# Biolink

The Official Newsletter of the Atlantic Society of Fish & Wildlife Biologists



October 2007

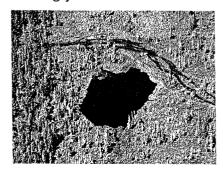
## **Spring Seminar a Huge Success**

By Jason Leblanc

The Spring Seminar Series got back in full swing with a very interesting and stimulating session on April 11, 2007 at Crabtree Auditorium, Mount Allison University in New Brunswick. This year's topic dealt with Impacts of ATVs on Wildlife and Wildlife Habitat. Those who attended (approximately 50 people) from all around the region were treated to an excellent slate of presentations, current research and opinions. An introductory address was given by Bob Bancroft entitled: The unnatural history of ATVs in North America which set the stage for the day and a number of excellent discussions. The morning presentations included: ATV Legislation and the Off-Highway Vehicle Act in Nova Scotia by Deiter Warsick (NSDNR), an extremely interesting look at Impacts of ATVs on the rare plants of limestone barrens in Newfoundland by Susan Squires, Memorial University, and A synopsis of motorized vehicle use on beaches in southern Nova Scotia and impacts on endangered piping plover, by Sue Abbott. Bird Studies Canada. The afternoon sessions began with a look at the New Brunswick Department of Natural Resources approach to Off-road vehicles, sensitive habitats and impacts on wetlands, by Kristian Moore, and a presentation by Tony Nette, (NSDNR) that focused on the Increase in access due to the impacts of forest harvesting and the resulting disturbance by recreational vehicles on mainland moose populations. Sheila Campbell gave a very interesting talk that focused on what organized ATV associations such as the All Terrain Vehicle Association of Nova Scotia (ATVANS), the Nova Scotia Off-Road Riders Association (NSORRA), the Nova Scotia Dual Sport Club (NSDSC) and the Snowmobilers Association of Nova Scotia (SANS) have been actively doing to protect sensitive habitats through their respective sports and training courses. The seminar concluded with a provocative 30 minute panel discussion led by Tony Nette, Sheila Campbell and Bob Bancroft.

I hope everyone enjoyed the very informative presentations and discussions. I would like to thank all of the presenters who obviously put a lot of work into the session and everyone who assisted in it organization. I think it set the stage nicely for what is shaping up to be an excellent fall meeting in Wolfville. I'm looking forward to seeing you all there.





## **ASFWB EXECUTIVE**

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Past President - Andrew Boyne Andrew.Boyne@EC.GC.CA

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# ATLANTIC SOCIETY OF FISH AND WILDLIFE BIOLOGISTS AGM Information

The 44<sup>th</sup> annual meeting of the Atlantic Society of Fish and Wildlife Biologists will be held **October**10th-12th, 2007 at Acadia University, Wolfville, Nova Scotia.

Abstracts for Papers/Posters due September 17, 2007

Please send to Glen Parsons parsongj@gov.ns.ca

### **Meeting Location:**

The presentations will begin at 9am on Thursday Oct. 11th, and Friday October 12th at the Sheldon L. Fountain Learning Commons (26 Crowell Drive), Acadia University, Wolfville, Nova Scotia. See #24 (Fountain Commons) on the map at <a href="http://www.acadiau.ca/about/tout/campusmap.pdf">http://www.acadiau.ca/about/tout/campusmap.pdf</a>

#### **Directions:**

Wolfville is located in Nova Scotia's beautiful Annapolis Valley. Please connect to the following link for general travel directions <a href="http://www.acadiau.ca/about/directions.html">http://www.acadiau.ca/about/directions.html</a>

### Monitoring Brook Trout Movement Before and After Stream Restoration

By Anne-Marie Hartman and Kirby Tulk

Since it's establishment in 1939, Green Gables Golf Course in Prince Edward Island's National Park has undergone minimal improvements. Parks Canada's recommendations in 2006 to improve the ecological integrity of its parks has led to the recapitalization of Green Gables Golf Course. The ultimate goal of the remodeling is to improve the ecological integrity of the area by reestablishing riparian zones, removing infrastructure, reducing mowed grass, and planting native species. This consequently will improve visitor and golfer experiences and increase ecological integrity within and around Green Gables Golf Course.

Balsam Hollow Brook, a stream that runs through the golf course contains sections that were altered unnaturally by the original golf course design. These sections will undergo restoration to reestablish the natural watercourse alignment. Actions include: removal of gabion and concrete structures, new and improved culverts and bridges, increased size of riparian buffer zones, and planting native species as bank stabilizers. In order to understand if the restorations will improve the health of the stream, the movements of brook trout are being monitored.

In July, before restoration efforts began, Parks Canada Agency Employees teamed up with staff from DFO to electro-fish and PIT (Passive Integrated Transponder) tag brook trout in Balsam Hollow Brook. Biological data (weight and length) for all fish except young of the year was collected. PIT tags were then surgically implanted into the abdomens of the captured fish.

PIT Detector gates were installed, and as tagged fish pass through a functioning gate, electromagnetic signals are transferred to a computer. Data is downloaded to the appropriate sorting software and movements of particular fish can be traced. The rationale is to track fish movement in the area of stream that is to be restored before and after the restoration.

The results of this study will serve as the base for the Aquatic Restoration Plan for PEI's National Park. Conclusions will be presented and published by the Department of Fisheries and Oceans and Parks Canada Agency.



Photo (L-R): Keith Clarke (DFO), Rick Hawkins (PCA), Kirby Tulk (PCA), and Phil McCabe (PCA)

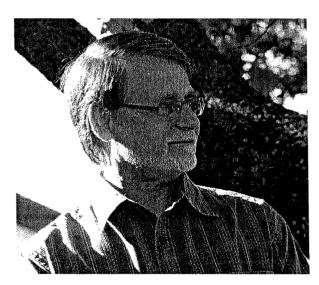
#### Conference

International Invasive Sea
Squirt Conference
October 1-4 2007
Brudenell River Resort, PEI
For more information visit: www.whoi.edu/
institutes/oli/activities/seasquirt-2007.html
Questions can be directed to Mary Carman
(mcarman@whoi.edu)



#### **Dan Busby - Retires**

After 30 years of service with the Canadian Wildlife Service, Dan Busby has retired. Dan was a land bird expert and spent his early career working on the effects of forest spraying in New Brunswick with Peter Pearce and Nev Garrity. Through his excellent field research and follow-up work, he was instrumental in having Fenitrothion withdrawn from use as a spruce budworm control pesticide in Canada. Dan jumped into the computer revolution early on and designed and set up the first computer network to be used at regional CWS headquarters in Sackville, NB. Later, he took the regional lead on a variety of projects including migration monitoring, West Nile virus research, Bicknell's Thrush ecology, landbird conservation and the Partners in Flight plan, and the impact of wind farms on mi-



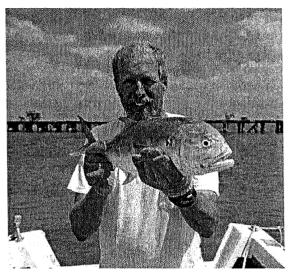
gratory birds.

Dan is an avid and accomplished photographer, wine connoisseur, and has recently discovered the delights of espresso coffee. Over the past three years he managed the building of his retirement home with his wife Carol Hayes, adjacent to the Carden Plain, near Lake Simcoe, Ontario

#### Gary Corbett -Finishes Long Career

Gary Corbett recently retired from Parks Canada after 30 years of continuous service in ecosystem management where he worked on conserva-

tion, management and protection of a variety of fish species (brook trout and Atlantic salmon) in Atlantic Canada's National Parks. He also served many years on the endangered Piping Plover Recovery Team.



In the summer, Gary and his wife Karen reside in Greefield NS and in the off-season enjoy their newly-acquired digs in Venice Florida, where they enjoy fishing on almost a daily basis. Gary encourages all of his friends and acquaintances to contact him for a day of fishing for beauties like this "Jack Crevelle" Gary's coordinates are in the telephone book or he can be reached at <a href="mailto:gkcorbett@hotmail.com">gkcorbett@hotmail.com</a>. Good luck in your retirement Gary, and Great Fishing.

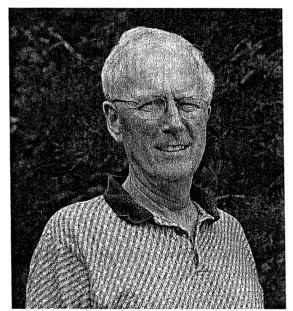
#### **Newsletter Submissions**

We would like to thank all those who submitted articles for this edition of the ASFWB newsletter. Please forward any articles, photos (with caption), updates, or any other notes of interest to the newsletter editor(s) or Jason Leblanc leblanje@gov.ns.ca

Special thanks goes out to Rosemary Curley for all her help with the issue!

## **Tony Duke -Retires from NS Department of Natural Resources**

After thirty-five years with the Nova Scotia Department of Natural Resources, Tony Duke retired on September 30, 2007. Tony was the wildlife extension specialist for sixteen years, producing films, advertisements, press releases and publications, including the quarterly wildlife magazine NS Conservation that went to over 20,000 Nova Scotian households. For the last 19 years he has been Manager of Wildlife Resources in charge of the province's terrestrial habitat program. He was instrumental in developing the Forest Wildlife idelines and more recently the challenging process of converting those guidelines to legislation as the Nova Scotia Wildlife Habitat and Watercourses Protection Regulations, that guide forest harvesters in retention and protection of wildlife habitat. His most recent projects involved promoting ecological forestry, integrated resource management and developing an inventory of Nova Scotia's forested wildlife habitats.



Tony has been a very familiar face at the ASFWB meetings and seminars over the past 30+ years. He has been a member all of his career, serving as president, director, newsletter editor and annual meeting chair. Tony's tireless contribution to wildlife and forest management will be missed in government and forest industry circles, as will his efforts in support the ASFWB. In his retirement he and his wife Susan will be looking after their beautiful property and small vineyard in the Falmouth

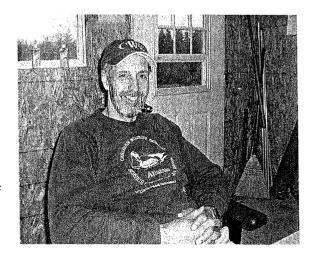
area and enjoying Nova Scotia's young and growing wine industry.

### **Nev Garrity- Retires from CWS**

After a long career spanning 33 years, Nev Garrity has retired from the Canadian Wildlife Service. Nev grew up in Pointe Claire, Quebec and, after graduating from high school, attended Acadia University where he studied biology.

He graduated in 1969 and that summer was hired under the first of a number of summer contracts to study the effects of forest insecticides on songbirds in New Brunswick. More summer contracts followed and in 1975 he took up a permanent position with CWS-Fredericton and worked on the effect of forest insecticides on songbirds until 1988. In 1989 the Fredericton office was closed and he was transferred to the CWS office in Sackville. New Brunswick. After arriving in Sackville, which coincided with the termination of work on the forest spray program, Nev worked for several years on the effects of acid fog on nesting songbirds. At the completion of that project he began doing surveys for the Bicknell's Thrush in northern New Brunswick and the Cape Breton Highlands, and did preliminary research on that species until 1999.

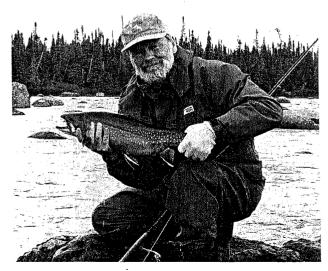
During the last seven years of his career, he concentrated on the banding of spring and fall migrating songbirds at Amherst Point, NS. He was also actively involved with the shorebird program in Sackville and for 13 years trapped and banded migrating Semipalmated Sandpipers at Johnson's Mills on Shepody Bay.



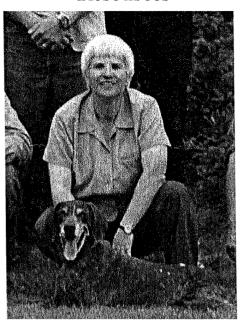
#### **Barry Sabean - Wildlife Director** Retires

Barry Sabean recently retired from the Nova Scotia Wildlife Division of Department of Natural Resources, where for the past 12 years he has filled the role of Director of Wildlife. Barry acquired a Bachelor of Science (Honours) at Dalhousie University and then went on to complete a Masters on the breeding ecology of eiders, at Acadia University in 1972. Barry worked for 15 years as a fisheries biologist with what was then the NS Department of Lands and Forests. From 1986 until 1995 he held the position of Manager of the Fur and Upland Game Program with the Wildlife Division, before becoming the Director of the Division. Barry was an excellent biologist, director and work colleague. His dedication to fish and wildlife management and conservation in general was clearly evident and an inspiration to those with whom he worked.

He was a strong supporter of the ASFWB throughout his career and will be missed at the annual meetings and seminars. Barry continues to live in Mount Denson, Hants County, with his wife Janet and daughter Sarah, but you are more apt to find him fishing, hunting, sail-boarding, running or employed Nova Scotia Environment and Labour cross country skiing. Congratulations on a very successful career Barry. You will be missed in the fish and wildlife management community. Enjoy your leisure time but stay in touch.



## New Director of Wildlife at N.S. **Department of Natural** Resources



Wildlife biologist and longtime member of ASFWB, Julie Towers was hired as Director of Wildlife for Nova Scotia Department of Natural Resources on July 2, 2007. Julie was previously where she was manager of Environmental Assessment Branch and Divisional Liason. Prior to that she ran a wildlife consulting business in the Queen Charlotte Islands in British Columbia. This is a return to the Department of Natural Resources for Julie, as she was involved in wildlife education and policy development throughout the 90's.

Some may be familiar with her books, Wildlife of Nova Scotia which she authored and Wildlife Viewing Sites in Nova Scotia which she co-authored.



## Watershed Management Plan Anyone?

By Paige Harris

The Friends of Covehead and Brackley Bay Ltd. munity members to experience the work done dur-(FCBB) is a community based volunteer organiza- ing the summer months and also increases environtion in Prince Edward Island established in 2000, mental awareness. and incorporated in 2001. FCBB was formed by and to seek ideas for future projects.

Since 2001 extensive stream and riparian zone res- non-profit organizations, PEI Department of Envitoration work has been undertaken with funding ronment, the University of PEI and the PEI Nafrom Employment Development Agency, Jobs for tional Park to write the Watershed Management Youth, HRDC Summer Career Placements Pro- Plan. gram, Wildlife Conservation Fund and the Watershed Management Fund. FCBB also receives in- We look forward to future work in the Covehead kind support from Environmental Futures Program, and Brackley Bay Watershed,. There is much to be the University of PEI, Atlantic Salmon Federation, done. If you are interested in our work and would PEI Department of Environment Energy and For- like to know more, or volunteer, please contact estry, PEI Department of Transportation and Public David Latimer at 902-672-1225 or John Baird 672-Works, and the PEI National Park. The Covehead 1764, johnbaird@pei.sympatico.ca and Brackely Bay area is a large watershed consisting of five rivers: Belle's Creek, Black River, Auld's Creek, McCallum Creek and Parson's Creek. Restoration work in the watershed has included; brush mat installation, riparian zone tree planting, patch-cutting for tree planting, underplanting to improve biodiversity, in-stream blockage removal for improved fish passage, beaver dam removal, digger log installation, fish ladder and silt trap construction. Since 2001 approximately 20 km of stream have received some form of restoration.

In addition to in-stream work, FCBB works with landowners to re-vegetate and increase biodiversity in riparian zones, fix poorly functioning culverts, and encourage sustainable practices on farms and woodlots. We are lucky to have very supportive community members. They are always willing to help us out with our fieldwork when they can. Many attend the volunteer day that is held every year in September. The volunteer day allows com-

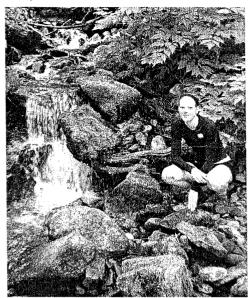
community members concerned with the health Although excellent work has been done within this and sustainability of the watershed. FCBB is led by watershed FCBB recognizes the need for a more a Board of Directors who meet four times a year to systematic approach to deal with watershed issues discuss issues of concern and progress-to-date. In through a long term Watershed Management Plan. addition to these board meetings an annual general FCBB has hosted a series of public meetings to meeting (AGM) is held each year. This AGM is gather historical and environmental information open to the public to raise community awareness and to develop a shared vision for the watersheds future. When funding allows, a watershed coordinator will be hired to work with landowners, local



Building a brushmatt in Bells Creek, Prince Edward Island (In photo: Niki Heddle and Jeremy Larter

### Student Profile: Shannon Needoba

By Randy Lauff



Shannon Needoba is a senior honours biology student at St. Francis Xavier University. She came to Antigonish, NS in 2004, from Calgary, AB to pursue her undergraduate degree. Under the supervision of Randy Lauff, Shannon is currently working on a summer research project which she will use to write her honour's thesis in the fall. Shannon received the Jack McLachlan Undergraduate Research Scholarship in 2007. This scholarship will be used to help fund her research which is based on comparing the diets of nestling Northern Saw-whet Owls, *Aegolius acadicus*, and Boreal Owls, *A. funereus*, both native species of Nova Scotia.

Shannon has gained experience in both the field and the lab while completing her research. The field work component entails checking nest boxes, put up around the province by her supervisor in previous years, for nests and then to monitor chick development. Once the chicks have fledged, the nest material from successful nests is collected and the bones regurgitated by the chicks in the nest are identified and counted in the lab. Among other interesting discoveries in the nest material, Shannon found the banded leg of a Song Sparrow which was captured in South Carolina five years before becoming a meal for the nestlings.

Shannon hopes her research results will show that, in comparison with the Northern Sawwhet Owl, the larger Boreal Owl feeds its young on prey of greater size and diversity.



One of the Boreal Owls chicks from this summer's work; this bird is only days away from fledging.

#### Conference

Atlantic International Chapter of the American
Fisheries Society
September 23rd to the 25th at the Holiday Inn in
Mactaguac, New Brunswick

2007 Meeting Theme – Challenges to Fish Habitat

The 21st century has ushered in a paradigm shift in managing and protecting native fish and fish habitats. We are looking for papers regarding emerging issues and trends and the methodologies being used by fisheries managers to address challenges to native freshwater and marine fishes.

For more information visit http://www.fisheries.org/units/aic

#### **Newsy Notes!**

#### Avian Cholera Outbreak off Newfoundland

(modified from Canadian Cooperative Wildlife Health Center Annual Report 2006-2007)

In January, 2007, sick and dying gulls were observed on the Hibernia oil drilling platform approximately 315 km offshore east of St. John's, Newfoundland. The cause turned out to be Avian Cholera, which is an infection with the bacterium *Pasturella multocida*. This is the first time an Avian Cholera die-off has been observed in North American pelagic seabirds. Since the original diagnosis, the Canadian Cooperative Wildlife Health Center has been working closely with the Canadian Wildlife Service, the Provincial Veterinarian of Newfoundland, and the Nova Scotia Department of Natural Resources to document the geographic extent of the outbreak, the species affected by the disease and the extent of the mortality. The USGS National Wildlife Health Centre is collaborating by performing genetic analysis of the bacterial isolates to better understand the ecology of the outbreak.

#### Salt Marsh Restoration in Response to Climate Change and Sea-Level Rise

The report entitled "Examining Community Adaptive Capacity to Address Climate Change, Sea-level Rise and Salt Marsh Restoration in Maritime Canada", submitted to the Climate Change Impacts and Adaptation Program, is available at

http://www.mta.ca/rstp/CCIAP Project A1106 Final Report1.pdf.

The report focuses on the ecologic, economic, social and policy conditions under which a community might employ dyke removal and salt marsh restoration as an adaptive response to future climate change and sea level rise.

#### Petitcodiac River Causeway - The end is in sight

Source: http://asf.ca/news.php?id=106

The Atlantic Salmon Federation (ASF) and the New Brunswick Salmon Council (NBSC) commend the Province of New Brunswick for its decision to restore the Petitcodiac River to at least a major portion of what it was before a causeway was installed across the river in 1968. "While this was a difficult decision for the Province, it is certainly the only environmentally correct decision," stated Patricia Edwards, ASF's Regional Director for New Brunswick.

Since its construction in 1968, the Petitcodiac causeway and its various fishways have contravened the Federal Fisheries Act by restricting or eliminating passage of any and all fish species. Countless efforts, over the past four decades to improve the fishways at the causeway failed to provide adequate fish passage for any species, including the Atlantic salmon.

Prior to 1968, the Petitcodiac River supported a run of 2000 - 3000 salmon annually, but after the cause-way was completed the Petitcodiac run dwindled to mere hundreds of salmon. This decline preceded the precipitous crash of Inner Bay of Fundy salmon (IBoF) stocks. Those salmon are now listed as "Endangered" under the federal Species at Risk Act.

#### Nova Scotia Protects 30 Additional Natural Areas Natural Resources/Environment and Labour

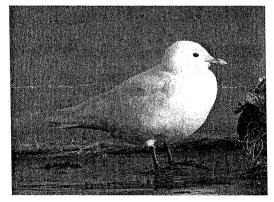
July 26, 2007

Thirty new protected areas in six Nova Scotia counties will preserve old-growth forests, rare ecosystems, unique wetlands, historic and cultural sites and extensive natural frontage on many lakes and rivers. The province will designate all of the 10,050 hectares (24,834 acres) of land acquired from Bowater Mersey Paper Company Ltd. Eleven areas will become nature reserves, 12 will be provincial park reserves and seven will be wilderness areas. Important Mi'kmaq cultural heritage sites and natural features along the Mersey River in Queens and Annapolis counties will be protected by new provincial park reserves. The designation of Shelburne River Wilderness Area will provide protection to the Shelburne Canadian Heritage River, one of 40 heritage rivers in Canada. The new protected areas also will help preserve habitats of rare species, unique natural features and opportunities for wilderness recreation.

The Environmental Goals and Sustainable Prosperity Act, proclaimed June 7, 2007 commits the province to protecting 12 per cent of its land mass, an international standard, by the year 2015. As announced in the spring, 100 per cent of the acquired land will be conserved. Of the new designations, 91.5 per cent will help to meet the 12 per cent target by protecting the natural areas' plants, animals and ecosystems. The remaining 8.5 per cent of lands will be conserved for public recreation use and for the protection of historic and cultural sites. The new park reserves will be in Queens and Annapolis counties and in Halifax Regional Municipality.

## Researchers Study Drastic Ivory Gull Declines SOURCE:http://www.bsc-eoc.org/organization/bscnews.html

3 August 2007 – In the High Arctic of Canada, Norway, and Russia, Ivory Gull numbers have declined considerably. Canadian Wildlife Service surveys indicate that the Canadian population has dropped by 80% since the 1980s.



In 2006, the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) listed the Ivory Gull as endangered. Researchers are investigating the role of climate change in the declines, with the organization Defenders of Wildlife reporting that retreating sea ice and glaciers are making it more difficult for the gulls to find food and protect nesting sites from predators. Meanwhile the August 2007 issue of the Birding Community E-Bulletin\_reports that an Environment Canada (EC) research scientist has found high mercury levels in Ivory Gull eggs; visit the Environment Canada website to learn more about current EC seabird field projects. Labrador and the northern part of insular Newfoundland are part of the historic range of this gull.

#### **Publications Close to Home**

Here are some publications and resources from the Atlantic region. If you have a recent publication on, technical report, or any information that would be helpful to those in the region send it along to the newsletter editor (s)!

For National Research Council Journals, the recent articles can be accessed in abstract or as html on line at <a href="http://pubs.nrc-enre.ge.ea/egi-bin/rp/rp2\_jour\_e">http://pubs.nrc-enre.ge.ea/egi-bin/rp/rp2\_jour\_e</a> These journals include the Canadian Journal of Botany, to be renamed "Botany", CJZoology, CJfForest Research, and the CJ of Fisheries and Aquatic Sciences, as well as Environmental Reviews.

Search engines can help point one to literature of interest. For example, the SORA searchable ornithological review archive <a href="http://elibrary.unm.edu/sora/">http://elibrary.unm.edu/sora/</a> allows you to identify articles of interest from most of the ornithological journals, but the most recent issues will not be searched as there is a lag between publishing and archiving. The ability to order only the articles you want can cut down on paper.

Amirault, D.L., F. Shaffer and J. Stewart. 2006. Eastern Canada Piping Plover Banding Summary. Technical Report Series No. 458. Canadian Wildlife Service, Atlantic Region and Québec Region. 30 pp.

Amirault-Langlais, D.L., P.W. Thomas and J. McKnight. 2007. Oiled Piping Plovers (Charadrius melodus melodus in eastern Canada. Waterbirds 30(2): 271-274.

Cameron, Robert P and David HS Richardson. 2006 Occurrence and Abundance of Epiphytic Cyanolichens in Protected Areas of Nova Scotia, Canada. Opuscula Philolichenum, 3: 5-14.

Debellis, T., Kernaghan, G., Bradley, R. and Widden, P. 2006. Relationships between stand composition and ectomycorrhizal community structure in boreal mixed-woods forests. Microbial Ecology 52: 113-126.

Dobbin, G, H Hariharan, P-Y Daoust, S Hariharan, S Heaney, M Coles, L Price and CA Muckle. 2005. Survey of the bacterial flora of free-living double-crested cormorants on Prince Edward Island, Canada. Comparative Immunology, Microbiology and Infectious Diseases 28:71-82

Gormley, K., Teather, K., and D. Guignion. 2005. Changes in salmonid communities resulting from pesticide run-off events. Ecotoxicology 14: 671-678.

Hamilton, D. J., A. W. Diamond, and P. G. Wells. 2006. Shorebirds, snails, and the amphipod, Corophium volutator, in the upper Bay of Fundy, Canada: top-down versus bottom-up factors, and the influence of compensatory interactions on mudflat ecology. Hydrobiologia 567:285-306.

Huettmann, F. and Diamond, A.W. 2006. Large-scale effects on the spatial distribution of seabirds in the Northwest Atlantic. Landscape Ecology. In Press.

Paredes, R., Jones, I.L. and D.J. Boness. 2006. Parental roles of male and female Thick-billed Murres and Razorbills at the Gannet Islands, Labrador. Behaviour 143: 451-481.

Quijon PA, Snelgrove PVR (2006) The use of coarser taxonomic resolution in studies of predation on marine sedimentary fauna. J Exp Mar Biol Ecol 330: 159-168

Renner, H.M., Renner, M., Reynolds, J.H., Harding, A.M.A., Jones, I.L., Irons, D.B. and G.V. Byrd. 2006. Colony mapping: a new technique for monitoring crevice-nesting seabirds. Condor 108: 424-435.

Sutton, J., L. Hermanutz and J. Jacobs. 2006. Frost disturbance and seedling recruitment of arctic-alpine plants in the Mealy Mountains, Labrador. Arctic, Antarctic & Alpine Research 38(2): 273-275.

Worm B, Lotze HK. 2006. Eutrophication, grazing, and algal blooms on rocky shores. Limnology and Oceanography 51 (1/2): 569-579.



## Atlantic Society of Fish and Wildlife Biologists

E-Mail: ASFWBweb@chebucto.ns.ca ASFWB Home Page: http://www.chebucto.ns.ca/ Environment/ASFWB

#### MEMBERSHIP APPLICATION FORM

Date:	
NAME:	
TITLE:  AFFILIATION:  TELEPHONE: (H)(O)	
EMAIL:	
REGULAR MEMBER (\$15): STUDENT (\$5):	,
Besides newsletters, I would like to receive notices, announcements, etc. by: email regularial:	lar
(Newsletters will be mailed out and available online).	

Mail a completed copy of this form along with a cheque (payable to **Atlantic Society of Fish and Wildlife Biologists**) to:

Andrew Macfarlane, ASFWB c/o Canadian Wildlife Service PO Box 6227 Sackville NB E4L 1G6