

BioLink

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

June 2006



2006 Annual Meeting Newfoundland and Labrador

Join us for the ASFWB Annual General Meeting the week of October 10-13, 2006 Hosted by Parks Canada and Memorial University

Memorial University Bonne Bay Marine Station,
Gros Morne National Park,
Newfoundland and Labrador



The Bonne Bay Marine Station situated on the Norris Point Waterfront.
(Photo courtesy Philip Sargent, 2004)

The Bonne Bay Marine Station on Newfoundland's west coast is a world-class research and teaching facility, dedicated to expanding knowledge of marine ecology. Surrounded by Gros Morne

National Park, the Bonne Bay area exhibits unparalleled diversity of habitat, marine plants, fish and invertebrates. This diversity cannot be matched anywhere else in north-eastern North America. Equipped with teaching and research laboratories, library/resource centre, multimedia theatre, aquarium, residence accommodations, and small boats, the station offers students a premiere learning environment and researchers a first-rate facility for marine ecosystem research.

Gros Morne National Park of Canada was designated a UNESCO World Heritage Site in 1987. The park is an area of great natural beauty with a rich variety of scenery, wildlife, and recreational activities. Visitors can hike through wild, uninhabited mountains and camp by the sea. Boat tours bring visitors under the towering cliffs of a freshwater fjord carved out by glaciers. Waterfalls, marine inlets, sea stacks, sandy beaches, and colourful nearby fishing villages complete the phenomenal natural and cultural surroundings of Gros Morne National Park of Canada.

For additional information contact:
Tom Knight, GMNP
Tom.Knight@pc.gc.ca

Information on the meeting location:
<http://www.pc.gc.ca/pn-np/nl/grosmorne/default.asp>

<http://www.bonnebay.mun.ca/>

BioLink Student Profile

Colin Garroway

Submitted by: Hugh Broders



Colin Garroway is a native of Dartmouth, Nova Scotia. In 2004 he completed a Bachelors of Science degree in Biology at Saint Mary's University with an Honours thesis was entitled "Inter- and Intraspecific temporal variation in the activity of bats at two Nova Scotia hibernacula". Colin then initiated work on evolutionary aspects of animal sociality for his Masters studies at Saint Mary's University. For these studies he received an NSERC Canada Graduate Scholarship. His research involved field studies on northern long-eared bats at Dollar Lake Provincial Park using trapping, radio telemetry and passively integrated transponders. Colin PIT-tagged approximately 50 female bats and monitored their movements and social associations over the summer. In the colony of about 80



females that he studied Colin determined that individuals within the colony were indeed social, each individual having a few others that they were much more likely to roost with than any 'random' individual in the colony. Colin has submitted one paper on the subject for publication and expects to defend his thesis in the summer with 1-2 other papers related to his thesis studies.

Concurrent with his bat-related studies Colin has also worked hard on a project with the Nova Scotia Department of Natural Resources. The goal of this project is to develop a predictive model to assess the effects of winter severity on white-tailed deer populations using existing datasets. As part of



this project Colin has published a paper on the effects of winter weather and density on body condition, and a second paper on investment in reproduction as a function of winter weather severity is in the final revision stages. This project is expected to conclude this summer. Over this past winter Colin also assisted in a research project of flying squirrels in SW Nova Scotia.

In March, Colin was awarded a 3-year NSERC Doctoral Scholarship and will be starting a PhD program in the fall at a University he has yet to decide on. He is president of the SMU Grad Student Society and has presented his research at several conferences.

Research Update – Breeding Amphibians in N.B. Forests

Submitted by: Lee Jacobs

The Forestry sector directly employs approximately 15, 000 people in New Brunswick, with revenues over 51, 000, 000 dollars annually. To sustain the demand for wood and wood products, a large volume of forest must be harvested on a continuous basis. To meet such demands, the forestry industry owns 1.3 million hectares of freehold land in New Brunswick, committed to timber production and manages more than an additional 1,000,000 hectares of crown land. Often, industry-managed forests are clearcut, and replanted with softwood species (primarily black spruce) for future harvests by the pulp and paper industry. Other changes in forest landscapes include roads built within managed forests to allow access to loggers, tree planters, and harvesting equipment. As a result, managed forest landscapes are quite different from natural, unmanaged forests which historically dominated the province.

Changing forest landscapes evoke concern for scientists, naturalists, and anybody with a general concern for natural places and wildlife. As a result, research on the effects of forest management on native plants and animals is becoming more common. The status of amphibian populations is thought to provide useful insight on the overall health of an



Mink Frog

ecosystem. Many amphibians have an aquatic larval stage and a terrestrial adult stage. This life-cycle, coupled with skin that readily absorbs toxins make these species particularly sensitive to disturbances in both aquatic and terrestrial systems. Thus, changes in amphibian populations may precede or indicate changes in other plant and animal taxa.

My current research addresses the question “are landscape level changes in NB forests affecting local amphibian populations?” To address this question, I have spent the past two summers (April-Oct.) surveying amphibian populations at 35 ponds in the Fundy Model Forest. I used five different sampling methods to obtain estimates of species richness (# of species at a given pond), and species abundance. I listened for calling frogs and toads to estimate the number of breeding males at each pond. Next, I counted salamander, wood frog, green frog, and bull frog egg masses. Egg mass counts are limited to these species, as other amphibians lay singular eggs which are difficult to detect and count. Egg mass counts provide evidence of breeding activity at the pond. I used dipnets to estimate the presence and abundance of larval amphibian species. Time constrained visual searches were conducted to count aquatic species, such as green frogs, mink frogs, and newts. Finally, pitfall traps with drift fences were constructed to trap newly metamorphosed individuals and adults around the pond.



Pickerel Frog Eggs

With estimates of species richness and abundance established for each pond, the next phase of my research involves gathering data on the land surrounding each pond. With help from JD Irving, I will use digitized maps to analyze the landscape composition within a 1km radius of each pond. I will look for relationships between the presence, absence, and abundance of amphibian species and landscape variables. Landscape variables include, but are not limited to, the proportion of surrounding land that has been clear cut, planted and/or thinned, as well as road density, forest stand age, and tree species composition.

If landscape variables do in fact influence amphibian populations, I will determine the spatial scale at which these relationships operate. For example, spotted salamanders are considered a forest interior species, unlikely to persist on the hot, dry land typical of recently clearcut forests. Because of these habitat requirements, I would expect to find fewer salamanders with an increasing proportion of young clearcuts on adjacent lands. To examine the spatial scale of such relationships, I will carry out my analysis several times, each time including land farther away from the pond. By doing so, I will be able to determine if clearcuts up to 1000m away from a pond influence salamander densities at the pond in question.

Results from my research will help the New Brunswick forestry sector to manage woodlots while minimizing negative effects on amphibians. My results should also provide a framework of information upon which more specific studies could be based.



Miramichi River, near Doaktown New Brunswick (January 30, 2006)

ASFWB EXECUTIVE

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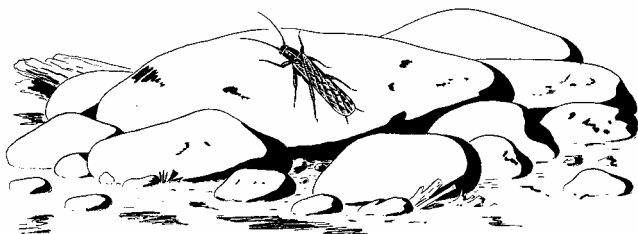
VP Program (NFLD) – Tom Knight

Newsletter Editor – Jason LeBlanc
leblanje@gov.ns.ca

Spring Seminar Cancellation

Submitted by ASFWB President : Andrew Boyne

As many of you are aware the Spring Seminar scheduled for April was cancelled at the last minute because of scheduling problems with some speakers. This was disappointing because the last few seminars have been well attended and indications were that this year's would have been as well, as the topic seemed to grab the interest of many members. The executive is committed to putting on a solid Spring Seminar in 2007. Hopefully, we will see everyone in Newfoundland in October for the Annual General Meeting.



ASFWB 2005 AGM Financial Statement 05 - 07 October 2005 Fredericton, NB

• Revenue

Registration: 44 x \$10	\$ 440.00
Reduced Registration: 6 x \$5	30.00
Regular Memberships: 35 x \$15	525.00
Student Memberships: 15 x \$5	75.00
Banquet Tickets Sold: 29 x \$25	725.00
Silent Auction	807.25
Contribution from UNB (catering)	223.69
Contribution from UNB (Ice-breaker)	<u>145.48</u>
Total:	\$ 2,971.42

• Expenditures

Framing for Silent Auction	\$ 138.00
Engraving for Merit Award plaque	19.77
Badge Kit	62.10
Ice-breaker	145.48
Banquet and screen rental	905.90
Catering	823.69
Student Award (Lesley Corning)	<u>100.00</u>
Total:	\$ 2,194.94

**Excess of Revenue over Expenses:
\$ 776.48**

Respectfully submitted 21 February 2006
by Andrew MacFarlane

Environment, Energy & Forestry PROVINCE PROPOSES TO CREATE NATURAL AREA IN TRACADIE CROSS

CHARLOTTETOWN, PEI -- The Department of Environment, Energy and Forestry is inviting public comment on its proposal to designate a 57-hectare (140-acre) area of public land in Tracadie Cross under the Natural Areas Protection Act. The Act protects various types of natural habitats from development. The Tracadie Cross site includes about 25 hectares (nearly 63 acres) of bog, which provides habitat for a variety of species including the provincially-rare white fringed

orchid. The remainder of the area is forested with a mixture of spruce, poplar, birch, fir and maple, as well as scattered older specimens of white pine and red oak. The locally-uncommon royal fern can also be found on the site.

Minister of Environment, Energy and Forestry Minister Jamie Ballem said the Tracadie Cross property is an excellent example of a bog and its associated wildlife. In addition to the rare plants, the area is home to a variety of wetland and forest birds, beaver, small mammals, reptiles and amphibians. As well, bald eagles can be seen flying over the area.

“Designating these lands under the Natural Areas Protection Act will see that generations of Islanders enjoy this natural habitat and the wide variety of wildlife that it supports,” added Minister Ballem. Mildred Dover, Education Minister and Tracadie-Fort Augustus MLA, said a local community group, the Tracadie Area Residents for Resource Protection, has been working to see the Tracadie Cross site become a protected natural area. Area residents recognize the contribution the land makes to local wildlife and to the protection of water quality – serving as a natural filter that traps and breaks down contaminants such as chemicals, organic waste and sediment. If the land is designated, Minister Dover said the community group has asked that it be known as the Eagles Landing Tracadie Cross Bog Natural Area. Recent amendments to the Natural Areas Protection Act provide an opportunity for public review and comment before provincially-owned land is protected. This is the first designation proposed under the new legislation. As part of the review process, a public meeting will be held at the Tracadie Community Centre, 148 Station Road, on Thursday, June 15 from 7 - 9 p.m. Comments may also be provided in writing via e-mail to naturalareas@gov.pe.ca or to the Chair of the Natural Areas Protection Act Technical Advisory Committee, Department of Environment, Energy and Forestry, PO Box 2000, Charlottetown, PEI, C1A 7N8. All comments must be received by June 26. Copies of the draft designation document, including details of the managing activities and the property map, are available from the 4th floor of the Jones Building, 11 Kent Street in

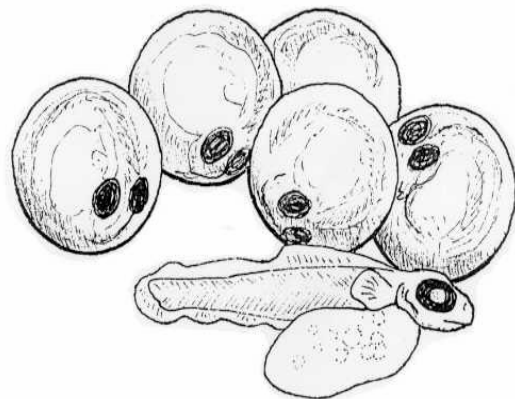
Charlottetown, or online at www.gov.pe.ca/go/NAPAc consultations.

If the designation is approved, the Tracadie Cross site would contribute to the goal of protecting seven per cent of Prince Edward Island’s total land mass. Currently, about 15,900 hectares (more than 39,000 acres) of land is protected. That includes natural areas, the Prince Edward Island National Park, some provincial park land, and Wildlife Management Areas. Of the total, about 8,750 hectares (21,600 acres) of lands are designated as natural areas under the Natural Areas Protection Act. Some lands are publicly-owned or held for the people of Prince Edward Island by the non-governmental Island Nature Trust. These are open for compatible uses such as hiking, fishing, hunting, trapping, bird-watching and nature exploration. Other natural areas are privately held by landowners who understand the ecological importance of their lands and voluntarily agree to protection.

For additional information, contact [Rosemary Curley](mailto:Rcurley@gov.pe.ca).

Become a Member of the ASFWB

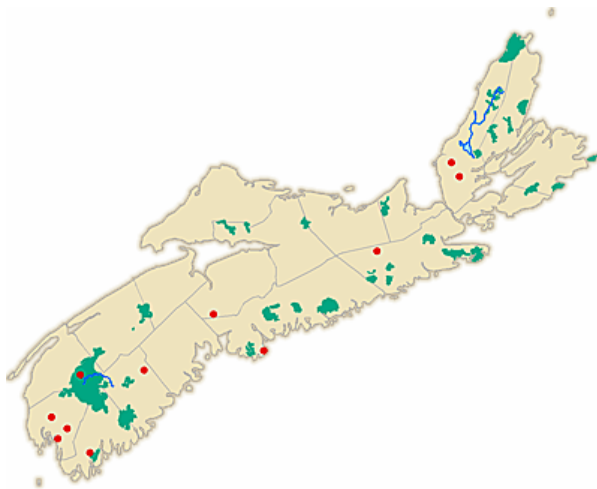
Membership to the Atlantic Society of Fish and Wildlife Biologists is open to residents of New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland and Labrador. Regular (\$15) and student (\$5) memberships are available. To become a member contact Andrew MacFarlane Andrew.MacFarlane@EC.GC.CA or Rosemary Curley Frcurley@gov.pe.ca or fill out the form on the back page and submit.



Free Guided Tours of NS Protected Areas

Environment and Labour

People from all over the province will get the opportunity to visit and enjoy some of Nova Scotia's protected wilderness areas this summer. The Department of Environment and Labour will offer free, guided tours to participants interested in exploring the province's unique wilderness areas. "Our province is blessed with pristine beauty and breathtaking wilderness and I am happy that we are able to showcase that to the world," said Carolyn Bolivar-Getson, Minister of Environment and Labour. "We are committed to protecting our wilderness areas to ensure that they are enjoyed for generations to come." One of the upcoming tours is the Cloud Lake Wilderness Area (see photo).



Saturday, July 8th, 2006 - Family Adventure Treasure Hunt (Cloud Lake Wilderness Area, Annapolis-Kings County)

Spend the day exploring Cloud Lake by canoe, learning about the natural and cultural history of the area through a self-guided 'treasure hunt'. Locate 7 learning stations and solve each riddle to gather clues, leading your team to the hidden treasure. Safe canoeing practices and basic paddling experience are required. For more information and to pre-register, contact Leif Helmer: (902) 543-4685; helmerpl@gov.ns.ca

Other tours taking place throughout Nova Scotia include:

-- Saturday, June 24

The Kenomee Canyon Trail at Economy River Wilderness Area, Colchester County

-- Saturday, July 8

Family Adventure Treasure Hunt at Cloud Lake Wilderness Area, Annapolis-Kings County

-- Saturday, July 22

Paddle the Coast at Gabarus Wilderness Area, Cape Breton County

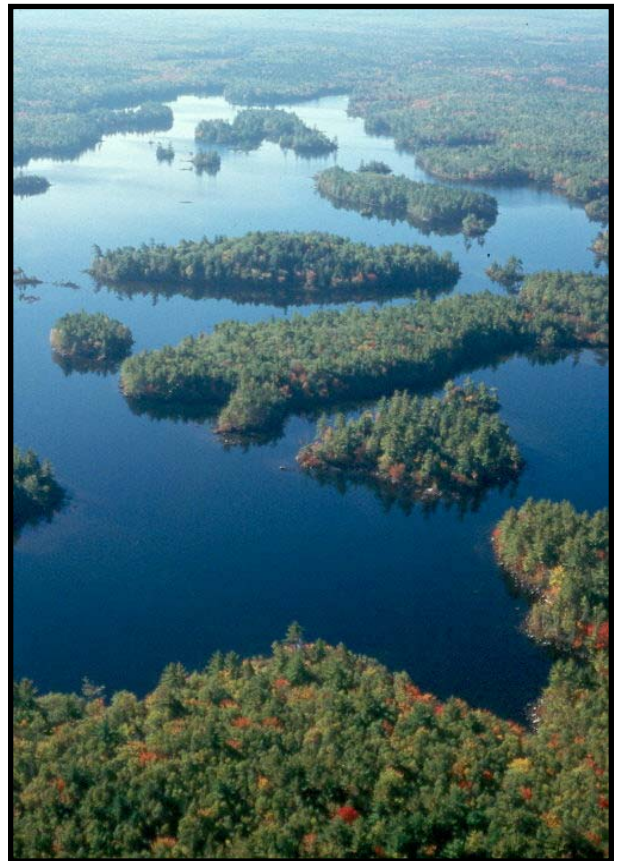
-- Saturday, Aug. 12

Coastal Barrens Interpretive Hike at Duncans Cove Nature Reserve, Halifax County

-- Saturday, Aug. 26

Mosses of Eigg Mountain-James River Wilderness Area, Antigonish County

Information and a map showing the guided tour locations are available on the Department of Environment and Labour website at www.gov.ns.ca/enla.



Cloud Lake Wilderness Area (photo courtesy of NS Environment and Labour)

Atlantic Society of Fish and Wildlife Biologists

E-Mail: ASFWebweb@chebucto.ns.ca

ASFWeb Home Page: <http://www.chebucto.ns.ca/Environment/ASFWeb>

MEMBERSHIP APPLICATION / RENEWAL FORM

Date:

NAME :

TITLE:

AFFILIATION:

TELEPHONE: (H).....(O).....

MAILING ADDRESS:

.....

.....

EMAIL:

REGULAR MEMBER (\$15): _____ STUDENT (\$5): _____

*Besides newsletters, I would like to receive notices, announcements, etc. by:
email _____ regular mail: _____
(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, c/o Canadian Wildlife Service, Environment Canada, P.O. Box 6227, Sackville, N.B., E4L 1G6** or contact Rosemary Curley Frcurley@gov.pe.ca



ASFWeb Donald Dodd's Scholarship

Funding for the ASFWeb's Donald G. Dodds Scholarship at Acadia University is well under way and now sits at \$ 2,130.50 as of early February of 2006.

Newsletter Submissions

I wish to thank everyone who submitted material for this issue of **BIOLINK**. Please forward any articles, photos, updates, or notes of interest to my email at leblanje@gov.ns.ca

NEXT ISSUE - SEPTEMBER
Deadline for submissions is August 31.

