

BIO-OCEANS ASSOCIATION NEWSLETTER

Issue 36, October 2007

CONTENTS

From the President	1
Indian camel safaris, or how I spent my 2006/07 winter vacation	2
Benthic habitat studies: An engineer's perspective - Part VIII	4
Tandoori BBQ chicken recipe	6
Summer Picnic 2007	7
2007 Membership List	8
<i>The Members Corner</i> A prophecy fulfilled: The creative world of Carol Morrison	9
Noteworthy reads: Book reviews in brief	10
Brief obituary notice	12
Remembering CSS <i>Baffin's</i> close call	12
About the Association	12

FROM THE PRESIDENT

Greetings! I do hope all of you had a good summer with lots of time to relax and enjoy the good weather in July and August, not to mention September.

David and I spent the entire three months at our cottage in Upper Cape, New Brunswick. From it we can look across Baie Verte to the cottages at Lorneville and Amherst Shore, Nova Scotia. We had a relaxing summer except for the need to replace the entire 50+ year old septic system and to reshingle (and replace rotten boards under them) part of the cottage. Our most ambitious project, however, was our vegetable garden – our first in more than 20 years. What a difference it makes to have a plot that gets full sun all day! Even we mere amateurs managed to get good crops of beans, peas, carrots, green peppers, cucumbers, zucchini, and tomatoes. Our hope for next year is that the weather in June will be better than this year's so that we can put the garden in earlier than the first week of July!

Glorious weather was in abundance on 23 August 2007, the day of the annual BIO-OA summer barbecue held this year at Shiri Srivastava's home on Lake Charles. The good weather (and the promise of Shiri's celebrated chicken tandoori) brought out almost 60 members and their guests. We all ate and drank well and enjoyed the entertainment provided by George Anderson, Gordon Fader, and Al MacDonald. A truly fun afternoon! My thanks go to

Shiri, George, Gordon, and Al, and to Georgina Phillips who helped to coordinate the food with Shiri. Pictures of the event and a recipe for Shiri's chicken tandoori will be found elsewhere in this issue — see p.6.

By the time you read this, the 2007 BIO Open House will be a thing of the past. The Association mounted two displays. The first (developed by Charles Schafer and similar to our display at the last Open House) featured marine research hardware items that participants had to identify. Correct answers went into a draw for three free T-shirts. The other was a display about the Association itself: lots of pictures, brochures, and, of course, membership forms. My thanks to all of you who volunteered to staff the exhibits over the 5 days of the Open House.

Last January's **Newfoundland Night** at the Newfoundland Club proved so popular that we are going to have a **"back by popular demand"** repeat on **Wednesday, 7 November**. You'll find great music by George Anderson and his friends, good dancing, food and drink, and a chance to kiss the cod if you so wish. Not to mention good fellowship with some of your fellow members and their spouses and friends.

Your executive got back to work at the beginning of October. Among the social activities being planned is the possibility of holding a monthly get-together lunch at the Ship Victory Restaurant and Lounge. You will be hearing more about this and other upcoming activities, including action on the Oceans Outreach Initiative, in the next issue of the Newsletter and via e-mail.

— Betty Sutherland

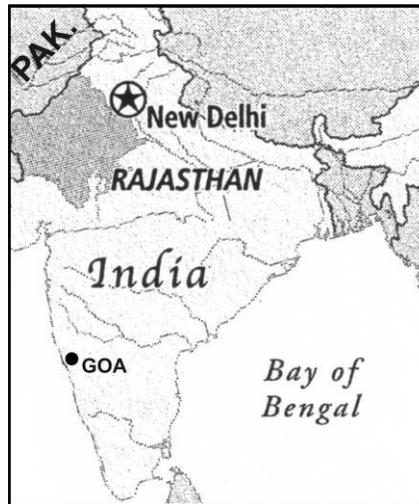
INDIAN CAMEL SAFARIS, OR HOW I SPENT MY 2006/07 WINTER VACATION

Shiri Srivastava

I have traveled to India on various occasions. This time, my visit started out from Delhi on 11 December 2006. The plan was to visit Rajasthan, the western part of India, with family members. It was Neil, one of my nephews, who came up with the bright idea of going on a camel safari in Rajasthan during the Christmas Holidays. The idea appealed to us all and Gyan, Neil's father and my younger brother, who used to live in Chicago but is now living in India, organized this trip through a travel agent in Delhi. In the end, two of my brothers, myself, and three of our grown children including my daughter Diane went on the trip. Another of the children joined us for the last three days.

We used various modes of transportation on the trip – walking, flying, trains, vans, and camels. Riding camels for four days and sleeping in the tents as part of our camel safari was certainly the most novel and enjoyable mode. I had not ridden camels for such an extended period before. Each day began with a moderate breakfast of fruits, boiled eggs, toast, and lots of sweet Indian tea. Everything including the toast was cooked outdoors in the desert on open fires and a gas stove by our experienced attendants. We rode camels for two hours at a time, stopping here and there for sightseeing and refreshments. We would stop for a lunch prepared by our ten attendants while we rested under some shady bushes or trees along our route.

We would pass small villages on the way each day and visit occasional historic sites. At one village, we were just about mobbed by children as each wanted his or her picture taken with us. Lunch and dinner consisted of Indian food supplemented with fruits and some sweets. The evenings started out with tea and beer (we decided to carry some as it was not supplied as part of the package) and ended with some delicious coffee. A van would travel ahead of us each day to set up the tents and find some wood for the fire.



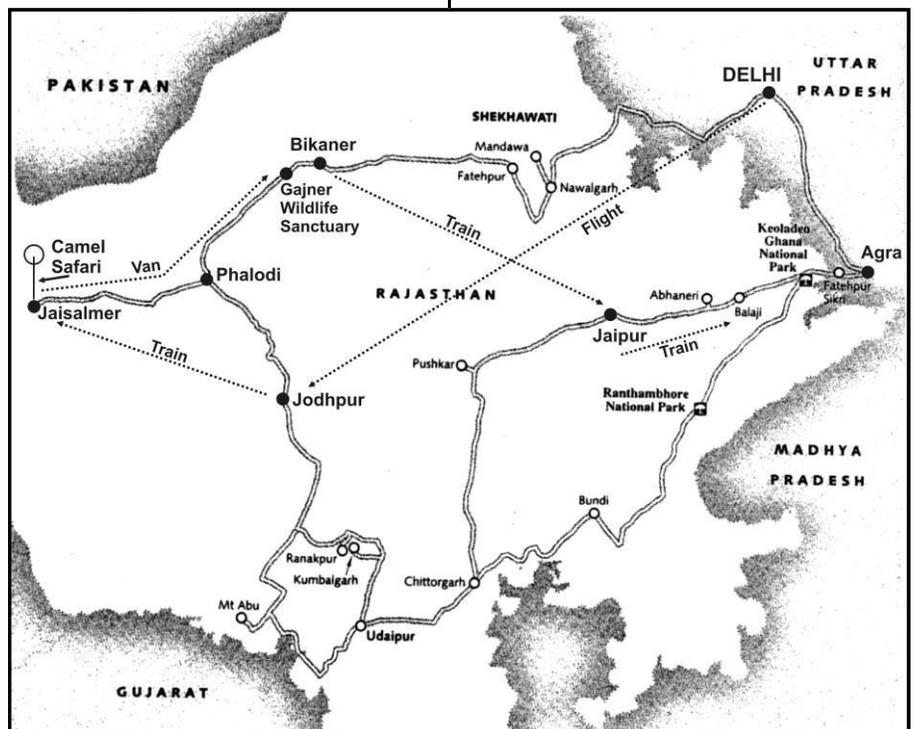
For the safari, each of us was provided with a camel and an attendant who would ride on the same camel for brief periods. We usually exchanged camels each day as some of us found some camels more comfortable to ride on than others. I had to choose the smallest camel as I found the big ones not as comfortable to ride when I had to spread out too much. A sore soon developed on my back from rubbing against a fastener used in the saddle, but this did not stop me from riding. (The saddle was com-

fortable only with enough padding between you and the camel's hump!)

We camped in the open for two nights before reaching the main camp, the safari agency's headquarters. We found camping without access to a bath or shower after a day of heavy perspiration aboard the camels too uncomfortable and asked to spend the last two nights at the agency's main camp where shower facilities were available. On the fourth day, we set out from there aboard the camels.

Every evening we were treated to a show by local artists who sang and danced for us in front of a camp fire. We were also provided with delicious refreshments as well as enjoying the beer we had brought ourselves. Some of us would venture out on camel rides under the stars after dinner (but we didn't get taken to the casbah). On the whole we thoroughly enjoyed this safari and I would recommend it to those who like outdoor adventure and roughing it a bit.

We traveled by vans and trains for the rest of the trip. Our Christmas eve was spent drinking, dancing, and singing



with other guests at a hotel in a place called Gajner close to Bikaner, the big city in Rajasthan. This hotel used to be a palace located along a lake with a fabulous garden adjacent to about 500 acres of forest inhabited by some wild game animals. The entire hotel was decorated with Christmas lights and the dinner was set out in the courtyard with lots of good food (except for the turkey which you could not have cut even with an axe). It was quite a treat for us after camping out in the desert.

On the trip, we visited many places, and saw lots of forts and palaces. In Phalodi, near Gajner, we visited a place located close to a lake that is famous for the spectacle of thousands of cranes landing every morning where they are fed with grains supplied by a Jain society. It was a lovely sight to see such large numbers



of this massive bird landing and taking off. Our trip ended in Agra where we met other family members who had gathered for a memorial for one of my nephews who had died during heart bypass surgery.

After the safari, my brothers, myself, a cousin, and a niece arrived in Goa on 7 January 2007 after a 36-hour journey by train. We lived here in the same house I had rented in 2005 and it was nice to be back in familiar surroundings.

In Goa, my day usually started with a walk on the beach for about an hour with an occasional stop for some Indian tea at

one of the restaurant shacks located on the beach. I followed with a breakfast back at my flat of fruits, an Indian cracked wheat cereal called Dalia, and milk. The days were spent eating, drinking, watching TV, playing cards, and reading local newspaper and novels that I had brought along. I enjoyed seeing

routine was disrupted by an out-of-town wedding where my relatives and I went for a few days. It was a lively and interesting wedding where I met lot of my relatives but to get there involved a tiresome one-way trip of 36 hours by train. Fortunately I found a flight back to Goa for the return voyage. Other activities I enjoyed from time to time were going to local carnival festivals some of which last for days and attending music programs featuring artists from many parts of India and abroad.

As you can appreciate, I led a very difficult life away from the snow and cold of Canada before flying back on 7 April 2007. It was nice to visit India again but nice too to be back home.

cricket matches in a local stadium. For more extensive shopping, I went to the main local town, Madgaon, located about 8 km away from the place we were living in in Goa. Whenever I could, I checked the internet and my email at a cybercafé and to catch up on Canadian news.

At one point, my



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

David McKeown

During the 1990's, we conducted two major experiments to investigate the impacts of bottom trawling on the structure of the seafloor and the biological communities that reside there, the first on the Grand Banks and the second on the Scotian Shelf. As the work progressed, we began asking ourselves more and more questions about how the fish were interacting with their seafloor environment including what they were feeding on and how they were using seafloor features such as boulder fields as protective habitat. In 2000, we decided that we should address some of these questions in the form of a new research project. This one differed from the previous ones in that it was conceived as an equal partnership between our team at BIO under the leadership of Don Gordon and a team from the Northwest Atlantic Fisheries Centre in St. John's under the leadership of John Anderson. Our main objectives included:

- Improve our understanding of the relationships between benthic habitat and demersal fish (e.g., haddock, cod, flounders);
- Improve methodology for studying habitat-fish interactions and mapping benthic habitat;
- Determine the spatial distribution of important fish habitats on the Scotian Shelf;
- Develop modeling tools for predicting areas of important fish habitat from multibeam, sidescan, and other physical information sources.

Our long-term vision was to develop methodology that would enable fisheries scientists to define and map essential fish habitat for demersal fish on the continental shelf.

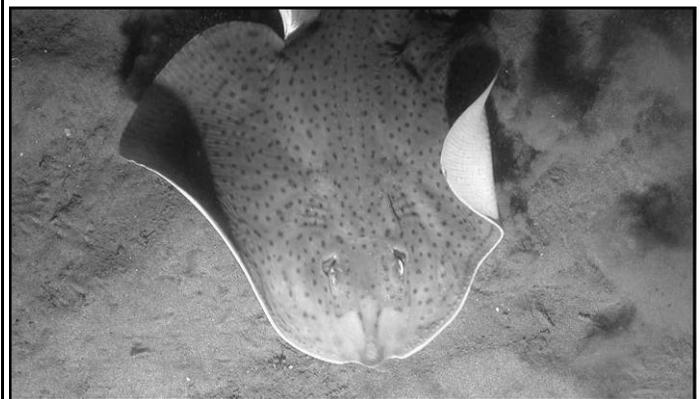
In 2001, we received funding for a one-year pilot field and data analysis project, which enabled us to put together a research team, assemble the required equipment and conduct a major expedition on CCGS *Hudson*. In September of that year we explored a number of sites from Banquereau Bank all the way down to the U.S. border on Georges Bank. Our main objectives were to learn how to integrate the two research teams and their complementary technology into one and to conduct preliminary investigations at potential study sites.

One of the sites we studied was the "Brass Nut" area on the Country Harbour moraine. When Gordon Fader was

asked by one of the students on board how it had gotten that name, he provided the following explanation. Some years ago as Lewis King and his team of geologists were creating a series of surficial geological maps of the Atlantic coast shelf areas, they posted each one on the wall of his office. Unfortunately, when hanging up the one that included the Country Harbour moraine, a brass nut protruding from the wall punctured the map so this location became known as the "Brass Nut". It is a shame that many of these odd little stories of BIO history will probably disappear in time.

Those of us whose programs involve major field work know how we look forward to the annual cruise and how tightly we schedule the ship time to achieve our objectives. During this cruise, an event occurred that aptly illustrates how differently non-seagoing people in the department view our activities. In the midst of our survey program, we learned that the mother of one of the crew members had passed away so, without a moment's hesitation, we proceeded to the mouth of Halifax Harbour to drop him off. When we arrived there we were told to proceed to BIO and to tie up so that the Minister could come on board for lunch the following day. Apparently no one in authority ashore had given any thought as to how this might impact our program. The directive precipitated a flurry of concerned phone calls from our Senior Scientist and the Captain to BIO and Coast Guard regional headquarters. In fairness to the bureaucrats who initiated and approved of this idea, they listened to our pleas and within the hour relented and allowed us to resume our program.

As a result of this exploratory cruise, we were able to obtain very generous funding for a three-year project to develop methodologies and study the relationship between demersal fish and their habitat. As Towcam was identified as an important survey tool in the program, I



Photograph of a skate taken using the still camera on Towcam.



On board CCGS Hudson, 2005.

was able to purchase a high resolution underwater still camera and flash unit for photographing fish, a laser scale to measure their size and a new type of high intensity underwater lighting to improve the video. All of this new equipment meant that we had to create a larger towed body. I was one happy engineer! During our sea trials of the camera in 2003, Kelly Bentham and Dwight Reimer initiated a photo contest. First they competed to get the best picture of a fish. The skate in the accompa-

nying figure is one of the best ones from a non-scientific perspective. Unfortunately, the contest came to a premature end when Don Gordon pointed out that concentrating on photographing fish biased his efforts to obtain non-selective images of the seafloor habitat and the communities they contain.

I stated at the beginning of this series of articles how much I enjoyed being a member of this research team



Receiving presentations on board CCGS Hudson in 2005. From left to right: Gordon Fader, Peter Vass, Don Gordon, Captain Richard Smith, David McKeown, and Dwight Reimer.

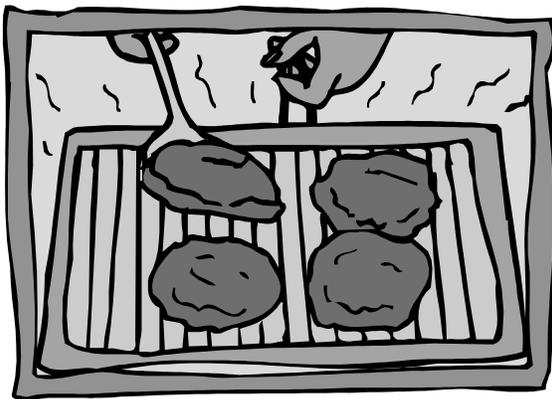
and participating in this program. Along the way I sensed that the crews of CSS *Dawson*, CCGS *Parizeau* and CCGS *Hudson* felt the same way. Proof of this occurred at the end of the 2005 cruise that also marked the end of the field program and a career end for several of us who were retiring. Don Gordon had planned to have an informal reception at BIO on the day the ship returned. However, Captain Richard Smith insisted that he would host it on board CCGS *Hudson*. At that event, much to our surprise and delight, the ship's company presented to us retirees, Gordon Fader. Don Gordon, Dwight Reimer, Peter Vass, and me, framed certificates of appreciation and pictures of the ship that they had prepared for the occasion.

What good has this decade and a half of scientific investigation done for society? This newsletter is not the place to evaluate and enumerate that in detail. However, I think I can safely point to at least a few societal achievements including a much better understanding of the impact of bottom trawling on the seafloor and the communities that live there and direct contributions to the creation of protected areas in the Northeast Channel, the Gully, and around the lophelia site in the Laurentian Channel.

What has this decade and a half meant to me? Fifteen years of fun with a great group of people ... and I even got paid while doing it.

TANDOORI BBQ CHICKEN RECIPE

Shiri Srivastava



“Tandoori chicken is a dish that originated in India and is still popular there. The chicken is marinated in a yogurt seasoned with garam masala — garlic, ginger, cumin, cayenne pepper, and other spices depending on the recipe. It is traditionally moderately hot, but the heat is toned down to a “mild” taste level in most Western nations. Cayenne, red chili powder, or other spices give it its red colour. Turmeric produces a yellow-orange colour. In some modern versions, red and yellow food colouring is used instead. It is traditionally cooked at high temperatures in an earthen oven (i.e. tandoor), but can also be prepared on a traditional grill.”

- Source: Wikipedia

- 6 skinned chicken legs with thighs, with excess fat removed. (You can substitute 4 large breast pieces or a combination of different pieces if desired.)
- 1 medium-sized onion, peeled and cut into chunks
- 2 large cloves of garlic, peeled and halved
- 1 inch of ginger root, peeled and cut into large pieces
- 3 tbsp of lemon juice
- 2 tsp of salt
- 1 tbsp of tandoori masala which you can buy at an Indian grocery store
- 1/2 tsp of red chilly powder (optional, adjust quantity to taste)
- 1/3 cup of plain yogurt

Make some gashes in the chicken with a sharp knife, sprinkle in the lemon juice and then the salt. Marinate the pieces for half an hour while you transfer the remaining ingredients to a food blender.

Grind them to a smooth purée in the blender and spread the paste over both sides of the chicken pieces until they are well coated. Cover the chicken pieces with plastic wrap and leave them in the fridge overnight. Take out the chicken pieces about an hour before barbecuing them. Get your BBQ medium hot. Scrape off the marinade from the chicken pieces with a spoon and keep the marinade in a container to be used later for basting. BBQ the chicken pieces over medium heat turning them frequently so they do not stick to the BBQ. When you feel the chicken is 3/4 done, start basting the pieces with leftover marinade and let them cook for a while longer. When you think the marinade on one side of a piece is getting drier, turn the piece over and baste the top side. Keep doing this until you have used up the marinade and your chicken is perfectly cooked.

Now is the time to enjoy eating!



SUMMER PICNIC 2007

This year's summer picnic at the home of Shiri Srivastava on Lake Charles had it all - warm sunshine, beautiful setting, big turnout, live outdoor entertainment, and yummy food and beverages!

Angela and David Nettleship could be speaking for us all when they said: "Thank

you Shiri for the wonderful chicken you supplied and cooked for us all at the Summer BBQ. Some of us went back for seconds licking our fingers all the way."

Above are snapshots of a few of the 60+ participants (clockwise from the top left ending in the centre):

Gordon Fader, George Anderson, and Al MacDonald [who entertained us most enjoyably], Liz Mason, Ted Smith with David and Angela Nettleship, Mary Brooke, Georgina Phillips, and chef Shiri at the grill.

[Photos provided by Clive Mason and David Sutherland.]

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George Anderson, 469-6646
Robert Anderson
Penny Bambury, 435-4103
Susan Banks, 443-0365
Roger Belanger, 827-4158
Donald Bidgood 463-7667
Brad Blackford, 479-3213
Martin Blaxland, 604-925-3456
Gordon Bowdridge, 865-7530
Donald Bowlby, 883-9169
Joe Bray, 366-2366
Paul Brodie, 820-2311
Mary Brooke, 461-4151
Dale Buckley, 434-5734
Ralph Cameron, 434-0316
Rose Cameron, 463-2728
Doreen Campbell, 861-3978
Neil Campbell, 613-731-4512
Roger Cassivi, 826-1744
Janet Charest, 462-8512
Barry Chase, 757-3420
Allyn Clarke, 420-0632
Arthur Collin, 613-236-3146
Gerald Connolly, 434-0894
Robert Cook, 868-2948
Roy Cooper, 613-592-3906
Christopher Corkett 445-3964
Roch Cormier, 418-336-2726
Art Cosgrove, 443-7945
Keith Crawford, 613-258-0297
Carl Cunningham, 434-5749
Claudia Currie, 426-7442
Jackie Dale, 466-2584
Paul d'Entremont, 833-2736
Jean-Guy Dessureault, 469-6375
Lloyd Dickie, 435-1545
Donald Dinn, 469-4647
Fred Dobson, 604-542-4928
William Dobson, 469-9981
Ross Douglas, 613-825-4695
Dick Dowd, 543-0071
Rosemary Dowling
André Ducharme, 792-1757
Stewart Dunbrack, 681-0053
Subba Rao Durvasula, 463-7804
Gerald Dwyer, 462-6485
Michael Eaton, 434-1654
Gillian and James Elliott, 434-6072
Gerald Ewing, 866-2145
Gordon Fader, 455-6100
Allin Folsbee, 403-286-1816
Thomas Foote, 466-2906
George Fowler, 462-5784
Michael Friis, 434-8189
Margaret Garolitz, 867-390-2113
Pat Gilbert, 435-2858
Sherman Glazebrook, 434-5823
Donald Gordon, 469-2798
Michael Gorveatt, 463-5432
Alan Grant, 463-2710
Steve Grant, 829-2656
Joan Guilderson, 254-3405
Jennifer Hackett, 832-1158
Iris Hardy, 861-4797
Barry Hargrave, 519-371-5908
Albert Hartling, 477-0102
David Harvey, 435-1517
Richard Haworth, 542-8601
David Heffler, 861-3991
John Hennigar-Shutt 430-2449
Raymond Hiltz, 752-3433
Michael Hughes, 860-0784
Leamond Hunter, 597-3906
Ruth Jackson, 426-3791
Paul Jollymore, 613-925-4910
Marlene Karg, 434-8617
Charlotte Keen, 477-9153
Vivian Kerr, 866-3489
Norman Kimber, 462-0175
Sally King, 434-5050
Timothy Lambert, 845-2189
Colin Langford
Michael Latrémouille, 434-4036
Donald Lawrence,
John Lazier, 429-5063
David Lemon, 422-4191
Elmer Lewis, 834-2744
Mike Lewis, 466-2781
Sharon and Donald Locke, 835-5209
Bosko Loncarevic, 835-9606
Alan Longhurst, 422-8116
Douglas Loring, 861-2767
Ronald Loucks, 443-1113
Sharyn Lucas, 429-0010
Graham Banks Lutwick, 624-0183
Alastair Macdonald, 462-1317
Florence MacLaren, 454-7587
Brian MacLean, 426-3703
Gregory MacLellan, 582-1428
Grant MacLeod 435-6478
Ronald MacNab, 463-3963
Stephen MacPhee, 613-258-0283
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Richard Morgan, 435-4234
Carol Morrison, 860-0101
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Edmund Murray, 479-1515
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Neil Oakey, 469-5259
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Lisa O'Neill, 864-7153
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Donald Peer, 857-9268
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Evelyn Penney, 455-5047
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Patricia Pocklington, 542-1903
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Charles Quon, 462-2633
Robert Reiniger, 477-9833
Sherry Richardson, 826-2146
James Rippey, 798-2706
Kevin Robertson, 456-9923
Charles Ross, 758-2533
David Ross, New Zealand
James Ross, 445-4886
Raymond Rosse 463-6527
Terence Rowell, 463-5132
Alan Ruffman, 477-5415
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Linda Seto, 479-2461
Lester Shatford, 434-7907
Rod Shaw, 826-7060
William Silvert, 351-212-900 385
Michael Sinclair, 835-5823
Bert Smith, 757-2884
Edward (Ted) Smith, 826-2059
Muriel Smith, 835-2533
Stuart Smith, 434-2489
Florence Spencer, 832-1148
Shiri Srivastava, 434-6437
Michael Stepanczak, 462-5819
William Stephen, 863-1580
James Stewart, 826-2025
Nick Stuijbergen 466-2692
Betty Sutherland, 454-6557
Betty Tillman, 860-1978
Willem van der Linden, 3130 691 05 60
John Vandermeulen, 860-0219
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Richard Vine, 434-1573
Earle Wagner, 477-5589
Donald Waldron, 203-254-1891
Rosalee Wambolt, 462-2875
Ying Wang, (China) 86(25)620-7810
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Peter Wells, 477-3674
Heinz Wiele, 852-2922
Kenneth Williams, 475-1532
Gary Winters, 835-2212
Malcolm Youden, 709-528-3256
Scott Young, 861-3322
Maurice Zinck, 462-0333

THE MEMBERS CORNER A PROPHECY FULFILLED: THE CREATIVE WORLD OF CAROL MORRISON

Note: This interview with BIO-OA member Dr. Carol Morrison, who was a research scientist at the former Halifax Laboratory of Fisheries and Oceans Canada, is a contribution to "The Members Corner", an occasional column we publish on what BIO-OA members are doing after leaving their "federal" day jobs.

In the late 1970's, when I was head of DFO's Fisheries and Environmental Sciences Division headquartered in St. Andrews, I was asked to add toxicology and histological research to the existing programs at the Halifax Lab. This was when I first met Carol Morrison who was a research histologist. Among her achievements in her field, she had described the histology of the cod. Her subsequent research and publication of a "cod atlas" has served as a benchmark in the field of fish histology. With the closing of the Lab and changes to my own position, I had lost track of Carol until I met her again quite recently at N.S. Institute of Science functions. This is when I learned of her exciting "new" world, painting and producing work of fine art. She was a prime candidate for "The Members Corner"!

Carol Morrison and I recently met over coffee to discuss her many interests. Born in England, she has been passionate about art as well as biology as long as she can remember. She studied both to high school level, but had to make a difficult choice between the two at university level. She was encouraged to pursue a college degree in biology, and after graduating from Oxford University in 1964 she was interviewed and hired over the telephone by Dr. David Idler, the Director of the Halifax Lab, to work as an assistant to Dr. Paul Odense.

They set up a histology and electron microscope facility at the Halifax Laboratory, and with the encouragement of Dr. Odense she completed her M.Sc. at Dalhousie University while continuing to work, then left to complete her Ph.D. in Zoology at Dalhousie and a B.Ed. in Education at St. Mary's University in 1971. She then worked in the Anatomy Department of the Dalhousie Medical School, attaining the position of assistant professor before returning to the Halifax Laboratory in 1976.

The 1980's did not treat the Halifax Lab or its staff kindly. Budget restric-



tions and staff layoffs took their toll on many. She was soon without a job but had a strong continuing interest in biological research, and after working as a consultant at the electron microscope facility of the National Research Council of Canada on the ultrastructure of a virus killing salmon in the Bay of Fundy, obtained a position working as a member of the Transplant Unit research team headed by Dr. Jim Wright at the IWK Hospital. They collaborated on several pub-

lications on tilapia histology and histopathology, including an atlas of tilapia histology for the World Aquaculture Association.

During her scientific career, Carol had continued to paint and to take workshops from locally well-known artists such as John Cook and Marion Silver. Taking advantage of professional development support, Carol brought her continuing interest in painting to a professional level by signing up at the Nova Scotia College of Art and Design, and received her Bachelor of Fine Arts Degree in 2005. She received a national award for an emerging artist, the Elizabeth Greenshields Award, in 2005. She has had solo shows at the Anna Leonowens, Craig, and Lunenburg galleries, and has been the featured artist at the Art Sales and Rental Gallery of the AGNS and the Maples Gallery in Bedford. Her work can also be seen at the VideoDifference Store in Bedford as well as at galleries in Wolfville and Liverpool. Her work has been chosen for juried shows of the Society of Canadian Artists in Montreal, and the Canadian Institute of Portrait Artists in Calgary and Red Deer. In October her work was exhibited at the Keenan Centre in Niagara, NY and at the Rosignol Cultural Centre in Liverpool. She is a juried member of the Nova Scotia Designer Craft Council, and will have a booth at the November Christmas show.

She enjoys the oil painting of landscapes and hikes with her brushes and canvas to scenic locations in the Province to paint. She enjoys the outdoors and feels that her formal background as a scientist in biology and creative and artistic skills as a painter have a common thread. These joint interests of art and science were recognized early on: they have now come together providing a fulfilling lifestyle for Carol Morrison.



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: OCEAN LIFE AND THE FUTURE

Roberts, Callum. 2007. *The Unnatural History of the Sea.*

Island Press, New York, NY. 435 pp. Hardcover, \$28.00 (ISBN 1597261025). – Here is a book for anyone interested in the fishes of the sea, their present status, and future prospects. Marine biologist Roberts presents a comprehensive and thorough account of the devastating effects of commercial fishing on the oceans of the world. His account takes the reader through a wealth of maritime history – from medieval times to the present — that reveals countless examples of overfishing and the subsequent decline of fish populations. He estimates that there is probably less than five per cent of the fish biomass in Europe's seas today than what was present in earlier times, and concludes that by the middle of the 21st century, today's fisheries for fish and shellfish will have collapsed. Roberts illustrates the diversification of recent fishing technologies, and the devastating impact that industrial fishing, especially trawling, has had on fish habitats and species including cod in Canada, oysters in Chesapeake Bay and herring in the North Sea. His review ends with the alarming note of how new devices such as sonar depth sensors are now being used to begin the exploitation of the last sanctuary of many commercial marine species, the deep sea. The message of ill-managed fisheries over the centuries is most persuasive, as are the solutions presented that may save what is left and allow the possibility of partial recovery. A must read for marine biologists, fisheries managers, and the public at large.

GENERAL REVIEWS

Dawson, Joan. 2007. *The Mapmakers' Legacy: Nineteenth-Century Nova Scotia Through Maps.* Nimbus Publishing, Halifax, NS. 152 pp. Softcover, \$29.95 (ISBN 1551096072) –

This volume, "The Mapmakers' Legacy", is the successor to Joan Dawson's outstanding 1988 publication "The Mapmaker's Eye" that set a benchmark for the study of 17th and 18th century maps of Nova Scotia and their relationship to the geography and history of the region. It takes her study of Nova Scotian maps into the 19th century, and by doing so, adds another significant contribution to our knowledge of the province. The book begins with a review of mapmaking in the 1800s, an activity that grew in 'leaps and bounds' as the numbers of people and developments expanded, changes that required the production of detailed and accurate surveys. Details of events and key players, inside and outside of government, are outlined in a manner that underlines both the importance and rapid growth of the mapmaking industry in Nova Scotia. Successive chapters reveal the usage of maps in the development of roads, railway lines and canals, and the infrastructures associated with the extraction of natural resources and military defense of the province. Splendid maps and photographs abound through the book, bringing the histories of major sites and locations to life. Overall, "The Mapmakers' Legacy" covers the entire province and shows the nature of an expanding 19th century society, first as a British colony and then as a member of Confederation, through the maps presented. The picture that evolves from Dawson's careful explanations is unique and indispensable to any student of Nova Scotian history.

Garwood, Christine. 2007. *Flat Earth: The History of an Infamous Idea.* Macmillan, London, UK. 436 pp. Hardcover, \$36.95 (ISBN 1405047029). – This history review of the flat-earth beliefs from the Babylonians to the present day is both captivating and intriguing. It raises issues central to the history and philosophy of science, its relationship with religion, and the growth of human knowledge about the natural world. Garwood, a historian of science, first debunks the "flat-earth" myth and then goes on to focus on the events of the 19th and 20th centuries. The review provides a serious look at flat-earthism supporters of modern times, long after the flat Earth concept had been disproved, showing how they represented an anti-science stance who believed in a literal Bible. The accounts given are often hilarious and entertaining, despite the obvious concern they engender of how difficult it is to upset faith in an unscientific idea. Flat Earth is a definitive study of one of man's most notorious and persistent ideas.

Gore, Al. 2007. *The Assault on Reason.* Penguin Press, New York, NY. 308 pp. Hardcover, \$32.50 (ISBN 1594201226). – After his thought-provoking book and DVD "An Inconvenient Truth" (2006) on the state of the environment and climate change, Al Gore now addresses the shortcomings of governmental workings and the decision-making process. The present book is a meticulous and damning critique of the present state of the political system of the United States. Gore offers the view that the concentration of power in the executive branch of government, combined with the loss of a real public forum in the age of radio and television, has led to the decay of democracy and the creation of an environment hostile to reason. This conclusion of the degradation of the public sphere through "the politics of fear, secrecy, cronyism, and blind faith" is tempered

by the view of hope for the future in the restoration of checks and balances. “The Assault on Reason” is an important synopsis from a former vice president who possesses a clear and solid understanding of political history and the philosophy of the making of a democratic society. A summary review to be considered and acted upon.

Gould, James L. and Carol G. Gould. 2007. *Animal Architects: Building and the Evolution of Intelligence*. Basic Books, New York, NY. 324 pp. Hardcover, \$ 32.50 (ISBN 0465027828). – This is a book to take note of, a special journey into an underappreciated realm of animal life and what it reveals about intelligence and its development. James Gould, a leading ethnologist, and Carol Gould, a science writer, join forces to explore the nature and building skills of animals other than man: insects, birds and mammals. They take us on a tour of animal architecture, showing us the ingenuity and complexity of structures built by ants, wasps and bees, and the astonishing creativity of bower birds and beavers. An examination of the sophisticated construction of coral reefs, webs, cocoons, hives, nests, dams, lodges, and towers, and the materials they produce and collect, along with the tools they fashion, and other evidence of high complexity planning, design, construction and maintenance reveal attributes within many animal groups that include the invention of new skills to solve problems and the ability to communicate. The Goulds then go the next step by introducing concepts of neural mapping to show what levels of brain complexity are necessary for the construction of certain structures and problem-solving behaviours. A fascinating read that shows, again and again, that much can be learned from other species in context of human architecture and technologies.

Lytle, Mark H. 2007. *The Gentle Subversive: Rachel Carson, Silent Spring, and the Rise of the Environmental Movement*. Oxford University Press, New York, NY. 277 pp. Hardcover, \$24.95 (ISBN 0195172469). – Historian and environmentalist Lytle presents a brief biography of biologist Rachel Carson (1907-1964), author of award winning books about the sea -- “Under a Sea Wind” (1941), “The Sea Around Us” (1951), “The Edge of the Sea” (1955) -- and her influential, ground-breaking work “Silent Spring” (1962), an exposé of the harmful effects of DDT and other pesticides on living things. Lytle explores the evolution of Carson’s ideas about nature, her passion for the sea, the arduous path of her career as a biologist, and the significance of her fourth book, “Silent Spring”, a work that helped launch the environmental movement worldwide. “The Gentle Subversive” is a succinct and engaging story of the success of a single person in protecting the natural world. An inspiration for all of us.

Rose, Steven (ed.). 2007. *The Richness of Life: The Essential Stephen Jay Gould*. Norton, New York, NY. 654 pp. Hardcover, \$43.50 (ISBN 0393064988). – Steven Rose has done all of us a great service by constructing this anthology of the writings of one of science’s best ambassadors to the

general public, Harvard professor and evolutionary scientist Stephen Jay Gould. Forty-four essays, representing Gould’s best-known pieces from his books and from essays for the American Museum of Natural History’s magazine “Natural History”, selected by the editor from the hundreds produced from the 1970s until Gould’s death in 2002. The range of subjects is wide — autobiographical; insights and anecdotes about scientists; evolutionary theory; misunderstandings generated by the collision of sociology, psychology, culture and religion; provocative topics such as racism, misogyny, and creationism — and awe-inspiring, pieces that demonstrate Gould’s passion for life, his immense curiosity, and his passion for understanding through science. Overall, an intriguing and entertaining collection of insightful works by an amazing thinker and translator of science, a fitting tribute to a unique individual.

Weisman, Alan. 2007. *The World Without Us*. Harper Collins, Toronto, ON. 324 pp. Hardcover, \$32.00 (ISBN 0002008645). – Given the explosion of the human population in recent times and the associated development and reach of our technologies, humankind has become a major force of nature. The effect of humans on the planet is conspicuous everywhere we look — changing the climate; altering, polluting and eradicating ecosystems; extirpating species and critical habitats — so much so that all non-human life must adapt or ultimately disappear. But journalist Alan Weisman asks the “\$64,000” question “What would happen if humankind suddenly vanished?” Would land and waters freed from mankind’s environmentally devastating footprint reconstitute itself, and if so, over what timeline and form? This book takes the reader on an enthralling tour of the world of tomorrow without us, filled with an imaginative hybrid report of solid science and astounding speculation. What is the human prognosis? Read the book and find out!

Wilson, David Sloan. 2007. *Evolution for Everyone: How Darwin’s Theory can Change the Way We Think About Our Lives*. Delacorte Press (Random House), New York, NY. 390 pp. Hardcover, \$30.00 (ISBN 0385340212).—This volume is David Wilson’s fourth book on evolution (previous one: “Darwin’s Cathedral” 2002), and this the latest focuses on how it affects our everyday lives. The writing style is clear and pleasing, and is by far one of the most accessible accounts of evolution for a general audience. Wilson enthusiastically shows that evolution is completely relevant to modern human affairs, and goes on to apply the principles of evolution to understand “all things human”. His discussion of events is entertaining and easy to follow, with a breadth of subject matter that is far reaching. Wilson describes his book as a “journey from the origin of life to human morality and religion”, a summary statement that well defines the work. The book is thoughtful and intellectually stimulating, breaking new ground and offering much to think about.

BRIEF OBITUARY NOTICE

Joseph Clarence Avery passed away in Guysborough Memorial Hospital on 1 August 2007 at the age of 85. Joe was the well liked and respected bosun on CSS *Hudson* for many years. He retired in 1985 after a 33-year public service career, the majority of it spent aboard BIO ships.

**REMEMBERING CSS
BAFFIN'S CLOSE CALL**

The following is reproduced with permission from the July 2007 issue of Shipfax, "a monthly newsletter about ships and shipping from the port of Halifax and beyond."

**Ship Movements from the Port of Halifax
July 1- 25, 2007 by Mac Mackay**

July 5, 1957 The new survey ship CSS *Baffin* ran onto Black Rock, an island one mile from shore at the mouth of the LaHave River. The charted pinnacle has been the end of many other vessels, including the schooner *Arthur H. Maxwell* and her entire crew. The ship is firmly aground despite efforts of HMCS *Grandby*, and *Riverton* to free her, parting a 10 inch hawser in the attempt. Her hull is reported to be holed and 3/4 of her hull is aground. Her scientific crew have been evacuated and Foundation

Maritime has been appointed salvor. *Foundation Vera*, *Foundation Josephine II* and the navy tug HMCS *St. John* are going to the scene. In the meantime her bunkers have been pumped overboard. She was freed after six days and beached 5 miles away for temporary repairs and ballasting before going for repairs in Halifax. She was towed part way, but as a point of pride actually entered port under her own power. Later reports indicate that the ship was very nearly lost. Had she been a commercial vessel she would probably have been given up as a constructive total loss. To minimize the bad press however she will be repaired.

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 de-

partments 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.

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