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## BIO-OCEANS ASSOCIATION NEWSLETTER

Issue 53

January 2012

## BIO 50th Anniversary Year starts off with a spectacular lecture about RMS *Titanic*

Steve Blasco, a geologist with the Geological Survey of Canada Atlantic at BIO, delivered the first of the monthly public lectures to celebrate the 50th anniversary of the opening of the Bedford Institute of Oceanography to an overflowing William Ford Auditorium. His topic was the RMS *Titanic*. He had visited the *Titanic's* resting site in 1991 aboard one of the Russian Mir submersibles. The 100th anniversary of the *Titanic* disaster is also commemorated in 2012.

Photographs (to the right): Steve Blasco at the podium responding to a question from the audience; (below) Every seat was occupied in the William Ford Auditorium at BIO for the first public lecture of 2012



# 2012 Bedford Institute of Oceanography 50 years

Contents		
BIO 2012 Lecture: Titanic	1	
From the President	3	
In Memoriam	3	
BIO-OA Winter Seminar "Galapagos on Land: The Story of Joggins Fossil Beds"	3	
Upcoming BIO 2012 lectures	3	
Editor's Keyboard	4	
About the Association	4	
Bob Conover (1927-2011): A life-long friend	5	
Noteworthy Reads	8	
Farewell to Sheri	11	
An Excerpt from Box 26: BIO Archives	11	
Introducing the VoicePipe	12	
New Equipment Archive Policy	12	



#### Page 2, Issue 53, January 2012, BIO — Oceans Association Newsletter



Photographs (clockwise from top left) Steve describes the unexpected evidence of deep sea seafloor currents; French scientists examine an acoustic record, the red circle marks the acoustic image of the *Titanic* wreck site; and Rose DeWitt Bukater (Kate Winslet) and Jack Dawson (Leonardo DiCaprio) from the James Cameron film, *Titanic*, share a tender moment on the screen in the William Ford Auditorium.

Steve's lecture was wide ranging including the search for the wreck of the *Titanic* in a joint American and French survey, a description of the Mir submersibles and the cramped space three persons had to share for many hours, a tour of the wreck site with some images taken by the IMAX camera, the filming of the Oscar winning picture *Titanic* by James Cameron, and finally the real "Jack and Rose" love story. Steve peppered his lecture with many humorous anecdotes often in a "fluent" Russian accent.

A very interesting portion of his lecture was the scientific discoveries of the expedition including biota and evidence of deep-sea currents that had not been anticipated and the geotechnical investigations of the *Titanic's* steel plate.

Steve's lecture was a very successful kick-off for the BIO 50th anniversary year and is a harbinger of great things to come!



## From the President

And just like that it is 2012 – this is it, a big year for BIO – its 50<sup>th</sup> anniversary! Steve Blasco's lecture was a great start to a year of special events, so stay tuned for more great lectures and special events. This is a special opportunity for the retired members of the OA to reconnect with the world-class science that has been the hallmark of BIO over the past 50 years. For those members still employed at BIO, it is an opportunity to become better acquainted with the scientific advances that established the Institute as a world-class marine science institute.

This year, as we celebrate the 50<sup>th</sup> anniversary of BIO, we will revisit 50 years of remarkable scientific achievements in a commemorative book. The book that will be published in time for the 50<sup>th</sup> Gala celebration will be a record of the important advances that were made at BIO in marine science. An important part of that record is the people – the friends and colleagues and the eccentric behaviours that are often associated with the brilliant.

In this edition we have the wonderful story written by Gareth Harding of one of the more memorable scientists to grace the halls of BIO. Bob Conover came to BIO in 1966 and made his mark as a world renowned zooplankton ecologist. But just as importantly, Bob made a major contribution to the ongoing discussions of marine ecology at BIO. The 1970s and 1980s were the golden years for marine science in Canada. Bob was one of the more colourful characters who forged new and important advances in our knowledge of marine ecosystem structure and function.

The OA is working with the science directors to ensure that important links to the history of science at BIO are not lost. A policy regarding the archiving of marine science equipment has been developed that identifies the type of material that should be archived and assigns responsibility for storage and record keeping. The OA hopes to establish similar agreements for the art work and other important artifacts that record the story of science at BIO and the people who work here. If you are interested in helping with these initiatives please contact a member of the OA executive.

I look forward to seeing many of you at the special lectures and events over the next 11 months.

Paul Keizer

For immediate release: 25 October 1962

NEW INSTITUTE WILL HAVE A FLEET OF MODERN RESEARCH VESSELS

#### **BIO-OA Winter Seminar**

"Galapagos on Land: The Story of Joggins Fossil Beds"

Dr. John Calder

NS Dept. of Natural Resources

#### Sunday, 4 March 2012, 1400h

Ford Auditorium, 4th Floor, BIO

For 19th century researchers, the Joggins Fossil Cliffs offered a stunning variety of fossil discoveries that led to a new understanding of geological and evolutionary principles. Come and learn about the fossils that reveal so much about the past, details that are guaranteed to excite and stimulate! The lecture will complement Dr. Calder's soon to be published book, 'Coal Age Galapagos'. Everyone is welcome.

#### For immediate release: 25 October 1962

CANADIAN COAST GUARD COMPLETES ANNUAL ARCTIC RESUPPLY AFTER RECORD-SETTING PROBE OF UNCHARTED WATERS

### **Upcoming Public Lectures BIO 2012 Lecture Series**

**8 February** Steve Campana - Big sharks, small sharks

and more sharks in Canada

**14 March** Gordon Fader - The role of BIO in Bay of

Fundy tidal power development

11 April Steve Blasco - The Arctic

9 May Ken Lee - The 2010 Gulf of Mexico oil spill

13 June Kumiko Azetsu-Scott - Ocean acidification

#### **Social Coordinator Wanted**

The OA executive is still seeking a person or persons to coordinate the 'Social Program' for the Oceans Association! The task is made easy by using the list of potential events already identified for consideration.Please contact President Paul Keizer (ph: 861-1819, e-m: keizerp@gmail.com) or any other member of the executive.

## In Memoriam

Robert Keith "Bob" Foote, died 23 November 2011, Marine Engineer, CSS *Baffin* and CSS *Hudson*.

Myrtle M. Barkhouse, died 9 January 2012, Central Records.

#### Page 4, Issue 53, January 2012, BIO — Oceans Association Newsletter

**Editor's Keyboard:** Happy 2012. This 50<sup>th</sup> anniversary year will be full of memorable events leading up to 25 October and beyond. The *VoicePipe* will contribute to the celebration with a special expanded issue in October. Issue 53 has articles on two important resources that help preserve the BIO story. Marilynn Rudi and I enjoyed rummaging through BIO Archives Box 26 that covers BIO's official opening. It is one box of many with yet to be discovered treasures. David McKeown, working with BIO managers, has developed a new policy for the

equipment archives to ensure the most important pieces of BIO's instrumental legacy are preserved within the constraints of limited storage space. I learned while photographing voice pipes, that 2013 is the 100<sup>th</sup> anniversary of CSS *Acadia* and its first expedition to the Arctic—another opportunity for a party. Finally, I had to push Don Gordon's *Journey to BIO* to the next issue to make room for the tribute to Bob Conover. You don't have to be retired or at BIO for a long time - I want your story. *Andy Sherin* 

#### ABOUT THE OCEANS ASSOCIATION



The Bedford Institute of Oceanography Oceans Association (BIO-OA) was established in 1998 to foster the continued fellowship of its members; to help preserve, in cooperation with the Institute's managers and staff, BIO's history and spirit; and to support

PRESIDENT

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 \$10.00 per year, \$40.00 for five years, or \$150.00 for a lifetime membership.

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Paul Keizer

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#### PAST PRESIDENTS

Robert Reiniger (1998-2000), Dale Buckley (2000-02), David Nettleship (2002-04), Donald Peer (2004-06), Betty Sutherland (2006-08 and 2010-11), Bob O'Boyle (2008-10)

#### Page 5, Issue 53, January 2012, BIO — Oceans Association Newsletter

#### Bob Conover (1927-2011): A life-long friend

by Gareth Harding



I've known Bob Conover for a very, very, long time, over forty years. However, on attending the family ceremony last fall in Cobourg, Ontario, I learned some things I didn't know about Bob's life before Nova Scotia. Bob was born in 1927. the first of three children, to the Conover family in New Jersey, USA. He grew up in a small called town Mountain Lake that is pretty much the same backwater nowadays.

led a sheltered life from the Great Depression because his father held a secure job in the Bell Research Labs as an engineer. There were pictures shown of a small blond boy with big grin holding up small fish from the town wharf. Fishing was a passion that continued throughout his life and probably influenced his ultimate career choice of biological oceanography. He spent the summers at a family relative's farm where he enthusiastically remembered the haying. It is probably here that he developed his other interest, growing knee-high vegetables, very appropriate for his Dutch ancestry.

Sydne, his youngest daughter, spoke recently to George Wilson, a boyhood friend of Bob's who is still living in Mountain Lake. "George remembered Bob as a great football player". (All I knew of this was that Bob's shoulder acted up sometimes on portages, which he attributed to his football days). George recalled Bob with real pride as the guy who brought home results for their high school with 4 wins and no losses. Bob left school early that spring and his team never won another game. George remembers Bob as a real friend and gentleman, as many of us have experienced. It is more than a little incredulous, but Bob left his school early in 1944 to attend the Sullivan School in Washington, DC, to prepare himself for entrance exams at West Point Military Academy! Fortunately for the field of plankton ecology and many of his colleagues, Bob was turned down because of a skin condition! He served the remainder of the war in the military police at West Point, which he confided he wasn't very good at it.

In 1946 he was discharged from the army and took his undergraduate degree at Oberlin College where he met his future wife Shirley Anne MacMillan. He played varsity football as a full back where he is featured in a newspaper clipping as 'the tank'. Back in the 1970s we played noon-hour hockey in Shannon Park rink. Bob came out but definitely needed his stick to keep upright. Anybody who was around in the 1970s knew you didn't want to collide with Mike Gorveatt. Well, Mike ran into Bob and after the impact Bob was bending over Mike and asking whether he was all right!

Bob and Shirley were married in 1951. They headed for Yale University where Bob completed a PhD thesis with Gordon Riley, thoroughly studying the physiological and ecological underpinnings that enabled two sympatric copepods to share the coastal waters of Long Island Sound. He continued his research on the feeding physiology of copepods as a post-doc at Plymouth, UK, Rhode Island and the Woods Hole Oceanographic Institute, until the late 1960s, when he made a major advancement in a paper on the assimilation of food by copepods. The findings were adopted by the scope-for-growth movement to detect sub-lethal effects of stress and toxicants. Both these papers quickly became citation classics.

It was decidedly to Canada's benefit that Yale was not interested in supporting oceanography at the time. Gordon Riley was invited to build an Institute of Oceanography at Dalhousie University in Halifax, NS, and convinced Pete Wangersky to join him. Bob followed in 1966, by joining the Bedford Institute of Oceanography as a zooplankton ecologist and physiologist. I was a fresh student at Dalhousie University in 1966, not at all sure that I had the wherewithal to obtain a PhD in oceanography. My life was considerably brightened up by an older student who set up shop on the benches next to me. Shirley Conover had a fully developed family. She came charging into the lab at high speed around noon, clicked around madly to get her experiments up and running, give a cheery goodbye and clicked off into the distance. At a rare occasion when she had time to join us over coffee she learned that several of us spent the weekends backpacking with canoes. She asked me whether I couldn't take her husband with us. Well, her husband was a world renowned planktonologist which was a little intimidating for untried graduate students. I replied sure, hiding all my insecurity.

Well, Bob Conover turned out to be just as, if not more, casually dressed as a graduate student with absolutely no airs about him. Before long Bob was just one of the outdoor gang canoeing the backwoods and seacoasts of Nova Scotia.

Bob introduced the group to Admiral Lake, Baker Lake to the locals. We ascended up a steep wooded stream to Squint Lake with canoes on our heads, followed by a half-hour scramble up a very bouldery, overgrown fisherman's trail to Admiral. Bob pointed out some very brush-covered glacial rocks where he had camped with his family. In those days Bob could carry a canoe and a pack that weighed a "ton" over a steep hill through dense bush if the topo map indicated the possibility of a virgin, lake full of fish.

Bob is fondly remembered at the Bedford Institute of Oceanography as an eccentric. He was well known for long morning stints in the toilet stalls. On entering the washroom his colleagues often witnessed a pair of pants resting loosely in a pile around a pair of wellworn, black sneakers. Scattered around this pile of cloth lay a random pile of scientific papers. This was vocally accompanied by periodic loud throat clearings and other-worldly humming in no known musical form.

#### Page 6, Issue 53, January 2012, BIO — Oceans Association Newsletter

I was warned several times, both by Shirley and Gordon Riley, that Bob had a very explosive temper. One Woods Hole story relayed to me by a colleague was of Bob working in one of those old buildings with glassed off labs and high ceilings. The graduate students in the neighbouring labs heard the resounding crash of braking glass. Bursting from the lab, Bob slammed the large glass door, which shattered all around him. More moderate stories along this line occurred at BIO. Jean-Claude Therriault, a fresh graduate student from Quebec with rudimentary English was assigned a desk outside Bob's office. He was an avid trout fisherman and soon became a regular on our spring fishing trips. He confided in me later that at first he thought he was placed next to a mad-man. Bob could get extremely agitated with himself and kick his metal garbage can around his office. After a brief period of calm Bob would emerge from his office all smiles. Personally, I have never witnessed this side of Bob, but I took note that his garbage can had no smooth surfaces left. I have witnessed Bob releasing a string of graphic words worthy of a trucker while attempting to tie a new fly on the line. The circumstances were extenuating, however, with a trout breaking the surface under his nose and puffs of breeze blowing the line. Bob was never known for his tactile agility.

The Conovers used to hold a late summer water party in their back yard for the entire Marine Ecology Laboratory. Bob devised some games, most memorable being canoe jousting as in knights of old. Two canoes approached each other with the bow person, recall only men, standing on the gunwales holding a twelve-foot, sturdy bamboo pole. The end was well padded with a bundle of cloth tied and taped, together tightly, however, the canoe wasn't padded. The goal was to knock your opponent with sufficient force to send him overboard yet stay upright yourself. The stern paddler had to generate a lot of inertia and the bow person a solid and balanced confrontation. Needless to say it was a popular spectator sport with lots of hilarity and overturning of canoes. Once, I recall Bob being the stern man in a losing confrontation, but his canoe miraculously bobbed right side up with Bob emerging from a crouching position on his seat. Needless to say some bruises were obtained and thwarts broken and probably the reason it didn't continue for many years.

We had a couple of research cruises together where we could combine his interest in plankton physiology and my interests in ecology. A very successful cruise in the mid 1980s was Ken Drinkwaters' Labrador Shelf cruise designed to test Bill Sutcliffe's theory that freshwater outflow from Hudson Bay was responsible for the high productivity off the Grand Banks. Bob and co-authors wrote one of the first marine papers on climate change in the North Atlantic. I can remember we experienced a strong blow on this cruise when everyone staggered to their bunks with squeamish tummies. When I left, Bob was happily humming in his other-worldly music, doing things with his precious *Calanus* in glass beakers and rolling with the waves from one instrument to another. He was blessed with immunity to motion sickness.

Bob loved trout fishing, but salmon was the ultimate. Fall salmon fishing day-trips up or down the Stewiack River were a delight in the fall colours. When Bob caught a fish he invited his closest friends and Shirley provided the banquet. The Conover long-table was cleared of Shirley's bills and scientific papers, and a feast fit for kings was laid. Bob would detract slightly from the atmosphere by unceremoniously chopping the fish into equal portions for each

guest, right through the backbone. He could have taken advice from his cat on how to present a fish!

Bob was old school and never could bring himself to return a salmon to the water, although the rivers draining into the Bay of Fundy were in trouble by the late 1980s. I took to paddling Bob and enjoyed the birds, flowers, and fall colours. I secretly hoped Bob wouldn't succeed. We of course had an elaborate lunch, dogs helping to clean up, over a fire on a dry gravel bar along the river, ending with the most delicious tea from Bob's black tea pot. Nothing beats tea outdoors.

The coming of Christmas meant the annual tree hunt. Many families came on this over the years, but one year stood out more than the others. We would all amass at the end of the Spider Lake Road and the kids would jump into the back of Bob's pickup truck to continue on the rutted woods road to the Chittish's abandoned farm. The Darmouth golf club had bought the property with an eye to moving out of town and selling the downtown club for a killing. For all the above, we had no qualms about taking trees. They would probably be cut anyway for the new golf course. The particular year I'm recalling was cold, and Bob's truck broke through a half inch of ice on the puddles and streams that crossed the trail. Some puddles much to the delight of the driver and the kids, actually reached the running boards. On arrival, people fanned out to look for the ideal tree. No small feat given that the best trees were at the top of 30-foot firs. Of course there was a consultation with Sifford Pearre over whether a tree was a fir or a spruce. The latter drops it needles before the fortnight is over and smells of tom cat. Back at the truck with trees and excited kids, trees safely lashed on Bob's wiggly racks, the truck was started. I headed out with the dogs to beat the truck and all the tidal waves in the puddles when Bob called me back. The truck wouldn't move. Hailing from Quebec, I knew each wheel had to be removed and the breaks banged. After all wheels had been banged with a wheel wrench, the truck magically came to life and Bob broke into his big, broad smile. Crash, sway, giggle of children all the way back to the Conover's house. Shirley insisted that we all come in for tea, optionally spiked, and sit around the fire. She had balls of marzipan and candied orange peal prepared for each family. Well, back into our cars and Bob convinced us it would be easier if he delivered the trees. Guess what? The truck was frozen solid. With a big grin, Bob and I took all the wheels off, but this time we had a hammer to bang the brake drums. Our house at Smith Street was his last stop so we invited Bob in for a scotch. Wouldn't you know the wheels were frozen, again. Big grin and off came all the wheels consecutively. The next day in the lab, Bob informed me with a big grin that the wheels were frozen again that morning.

Bob retired from BIO in 1994 and moved to a 75-acre farm in Bewdley so that they could be close to the maximum number of grandchildren. Bob and Shirley took advantage of the opera, symphony and theatre available in the Toronto area. However, Bob juggled things so that right after getting his garden in he could head to Nova Scotia for some trout fishing and canoeing. The same thing occurred in October, except this was salmon-fishing time. Shirley made a last effort to spruce Bob up by outfitting him in a Tilly hat, coat and pants, complete outfit! Bob went along with this, I suspect because of all the pockets, and briefly abandoned his Harris. Well, it didn't take long before he had his new hat drooping and outfit all dusted. It didn't take long for the Harris to reappear, besides it was warmer.

#### Page 7, Issue 53, January 2012, BIO — Oceans Association Newsletter

about being in the woods with Bob was the all-pervasive sense of timelessness. Bob was an aboriginal at heart. Bob was always for stopping and having a cup of tea and loved high-energy scrunch or brownies. Bob and I were always last out of the woods on our innumerable trout fishing trips together. Don Gordon was always first out. It had to be almost dark before we reached the car. I took to bringing a flashlight just in case we didn't quite beat the night, but we always did, only just. The rise of a trout was irresistible to both Bob and my Jack Russel Mabel. In the latter years when Bob couldn't carry his own canoe, he had to fish from the bow of mine and put up with Mabel who watched tirelessly as Bob placed his fly over the water, jumped up, and ran to and fro along the gunwales when Bob got a strike and was into the water at the first break of the surface. Bob laughing, and then with concern of losing his fish, would tell me to control my dog. The interest of man and dog where identical on at the Antigonish office next time I was going by. Wouldn't you the water.

Bob and Shirley's support of the arts religiously continued with the Toronto venues. Bob and Shirley came down for the Marine Ecology Lab reunion held a couple of years ago. They slept in my bed since it was the only double bed ready for service. In the middle of the night there was a lot of commotion. Bob said everything was under control and that Shirley had had a little accident. He asked for some more towels. This was the loving, caring side of Bob that surfaced as Shirley's dementia condition worsened. I was relieved to find out in the morning that my bed was fine.

About 7 or 8 years ago, Bob had a mini stroke that resulted in the loss of a section of his vision and this didn't allow him to renew his driver's license. Bob was not to be deterred. He came down with his long-time friend, Barry Hargrave, who had recently retired to Ontario as well. Barry drove Bob's truck and was very proud that they had made the entire trip without a stop at a Tim Horton's. Bob was very susceptible to maple-walnut sticky buns, which are not very healthy for you. Bob then took to coming every spring and fall by himself on the train thanks to Sydne and Raonull's logistical help. He still carried enormous packs that contained everything but the kitchen sink! I was concerned that the enormous government-issue briefcase filled with papers and books would cause him to have a heart attack. He carried this and other stuff a good long distance down the platform at the Halifax train station where I, of course, was not allowed to intercept him. Two enormous packs and fishing rod in tube arrived later in the baggage carousel.

Over the last five or so years, Bob had a series of mini-strokes, which effected his memory, particularly his past. I would remind him of some incident from the past and he would say, "How come you know so much about me?" Well Bob, we've known each other for over 40 years.

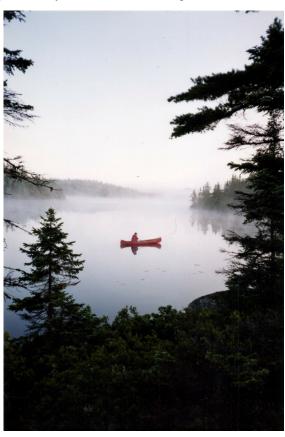
Nevertheless he carried on like a trooper with his seasonal migrations to Nova Scotia with the blessing of his daughter Sydne. He still liked to visit the new journal room at BIO but couldn't remember whether he knew people he came across. I would give him a two liner on people he knew as they approached. He was quite happy with this.

Two years ago, Bob couldn't get a fishing license because the lady behind the counter at Canadian Tire insisted he needed proper ID, meaning a driver's license, which Bob no longer had. Well, I hadn't crossed paths with a warden in 38 years. Wouldn't you know, a big

Wherever we went, Bob had his black teapot. The beautiful thing black fisheries truck pulled up as Bob was trying to tie his fly on the bridge over West River. Oh boy, I stopped fishing and came up to the car. Where did I put my license? Out hopped a friendly enough looking young man dressed all in black with revolver and various electronic packages on his hips. Fish wardens no longer have denims and baseball hats. Well, I had a long chat with him about the weather, beauty of the place and natural history, and found out his father was a lobster fisherman just down the shore from me. I told him Bob and I were retired DFO scientists and, in fact, I'd done quite a bit of research on lobsters. Finally, he came up with, "You know what I'm going to ask you?" Well, I tried to explain Bob's problem, and then weakly, my not being sure where my own license was, probably left in haste on the mantelpiece at home. Bob, four feet away, was oblivious to the entire situation, still trying to get his \*\*\*\* fly attached. The young officer told me to drop off my license know that my license was in the outer pouch of my pack all along. Next week I dropped off the license and a copy of our latest lobster paper for his dad.

> Last year, Renee and I found it a real challenge to find a gradual enough slope to get Bob to the water. I knew things were not good this past spring when he would normally talk up a spring trip. His caregivers told us that Bob had had a bad spell, but Bob never let on. We introduced Renee's mother Belle, who at 86 couldn't remember what had just happened, to Bob on one of our visits. I took them to the Buttermilk Café in Cobourg where it was great fun to watch them flirting.

> Bob has had a charmed life and stayed in his home to the end, thanks to Sidne. Bob, with all his eccentricities, drooping Tilley hat, tweed jacket, Vic's cough drops and other-worldly humming, will be resolutely missed by his friends and colleagues in Halifax.





## NOTEWORTHY READS: BOOK REVIEWS IN BRIEF

David N. Nettleship Book Review Editor

The *Noteworthy Reads* section is an effort by BIO-OA to produce a representative list of recent noteworthy book publications related to the marine sciences and other subjects of general interest. The listing is not intended to be comprehensive or complete, but merely an attempt to highlight a number of 'good reads' that may be of interest to OA members and associates. Most books listed are available at local bookstores and public libraries. Book prices are regular retail in Canadian funds, but discounts of 20-30% are normally available on line at: e.g., amazon.ca or chapters.indigo.ca. Contributions of book reviews to 'Noteworthy Reads' are welcome – send via e-mail to David Nettleship: dnnlundy@navnet.net (phone: 902-826-2360).

#### **SPECIAL PUBLICATION:**

#### SCIENTIFIC HISTORY OF AN ANCIENT OCEAN

Stow, Dorrik. 2010. Vanished Ocean: How Tethys Reshaped the World. Oxford University Press, Oxford, England. 288 pp. Hardcover, \$34.95 (ISBN 978-0199214280). – Looking for a scientific mystery to read during the doldrums of winter? Well, this incredible book by world-renowned geologist and oceanographer Dorrick Stow, a gripping scientific history of the vanished sea 'Tethys' might fit or exceed the bill! First published in June 2010, and about to appear in softcover in April 2012, Vanished Ocean presents the geologic story of the suspected birth of a vast ocean, named 'Tethys' by oceanographers, 250 million years ago and its subsequent disappearance a short six million years ago. Questions abound: How was it created? How and why did it vanish? What is the evidence that it actually existed? And what does all of this mean to us now? These and other questions are answered by author Stow with effortless clarity and scholarship that turns the subject into a science mystery thriller. He combines the findings of marine geology, biology, ecology, and physics into a meaningful whole that elucidates plate tectonics and the life of this vanished ocean. Explanations of complex issues of geological and biological discovery spanning centuries of time are unusually thoughtful, delivered in almost poetic prose that captivates, informs, and entertains the reader – scientific story-telling at its best! Vanished Ocean will be enjoyed by anyone interested in the history of the planet and the oceanographic sciences, especially geology and biology, and our place and responsibility within the framework of an ocean world.

#### General Reviews

Fagan, Brian. 2011. Elixir: A History of Water and Humankind. Bloomsbury Press, New York, NY. 385 pp. Hardcover, \$35.00 (ISBN 978-1608190034). - This new work by renowned scientist and writer Brian Fagan, spans five millennia and examines the relationship societies have had with water since ancient times. He takes the reader from ancient Mesopotamia to the parched present of the Sunbelt, including reviews of water management across the world from ancient Greece and Rome, to China. The central message delivered is "every human society has been shaped by its relationship to the most basic necessity of life - water". Absence of easy access to water and its predictability, along with mismanagement, have erased many societies in the past. Fagan takes us on a short history of water and humankind by identifying three ages, each with its own defining characteristic: the first, lasting thousands of years, viewed water as sacred and mystical where scarce or unpredictable; the second, the time of the Industrial Revolution, came the onset of water control through new technologies leading to view water as a commodity to be exploited with no regard for sustainability; and the third, one of contemplation as today's populations experience water shortages in a world of overpopulation and pollution. Fagan's detailed examination of our past use and abuse of water, along with conditions today worldwide, is a 'wake-up call' to all of us about the looming water scarcity crisis that can no longer be ignored.

Flannery, Tim. 2011. Here on Earth: A Natural History of the Planet. HarperCollins, Toronto, ON. 316 pp. Hardcover, \$32.99 (ISBN 978-1554689811). – Tim Flannery, internationally acclaimed paleontologist and ecologist, has produced another important work to inform and challenge humanity worldwide, as did his earlier award-winning 'The Weather Makers'. 'Here on Earth' charts the history of humankind and its planet, integrating the multi-facets of modern science into a better-understanding of the major impact humans have had on resource sustainability and what it means to our future welfare. Flannery's well-written presentation of the facts, delivered in a most thoughtful and persuasive manner, is engaging and moving. It shows how reckless we have been in the past and what the likely fate of humankind will be if we continue to overexploit natural resources, pollute, and destroy key ecosystems. He shows how nature works, and explains what science needs to be pursued and how modern science and technology can be applied to attain a healthy planet for the longterm. Flannery closes the discussion with a clear roadmap of how to change the course we are on from destruction toward restorative habitation. Let's hope we're smart enough to adopt it!

#### Page 9, Issue 53, January 2012, BIO — Oceans Association Newsletter

Laffoley, Steven. 2011. The Devil and the Deep Blue Sea. Pottersfield Press, East Lawrencetown, NS. 223 pp. Softcover, \$19.95 (ISBN 978-1897426272). – Looking for some light, but interesting and informative reading to wile the days of winter away? How about a good ole unsolved murder mystery, true and close to home sound albeit from a different century? If attractive, go no further, as Steven Laffoley's indepth crime investigation of a 'cold-case' of three murders committed in 1896 is a gripper! An old schooner from Boston sailed out from Halifax Harbour with twelve aboard of which only nine survived – the captain, his wife, and second mate were killed, all with an axe! This is marine intrigue at its best – murder, mystery, and madness – with the findings totally unexpected and exciting, 115 years after the fact.

Larink, Otto and Wilfred Westheide. 2011. Coastal Plankton: Photo Guide for European Seas. Verlag Friedrich Pfeil Publishing, München, Germany. 191 pp. Softcover, \$49.40 (ISBN 978-3899371277). - This second edition of an important work first published in 2006 is significantly larger and more complete than the first. The authors have expanded the number of photographs from 660 to 929 (861 coloured, 68 b&w) including many new ones on Mediterranean species. Altogether, the volume provides an exceptional visual feast of the wonderful world of marine plankton and a comprehensive introduction to the subject. It is an outstanding photo guide, designed so it can be placed beside a microscope easily, and has an exciting introduction that summarizes what is known about phytoplankton and zooplankton diversity, pelagic larvae, life cycles and resting stages, and the methods employed to sample and process coastal plankton. A literature cited section and index end the work, along with a useful list of selected internet-addresses of databases with information on marine plankton. Like the first edition, this book is for investigators, both expert and lay person, with a special interest in marine plankton and the identification of small life forms in seawater. This work will assist the endeavour greatly!

Lidgard, Damian. 2011. Sable Island. Nimbus Publishing, Halifax, NS. 102 pp. Hardcover, \$27.95 (ISBN 978-1551098708). – An attractive photo-portrait of the island and its plant and animal inhabitants divided into six parts: Introduction, Land-Sea-Sky, Sand, the Wild Horses, Residents and Visitors, Past and Present. The photographs are exceptional and succeed in providing an accurate feel for the island and its inhabitants, both natural and introduced (the horses). Although many books have already been published on Sable Island, including several photo-type essays, Damian Lidgard has produced a collection of photographs that inspire the viewer making them a 'believer' of the need to protect this small sandbar on the edge of the Scotian Shelf. Overall, this 'Sable Island' is a fine pictorial work with a little text that

will serve as a valuable tool for public education and be a useful addition to the reference collection of any aficionado of Sable Island or ocean islands generally.

Mann, Charles C. 2011. 1493: Uncovering the New World Columbus Created. Alfred A. Knopf, New York, NY. 535 pp. Hardcover, \$34.50 (ISBN 978-0307265722). - From the author of '1491' that described the Americas prior to the European invasion in 1492, comes the expected follow-up work that shows how the ecological contact between Europe and the 'New World' impacted human history. In this thought -provoking and informative book, Mann describes the profound changes in the world since the original voyage of Christopher Columbus. The movement of plants and animals, minerals, foods, people and diseases produced unforeseen ecological, political, economic, and religious upheaval that culminated ultimately in the creation of the modern world. The subject spans continents and centuries of time, and represents a unique and fascinating survey of facts presented in a well-written and researched manner. It succeeds in convincing the reader to re-visit and re-evaluate long-standing interpretations of past historical accounts and explanations of why our world is the way it is. Read, ruminate, and view history in a fresh way!

Roff, John and Mark Zacharias. 2011. Marine Conservation Ecology. Routledge (Taylor & Francis Group), New York, NY. 320 pp. Hardcover, \$84.00 (ISBN 978-1844078837). - Every so often it's wise to sign on to a refresher course on your special subject of interest. For anyone wanting an update on marine conservation, this recent textbook by John Roff and Mark Zacharias will be invaluable. It provides a comprehensive and well-ordered review of marine ecology, and how existing information can be used to attain marine conservation and management goals. The authors start by reviewing why marine conservation is such a vital issue in the 21<sup>st</sup> century, critical to the health and welfare of present and future generations. The major characteristics of the marine environment are then outlined to provide the ecological foundations of marine conservation, including the structure and function of differing levels - from genes, species, communities, to ecosystems - and the ultimate meaning and importance of marine biodiversity. The great success of this book lies in how effective Rolf and Zacharias have been in describing approaches available for conservation and providing clear demonstrations of how goals can be achieved by the application of solid science and wise decision-making. This is a 'must-read' for marine biologists, conservation practitioners, planners, managers, and for students considering advanced degrees in the marine sciences.

Safina, Carl. 2011. A Sea in Flames: The Deepwater Horizon Oil Blowout. Crown (Division of Random House), New York, NY. 353 pp. Hardcover, \$28.95 (ISBN 978-0307887351). - Here is an impressive and insightful account of the 2010 BP Gulf of Mexico oil blowout, the worst deepwater offshore disaster recorded to date. Carl Safina, a marine biologist and award-winning author ('Song for the Blue Ocean', 'Eye of the Albatross', 'Voyage of the Turtle'), delivers a sensitive and thought-provoking review of events that led up to the blowout, mistakes made by industry and government in dealing with it, and the consequences of the unintended release of oil on Gulf waters, wildlife, and the communities of people dependent, directly or indirectly, on the natural marine resources of the region. The narrative is fast-paced. well researched and written with a complete reference section and index. He divides the subject into three parts: the first, 'Disaster Chain', sets the scene, underlines the weaknesses of the operation -- both engineering design and safety preparedness – including the 'déjà vu' attitude of all the players before and after the blowout on 20 April 2010; the second, 'A Season of Anguish', chronicles happenings from May through July as the environmental struggle mushrooms into a horror story; and the third, 'Aftermath', a careful analysis of responses during August and the autumn. This book is an extremely important overview of the complexity of a deepwater oil drilling disaster, one that the public, governments, and industry can learn from to prepare for the next one!

Spotila, James R. 2011. Saving Sea Turtles: Extraordinary Stories from the Battle Against Extinction. John Hopkins University Press, Baltimore, MD. 216 pp. Hardcover, \$25.80 (ISBN 978-0801899072). – James Spotila, a professor of biology at Drexel University and renown international researcher on sea turtles, expands the call for conservation given in his earlier award-winning book 'Sea Turtles: A Complete Guide to Their Biology, Behavior, and Conservation' (2004). With 'Saving Sea Turtles', he takes readers inside the modern-day conservation movement and reveals the challenges faced by present-day sea turtle conservationists and the tools they use to help achieve conservation goals. In the process, Spotila shows the passion and determination of the workers, and provides an updated overview of the biology of the seven sea turtle species, their life cycles, present status, and threats to their survival from human activity such as pollution, hunting, and destruction of nesting grounds. Like Archie Carr and Jacques Cousteau before him, James Spotila draws attention to the perilous plight of sea turtles, even more precarious than earlier, to inform the public at large and generate the concern that will result in conservation action and protection. This book will definitely inform and inspire readers, and hopefully over the long-term help ensure the survival of sea turtles worldwide.

Stevenson, Andrew. 2011. Whale Song: Journeys into the Secret Lives of the North Atlantic Humpbacks. Lyons Press, Guilford, Connecticut. 165 pp. Hardcover, \$29.95 (ISBN 978-0762779710). – A beautiful volume, both visually and in reading, of a most personal account of a long-term study of North Atlantic Humpback Whales off Bermuda, their migratory movements and marine habitat. Stevenson, an accomplished underwater photographer, decided to produce a film of the whales through their migratory crossings. After five years of study and close to 1,000 hours in or on the water with the humpbacks, not only did he succeed in producing an award-winning documentary film 'Where the Whales Sing' (2010), but provided new information on their use of waters around Bermuda, breeding locations in the Caribbean, and feeding grounds in Atlantic Canada. This book -- 'Whale Song' -- is an outgrowth of the film endeavour. It begins with a prologue and maps depicting the study area in Bermuda, followed by ten informative chapters: Magical Whale, Into Uncharted Waters, Identifying Candle-fluke IDs, In the Breeding Grounds, Sleepers and Mating, The Grandmother Hypothesis, Candle and Harry Potter Reappear, What does the Future Hold for the Magical Whale?, and ends with an appendix of whale fluke IDs. A delightful book, packed with information on these magnificent giants of the deep, that will satisfy all whale enthusiasts both professional and amateur.

Stolzenburg, William. 2011. Rat Island: Predators in Paradise and the World's Greatest Wildlife Rescue. Bloomsbury, New York, NY. 279 pp. Hardcover, \$32.50 (ISBN 978-1608191031). - Here is a conservation book that deals with the problem of introduced predators on islands and what to do about them. Science writer Stolzenburg specializes on the history and consequences of the introduction of alien predators to fragile island ecosystems, vividly summarized in his previous book 'Where Wild Things Were'. The present important work provides a solid history of the development of the recent 'preservation through eradication' management approach to help safeguard threatened and endangered indigenous seabird species breeding on islands around the world. The introduction of mainland predators -- rats, cats, foxes, raccoons, goats, pigs - by humans to predator-free islands through the 19th and 20th centuries caused the reduction and extirpation of many colonies of nesting birds. As an example, the history of the Rat Islands in the western Aleutians, Bering Sea, is highlighted. It shows the devastation that occurred and the steps now being taken to protect remnant populations from total annihilation by established introduced rats, foxes, and goats. The science and eradication techniques used to remove the alien predators are outlined, as are details of the management philosophy and the nature of the workers executing the demanding conservation requirements. 'Rat Island' is a must-read by anyone interested in the repair of massively disrupted island ecosystems and the ethical issues involved. E.O. Wilson's summary of the book says it all: "Science writing at its best!"

#### Page 11, Issue 53, January 2012, BIO — Oceans Association Newsletter





**Farewell to Sheri:** Members of the BIO Ocean Association and many other well wishers met at the home of Sheri Srivastava, emeritus scientist with the GSC Atlantic, on 16 November 2011 to bid him farewell before he moved to Vancouver to be closer to his daughter and her family.



#### DEPARTMENT OF MINES AND TECHNICAL SURVEYS

EDITORIAL AND INFORMATION DIVISION

94-5160 ; 94-9278

FOR RELEASE October 25, 1962.



Figure (above left) Letterhead from a Press Release dated 25 October 1962. Photograph (above right) Marilynn Rudi, BIO Archivist, examines the contents of Box 26 from the BIO Archives.

#### An Excerpt from a Press Release in Box 26, BIO Archives: WHAT IS CANADA DOING IN OCEANOGRAPHY?

"OTTAWA - Canada has long been interested in the seas surrounding it.

Before the turn of the century Canada embarked on a program of tidal studies, and early in the 1900's the Canadian Hydrographic Service assumed responsibility for the sounding and charting of Canadian waters formerly carried on by the British Admiralty.

At approximately the same time, oceanographic studies applicable to fishery (sic) problem were initiated, and for many years the Fisheries Research Board has carried on a gradually expanding oceanographic program.

In more recent years, other federal agencies have been involved in various aspects of the broad science of oceanography....

The activities of these organizations are coordinated by the Canadian Committee on Oceanography, which ensures that all Canadian oceanographic resources are best used to provide a well-rounded oceanographic program. Ships and equipment are shared to advantage and joint projects are undertaken to meet the common requirements of the various agencies."

The Press Release goes on to describe the activities of the Fisheries Research Board, the Royal Canadian Navy, the Royal Canadian Air Force, the Defense Research Board, the Department of Transport, the Department of Mines and Technical Surveys and the National Research Council.

#### Page 12, Issue 53, January 2012, BIO — Oceans Association Newsletter

## Introducing the new name of your OA Newsletter: 'VoicePipe'

At the December 2011 meeting of the BIO-OA Executive, it was decided to name the Newsletter, 'VoicePipe'. A voicepipe is a tube used to convey the voice from one part of a ship to another. The technology continued to be used into the electronic age due to its reliability and low cost. Voice pipes are unaffected by a complete electrical power loss or by an electromagnetic pulse. Warships built as late as the 1950s continued to incorporate voicepipes alongside more advanced technology.

The name 'VoicePipe' was chosen because a voicepipe is a communications device, as is the Newsletter, and because of its nautical affiliation. Future issues of the newsletter will use a new design that will reflect its new name.

Photographs: Examples of voicepipes from the CSS *Acadia*. The Editor thanks Lynn Murray and Steven Reid of the Maritime Museum of the Atlantic for access to the *Acadia* to take these photographs.



#### New Equipment Archives Policy Developed

The BIO-Oceans Association Executive and the BIO Campus Management Committee have developed a new policy on the storage of archived oceanographic equipment.

Items to be included in the archive in the future must have one or more of the following characteristics: created by BIO staff; created by a commercial entity under contract to BIO; have contributed in a significant way to the scientific or sur-

vey productivity of science and forms a significant part of the interpretive history for outreach display purposes; represents an example of a "tool of the trade" that enabled scientists or surveyors to accomplish their work in a significant way and forms a significant part of the interpretive history for outreach display purposes; and/or rarity or exhibiting design or construction that warrants preservation.

The BIO Science Directors are proposed to have final approval for all items to be archived.

Photographs: (at top left) Thrust anemometer, jigs for drilling ping pong balls and sample balls; (at the top right) Ocean bottom seismometer components: programmer, electronics, release mechanism and recorder; and (bottom right) Batfish towed body and faired cable winch.















