

# BIO-OCEANS ASSOCIATION NEWSLETTER

Issue 17, October 2002

On the web at: http://www.bedfordbasin.ca/



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### PRESIDENT'S NOTE:

## "Know the Past to Understand the Present, and Predict the Future"

By David Nettleship

I first sat hen down to start planning this issue's note, the key question over what of the many queries raised in the 'July 2002' president's note was worthy of pursuing here turned out to be more of a challenge than I had expected. Although the summer months were formally quiet, limited to a fun-filled early August gathering of some OA members near Portuguese Cove to savour and enjoy its seascape beauty, the urge to move ahead was ever present. Where should the focus be placed when we reconvene in the fall? Which one of the many goals identified earlier topped the list? It was like formulating plans for an assault on 'Everest', full of anticipation, uncertainty and nervousness. But in the end, the play and results turned out to be simple and straightforward.

A review of the checklist of "to do" things generated at our mid-May 2002 executive meeting and the subsequent synthesis performed in July, along with informal discussions with members in August, made me think that the easiest way to gain insight into the immediate needs of the Association is to ask officers and members what they feel is worth serious effort. Any list of things that identifies projects underway along with notes on goals and progress achieved to date, and other projects considered worthy, but as yet uninitiated, will present a useful starting point. Clearly, your idea of what rates the highest priority of things to do is probably different from mine, and both our lists will differ again from the one next door. So why try to nail things down in a neat little package? Doubtless a discussion of all the differences in priorities and opinions among individuals - executive members and the general membership at large - will generate something truly special, likely new ideas with far greater value than those from single individuals. That conclusion provided our 'marching orders' for the 24 September

2002 meeting of the BIO-OA executive, your representatives and 'voice boxes'.

And what a meeting it was! Three and a half hours of review, with emphasis placed on an examination of "In-progress" OA projects and a preliminary assessment of progress. The number of projects underway or under consideration is most impressive. (Can be seen via our website [www. bedfordbasin.ca) under "Executive Meeting Minutes".) We gave ourselves the task of reviewing the status of each individual project, assess its feasibility for further action and development, and establish working groups (for projects worthy of continued effort) to set precise goals and deadlines for completion of associated work tasks. Projects divided into three categories: archives (library, photo and equipment/artifacts); other major projects such as BIO chronology of events, staff publications (a bibliography), historical staff list, oral history, Beluga Award, etc.; and short-term projects (BIO annual report 2002, gift shop, etc.). By pooling our individual experiences and knowledge, we're attempting to build a set of work priorities that best fits the 'mission statement' of our BIO-

Oceans Association and members' choices for involvement.

The result of our first overview by the executive body was unanimous. Our immediate ambition should be to gather and safeguard our history by moving forward on archival projects. The rationale for doing so is simple: "To Know the Past is to Understand the Present, and to Predict the Future!" And so, the consensus that evolved was to start with 'Library Archives' and the development of a related BIO archival policy, and the identification of the BIO-OA role within it. Action is already underway with the establishment of a Library Archives working group under the careful chairmanship and guidance of Bosko Loncarevic in association with BIO Archivist Librarian Marilynn Rudi. Major strides forward are also being made with both the Archives' and 'Photo 'Equipment/Artifacts Archives'. Your Executive thinks now is the time for the most valuable feedback of all, tapping into the knowledge and opinions of all members (and non-members where possible), people who have actually produced and used the archival materials under discussion. I hope you will contribute your own thoughts and opinions

to the ongoing discussion through chairs of the newly established working groups (a full slate will appear over time) or directly to me. The best response will be a willingness to 'throw your hat into the ring' and volunteer to join one or more of the working groups that interest you! Everyone is welcome.

And there are many other things to announce. Fall 2002 activities abound under the 'helmsmanship' of our social directors, Jackie Dale and Ken Williams. On 16 October, let's gather and enjoy the fall colours and scenery by "Cruising/walking the eastern Trans-Canada Trail" with guide Roger Belanger. Later, on 6 November, we celebrate the fall season with our annual 'Wine and Cheese' festival at the BIO with guest speaker (our own Vice-President) Don Peer for an exciting and stimulating lecture entitled "Sailing to 'Byzantium' in schooner Peers' Fancy: a twoyear trans-Atlantic sail from Nova Scotia to Turkey return". [For details, see announcements and more in the OA Newsletter, and visit our web site at www. bedfordbasin.ca.] Lots of work and fun ahead!

## REMINDERS, NOTES, & OUTTAKES

- Tom Clarke is still looking for jam jars, plastic grocery bags, plastic containers, and toys for the food bank. Please let Jackie Dale know when you have any of the above, and we will make arrangements to pick them up.
- Mark these events on your calendar:

  Oct. 6th starting at 10 am: a TransCanada Trail walk led by Roger Belanger. Oct. 28th at 2 pm at BIO— Debut

meeting to plan a canal boat holiday to France in the fall of 2003. Nov. 6th at 7 p.m. A Wine and Cheese Party and travel talk by Don Peer at BIO.

Your editor goofed in the article titled "Of Peter Gzowski, the St. Roch, and the CSS Hudson" in our last issue (No. 16, July 2002). The second paragraph should have said that it was in 1997, and not 1987, that Roger Belanger set Peter G. straight on a little matter of Canadian oceanographic history!

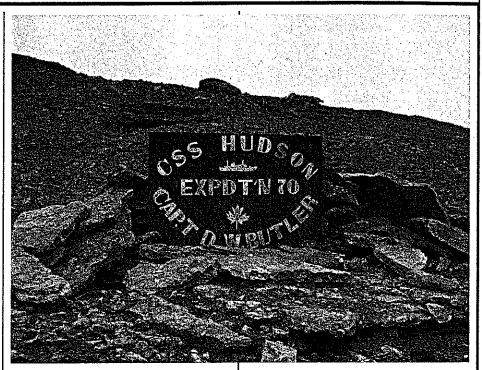
### **HUDSON '70 REVISITED**

By George Fowler, Ocean Physics, BIO

In the late summer of 1970, CSS *Hudson* nosed into Barrow Strait to start the last stage of the negotiation of the Northwest Passage as part of its historic circumnavigation of the Americas. To commemorate the occasion, a plaque was installed by ship's and scientific staff on a headland a few miles to the west of the current location of the town of Resolute Bay. It was built of bronze and aluminum, by hand, by Bosun Joe Avery in his workshop onboard ship.

This past August, personnel from Ocean Physics and Technical Services were involved in the deployment and recovery of oceanographic instruments in Barrow Strait as part of the long term Arctic Through Flow program. Plans called for disembarkation at Resolute.

When Bosko Loncarevic, who was a member of the scientific party on the final leg of Hudson '70, heard of our visit to this remote community, he asked if we could try to track down the plaque and report on its condition and exact location. As luck would have it, we were weather bound in Resolute and were able to make contact with a local resident, Paul Amagoalik, who thought that he remembered seeing a marker with a name like Hudson on it and was prepared to guide us to the area where it might be found. Paul is very interested in the history of his small community, having been born on



the ship which carried the native resettlement expedition to Resolute Bay in 1953.

Resolute Bay has changed a lot since Hudson first sailed off its shores. Then, a massive dump covered the shale beach and extended a considerable distance westwards from the town, a product of the cold war and the fact that just about anything shipped to Resolute never leaves. The town itself was jammed in squalor between the beach, the dump, and the end of the airport runway. Now the dump has been buried and the town itself moved eastward where it has been reestablished as a modern, vibrant, self-directed community. The residents are very proud of the transformation

Taking into consideration the changed geography of dump and town, it still took about two hours of searching in the fog and cold to find the plaque. It is located

about 30 m above sea level on a rock outcrop at Cape Martyr. This is where Franklin would have turned east, 125 years prior to Hudson, after circling Cornwallis Island on his way to winter at Beechy Island where the tragic destiny of his expedition would begin to unfold. The plaque itself is in remarkably good condition, except for a few bullet holes. Bosun Avery made a fine job of it and, barring vandalism, there is no reason why this memorial to Canadian scientific endeavour will not last long into the future.

### RESTAURANTS

By Jackie Dale

Many thanks to those of you who responded to our request for names of good restaurants around the province. Following is a list of the restaurants recommended to date. Since we do not have the space to include the more detailed descriptions received with the recommendations, we are here

providing only a "bare bones" list. Eventually, we would like to produce a detailed list of recommended eateries throughout the Atlantic provinces to all members, so please continue to send along your suggestions to Marlene Karg (434-8617) or Marlene Karg@webtv.net. The list would make a handy addition to your car's glove compartment. \displays

NEWFOUNDLAND	St. John's	
Aqua Restaurant/ Bar	310 Water St.	V. good food; a bit expensive
Bianca's	171 Water St.	Fine dining
Casa Grande	108 Duckworth St.	Mexican; good value
Cellar Restaurant	Baird's Cove (Water St.)	Fine dining
Coffee & Company	204 Water St.	Great coffee, good lunches
Django's	190 Duckworth St.	Great for lunch
Magic Wok Eatery	402-404 Water St.	Best Chinese food in town
Papa's	13 Rowan St.	Good food
The Pepper Mill	178 Water St.	Excellent for lunch
Press & Bean	Murray Premises, Water St.	Nice for lunch or light dinner
Quintanas	57 Rowan St.	Mexican; good value
NOVA SCOTIA	Halifax Region	
Cellar Bar & Grill	1516 Bedford Highway	Good food reasonable prices
Boondocks	Fisherman's Cove, E. Passage	Great fish, good prices
Mexico Lindo	365 Dutch Village Road	Great Mexican, good value
Nenaugh's	Plaza at Farnham Gate Road	Good halibut, evenings only
Inn on the Lake	Waverley Road	Excellent prime rib
Inn on the Lake NOVA SCOTIA	Waverley Road <u>Annapolis Valley</u>	Excellent prime rib
	-	Excellent prime rib  V. good food and prices
NOVA SCOTIA	Annapolis Valley	
NOVA SCOTIA  King's Arms Pub	Annapolis Valley  Main Street, Kentville	V. good food and prices
NOVA SCOTIA  King's Arms Pub  Leo's Café	Annapolis Valley  Main Street, Kentville  Annapolis Royal	V. good food and prices
NOVA SCOTIA  King's Arms Pub  Leo's Café  NOVA SCOTIA	Annapolis Valley  Main Street, Kentville  Annapolis Royal  South Shore + other locations	V. good food and prices V. popular, good light meals
NOVA SCOTIA  King's Arms Pub Leo's Café  NOVA SCOTIA  Galley Seaside Restaurant	Annapolis Valley  Main Street, Kentville  Annapolis Royal  South Shore + other locations  3 km west of Chester	V. good food and prices V. popular, good light meals Great chowder & fishcakes
NOVA SCOTIA  King's Arms Pub  Leo's Café  NOVA SCOTIA  Galley Seaside Restaurant  Magnolia's Grill	Annapolis Valley  Main Street, Kentville  Annapolis Royal  South Shore + other locations  3 km west of Chester  Lunenburg (Montague St.)	V. good food and prices V. popular, good light meals Great chowder & fishcakes Very popular; great food
NOVA SCOTIA  King's Arms Pub  Leo's Café  NOVA SCOTIA  Galley Seaside Restaurant  Magnolia's Grill  The Turkey Burger	Annapolis Valley Main Street, Kentville Annapolis Royal South Shore + other locations 3 km west of Chester Lunenburg (Montague St.) New Germany	V. good food and prices V. popular, good light meals Great chowder & fishcakes Very popular; great food Very popular local eatery
NOVA SCOTIA  King's Arms Pub Leo's Café  NOVA SCOTIA  Galley Seaside Restaurant  Magnolia's Grill  The Turkey Burger  Risser's	Annapolis Valley Main Street, Kentville Annapolis Royal  South Shore + other locations 3 km west of Chester Lunenburg (Montague St.) New Germany Lunenburg (94 Pelham St.)	V. good food and prices V. popular, good light meals Great chowder & fishcakes Very popular; great food Very popular local eatery Fine dining; creative menu
NOVA SCOTIA  King's Arms Pub  Leo's Café  NOVA SCOTIA  Galley Seaside Restaurant  Magnolia's Grill  The Turkey Burger  Risser's  Seaside Chanty	Annapolis Valley Main Street, Kentville Annapolis Royal South Shore + other locations 3 km west of Chester Lunenburg (Montague St.) New Germany Lunenburg (94 Pelham St.) Chester Basin, Govt Wharf	V. good food and prices V. popular, good light meals Great chowder & fishcakes Very popular; great food Very popular local eatery Fine dining; creative menu Great food by the ocean
NOVA SCOTIA  King's Arms Pub  Leo's Café  NOVA SCOTIA  Galley Seaside Restaurant  Magnolia's Grill  The Turkey Burger  Risser's  Seaside Chanty  Shatford's Lobster Pound	Annapolis Valley Main Street, Kentville Annapolis Royal South Shore + other locations 3 km west of Chester Lunenburg (Montague St.) New Germany Lunenburg (94 Pelham St.) Chester Basin, Govt Wharf Route 329, Blandford Penin.	V. good food and prices V. popular, good light meals Great chowder & fishcakes Very popular; great food Very popular local eatery Fine dining; creative menu Great food by the ocean Take out only, great lobster
NOVA SCOTIA  King's Arms Pub Leo's Café  NOVA SCOTIA  Galley Seaside Restaurant  Magnolia's Grill  The Turkey Burger  Risser's  Seaside Chanty  Shatford's Lobster Pound  The Austria Inn	Annapolis Valley Main Street, Kentville Annapolis Royal  South Shore + other locations 3 km west of Chester Lunenburg (Montague St.) New Germany Lunenburg (94 Pelham St.) Chester Basin, Govt Wharf Route 329, Blandford Penin. Yarmouth	V. good food and prices V. popular, good light meals Great chowder & fishcakes Very popular; great food Very popular local eatery Fine dining; creative menu Great food by the ocean Take out only, great lobster Great food, prices
NOVA SCOTIA  King's Arms Pub  Leo's Café  NOVA SCOTIA  Galley Seaside Restaurant  Magnolia's Grill  The Turkey Burger  Risser's  Seaside Chanty  Shatford's Lobster Pound  The Austria Inn  Café Chez Christophe	Annapolis Valley Main Street, Kentville Annapolis Royal South Shore + other locations 3 km west of Chester Lunenburg (Montague St.) New Germany Lunenburg (94 Pelham St.) Chester Basin, Govt Wharf Route 329, Blandford Penin. Yarmouth Grosses Coques, Digby Co.	V. good food and prices V. popular, good light meals Great chowder & fishcakes Very popular; great food Very popular local eatery Fine dining; creative menu Great food by the ocean Take out only, great lobster Great food, prices Acadian home-style cooking
NOVA SCOTIA  King's Arms Pub  Leo's Café  NOVA SCOTIA  Galley Seaside Restaurant  Magnolia's Grill  The Turkey Burger  Risser's  Seaside Chanty  Shatford's Lobster Pound  The Austria Inn  Café Chez Christophe  Mariner Dining Room	Annapolis Valley Main Street, Kentville Annapolis Royal South Shore + other locations 3 km west of Chester Lunenburg (Montague St.) New Germany Lunenburg (94 Pelham St.) Chester Basin, Govt Wharf Route 329, Blandford Penin. Yarmouth Grosses Coques, Digby Co. Auld's Cove, Antigonish Co.	V. good food and prices V. popular, good light meals Great chowder & fishcakes Very popular; great food Very popular local eatery Fine dining; creative menu Great food by the ocean Take out only, great lobster Great food, prices Acadian home-style cooking Popular, reasonable prices

### PASSAGES BRIEFLY NOTED

Andrew (Andy) Stewart Atkinson, 77, Nictaux, passed away July 14, 2002. Andy managed the BIO Engineering Services group ca 1964-1970.

Henry William Baptiste died on October 7, 2002, at the age of 69. Henry was a member of the crew of the *CSS Baffin* for several years.

Malcolm Alexander "Mack A" Campbell, passed away on August 27, 2002, at the age of 74. He is survived by his wife, Doreen, a past staff member of BIO.

Captain Neil B. Langille died at home Saturday, July 20, 2002, at the age of 67. He worked at the Bedford Institute of Oceanography for 20 years as master of the RV Navicula.

Russell Cameron Melanson died peacefully July 4, 2002, at the age of 79. Russ retired from BIO, where he was Atlantic Regional Hydrographer for the Canadian Hydrographic Service for many years.

Victor Penney passed away in June 2002. He was a carpenter who sailed aboard the CSS *Hudson* during her full circumnavigation of the Americas in 1970.

William (Bill) H. Sutcliffe passed away September 17, 2002, at his home in Bakersville, North Carolina. Bill was a scientist with the Marine Ecology Laboratory at BIO from 1967-1981.

Mitchell Sherman "Bill" Williams, 80, passed away on August 8, 2002. Bill worked as a stationary engineer at the Bedford Institute of Oceanography. +

## MORE ADVENTURES ON THE YUCATAN PENINSULA OF MEXICO – WINTER 2002

By Elizabeth Mason

[Editor's Note: This is the second installment of our report on the Mason's holiday sojourn in Mexico last winter. Since our first issue appeared, the Yucatan Peninsula felt the full fury of Hurricane Isidore and suffered loss of lives and a lot of property damage in consequence. On October 3<sup>rd</sup>, Mexican President Vicente Fox announced aid equivalent to more than \$630 million Canadian to help rebuild the area: those efforts are ongoing at this time.]

Towards the end of our stay, we felt bold enough to tackle a 2 day trip using public transport. We were, by then, well used to the buses and collectivos that run back and forth between Chicxulub and Progresso. No bus stops.... just stand on a corner and wave at the driver. The collectivos (minivans) are in a variety of conditions ranging from very good to abysmal. The driver packs in as many as he can and most of the time the sliding door stavs shut. It's best not to look down, as it is sometimes the road whizzing by rather than the floor...but fortunately there is usually loud Mexican music to distract you. When you want to get off you yell "Baa Haa"!! For this experience, the price is 2.5 pesos or 50 cents.

Anyway, off we went to Progresso first and then to Merida, clutching our overnight bags. A 10 minute hike to another bus station and onto the 9:30 am bus to

Chichen Itza. It is a fast road and the trip takes about 2.5 hours. We are dropped at the entrance to the ruins but we are hungry and we take a taxi to our hotel in the nearby village. We have a special deal of \$100 US for room (3 meals included) so we eat a large buffet lunch and head back to the Mayan ruins where we happily spend the next 4 hours.

This time the weather is ideal ... cloudy and cool, so with our guide book in hand we do not miss a single stone. We even manage to climb up the inside of the big pyramid to the top of an older smaller pyramid. The 91 steps on the outer skin were too much to face even for those with new hip joints! We stayed for the Sound and Light show... much of the Light coming from a massive full moon which added to the atmosphere. Back to the hotel for a fabulous Margarita and our evening meal.

Next morning after breakfast our pre-arranged collectivo came and picked us up and then went to the village square to fill up with other passengers wishing to go to Val-(Bayadolid). When he ladolid had 16 passengers we thought he would leave but no - two more travelers appeared and were escorted to the section behind the back seat where our luggage was There were two little stored. milking stools perched ready to receive them. So 19 warm bodies (one child and a baby included) scooted around the countryside and were deposited in the centre of this colonial town all painted a delightful Mexican yellow.

Our driver went to considerable trouble to find us a left luggage which turned out to be a wooden shed in the Bus Station in full view of the rather scruffy passengers waiting to catch their buses. The door was held shut with a bent nail and no one appeared to be in a position to keep an eye on it so we removed our passports and hoped for the best. Six hours later we returned to find nothing had been disturbed or removed. Try that in Toronto!!

On our return to Merida, we found it very dark due to a major power failure. We stumbled through the quiet streets by the light of our trusty flashlights and the ever friendly moon. We did get somewhat lost trying to find the next bus station but after a plaintive "Habla usted Inglese?" someone was magically produced who set us off in the right direction. Throughout our stay we encountered nothing but kind, friendly, helpful people. A month is probably the minimum ideal length of stay because of the unpredictable weather in Jan or Feb.

You can probably tell from all this that we really enjoyed our stay in the Yucatan and it changed many of our preconceived ideas about Mexico and its people

GENERAL INFORMATION: Getting there:

Flying to Cancun is easy to ar-

range but to extend your flight on to Merida is very expensive. We decided to take a SuperExpress bus from Cancun bus station to Merida (a 4 hour trip and \$50 Can return), thereby saving muchos pesos. We pre-arranged a pick up in Merida as continuing to Chicxulub by bus, with luggage, is not practical.

### Transportation:

If you need either a) pick-up or return at Cancun or Merida Airport or return and/or b) 1 or 2 day tours to sites and attractions in Yucatan, Campeche, or Quintana Roo states in a comfortable, reliable van with meals and accommodation arranged and knowledgeable licensed Tourist guide—contact Pedro Flores at pedropep@hotmail.com\_ Pedro speaks excellent English and is a mine of useful information for visitors.

#### Accommodation:

There is an outfit called South Nest which advertises condos in the Globe and Mail. However we came across a lot of their customers who were not happy with their accommodation. To enquire about Villas del Mar contact Ruel Rasmussen (manager) at 011-52-969-0341 or email: RUEL1@prodigy.net.mx (except during July and August). Some servers seem unable to contact prodigy. net.mx. Ruel is a very helpful and friendly American.

The cost is around US \$1000 per month for a 3 bedroom unit. Often two couples share the cost. There are some nice B and B's in Progresso and Merida as well, of course, as hotels though I didn't see any hotels in Progresso that looked very appealing. You could also try marta78@hotmail.com. or 011-52-999-941-2023. Marta sells and rents houses in Merida and Celestun. Celestun is very small and quiet (good bird watching) but Merida has a great atmosphere and the resident English speaking community meets regularly.

Maison Lafitte is a very attractive small Merida hotel /B and B, centrally located. Check out info@turqreef.com or call 1-800-538-6802 A good English speaking B and B in Progresso is Casas D on Quixote (cas-saquixote@prodigy.net.mx). There is a demand for English teachers in the area if that would appeal. Car rental: try worldrentacar@hotmail.com Tel: 011-52-99-24-0587; Fax 011-52-99-24-7600

### Weather:

It is winter for the Yucatecans too and the weather tends to be very changeable just like Nova Scotia except you don't need a jacket or a snow shovel during the "cold" spells. We experienced temperatures as low as 15 °C and as high as 34 °C. There were several heavy rain and wind storms. March is more settled but gets very hot towards the end of the month. •

## NOTEWORTHY READS - BOOK REVIEWS IN BRIEF

By David N. Nettleship, Editor

Reviewers: M. Latrémouille, D.N. Nettleship

Aczel, Amir D. 2001. The Riddle of the Compass: The Invention that Changed the World. Harcourt Brace & Co., New York, NY. 240 pp. Hardcover, c. \$37.00 (ISBN 0151005060).-- A summary review of the development of the magnetic compass from its original use as an ancient Chinese divination tool to its development as a navigation device in Venice and later societies during the 'Great Age of Exploration'.

Adovasio, James M. with Jake Page. 2002. The First Americans: In pursuit of Archaeology's Greatest Mystery. Random House, New York, NY. 352 pp. Hardcover, \$39.95 (ISBN 0375505520).— An insightful new look at the ongoing challenges in understanding the original inhabitants of the 'New World', containing a wealth of insider's perspectives on the long-running scientific controversy of 'Who were America's first peoples?'

Avise, John C. 2002. *Genetics in the Wild*. Smithsonian Institution Press, Blue Ridge Summit, PA. 192 pp. Hardcover, c. \$46.00 (ISBN 1588340694).-- Shows how the careful study of animal and plant DNA has resolved puzzles surrounding the growth and behaviour of flora and fauna worldwide.

Burger, Joanna. 2001. The Parrot Who Owns Me: The Story of a Relationship. Villard Books, Random House, Inc. New York, NY and Toronto, ON. 245 pp. Hardcover, \$35.95 (ISBN 0679463305).— A fascinating insight into cross-species communication and interactions delivered by an unusually talented senior animal behaviourist. Overall, a delightful, sometimes hilarious, always enlightening narrative of not only the science of birds, but about ourselves and our relationship with other living things. A super and captivating read.

Byatt, Andrew, Alastair Forthergill and Martha Holmes. 2001. *The Blue Planet: Seas of Life*. Dorling Kindersley, New York, NY. 384 pp. Hardcover, \$46.25 (ISBN 0789482657).-- A highly illustrated account of ocean waters that reviews six marine habitats -- coastal areas, tropical seas, temperate seas, frozen seas, the open ocean, and the deep -- and the species that inhabit them.

Ellis, Richard. 2000. *Encyclopedia of the Sea*. Alfred A. Knopf, New York, NY. 448 pp. Hardcover, \$53.00 (ISBN 0375403744).-- A unique and comprehensive layman's guide to the Earth's oceans, the plants and animals that occupy them, and the stories of the deep.

Ellis, Richard. 2001. *Aquagensis: The Origin and Evolution of Life in the Sea*. Viking Penguin, New York, NY. 316 pp. Hardcover, \$38.00 (ISBN 0670030236).— Spans a period of 350 million years -- from the invasion of some organisms onto land to the return of some mammals to the seas 50 million years ago -- an insightful overview of a remarkable path of evolution.

Gould, Stephen J. (ed.). 2001. The Book of Life: An Illustrated History of the Evolution of Life on Earth. Penguin Books, New York, NY. 256 pp. Hardcover, \$45.00 (ISBN 0393050033).-- Artists and scientists team up, under supervision of Gould, to fuse colour images and paleontological insights to chart the development of life on earth, from its origin to the succession of mammals.

Gould, Stephen J. 2002. *The Structure of Evolutionary Theory*. Harvard University Press, Cambridge, MA. 1,464 pp. Hardcover, \$62.00 (ISBN 0674006135).— Gould's 'life work' and final synthesis of classical Darwinism showing how it is rooted in a trio of fundamental principles, and what it represents to his own view of the structure of Darwinian theory.

Gould, Stephen J. 2002. I Have Landed - The End of a Beginning in Natural History. Harmony Books, New York, NY. 418 pp. Hardcover, \$39.95 (ISBN 0609601431).-- This title, the author's last book before his death at 61 of cancer this year (2002), is based on the nearly 300 consecutive essays he wrote monthly and without missing a single deadline for Natural History magazine from 1974 to 2001.

Helvarg, David. 2001. *Blue Frontier: Saving America's Living Seas*. W.H. Freeman & Co., New York, NY. 320 pp. Hardcover, \$39.95 (ISBN 0716737159).-- Reviews ocean habitats endangered by inadequate government policy, overfishing, poorly regulated oil drilling and transport, and expanding human populations along North American coastlines.

Hunter, Robert. 2002. 2030: Confronting Thermageddon in Our Lifetime. McClelland & Stewart, Toronto, Ontario. 288 pp. Hardcover, \$36.99 (ISBN 0771042388).— A thoughtful and informative review of a most important and disturbing topic by one of Canada's leading environmentalists. Subjects addressed include: "Is our time on earth running out?" and "Why we need the Kyoto Accord".

Kricher, John. 2002. Galapagos. Smithsonian Institute Press, Purple Ridge Summit, PA. 240 pp. Hard-

cover, \$57.75 (ISBN 1588340314).— One of the latest additions to the Smithsonian Natural History Series, Kricher's account offers a comprehensive study of the South Pacific archipelago's geology, vegetation, and marine and terrestrial fauna. It includes faunal overviews from the giant tortoise to the 13 native species of finches, and the impact of Darwin's visit in 1835.

McPhee, John. 1999. Annals of the Former World. Penton, New York, NY. 704 pp. Hardcover, \$39.95 (ISBN 1879557576).— A comprehensive primer of North American geology that includes a concise explanation of plate tectonics, an exploration of the lives of the geologists who conducted some of the most ambitious surveys ever undertaken, and their continued significance today. (Softcover edition released 2000, \$28.95.)

Parker, Steve and Jane Parker. 2002. The Encyclopedia of Sharks, Revised Edition. Firefly Books, New York, NY. 192 pp. Softcover, \$24.95 (ISBN 1552976386). — An updated revised edition of an important work that covers the amazing diversity of shark species and habitats worldwide. It also reviews the group's evolution, physical traits, mating and feeding practices, and relations with humans, supplemented with colour photographs.

Pinker, Steven. 2002. The Blank Slate: The Modern Denial of Human Nature. Penguin Books, New York, NY. 528 pp. Hardcover, \$38.99 (ISBN 0670031518).—A provocative and detailed account that questions the correctness of current mainstream scientific thinking about inherited and learned human behaviour in relation to differences in intelligence or behavioural tendencies. Overall, a most thought provoking and stimulating read.

Scott, J. Karen and Joan E. Kieser (eds.). 2002. Northern Nurses: True Nursing Adventures from Canada's North. Kokum Publications, Oakville, Ontario. 156 pp. Hardcover, no price available. 156 pp. (ISBN 0973039205; BIO Library call # RT 6 .A1 S3 2002). — A collection of short stories written by 34 health professionals (mostly nurses) who have spent extended periods of time in Canada's north over the past 50 years. Illustrated throughout with several photos & maps. Proceeds from the sale of this book will go towards a Northern Nursing Scholarship Fund. Karen Scott served as ship's nurse on the CCGS/BIO 'Hudson'.

Sedge, Michael. 2002. The Lost Ships of Pisa: The Discovery of the Undersea Pompeii. Simon & Schuster, New York, NY. (ISBN 0743452658). 256 pp. Hardcover, \$38.00.— Answers the myriad of questions raised following the discovery in 1998 of the well-preserved remains of 16 ancient ships in San Rossore, Italy, including a wooden Roman ship at least 2,000 years old. Sheds light on one of maritime history's longest-hidden secrets, and insights on ancient Roman shipbuilding.

Skoyles, John & Dorion Sagan. 2002. *Up from Dragons: The Evolutionof Human Intelligence*. McGraw-Hill, New York, NY. 448 pp. Hardcover, \$44.95 (ISBN 007137825).-- An intriguing trace of the origin of human intelligence back to its animal roots to explain the critical differences between our brains and our primate ancestors.

Solomon, Susan. 2001. The Coldest March: Scott's Fatal Antarctic Expedition. Yale University Press, Cambridge, MA. 416 pp. Hardcover, \$46.50 (ISBN 0300089678).— Meteorological insights and analyses to show that the unusually cold temperatures — 20 degrees F below normal — may have been a principal determinant of the deaths of Captain Robert Scott and his men on their return journey from the South Pole in 1912. •

### **BIO NEWSLETTERS**

By Bosko Loncarevic

Newsletters by and about BIO staff have been published throughout the Institute's 40-year history following the tradition of ship journals and newspapers. An interesting series was BIO World, which was published between 1967 and 1979. Initially coordinated by Vivian Kerr in Dr. Ford's office, the editing passed into the hands of the BIO Staff association (Ron Loucks, President) and others. The BIO World was 3-10 foolscap pages long and was printed by ICNAF (Hartie Champion and staff). Initially it had a somewhat irregular publication schedule. It carried reports on ships activities and often excerpts from Chief Scientists' weekly briefings. There were reports of activities of various scientific groups, lists of visitors, planned travel, and a general social commentary. Today, these newsletter issues provide a nostalgic glimpse of BIO as it was a generation ago. We will publish highlights from the BI World in this and future issues. The newsletters are also available on our WEB site through the "Archives" link...

## FROM THE ARCHIVES...35 YEARS AGO

{Jan. 16, 1967, Vol. 1. No. 1}The first letter started with "There are now 296 of us working at Institute " ... HUDSON sailed January 16 for three months in the Irminger Seas, Norwegian Sea and Denmark Strait.. Full time participants included C.R.Mann, A.B. Grant, J.R.N. Lazier, B.D. Carson and C.K. Ross from BIO, L.V. Worthington from WHOI and J.C. Swallow from NIO.... BAFFIN sailed Jan. 6 for eight weeks hydrographic training in the Caribbean ... Roy Peck was selling a set of winter tires for \$25.00.

{Jan. 31, 1967, Vol. 1, No. 2} HUDSON departed Reykjavik Jan. 28. Last week she encountered extremely bad weather. "One winch was damaged and one lifeboat is in need of repair. One steering pump became defective" ... Engineering Services "will be installing a system to receive and distribute time signals within the Institute, using CHU" ... Depot

workshops have completed the construction of a non magnetic hut at the north end of the Institute property – to be used primarily for an electromagnetic model experiment by Dr. Srivastava." ... A contract has been let to construct an overhead passageway between the main building and the depot. ... Visitors included Sir Edward Bullard, Dr Paul Serson and a USNOO aircraft with VLF-Omega navigation equipment onboard... ... The staff proposed to travel to Ottawa, San Juan, Porto Rico, Washington, D.C., London and Cambridge, England and Mexico City.

{Feb. 15, 1967, Vol. 1, No. 3.} New joint Oceanography program between WHOI and MIT was discussed. ... BAF-FIN on hydrographic training around Antigua. "Weather conditions, by local (not Canadian) standards, were poor throughout January. The work around Antigua was not affected but the necessary control for ship sounding between Antigua, Montserrat and Nevis was badly hampered." ... Dr. Ford gave a seminar billed "HUDSON and the cruel sea." ... "One AVO Meter Model 8 wandered away from Electronic Design Lab. Anyone knowing its whereabouts, PLEASE notify Harry MacPhail, Local 244."

{Mar. 1, 1967, Vol. 1 No. 4} Message from HUDSON: "Penetrated heavy ice broken from main pack at end of line three successfully STOP Set transponder buoy successfully in heavy swell west of Reykjaness Ridge STOP Tracking four Swallow floats." ... A workshop on Continental Margins at Dalhousie U. reported "a large sedimentary basin on the west coast of Greenland is inferred from magnetic measurements."

{Mar. 17, 1967, Vol. 1, No. 5} HUD-SON, extract from a letter from Dr. Mann: "Not much luck this leg. We had to leave the line from Rockall to Greenland out when it became necessary to put back to Londonderry. We than had to make straight for the Denmark Strait to go for the current meters. On our first pass down the line, we found nos. 1, 2, 4, 5, 6 all pinging – no sign of no. 3 – and brought up no. 5. There was ice cover at the western end of the line

and nos. 1 and 2 were under it. We triggered nos. 1, 2, 4 and 6 but they did not come up. No. 6 has moved two miles from its original position but seems to be upright. The others were double pinging which means they are lying on the bottom." ... BAFFIN returned March 17 and ETD Monaco on April 5... Halifax Tide Gauge recorded a height of 10.15 feet on February 23, 1967 at 19365 hours which is believed to be the highest ever recorded (previous highest 9.5 ft.).

{May. 5, 1967, Vol. 1, No. 6} HUDSON at EXPO '67: Dr. Gilbert reports that " HUDSON is considered on of the stars of EXPO and matches any pavilion there. A crap game played on the computer (French version by Stu Smith) is a big hit, and so is the fish tank stocked mostly by live fish bought by HUDSON from a trawler on her way to Montreal. -So far there have been 9,000 visitors the supply of pamphlets ran out by Wednesday." ... Marine Geophysics discussed the need "to develop a system for filing and processing the 6,000 or so photographs taken on the 1966 MAR Cruise." ... A plea to return a 10" GER-BER variable scale borrowed from Marine Geophysics Lab. ... "Anyone needing 100-watt 120 V projection lamps, see Don Lawrence, Room 315."

{July 12, 1967, Vol. 1 No. 7}An EDI-TORIAL asked staff for better support. "This newsletter was proposed and first issued in January with a frequency of two issues per month. This has since dwindled to one issue in the past three and a half months. There has not been a lack of activities and events in these past few months. However, with the exception of one group in the Institute - Marine Geophysics - no effort has been made to report these activities." ... Metrology Group sailed on HUDSON June 10 for work around San Pablo seamount and Flemish Cap. ... Marine Geophysics Section became interested in computer graphics - work is proceeding to communicate with the PDP-8 computer by drawing pictures on the face of an oscilloscope. ... Station magnetometers were set up in Newfoundland - in conjunction with the magnetic survey carried out on CSS BAFFIN. ... Permission received from Ottawa to award the

contract to build a fish studies laboratory – just north of the depot. – "Much of the work in the laboratory will involve measurements which are influenced by the activity of the experimental animals. For this reason the public cannot be given free access to the laboratory." ... Consideration is being given to have a BIO Christmas letter or Card printed for official or personal use. ... The list of names proposing to attend IUGG in Switzerland has grown to 11.

{July 28, 1967, Vol. 1, No. 8} Dr. Srivastava took part in an SIO cruise on board OCANOSTOTA. The purpose was to lower a single component magnetometer and a self-contained earth current reorder to the bottom of the ocean near the California coast. ... Dr. Fred Vine who was working with the Marine Geophysics Group for the past month has left and is now touring the west coasts of Canada and the US. Mr. Dick Haworth from Cambridge University is back here for two months to continue his analysis of the cross-coupling errors of the sea gravimeters. ...FRB announced the arrivals of Dr. K.H. Mann, Mr. D.D. Sameoto, Dr. W. H. Sutcliffe, Mr. A. D. MacDonald, Dr. W.G. MacIntyre and Dr. B. S. Muir. ... Again this year, as in the past three, the City of Dartmouth is providing guides for tourists and others who wish to view BIO facilities. ... This issue introduced a current listing of BIO Publications: 4 Manuscript Reports, 12 Internal Notes, 1 Computer Note, 13 publications in outside journals.

{Aug. 22, 1967, Vol. 1 No.9} On the July 18, a proton precession magnetometer station was set up. Digital and analogue recordings are being made in Room 231. ... The BIO Staff picnic was held on the afternoon of Wednesday, August 16<sup>th</sup>, at Point Pleasant Park. "Although the Picnic Committee (Bobby Fudge, Bill Findlay, and Bill Moore) and the Staff Association carefully chose one of the few sunny summer days, the turnout was rather small". ... Among new arrivals: A. Herman, P. Kingston, J. A. Neu, Carol Schofield. ... Also, goodbye to approximately 60 summer students.

{Sept. 20, 1967, Vol. 1, No. 10} A list of 13 suggestions by the staff for the new name for the newsletter included such gems as BIO-LOG, BIO-

GRAPHY, BIO BEACON and BIO BABBLINGS. The Marine Geophysics Group plans to test a newly designed marine refraction system. A Bolt Model 800A "air gun" will be evaluated and its energy compared with dynamite charges. ... BAFFIN had recently returned from a 3-month hydrographic survey cruise off the Grand Banks, a continuation of a project commenced by BAFFIN in 1963. Applied Oceanography reports that the Current Measuring Program was terminated on 15 September. R. Douglas and D. Wells are at present aboard BAFFIN evaluating DECCA digitization. ... Dr. K. H. Mann is organizing a symposium on environmental studies and productivity in St. Margaret's Bay. ... A television program about BIO was featured on CBC TV 3 weeks ago starring Drs. Ford, Dickie and Trites. There is a brand-new Xerox machine in Central Registry.

{Oct. 26, 1967, Vol. 1, No. 11} The new name of the newsletter is B.I. World (not on the list of 13 reported in No. 10!) All hydrographic survey establishment expected to return to BIO by the end of the month. ... Larry Murdock and Dick LeLievre have returned from the Managerial Grid Course ... In Metrology, a PDP-8 computer is being installed and will be available for use by others in the Institute. A. Bennett, J. Brooke and R. G. Gilbert attended IUGG meetings and came to "a general conclusion after conference, and visits to N.I.O (England), Cambridge, etc, is that the Bedford Institute is doing quite well in comparison to other institutes." ... The new communications Lab located on the fifth floor, or "penthouse" is now in operation under the guidance and supervision of Bill Shearman. ... The award of a contract to the Atlantic Shipbuilding Company of Lunenburg to build a new 65' research vessel was announced. ... Among "new faces": Ted Breen, J. M. Bewers, M. E. Wournell, J. R. Lord and E. A. Verge.

{Nov. 16, 1967, Vol. 1, No. 12} This issue carried a long report on the XIVth Congress of the International Union of Geodesy and Geophysics. "The Canadian delegation with over 90 members was third or fourth largest among 60 National delegations. The recognition of the achievements of the Bedford institute as evidenced by the interest of many scientist in our work, was especially grati-

fying. The high technical quality of all BIO illustrations was very noticeable and we all wish to acknowledge the assistance of the graphical analysis and photographic groups." ... LABRADOR and THETA returned on 13 November concluding extensive test of a newly designed marine seismic refraction system. The air-gun proved to be an extremely effective source for deep seismic refraction surveys." ... The stable floating platform, a tower extending 100 feet below the water line and 20 feet above, has been anchored off Chebucto Head. ... The THETA recently completed reservicing current meter and temperature recorder moorings on the Scotian Shelf. These were out for 60 days. ... "There have been some comments on the foul odor that comes from the recorder paper of the new EDO Model 9040 Echo Sounder. It has not been decided yet whether to impregnate the paper with a suitable perfume or to provide each operator with a spray can of deodorant." ... "We [Hydrography] have been given goahead for acquisition of a large process camera and Norm Fenerty is now writing the requisition ... The library will be undergoing a series of renovations over the next few months. ...

{Dec. 7, 1967, Vol. 1, No. 13} Dave Wells visiting Magnavox and I.T.T on a fact-finding mission on satellite receivers. Vic Gaudet who entered hospital on Nov., returned to duty on 4 December. ... We have just learned that the Scripps Institution deep tow FISH was lost on 20 Nov. when the cable parted at eight thousand pounds tension with forty-two hundred meters out. ... BIO has just acquired three DECTAPE units for each shipborne computer. ... Dr. J. I. Marlowe has returned from the West Indies where he visited government officials in preparation for HUDSON's winter cruise to the Lesser Antilles. ... Dr. L. H. King returned to work a few weeks ago after a long lay-off due to a knee injury. Marine Geology section recently loaned the underwater T.V. to a nearby laboratory to help search for a lost body (metallic) in the Bedford Basin. ... The completion date for the Fish Studies Lab will be 28 January next. Plans are also progressing for a trailer lab site immediately north of the new building. ... Among "new faces": D. A. Clattenburg and James Frost. +

### PROPOSED 2003 CANAL BOAT HOLIDAY IN FRANCE

In June 2000, we proved that nearly a dozen BIO-OA members and friends could enjoy a fun, economical trip to Europe together and in grand style. In the fall of 2003, we want to repeat the experience...this time in France. COME ATTEND OUR FIRST MEETING TO PLAN THIS TRIP;

When? Monday, October 28, 2002 at 10:00 a.m.

Where? At BIO in the Ocean Sciences Board Room, 4th Floor of the Van Steenburgh Building

Who? Everyone Welcome

[For further info., call Michael Latremouille at 434-4036]

If you need more information before the meeting, check out the one-week trip on the Canal du Midi described at http://www.housesforhire.com/html/Areas-France/CanalBoats.htm.

Elizabeth Mason has started to do some research on canal boat holidays in France. She reports that the Canal du Midi - its food, sights, and wine - deserve lots of exploration. Also, she has found a company to organize the trip, Le-Minervois, that is run by English-speaking New Zealanders. Check their website at: http://www.barginginfrance.com/minervoishome.htm or http://www.minervoiscruisers.com/e/index.htm

HOPE TO SEE YOU THERE.

### ON THE LIGHTER SIDE

#### A Science-Minded Soul

A science-minded soul, hoping to double his production, flew to Scotland, had himself cloned, and brought back his second self only to learn that the sorry sequel would utter nothing but profanity.

Fearing ruin, the original lured his lascivious look-alike up a mountain, pushed him off a cliff, and went back down the trail in deep relief. But, witnesses had seen it all.

Police charged the fellow with... making an obscene clone fall.

#### Some Truths to Ponder

There's always a lot to be thankful for if you take time to look for it. For example, I am sitting here thinking how nice it is that wrin-

kles don't hurt.

The older you get, the tougher it is to lose weight because, by then, your body and your fat are really good friends.

The easiest way to find something lost around the house is to buy a replacement.

Have you ever noticed that the people who are late are often much jollier than the people who have to wait for them?

Raising teenagers is like nailing Jello to a tree.

Middle age is when you choose your cereal for the fibre, not the joy.

There are four stages in life:

- 1) You believe in Santa Claus
- 2) You don't believe in Santa Claus
- 3) You are Santa Claus
- 4) You look like Santa Claus

#### Pun My Word

Those who jump off a Paris bridge are in Seine.

Tennis players don't marry because Love means nothing to them.

It was an emotional wedding: even the cake was in tiers.

A boiled egg in the morning is hard to beat.

What is the definition of a will? (It's a dead giveaway.)

Time flies like an arrow. Fruit flies like a banana.

Show me a piano falling down a mine shaft and I will show you A-flat minor.

The short fortune teller who escaped from prison was a small medium at large.

She had a boyfriend with a broken leg, but broke it off.

When a clock is hungry, it goes back four seconds.

### FINANCIAL REPORT—October 2, 2002

By Betty Anderson

OPERATING FUND			FOUNDATION FUND		
Membership Fees:		\$5,493.90	Donations:		\$5,499.15
Socials:		298.97	Bank Interest::	All A de distriction of the second of the se	0.49
Bank Interest:		300.60	Total:		5,499.64
Total Income:		6,093.47		,	
Less: Expenses:	A CONTRACTOR OF THE CONTRACTOR	1,391.30	Expenditures:		
A La Contraction C		4,702.17	Beluga Award:	\$5,439.28	
One Business Account with ING Direct covering 5 deposits commencing at 3.85%, now 2.75%:	\$4,400.00		Bank Charges and Cheques:	25.02	5,464.30
Interest:	78.06	4,478.06	CASH IN BANK		\$35.34
CASH IN BANK:		\$224.11			
Account Payable:	Outstanding ch	eque \$75.00			A PHI MAP

### **MEMBERSHIP REPORT - October 2, 2002**

By Betty Anderson

Membership for 2001/02 was 157. Current membership is 142: to date, 15 members have not renewed. We welcome two new members: Paul Jollymore and Elmer Lewis.

Total fees collected, 1998 to date:

\$3,473.90

Total fees pro-rated, 2004 to 2022:

2,020.00

TOTAL:

\$5,493.90

2002/03 membership fees were due May 1, 2002. Please take the time to check your membership card and, if the expiry date shown is April 30, 2002, we would really like to receive your renewal. Fees are \$5.00 per year, \$25.00 per half decade, and \$100 for life. Cheques should be made out to the BIO-Oceans Association and mailed to Betty Anderson, 79 Flamingo Drive, Halifax, N.S. B3M 1T2.

We are always searching for potential new members. Kindly let Betty know of any leads you can offer: she can be reached at 443-2572 or via e-mail at bettyvanderson@hotmail.com. Thanks to Mike Hughes and Tom Foote for suggesting our latest members!

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## BIO-Oceans Association's "Fall Celebration" Special Seminar and 'Wine & Cheese' Party

OPEN TO BIO-OA MEMBERS & NON-MEMBERS
Main Auditorium, Bedford Institute of Oceanography
Dartmouth, Nova Scotia

Wednesday, 6 November 2002 (7:00 PM)

Sailing to 'Byzantium' in schooner

Peers' Fancy: a 2-year trans-Atlantic sail

From Nova Scotia to Turkey return

Guest Speaker: Don Peer

**Don Peer**, boat builder – sailor extraordinaire – marine biologist – takes us on a trans-Atlantic boat journey in his wooden, 40-foot schooner "*Peers' Fancy*", from Hubbards, St. Margaret's Bay, NS, to the Azores, and the Mediterranean east to Turkey, through the seas of the Byzantine Empire of yesteryear.

On 1 July 1992, Don and his sailing partner and wife Dorothy, sailed "Peers' Fancy" from Hubbards eastward across the Atlantic to the Azores and then to the Straits of Gibraltar. They passed through the Mediterranean, arriving on the west coast of Greece, exactly 3 months later. After a winter of living aboard the schooner in Greece, they set out the following April to explore the Ionian Islands. After a transit of the Corinth Canal, they sailed through the islands of the Aegean Sea to the coast of Turkey. Then the return passage commenced, westward through the Mediterranean and the Straits of Gibraltar to the Canary Islands. Once the northeast trades had developed, the Peers followed them to the eastern Caribbean Islands, where they over wintered. The final leg from the Bahamas to Hubbards, Nova Scotia, was joyous, arriving home on Canada Day exactly two years from the date of their departure.

Come and join us for this enlightening presentation about offshore sailing and the sea, its beauty, romance, and challenges! There will be time available, before (1900-2000 h) and after the lecture (2100-2200 h), to talk to Don and Dorothy about boats, offshore 'blue water' cruising, and boat building. And of course, you can also discuss the highlights and wonders of their sightseeing tour of the North Atlantic!

For additional information call: Jackie Dale (phone: 466-2584; e-mail: jdale902@aol.com). There is a 'charge' of \$10.00 per person to offset the costs of the refreshments and speaker's travel.

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### REPORT ON OUR JULY BBQ

As you all know, the 2002 annual summer barbecue was held on August 8<sup>th</sup> at the home of Bob and-Heather in Portuguese Cove. Those of you who have never attended one of our barbecues should take a chance and try out the next one. It has always been a very casual affair, and everyone who attends one has something positive to say about it.

This year, we all thoroughly enjoyed the terrific

weather, the great view, the beautiful grounds, and especially the good company and delicious food.

Bob and Heather were gracious hosts, and conducted tours for all who expressed an interest in their very spacious home. Check out our web site for photos of the event and of Ferncliffe as they call their property is known. Our special thanks go out to the Cooks for their hospitality, and for making this year's event such a pleasant one.



### 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 Environment, 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. Payment for membership renewals should be sent to: Ms. Betty Anderson, Treasurer, 79 Flamingo Drive, Halifax, Nova Scotia B3M 1T2. For further information or to obtain a membership application form, contact any of the current executive members listed below.

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