PIC COIDES November 2010 Volume 23 (3)

Bulletin of the Society of Canadian Ornithologists • Bulletin de la Société des Ornithologistes du Canada



Newfoundland Rock Ptarmigan, Lagopus mutus welchii, in Gros Morne National Park, Newfoundland, October 2010 (Photo by Darroch Whitaker)

TABLE OF CONTENTS

Editor's message	2	Feature Article: effects of the Deepwater	
SCO-SOC Student Affairs Committee	2	Horizon oil spill on Canadian birds	6
President's message	3	Recent Canadian ornithology theses	8
Message de la presidente	3	Student research	9
News from SCO-SOC	4	Announcements	11
Meetings	4	Information exchange	12
Council openings in 2011	4	Book review	13
Awards	4	SCO-SOC information	14
Canadian ornithological news	5	Instructions for Picoides submissions	14

Editor's Message Rob Warnock and Marcel Gahbauer

Welcome to the new look of *Picoides*! We have updated our layout, focused our content, and established more explicit organization which we hope to keep as consistent as possible across issues. We encourage you to provide us feedback, both positive and negative, so that we can continue to make further improvements in future issues.

Our new layout still features a front page photo, along with a condensed table of contents. Here on the second page we will regularly include updates from the editors, as well as other notes of interest, such as the invitation for student involvement below. On page 3 is the president's message, which for the first time is presented bilingually, reflecting our commitment to increase the French content in *Picoides*. Following that is a summary of news from SCO-SOC, which in this issue includes an announcement about our 2011 meeting in New Brunswick, a call for volunteers interested in filling two upcoming Council vacancies, and an overview of the student research awards available in 2011. This is followed by a section on Canadian ornithological news, highlighted in this issue by the latest nomenclature changes from the AOU. The middle section begins with a feature article contributed this time by SCO-SOC's conservation committee, and is followed by reports on student research. The final third of *Picoides* contains a variety of mostly shorter items beginning with announcements, including conferences, research opportunities, and obituaries. This is followed by the *Information Exchange*, a forum for members to request or provide material of potential interest to others. The issue concludes with a book review page, and a variety of SCO-SOC information on the back page including contact details and highlights of membership information and website contents, including direct links to relevant web pages.

In closing, we invite you to contribute material to *Picoides*. In particular, we encourage reports from students who have received support from SCO-SOC, photographs of Canadian birds, and short items for the *Canadian ornithological news, Announcements*, and *Information Exchange* sections. Also, reflecting again our desire to present a more bilingual product, we welcome items in French for any part of *Picoides*. See the box on the final page of this issue for instructions on submitting items for future issues.



Great Shearwater (Photo by Brigitte Noel)

Request for Involvement in SCO-SOC Student Affairs Committee

At the joint AOU/COS/SCO meeting in San Diego, a few students expressed interest in forming a Student Affairs Committee within the SCO-SOC. By forming a student committee, we hope to increase the involvement of students both within the society and at annual meetings. The group will likely function much like the student committees in the AOU and COS, where members will have the opportunity to design and organize activities for upcoming meetings, convey student concerns to the SCO, and facilitate student access to resources (e.g., funding for research and travel to conferences). If you are a student, or know of students who may be interested in participating in this committee, we strongly encourage you to contact Andrea Norris: anorris@interchange.ubc.ca

President's Message Erica Nol

If there is one thing that I have learned as President of the SCO-SOC, it is that you just can't rush things! My hopes of several months ago were that by now, we would be well on the way to providing a method to would-be and renewing members, to pay dues and donations electronically online. I have heard (and I suspect that it is true) that people under the age of 30 have no familiarity with the anachronism, 'the cheque' (or 'the check' if you live in the United States)! Thus, I feel that it is well time that we provide this service. However, your council and I are still working on it. There are many options and the data provided for each are usually provided in different units, making comparisons quite difficult! And then there is always the question that we have as a small society of whether we can afford this change. Please stay tuned for developments as we are slowly getting there!

One option is to join the Ornithological Societies of North America (OSNA). We ARE an ornithological society of this continent, so somehow our absence on their roster of members seems a bit odd. Currently the American Ornithologists' Union, the Cooper Ornithological Society, the Wilson Ornithological Society, the Association of Field Ornithologists, the Raptor Research Foundation, and the Waterbird Society are all members. There are financial considerations to joining and whether we are large enough to support the annual fees is a major question. It is clear that there would be benefits to joining OSNA and some of the principal ones would be that we would no longer be responsible for handling membership dues and we would have relatively easy access to our membership statistics. We have of course, been provided with both of these duties through our excellent current and past treasurers and membership secretaries. [On that note, we will be looking for replacements for both positions in the near future.] A second benefit is that when members of other ornithological societies in North America see our name on the common membership renewal form, some might "impulse shop" and simply add membership to the SCO-SOC to their total renewal package, because membership is not that expensive and there is inherent value in supporting SCO-SOC. Additionally, if there is a role to play for OSNA in the talked about 'federation of ornithological societies', we would already be there. I would like to hear your opinion on the matter, or if you have a SCO-SOC councillor nearby, please speak to them!

Finally, I have been alerted to the fact that although our French name is technically correct, the word 'ornithologiste' is not the most commonly accepted translation of the English word 'ornithologist'. That word should be 'ornithologue'. Thus, at our next meeting in the 'only officially bilingual province in Canada', we will 'officially' consider the matter of a name change.

Message de la présidente Erica Nol

S'il y a une chose que j'ai apprise en tant que présidente de la SCO-SOC, c'est qu'on ne peut pas brûler les étapes!! J'espérais qu'à cette date-ci, nous serions presque en mesure de permettre aux membres de renouveler leurs cotisations et leurs dons électroniquement. J'ai entendu dire (et je crois que c'est vrai) que les personnes de moins de 30 ans ne sont pas familières avec cet anachronisme qu'est le chèque. Ainsi, je pensais qu'il était temps que notre Société fournisse un service en ligne. Or, votre Conseil et moi-même travaillons encore sur ce dossier. Trop d'options existent et les données disponibles pour chaque option le sont dans des unités différentes, ce qui rend les comparaisons difficiles! De plus, nous devons toujours nous rappeler du fait que notre Société est de taille modeste et nous demander si nous avons les moyens de procéder à ce changement. Nous vous ferons part de nos progrès car nous y arriverons lentement mais sûrement!

Une de nos options est de joindre Ornithological Societies of North America (OSNA). Nous SOMMES une société d'ornithologie sur ce continent, notre absence parmi les membres de cet organisme est donc un peu bizarre. À l'heure actuelle, l'American Ornithologists' Union, la Cooper Ornithological Society, la Wilson Ornithological Society, l'Association of Field Ornithologists, la Raptor Research Foundation et la Waterbird Society sont membres d'OSNA. La décision de nous joindre à OSNA soulève des questions de nature financière: notre société est-elle d'assez grande taille pour s'acquitter des cotisations de membres d'OSNA? Il ne fait aucun doute qu'il y aurait des bénéfices à se joindre à OSNA, en particulier nous ne serions plus responsables de la sollicitation des cotisations auprès des membres et nous aurions un accès facilité aux statistiques reliées à nos membres. Nous avons eu la chance de bénéficier de ces services par le biais de nos trésoriers actuels et passés ainsi que nos secrétaires des membres. [À ce sujet, nous serons à la recherche de remplaçants pour ces deux postes dans un avenir rapproché.] Un avantage additionnel est le suivant: lorsque les membres de d'autres sociétés d'ornithologie Nord-Américaines verront notre nom sur le formulaire commun de renouvellement, certains pourraient faire des "achats impulsifs" et adhérer à la SCO-SOC tout en renouvelant leur cotisation, parce que nos cotisations ne sont pas très dispendieuses et qu'il y a des avantages inhérents à appuyer la SCO-SOC. De plus, nous pourrions participer activement à la définition du rôle d'OSNA, s'il y a lieu, dans une éventuelle « fédération des sociétés ornithologiques ». J'aimerais d'ailleurs connaître votre opinion en la matière. Vous pouvez aussi contacter votre conseiller ou conseillère à la SCO-SOC!

Enfin, on m'a signalé le fait que le mot « ornithologiste », bien qu'exact sur le plan technique, n'est pas la traduction généralement acceptée du terme anglais « ornithologist ». Le terme le plus approprié est 'ornithologue'. Ainsi, à notre prochain congrès dans la « seule province officiellement bilingue au Canada », nous allons « officiellement » considérer la question du changement de nom.

Stay warm this winter! See you in Moncton.

Tenez-vous bien au chaud! Au plaisir de vous voir à Moncton.

News from SCO-SOC

SCO-SOC meeting 2011 Moncton NB, 4-6 August

Mark your calendars! The 2011 meeting of our Society will be held in Moncton, New Brunswick just in time to catch the first big wave of Semipalmated Sandpipers migrating through the Bay of Fundy. The Chair of the local organizing committee is Marc-André Villard. We are looking forward to seeing you!

SCO-SOC seeks new Treasurer and Membership Secretary in 2011

After many years of dedicated service to SCO-SOC, Treasurer Pierre Lamothe and Membership Secretary Thérèse Beaudet will be stepping down in 2011, with replacements to be elected at next year's annual meeting. Members interested in either position should contact Vice-President Joe Nocera (joe.nocera@ontario.ca).

Congrès de la SCO-SOC 2011 Moncton NB, 4-6 août

Marquez vos calendriers! Le congrès 2011 de notre Société aura lieu à Moncton juste à temps pour apercevoir la première vague migratoire de Bécasseaux semipalmés dans la baie de Fundy. Le comité organisateur est présidé par Marc-André Villard. Nous vous attendons avec impatience!

La SCO-SOC est à la recherche d'une trésorière ou d'un trésorier et d'un(e) secrétaire des membres pour 2011

Après plusieurs années de loyaux services à la SCO-SOC, le trésorier Pierre Lamothe et la secrétaire des membres Thérèse Beaudet quitteront leurs postes lors de la prochaine réunion annuelle de 2011. Les membres intéressés à occuper l'une ou l'autre des ces fonctions sont priés de contacter le vice-président Joe Nocera (joe.nocera@ontario.ca) pour de plus amples informations.

2011 Student Research Awards Competition

The SCO-SOC administers four different student research awards - the Taverner Awards, James L. Baillie Award, Fred Cooke Award, and the Junco Technologies Award. Applicants must be members of the SCO-SOC to be eligible. A single application can be made to apply for all three types of Student Research Awards. The deadline for application is 15 February 2011. Applications are available online at: http://www.sco-soc.ca/studentawards.htm and should be e-mailed to Ian Warkentin, SCO-SOC Student Awards Committee Chair, at www.sco-soc.ca/studentawards.htm and should be e-mailed to Ian Warkentin, SCO-SOC Student Awards Committee Chair, at www.sco-soc.ca/studentawards.htm and should be e-mailed to Ian Warkentin, SCO-SOC Student Awards Committee Chair, at www.sco-soc.ca/studentawards.htm and should be e-mailed to submit brief project reports (3-4 pages) to *Picoides* within 1 year of receipt of award so that the membership can learn about your award-winning research.

Taverner Awards: Taverner Awards are offered by SCO-SOC to honour Percy A. Taverner and to further his accomplishments in increasing the knowledge of Canadian birds through research, conservation and public education. The awards are aimed at people with limited or no access to major funding, regardless of professional status, who are undertaking ornithological work in Canada. Two awards of up to \$1500 each are made annually.

James L. Baillie Student Research Award: The James L. Baillie Student Research Award is open to any student conducting ornithological research at a Canadian university. It honours the memory of James L. Baillie and shall be for research consistent with the objectives of the James L. Baillie Memorial Fund. These are to support: studies of Canadian birds in their natural environment, and projects which contribute to preservation and dissemination of knowledge of birds. The James L. Baillie Student Research Award is funded by proceeds from Birds Studies Canada's Baillie Birdathon and administered by SCO-SOC. A single award of up to \$1000 is made annually.

Fred Cooke Student Research Award: The Fred Cooke Student Award is offered jointly by SCO-SOC and Bird Studies Canada to honour the contributions of Professor Fred Cooke to Canadian ornithology by supporting ornithological conference travel or research activities by a student at a Canadian university. The award shall be open to any student conducting ornithological research at a Canadian university, except that previous recipients of the award shall not be eligible. The award shall be for travel to ornithological conferences at which the student will make a verbal or poster presentation, or research in any aspect of ornithology anywhere in the world. A single award of up to \$1000 is made annually.

Junco Technologies Award: The Junco Technologies Award is open to any student who is enrolled in a Canadian university and is conducting a field research project in Canada on at least one species of cavity-nesting bird. The award must be used to purchase field equipment necessary for the research project (e.g., audio recording, optics, video camera or radio transmitters). The award cannot be used for to pay a stipend for the recipient. One award of up to \$1,000 is available each year. The Junco Technologies Award is sponsored by Junco Technologies Inc., a company specializing in the production of birdhouses, in cooperation with Bird Studies Canada.

Canadian Ornithological News

AOU Taxonomic Updates 2010

Ron Pittaway (RonPittaway@hotmail.com)

In July 2010 the Committee on Classification and Nomenclature of the American Ornithologists' Union (AOU) published the 51st supplement to the Check-list of North American Birds in *The Auk* 127(3):726-744. The following are *some* of the highlights affecting Canadian birds. For complete details and updated AOU Check-list, see two links below.

Splits: (1) Black Scoter is split into Black Scoter (*Melanitta americana*) of the New World and the extralimital Common Scoter (*M. nigra*) of the Old World. The supplement erroneously states that the English name Black Scoter was changed to American Scoter, but the name is now corrected in *The Auk* 127(4):966 and online. (2) Whip-poor-will is split into Eastern Whip-poor-will (*Caprimulgus vociferus*) and Mexican Whip-poor-will (*C. arizonae*). (3) Winter Wren is split into the Pacific Wren (*Troglodytes pacificus*), Winter Wren (*T. hiemalis*) and the extralimital Eurasian Wren (*T. troglodytes*).

Names: (1) Greater Shearwater becomes Great Shearwater to agree with worldwide usage. (2) Osprey and Gnatcatchers are moved to their own families, Pandionidae and Polioptilidae. (3) The scientific name of the Blue-winged Warbler is changed from *Vermivora pinus* to *V. cyanoptera*. (4) The genus *Vermivora* is changed to *Oreothlypis* for the Tennessee Warbler, Orange-crowned Warbler, Nashville Warbler and Virginia's Warbler. (5) The genus *Seiurus* is changed to *Parkesia* for the Northern Waterthrush and Louisiana Waterthrush. (6) Longspurs and *Plectrophenax* buntings now have their own family, Calcariidae, positioned before the Wood-Warblers (Parulidae). (7) The McCown's Longspur returns to its former genus name *Rhynchophanes*.

Sequences: Frigatebirds, Gannets, Cormorants and Anhingas are in a new order Suliformes, while Herons and Ibises are now in the order Pelecaniformes. Another new order Accipitriformes includes the New World Vultures (Cathartidae), Osprey (Pandionidae) and Hawks, Kites, Eagles and Allies (Accipitridae). Caracaras and Falcons (Falconidae) remain in Falconiformes. The new sequence for longspurs is Lapland, Chestnut-collared, Smith's and McCown's.

Applications: Taxonomic and nomenclatural changes made by the AOU are automatically accepted by the Canadian Museum of Nature, Royal Ontario Museum, American Birding Association Checklist Committee, Ontario Bird Records Committee, and most government and ornithological organizations in North America.

Online: 51st supplement, summary and corrections: <u>www.aou.org/checklist/north/suppl/51.php</u> AOU Check-list includes 51st supplement updates: <u>www.aou.org/checklist/north/index.php</u>

Canadian Biodiversity: Ecosystem Status and Trends 2010 available online

This new report is the first assessment of Canada's biodiversity from an ecosystem perspective. It presents 22 key results based on technical reports, revealing that much of Canada's natural habitat is considered to be in good health. Over half of the country's landscape remains largely undisturbed, primarily in the more remote north, but also including large tracts of boreal forest and coastal temperate rainforest. A reduction in some environmental contaminants has been observed, while the number and extent of protected areas has increased over the past 15 years. However, concerns remain, including loss of wildlife habitat in agricultural landscapes, declines in some bird populations, and changes related to climate change, especially in the arctic. The lack of recovery shown by fish populations despite a reduction in fishing pressure is also a concern, and fragmentation of forests is particularly worrisome for woodland caribou populations. The report suggests that limiting the loss of biodiversity is best achieved through early detection of ecosystem changes, accompanied by timely actions before thresholds are crossed. Unfortunately, while climate and hydrological monitoring programs in Canada are strong, the same cannot be said for biodiversity, and the availability of this information needs to improve. The full report can be found at: http://www.biodivcanada.ca/default.asp?lang=En&n=83A35E06-0.

Nature Canada report suggests Burrowing Owl Recovery Strategy is incomplete

In its September 2010 E-newsletter, Nature Canada reports that the recovery strategy for the endangered Burrowing Owl is incomplete. Four years after the strategy was due under the Species at Risk Act (SARA), a plan has been released that overlooks critical habitat within CFB Suffield National Wildlife Area. Located near Medicine Hat, Alberta, this is one of the last large areas of unploughed mixed grass prairie in Canada, and home to nearly 100 species at risk, including Burrowing Owl. Nature Canada is urging the federal government to revise the recovery strategy to identify all critical habitat for Burrowing Owl, including that within CFB Suffield. More details are available in the Nature Canada newsletter archives at <u>http://supporter.naturecanada.ca/site/MessageViewer?em_id=7221.0</u>.

Feature Article:

The effect of the Deepwater Horizon Oil Spill on Canadian Breeding Birds

Joe Nocera, on behalf of the Conservation Committee of the SCO-SOC

As of 19 April 2010, the Deepwater Horizon oil rig had drilled the world's deepest oil well in the Gulf of Mexico (10.6 km deep; Transocean Ltd 2010) and the owner of exploration rights at this well site was BP, the fourth largest corporation in the world. A day later, the rig exploded, killing 11 workers and starting the largest accidental marine oil spill in history. Until the well was fully sealed on 15 July 2010, it had leaked an estimated 700 million liters of oil into the Gulf of Mexico (Crone and Tolstoy 2010). For comparison, the Exxon Valdez spill in Alaska released an estimated 41 million liters of oil into Prince William Sound, Alaska (Boehm et al. 1996).

Despite aggressive counter-measures such as large-scale boom containments, burning the oil at sea, and using chemical dispersants, oil has still been beached along the shores of all US states in the Gulf. Although its size has been debated, another latent potential catastrophe is also present in the form of a remaining deep underwater oil plume (currently estimated to be 35 km wide and 1.1 km deep; Camilli et al. 2010) – its effect remains to be witnessed.

Following a deluge of media reports focussing on obvious cases of environmental damage, quantitative estimates and forecasts of the spill's true ecological consequences are starting to emerge. The most current data on immediate effects on wildlife within the spill's impact zone have been generated by the Unified Area Command, which is a co-operative effort of the US Fish and Wildlife Service (USFWS), National Oceanic and Atmospheric Administration (NOAA), incident area commands, rehabilitation centers and other authorized sources. Their data indicate that as of 30 September 2010, a total (dead or alive) of 4339 oiled birds, 473 oiled sea turtles, and 6 oiled marine mammals had been collected and submitted (US Dept of Interior 2010).

Although it might seem parochial, an increasingly common question faced by ornithologists in Canada is "how will the spill affect Canadian birds?" (e.g., Toronto Star and Globe and Mail articles from 2 August 2010). The answer to this question is far from simple; however, an examination of some new relevant data may provide some assistance. Table 1 presents the top ten species, known to breed in Canada, for which live or dead oiled birds were collected and submitted to the Unified Area Command (US Dept of Interior 2010). Although these species do breed in Canada, it is worth noting that only five species listed do not also generally breed in or near the Gulf of Mexico: Northern Gannet, Common Loon, Herring Gull, Mallard, and Willet. Oiled individuals from these five species are therefore completely comprised of migrants, some of which likely originated outside the US.

Species	Oiled – dead	Oiled – live	Total	
Northern Gannet	156	162	318	
Common Loon	27	26	53	
Pied-billed Grebe	5	20	25	
Herring Gull	8	12	20	
Forster's Tern	17	2	19	
Great Blue Heron	8	8	16	
Mallard	2	10	12	
Common Tern	10	1	11	
American White Pelican	9	1	10	
Willet	4	2	6	

Table 1. Top ten species of Canadian breeding birds recovered in an oiled condition due to the 2010 Deepwater Horizon oil spill in the Gulf of Mexico. Data are current as of 30 September 2010 (obtained from US Dept. of Interior 2010).

Note: These data represent "unverified" totals and are subject to change based on further forensic assessments (US Dept. of Interior 2010).

Caution is required in interpreting these numbers as the overwintering period has just begun, and the potential effects of the lurking underwater oil plume may yet be realized. It is also important to bear in mind that recoveries of oiled birds represent an unknown fraction of the true total affected (Castege et al. 2007) and that mortality will certainly be experienced outside the main search area in the impact zone. Nonetheless, the current mortality totals presented in Table 1 are quite low relative to their population sizes in Canada. If no substantial die-offs occur between now and spring migration, it might be safe to say that Canadian populations of these species may not decrease noticeably.

Instead, the environmental pressures exerted by the spill on Canadian birds may be subtler and produce sub-lethal effects (sensitivity to which will vary with life history, diet and behaviour; Boulinier and Riffaut 2008). For instance, reproductive impairment, endocrine disruption, and physiological disorders may result from poisoning by polycyclic aromatic hydrocarbons (PAH), often well after the spill (Alonso-Alvarez et al. 2007, Rattner 2009). These impairments and disorders may be detected most easily by assaying blood parameters such as asparatate aminotransferase, gamma-glutamyl transferase, and levels of inorganic phosphorus – all of which indicate hepatic and renal damage (Alonso-Alvarez et al. 2007, Perez et al. 2010). Sub-lethal exposure to marine oil can also be assessed by examining PAH levels on feather surfaces (Valladares et al. 2010).

Currently, the outlook for Canadian birds facing the winter in the Gulf of Mexico is more hopeful than may have been first thought. It is promising that mortality levels are relatively low; although this trajectory could change over the winter. Sub-lethal effects may prove to represent the bulk of exposure to PAH, and monitoring for these effects will be crucial to understanding how the spill has affected Canadian birds. Doing this will allow us to produce reliable estimates of exposure and better understand the effects of chemical-related anthropogenic activities on wildlife; a much-needed body of information (Rattner 2009) to help us prepare for future catastrophes that may prove much worse for Canadian birds.



Northern Gannets nesting at Cape St. Mary, Newfoundland (Photo by Marcel Gahbauer)

References:

Alonso-Alvarez, C., I. Munilla, M. Lopez-Alonso, and A. Velando. 2007. Sublethal toxicity of the Prestige oil spill on yellow-legged gulls. Environment International 33:773-781.

Boehm, P.D., P.J. Mankiewicz, R. Hartung, J.M. Neff, D.S. Page, E.S. Gilfillan, J.E. O'Reilly, and K.R. Parker. 1996. Characterization of mussel beds with residual oil and the risk to foraging wildlife 4 years after the Exxon Valdez. Environmental Toxicology and Chemistry 15:1289-1303.

Boulinier, T. and L. Riffaut. 2008. What is the impact of oil pollution on seabirds? Oceanis 30:577-598.

Camilli, R., C.M. Reddy, D.R. Yoerger, B.A.S. Van Mooy, M.V. Jakuba, J.C. Kinsey, C.P. McIntyre, S.P. Sylva, and J.V. Maloney. 2010. Tracking hydrocarbon plume transport and biodegradation at Deepwater Horizon. Science 330:201-204.

Castege, I., Y. Lalanne, V. Gouriou, G. Hemery, M. Girin, F. D'Amico, C. Mouches, J. D'Elbee, L. Soulier, J. Pensu, D. Lafitte, and F. Pautrizel. 2007. Estimating actual seabirds mortality at sea and relationship with oil spills: lesson from the "Prestige" oilspill in Aquitaine (France). Ardeola 54:289-307.

Crone, T.J. and M. Tolstoy. 2010. Magnitude of the 2010 Gulf of Mexico Oil Leak. Science 330: 634

Perez, C., I. Munilla, M. Lopez-Alonso, and A. Velando. 2010. Sublethal effects on seabirds after the Prestige oil-spill are mirrored in sexual signals. Biology Letters 6:33-35.

Rattner, B.A. 2009. History of wildlife toxicology. Ecotoxicology 18:773-783.

Transocean Ltd. 2010. Fleet Status Report. Unpublished Report, 13 April 2010. Retrieved 7 October 2010 from URL: www.deepwater.com/filelib/FileCabinet/fleetupdate/2010/RIGFLT-APR-2010.xls?FileName=RIGFLT-APR-2010.xls

US Department of Interior. 2010. US Army Engineer Research and Development Center's Natural Resource Damage Assessment database from May 16, 2010 to Sept. 28, 2010.

Valladares, S., R. Moreno, L. Jover, and C. Sanpera. 2010. Evaluating cleansing effects on trace elements and stable isotope values in feathers of oiled birds. Ecotoxicology 19:223-227.

Recent Canadian Ornithology Theses

Cockle, Kristina. 2010. Nesting ecology and community structure of cavity-nesting birds in the Neotropical Atlantic forest. Ph.D. dissertation. University of British Columbia, Vancouver, BC.

Tree cavities are proposed to limit populations and structure communities of cavitynesting birds, making these birds particularly vulnerable to anthropogenic activities that destroy potential nest trees. The greatest diversity of cavity-nesting birds is found in tropical rainforests, yet little is known about the ecology or conservation of these birds. I studied how the production, consumption and loss of tree cavities structure a cavity-nesting community in one of the five most important global biodiversity hotspots, the subtropical Atlantic forest of Argentina.

I found that the cavity-nesting community in the Atlantic forest is structured primarily around the production and persistence of high, deep, non-excavated cavities in large live trees. I show the first experimental evidence that the supply of tree cavities limits the breeding density of secondary cavity-nesting birds (species that do not excavate their own cavity) in a tropical forest. Conventional tropical logging strongly reduced cavity availability: logged forest had half the basal area of primary forest, but only one third the density of large trees, nine times fewer cavities suitable for nesting birds, and 17 times fewer active nests. My results suggest a severe impact of tropical logging on the abundance of cavity-bearing trees. In contrast to North America where vertebrate excavators create most of the nest cavities for secondary cavity nesters, but similar to sites outside of North America, 80% of nests of secondary cavity nesters in the Atlantic forest were in cavities created by natural decay processes. These non-excavated cavities in North America and



Boreal Chickadee with seed (Photo by Brigitte Noel)

non-excavated cavities elsewhere can be explained partly by high rates of persistence of excavated cavities at a site in North America and low rates of persistence of excavated cavities at a site in Europe and my site in Argentina. To conserve cavity-nesting birds of the Atlantic forest, I recommend a combination of policies, economic assistance, environmental education, and technical support for forest managers and small-scale farmers, to maintain large healthy and unhealthy trees in commercial logging operations and on farms.



Chickadees by Meghan Laviolette.

For more information, visit Meghan's website at <u>http://www.etsy.com/shop/Violettebird</u> or e-mail Meghan at <u>violettebird@hotmail.com</u>. Commissions are welcome.

Student Research

Effects of Cattle Grazing on Songbird Nesting Success in Saskatchewan Prairies

Emily Pipher, Natural Resources Institute, University of Manitoba

As part of my Master's degree in Natural Resource Management at the University of Manitoba, I have been charged with assessing how cattle grazing affects songbird nesting success. My study site is in the east block of Grasslands National Park, located in southwestern Saskatchewan. This is Canada's first national park to safeguard parts of the quickly dwindling mixed-grass prairie, of which only 39% in Alberta, 19% in Saskatchewan, and 0.01% in Manitoba remains (Samson and Knopf 1994).

Prairies were once grazed by large herds of bison (*Bison bison*), and both the faunal and floral communities consequently evolved to survive in a landscape constantly shaped by disturbance (Knapp et al. 1999). Though bison are now gone from much of their historic range, cattle grazing is thought to mimic the disturbance-driven processes that once shaped this ecosystem. The management of those cattle has a strong effect on the vegetation structure of the area, in turn affecting the abundance and habitat use by various bird species (Coppedge 2008). Indeed, bird communities benefit most from a heterogeneous landscape (Powell 2006), as each species selects nesting habitats with very specific vegetative characteristics (Cody 1985).

This study is one of many being conducted under the adaptive management plan started by my advisor Nicola Koper and colleagues following a Beyond BACI experimental design (Koper et al. 2008). Nine pastures (approx. 300 ha each) were set up, each encompassing equal (relative to each other) proportions of the riparian, valley, and upland areas characteristic of the diverse prairie landscape (Henderson 2006). Each pasture was then assigned a different stocking rate relating to different biomass removals. In addition, data were also collected from 4 pastures of the adjacent Mankota pastures in which moderate grazing (50% utilization) typical of local grazing management has occurred for >15 years. My study is the very first of its kind to evaluate how stocking rates of cattle affect nesting success of mixed-grass prairie songbirds.



Chestnut-collared Longspur: A female sits tightly on her nest in Grasslands National Park, SK (Photo by Emily Pipher)

In the course of two field seasons (2009-10), twenty-two species were found to nest in my study site: Mallard, Northern Shoveler, Gadwall, Sharp-tailed Grouse, Marbled Godwit, Willet, Wilson's Phalarope, Upland Sandpiper, Swainson's Hawk, Common Nighthawk, Eastern Kingbird, Horned Lark, Sprague's Pipit, Clay-colored Sparrow, Brewer's Sparrow, Baird's Sparrow, Grasshopper Sparrow, Savannah Sparrow, Vesper Sparrow, Chestnut-collared Longspur, McCown's Longspur, Western Meadowlark, and Brown-headed Cowbird. Other species known to commonly breed there include Northern Pintail, Long-billed Curlew, Sage Grouse, Ferruginous Hawk, Red-winged Blackbird, and Brewer's Blackbird. I used the rope-drag method (Davis 2003) to find nests, which were then monitored by returning every 2-5 days. Nests of seven species were monitored: Horned Lark, Sprague's Pipit, Baird's, Vesper, and Savannah Sparrows, and Chestnut-collared and McCown's Longspurs. I used the logistic exposure method in PROC NLMIXED in SAS 9.1 to determine overall nest success for each species (Dinsmore et al. 2002).

Preliminary results, based on my first year of data, suggest a nonlinear effect of grazing intensity on nesting success for Sprague's Pipits, which had highest success in pastures with moderate grazing, and lowest success in pastures with low grazing. There was a negative correlation between years grazed and nesting success for chestnut-collared longspurs, but a positive correlation with grazing intensity. Vesper Sparrows were unaffected, while the remaining species had sample sizes too small to analyze.

My second year of data collecting yielded more nests of my study species than the first year, which will allow me to analyze all but McCown's Longspur. Unfortunately, many nests were lost due to weather in one of the wettest summers Saskatchewan has seen in decades. Regardless, further analysis will reveal whether the results from my first year are continuous, or merely spurious.

Sprague's Pipit is one of the least-studied species of birds in North America (Davis 2009), and is currently classified as "threatened" (Environment Canada 2009). Baird's Sparrow is listed as "endangered" under the Manitoba Endangered Species Act (Manitoba Conservation 2009), though it receives no protection in Saskatchewan or Alberta. Chestnut-collared Longspur is listed as "threatened" under the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), while McCown's is listed as "special concern".

If the management objective is to maintain songbird diversity, grazing does not appear to influence the quality of nesting habitat. However, if management is aimed toward increasing federally threatened Sprague's Pipit populations, low grazing intensities may reduce nesting success, while higher ones may increase it. These results are especially significant because grazing prescribed for ecological purposes is typically administered at low intensities to complement the surrounding landscape and to allow for selective grazing. However, such a management plan may result in the lowest nesting success for the species of highest conservation concern. Moderate grazing intensities may benefit nesting success of both Chestnut-collared Longspurs and Sprague's Pipits, suggesting that stocking rates typical of the northern mixed-grass prairies may actually be optimal for conserving these species at risk.

References:

Cody, M.L. 1985. Habitat selection in grassland and open-country birds. Habitat Selection in Birds. Academic Press, Orlando, FL, pp. 191-226.

Coppedge, B.R., S.D. Fuhlendorf, W.C. Harrell, D.M. Engle. 2008. Avian community response to vegetation and structural features in grasslands managed with fire and grazing. Biological Conservation 141:1196-1203.

Davis, S.K. 2003. Nesting ecology of mixed-grass prairie songbirds in southern Saskatchewan. The Wilson Bulletin 115:119-130.

Davis, S.K. 2009. Renesting intervals and duration of the incubation and nestling periods of Sprague's Pipits. Journal of Field Ornithology 80:265-269.

Dinsmore, S.J., G.C. White, F.L. Knopf. 2002. Advanced techniques for modeling avian nest survival. Ecology 83:3476-3488.

Environment Canada. 2009. Species at Risk Public Registry. http://srd.alberta.ca/BioDiversityStewardship/SpeciesAtRisk, accessed 19/02/10.

Henderson, D.C. 2006. Restoring grazing-induced heterogeneity in Grasslands National Park of Canada: Landscape-scale experiment and long-term monitoring plan, March 9, 2006. Parks Canada Agency, Western and Northern Service Centre, Winnipeg MB.



Vesper Sparrow on a fence post in Grasslands National Park, SK (Photo by Emily Pipher)

Knapp, A.K., J.M. Blair, J.M. Briggs, S.L. Collins, D.C. Hartnett, L.C. Johnson, E.G. Towne. The keystone role of bison in North American tallgrass prairie. BioScience 49:39-50.

Koper, N., D.C. Henderson, J.F. Wilmhurst, P.J. Fargey, and R.A. Sissons. 2008. Design and analysis of rangeland experiments along continuous gradients. Rangeland Ecology Management 61:605-613.

Manitoba Conservation. 2009. Species at Risk. http://www.gov.mb.ca/conservation/wildlife/sar/index.html, accessed 11/03/10.

Samson, F.B. and F.L. Knopf. 1994. Prairie conservation in North America. BioScience 44:418-421.

Ed. note: Emily Pipher is a graduate student in Dr. Nicola Koper's lab at the University of Manitoba

Student contributions wanted for Picoides!

SCO-SOC encourages students to submit material for publication in *Picoides*. In particular, we would like each issue to feature abstracts of one or two recently published theses. They must be from students at a Canadian university, but like the example in this issue, need not necessarily focus on Canadian birds. Abstracts should be 250-400 words long, preferably accompanied by one or two relevant photos. In addition, we welcome articles such as the one above, which describe in greater detail some aspects of student research. These should focus on a subject relevant to Canadian ornithology, require references, and may be up to 1000 words long, again preferably accompanied by one or two photos.

Announcements

The 5th North American Ornithological Conference, Vancouver BC, 14-18 August 2012

The 5th North American Ornithological Conference (NAOC), organized jointly by the American Ornithologists' Union, Society of Canadian Ornithologists / Société des Ornithologistes du Canada, Bird Studies Canada, Association of Field Ornithologists, Cooper Ornithological Society, Raptor Research Foundation, Sección Mexicana del Consejo Internacional para la Preservación de las Aves [CIPAMEX], Waterbird Society, and Wilson Ornithological Society, will be held at the University of British Columbia, Vancouver, British Columbia, Canada.

It is the first time that the NAOC will be held in Canada. Information about past NAOC meetings, including the 2006 NAOC meeting in Veracruz, Mexico is on the AOU meetings website <u>http://www.aou.org/meetings/</u>.

The 4 day scientific program (15-18 August) will be preceded by annual and council meetings of most of the ornithological societies, and scientific and ENGO workshops. An opening reception will be held on the evening of 14 August. Field trips will be offered before and after the scientific program. A Steering Committee for NAOC-V has been formed with representatives from each of the participating ornithological groups and is engaged in the conference planning details. For more information, contact Dr. Kathy Martin, Chair of the Committee on Local Arrangements (kathy.martin@ubc.ca).

4th Western Hemisphere Shorebird Group Meeting, Simon Fraser University, Fraser River Delta, British Columbia, 11-15 August 2011

The 4th Western Hemisphere Shorebird Group/SRGA meeting will be held at Simon Fraser University between 11 and 15 August, 2011.

Those of you who have attended previous meetings, in Boulder in 2004, Venezuela 2006, or Mazatlan in February 2009 know how valuable, exciting, and fun these meetings have been. A hallmark of these meetings has been their hemispheric-wide representation, and we hope to continue this practice. The north-south exchange has enabled many of us to accomplish things that would have been otherwise quite difficult to arrange. This will be the first of these meetings to be held in Canada. Pencil in your participation today!

Dov Lank and Ron Ydenberg, co-chairs Centre for Wildlife Ecology, Simon Fraser University



Solitary Sandpiper (Photo by Brigitte Noel)

Project FeederWatch looking for winter 2010-2011 participants

Backyard birdwatchers across Canada are invited to take part in the 24th season of Project FeederWatch, from November 13, 2010 through April 8, 2011. Data from FeederWatchers have helped scientists learn about changes in the distribution and abundance of feeder birds over time; expansions and contractions in their winter ranges; the spread of disease through bird populations; and the kinds of habitats and foods that attract birds. Participants are asked to select a two-day count period once every two weeks and count birds for at least 15 minutes (or as long as they wish) on one or both days. It is a great way to connect with nature, have fun, and help birds, and there is no need to be an expert – a poster of common birds will be provided, and help is just a phone call (or e-mail) away.

For further information or to become involved, visit <u>www.birdscanada.org/volunteer/pfw</u> or contact Project FeederWatch Coordinator Kerrie Wilcox at <u>kwilcox@birdscanada.org</u>, 519-586-3531 (ext. 134), or 1-888-448-2473.

Obituary: Stewart MacDonald, 1927-2010

It is with great sadness that I report the passing of Stewart D. MacDonald, Canadian ornithologist, at age 83 on September 10, 2010. He was born April 22, 1927 in Bayhead, Nova Scotia. Stu began his career as a technician in behavioural science at the National Museum of Canada in Ottawa, now the Canadian Museum of Nature. He later attended the University of Iowa and returned to the museum in Ottawa as Assistant Curator of Ornithology. Stu was an accomplished artist and prepared the line drawings and maps in "The Birds of Canada" (Godfrey 1966, 1986). He spent much of his career studying Arctic birds including Ross's Gull and Ivory Gull. He retired in 1988 as Curator of Vertebrate Ethology at the Canadian Museum of Nature. Stu received the Massey Medal of the Royal Canadian Geographical Society in 1992 for his distinguished work as an Arctic explorer and ornithologist specializing in animal behaviour. He was generous with his time and vast knowledge of bird behaviour. Stu was a mentor to many birders and will be remembered with great fondness. For more information please contact his son Bruce MacDonald at bruceasm@gmail.com.

Information Exchange

Watch for Tagged Great Egrets! (Chip Weseloh, chip.weseloh@ec.gc.ca)

Attention ! Over 100 hatch-year Great Egrets were marked this summer in southern Ontario with orange patagial wing-tags, one on each wing. Each tag has a black number-number-alpha character. Please report the observation of any such egrets, and their tag number and date and location of sighting to chip.weseloh@ec.gc.ca. The season for egrets in 2010 is nearly over but be on the lookout next year as well; a different colour will be used. Thanks!



Great Egret with wing tag (Photo by Al Wormington)

Research Photos Sought for Upcoming Book (Rob Alvo, <u>robalvo1@gmail.com</u>)

I am looking for photos for an upcoming book called, "Being a Bird in North America" (<u>www.babina.ca</u>). Specifically, I want photos of North American birds in situations in which it was your research that allowed you to get the photos. Some examples:

- young bird,
- super close-up,
- bird in net, trap, hand,
- nest with young and/or eggs,
- dead or sick bird,
- taking blood for DNA sampling.

If in doubt, send it. Photo credit will be provided next to the photo in the book, and I'll publish your 50-word bio in the book. Please contact me at robalvo1@gmail.com or by phone at (613) 236-0660 and I'll call you right back. Sending up to 10 MB by email is fine. Thank you.

Free Issues of the Auk and Wilson Bulletin / Wilson Journal of Ornithology Available (Bill Anaka, bja@accesscomm.ca, 306-782-5537)

I have been a life member of both the American Ornithological Society and the Wilson Ornithological Society. I will be terminating my membership effective the last issue in 2010. I have back issues of publications of both societies dating back to the mid '60s. If interested call Bill Anaka at 306-782-5537 or email at <u>bja@accesscomm.ca</u>

Barn Swallow Predation by a Raptor?

(Nancy Mahony, <u>nancy.mahony@ec.gc.ca</u>)

The attached photo shows a Barn Swallow nest with eggs that has been knocked down with a brooding adult, which has subsequently been killed and plucked by a raptor. Suspects include Barred or Barn Owl or Sharp-shinned Hawk. I would appreciate hearing of any other evidence of raptor predation on Barn Swallow nests and or adults. This picture was taken at a Barn Swallow colony I am studying in Delta BC. Thanks.





Virginia Rail (Photo by Brigitte Noel)

New Blog: The Canadian Centre of Ornithology (Sherrene Kevan, <u>http://enviroquestltd.com/cco</u>)

(Photo by Nancy Mahony)

I have set up a blog, the Canadian Centre of Ornithology. I plan to bring Canadian content on bird research, banding, Parks Canada projects, conservation events and more under one internet umbrella. It is set up in Wordpress and can allow readers to interact (leave questions or comments etc.).

I taught ornithology for 10 years, and wanted to maintain this blog to give students, researchers and others interested in birds a place to exchange information, and put on workshops and courses related to birds. I have also developed an online course titled "Fundamentals of Ornithology", and I am writing the textbook this summer to go with the course. I will be actively seeking a place to host this course permanently so that anyone can take it anytime, anywhere. The course is written up for credit, or for a certificate (non-credit).

Book Review

Chansigaud, Valérie. 2010. All About Birds: A Short Illustrated History of Ornithology. Princeton University Press, Princeton NJ. 240 pages. Hard cover, 15 cm x 22.5 cm. 250 colour illustrations. ISBN: 978-0-691-141519-8.



VALÉRIE CHANSIGAUD

This attractive volume highlights the key people and events in the history of ornithology from the time of Aristotle to the mid 20th century with a particular emphasis on the 19th and the first half of the 20th centuries when modern ornithology was born and blossomed. It must have been a real challenge to select material to include in this book. I noticed that there were no Canadian people or institutions mentioned in the book. The book focuses on four countries: Britain, France, Germany and the US.

This book was originally published in French in 2007. Aside from a few grammatical errors, the English translation of the original French text reads well. The author has completed extensive and careful research of primary and secondary sources and does a good job of placing the development of ornithology in context of exploration and other disciplines such as medicine and botany. Sometimes, the information is disjointed because of the book organization. It does have a clear euro-centric point of view with virtually no reference to other cultures contributing to the development of modern ornithology. The only exception is the Middle Eastern translations of ancient Greek works during the Middle Ages.

The illustrations greatly strengthen text by showing what key ornithologists looked like and how illustrations of birds and habitats have evolved over time with technology and improved artist techniques. The illustrations clearly help the text come alive. My favourite illustration in the book is Burrowing Owl by Louis Agassiz Fuentes.

The author provides short lists of accessible French and English language books on the histories of ornithology, illustration and natural history for readers wanting more in depth information on these topics. However, the bibliography does not include journal articles or classic works in ornithology.

The book has a detailed index of people and organizations to help readers find information quickly. The book concludes with a handy illustrated timeline highlighting milestones related to science, biodiversity, voyages and discoveries, technical achievements, historical points of reference and institutions and societies since Aristotle's time to 2002.

I really enjoyed reading about the evolution of modern ornithology and all prominent naturalists and ornithologists such as Frederick II of Hohenstaufen, Audubon, Peterson and Sibley. Aside from a few minor deficiencies, it is an excellent book. I highly recommend this book to anyone interested in the history of ornithology.

Reviewed by Rob Warnock

Announcing the new Journal of Fish and Wildlife Management

There are numerous high-quality conservation and management journals available to professional ornithologists. I wager that SCO-SOC's Avian Conservation and Ecology (ACE-ECO) is the best. There is now another: Journal of Fish and Wildlife Management (distinct from the more-familiar Journal of Wildlife Management). This new journal, launched in June 2010, provides an outlet for conservation and management-oriented articles, particularly ones that are narrower in scope than those typically accepted in main-stream journals. Like ACE, the journal is open-access, peer-reviewed, and lacks publication or subscription fees of any sort. Other than having a wider taxonomic focus and being funded by government—specifically the U.S. Fish and Wildlife Service—this new journal is almost like a twin to our extremely successful ACE-ECO. I encourage SCO-SOC members to add this journal to their reading list, as it will likely contain useful and pertinent avian conservation research. It can be found at: http://www.fwspubs.org/.

Submitted by Doug Tozer (<u>dougctozer@hotmail.com</u>)

SCO – SOC Information

Contact information:

Name	Title	Phone	Fax	E-mail	
Officers for 2010/20	11:				
Dr. Erica Nol	President	705-748-1011 (ext. 7640)	705-748-1139	enol@trentu.ca	
Dr. Joe Nocera	Vice-President / President-elect	705-755-5220	n/a	joe.nocera@ontario.ca	
Dr. David Bird	Past President	514-398-7760	514-398-7990	david.bird@mcgill.ca	
Mr. Pierre Lamothe	Treasurer	418-829-0379	418-829-0584	beaudet.lamothe@sympatico.ca	
Ms. Thérèse Beaudet	Membership Secretary	418-829-0379	418-829-0584	beaudet.lamothe@sympatico.ca	
Ms. Brenda Dale	Recording Secretary	780-951-8686 (ext. 495)	n/a	brenda.dale@ec.gc.ca	
Dr. Ken Abraham	Recording Secretary	705-755-1547	n/a	ken.abraham@ontario.ca	
Dr. Marcel Gahbauer	Co-editor, Picoides	403-475-8093	n/a	marcel@migrationresearch.org	
Mr. Rob Warnock Co-editor, <i>Picoides</i>		306-586-2492	n/a	warnockr@accesscomm.ca	
Voting Members of	Council: (* second term)				
Mr. Marc Avey	Member of Council*	780-492-5844	n/a	marc.t.avey@gmail.com	
Ms. Debbie Badzinski	Member of Council*	519-586-3531 (ext. 211)	n/a	dbadzinski@bsc-eoc.org	
Dr. Erin Bayne	Member of Council	780-492-4165	n/a	bayne@ualberta.ca	
Dr. Russ Dawson	Member of Council*	250-960-6068	250-960-5845	dawsonr@unbc.ca	
Dr. Sarah Jamieson	Member of Council*	011-64-6-356-9099 (ext. 7964)	n/a	s.jamieson1@massey.ac.nz	
Dr. Paul Martin	Member of Council*	613-533-6000 (ext. 36598)	n/a	martinp@biology.queensu.ca	
Dr. Ian Warkentin	Member of Council	709-637-6200 (ext. 6246)	n/a	iwarkent@swgc.mun.ca	

(Non-voting) Past Presidents:

Ross Lein	1983-1986	Henri Ouellet	1994-1996	Jean-Pierre Savard	2002-2004
Spencer Sealy	1986-1988	David Nettleship	1996-1998	Charles Francis	2004-2006
Erica Dunn	1988-1990	Tony Diamond	1998-2000	Susan Hannon	2006-2008
Jon Barlow	1990-1992	Kathy Martin	2000-2002	David Bird	2008-2010
Bruce Falls	1992-1994				

Membership Information

www.sco-soc.ca/membership.html

SCO-SOC membership forms can be found at the link above. Current membership rates are as follows:

Student	\$10.00 / year	
Regular	\$25.00 / year	(\$35.00 / year outside Canada)
Sustaining	\$50.00 / year	
Life	\$500.00	
Life	\$500.00	

SCO-SOC Website

www.sco-soc.ca/index.html

The SCO-SOC website includes sections on membership, meetings, news, publications, awards, information for students, an overview of SCO-SOC, and links of interest to members and other visitors.

To suggest any additions or corrections for the website, contact webmaster Joe Nocera at joe.nocera@ontario.ca.

Submissions to Picoides:

Articles and photos relevant to Canadian ornithology are welcomed by the editors. If submitting photos, please save them in tiff or jpeg format with descriptive file names, and supply captions including common names of species, location, date, photographer, and any other notes of interest. Deadlines for submission are February 15, May 15, and October 15. Please send all submissions to Rob Warnock at <u>warnockr@accesscomm.ca</u>.

Disclaimer: *Picoides* is not a peer-reviewed journal, and the publication of an article in *Picoides* does not imply endorsement by SCO-SOC.