

BIO-OCEANS ASSOCIATION NEWSLETTER

Issue 29, January 2006

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From President Don Peer:

ACCESS TO BIO FOR ASSOCIATION MEMBERS

Good news: BIO management has found a way to approve members of the Oceans Association who wish to have reasonable access to the Bedford Institute of Oceanography.

Security regulations at BIO recognize two classes of visitors: those such as employees and certain contractors who have a formal role in the business of the Institute and members of the general public. In the past, many members were disappointed to learn that membership did not grant them ready access and that they were treated in the same way as the public when they visited BIO. More than a few of you thought it strange that you had worked at BIO for decades, but now you were considered a security risk.

Increased security is a fact of life nearly everywhere today and that includes BIO. Nevertheless, the present management of the Institute BIO is very much aware that one of BIO's strengths has been an openness to those with an interest in the oceans and ocean science. We owe a debt of gratitude to Dr. Michael Sinclair and Dr. Sherry Niven in particular for their work in finding a method that will allow members to access BIO while conforming to the present security regulations.

The present BIO policy allows only the members of the Ocean Association's Board of Directors to apply for security clearance. Once a year or more frequently if the demand warrants it, the Board will submit an information package to BIO management with a request to approve access members who have requested it. The Board will be required to assure BIO management that the applicants are members in good standing and that they will not, for example, use their enhanced access to pursue commercial or advocacy objectives.

We have only been informed recently of the requirements from BIO management. The Oceans Association Board will be considering the details of this exciting development and we will be reporting more fully to the membership in the near future.

In closing, I want to welcome a new Board member — George Anderson. He will assist Gordon Fader on the social committee and become our second vice president. At our latest Board meeting, George lost no time in offering suggestions as to how we could improve some of our upcoming events and attract new members.

BENTHIC HABITAT STUDIES: AN ENGINEER'S PERSPECTIVE – PART I

By David L. McKeown

The reader survey in the October 2005 issue of the BIO-OA Newsletter indicated that some readers were interested in:

- ◆ Articles on what BIO science has achieved;
- ◆ Brief reviews of particular contributions or accomplishments made by BIO over the years – e.g., technological advances, scientific discoveries, methods invented, significant publications, etc.

This set me to thinking about the projects I had been involved with during my career at BIO and I began to wonder if anyone would be interested if I attempted to describe some of them. Having discussed the idea with Mike Latremouille, the newsletter editor, and receiving his encouragement, the next question was what to write about. That was really a “no brainer” as the undertaking I have enjoyed most during my career at BIO was the time I

spent working with the benthic habitat scientists over the past 13 years. I think there were several reasons for this including easily understood (remember I'm an engineer) and worthy objectives, a great team of people, adequate resources and especially the outstanding leadership of Don Gordon. Furthermore, I decided that the easiest way for me to do this would be to write about what I know and love, namely engineering R&D and the fieldwork associated with it. Therefore, I'll describe lots of the technology, who made it happen, and what I can recall of our day-to-day trials, tribulations, and accomplishments at sea. At best, any description of the consequent scientific accomplishments will be a naïve one as I know little about marine biology. Hopefully, I'll be able to persuade Don Gordon to cover this aspect in some future edition of the newsletter.

My interest in and involvement with marine biology came late in life. As far back as I can remember, I

wanted to be an engineer. In pursuit of this goal, I chose physics and math courses instead of biology in high school. Throughout my university years, engineering and biology never remotely crossed paths (at least in the classroom). During the first twenty years of my career at BIO, my areas of interest included navigation, hydrography, physical oceanography, and the geosciences. Then I became involved in the ROPOS project when DFO purchased this very large deep-sea remotely operated vehicle in the late 1980s and that changed all for me.

ROPOS was intended to replace the Pisces IV manned submersible that had been disposed of during cost-cutting measures a few years earlier. The submersible had been used mainly on the west coast and its replacement

was also to be stationed there but was to be accessible to east coast scientists. To introduce it to the marine science community on this coast, Charlie Schafer and I “cooked up” a program to bring it to BIO for two demonstration cruises. In 1989 and again in 1990, we mobilized the unit on CSS Dawson and made it available to BIO scientists to explore how they might use it in their research.



↑ ROPOS at the Duffus Street sewage outfall in Halifax.

Projects we undertook during those cruises included:

- ◆ D. Buckley – Halifax Inlet Geochemical Study
- ◆ Chaput (DND) – Simulated Submersible Rescue
- ◆ N. Cochrane and M. Lewis – Zooplankton Experiment
- ◆ A. d'Entremont (EC) – Lunenburg Dump Site Monitoring
- ◆ G. Fader and G. McBride (NS Museum of the Atlantic) – Bedford Basin Wreck Investigation
- ◆ D. Forbes – Seabed Surficial Geology
- ◆ J. Hamilton – Mooring Location Experiment
- ◆ K. Lee – Marine Chemistry
- ◆ N. Oakey – Miniprobe Use on the ROV
- ◆ D. Pezzack and P. Lawton – Lobster Habitat Studies
- ◆ C. Schafer – Photomosaics

- ◆ J. Syvitski – Sediment Stability Rod Emplacement
- ◆ D. Roddick – Clam Bed Studies
- ◆ S. Robinson – Scallop Bed Studies
- ◆ R. Miller, D. Buckley, D. Peer and D. Wildish – Passamaquoddy Bay Pockmarks
- ◆ C. Annand – Fish Behaviour Studies
- ◆ D. Sameoto – Krill Studies
- ◆ G. Fowler - Parametric Vibracorer

To this day, I can remember how exciting I found some of the underwater video such as the field of sea anemones near the cooling water outlet at the Tufts Cove power station and the exploration of Don Forbes' sea-floor depression off Martinique Beach. These ROPOS operations led me to the realization that high quality, high-resolution video imagery from a controllable platform could be a very powerful tool for underwater scientific investigation and that BIO scientists would greatly benefit from access to such a capability. However, it was clear that the Institute's interests could be better served by a shelf-depth towed-video survey system than by a large deep-sea remote vehicle such as ROPOS. Furthermore, I concluded that I wanted to spend the remainder of my career developing technology for sea-floor imaging in collaboration with geologists and benthic ecologists.

During post-dive discussions, several scientists had suggested that we could meet BIO's requirement for a towed-video system by re-activating BRUTIV. This was a towed-video system developed at the St. Andrews Biological Station by Tim Foulkes. The design concept was an elegant one. The vehicle was towed on the end of a very small diameter, neutrally buoyant cable. The platform was about the size and shape of a sheet of plywood with runners or skids on the bottom. It had a pair of wings amidships and a second control surface at the stern referred to as elerons as they performed the dual role of ailerons and elevators. The control surfaces were all linked together to a pendulum system in the middle of the platform in such a way that BRUTIV would fly stably when towed. The wings were also attached to a

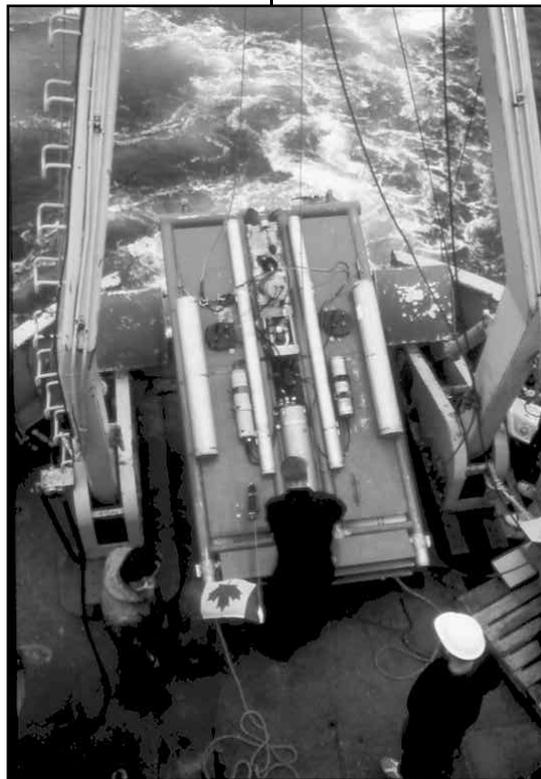
hydraulic actuator that was powered by an onboard pump driven by water flowing past a propeller on its drive shaft. The operator aboard the towing vessel could send a message down the cable specifying the desired height BRUTIV was to maintain above the sea floor. By means of an echo sounder and control system on the platform, the hydraulic actuator would constantly adjust the wings and elerons to maintain this altitude. A video camera and pair of underwater lights were mounted on BRUTIV and the video signal was sent up the cable for viewing and recording in the lab.

At this point, I had not identified a particular end-user scientist ("client" in the current jargon) to collaborate

with, but that did not present a problem as, in those days (early '90's), we still had freedom to pursue what seemed like interesting and worthwhile projects without undue bureaucratic restraint. Therefore, I immediately contacted Tim Foulkes who had been transferred to NAFC in St. John's. Understandably, he was very pleased to have his beloved BRUTIV resurrected.

Tim travelled to SABS where he dug the vehicle out of their Moose Pasture (the equivalent of BIO's Boneyard), collected together the winch, cable, electronic sub-systems spare parts, documentation, etc., and transported everything to BIO. He then showed Dave Harvey, Scott Young, and me how to put it all together. At that point, we began to realize what we had got ourselves into. While brilliant in concept and mechanical implementation, the electronic sub-

systems left much to be desired. Over the next year Dave Harvey designed and built new underwater and deck units. Meanwhile Scott Young spent many hours refurbishing the mechanical sub-systems and re-working the hydraulics in an effort to eliminate seawater incursion. We then embarked on a series of sea trials on Sigma-T and CSS Dawson. I'll describe those activities in Part II of this discourse to be published in a future edition of the newsletter.



↑ Dave Harvey servicing BRUTIV.



**WHAT'S GOING ON:
6 JANUARY TO
31 MARCH 2006**

Here are some current and upcoming events in the Halifax Regional Municipality and adjacent regions that may interest members. Send in event listings to David Nettleship, for inclusion in future issues of the newsletter (voice: 826-2360; internet: dnnlundy@navnet.net).

6 to 22 Jan.: Grafton Street Dinner Theatre – **“Rock n’Roll Heaven”**. Musical comedy set in a diner at the end of time where rock n’roll stars are waiting to get into heaven. For details, call Amy at 425-1961.

6 Jan. to 26 Feb.: Mary E. Black Gallery – **“Process: Jewelry Made by Hand”**. This exhibition shows the processes involved in the making of jewelry by hand from start to finish.

7, 14, 21, 28 Jan. & 4, 11, 18, 25 Feb.: Alderney Gate Library (1-4 pm) – **“Chess Club”**. Learn chess in a fun atmosphere, guided by local experts. For more information, call: Don Bidgood at 463-7667.

6 Jan. to 18 Feb. (Fri. & Sat. only): CentreStage Theatre Society, Kentville – **“If the Good Lord’s Willing and the Creek Don’t Rise”**. Comedy centres on an eccentric old man whose daughter is trying to become his guardian. For details, call: 678-8040.

8 Jan.: Lilian Piercey Concert Hall (3:00 pm) – **“Family Traditions”**. A concert presented by St. Cecilia Concert Society Chamber Plus Series featuring the celebrated musical Djokic family: Denise, Marc, Lynn and Philippe. For details, call: 420-4085.

8 & 11 Jan.: Museum of Natural History (8th: 2:00 pm; 11th: 7:00 pm) -- **“Snowball Earth: Episode 2”**. Second in a four-episode film series on the 4 billion years of Earth’s history: the ice ages of the planet.

9 Jan.: Alumni Hall, University of Kings College, Dalhousie University (7:30 pm) – **“Menopause, Aging, Atrophy, and Cancer in the Gynecologic Tract”**. A public lecture sponsored by the Nova Scotian Institute of Science.

9, 10, 14, 16, 19, 20, 23, 24, 30 Jan. & 6 Feb.: Public HRM Libraries – **“Hands-on Computer Basics”** (Alderney Gate: 20th, 10:00 am; Bedford: 16th, 9:30 am; Cole Harbour: 9th, 23rd & 6th Feb., 10:00 am; Dartmouth North: 10th & 24th, 6:30 pm; Keshen Goodman: 20th, 2:30 pm; Sheet Harbour: 14th, 1:00 pm; Spring Garden: 9th, 16th, & 6th Feb., 10:00 am; Tantallon: 19th, 1:30 pm; Woodlawn: 30th, 10:00 am). An introduction to the computer mouse, Windows desktop, Start and program menus and icons. No computer experience required. All classes are 90 minutes and require registration and a library card. For more information, call individual libraries. (Note: programs “Beyond the Basics” and “How to Navigate the Internet” also available in January and February – contact branch library.)

10 Jan. to 17 April: Museum of Natural History -- **“Bug World: Before dinosaurs, insects ruled the earth!”**. A special exhibit of giant models of insects and a Bug Zoo featuring living insects. The seven models include a six-metre praying mantis, a desert locust with spread wings, and two fighting Atlas beetles. A display not to be missed! Special admission rates apply, for details, call: 424-3563.

10 & 24 Jan.: Maritime Museum of the Atlantic (7:00 pm) – **“Tales of Pirates & Privateers of the North Atlantic”**. Come and hear about tales of piracy in eastern Canada and discover the differences between villainous pirates and patriotic privateers. Different tales are presented each evening (series continues on alternate Tuesdays through February, March, and April).

10-28 Jan.: Craig Gallery, Alderney Landing – **“In Search of Memory: A Glimpse into the World of Alzheimer’s”**. An exhibit on a common disease by J. Arsenault and D. Boucher.

11 Jan.: Lord Dalhousie Room, Henry Hicks Building, Dalhousie University (12.00 pm) – **“Canada’s Future Navy”**. Public winter seminar presented by the Centre for Foreign Policy Studies.

13 Jan.: Rebecca Cohn Auditorium, Dalhousie Arts Centre (7:00 pm) – **“Tommy Hunter: Canada’s Country Gentleman”**. Concert by one of Canada’s best-known country singers. Tickets available at: 494-3820.

13-14 Jan.: Alderney Landing Theatre (doors open 7:00 pm for social & silent auction; performance 8:00 pm) – **“Share the Dream Musical”**. Special musical tribute to Dr. Martin Luther King, Jr., and Nova Scotia’s Viola Desmond by the Nova Scotia Mass Choir and guests. Fund raiser for Eastern Front Theatre. For information and tickets, call: 463-7529.

15 Jan.: Garden Room, K.C. Irving Environmental Sciences Centre, Acadia University, Wolfville (3:00 pm) – **“Sunday Music in the Garden Room”**. Concert by mezzo-soprano Christianne Rushton, first of a series of six free Sunday afternoon concerts.

15 & 18 Jan.: Museum of Natural History (15th: 2:00 pm; 18th: 7:00 pm) -- **“New Frontiers: Episode 3”**. Third in a four-episode film series on the 4 billion years of Earth’s history: the development of life forms and invasion of the land some 350 million years ago.

17 Jan.: Maritime Museum of the Atlantic (7:30 pm) – **“The Meaning of Trafalgar and its Aftermath”**. An illustrated talk by Dr. Julian Gwynn, naval and professor emeritus of the University of Ottawa, about the relevance of this famous battle and associated myths.

17 Jan.: Rebecca Cohn Auditorium, Dalhousie University (8:00 pm) – **“Great Romantics Celebrity Series”**. Symphony Nova Scotia concert featuring cello soloist Shauna Rolston playing Mozart, Elgar, Bouchard, and Schumann. For details, call: 494-3820.

19 Jan.: Spring Garden HRM Library (7:00 pm) – **“Author Reading: Night Voices – Heard in the Shadow of Hitler and Stalin”**. Author Heather Laskey reads from her book *‘Night Voices’*, an account of the Jewish idealists of Poland – Holocaust survivors – who committed themselves to build a communist state, believing it would create a just society. Books will be available for purchase at this reading.

20, 27 Jan. & 3, 10, 17 & 24 Feb.: Mount Saint Vincent University (1:00 pm) – **“Canada – US Relations” Lecture Series**. Dr. Reginald Stuart explores the relationship we have with our neighbours to the

south in a series of six lectures: “Both sides of the Border – Are we really that different from Americans?” (20 Jan.), “Separating Cultures – Is Canadian culture truly unique and independent?” (27 Jan.), “Why We Think We’re Better – Social judgments and anti-Americanism” (3 Feb.), “All About Money – How much do we rely on the American economy?” (10 Feb.), “Presidents and Prime Ministers – What happens when Ottawa and Washington disagree? (17 Feb.), and “How Do We Get Along – What’s going to happen next, and how do you find out about it? (24 Feb.).

24 Jan. to 19 Feb.: Neptune Theatre – **“Trying”**. For details, call 429-7070 or go to www.neptune-theatre.com.

24 Jan.: Museum of Natural History (7:30 pm) – **“Location, Location, Location! Archaeology of the Halifax Wastewater Treatment Property”**. Archaeologist Bruce Stewart, NS Cultural Resources Management, shows and discusses the significance of the many interesting artifacts and structures uncovered during archaeological work performed for the HWTP exercise. Talk is part of the Underground Halifax Talk Series.

25 Jan.: Museum of Natural History (7:30 pm) – **“Beginner Digital Photography”**. An overview of how to select and use a digital camera for photographing nature and more, with tips on loading, editing, archiving and storing images on computers. Talk is co-sponsored by the Photographic Guild of Nova Scotia.

25 Jan.: Keshen Goodman HRM Library (7:00 pm) – **“Winter Storms of Nova Scotia”**. Dale Foote, climatologist with Environment Canada, looks at the worst winter storms in Nova Scotia and forecasts what to expect in the coming years (an illustrated talk). For details, call: 490-6410.

26 Jan.: Casino Nova Scotia Schooner Showroom (8:00 pm) – **“Colin James”**. Concert by guitar virtuoso James whose music career spans blues, rock, big band and r&b. For details, call: 425-7777.

28 Jan.: Keshen Goodman HRM Library, Halifax – **“Family Literacy Week: Special Guest Sheree Fitch”** (2:00 pm). Join Sheree Fitch, literacy activist and beloved children’s author, for readings from

her latest children's books and the importance of family literacy. For more information, call: 490-6410.

29 Jan.: Rebecca Cohn Auditorium, Dalhousie University (8:00 pm) – **“Ron James: Gone With Ron!”** Encore performance by the funniest man in Canada. For details, call: 494-3820.

29 Jan. & 1 Feb.: Museum of Natural History (29th: 2:00 pm; 1st: 7:00 pm) -- **“Extinction and Rebirth: Episode 4”**. Fourth in a four-episode film series on the 4 billion years of Earth's history: the story how life evolved, dominance of dinosaurs for 150 million years, the mass extinction of 95% of all life 250 million years ago, subsequent development of life forms and how mammals rose to dominate the planet.

30 Jan.: Keshen Goodman HRM Library (7:00 pm) – **“Paintings of Nova Scotia”**. Join archivist and author Dianne O'Neill on a journey through beautiful Nova Scotia as portrayed in paintings through the centuries. The stunning and diverse artwork presented in her book 'Paintings of Nova Scotia' will be reviewed with an insightful interpretation of each piece. For details, call: 490-6410.

31 Jan.: Spring Garden HRM Library (12:00 pm) – **“Chinese New Year Traditions”**. Join May Lui of the Asian Heritage Month Committee for a fun and informative talk on the traditions of the Chinese New Year – a time for reunion and thanksgiving.

1 Feb.: Keshen Goodman HRM Library, Halifax (7:00 pm) – **“Open Mic: Black Pop Culture”**. A tribute to black pop culture featuring spoken word artist Reed “Izreal” Jones and R&B sensation Jordon Croucher. For more information, call: 490-6410.

2 Feb.: Spring Garden HRM Library (7:00 pm) – **“Fueling Around: Biodiesel – A Renewal Fuel”**. Come and learn how to make biodiesel, a non-toxic, biodegradable fuel made from recycled vegetable oils. Workshop presented by Maritime Biodiesel Co-op.

3, 10, 17 & 24 Feb.: Maritime Museum of the Atlantic (4:00 pm) – **“Skills of the 19th Century Sailor”**. Join Derek Harrison, museum heritage interpreter, for a hands-on presentation series of a sail maker's

work and learn to splice rope, fashion a ditty bag, and make a Turk's-head rope mat. Each week features a different traditional skill. For details, call: 424-7490.

4 Feb. to 7 May: Art Gallery of Nova Scotia – **“Christopher Pratt”** (open 7 days a week, 10 am to 5 pm, Thurs. until 9:00 pm). Exhibition of original artwork by renowned Newfoundland artist Christopher Pratt. For additional information call: 424-7542.

7 & 21 Feb.: Maritime Museum of the Atlantic (7:00 pm) – **“Tales of Pirates & Privateers of the North Atlantic”**. Come and hear about tales of piracy in eastern Canada and discover the differences between villainous pirates and patriotic privateers. Different tales are presented each evening (series continues on alternate Tuesdays through March and April).

8 Feb.: Museum of Natural History (7:30 pm) – **“The Uninvited Dinner Guests: Bugs in Our Food”**. Join Gary Moulton, NS Food Safety Specialist, for a fascinating look at bugs in our food and the role they play as part of our food system.

9, 13, 21 & 23 Feb.: Public HRM Libraries – **“Internet Searching Made Easy”** (9th, 10:00 am: Keshen Goodman; 13th, 1:00 pm, Spring Garden; 21st, 10:00 am, Sackville; 23rd, 1:30 pm: Tantallon, 7:00 pm: Sackville). Learn tips and tricks to streamline your internet searching and find out what to look for when judging the value of the information you find on the net (Note: participants must be familiar with information covered earlier in “How to Navigate the Internet” – see 9 Jan. above). For additional details, call individual libraries.

12 Feb.: Bedford Institute of Oceanography (2:00 pm) – **“Sable Island: Natural History, Stewardship and Research”**. An illustrated talk by researcher Zoe Lucas on the natural history of Sable Island and the importance of research programs underway -- dune vegetation, horses and seals, marine litter and oiled seabirds -- and ongoing efforts to secure long-term support for the island and its research station to ensure adequate stewardship and conservation. Sponsored by the BIO OA and everyone is welcome. For details, call David Nettleship: 826-2360.

12 Feb.: Garden Room, K.C. Irving Environmental Sciences Centre, Acadia University, Wolfville (3:00 pm) – **“Sunday Music in the Garden Room”**. Concert by Symphony Nova Scotia’s principal horn, David Parker, Acadia ’84, and others.

15 Feb.: Keshen Goodman HRM Library (7:00 pm) – **“Caribbean Cuisine Party”**. Sample the colourful and exotic flavours of the Caribbean with Doreen Crick, and pick up tips and tricks for preparing Caribbean dishes at home. Part of African Heritage Month Celebration.

16-19 Feb.: Exhibition Park – **“Halifax International Boat Show”**. The annual ‘Boat Show’ of Atlantic Canada, not to be missed by anyone that loves boating and boats, from sea-kayaking to sailing. In addition to boats and gear, this year’s show includes a special “Women On Board” series and other seminar and demonstration topics ranging from “Cooking on Board” to “Long Distance Cruising”. For details, go to www.halifaxboatshow.com or contact show coordinator Scott Sprague at ssprague@masterpromotions.ca.

17 Feb.: Rebecca Cohn Auditorium, Dalhousie University (8:00 pm) – **“Matt Mays with Symphony Nova Scotia”**. Performance by the two-time ECMA winning singer-songwriter-surfer from Dartmouth. For details, call: 494-3820.

18 Feb.: Tantallon HRM Library (3:00 pm) – **“Sharing the Roots of Gospel Music”**. Join members of the Emmanuel Baptist Church Choir for an hour of gospel music and learn about its roots in African heritage. Part of African Heritage Month Celebration.

21 Feb. to 12 Mar.: Neptune Theatre – **“Soul Alone”**. For details, call 429-7070 or go to www.neptune-theatre.com.

22 Feb.: Museum of Natural History (7:30 pm) – **“Flying Dragons and Graceful Damsels”**. Lecture by dragonfly expert Paul Brunelle on the beauty, flying abilities, and history of this ancient order of insects including some rare North American species.

22 Feb.: Maritime Museum of the Atlantic (7:15 pm) – **“All About Isle Haute”**. Dan Conlin, Curator of

Marine History, presents a history of Isle Haute in the northern Bay of Fundy with a particular focus on its fog and lighthouses. Presented by the Nova Scotia Lighthouse Preservation Society.

23 Feb.: Halifax North HRM Library (7:00 pm) – **“All Power to the People! The Black Panther Party and Beyond”**. This powerful film documentary provides the historical context for the establishment of the 1960s civil rights movement and the rise of the Black Panther Party (115 min). Part of African Heritage Month Celebration.

27 Feb.: Bedford HRM Library (9:30 am) -- **“How to Navigate the Internet”**. Learn all about the HRM web-based library catalogue, including how to navigate tabs and menus, find materials using Quick Search, place holds and access your account (Note: participants must be familiar with information covered in “Hands-on Computer Basics” or familiar with Windows and mouse skills). For details, call: 490-5757.

28 Feb.: Museum of Natural History (7:30 pm) – **“Steamship China from Halifax Harbour”**. Marine archeologist Greg Cochkanoff shares the amazing and important discoveries he’s made in the dark harbour waters during the past 20 years. Talk is part of the Underground Halifax Talk Series.

1 Mar.: Museum of Natural History (7:30 pm) – **“Bug Pests”**. Talk by doctoral student Debbie Moreau, Agriculture Canada, on her research of how fungi may potentially control insects on food crops.

6 Mar.: Museum of Natural History (7:30 pm) – **“Integrating Industrial and Natural Ecosystems: The Possibilities”**. Talk by Dr. Ray Côté, School for Resource & Environmental Studies (Dalhousie University), on the new discipline of ‘industrial ecology’, and how lessons from nature can be applied to industrial development. Presentation co-sponsored by the NS Institute of Science.

7 Mar.: Maritime Museum of the Atlantic (7:30 pm) – **“Aberdeen Maritime Museum”**. Join John Edwards, Keeper of Science & Maritime History, for an illustrated talk about this world famous museum, situated on the historic Shiprow and the city’s long relationship with the sea.

- 7 & 21 Mar.:** Maritime Museum of the Atlantic (7:00 pm) – **“Tales of Pirates & Privateers of the North Atlantic”**. Come and hear about tales of piracy in eastern Canada and discover the differences between villainous pirates and patriotic privateers. Different tales are presented each evening (series continues on alternate Tuesdays through April).
- 7 Mar. to 2 Apr.:** Neptune Theatre – **“Who’s Afraid of Virginia Woolf?”** For details, call 429-7070 or go to www.neptunetheatre.com.
- 11-19 Mar.:** Maritime Museum of the Atlantic – **“Pets at Sea”**. Special display for ‘March Break’ featuring live animals that represent the most common additions to a ship’s crew in the past from cats and parrots to monkeys and rats, and their uses by crew members and the superstitions that surrounded them.
- 11-19 Mar.:** Museum of Natural History – **“Bug World featuring Giant Robotic Insects and Special Guests”**. Special event for ‘March Break’ with special exhibits and guests including baby animals, ‘good bugs, bad bugs’, live amphibians and reptiles, and professional entomologists and amateur insect specialists to answer questions and share their passion for bugs. For details, call: 424-6099.
- 12 Mar.:** Garden Room, K.C. Irving Environmental Sciences Centre, Acadia University, Wolfville (3:00 pm) – **“Stars of Tomorrow”**. Concert will feature

some of this year’s graduating Acadia music students and recently graduated music alumni.

- 21 Mar.:** Rebecca Cohn Auditorium, Dalhousie University (7:00 pm) – **“The Live Lawrence Welk Show”**. A concert of enjoyment and fond memories. For details, call: 494-3820.
- 22 Mar.:** Museum of Natural History (7:30 pm) – **“Gateway to Canada: The Story of Halifax Harbour”**. Join marine geologist Gordon Fader and filmmaker Charles Doucet on a visual tour through the geological and cultural history of Halifax Harbour. Talk co-sponsored by the Atlantic Geoscience Society.
- 22 Mar.:** Maritime Museum of the Atlantic (7:15 pm) – **“Pictou Bar Lighthouse”**. Talk by Pictou area historian Fergie MacKay about the history of the second lighthouse on this site to be destroyed by fire in 2004. Presented by the NS Lighthouse Preservation Society.
- 28 Mar.:** Museum of Natural History (7:30 pm) – **“A Walk in the Park: Point Pleasant Park after Hurricane Juan”**. Archaeologists Fred and Lynne Schwarz review some of the new findings found during the clean up of the massive damage caused to Point Pleasant Park by Hurricane Juan in late September 2004.

SCIENCE RENEWAL AT BIO

By David L. McKeown

Over the next few years, science managers at BIO face substantial challenges as the federal government changes its emphasis on the way science is to be done in this country and DFO and NRCan significantly alter program directions and resource levels. As part of an effort to address these challenges, Dr. Michael Sinclair, Regional Director of DFO Science, requested input from the BIO-OA. He was not looking for the Association to play an advocacy role but rather for suggestions on what the members perceive the role of BIO to be, reflect on its current strengths and weaknesses, propose scientific directions that the Institute might follow and suggest new opportunities, partnerships and areas of

collaboration and cooperation that might enhance the programs.

Several members of the BIO-OA Executive (Mr. D. Buckley, Dr. R. Cook, Dr. B. Loncarevic, Dr. D. McKeown, Dr. D. Nettleship and Dr. C. Schafer) developed a number of talking points then met with Dr. Sinclair and Dr. Jacob Verhoef, Director, GSC(A) in late December. Both directors were very frank about the challenges they face and the potential impact they would have on science at BIO in the coming years. The discussions were wide ranging and hopefully of some value to them. Subsequent to the meeting, Dr. Sinclair sent a note to the BIO-OA Executive expressing his appreciation of our efforts.

**BIO-Oceans Association's "Winter Celebration"
Special Seminar and Community Social**

OPEN TO BIO-OA MEMBERS & NON-MEMBERS
George Needler Boardroom, 4th Floor, Bedford Institute of Oceanography
1 Challenger Drive, Dartmouth, Nova Scotia

**Sunday, 12 February 2006
(open social 1:30 pm; lecture 2:00 pm)**

**SABLE ISLAND:
NATURAL HISTORY, STEWARDSHIP AND RESEARCH**
Speaker: Zoe Lucas

Ms. Zoe Lucas, author, photographer and naturalist/researcher, is one of Canada's foremost authorities on the natural history of Sable Island and its associated wildlife and marine waters. Ms. Lucas will provide an overview of the natural history of Sable Island, a 45 km-long crescent of shifting sands with a maximum width of 1.5 km located about 200 km offshore from mainland Nova Scotia near the edge of the continental shelf. The island's physical characteristics, flora and fauna – particularly dune vegetation, horses and seals – will be shown in the context of seasonal changes through the annual cycle: summer, fall, winter and spring. The impact of human activity on the island will be summarized briefly, followed by a review of the island's importance as a platform for research and monitoring both the marine and atmospheric environments. Details of three selected study programs -- beach surveys for oiled seabirds and marine litter, and sampling for airshed pollutants – will be given as examples of ongoing research. Ms. Lucas will then explain the essential roles of the Sable Island Station in marine safety and security, stewardship and research, and conclude with a review of ongoing efforts to secure long-term conservation and support for Sable Island and its Station.

Come and join us on Sunday, 12 February 2006, for this enlightening and eye-opening seminar on the wild and beautiful Sable Island by Zoe Lucas, long-time researcher on the island (30+ years) studying terrain restoration, marine pollution (oil and plastics), Sable horses, and surveying oiled seabirds, arctic seals, and stranded whales and dolphins.

See you there to learn a little bit about Sable, a fertile crescent of shifting sands. The lecture is at 2:00 pm, but there will be time available before (1:30-2:00 pm) and after the lecture (3:00-4:00 pm) to talk to Zoe Lucas, and ask specific and/or general questions about the island, its history, wildlife and future.

For additional information call:

David Nettleship (ph: 826-2360;
e-mail: dnnlundy@navnet.net).

NOTE – SPECIAL OFFER: Member George Anderson has arranged to have the \$4.00 cover charge to the Newfoundland Social Club waived for all those interested in seeing the Club's talent show following the seminar by Ms. Lucas. The Club is located at 40 Wright Avenue in Burnside Industrial Park (call 468-9816) and their talent show (in which George is a featured performer) runs from 3 to 7 p.m.. Refreshments and home-made sandwiches are sold at the club. Simply indicate you are coming from the BIO seminar to gain free admission.



**NOTEWORTHY
READS:
BOOK REVIEWS
IN BRIEF**

By David N. Nettleship,
Book Review Editor

The *Noteworthy Reads* section is an effort by BIO-OA to produce a representative list of recent noteworthy book publications related to the marine sciences and other subjects of general interest. The listing is not intended to be comprehensive or complete, but merely an attempt to highlight a number of 'good reads' that may be of interest to OA members and associates. The principal aim is to identify titles of new publications from a variety of disciplines including oceanography (physical, chemical, biological), geology, natural history, nautical engineering and design, etc. Most books listed are available at local bookstores and via HRM libraries; book prices are regular retail in Canadian funds, but remember that discounts of 20-30% are normally available on line at: e.g., amazon.ca or chapters.indigo.ca. Anyone interested in contributing a book review to 'Noteworthy Reads' should contact David Nettleship (voice: 902-826-2360; internet: dnnlundy@navnet.net).

SPECIAL PUBLICATION:
CONTINUED CELEBRATION OF DARWIN

Wilson, Edward O. (ed.). 2006. From So Simple A Beginning: The Four Great Books of Charles Darwin. Norton & Co., New York, NY. 1706 pp. Hardcover, \$56.00 (ISBN 0393061345). – A sequel to J.D. Watson's anthology "Darwin: The Indelible Stamp" that appeared in October 2005 (see BIO-OA Newsletter Issue 28, p. 8), the present volume released last month and edited by world renown biologist E.O. Wilson presents the same four principal works of Charles Darwin: 'The Voyage of the Beagle' (1845), 'On The Origin of Species' (1859), 'The Descent of Man, and Selection in Relation to Sex' (1871), and 'The Expression of the Emotions in Man and Animals' (1872). In six original essays – a general introduction, introductions to each book, and an afterword – Wilson explains with great clarity how Darwin conceived the idea of evolution by natural selection, painstakingly tested it before publication, and how his theories refuted the idea that the diversity of life was divinely created and established evolution as the main explanation of biodiversity including human origin. The organization, printing and binding of the volume are ex-

emplary. But why two publishers would deliberately create such rivalry in the book market is difficult to comprehend. However, both anthologies are timed to coincide with the approaching 150th anniversary of "On the Origin of Species" and do form important literary and scientific additions to any library.

GENERAL REVIEWS

Ballard, Robert and Rick Archbold. 2005. The Lost Ships of Robert Ballard. Madison Press Books, Toronto, ON. 256 pp. Hardcover, \$40.00 (ISBN 1895892570). – Here is a collection of lavishly illustrated tours of lost liners such as the *Titanic*, *Britannic*, *Empress of Ireland*, *Andrea Doria*, and others, with paintings by Ken Marshall. The high-quality underwater images presented of the ships today, along with a host of paintings, period photographs, and illustrations, reveal the ships' original splendour and eerie remains. Overall, an unforgettable underwater tour led by the world's leading deep-sea explorer.

Best, Nicholas. 2005. Trafalgar: The Untold Story of the Greatest Sea Battle in History. Orion, London, UK. 400 pp. Hardcover, \$40.00 (ISBN 0297846221) – Two centuries have passed since Admiral Nelson's last and greatest sea victory for Britain. In this volume, author Nicholas Best describes the entire campaign – from autumn 1804 to 21 October 1805 – with gripping accounts by witnesses from the gun decks and the admiral's cabin, and a minute-by-minute description of the fighting. Many of these historic accounts are published here for the first time. A must-read gun-level review of the battle that set Britain on its vast imperial course of military history and naval superiority.

Brunner, Bernd. 2005. The Ocean at Home: An Illustrated History of the Aquarium. Princeton Architectural Press, Princeton, NJ. 143 pp. Hardcover, \$33.95 (ISBN 1568985029). – Here is a book for those of us that can't find a way to spend the winter in tropical climes. Instead of snorkeling in warm waters over coral reefs, console yourself by gazing at the fish and aquariums featured in this charming and well-illustrated volume. It not only displays beautiful aquariums, but also describes the 'domestication' of the inhabitants of the deep from the explosion of Victorian interest in oceanography to today's present popularity of aquaria. A book designed for dreaming and learning through the winter doldrums.

Bryson, Bill. 2005. **A Short History of Nearly Everything - Special Illustrated Edition.** Doubleday Canada, Toronto, ON. 624 pp. Hardcover, \$40.00 (ISBN 0385661983). – Bill Bryson has produced a visual, fact-filled and witty history of science with this new volume. This brand-new edition of the original bestseller published in 2003 is lavishly illustrated to convey in pictures, as in words, an exciting and informative journey into the world of science. The book covers everything from the Big Bang to the rise of Civilization, with many of the concepts presented illustrated by full-colour artwork. Bryson attempts to better understand how we got from nothing at all to there being us. What a wonderful and entertaining way to learn about science and its players, past and present, in the world of scientific study!

Gibson, Graeme. 2005. **The Bedside Book of Birds: An Avian Miscellany.** Doubleday Canada, Toronto, ON. 384 pp. Hardcover, \$39.95 (ISBN 0385660480). – Sometimes a book is just too full of information, too well written, too flat-out gorgeous to capture in a review article. This volume by Graeme Gibson is one such book. The author, recognizing his love of birds, posed the question to himself of why we humans are so attracted to these animals. That query led him to examine our shared response to birds with the aim of identifying reasons for our fascination with birds. The result is an astoundingly beautiful book, divided into nine sections on the subject, each with its own introduction and illustrations that together captivate the reader and cause an outcry calling for more. This work is by far the most spectacular bird book published in 2005: beautiful writing, beautiful illustrations, and beautiful book!

Gillette, John. 2005. **Theatre of Fish: Travels through Newfoundland and Labrador.** Hutchinson (Random House), London, UK. 365 pp. Hardcover, \$39.95 (ISBN 0091795192). – An extraordinary journey across the magnificent, bizarre coasts of Newfoundland and Labrador. Gillette traces the journey his great-grandfather, Dr. Eliot Curwen, made in 1893, and who was exposed to some of the most beautiful coastal seascapes imaginable and some of the cruelest poverty existing in the Americas. This part history, part travelogue exploration of Newfoundland and Labrador's coast and culture by a well-established travel writer is a glorious read to be enjoyed by anyone interested in Atlantic Canada and its people.

Gribbin, John. 2005. **The Scientists: A History of Science Told Through the Lives of its Greatest Inven-**

tors. Random House, New York, NY. 672 pp. Hardcover, \$53.00 (ISBN 1400060133). – Behind every experiment is an obsessed scientist. In this book, *The Scientists*, John Gribbin tells the fascinating and human story of all these visionaries, eccentrics and madmen, from Copernicus to Einstein. The diversity of characters, their outstanding scientific achievements and contributions to society, make for an exciting and informative read.

Herbert, Sandra. 2005. **Charles Darwin, Geologist.** Cornell University Press, Ithaca, NY. 480 pp. Hardcover, \$51.95 (ISBN 0801443482). – This book by Sandra Herbert, a well-known Darwinian specialist, traces Charles Darwin's intellectual development with a focus on how his early geological training, research and thought laid the foundation for the scientific developments and debates of his later years. It forms another careful and intriguing analysis of Darwin and his revolutionary theory of evolution through natural selection. A most significant contribution to further understanding of one of the world's greatest scientists and synthesizer's of facts.

Hynes, Bruce. 2005. **The Noble Newfoundland Dog.** Nimbus Publishing, Halifax, NS. 221 pp. Softcover, \$21.95 (ISBN 1551095440). – An enjoyable read of a giant breed of dog particularly associated with marine waters in Atlantic Canada, both as a namesake for the Province of Newfoundland and Labrador and as a hard-working contributor to the harvesting and processing of northern cod for centuries past. The dog's close association with people and general traits – loyalty, bravery, intelligence and gentleness – along with its renown rescue and life-saving abilities have made the breed both endearing and noble.

Lightman, Alan. 2005. **The Discoveries: Great Breakthroughs in Twentieth-Century Science.** Knopf Canada, Toronto, ON. 576 pp. Hardcover, \$37.95 (ISBN 0676977898). – Here is a clear and succinct description of the most exciting scientific developments of the 20th century, and an exploration into the minds of the remarkable men and women behind them. Lightman's fascinating new book forms a wonderful reference source for anyone interested in the history and progress of science. It not only describes benchmark events, but also includes the full texts of all the original papers in which these great accomplishments were first presented. Overall, a stimulating and exhilarating read for everyone.

MacArthur, Ellen. 2005. **Race Against Time.** Michael Joseph, London, UK. 240 pp. Hardcover, \$45.00 (ISBN 0718147405). – Here is a book to excite boat designers, technologists devoted to enhancing high-speed racing, and anyone interested in sailboats. On 8 February 2004, Ellen MacArthur set the speed record for sailing solo around the world, and this memoir reveals vividly just what it is like to be on the cutting edge of boat technology. Beautifully designed and illustrated, this work draws on logs, e-mails, and sound and video diaries to capture the drama, excitement, danger, and joys of MacArthur's extraordinary achievement. A great story, and a great read!

MacInnis, Joseph. 2006. **James Cameron's Last Mysteries of Titanic.** Key Porter Books, Toronto, ON. 192 pp. Hardcover, \$40.00 (ISBN 1552637425). – Here is another addition for the aficionados of M/V *Titanic*. Author MacInnis follows James Cameron and his crew as they prepare for an expedition to the *Titanic* wreck. His book reveals the dangers the team face, exploring a vessel located 12,000 feet under the sea. Never before seen areas of the sunken ship – the Marconi Room, Silent Room, and Turkish Baths – are shown in 3-D, a most exciting visual presentation. An impressive coffee table book.

Marren, Peter. 2005. **The New Naturalists**, 2nd Edition. HarperCollins Publishers, London, UK. 363 pp. Hardcover, \$88.00 (ISBN 0007197160). – Here is the complete story behind what has been called the most significant and long-running natural history series in the world. Complete details are given for each of the 95 regular books and 22 monographs published between 1945 and 2004 are given in this updated and revised edition (first edition appeared in 1995). Descriptions included for each book range from its original inception and theme development by the author and editorial board to its completion including detailed biographies of the authors, run size of first edition, numbers of revisions and reprinting, foreign editions and trade alliances, origin of plates used and more. The information given greatly exceeds normal bibliographic specifications and as an integrated unit becomes an outstanding "reader sourcebook" for more than half a century of the best British natural history book publications produced. Appendices include a complete bibliographical list and a collector's guide. This work is a storehouse of essential information for any collector of this unique natural history book series and reader wishing to learn about the history of perhaps the greatest, and longest, natural his-

tory book series ever produced.

Rozwadowski, Helen M. 2005. **Fathoming the Ocean: the Discovery and Exploration of the Deep Sea.** Belknap Press, Harvard University, Cambridge, MA. 276 pp. Hardcover, \$32.50 (ISBN 0674016912). – Helen Rozwadowski's book provides an extraordinary and illuminating chronicle of the development of scientific interest in the deep sea. By the middle of the 19th century, as scientists explored the frontiers of polar regions and the atmosphere, the ocean remained relatively silent and inaccessible. The history of how this changed, and how the ocean depths became a scientific passion and cultural obsession, an engineering challenge and political attraction, is the story that unfolds in this important work "*Fathoming the Ocean*".

Smyth, Admiral W.H. 2005. **Chapman The Sailor's Lexicon: The Classic Source for More Than 15,000 Nautical Terms.** Hearst (William Morrow & Co.), New York, NY. 752 pp. Hardcover, \$27.95 (ISBN 1588162818). – The classic source for more than 15,000 nautical words and phrases about almost every aspect of ships and the sea. It is a fascinating period piece, first published in 1867, and stands today as an invaluable tool to anyone interested in maritime history and its description, from the serious amateur to expert. Overall, a definitive research resource.

Unwin, David. 2005. **The Pterosaurs from Deep Time.** Pi Press (Pearson Education), Upper Saddle River, NJ. 224 pp. Hardcover, \$55.95 (ISBN 013146308X). – Here is the first complete portrait of the flying reptiles known as pterosaurs, among the strangest creatures to have ever lived, based upon a mountain of recent fossil discoveries in Mongolia, China, Italy and Texas. David Unwin, one of the world's leading experts on this extraordinary animal group, takes the reader back 220 million years when the earliest pterosaurs took to the open skies and describes their evolution into a multitude of diverse forms that spread around the globe and ruled the skies until they became extinct 65 million years ago along with the dinosaurs. He then reviews the new fossil finds, most made in the last 16 years, and what has been learned through the application of recent technological advances. The results are stunning, and Unwin outlines their significance to the reconstruction of the biology and behaviour of pterosaurs. This book represents paleontology at its exciting best.

WHERE ARE THEY NOW & WHAT ARE THEY UP TO?

From time to time, the BIO-OA newsletter will publish news received from members and friends about their present day activities and concerns. Below is one such communication from David Wells that was received at Christmas by our Membership Chair Clive Mason.

Many will remember Dave Wells as a familiar figure with the Canadian Hydrographic Service at BIO from 1965 to the late 1970s when he left to take a teaching role at the University of New Brunswick. (Those not familiar with his work might enjoy reading the career summary found at <http://gge.unb.ca/Personnel/Wells/Career.html>.) After 20 years of teaching at UNB, Dave retired in July 1998. He wrote on December 22nd to tell us a little bit about his current activities:

Hi Clive (from Bay St. Louis, Mississippi),

Say hello to all at the BIO Christmas Party for Solveig and me. Here's our news:

We arrived back here on the Gulf Coast last week, for the winter (I've been teaching hydrography at the Stennis Space Center near here for the past six winters). The house we rent happens to be the highest point in Bay St. Louis, located exactly where D'Iberville (who discovered this area) lit a big bonfire to signal his ships that he'd found a neat place to hang out. As such, the Katrina storm surge spared about a half-dozen houses around us, while flattening almost everything else for miles inland. One person who stayed for the storm claims the surge rose 30 feet in 8 minutes. We had three feet of water, so we lost all furniture, appliances, cabinets, wiring, air conditioning and car. But our wonderful landlady worked hard to get our place back in livable condition before we arrived. We're still walking on the concrete slab, but almost everything is replaced - we pick up our new car (Toyota Scion xA) in Pensacola this afternoon.

Last month I was appointed to chair the New Brunswick Surgical Care Network advisory committee - we have responsibility to recommend changes to the NB Department of Health and Wellness, the Regional Health Authorities, and the surgical community that will "develop a surgical access management program including a surgical patient registry, a standardized patient assessment

process, target times for surgery, and public reporting of results, and a structure and process for the implementation, ongoing management and monitoring of this surgical access management program." We had our first meeting on Tuesday this week (I flew back to Fredericton for a few days), and I was impressed at the willingness of the surgeons and RHAs to buy in to this process (the committee has 13 surgeons and other health care professionals on it, with me the sole layman or patient representative, as chair).

This came about because Solveig received a new hip on 24 August, after exactly a 2-month wait since seeing her surgeon for the first time, which is way way below all the wait-time benchmarks that recently been announced. However, until 6 days before her surgery, we had been warned to expect up to a 12-month wait, which was unacceptable to us (as well as to the Supreme Court, and the new benchmarks), and so I had done a lot of research and reading on what was being done about wait times (not only in Canada but in other OECD countries as well), and had discovered there is a hotbed of activity worldwide around wait time management, including a statement in the New Brunswick 2004-2008 health plan claiming that wait times would be addressed. But nothing seemed to have been done yet. So I sent an email to the NB H&W department asking what was happening, had they heard about the successes in Saskatchewan, were they going to do anything similar, and was there any way a concerned layman like me could help. They called my bluff (and yes, the NB system is modeled after Saskatchewan, just like NS, and practically every other province).

I'm still teaching at UNB and UNH during the fall, as well as USM during the winter. And the four of us who started teaching a 6-day course on Multibeam Sonar in 1994 are still at it. Our 40th course will be in a few weeks at Scripps, #41 in Trieste in June, #42 in Singapore in November, with courses planned so far for Bergen, Norfolk and Cairns for 2007, and Rio in 2008.

I'm enjoying "retirement" to the full, as you can see.

Merry Christmas to you, Liz, your family, and all at BIO.

Dave

OBITUARY NOTICES

Norman Fenerty, the Head of BIO's Photography Unit for many years, passed away at home on 12 November 2005, at the age of 80.

Jeff McRuer, 56, who worked in the Marine Ecology Laboratory, passed away at home on 17 December 2005.

Reg Stone, who worked for many years in the BIO Ships Division, passed away on 30 December 2005 at the Hants Community Hospital at the age of 82.

REMINISCENCES OF JEFF MCRUER

By Tim Lambert

Jeff McRuer first appeared at BIO in 1971. That year, the federal government had substantially reduced the summer student program (you could get a summer student for free in those days!). However, after everyone had organized their summer programs (sans students for the most part) the feds suddenly decided to cough up for a large number of summer students (I can't remember if there was an election in the offing). As one of the dozen or so students that were parachuted into the Marine Ecology Laboratory (MEL) of the old Fisheries Research Board of Canada, Jeff was put to work on an ecological study of Petpeswick Inlet on the Eastern Shore under the supervision of Ken Mann. Having enjoyed his first salt-water experiences, he applied again the following year and got even more sea time as we conducted, at Ottawa's request, a month-long mackerel egg survey in the Gulf of St. Lawrence. Jeff ran the operation on the *Harengus* and I looked after things on the *Sackville*. The former was scuttled off southern N.S. in the late 1970s and the Sackville is now a museum (where does the time go!).

In 1973, Jeff joined the MEL crew on a full time basis and I was lucky enough to have him work with me as I started up an early life history study of mackerel in St. Georges Bay using the sadly, now decommissioned, *Navicula*. In 1974, Dan Ware took over our study and with his singular talents expanded it into a great integrated disciplinary programme which many of us recall fondly. Jeff, Dan and I, along with Peter Vass, Gareth Harding, Barry Hargrave, Ron Trites, Ken Drinkwater and Brian Petrie, were an enthusiastic, productive team throughout the 1970s and used to recall many happy times at our field station in St. Georges Bay. In 1977 and 1978 we became involved in a BIO/Dalhousie

CIDA funded investigation of the Peruvian anchovy and our trips to Lima gave us lots to reminisce about in later years.

Jeff was always a great outdoorsman and enjoyed sports. When he first arrived in Nova Scotia he was an avid downhill skier and was a bit disappointed to find there weren't too many big hills around here. However, we introduced him to cross-country skiing and he took to it like a duck to water (I think he may have even retired his downhill skis.). We also played a lot of soccer through the 1970s and 1980s, and Jeff was a formidable opponent. The only time I came out best in a collision with Jeff was when we both jumped for a high ball and our heads collided, or at least my head and his nose, which ended up broken. Perhaps having more energy and enthusiasm than common sense, a number of us in MEL moved to the country and purchased old houses and began our new lives of renovation. Jeff found his old farmhouse in East Gore and it has been there that he and Sue have spent the past 30 happy years renovating and raising their three children. Many of us have enjoyed a variety of gatherings at the McRuers over the years; events such as kite flying festivals on the hill overlooking the village.

After the demise of MEL in 1987, Jeff was transferred into the Marine Fish Division (MFD) and eventually found his niche running the Ocean Data Handling Section. Here he worked with Jim Reid and Scott Wilson and made sure our surveys were equipped with the very latest in technology. He moved MFD beyond XBTs and water bottles and lobbied hard for up-to-date Seabird CTD technology and was an active partner in modernizing the data collection protocols. For many years he carried on a productive collaboration with Peter Vass and Dwight Reimer in the development of electronic packages designed to monitor a variety of data collection instruments. Eventually a versatile package was developed that could be transferred easily between such samplers as the Mininess, Bongo net and Tucker trawl.

Jeff was an indefatigable worker, and even through the trials of his cancer treatments, he continued to put in a full day's work without complaint. A week before he died he was up repairing gutters on the eaves of his house when lesser mortals would have taken to their bed. Jeff was a good friend to many, generous and courageous. Above all he valued his family and it was fitting that they all returned home and were with him when he peacefully passed away on Sunday morning, 18 December 2005.

BELUGA AWARD 2006

It is appropriate to remind members that we are soliciting new nominations for the 2006 Beluga Award that will be made in May of this year. In order to make the nomination process clear we are re-publishing the criteria and the general guidelines for making the nomination.

The BIO-Oceans Association Beluga Award is intended to recognize past and present staff members of the Bedford Institute of Oceanography who have exhibited unselfish dedication to community spirit. The award is for an individual in any professional or technical field, craft, or skill, who has made exceptional contributions to success of projects, initiatives or programs, and whose contributions exemplify unselfish effort that encourages cooperation and fosters teamwork.

Any individual or group may make a nomination of candidates for the Beluga Award. Nominations should be prepared using the general guidelines listed below. Nominations must be sent to Dale Buckley (Chair of Beluga Award Committee), 21 Dumbarton Ave., Dartmouth, B2X 1Z7, or by email dbuckley@ns.sympatico.ca. **Nominations must be received**

by 15 February 2006. Candidates may be re-nominated in successive years.

In order to provide the Beluga Award Committee with sufficient information to make a selection of a successful candidate, please provide the following:

- 1) Candidate's name, home address and phone number.
- 2) A brief history of their association with BIO, including areas of specialization and organizational units in which they worked.
- 3) Examples of their spirit of cooperation within the institute, illustrating diversity of activities and specific contributions to the oceanographic community.
- 4) Examples of projects and initiatives undertaken that were successful due to their exceptional efforts.
- 5) The nomination may be supported by letters or citations from any source that confirm the candidate's suitability for the Award.

This will be our sixth Beluga Award, and it is with a great deal of pride that we note that past recipients represent a wide variety of skills and occupations. We note that most of the nominations were initiated by staff members who were not members of BIO-OA. We urge members to become more active in initiating nominations or supporting groups who are preparing nominations.

INTERIM FINANCIAL REPORT — 2 NOVEMBER 2005 TO 3 JANUARY 2006

By Bob Reiniger, Treasurer

OPERATING FUND

FOUNDATION FUND

| | | | |
|--|-----------------|--|---------|
| Opening bank balance — 2 November 2005 | \$305.64 | Opening bank balance — 2 November 2005 | \$71.18 |
| ▶ Income from fees | 30.00 | ▶ Bank interest | 0.02 |
| ▶ Bank interest | 0.02 | Closing bank balance | 71.20 |
| ▶ Expenses (see Notes on Expenses below) | (238.25) | | |
| ▶ Bank charges | (0.85) | | |
| ▶ Closing bank balance | 96.56 | | |
| ▶ Notes on Expenses: | | | |
| (1) UPS Store for newsletter printing | 238.25 | | |
| ING account | | | |
| Opening balance — 2 November 2005 | <u>6,128.03</u> | | |
| ▶ Interest | 26.93 | | |
| Closing balance | 6,154.96 | | |

Recently, a small BIO - OA reunion was held in Seattle attended by (left to right) Don and Pauline Lawrence and Clive and Elizabeth Mason.



ABOUT THE ASSOCIATION

The Bedford Institute of Oceanography Oceans Association 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 Environ-

ment, Fisheries and Oceans, and Natural Resources (or their predecessors) located in the Halifax Regional Municipality. Membership is \$5.00 per year, \$25.00 per half decade, or \$100.00 for a lifetime membership.

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