

BIO-OCEANS ASSOCIATION NEWSLETTER

Issue 20, July 2003

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*Catch this
summer's
excitement!*

*Plan to attend
our Marine
Cruise in
July—see
page 11—
AND our
picnic for you
and your
family in
August—see
page 13.*

PRESIDENT'S NOTE:

"Who Says Annual General Meetings Can't be Fun?"

By David Nettleship

Almost seven weeks have sped by since our most successful and enjoyable BIO-OA *Annual General Meeting* and *Beluga Award* presentation on Thursday, 22 May 2003. We accomplished a great deal in the BIO auditorium both as a small, intimate, working body during the formal OA business meeting and as a larger celebratory group bestowing our accolades on our most deserving recipient of the 2003 BIO-OA *Beluga Award*, Art Cosgrove. Overall, the day's proceedings comprised a delightful and rewarding *Annual General Meeting*. My thanks to everyone involved in making it such a grand occasion, from the organizers and presenters to the general audience at large.

As a late spring turns to summer, our hearts turn to a wide variety of fun-filled preoccupations and

expectations for the months of July through to October and beyond. Life during the wonderful maritime summer can take on a number of personalities, depending on the activity that you choose. My tastes tend to humour a wide variety of obsessions, ranging from the simple pleasures of paddling and sailing, to the more land-based hiking and camping, or even simply loafing! A time to relax, enjoy and explore. But before reviewing the planned summer-fall activities of the BIO-Oceans Association, I'd like to share a couple of general observations with you of what was revealed to me at our AGM 2003.

First and foremost is the fact that the 2003 AGM was indeed "informative, productive and entertaining" as promised, a combination that removed it from the category of a boring business meeting! The rewards were enormous for those in attendance. For those unable to attend, I hope the

project summaries that appear in this and future issues of the OA Newsletter and on the OA Website, and those that follow capture the worth of the AGM event adequately. Without question, the essence of this year's AGM is the realization of how much has been accomplished over the fiscal year 2002-03. The short reviews given by the presenters on the state of the Association's finances & membership, Archives projects, communication mechanisms, educational/recreational social activities program, and history projects were excellent both in form and substance. The time and energy expended to produce such informative reviews were definitely worthwhile with the results extremely valuable. The information presented, and the manner of its projection through the MS Power Point images, did succeed in keeping me on the 'edge of my seat' re the present status of current OA initiatives and as a roadmap for the future. I could go on – as I suppose I do from time to time, *ad nauseam* – making the connections, joining the dots of comprehension for you. But perhaps my final observation says it all. Although we've found an approach that works to disperse noteworthy information efficiently at our AGM, we still need to identify a way of attracting a larger percentage of the OA membership to the business portion of the meeting. The information presented is simply too valuable and interesting to allow the majority of members to miss it and for the rest of us to be content with a low attendance. But how do we generate greater interest? That is the challenge for our next AGM, and for us to address and overcome between now and May 2004. Let's find the way and enjoy the 'business' of the Association, an integral part of the whole and stimulating to boot. Please don't hesitate to send along your comments and suggestions to me—the input is needed.

Let us now go on to the upcoming summer/fall season, a period full of activities and events with something for everyone. Each year, the OA Social Activities committee, currently chaired by Jackie Dale, solicits information to identify events and activities that OA members enjoy. The events are monitored for support and attendance with adjustments being made based upon member feedback. What has evolved is a number of popular social activities that occur each year such as the summer barbeque, wine

and cheese spring/fall celebrations with special guest speakers, and the Christmas party. Other activities, which currently make up the social calendar, depend on members bringing their ideas, enthusiasm, and organizing skills to the table. Specifically, for the 2003 summer and fall period, we have the following events underway: boat cruise from Halifax to Chebucto Head on 22 July, the OA Annual Summer Barbeque on 23 August, a short tour of the Portobello Lock ruins along the Shubenacadie Canal on September 16, fun at Lake Banook in October, and the Fall Celebration and Guest Speaker in mid-November (for details of summer/ fall events, see current newsletter and website). I hope this list of planned events has whet your appetite to come out and join in the fun.

As we attempt to enhance the Oceans Association's mandate and purpose, we continue to focus on members and their interests. Proposals for new work projects and additional social events are always most welcome, as are volunteers to participate in the organizing and execution of activities. The success of BIO-OA to date has been largely due to the efforts of volunteers. With that said, let me thank those who contributed over the last year. We can indeed make a little contribution to the welfare of the BIO community and have some fun in the process -- a most rewarding combination.

Meanwhile, enjoy the wonders of the summer/fall season. See you at the various upcoming OA social events.

Tour of Portobello Lock Ruins

By Charles Schafer

The Shubenacadie Canal is a historically significant link between at least 10 communities that lie along its path from Halifax Harbour to the Bay of Fundy. The unique inclined plane feature of the canal lock at Portobello was constructed in the 1850s and, while much of its infrastructure is gone, the incline itself and some of the associated rock walls are still visible. The only other example of this kind of rock design within the canal system was located in the downtown area of Dartmouth. The still-to-be-developed park site at Portobello is presently a popular stopping place for canoe enthusiasts.

Charlie Schafer will be available between 11:00am and 12:00 noon on Tuesday, September 16th for anyone interested in a short tour of the ruins.

Charlie is presently making plans for the lock tour to be followed by a trip to the Waverley Heritage Society Museum, which has chronicled the family history of Waverley during the gold mining days of 1860 to 1940. If the weather is good, we could plan to pack a lunch, and continue on to nearby Charles MacDonald Park, where there are several walking trails.

All members will be contacted, either by phone or e-mail, in early September to determine interest. If you enjoy walking, with some history thrown in, please try to keep this day open (rain day will be September 18th). Guests are welcome.

To reach Portobello from Dartmouth, follow the Waverley Road to just past the second overpass (Hwy 118), and look for a parking place on the west side of the road, facing in the direction of Dartmouth.

THE BIO-OA EQUIPMENT/ ARTIFACTS ARCHIVE INITIATIVE

By Charles Schafer

[*Editor's Note:* To get a better appreciation of the background to this initiative, read "Musings about the equipment/ artifacts archive" that appears later in this issue.]

The interval of time that has elapsed since BIO's establishment has witnessed profound advances in technology that have shaped virtually all of the tools of operational marine science. For example, the transition from vacuum-tube-based to integrated chip circuits and computers has catalyzed the evolution of remote sensing satellite arrays and in situ mooring networks as adjuncts to classical marine vessel-dependent survey and monitoring operations. More importantly, the late 20th century phase of the technological revolution has provided the 'metal' for a large number of BIO 'in-house' ocean engineering innovations in support of oceanography, marine geology and marine biology research. The organization and display of these achievements and technologies is of value in terms of public education, and as testimony to the ingenuity of BIO ocean engineers, scientists, technical staff, and science management.

During the past two years, the OA executive has debated the issue of BIO's historical 'footprint' and has recognized a deficiency with respect to an equipment/artifacts archive that details some of the elements of the poly-decadal marine tech-

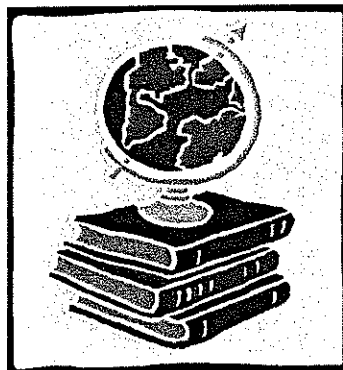
nology experience of its staff (the OA prepared a hardware display on this theme for the last BIO Open House). A recent (May 2003) inspection of several BIO artifact storage sites suggests that less than 50 examples of how the technology side of marine science was carried out have been retained. Nevertheless, these artifacts, and others that have yet to be discovered, are available to be conserved (refurbished) and organized into both static and dynamic educational displays of pre-21st century BIO ocean engineering activities and marine science tools.

The proposed goals of the OA Equipment/ Artifacts Archives Project (EAAP) are :

- (1) to publicize the interest in conserving and exploiting the suite of BIO artifacts for public education and historical reasons;
- (2) to identify space (at least 60 m²) and human resources (OA/BIO partnership) for developing a hardware/ocean engineering display to complement other already established BIO public education formats (e.g., posters, panel displays, mini-theaters); and
- (3) to seek complementary extramural sustainability funding to help realize the goal of establishing a permanent, albeit modest, BIO marine science hardware/ocean engineering achievements display program in support of public education and in-house-developed hardware preservation.

NOTEWORTHY READS: BOOK REVIEWS IN BRIEF

By David N. Nettleship
Book Review Editor



The *Noteworthy Reads* section is a co-operative, volunteer effort by members of the BIO-OA to produce a representative list of recent noteworthy book publications related to the marine sciences and other subjects of general in-

terest. 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 their associates. The review team's 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; 20-30% discounts are normally available on line: e.g., amazon.ca or chapters.indigo.ca. Anyone interested in becoming a regular contributor to 'Noteworthy Reads' should contact David Nettleship (voice: 902-826-2360; internet: dnnlundy@navnet.net).

Bawlf, Samuel. 2003. *The Secret Voyage of Sir Francis Drake: 1577-1580*. Douglas & McIntyre, Vancouver, BC. 335 pp. Hardcover, \$37.95 (ISBN 1550549774). – New information, revealed through the researches of the author, indicates that the renowned Elizabethan privateer, Sir Francis Drake, likely explored the northern Pacific coast of North America in 1579, two hundred years before James Cook and George Vancouver! Drake's voyage in his three-masted vessel the Pelican covering more than 40,000 miles in just under three years using crude navigational instruments and techniques is recreated by Bawlf in a convincing manner, as is the presentation of the evidence of where Drake actually went and the subsequent conspiracy of silence by Queen Elizabeth I to conceal Drake's discovery of a strait that led to the

much sought after northwest passage. In total, Samuel Bawlf's book is a rousing, high seas adventure that may eventually stand as a 'marine exploration classic', a work to be read by all enthusiasts of marine history and voyages of exploration and discovery.

Benton, Michael. 2003. *When Life Nearly Died: The Greatest Mass Extinction of All Time*. Thames & Hudson, London, UK. 336 pp. Hardcover, \$45.00 (ISBN 050005116X). – What caused the enormous Permian extinction of many life forms on planet Earth? Michael Burton, who suggests that the destruction of 95 percent of all species some 251 million years ago was caused by a massive series of volcanic eruptions, addresses this question. Supporting evidence is reviewed and conclusions drawn from the facts presented. A very interesting read, one to be followed by a companion book by G. Walker entitled 'Snowball Earth' (for details, see below).

Buckman, Robert. 2003. *Human Wildlife: The Life that Lives On Us*. Johns Hopkins University Press, Baltimore, MD. 208 pp. Hardcover, \$67.39 (ISBN 0801874068). – If you ever think you are all alone, think again. In this book, Robert Buckman, medical oncologist and professor at the University of Toronto, introduces us to the menagerie of crawling, writhing and swimming creatures that call our bodies 'home'. The diversity in form and structure, from harmless microorganisms to potentially lethal two-foot long guinea worms, is fascinating and somewhat unnerving. The nature of parasitism is explored showing the incredible adaptations of the 'beasts' within, their origins, biological effects and more. The 287 illustrations – mostly microphotographs – are stunning and captivating in their close-up detail. If you can drum up the courage to confront 'Human Wildlife', you'll never feel alone again!

Burnett, John S. 2002. *Dangerous Waters: Modern Piracy and Terror on the High Seas*. Dutton Studio, New York, NY. 384 pp. Hardcover, \$35.99 (ISBN 0525946799). – This volume is of interest to both blue-water cruisers concerned about the increasing incidence of piracy at sea and those who are simply curious about nautical affairs in general. Based upon his own experience of being boarded by men with rifles and knives near Singapore, John Burnett, a former United Press International wire reporter, undertakes an examination of the phenomenon of modern piracy. The book focuses primarily on piracy experienced by the commercial shipping industry. A review of incidents ranging from very large crude carriers in the pirate-infested waters of Southeast Asia to the vulnerability of medium and small craft operators shows vividly how lawless and unsupervised the world's oceans really are. Attempts to hijack

large commercial carriers in the heavily used Strait of Malacca are not uncommon. The case studies presented, involving both big and small vessels, are thought provoking, showing clearly the absence of enforcement of marine regulations or investigations of events that take place in international waters. In summary, this work presents an important review of one problem of marine travel and transportation in these uncertain times.

Butler, Robert. 2003. *The Jade Coast: The Ecology of the North Pacific*. Key Porter Books, Toronto, ON. 176 pp. Softcover, \$29.95 (ISBN 1552635139). – Canadian biologist Dr. Robert Butler's study of the west coasts of North America – the 'Jade Coast' comprising 85,000 kilometres extending from northern California to Alaska – is outstanding in content and design, with a text that is clearly and exquisitely written. The vastness of the land, and its diverse and complex biota and habitats, are revealed in a captivating manner. The volume begins by outlining the basic ecology of the North Pacific with highlights underlined by numerous photographs and illustrations. The reader is then given a comprehensive overview of the intricacy and richness of the web of life that exists and is sustained by the northwest Pacific. Information abounds throughout, with details on the biology and ecological requirements of the major animal groups – fish (400 species), marine birds (161 species) and mammals (29 species), and invertebrates (more than 6,500 species) – that inhabit the 'Jade Coast'. A 'must' read for any marine enthusiast, from the general tourist and amateur naturalist, to the professional marine biologist.

Dennis, Jerry. 2003. *The Living Great Lakes: Searching for the Heart of the Inland Seas*. St. Martin's Press, New York, NY. 336 pp. Hardcover, \$ 38.95 (ISBN 0312251939). – An examination of the geography, history and ecology of the world's 'mother lode' of freshwater. This overview of the Great Lakes, water bodies as varied as the North American continent itself, from the wildness of lands north of Superior to the human-dominated cityscapes of Toronto and Chicago, is a useful introduction to their history and spectacular scenery. The author has spent years exploring the shores of the Great Lakes by boat, and uses that background effectively to relay his most recent six-week sailing adventure on a tall-masted schooner *Malabar* through the waters of Lakes Huron, Ontario, Michigan, Erie and Superior. His narrative is a pleasant and informed blend of personal observation and geological, historical, and environmental anecdote with a breadth that makes it a fine introduction to the ecology of these Inland Seas.

Golden, Frank and Michael Tipton. 2002. *Essentials*

of Sea Survival. Human Kinetics Publishing, Champaign, IL. 305 pp. Softcover, \$30.00 (ISBN 0736002154). – An updated paperback edition of the 1998 first edition hardcover. Cold-water survival for the general boater is the focus, along with detailed explanations of basic human physiology and heat regulation. The authors underline the fact that it's not the boating accident that kills, but rather the waiting to be rescued. Actions that can be taken to increase the likelihood of survival are outlined using real life stories. An important reference source for any boater or sailor.

Gould, Stephen J. 2003. *The Hedgehog, the Fox, and the Magister's Pox: Mending the Gap Between Science and the Humanities*. Harmony Books/Crown Publishing Group, New York, NY. 288 pp. Hardcover, \$38.95 (ISBN 0609601407). – The late Stephen Jay Gould, world-renowned paleontologist at Harvard University, spent much of his career presenting scientific ideas to non-scientists and the general public at large. This, his last all-original work, details how the sciences and the humanities can be united into a single intellectual quest without any sacrifice to either side. Using the fox and the hedgehog as examples of two different approaches to the acquisition of knowledge (and therefore successful endeavours) – i.e., versatility versus specialization – Gould shows how both are necessary to study the world completely. By outlining the historical background of the inevitable conflict between the two disciplines that followed the birth of science in the 17th century, he demonstrates how each 'side' of the science/humanities debate had to learn from the other. Most important is the final section that shows how remaining rifts can be mended. This thought-provoking essay shows vividly how the two cultures can work together without sacrificing their identities or approaches to knowledge. This work is a most fitting end to Gould's unique and illustrious career as zoologist, geologist, and teacher.

Goulding, Michael, Ronaldo Barthem and Efreim Ferreira. 2003. *The Smithsonian Atlas of the Amazon*. Smithsonian Institution Press, Washington, D.C. 256 pp. Hardcover, \$65.95 (ISBN 1588341356). – If you want an unprecedented portrait of the world's largest river basin, this is the book for you. The authors, ichthyologists and rain forest ecologists, offer a unique look at the main part of the Amazon, a river that stretches 4,200 miles occupying a basin almost as large as the continental United States. They describe the Amazon basin's size and geography, and the effects of the rampant urbanization and industrial development on its rain forest. Information abounds, telling us that the Amazon not only encompasses close to 17 percent of all broadleaf forest in

the world, but sustains at least 25,000 species of flowering plants and more than 5,000 vertebrate species – a living biological oasis! The more than 400 illustrations (photos and maps) outline the details of major waterways and tributaries, with regional colour-coded maps (150) that provide invaluable information. Overall, an outstanding introduction to the wonders of the Amazon, second only to an actual journey through the region.

Graves, Donald E. 2003. In Peril On the Sea: the Royal Canadian Navy and the Battle of the Atlantic. Robin Brass Studio Inc., Toronto, ON. 253 pp. Softcover, \$34.95 (ISBN 1-896941-32-X). – An outstanding review of the Royal Canadian Navy's role and important contribution to Allied victory in the 'Battle of the Atlantic', the most crucial battle of the Second World War. Commissioned by the Canadian Memorial Trust and written by one of Canada's foremost historians, the work shows vividly the extremely dangerous role the RCN warships played for nearly six years, principally as convoy escorts. Much of the story is presented from firsthand accounts of 65 British, Canadian and German sailors, submariners and merchant seamen, personal accounts supplemented with almost 200 photographs, maps, ship profiles, drawings (by L.B. Jenson) and other graphics. Overall, a gripping historical commemorative volume that traces the history of the RCN from 1910 to 1945, and shows what life at sea under wartime conditions detecting, dodging and fighting German U-boats in all kinds of weather was like. A most informative read of an epic period of Canadian marine history that will appeal to general and specialist readers alike. A limited edition hardcover edition is expected to appear shortly.

Heinrich, Bernd. 2003. Winter World: The Ingenuity of Animal Survival. Harper Collins Canada, Toronto, ON. 352 pp. Hardcover, \$38.95 (ISBN 0060197447). – The diverse ways animals cope during cold winter months are highlighted in this revealing new book by world-renowned physiological ecologist Bernd Heinrich. In short captivating chapters, the survival strategies of mammals, birds, reptiles, insects and other animals are outlined, from tunneling under snow to building nests with layered walls to conserve heat to drastically reducing body temperatures. The marvel of how bears endure months of hibernation without losing muscle mass or bone density or how honeybees maintain temperatures in their hives at 36° Celsius regardless of how cold it is outside. Overall, this book is a fascinating examination of the evolutionary mechanisms that enable animals to survive frigid climes.

Konstam, Angus. 2002. Historical Atlas of the Viking World. Facts on File, New York, NY. Hardcover, \$47.22

(ISBN 0816050686). – Trace the spectacular legacy of the Vikings, the explorations and achievements of Europe's greatest craftsman-warrior sailors! This book will reveal how these native Scandinavians were no mere plunderers as indicated by their name derived from the Old Norse word "vikingr", meaning sea-raider. Instead, they were a people that revolutionized European trade, established dozens of cities, and explored unknown regions from Russia to Iceland, Greenland and Newfoundland, all in short span of three centuries. This and more, including the latest archaeological findings, are reviewed in this most attractive atlas, packed with 230 full-colour maps and photographs that say more than words about Viking culture and accomplishments.

Lynch, John and Louise Barrett. 2003. Walking with Cavemen. Dorling Kindersley Publishing, New York, NY. 224 pp. Hardcover, \$47.00 (ISBN 0789497751). – How often have you wanted to find a clear and concise overview of human evolution? A dip into this book provides a vivid glimpse of hominid evolution and behaviour, from the earliest to the most immediate precursors of *Homo sapiens*. This companion volume to the Discovery Channel series 'Walking with Cavemen' gives us a look at our ancestors from 3.5 million, 2 million, 1.5 million, and 300,000 years ago: from *Australopithecus afarensis* (3.5 mya), apelike with a brain about the size of a chimpanzee's, through *Homo habilis* and *H. rudolfensis* (2.0 mya) to the true 'missing links' *H. ergaster* (1.5 mya) and *H. erectus* (0.3 mya) onto the most advanced hominid of all – *H. sapiens* – in Africa a mere 150,000 years ago. Details of dating procedures, reasons for the development of big hominid brains, the possible total number of *Homo* species, and many other topics are provided along with 183 full-colour illustrations. A volume to read, enjoy, and discover your biological roots.

McKibben, Bill. 2003. Enough: Staying Human in An Engineered Age. H.B. Fenn & Co., Bolton, ON. 208 pp. Hardcover, \$36.95 (ISBN 0805070966). – A sobering look at genetic manipulation, nanotechnology and robotics, and what they mean to the future of mankind. The implications are enormous, perhaps placing all of us in clear danger of extinction. What limits must be placed upon genetic engineering and allied biotechnologies to ensure the fundamental meaning of life is maintained. If you want a thought-provoking piece of philosophical non-fiction on your summer reading list, this book by Bill McKibben should fit the bill!

Walker, Gabrielle. 2003. Snowball Earth: The Story of the Great Global Catastrophe that spawned Life as We Know It. Crown Publications, New York, NY. 288 pp. Hardcover, \$37.95 (ISBN 0609609734). – An inter-

esting review of the evidence that supports the view of Harvard scientist Paul Hoffman and his predecessors that hypothesizes that a giant freeze enveloped the entire planet some 700 million years ago, killing all but the hardiest undersea organisms. The 'Snowball Earth' condition was later reversed through a series of volcanic eruptions that generated enough carbon dioxide into the atmosphere to reheat Earth. That marked change resulted in a sudden increase of atmospheric oxygen that in turn prompted an 'explosion' of complex life and new life forms. Was the diversity of living things spurred by a global ice age? While the jury remains uncertain, it is clear that 'Snowball Earth' portrays geological puzzle solving at its most exciting!

Ward, Peter D. & Donald Brownlee. 2003. The Life and Death of Planet Earth: How the New Science of Astrobiology Charts the Ultimate Fate of Our World. H.B. Fenn & Co., Bolton, ON. 240 pp. Hardcover, \$36.95 (ISBN 0805067817). – Want to take a different look at planet Earth and its future? You'll certainly take much less for granted after reading this book. The authors, pioneers in astrobiology, combine astronomy and biology to examine life on Earth and its place in the universe. Apart from the fact that *Homo sapiens* has been around for less than a 'blink of the eye' in context of the planet's existence, the authors conclude (from a scientific viewpoint) that human civilization will end with a new ice age and that Earth as a whole has peaked biologically with only a period of decline ahead. All animal life is likely to expire within 500 million years (marine and terrestrial), with the Earth itself having only 7.5 billion years before it is destroyed by an expanding sun. Not bedtime reading, perhaps, but the facts and their implications to future life and humankind are given in a most readable and interesting form.

Whitehead, Hal. 2003. Sperm Whales: Social Evolution in the Ocean. University of Chicago Press, Chicago, IL. 464 pp. Hardcover, \$108.00 (ISBN 0226895173); softcover, \$40.00 (ISBN 0226895181). – This landmark book on Sperm Whales, being released by UCP in August 2003, is one of only four volumes pub-

lished on the species including Herman Melville's classic '*Moby Dick*'. Based upon more than a quarter-century of research in all four oceans of the world using unique non-lethal study techniques and procedures, Dr. Hal Whitehead shows that Sperm Whales have a complex social structure that includes clans – identified by unique and distinctive clicking sounds – and family groups that share information about where and how to find food, details transferred from elders to younger family and clan members. This important scientific account of the behavioural ecology and biological requirements of Sperm Whales reveals an intricate social web of interrelations within and between whale groups that goes a long way to show how little we really know about the 'giant mammals of the deep'. Although directed towards a scientific audience, the text is extremely readable and should be well received by both the specialist and general reader alike.

Worthy, Trevor H. and Richard N. Holdaway. 2002. The Lost World of the Moa: Prehistoric Life of New Zealand. Indiana University Press, Bloomington, IN. 592 pp. Hardcover, \$121.00 (ISBN 0253340349). – This volume on the flightless giant birds that once roamed the exotic land of New Zealand documents, in unprecedented detail, the evolution of unique life forms on an isolated oceanic island group. Not only does it introduce the reader to the 11 extinct species of moa, ranging from the giant *Dinornis giganteus*, weighing up to 350 pounds and reaching 9.8 feet, down to the chicken-sized Takahe, about 14 inches, but provides the most comprehensive and up-to-date single study of fossil evidence, habitat use, behaviour and extinction factors compiled to date. The work is an amazing accomplishment that details the group's vulnerability to island invasions by alien species and its eventual demise. The arrival of rats, brought by human visitors two millennia ago, followed by permanent human settlement and subsequent over-exploitation for food, along with the introduction of other predatory mammals, spelled the end of the moa. The group had already been extirpated by the time Captain James Cook visited New Zealand in 1769. A story like no other!

On the Lighter Side

A curious fellow died one day and found himself waiting in the long line of judgment. As he stood there, he noticed that some souls were allowed to march right through the pearly gates into Heaven. Others, though, were led over to Satan who threw them into the burning pit. Every so often, instead of hurling a poor soul into the fire, Satan would toss one off to one side into a small pile. After watching Satan do this several times, the fellow's curiosity got the best of him, so he strolled over to ask Satan what he was doing.

"Excuse me, Prince of Darkness," he said. "I'm waiting in line for judgment, but, I couldn't help wondering, why are you tossing those people aside instead of flinging them into the Fires of Hell with the others?"

"Ah, those..." Satan said with a groan. "They're all from Atlantic Canada. They're still too cold and wet to burn!"

OUR SKI TRIP DOWN UNDER

By Dale and Betty Buckley

This past winter, we decided to leave cold weather behind and head Down Under where the sun does shine most of the time. In mid March, we headed to New Zealand and Australia to spend one month in each country. We opted to use a rented camper van to drive around New Zealand, but to fly to major points of interest in eastern Australia and from there take short, guided tours of selected areas.

New Zealand

Arriving in Auckland on March 19, we spent only one day readjusting our biological clocks before picking up our Mercedes camper van. It was designed to be almost completely independent: it had a rechargeable battery system capable of maintaining an air conditioning and heating system, a refrigerator, a water and shower system, and a propane system for cooking. We did, however, have to use electrical hook-ups at night to run the microwave, lights, and water pumping systems.

We did encounter some problems in the first few days: (1) an electrical cord failed, twice, (2) the refrigerator became a freezer, (3) the cooking utensils were not designed for actual use in cooking, (4) the vehicle transmission refused to operate in some urgent situations, (5) water leaked from the roof into

the bathroom, even under normal dew conditions, and (6) the bedding materials were inadequate for the sleeping conditions. All of this led us to give the camper van our designation of POS. (We will provide interested persons with the name of the rental company we used.)

In spite of our equipment difficulties, we were entirely convinced that the camper van was the way to go in New Zealand. We had the independence of being able to stop where and when we wanted, and the campsites (holiday parks) were plentiful and very well maintained. Almost all were provided with perfectly cleaned washrooms and kitchens. Most also had recreation facilities, including TV lounges (if one wanted to follow the war in Iraq).

Our 5,000 km journey through New Zealand extended down the west side of the North Island, crossing to the South Island and down the east side to Christchurch and Dunedin, then across the South Island to TeAnau, Milford Sound, then up the western side of the island from Queenstown, to Fox Glacier, Frans Joseph, and Nelson on our way back to Wellington and the North Island. [Oh, yes, we had another venture with the POS in that we had our windshield broken while driving on the city streets of Nelson. (Only cost \$800. NZ, paid for by insurance... so we broke even.)] Our main interest on the North Island was the city of Rotorua, which is the

Dale poses
with some
Maori
friends at
Rotorua,
New
Zealand.



the historic and cultural centre of the Maori in New Zealand. We thoroughly enjoyed an evening feast at Te Whakarewarewa Thermal Valley where the Maori Arts and Crafts Institute is located. Our feast included a welcome ceremony and cultural dance including the haka, as well as a multi-course meal, partly cooked over the thermal vents. Maori crafts, particularly wood carving, are still flourishing with fine examples exhibited in totems and weapons. Most of the carving is done from kauri wood: in New Zealand, some of these trees are as old as 1500 years.

One of us enjoyed a golf game played on a beautiful golf course next to the hot springs; in fact the springs form a unique hazard along some fairways. The game was played with a young Maori who didn't mind embarrassing the visitor from Canada. An interesting observation: a slice in Canada becomes a hook in the southern hemisphere.

Our New Zealand visit ended with a guided tour of the northern Bay of Islands area, north of Auckland. On the way to the Bay, we passed Waipu village, which was established by a group of settlers that sailed from the Saint Anne area of Cape Breton Island. Also located in the Bay of Islands area is Waitanga village, where the Maori and British signed a treaty in 1840 establishing rules of government for New Zealand.

Australia

After a month-long visit in New Zealand we flew to the "western island" as the New Zealanders call Australia. We began our tour in Melbourne and the state of Victoria, visiting a market and museum in the city and traveling through several parts of the state with our friends who live in Sale. Highlights of our visit to Victoria were the Southern seacoast (Great Southern Ocean) and the beautiful southern rain forest of Tarra Bulga on the Great Divide Mountains along the northern boundary of the state. This latter area seems to be little known by people who live outside Australia, as there were very few visitors, even Australians who live in other parts of the country. This rainforest consists of very large trees such as pines, oaks, poplar, and a great variety of eucalyptus, as well as several varieties of ferns

and palms.

After driving over 2000 km of Victoria we flew to Alice Springs in the Northern Territory. Actually, Alice Springs is located almost perfectly in the geographic centre of Australia and the great central desert. Alice Springs was established as a telegraph station in the late 1800s, but has now become a major tourist centre for visitors who usually go to Uluru (formerly known as Ayers Rock). The town is an important art and craft centre for the desert aborigines who have a unique style as compared with most of the rest of Australia. Their paintings use "dot" patterns as compared with the "x-ray" pattern used by the northern aborigines.

To visit Uluru, one usually takes a bus from Alice Springs for about 200 km through desert "ranch country". This area has huge cattle stations of a million or more acres, and widely dispersed cattle. It is also part of the home for Australia's wild camel population of 600,000. This is the largest population of camels in any country in the world, and Australia exports them to Saudi Arabia and the USA.

Every tourist who visits Uluru (Ayers Rock) usually wants to capture the colour hues on the rock at sunset or at sunrise. We did both. One of our most enjoyable evenings was to watch the sun set on Uluru from a remote desert location where we sipped champagne and listened to the didgeridoo being played. At nightfall, we were treated to a candlelight dinner in the open desert under the stars. Our meal included samplings of kangaroo steak, fillets of crocodile, breast of emu, and roast of camel. The evening was complete with an animated talk by an astronomer on the star formations in the southern hemisphere skies.

From the desert we changed climate completely by flying to the northern Queensland city of Cairns, which is nestled between the northern rainforest and the tropical ocean along the Great Barrier Reef. We, of course, had to snorkel over the Great Barrier Reef, ignoring the threatened (sometimes) presence of sharks, and the stories about the horrors of the box jelly fish. This latter marine animal is the most toxic animal in the world, but fortunately, for us,

concluded on page 13

FINANCIAL REPORT—JULY 2, 2003

PERIOD: 1998-2004

By Betty Anderson

| OPERATING FUND | | FOUNDATION FUND | |
|-------------------------|----------------------|------------------------|----------------------|
| <u>Membership Fees:</u> | \$6,268.96 | <u>Donations:</u> | \$5,849.15 |
| Socials: Transfer- | | <u>Transfers: from</u> | |
| Beluga lunches | \$129.95 201.22 | Socials, Operating | |
| | | Fund, May/02 & | |
| | | May/03—Lunches | 224.34 |
| Bank Interest: | 400.36 | <u>Bank Interest:</u> | 0.54 |
| Total Income: | 6,870.54 | | 6,074.03 |
| <u>Less: Expenses:</u> | 1,567.61 | <u>Expenditures:</u> | |
| | 5,302.93 | Beluga Award: | \$5,809.35 |
| | 5,102.65 | Bank Charges | |
| One Business | | and Cheques: | 26.72 5,464.30 |
| Account with | | Lunches: | |
| ING Direct | | Beluga Award, | |
| covering 8 | | 2002 | 94.39 |
| deposits com- | | Beluga Award, | |
| mencing at | | 2003 | 129.95 6,060.41 |
| 3.85%, now | | | |
| 3% | 4,925.00 | | |
| Interest: | 177.65 | CASH IN BANK: | 13.62 |
| Account Payable: | | | |
| Joint Stock | | | |
| Co. Registra- | \$25.00 | | |
| tion | | | |
| CASH IN BANK: | \$200.28 | | |

MEMBERSHIP
REPORT

By Betty Anderson

Present membership for the 2003/04 year is 168 with 135 members prepaid and 33 outstanding. Fees are now payable for the current year commencing May 1st. A reminder to late subscribers prepared by Lisa O'Neill is included herein. (Many thanks to Jackie Dale for preparing such inserts over the years.

We welcome new members **Brad Blackford, Lloyd Dickie, Charlie Quon, and Jim Ross:** Alan Grant is now a lifetime member. We are also pleased to welcome new members **Claudia Currie, Ruth Jackson, and Charlie O'Reilly** from the ranks of current BIO staff.

We continue to need referrals of possible new members from you. Only 5

packages containing recent newsletters, the telephone list, Beluga Award pamphlets, and other information were mailed out last fiscal year.

As a matter of interest, we will have collected \$4,238.96 in dues from 1998-2004 and a further \$2,030.00 from prepaid members for the 2005-2024 period for a total of \$6,268.96 in dues income.

Obituaries

Ada Barris, mother of member Laura Muise, passed away on April 17, at the age of 96..

Mildred Jane "Millie" Smith, member Muriel Smith's mother, passed away on April 20, at the age of 97.

The BIO-OA's Summer Sea Watch

**MARINE CRUISE: HALIFAX TO
CHEBUCTO HEAD RETURN**

**Porpoises, Seals,
Whales, Sunfish, & Seabirds**

Thursday, 24 July 2003, 1:30 – 4:30 pm

AHOY all BIO-OA people and friends! Come along and join us on board MV *"Four Winds"* at the Cable Wharf (1749 Lower Water Street, Halifax, NS) on Thursday, 24 July 2003 (1:30 pm pre-cruise meeting at Suite #4 on the wharf; departure at 2:00 pm) for a grand marine cruise out to Chebucto Head to view marine life. The 45-foot, coast-guard approved, longliner *"Four Winds"*, skippered by Captain Richard Foote, will guide us to view a diversity of marine fauna ranging from giant sunfish, dolphins/porpoises and seals to seabirds and whales. For complete details of the trip, go to the Four Winds Charters website: 'www.FourwindsCharters.com'. Bring along your family and friends, and don't forget sunglasses, binoculars, cameras and warm clothing (sweater and jacket). Pack a snack and a favourite drink, or purchase beverages from the on-board licensed bar. We're guaranteed a fun-filled and enjoyable time! PLEASE contact Jackie Dale (ph: 466-2584; e-m: jdale@aol.com) to 'sign on': discount group rate: \$20 per person including taxes (minimum of 25 people required); normal rate: \$25 per person.

Location: 'Four Winds Charters', Cable Wharf directly across from the Ferry Terminal parking lot, 1749 Lower Water Street (wharf location: Suite #4), Halifax, NS (phone: 492-0022).

Directions: Parking is available on Lower Water Street – rates between parking lots vary considerably and so, it is advisable to check around for the best price.

For additional information contact: David Nettle-ship (phone: 826-2360; e-mail: dnnlundy@navnet.net).

**MUSINGS ABOUT THE
EQUIPMENT/ ARTIFACTS ARCHIVE**
By Charles Schafer

[Editor's Note: For a summary of this initiative, read "The BIO-OA equipment/ artifacts archive initiative" article that appears earlier in this issue.]

The idea of establishing a formal archive policy and program goes back to 1998 and has since had a good measure of support from several OA executive members including our old favourites Bosko Loncarevic and Dale Buckley. If there is such a thing as a "prime directive" for this undertaking, it is a short sentence that I found in the file which reads: "to collect and conserve evidence of research activities that reflect the character and history of BIO". And why not, since we all have a lot to be proud of, not the least of which is working for the past decade with project budgets that researchers and technologists in some other institutions might describe as "candy money", but which has invariably sparked much of the innovation seen in our in house hardware developments and frugal research strategies. We can extend the prime directive to hardware, in that its use by BIO scientists and its in-house development by ocean engineering teams are certainly an important element in any physical representation of BIO's "institutional memory". Just imagine, since the opening of BIO's doors in the early 1960's, we have witnessed the transition from vacuum tube to integrated chip circuits, changes in the measurement of certain ocean parameters from water samples to satellite-mounted sensors, and the collection of data by ships at sea being slowly replaced by a new fleet of autonomous underwater vehicles. The metamorphosis of single channel sounder to multibeam mapping methodologies and hardware also speaks to the exceptional level of innovation that is helping to provide the current staff with a much more detailed understanding of the ocean basins and the processes that shape their surficial sedimentary features.

Inspired by all of that laudable rhetoric, Sherman Glazebrook and I spent several hours in May 2003 identifying what hardware some far-sighted staff had managed to divert from the Crown Assets and dumpster pathways. We started in a shipping container located behind one of the buildings in the far

reaches of BIO 'bone-yard'. Fortunately, having been on a failed mission to locate the elusive container a week earlier, I remembered to bring along a claw hammer which was ultimately used to 'tease' the door open. We discovered about 30 items in the container that evidenced the interest and missions of our cadre of oceanographers, marine biologists, and geologists. After spending some time working at closing the container door (without using a fork lift I might add), we proceeded to the BIO stores area where Larry MacDonald showed us a few more 'gems' that he had had the foresight to 'squirrel away' because he just somehow knew that these might be important. We finished the audit in the AGC Program Support Lab where I had the pleasure of holding what is probably

BIO's first in-house built underwater camera which is shown in the accompanying photo along with what appeared to be a celestial sextant. It appears that we have Heinz Wiele, Mike Gorveatt, Bruce Wile, and perhaps even Keith Manchester to thank for hanging on to these items during the ruthless clean up/clean out events that have purged a large part of BIO's hardware applications/development story (I think we still have the pictures?). All together, Sherman and I identified and listed about 35 items not including the 12 that were 'appropriated' last year for the BIO Open House hardware display that Sherman helped to assemble at the 11th hour.

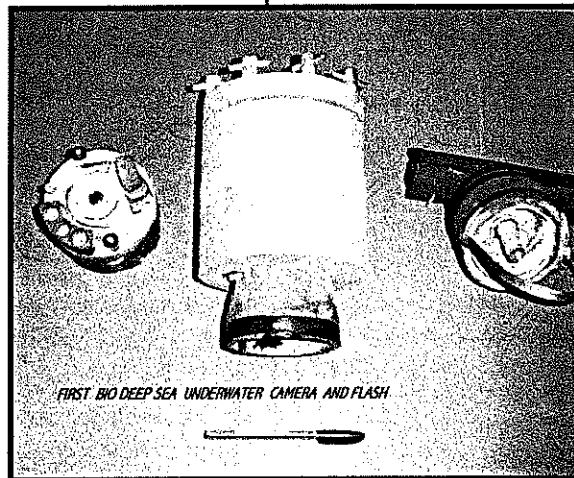
Where do we go from here? Well, now that there is an official BIO archives policy, we can start working on a proposal to expand the public education infrastructure already in place throughout BIO (remember those minitheaters and all of those shiny posters that cover BIO's "institutional green" walls). What I have in mind as an initial idea is to see how the collection of hardware that has been tabulated can be secured in an appropriate storage area, and to determine if we have missed anything (the heated storage areas and other warehouses in the 'bone yard' have yet to receive our attention but I have a feeling - when I think of my own projects - that they

just might yield a few more treasures). The next stage of the process will entail organizing the hardware into three or four theme categories that might fit into a space of say 60 square metres (or the equivalent of about 5 minitheaters of space). Once having reached that juncture, it will be time to approach BIO's management with a solid proposal to establish a new public education/BIO heritage facility as part of the long term building plan that we heard about at a recent "all staff" meeting in May. If we receive a green light from the "Tuesday Club", I would then consider refining a proposal for Canadian Heritage requesting funding for refurbishing hardware, preparing theme displays, and perhaps some sustainability cash that could be used to support

a part time curator (graduate student?) who could be around during public education events and perhaps to occasionally rotate/add displays to the crop on view at this facility at any particular time.

Does this seem like a 5-year project? Probably. Will I live long enough to see it through? Perhaps.

In the meantime I am challenging the membership to get involved with this initiative, especially some of you young energetic early 60's types so that it can be steered around all of the delays and frustrations that we can expect in dealing with "government". If you think you might enjoy this venture, feel free to contact me, Dale Buckley, or Sherman Glazebrook. Once I detect that we have achieved a 'critical mass' of human resources, I'll likely start taking double doses of my daily vitamin supplement (D. Buckley will probably rely totally on his unproven vitamin C therapy) and try to move things forward. I promise that there will be no outside work during black fly season or in the winter - and the storage container will definitely be off limits for business meetings. That leaves at least three months each year x 5 which I feel is sufficient time (15 months) to bring this project to fruition given the intense dynamic character of the average OA member.



...continued from page 9

confined to shallow coastal waters. Absolutely beautiful marine fish are common over the reef areas. A breath-taking experience for sure.

The coastal rain forest is also a unique ecological area, with a tremendous variety of trees and other plants. It seems that any plant introduced from another part of the world will also thrive in this verdant land. Our visit to the mountain rainforest required a 7 km trip by gondola up to the village of Kuranda over the rain forest canopy, and a return trip down the mountain by way of an antique railway train. What a thrill. Another golf game was enjoyed by one of us at Paradisi Palms Golf Course near Cairns. This course gives a whole new meaning to beautiful fairways with tropical flowers, scenic bridges and a stunning club house. Only disappointment—no kangaroos hopped out on course.

We visited the Sydney area last, taking time to view many parts of the city and enjoying a day long visit to the Australian Museum. We did the usual tourist things, like visiting the Sydney Opera House, harbour tour, and Manly Beach. We did not, however, climb the harbour bridge. Our entertainment highlight was to unexpectedly see the musical Mamma Mia that has been playing in Sydney for two years. From Sydney we rented a car and drove through the Blue Mountains north of the city and then south west to Canberra in the Australian Capital Territory. Canberra is a planned capital city that has grown from a somewhat sterile beginning to a city full of national museums and parks. The city was nearly invaded by the forest fires in March, only two months before we visited. It is absolutely amazing to see how the eucalyptus trees have already begun to produce new growth in spite of the fact that they were completely engulfed in the forest fire. We drove back to Sydney along parts of the coastal highway #1 that completely encircles Australia. This drive provides thrilling views of the coast and the forested mountains.

As with all travel we have learned a great deal about the geography and culture of these two countries. We better understand their attitudes and opinions. We appreciate their struggles to be unique and identifiable. Some of you may now wonder why we have called this our ski trip. It is because we were Spending the Kids Inheritance.

Ocean Association's Annual Summer Barbeque

LUNCHEON BY THE SEA OF ST. MARGARET'S BAY

Thursday, 21 August 2003 (1:00 pm)

HEAR YE! Hear ye, all BIO-OA members, family and friends! Come along and join us at 'Lundy Lodge', Head of St. Margaret's Bay, NS, for a fun-filled and relaxing summer barbeque by the sea, along with your hosts Angela and David Nettleship. Bring your meats for the grill and favourite beverages, and whatever side dishes you wish to contribute to the general food table: e.g., salads, pasta, deserts, etc. -- the more the merrier. Also bring your own cutlery and chairs. A variety of punches and cold/hot drinks will be provided along with good conversation and companionship. A few sea-kayaks will also be available for paddling, and don't forget to bring your bathing suits and towels if you're keen on having a swim! All this fun and more -- truly a summer OA event not to be missed. PLEASE contact Jackie Dale (ph: 466-2584; e-m: jdale@aol.com) to 'sign on' and identify foodstuffs to bring.

Location: 'Lundy Lodge', 25 Tidewater Lane, Allen Heights (AH), Head of St. Margaret's Bay, Nova Scotia (a short drive from Bedford, Dartmouth, or Halifax).

Directions: From Exit 5 on Hwy 103, proceed west c. 2.3 km to the end of Hammonds Plains Road (T-junction facing traffic lights and SuperStore), turn RIGHT (puts you on Hwy 3) and continue straight through another set of traffic lights past 'Two Gulls Restaurant' on your left and 'Unlimited Country' landscaping on the right. A short distance later on you'll pass a NS hydro-power station on the left at the Head of St. Margaret's Bay and a tennis court on the right, and then up around the corner another half km or so you'll come to a ball field on the left, immediately after which is the entrance to Allen Heights (marked by an AH sign with a sailboat) on the left. Turn LEFT into Allen Heights, then make another LEFT at the first street on the left (Parklea Drive), go down a short slope and turn LEFT onto Tidewater Lane. You've made it! Lundy Lodge (25 Tidewater Lane) is the fifth house on your RIGHT, a two-story dwelling, light natural tone wood siding with dark brown trim. **Come around the back and join the fun!**

For information contact: Angela or David Nettleship (phone: 826-2360; e-mail: dnnlundy@navnet.net).

MEMBER AWARDED HONOURARY DOCTORATE

Dr. Charlotte Keen, a research scientist in the field of geophysics with the Geological Survey of Canada at BIO from the 1960s until her retirement in 1998, was recently given an honorary doctoral degree by Dalhousie

University for "her outstanding and widely recognized contributions" and her standing as "a path breaker and role model for other women through her professional competence and leadership skills". Dr. Keen continues to be active in her field as an emeritus scientist.

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.

Officers and Directors:

| | | | |
|---------------------|-------------------------------------|--|--|
| PRESIDENT | Dr. David Nettleship | 826-2360 | dnnlundy@navnet.net |
| VICE-PRESIDENTS | Dr. Jim Elliott | 434-6072(h) 426-4163(o) | eljgj@istar.ca |
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| TREASURER | Ms. Betty Anderson | 443-2572 | bettyvanderon@hotmail.com |
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| | Mr. Sherm Glazebrook | 434-5823 | jacqieg@sprint.ca |
| | Dr. Charles Schafer | 861-3145 | charleschafer@hotmail.com |
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| | | | |
|------------------------|--------------------------|----------|---|
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| WEB MASTER | Dr. Bosko Loncarevic | 835-9606 | infocd@cd-books.com |

Committees/ Working Groups: Chairs

| | |
|--------------------|--------------------------|
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| PHOTO ARCHIVES | Mr. Michael Latremouille |
| EQUIPMENT ARCHIVES | Dr. Charles Schafer |
| SOCIAL ACTIVITIES | Ms. Jackie Dale |
| BELUGA AWARD | Mr. Dale Buckley |

} See
above