

BioLink

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Farm Management of Marginal Lands in Nova Scotia

Written by
Simon Greenland-Smith

As harvest season commences on farms around Nova Scotia, farmers will be receiving their last reminder to complete a survey about their management on marginal lands, a project that we have been working on throughout the summer.

The survey is being run by Dalhousie's School for Resource and Environmental Studies, but is a joint effort including the NS Department of Natural Resources, The Nova Scotia Federation of Agriculture, and the National Conservation Plan of the Government of Canada. At the time of writing, approximately 25% of the 1000 surveys have been completed. This is an excellent response rate considering the length of the



Left Storyboard from the animation showing the bobolink and the farmer haying a field.

survey (12 pages) and the time of year. To boost response rate, we have been sending multiple reminders to encourage participation.

Question topics included the area of major habitat groups like woodlands, wetlands, and ponds, how they are perceived by farmers, and what practices they use there. These habitat types are considered the "low hanging fruit" for conservation efforts, and so answers will help us understand the management practices that are popular

among farmers as well as the ecosystem services they perceive these landscape elements are providing. Wildlife biologists may be interested to hear that we have a full section of questions about hunting practices on farms as well as how farmers perceive hunters. Another section explores how the division of farms into multiple discrete properties (PIDS) affects habitat provision and fragmentation. Data analysis and

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Don't miss this!

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Do you have a research project, wildlife topic, event, photos, or other related information that you would like to see included in BioLink? If so, email Danielle Quinn (danielle.quinn@acadiau.ca) or Holly Lightfoot (hlightfoot@birdscanada.org)! We're always looking for content ideas and photos from our membership!

Farm Management *(continued)*

report writing will take place throughout the fall and our fingers are crossed for interesting and useful results.

Our team has also just finished working on an animated short about biodiversity friendly haying techniques, such as the use of flushing bars, raising mower heights, delaying timing, and changing mowing patterns. The video stars a bobolink, a wood turtle, and our main character, a Nova Scotia farmer. The video was put together by the Halifax company Wonderlust Media with direction from the Dalhousie team. The ninety second video is available on YouTube and our Biodiversity Landowner's Guide (BioLOG) website at its new url: www.farmbiodiversity.ca

If you have any questions about any of the projects mentioned here, or have ideas for other cooperative projects, please don't hesitate to contact Simon at s.greenland-smith@dal.ca or Dr. Kate Sherren at kate.sherren@dal.ca.



Left Survey reminder postcard sent to all farmers who didn't respond to the survey. Respondent farmers were not contacted again.

We would like to thank all those who participated in the 2015 Spring Seminar entitled "*Changing Perspectives on Species at Risk*". It was an informative and enjoyable day, with many great speakers. We look forward to the 2016 seminar!

We also want to thank all those who are attending the 2015 Annual General Meeting at the Gaelic College, in Cape Breton and hope to have photos submitted from this beautiful location!

Do you have a suggestion for the 2016 Spring Seminar theme? We'd love to hear from you!

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Visit our website at:

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NS Department of Fisheries and Aquaculture (Inland Fisheries) Aquatic Invasive Species Initiatives

Written by Jason LeBlanc

Various aquatic invasive species (AIS) initiatives are underway to minimize the impacts of these species and ensure healthy ecosystems support native fish communities and recreational fisheries:

1) A collaborative initiative between the Department of Fisheries and Oceans Canada and the Provinces, through the National Aquatic Invasive Species Committee (NAISC), was able to facilitate the implementation of the *Aquatic Invasive Species Regulations*, a suite of regulatory tools that



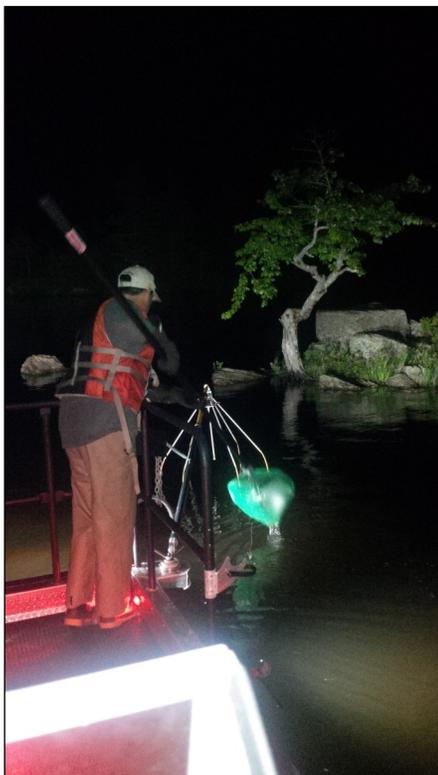
Above Staff training exercises on an electrofishing boat.
(Photo: Jason LeBlanc)

can be used to prevent new introductions and manage the spread of AIS. These regulations will initially focus on high-risk species and geographic areas. They also provide tools to provincial/territorial governments to act to address AIS in jurisdictions where they manage the fishery. The *AIS Regulations and Regulatory Impact Analysis Statement* can be found in the *Canada Gazette*, Vol. 149, No. 12, Part 2, at www.gazette.gc.ca.

2) Several invasive species management projects have been initiated using an electrofishing boat to control AIS in specific circumstances. Most boat electrofishing activities occur at night, as it increases capture efficiency. Projects this field season include:

- Assessment of risk and control of smallmouth bass in Cannon Lake, Queens County. This lake drains into important brook trout habitat in Kejimikujik National Park, and this project is a joint initiative with Keji Park staff.
- Control of smallmouth bass and chain pickerel in Hebb Lake, Lunenburg County, home to globally endangered Atlantic whitefish. This is a joint project with the Bluenose Coastal Action Foundation, Department of Fisheries and Oceans Canada, and the Atlantic Whitefish Conservation and Recovery Team.

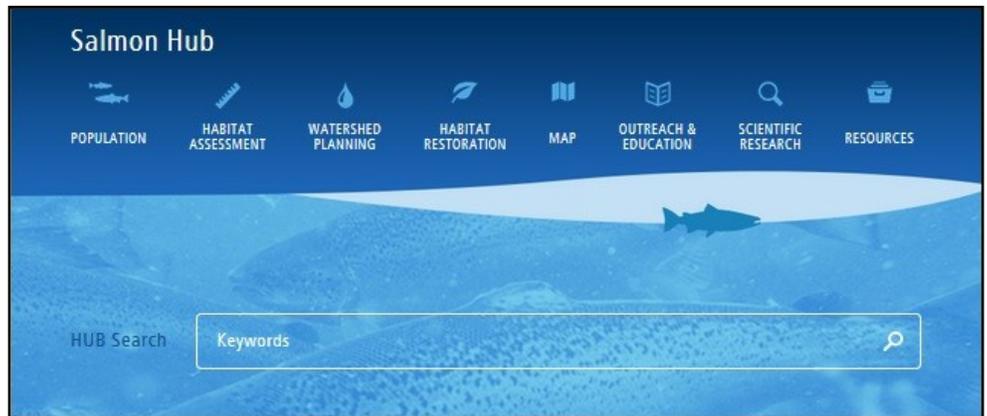
Jason LeBlanc is a biologist with the Nova Scotia Department of Fisheries and Aquaculture—Inland Fisheries Division



Above Electrofishing at night on Hebb Lake, Lunenburg County.
(Photo: Jason LeBlanc)

Salmon Hub: A New Go-To Resource for Salmon Conservation

The Atlantic Salmon Conservation Foundation (ASCF) is proud to announce the launch of the Salmon Hub. The Salmon Hub provides users with resources and information on topics related to Atlantic salmon, with special emphasis on the Atlantic provinces and Quebec. With its compilation of best-practice guides, instruction manuals and videos, scientific research, and networking opportunities, the Salmon Hub is the go-to resource for salmon conservation.



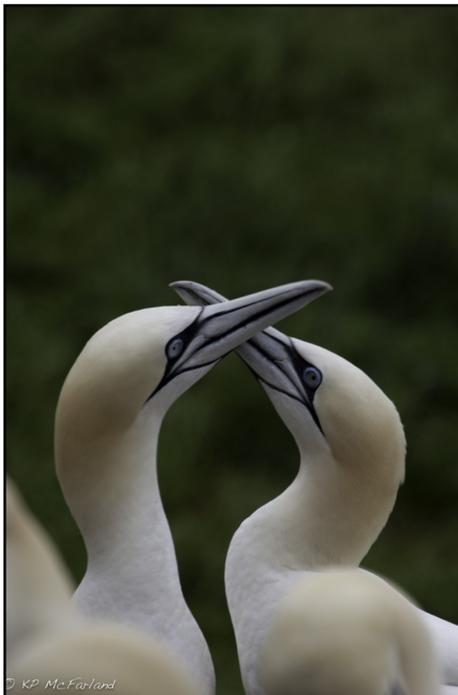
Start using the Salmon Hub resource now! Users can search the entire Hub database for a specific technique, or explore one of the main topics on the site to discover key resources at:

English: <http://salmonconservation.ca/en/salmon-hub>

Français: <http://salmonconservation.ca/fr/carrefour-du-saumon>

The Hub is a living resource, and will be continually updated as new techniques and resources arise. If you know of a resource that should be featured on the Salmon Hub, please let us know by emailing krystal@salmonconservation.ca

Cape Saint Mary's Northern Gannet Colony



(Photo: Kent MacFarlane)

Researchers at Cape St. Mary's in southeastern Newfoundland are searching for clues about why northern gannets abandoned their young again this year. Seabird specialists Bill Montevecchi, a biologist at Memorial University of Newfoundland, says it's the third season since 2012 that the chicks have been left to starve. He estimates this year's breeding success at around 40% compared to the usual 80 or 90%. Montevecchi says a suspected culprit in past years was warmer water and its effect on fish hunted by the birds. But the usually attentive gannets have left their young again this month even with normal, cooler sea temperatures. Montevecchi says researchers are working with the U.S. Fish and Wildlife Service to fit some of the birds with tracking devices to monitor where they go.

Source: Charlottetown Guardian 26 August 2015



(Photo: Kent MacFarlane)

Abundance and Distribution of Invasive Tunicate in Western Newfoundland



Above Violet tunicate (orange) growing on kelp in Codroy harbour. Violet tunicate can be seen competing for space with the invasive coffin box bryozoan .

Written by Scott Caines

The spread of non-indigenous species threatens marine biodiversity and can lead to large scale changes in the structure and function of marine environments (Harris and Tyrrell, 2001; Bax *et al.*, 2003). The golden star tunicate (*Botryllus schlosseri*) was first observed in Arnolds Cove, Placentia Bay along Newfoundland's (NL) Avalon Peninsula in 1945, but remained undetected throughout much of insular NL for over 30 years (McKenzie *et al.*, in review). Prior to 2013, the violet tunicate (*Botrylloides violaceus*) was isolated to a single harbour in Belloram, Fortune Bay (McKenzie *et al.*, in review).

Below Golden star (grey/brown) growing on eelgrass in Little Port Harmon, Bay St. George.



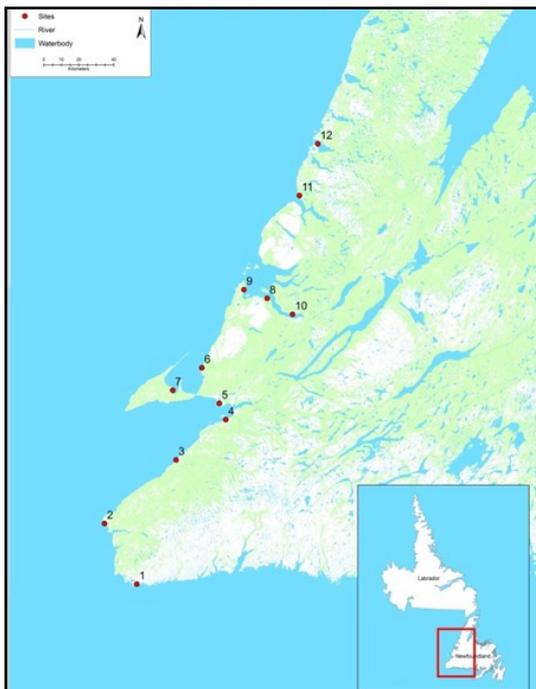
Subtidal surveys in 2013 indicate that golden star and violet tunicate have expanded their range to the southwest coast of insular NL (McKenzie *et al.*, in review). Tunicates are sessile and pelagic marine animals from the clade *Urochordata*. Sessile tunicates can exist as solitary individuals or form complex colonies consisting of 1000's of individuals. The invasive golden star and violet tunicates form brightly coloured colonies on fixed and floating docks and natural substrates, such as algae, eelgrass, boulders, and sessile marine invertebrates. These marine invaders

have been found to cause economic losses for the shellfish aquaculture industry and pose a high ecological risk to coastal ecosystems of Atlantic Canada (Carver *et al.*, 2006).

Qalipu Natural Resources (QNR) and Mi'kmaq Alsumk Mowimsikik Koqoey Association (MAMKA) have been monitoring the abundance and distribution of invasive tunicates and eelgrass in western NL. In 2014, we used 10x10cm polyvinyl chloride (PVC) panels to monitor the presence and abundance of invasive tunicates at 12 sites spanning ~270-km along a south to north latitudinal gradient. We used video surveys to investigate the abundance and distribution of eelgrass and to document eelgrass fouling by invasive tunicates at eight sites within western NL.

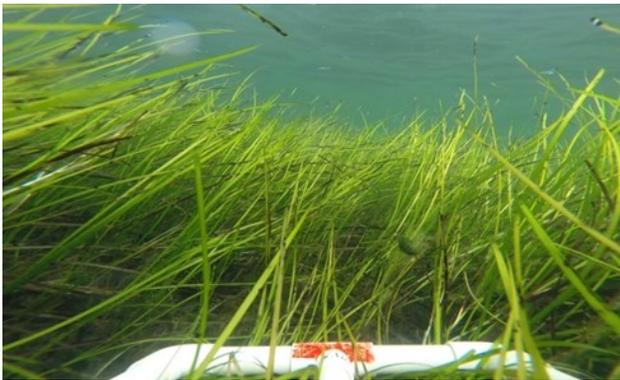
A total of 273 PVC panels were sampled between June and November 2014 to determine the abundance and distribution of invasive colonial tunicates in western NL. Golden star was detected at Sites 1, 2 and 5, violet tunicate was isolated to Site 2, while invasive colonial tunicates were not detected on PVC panels at any other site. The percent cover of golden star

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Above Location of twelve invasive tunicate study sites along the west coast of Newfoundland.

Invasive Tunicates (*continued*)



Above An eelgrass meadow in St. Paul's, Northern Peninsula. Eelgrass is a perennial flowering plant found along protected and moderately exposed sandy shorelines.

invertebrates, and shore birds rely directly and/or indirectly on the ecosystems services provided by eelgrass meadows in shallow, subtidal environments (Orth *et al.*, 2006; Barbier *et al.*, 2011). The recent introduction and future range expansion of invasive tunicates in western NL will put additional pressure on eelgrass habitat, which may lead to large scale changes in the composition and structure of subtidal coastal communities. Qalipu Natural Resources is currently working on a multiyear research program to determine factors influencing the population dynamics and documenting the effects of these invaders in our coastal environments.

Scott Caines is a Natural Resource Technician with the Qalipu Mi'kmaq First Nations.

Barbier, E. B., S. D. Hacker, C. Kennedy, E. W. Koch, A. C. Stier, and B. R. Silliman. 2011. The value of estuarine and coastal ecosystem services. *Ecological Monographs* 81(2):169–193.

Bax, N., A. Williamson, M. Aguero, E. Gonzalez, and W. Geeves. 2003. Marine invasive alien species: a threat to global biodiversity. *Marine Policy* 27:313–323.

Carver, C. E., A. L. Mallet, and B. Vercaemer. 2006. Biological synopsis of the colonial tunicates (*Botryllus schlosseri* and *Botrylloides violaceus*). Canadian Manuscript Report of Fisheries and Aquatic Sciences 2747.

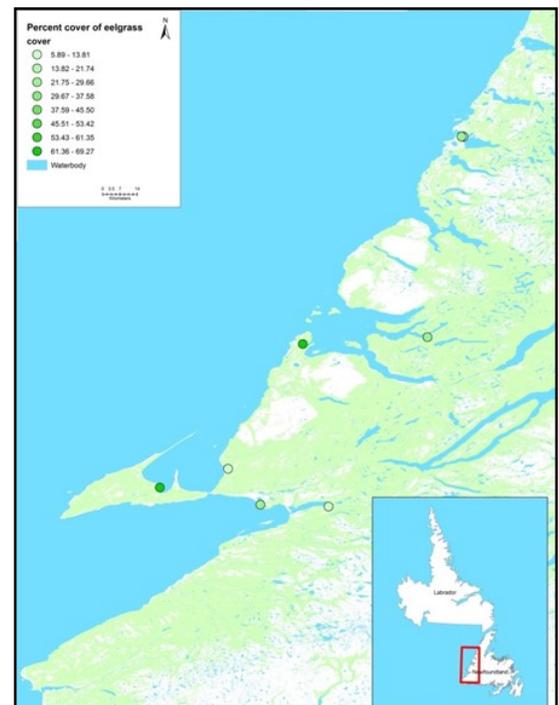
Harris, L. G., and M. C. Tyrrell. 2001. Changing community states in the Gulf of Maine: synergism between invaders, overfishing and climate change. *Biological Invasions* 3(1):9–21.

McKenzie, C. H., K. Matheson, S. Caines, and T. Wells. (accepted). Surveys for non-indigenous tunicate species in Newfoundland, Canada (2006–2014): a first step towards understanding impact and control. *Management of Biological Invasions*.

Orth, R. J., T. J. Carruthers, W. C. Dennison, C. M. Duarte, J. W. Fourqurean, K. L. Heck, R. A. Hughes, G. A. Kendrick, W. J. Kenworthy, S. Olyarnik, F. T. Short, M. Waycott, and S. L. Williams. 2006. A global crisis for seagrass ecosystems. *Bioscience* 56(12):987–996.

peaked (up to 76.0% on a single panel) in early September, before declining in October at Sites 2 and 5, respectively. Similarly, the peak in frequency of occurrence of golden star colonies on eelgrass shoots was observed in September at site 5, followed by a decline in October. The percent cover of eelgrass along the west coast of NL ranged between 5.9 and 69.3%.

Eelgrass provides critical ecosystem services to coastal environments by stabilizing shorelines, nutrient cycling, contributing organic biomass to coastal food webs, and by increasing habitat heterogeneity along shallow subtidal shores (Orth *et al.*, 2006; Barbier *et al.*, 2011). Commercially, recreationally, and culturally significant fish,



Above Percent cover of eelgrass (*Zostera marina*) at eight study sites along the west coast of Newfoundland, Canada.

Blueberries and Birds: A Case of Human-Wildlife Conflict on the Acadian Peninsula

Written by Julie Paquet

The Acadian Peninsula has been an important Whimbrel fall migration staging site for hundreds of years. In the late 1800's, the Bulletin of the St John Natural History Society of New Brunswick puts the Jack curlew (Whimbrel) alongside the Eskimo curlew, "scattered in the moss" on Miscou Island where they were said to feed on berries. In 1908, John McSwain, a naturalist from Prince Edward Island, recounts how Hudsonian curlew (Whimbrel) were well known to hunters on Miscou Island and states that they would "come in large flocks, feeding on the tidal flats and the berries of the barrens" (Taverner, 1942).

However the landscape of the Acadian Peninsula has changed significantly since John McSwain made his observations. Many of the large coastal bogs where extended patches of crowberry and blueberry grew have been heavily disturbed by peat mining activities, one of the most important industries in the region. Parallel to this, over the past 20 years, the blueberry industry has grown significantly in New Brunswick. In 2012, there were 220 growers tending 33,000 acres and in 2013, the province produced a 5-year strategic plan that called for the development of at least another 20,000 acres of blueberries, and this primarily on the Acadian Peninsula (NBWBSS, 2013–2018).



Above Peat mining on the Acadian Peninsula.
(Photo: Julie Paquet)



Above An irresistible blueberry buffet

Below Whimbrel in a Brantville NB blueberry field

(Photos: Julie Paquet)



Whimbrel appear to have adapted to this changing landscape by focussing the majority of their daytime foraging in the blueberry dense commercial fields of the Acadian Peninsula. This in turn has put them in conflict with blueberry farmers who are concerned that the birds are causing significant crop loss. To reduce the impacts of Whimbrel and other berry predators such as gulls and bears, farmers have resorted to various deterrence measures, ranging from scarecrows and recorded distress calls to intense hazing and disturbance activities. Although these methods are not successful in permanently discouraging Whimbrel from foraging in the berry fields, they do succeed in keeping the birds

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Blueberries and Birds (*continued*)

in flight and moving them from field to field. Ironically, because of increased energy expenditure and reduced food intake, these activities may actually result in slowing down the weight gain necessary for migration and prolonging the Whimbrel's stay on the peninsula.

In view of declining Whimbrel populations and the need to provide high quality staging habitat for migrating shorebirds, the Canadian Wildlife Service (CWS), Mount Allison University (MTA) and the Center for Conservation Biology (CCB) of the College of William and Mary are working together to gather information on population, habitat use, length of stay, diet and migratory connections of Whimbrel stopping over on the Acadian Peninsula. In the late summer of 2015, we conducted weekly aerial surveys from Brantville to Miscou on the coast and inland to Val Doucet and Saint Sauveur to monitor distribution and abundance. MTA honours student Avery Nagy-MacArthur, under the supervision of Dr. Diana Hamilton, made foraging rate and behaviour observation in commercial berry fields and sampled insects and berries in commercial fields and historical stop-over habitat in the Miscou bogs. Fletcher Smith and Dr. Bryan Watts of the CCB lent their support to trap and band Whimbrel and outfit them with nanotags used to monitor movements throughout the Acadian Peninsula via a network of telemetry towers.

Right Fletcher Smith (left) and Avery Nagy-MacArthur (right) examining a Whimbrel. (Photo: Julie Paquet)



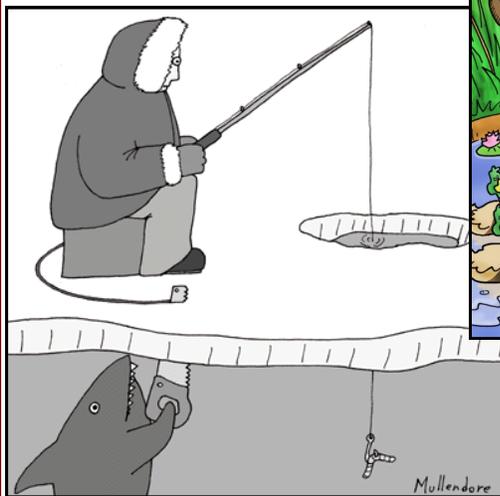
Equally important to this project, a student supervised by Dr. Julie Guillemot of the Université de Moncton - Shippagan Campus, will be conducting a survey of blueberry growers this fall to better understand their perceptions and thoughts on this issue. We hope that this information, combined with our research findings, will support the development of a management plan that will allow for the needs of both the growers and the Whimbrels to be met.

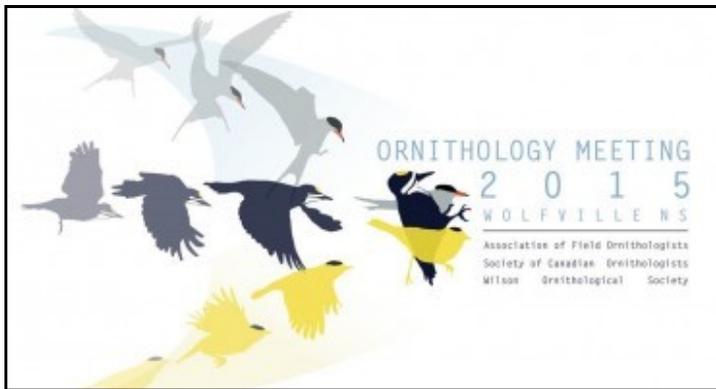
Taverner, P.A. 1942. The distribution and migration of the Hudsonian Curlew. *The Wilson Bulletin* 54(1)2–11.

New Brunswick Wild Blueberry Sector Strategy (NBWBSS). 2013-2018. Published by: Province of New Brunswick. P.O. Box 6000. Fredericton NB Canada E3B 5H1.

Julie Paquet is a Shorebird Biologist for the Canadian Wildlife Service, Environmental Stewardship Branch.

**Just a little humor while
we watch the
“seasons” change...**





Ornithology Meeting

Acadia University, Wolfville, NS

The Association of Field Ornithologists, the Society of Canadian Ornithologists / Société des ornithologistes du Canada, and the Wilson Ornithological Society held joint annual meetings at Acadia University in Wolfville, Nova Scotia from 15 – 19 July. Two plenary talks were given to start off each morning; Dr. Erica Dunn, gave the

Margaret Morse Nice Medal plenary lecture on “*Bird observatories: Diversity and opportunity*” and James F. Dwyer gave the AFO Plenary entitle “*Range sizes and habitats of non-breeding Crested Caracaras: Implications for the evolution of communal roosting*”. The schedule was full with over 120 talks including two symposia entitled *Atlantic Canada and the Gulf of Maine: a nexus for migratory birds* and *From brochures to bird business plans: Are we making an impact? Sharing successes, challenges, and techniques for measuring outcomes of bird conservation projects* and close to 70 posters were displayed. A great meeting was capped off by a well attended banquet. See you the NAOC meetings in Washington DC in August next year!

Acadia University’s 2015 Fulbright Recipient

Recent Acadia University graduate and ASFWB member Julia Whidden, BScH (‘13) and MSc (‘15), has been named as a recipient of the prestigious Fulbright Award. In September, Julia joined the lab of Dr. Neil Hammerschlag, renowned for his community outreach program and shark conservation expertise, at the University of Miami. She says that this opportunity will “be an exciting extension of the work I’ve been doing at Acadia, and will give me the opportunity to develop my skill set and experience new research that I may pursue for a PhD”.

Only a month into her position, Julia has been fortunate to experience six shark species, including lemon, blacktip, blacknose, bull, nurse, and great hammerhead during weekly tagging expeditions.

Left Julia prepares to tag the dorsal fin of a 7’1 great hammerhead shark while another researcher draws blood.

(Photo: Christine deSilva)



© Christine deSilva - SharkTagging.com



Left The data are used in ten different projects through the RJ Dunlap Marine Conservation Program.
(Photo: Chris Brown)

Right A water pump discharges highly oxygenated water over the gills of a lemon shark.
(Photo: Cat Schulz)



© Cat Schulz - SharkTagging.com

Recent Literature

Looking forward to getting cozy with a good read this winter? Keep up to date with fish and wildlife research publications from Atlantic Canada and beyond.

- Arciszewski, T. J., M. E. McMaster, C. B. Portt and K. R. Munkittrick. 2015. Detection of food limitation in health of white sucker (*Catostomus commersoni*) 5 years after the closure of a bleached kraft pulp mill. *Water Quality Research Journal of Canada* 50(2):152–166. DOI:10.2166/wqrjc.2014.130
- Baker, L. L., J. E. M. Flemming, I. D. Jonsen, D. C. Lidgard, S. J. Iverson, and W. D. Bowen. 2015. A novel approach to quantifying the spatiotemporal behavior of instrumented grey seals used to sample the environment. *Movement Ecology* 3:20. DOI:10.1186/s40462-015-0047-4
- Barrett, T. J., S. M. Brasfield, L. C. Carroll, M. A. Doyle, M. R. van den Heuvel, and K. R. Munkittrick. 2015. Reproductive strategies and seasonal changes in the somatic indices of seven small-bodied fishes in Atlantic Canada in relation to study design for environmental effects monitoring. *Environmental Monitoring and Assessment*, 187:305. DOI:10.1007/s10661-015-4496-4
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- Bond, A. L., J. F. Provencher, P.-Y. Daoust, and Z. Lucas. 2014. Plastic ingestion by fulmars and shearwaters at Sable Island, Nova Scotia, Canada. *Marine Pollution Bulletin*. 87:68–75
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DOI:10.1002/ece3.1450
- Bourque, N. R., M.-A. Villard, M. J. Mazerolle, D. Amirault-Langlais, E. Tremblay, and S. Jolicoeur. 2015. Piping Plover response to coastal storms occurring during the nonbreeding season. *Avian Conservation and Ecology* 10(1):12. <http://dx.doi.org/10.5751/ACE-00734-100112>
- Brasfield, L. S. M., M. Hewitt, L. Chow, S. Batchelor, H. Rees, Z. Xing, and K. R. Munkittrick. 2015. Assessing the contribution of multiple stressors affecting small-bodied fish populations through a gradient of agricultural inputs in northwestern New Brunswick, Canada. *Water Quality Research Journal of Canada* 50(2):182–197
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- Broders, H. G., L. J. Farrow, R. N. Hearn, L. M. Lawrence, and G. J. Forbes. 2014. Stable isotopes reveal that little brown bats have a broader dietary niche than northern long-eared bats. *Acta Chiropterologica* 16(2):315–325.
DOI:10.3161/150811014X687279
- Burns, L. E., and H. G. Broders. 2015. Who swarms with whom? Group dynamics of *Myotis* bats during autumn swarming. *Behavioral Ecology* 26(3):866–876. DOI:10.1093/beheco/arv017
- Caissie, J., D. Caissie, and N. El-Jabi. 2015. Hydrologically based environmental flow methods applied to rivers in the maritime provinces (Canada). *River Research and Applications* 31:651–662. DOI:10.1002/rra.2772.
- Christiansen F, N. M. Lynas, D. Lusseau, and U. Tschertter. 2015. Structure and dynamics of minke whale surfacing patterns in the Gulf of St. Lawrence, Canada. *PLoS ONE* 10(5). DOI:10.1371/journal.pone.0126396
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Quick Tip: To find an article, paste the DOI in your browser.

Recent Literature *(continued)*

Dracup, E. C., D. M. Keppie, and G. J. Forbes. 2015. Woodland mouse and vole response to increased structural diversity following midrotation commercial thinning in spruce plantations. *Canadian Journal of Forest Research* 45:1121-1131. DOI:10.1139/cjfr-2014-0472

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Fife, D. T., I. L. Pollet, G. J. Robertson, M. L. Mallory, and D. Shutler. 2015. Apparent survival of adult Leach's Storm-petrels (*Oceanodroma leucorhoa*) breeding on Bon Portage Island, Nova Scotia. *Avian Conservation and Ecology* 10(2):1. <http://dx.doi.org/10.5751/ACE-00771-100201>



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Gallant, A., and H. G. Broders. 2015. Body condition explains little of the inter-individual variation in the swarming behaviour of adult male little brown myotis (*Myotis lucifugus*) in Nova Scotia, Canada. *Canadian Journal of Zoology* 93(6):469-476. DOI:10.1139/cjz-2014-0249

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Atlantic Salmon Conservation Foundation 2016 Call for Proposals



The Atlantic Salmon Conservation Foundation (ASCF) is now accepting proposals to the 2016 application process. ASCF will be offering more than \$1 million in funding for conservation projects within Quebec and the Atlantic provinces.

The goal of ASCF is to help achieve healthy and sustainable wild Atlantic salmon stocks in Atlantic Canada and Quebec through partnerships among volunteer conservation groups, Aboriginal organizations, government, and others.

The deadline to apply for 2016 funding is December 18, 2015 by 4:00 pm AST. Application forms and instructions can be found on-line at:

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Impolite as it was, the other bears couldn't help but stare at Larry's enormous deer gut.

BLAST FROM THE PAST

From the March 1992 ASFWB Newsletter

Old Moose, you say?

During the 1991 moose hunting season, New Brunswick recorded an exceptionally old critter. Everette McKay from Baie Ste. Anne bagged a bull moose weighting 744 lbs in Wildlife Management Zone 17, near Doaktown in the Mirimachi River Valley. A central incisor tooth was pulled at the registration station and sent to Matson's Lab in Montana for cross-sectioning and aging. Results showed that this patriarch had reached the ripe old age of 17.5 years! Of the hundred of moose that Matson's have aged over the years, there has been only one older; that being a 19 year old from Denali National Park, Alaska where legal hunting is not allowed. There was no word on how "tender" the meat was!

- Ed

Migratory birds are an important part of Canadian biodiversity. These birds as individuals, as well as their nests and eggs, are protected everywhere in Canada under the *Migratory Birds Convention Act, 1994* (MBCA) and its regulations. Migratory birds can be inadvertently harmed as a result of many activities including, but not limited to, mowing, clearing trees or vegetation, and draining or flooding land. Planning ahead can assist you, and your clients, in complying with the law and help make proactive avoidance and mitigation decisions for any activities that might have detrimental effects on migratory birds, their nests and eggs. For more information, visit:

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Les oiseaux migrateurs sont un élément important de la biodiversité canadienne. Ces oiseaux, en tant qu'individus ainsi que leurs nids et leurs œufs sont protégés partout au Canada en vertu de la *Loi de 1994 sur la convention concernant les oiseaux migrateurs* (LCOM) et de ses règlements. De nombreuses activités peuvent par mégarde tuer ou faire du tort à des oiseaux, ou encore détruire ou déranger leurs nids ou leurs œufs. Ces activités comprennent, sans toutefois s'y

limiter, la coupe d'arbres et d'autres végétaux, le fauchage, le drainage ou l'inondation des terres. La planification à long terme peut vous aider, ou aider vos clients à respecter la loi et à réduire au minimum le risque d'effets néfastes sur ces oiseaux, leurs nids ou leurs œufs. Pour plus de renseignements:

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Upcoming Events

13 November 2015: The Mersey Tobeatic Research Institute’s Fourth Annual MTRI Science Conference, North Queens Fire Hall in Caledonia, NS. For more information, contact Amy Berry amy.berry@merseytobeatic.ca

November – Early April: Project Feeder Watch, a winter long survey of the birds that visit your feeders. For more information or to participate visit: <http://feederwatch.org/>

December: Christmas Bird Counts. To find a count near you or to contact one the coordinators, visit: www.birdscanada.org/volunteer/cbc/

11 – 13 March 2016: Science Atlantic Aquaculture and Fisheries and Biology Conference. St. Mary’s University, Halifax, NS

18 – 19 March 2016: Science Atlantic Environment Conference. Université de Moncton, Moncton, NB

16 – 20 August 2016: North American Ornithological Conference. For more information, visit: <http://naoc2016.cvent.com>

Every year, Ducks Unlimited Canada holds hundreds of fundraising events that are open to the public, and encourage everyone to attend. For more information, visit: www.ducks.ca/events

ASFWB Fish and Wildlife Research Grant

The **ASFWB Fish and Wildlife Research Grant** was established in the fall of 1994 to assist members who are conducting or supervising wildlife or fisheries research in Atlantic Canada. The grant provides funding up to \$500 annually for research projects. Any aspect of fish and wildlife research will be considered, but projects with applied management goals will receive preference. Applicants must be members of ASFWB. Projects that are largely government sponsored or funded are not eligible for this award. For more information, go to: <http://www.chebucto.ns.ca/environment/ASFWB/researchgrant.html>

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