalhousie University. Their objective was to conduct a survey to select targets suitable for bare rock drilling for the upcoming Ocean Drilling Program (ODP) Leg 106 at the Kane Fracture Zone and to use the Dalhousie/BIO electric rock core drill in the same area. During this trip, bathymetric and magnetic data were again collected, Lamont's camera and Sea MARC I towed survey system were used to locate potential drilling sites and five holes were successfully drilled with the rock core drill.

By the middle of that decade BIO's geoscience programs had, for the most part, been contracted geographically to within what might be described as the outer boundaries off our country's offshore area of interest, thus bringing to an end our two decade long scientific investigation of the geology of the Mid-Atlantic Ridge using that most amazing oceanographic research vessel *CSS/CCGS Hudson*.

Much of the material I used for this article was gleaned from Don Gordon's extensive description of the long career of *Hudson* in his document "Ships Log" in which he describes in some detail the incredible journeys of the ship over the years. I suspect he will detect fragments of plagiarism in this article and I gratefully acknowledge that. In the third and final instalment in this series, I plan to describe some of the innovative technology that was developed by BIO engineers in order to carry out these studies at the Mid-Atlantic Ridge.

Tides of Change - the ACCESS-BoFEP-HMSC Conference, Saint Andrews, NB, June 2024.

by Peter Wells, Chair, BoFEP, and Co-Chair, the *Tides of Change Conference.*

A marine conference, entitled "*Tides of Change: Accelerating Conservation and Protection Efforts in Atlantic Canada's Estuarine and Coastal Waters*", was held on June 4th-7th at Saint Andrews, NB. It was co-sponsored by ACCESS (Atlantic Canada Coastal and Estuarine Science Society), BoFEP (Bay of Fundy Ecosystem Partnership), and the HMSC (Huntsman Marine Science Center). The theme reflected the current conditions and changes in the waters and ecosystems of the Bay of Fundy, Gulf of Maine, and the greater NW Atlantic.

It was BoFEP's 14th biennial conference or workshop since 1996, the first being held in Wolfville, NS, and the others in numerous locations around the Bay of Fundy. It was BoFEP's second meeting with ACCESS and its President, Dr. Jeffrey Clements, conference co-chair. The Proceedings of all previous meetings are on the BoFEP website (www.bofep.org), as is the current conference program.

The focus continues to be the Bay of Fundy and its watersheds, in the context of the broader Gulf of Maine. The Bay is recognized internationally for its unique macro-tides and ecology, and is the site of six Unesco sites.

BOFEP Prize winners (left) Dr. Tony Diamond, for his long time research on seabirds in Fundy (Machias Seal Island) with Peter Wells (right); (right) Karen Jenner for her outstanding work collecting beach litter on the NS shores of Fundy also with Peter.

The Bay's species and ecology continue to face numerous challenges, not the least of which is ongoing climate change affecting the temperature and chemistry of both surface and subsurface waters.

BoFEP has renewed its emphasis on communication and the importance of ocean literacy. It was entirely appropriate to hold the Conference at the Huntsman (HMSC), as one of its prime functions for over fifty years has been ocean education. The meeting was held in its superb Fundy Discovery Aquarium, amidst many displays and tanks of live organisms, and utilizing its excellent auditorium. The Huntsman and its staff, led by Dr. Benjamin de Jourdan, conference-co-chair, hosted the meeting very efficiently and with warm hospitality.

The conference had 11 sponsors in addition to BoFEP, ACCESS and HMSC. There were 101 participants – students, researchers, members of NGOs - and at the Thursday evening public forum, many members of the public. Over the three days, there were 43 talks and 23 posters covering a full range of topics – ocean literacy, seabirds, anthropogenic stressors, salt marsh ecology, environmental stressors, habitat monitoring, conservation strategies, marine mammals, invertebrate ecology, and novel monitoring techniques.

Ocean literacy was the theme of the first plenary talk, given by Dr. Diz Glithero of the Canadian Ocean Literacy Coalition. It was followed by a full session on ocean literacy. The panel discussed opportunities and action for ocean literacy in the Bay of Fundy region. Having an ocean literate population is critical to the Bay of Fundy and the greater Gulf. The second plenary, given by Dr. Kristina Boerder of Dalhousie University, addressed community-led eelgrass restoration and research. The public forum, "Fins and Flukes" was an illustrated conversation about whales and sharks in Fundy and was well received by the audience.

Some of the information highlights in my view were: the changes being noted in seabirds and whales as the climate warms; the importance of understanding the impacts of causeways on fish migration and the toxic effects of pollutants such as microplastics and oil; the critical role of saltmarshes and eelgrass beds, and their ability to recover from disturbance; the need to conserve the habitats of migratory fish such as salmon; understanding the impacts of invasives such as tunicates and green crabs; and the need to apply underwater acoustic monitoring so as to protect critical endangered species such as the North Atlantic Right Whale. One of the posters was on the important Gulfwatch Monitoring Archives, supported by DFO and housed at the HMSC.

Much new information was presented. It was a very busy meeting, with much discussion and attended by many young and enthusiastic researchers and ocean managers. This gives one hope for the future of the Bay of Fundy and the Gulf of Maine as a whole.

One last note – there will be a Coastal Zone Canada Conference in Charlottetown, PEI, next June (2025), and we are already thinking of the next BoFEP led Bay of Fundy conference for 2026. BoFEP's underlying mantra is that effective coastal and ocean management relies on excellent science at the bench and in the field, timely communication between all the players, effective decision making, and an ocean literate population.

The full program, abstracts of all talks and posters, and some papers will be published in the forthcoming BoFEP Proceedings. I hope that you, the reader, can attend and participate in the next conference.

Editor's Note: Peter asked me to share that the free distribution of copies of the *Voyage of Discovery* was as popular as "pancakes at the Calgary Stampede." He thanked Don Gordon for his help in getting the copies to St. Andrews. The copies not given to participants will be distributed at the aquarium at the Huntsman Marine Science Centre.

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PRESIDENT'S MESSAGE

Greetings from your new President!

You may know me as your BIO-OA Membership Chair, Jennifer Mudge, or as Jennifer Hackett before my marriage in August 2022. I am very excited to be taking on the responsibilities as President this year. For the last seven years I have enjoyed corresponding with you all through email, by phone and in person at OA Events and I will continue as Membership Chair. In the coming months, I look forward to finding out what most interests you as OA members.

I am very pleased to introduce long time OA member, and recently retired, Bruce Anderson as Vice President Elect. Bruce will continue as a member of the Beluga Award Selection Committee.

I want to recognize and give a big thank you to Jenna Higgins, Beluga Award Chair, and the Beluga Award Selection Committee. Soliciting and selecting a winner is undoubtedly challenging under a tight timeline. 2025 will mark the 25th year since the first Beluga was awarded to Roger Bélanger in 2001. Nine Beluga Award recipients attended the 2024 Ceremony! Perhaps even more Beluga Award recipients will attend the 2025 event?

Hearty congratulations to the very worthy 2024 Beluga winner, Patrick Meslin! Patrick's technical talents are well known beyond his immediate circle of colleagues, and his unwavering support of workplace causes, such as the BIO Gardens, foster wellness activities for BIO employees, and reversing the negative effects of workplace shift due the Covid-19 outbreak.

The OA planted vegetables in the Courtyard garden plot last year and this. Patrick Potter shared last year's harvest at the BIO-OA 25th Anniversary Event. This year's garden harvest might be the basis for an OA sponsored social activity. Stay tuned for details in the coming months.

I would like to extend my utmost thanks to Past President, Patrick Potter. His insightful leadership during his two year term challenged and motivated the OA executive. Lively discussions have resulted in plans for a rejuvenated association which, as Patrick's President's AGM Report states, "includes the new BIO landscape".

Discussions at the 2024 AGM resulted in refreshing and interesting suggestions, focusing on OA social activities and ideas to inform and promote the OA to current BIO employees. The executive will be exploring these. I hope you will join in OA activities during the coming year, either in person or remotely via email, Facebook, phone, Zoom or more!

Yours,

Jennifer

Hello Everyone. I am looking forward to assisting Jennifer in her new role as the President of the BIO Oceans Association. I feel that by working together, listening, and seeing what the Members would like to see and do, we can move the Oceans Association forward to the future.

Bruce Anderson, VP

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(*Please fill in any changes to your contact information*.)

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Address: _____ Postal Code: _____

Telephone: _____ Email: _____

BIO/Other Affiliation: _____

How would you like to be involved with BIO-OA (eg. social, executive position, just the news, etc.)
_____

How did you find out about us? _____

ABOUT THE BIO-OCEANS ASSOCIATION

The Bedford Institute of Oceanography Oceans Association (BIO-OA) was established in 1998 to foster the continued fellowship of its members; to help preserve, in cooperation with the Institute's managers and staff, BIO's history and spirit; and to support efforts to increase public understanding of the oceans and ocean science. Membership is open to all those who share our objectives. Most current members are present or past employees of BIO or of the federal departments of Environment and Climate Change, Fisheries and Oceans, and Natural Resources (or their predecessors) located in the Halifax Regional Municipality. Membership is $20.00 per year, $80.00 for five years.

Officers and Directors

PRESIDENT	Jennifer Mudge	
VICE-PRESIDENT / PRESIDENT-ELECT	Bruce Anderson	
VICE-PRESIDENT	vacant	
PAST PRESIDENT	Patrick Potter	
SECRETARY	David McKeown	
TREASURER	Lori Collins	
MEMBERSHIP	Jennifer Mudge	bio.oceans@gmail.com
DIRECTORS AT LARGE:	Steve Blasco	
	Pierre Clement	
	Don Gordon	
	Timothy Lambert	
	Michel Therrien	
	Alice Gilson	
	Chris Jauer	
	John Shaw	

Communications: Newsletter, PR, and Web Site

NEWSLETTER EDITOR (INTERIM)	Andrew Sherin	oanewsletteredito r@gmail.com
WEBMASTER	Jazmine Hayden	

Committees / Working Groups: Chairs

BELUGA AWARD	Jenna Higgins	
BIO ARCHIVES	Don Gordon	NSIS LIAISON Peter Wells
OUTREACH	Vacant	TITANIC SOCIETY LIAISON Steve Blasco
EVENT COORDINATOR	Vacant	

Past Presidents

Robert Reiniger (1998-2000), Dale Buckley (2000-02), David Nettleship (2002-04), Donald Peer (2004-06), Betty Sutherland (2006-08 and 2010-11), Bob O'Boyle (2008-10), Paul Keizer (2011-13), Mike Hughes (2013-15), Michael Murphy (2015-17), Claudia Currie (2017-18), Andrew Sherin (2019-22), Patrick Potter (2022-2024)

Association Mailing address: Bedford Institute of Oceanography, P.O. Box 1006, Dartmouth, NS B2Y 4A2.
VoicePipe mailing address: c/o Andy Sherin, 9 Rose Street, Dartmouth, NS B3A 2T4.