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Gray Jay – Canada's National Bird? Photo by Greg Rand.

TABLE OF CONTENTS

Editor's Message

Rob Warnock and Barbara Bleho

Welcome to the first issue of Picoides of 2015. We hope everyone had a great start to the year!

This issue features two student research reports (including the 2014 Taverner Award report) on birds (pages 5 and 15) and two recent Canadian ornithological theses (page 13). There is an ongoing initiative to select a national bird for Canada (page 17). See page 9 for David Bird's opinion on why the Gray Jay should become the national bird of Canada. Currently, the familiar Common Loon and majestic Snowy Owl (Rob's choice) are leading the votes. There is an interesting article and upcoming spring migration survey on Rusty Blackbirds (pages 10 and 17). In addition, there is a review of the book, *Rare Birds of North Americ*a (page 21), an interesting volume about rare and vagrant bird species of which there are fewer than five documented records per year in North America.

There are some ornithological positions available with Environment Canada (page 20).

Your feedback and suggestions for Picoides are always welcome – we receive very little input from our readers and would love to get more. To make Picoides more useful and relevant to SCO-SOC members, we really need more submissions. It was a real challenge to get enough material for this issue. Therefore, we really encourage submissions from SCO-SOC members, especially from students and ornithology labs. Picoides does not exist without your contributions of articles and photos. The next submission deadline is May 15, 2015. Until then, have a wonderful spring!

Message des éditeurs

Rob Warnock et Barbara Bleho

Bienvenue au premier numéro de *Picoides* de 2015. Nous espérons que tout le monde a un excellent début d'année !

Ce numéro comporte deux rapports de recherche d'étudiants (y compris le rapport du prix Taverner 2014) sur les oiseaux (pages 5 et 15) et deux thèses canadiennes récentes en ornithologie (page 13). Il y a une initiative en cours pour sélectionner un oiseau national pour le Canada (page 17). Voir à la page 9 l'opinion de David Bird qui supporte le mésangeai du Canada pour devenir l'oiseau national du Canada. Actuellement, le familier Plongeon huard et le majestueux Harfang des neiges (choix de Rob) sont en tête pour le nombre de votes. Il y a un article intéressant et un inventaire à venir sur la migration de printemps du quiscale rouilleux (pages 10 et 17). Également, il y a une critique du livre, *Rare Birds of North America* (page 21), un volume intéressant sur les espèces d'oiseaux rares pour lesquels il y a moins de cinq mentions documentées par année en Amérique du Nord.

Il y a quelques emplois en ornithologie disponibles avec Environnement Canada (page 20).

Vos commentaires et suggestions pour *Picoides* sont toujours les bienvenus - nous recevons très peu de commentaires de nos lecteurs et nous aimerions en obtenir davantage. Afin que *Picoides* soit utile et pertinent aux membres SCO-SOC, nous avons vraiment besoin de plus de soumissions. Ce fut un véritable défi d'obtenir suffisamment de matériel pour ce numéro. Par conséquent, nous encourageons les contributions des membres de SCO-SOC, en particulier des étudiants et des laboratoires d'ornithologie. *Picoides* n'existerait pas sans vos contributions d'articles et de photos. La prochaine date limite de soumission est le 15 mai 2015. D'ici-là, nous vous souhaitons un merveilleux printemps!

Student contributions wanted for *Picoides*!

SCO-SOC encourages students to submit material for *Picoides*. In particular, we would like each issue to feature abstracts of at least one or two recently published theses. They must be from students at a Canadian university, but need not necessarily focus on Canadian birds. Abstracts should be 250-400 words long, preferably accompanied by one or two relevant photos.

We also welcome articles describing aspects of student research in greater detail; 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. See page 18 for submission details.

President's Message

Greg Robertson

My first priority is to thank our out-going President, Joe Nocera, for his hard work and dedication to the SCO-SOC over the past two years. I saw Joe directly in action at our 2014 meeting in Colorado, and he was utterly tireless in representing the interests of our society. Joe and his councillors have passed on to me a society that is in solid shape. And like Joe, I would also like to thank Erica Nol as our outgoing Past-President. Having the Past-President as part of the executive is invaluable; it really does take years for anyone to get up to speed on all issues. Erica's experience, advice and counsel have been extremely helpful. I also thank out-going councillors Erin Bayne, Alex Mills, Ian Warkentin, Ken Abraham, Brenda Dale and Marcel Gahbauer. Ken and Brenda also shared the duties of the Recording Secretary during their tenure and Marcel served as the co-editor of Picoides. Brenda is also stepping down as our representative on the Ornithological Council, a position she served for many years. Thanks to you all for your service to the SCO-SOC and best wishes as you move on to new pursuits.

When originally formed, the SCO-SOC would have 10 councillors plus the executive, and these councillors would be replaced on a regular and staggered cycle of 5 one year and 5 the next. Over the years, this pattern has broken down as people have moved in to and out of various positions. This year turned out to be a heavy turnover year. I was pleasantly surprised to able to gather up a really impressive slate of candidates to run in the election to replace seven councillors and the Vice-President. Even more impressive was the lack of virtual arm-twisting that was needed, that speaks volumes to me and really indicates a bright future for the SCO-SOC as we press on. Our new council was announced in the last newsletter and I look forward to working with them in the next 2 years. Since then, Jason Jones has agreed to replace Brenda as our representative on the Ornithological Council – this is an extremely important role, and I thank Jason very much for taking on that task. I also welcome Ken Otter back to council as our Vice-President/President-Elect. I had a good chat with Ken the other day to get him caught up on all things SCO; no more than 5 minutes into the call he was pretty much up to speed and already moving ahead on some issues. It was like he never left.

The announcement that 27th International Ornithological Congress (IOC) will be held in Vancouver, British Columbia,

Message du président

Greg Robertson

Ma première priorité est de remercier notre président sortant, Joe Nocera, pour son travail acharné et son dévouement à la SCO-SOC au cours des deux dernières années. J'ai vu Joe en action lors de notre réunion 2014 au Colorado et il travaillait sans relâche pour représenter les intérêts de notre société. Joe et ses conseillers m'ont laissé une société en très bon état. Tout comme Joe, je tiens également à remercier Erica Nol, notre ancienne présidente sortante. Avoir le président sortant dans le cadre de l'exécutif est inestimable, cela prend des années pour quiconque à être à l'aise dans tous les dossiers. L'expérience, les avis et conseils d'Erica ont été extrêmement utiles. Je remercie également les conseillers sortants Erin Bayne, Alex Mills, Ian Warkentin, Ken Abraham, Brenda Dale et Marcel Gahbauer. Ken et Brenda ont également partagé les fonctions du secrétaire de séance durant leur mandat et Marcel a servi comme corédacteur en chef de Picoides. Brenda quittera également comme notre représentant au Conseil ornithologique, un poste qu'elle a occupé pendant de nombreuses années. Merci à vous tous pour votre service à la SCO-SOC et meilleurs vœux alors que vous passez à de nouvelles activités.

Lors de sa création, le SCO-SOC avait 10 conseillers ainsi que l'exécutif et les conseillers étaient remplacés selon un cycle régulier biannuel où 5 conseillers étaient remplacés une année et 5 autres l'année suivante. Au fil des ans, ce modèle a changé car les gens ont occupé différents postes. Cette année s'est avérée être une année de changements significatifs. J'ai été agréablement surpris de pouvoir rassembler une liste de candidats vraiment impressionnants à se présenter aux élections pour le remplacement de sept conseillers et le vice-président. Encore plus impressionnant était l'absence de tordage de bras virtuel qui aurait pu être nécessaire, ce qui en dit long pour moi et indique un avenir brillant pour le SCO-SOC. Notre nouveau conseil a été annoncé dans le dernier bulletin et j'ai hâte d'y travailler pour les 2 prochaines années. Depuis lors, Jason Jones a accepté de remplacer Brenda comme notre représentant au Conseil ornithologique – ce qui représente un rôle extrêmement important - et je remercie grandement Jason pour avoir accepté cette tâche. Je salue également le retour de Ken Otter au conseil en tant que vice-président / président élu. J'ai eu une bonne discussion avec Ken récemment pour l'informer de tous les dossiers SCO-SOC en cours; après moins de 5 minutes de discussion et il était déjà à l'aise et en action certaines questions. Tout comme s'il n'avait jamais quitté.

L'annonce que le 27^{e} Congrès International d'Ornithologie (International Ornithological Congress; OIC) se tiendra à Vancouver,

August 2018 is very exciting. A hearty congratulations to Bob Elner and his committee for preparing the successful bid is in order. I have no doubt the great success of the 2012 NAOC played a part in Canada's successful bid. Having the IOC return to Canada brings the SCO-SOC full circle. A major driver to form the SCO-SOC in the 1980s was to host the first IOC on Canadian soil (Ottawa 1986).

Meeting planning is a big part of the President's job, and on that front it's been very busy. Dave Shutler had his local committee are sorting the final details and costs for our meeting this summer in Wolfville; check out the meeting announcement in this issue for more details. Laura McFarlane Tranquilla is representing us on the scientific program committee, and Dan Mennill and Greg Mitchell are handling the student travel and presentation awards, respectively, on our behalf. My thanks to them, and to the many more people who will become involved as the meeting approaches. Nova Scotia in July is a great chance to visit Canada's Ocean Playground, so think about creating a vacation around the conference if the timing works for you.

Preparations for the 2016 NAOC in Washington, DC are also well underway. Pete Marra and his steering committee have many of the big things sorted out, the venue is selected (no small feat in a US election year), the event planner is hired and tentative budgets are set. The bar was set high in Vancouver in 2012, but I suspect Pete will do his very best to top that meeting.

I hope this winter has been kind to you and you've managed to stay warm (and not thrown out your back shoveling snow). Spring is just around the corner.

Colombie-Britannique au mois d'août 2018 est très excitante. De sincères félicitations à Bob Elner et son comité pour la sélection de leur candidature. Je n'ai aucun doute que le grand succès de NAOC 2012 a joué un rôle dans la sélection de la candidature du Canada. Le retour au Canada de l'OIC boucle en quelque sorte la boucle alors qu'un facteur important pour la création de SCO-SOC dans les années 1980 était d'accueillir la première OIC en sol canadien (Ottawa 1986).

La planification de réunion constitue une grande partie du travail de président, et sur ce front, il a eu du travail. Dave Shutler et son comité local règlent les derniers détails et les coûts pour notre rencontre de cet été à Wolfville; consultez l'annonce de la réunion dans ce numéro pour plus de détails. Laura McFarlane Tranquilla nous représente au sein du comité du programme scientifique, et Dan Mennill et Greg Mitchell gèrent les prix de voyage des étudiants et de présentation respectivement, en notre nom. Je les remercie et les nombreuses autres personnes qui s'impliquent alors que la réunion approche. Nouvelle-Écosse en Juillet est une grande chance de visiter le terrain de jeux de l'océan du Canada, alors pensez à passer des vacances autour de la conférence si cela vous est possible.

Les préparatifs de NAOC 2016 à Washington (DC) sont également sur une bonne voie. Pete Marra et son comité directeur ont déjà réglé beaucoup d'éléments importants, le lieu est sélectionné (pas un mince exploit dans une année électorale américaine), le planificateur d'événement est engagé et les budgets provisoires sont fixés. La barre a été placée très haute à Vancouver en 2012, mais je soupçonne Pete fera de son mieux pour couronner cette réunion.

J'espère que cet hiver a été bon pour vous et que vous avez réussi à rester au chaud (et pas barré le dos à force de pelleter de la neige). Le printemps est à nos portes.

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2014 Taverner Award Report

Moving Resources to All the Right Places: The Role of Corticosterone in Disease Management

Laura Schoenle, Virginia Tech

Coping with disease: resistance and tolerance

Parasites can have dramatically different effects in different hosts and some of this variation can be attributed to how the host copes with the infection. When faced with a parasite, an animal can resist infection by changing its behavior and/or mount an immune response to avoid or destroy the parasites. Alternatively, an animal can tolerate an infection by minimizing the damage per parasite (Råberg et al. 2009). Resistance and tolerance differ in advantages and disadvantages. When animals engage the immune system to resist infection, they can also suffer collateral damage; the immune system not only destroys parasites, but also harms body tissues of the host. To tolerate the infection, an animal can either repair the damage caused by the parasite or its immune system (for example, healing a wound or regenerating new cells) and/or avoid the immune system-caused damage entirely by turning-down the immune response (Medzhitov et al. 2012). The optimal investment in either strategy varies with the specific parasite – how much damage will it cause? – and the animal's body condition and life history stage – does the animal have the resources to repair damage or destroy parasites given its other priorities (like reproduction or migration)? (Sears et al. 2011). This raises the question, how can animals shift between resistance and tolerance to optimize their responses to infection?

Corticosterone: could a hormone enable individuals to change their resistance and tolerance to infection?

Corticosterone is a hormonal candidate for mediating shifts between disease coping strategies in birds. While well known for its role in the stress response, corticosterone also plays a key role in resource allocation and immune modulation. This steroid hormone is produced primarily in the adrenal glands and levels increase to prepare a bird respond to challenges like food limitation or increasing breeding activity (Sapolsky et al. 2000). Corticosterone also influences immune function during demanding times, and although its effects are complex, long-term corticosterone elevation down-regulates the immune system's inflammatory response (Martin 2009). In my PhD research, I aim to answer the question: Does corticosterone mediate changes in resistance and tolerance to a specific disease, avian malaria?

Avian Malaria

Plasmodium and Haemoproteus are parasites that cause avian malaria. They are transmitted by blood-sucking dipteran vectors (including mosquitos and biting midges). When infected, a bird initially suffers high infection intensity in which large numbers of cells are parasite-infected, and often the bird will maintain a chronic infection for the rest of its life (Asghar et al. 2012). The fitness consequences of infection are variable. In species living on isolated islands where the parasites are recent arrivals, many bird species, like the Hawaiian honeycreepers, suffer high mortality rates. The effects of infection are more variable in continental species, but can include reduced reproductive success and survival (Asghar et al. 2015, Marzal et al. 2007).

How can we assess resistance and tolerance to malaria? To measure resistance, I use microscopy to count the proportion of red-blood cells that are infected with Plasmodium and Haemoproteus. To determine how tolerant a bird is, we need first identify a cost of infection and then quantify a bird's ability to minimize that cost. Both malaria parasites and the resultant immune response increase the destruction of red blood cells. Therefore, as infection intensity increases, the percentage of blood volume consisting of red blood cells (hematocrit) decreases (Valkiūnas 2005). The birds that maintain a higher hematocrit for a given infection intensity are more tolerant of avian malaria. I quantified tolerance by determining the expected hematocrit for each infection intensity and compared the birds' actual hematocrit to the expected hematocrit. The difference between a bird's expected and actual hematocrit is the bird's tolerance.

Preliminary results

In 2013, I investigated the relationship between corticosterone and resistance/tolerance to avian malaria in adult male red-winged blackbirds (*Agelaius phoeniceus*) captured in Kingston, Ontario and at Queen's University Biological Station. I found that red-winged

blackbirds with higher corticosterone levels were more tolerant of avian malaria infection than birds with lower corticosterone (Figure 1). However, there was no relationship between corticosterone levels and resistance to malaria.

To determine whether corticosterone is the mechanism behind increased tolerance, I need to experimentally alter corticosterone levels and measure the resultant changes in tolerance. Thanks to a Taverner Award from the Society of Canadian Ornithologists in 2014, I was able to test a method of elevating corticosterone in red-winged blackbirds: slow-release corticosterone pellets that are implanted under a bird's skin. These pellets were effective in increasing circulating corticosterone levels; preliminary results suggest that corticosterone might be influencing both resistance and tolerance to malaria. These are very exciting results that will go a long ways to increasing our understanding of how birds respond to parasitic infections. Currently, I am preparing to return to Queen's University Biological Experiment to conduct a large-scale experiment in which I aim to both establish the role of corticosterone in mediating resistance and tolerance to malaria and the immune mechanisms underlying its effects.

FRANÇAIS—LA BOURSE TAVERNER 2014

Faire face à la maladie: la résistance et la tolérance

Les parasites peuvent avoir des effets très variables selon les hôtes et une partie de cette variation peut être attribuée à la manière dont l'hôte fait face à l'infection. Lorsqu'ils sont confrontés à un parasite, un animal peut résister à l'infection en changeant son comportement ou en développant une réponse immunitaire afin d'éviter ou détruire les parasites. Alternativement, un animal peut tolérer une infection en minimisant les dommages faits par chacun des parasites (Råberg et al. 2009). La résistance et la tolérance présentent différents avantages et inconvénients. Lorsque les animaux engagent le système immunitaire à résister à l'infection, ils peuvent également subir des dommages collatéraux; le système immunitaire peut détruire pas seulement les parasites, mais également les tissus du corps de l'hôte. Afin de tolérer une infection, un animal peut réparer les dommages causés par le parasite ou son système immunitaire (par exemple, la guérison d'une plaie ou la régénération de nouvelles cellules) ou complètement éviter les dommages provoqué par le système immunitaire en baissant la réponse immunitaire (Medzhitov et al. 2012). L'investissement optimal dans chaque stratégie varie en fonction du parasite (combien de dommages-t-il provoquer?) et la condition physique et le stade de vie de l'animal (est-ce que l'animal a ou pas les ressources pour réparer les dommages ou pour détruire les parasites compte tenu de ses autres besoins, tels que la reproduction ou la migration?) (Sears et al. 2011). Cela soulève la question de savoir comment les animaux peuvent choisir leur stratégie, entre la résistance et la tolérance afin d'optimiser leurs réponses à l'infection.

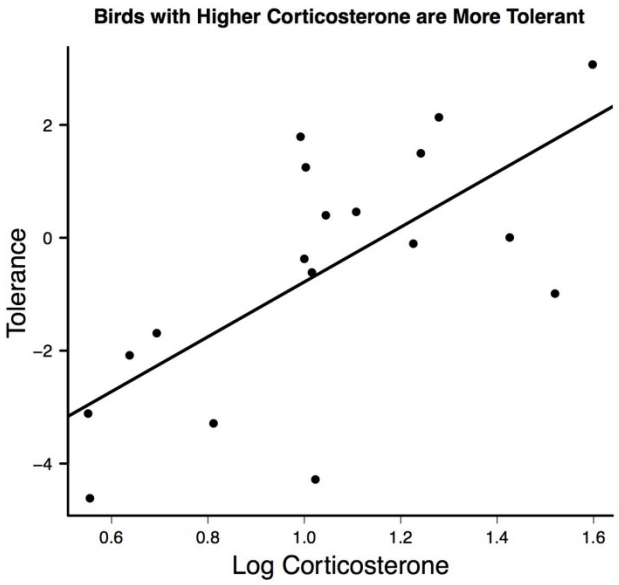

Figure 1. Male Red-winged Blackbirds with higher circulating corticosterone are more tolerant of avian malaria infections (N=18. R^2=0.46. P=0.002).

Corticostérone: est-ce qu'une hormone pourrait permettre aux individus de modifier leur résistance et de la tolérance à l'infection?

La corticostérone est une hormone influente pour la médiation aux changements entre les stratégies d'adaptation de la maladie chez les oiseaux. Bien connu pour son rôle dans la réponse au stress, la corticostérone joue également un rôle clé dans l'allocation des ressources et la modulation immunitaire. Cette hormone stéroïde est produite principalement dans les glandes surrénales et les niveaux augmentent pour préparer un oiseau à répondre à des défis tels que la limitation de la nourriture ou l'augmentation de l'activité reproductrice (Sapolsky et al. 2000). La corticostérone influence également la fonction immunitaire lors de temps difficiles et bien que ses effets soient complexes, une augmentation des niveaux de corticostérone à long terme régule à la baisse la réponse inflammatoire du système immunitaire (Martin 2009). Dans mes recherches de doctorat, je cherche à répondre à la question: Est-ce que la corticostérone influence des changements dans la résistance et la tolérance à une maladie spécifique, soit le paludisme aviaire?

Le paludisme aviaire

Plasmodium et Haemoproteus sont des parasites qui causent le paludisme aviaire. Elles sont transmises par des diptères hématophages (vecteurs), y compris les moustiques et les moucherons piqueurs. Lorsqu'il est infecté, un oiseau souffre d'abord d'une infection de forte intensité dans laquelle un grand nombre de cellules sont infectée par un parasite et souvent l'oiseau maintiendra une infection chronique pour le reste de sa vie (Asghar et al. 2012). Les conséquences sur le fitness de cette infection sont variables. Chez les espèces vivant sur des îles isolées où les parasites sont arrivés récemment, de nombreuses espèces d'oiseaux vivant dans l'archipel d'Hawaii souffrent de taux élevés de mortalité. Les effets de l'infection sont plus variables chez les espèces continentales mais peuvent comprendre la réduction des succès de reproduction et la survie (Marzal et al. 2007, Asghar et al 2015).

A male Red-winged Blackbird at Queen's University Biological Station. Photo by Sophie Gong.

Comment pouvons-nous évaluer la résistance et de la tolérance au paludisme? Pour mesurer la résistance, j'utilise la microscopie pour compter la proportion de globules rouges qui sont infectés par Plasmodium et Haemoproteus. Pour déterminer le degré de tolérance d'un oiseau, nous devons d'abord identifier un coût de l'infection, puis quantifier la capacité d'un oiseau à minimiser ce coût. Les parasites du paludisme et de la réponse immunitaire résultante augmentent la destruction des globules rouges. Par conséquent, comme l'intensité de l'infection augmente, le pourcentage du volume de sang comprenant des globules rouges du sang (hématocrite) diminue (Valkiūnas 2005). Les oiseaux qui maintiennent un hématocrite supérieur à une intensité d'infection donnée sont plus tolérants au paludisme aviaire. J'ai quantifié la tolérance en déterminant l'hématocrite attendu pour chaque intensité de l'infection et comparé l'hématocrite réel de l'oiseau à celui attendu. La différence entre l'hématocrite attendu et réel d'un oiseau représente la tolérance de l'oiseau.

Les résultats préliminaires

En 2013, j'ai étudié la relation entre la corticostérone et la résistance/tolérance au paludisme aviaire chez des carouges à épaulettes adultes mâle (*Agelaius phoeniceus*) capturé à Kingston, en Ontario et à la Station biologique de l'Université Queen. J'ai trouvé que les carouges à épaulettes avec des niveaux plus élevés de corticostérone étaient plus tolérantes à l'infection du paludisme aviaire que les oiseaux avec des niveaux de corticostérone inférieurs (Fig. 1). Cependant, il n'y avait pas de relation entre les niveaux de corticostérone et de la résistance au paludisme.

Pour déterminer si la corticostérone est le mécanisme derrière une tolérance accrue, j'ai besoin de modifier expérimentalement les niveaux de corticostérone et de mesurer les changements dans la tolérance qui en résultent. Grâce au Prix Taverner que j'ai reçu de la Société des ornithologistes du Canada en 2014, j'ai été en mesure de tester une méthode de corticostérone élevée dans les carouges à épaulettes qui consiste à implanter des granulés à libération lente de corticostérone sous la peau des oiseaux. Ces pastilles sont efficaces pour augmenter les taux circulants de corticostérone; les résultats préliminaires suggèrent que la corticostérone pourrait influencer à la fois la résistance et la tolérance au paludisme. Ces résultats sont très excitants et permettront d'accroître notre compréhension de la façon dont les oiseaux réagissent aux infections parasitaires. Actuellement, je me prépare à retourner à la Station biologique de l'Université Queen afin de procéder à une expérience à grande échelle dans laquelle je vise à établir le rôle de la corticostérone dans la médiation de la résistance et de la tolérance au paludisme et les mécanismes immunitaires sous-jacentes de ses effets.

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Displaying male Ruffed Grouse. Photo by Andrew Iwaniuk.

Feature Article

The Gray Jay for Canada's National Bird

David M. Bird, PhD, Emeritus Professor of Ornithology at McGill University

There are movements afoot in Canada to select a National Bird as part of the Canada celebrations for its 150th year of existence in 2017. Currently we have the maple as our official tree and, for better or worse, the beaver as our official mammal. So why not an official bird? Many countries have one, the U.S. with its Bald Eagle being a prime example. I strongly believe that we should choose the Gray Jay, formerly known as the Canada Jay and informally called the whisky jack. Here are no less than FIFTEEN compelling reasons why it would be a great choice:

1) Found in all thirteen provinces and territories; it is only barely found in the U.S., in the Rocky Mountain region and Alaska.

2) A member of the corvid family, arguably the smartest birds on the planet;

3) Extremely friendly toward humans like all Canadians, often found panhandling on cross-country ski trails.

4) Very hardy like all Canadians, having highly adapted itself to living in very cold regions.

5) Figures strongly in First Nations folklore, also called the whiskey jack.

6) Is not an endangered species and thus, not at risk of disappearing.

7) Figures prominently in the boreal forest ecological zone, constituting a vast portion of our country worthy of protection and under pressure from clear-cutting and oil and gas development.

8) Not a hunted species, so it is not shot by Canadians.

9) Not an official bird species for any of the ten provinces and recognized territories nor any other country (Common Loon is Ontario's bird; Snowy Owl is Quebec's bird).

10) Formerly called the Canada Jay by ornithologists for over 200 years; its French name is mésangeai du Canada and its Latin name is *Perisoreus canadensis*!

11) Stays in Canada year-round.

12) Not flamboyant in its appearance, best representing the conservative nature of Canadians! (Gray jays have a very unique, understated appearance, a feature valued by Canadians.)

13) Not regarded as an obnoxious or nuisance species (like the Canada Goose, which is culled in the U.S.!).

14) Cannot be confused with any other bird species (99.6% of Canadians cannot tell the difference between a raven and a crow!).

15) Not a circumpolar species, i.e. not found in other northern countries (as are the Snowy Owl and Common Raven).

In short, I cannot think of a more Canadian bird!!! If Canada adopts this species as its national bird, we might even be able to convince the Nomenclature Committee of the American Ornithologists' Union to rename it the Canada Jay.

The only thing going against it is that many Canadians do not see this bird every day (unless they enjoy skiing!), but lots of states and provinces as well as other countries have official birds that the public does not see on a regular basis and may in fact never see them as a live bird. The fact is that once it is chosen, we can promote the bird so that Canadians make an effort to visit our boreal forest to become very familiar with it and indeed, be proud of it as our National Bird.

Gray jays are naturally curious and are one of the few birds in Canada that willingly feed from the hand without training. Photo by Gord Belyea.

Other Comments

A few years ago, a raptor organization called the Canadian Raptor Conservancy in Ontario started promoting a national bird for Canada, but they have been doing it mostly by using an internet vote. I worry about their process because there are species on their list of candidates which would be a disastrous choice. For instance, the Canada Goose is an obnoxious bird that is much hated in the U.S., U.K. and elsewhere to the point of being culled. The Common Loon is Ontario's bird, not likely a popular idea with the other provinces, especially its arch-rival, Quebec. The same can be said for the Snowy Owl, which is Quebec's official bird. Another leading candidate, the Red-tailed Hawk, is even more common in the U.S. than Canada, so it is not very distinctive. Fortunately, the Gray Jay is one of the candidates! More importantly, the Canadian Geographic Society has recently initiated a similar online survey, a much more serious effort, for the general public to weigh in on this matter. Forty candidates have been nominated, including the Gray Jay, but currently the front-runners are the Common Loon, the Snowy Owl, and gasp…. the Canada Goose. Personally, I would like to see some intelligent discussion and debate about such an important matter as opposed to just letting the public make some inane choice. I recall running a popular vote to select an official bird for the city of Montreal and we ended up with the American Goldfinch only because the children who ended up being allowed to vote thought that it was the prettiest bird. Recently, the city of Vancouver went with the Black-capped Chickadee as its official bird, another democratic decision that did not make any sense among Canadian ornithologists. I am seeking help from all quarters to facilitate the selection of the Gray Jay as Canada's National Bird.

How to Save a Bird That Nobody Likes

Alana Westwood, E-mail: a.westwood@dal.ca

"How many Rusty Blackbirds is enough?" Carol asked the group. "How many do we need to save?"

The answer came from the back of the room, beyond all of us writing furiously on our laptops and clipboards. Leaning against the wall was a gruff naturalist with a baseball cap and a camouflage vest, his face turned to leathery crags from years of sun.

"How many people is enough?" he asked.

I was the only Maritime migrant to the International Rusty Blackbird Working Group Meeting, descended on Plymouth, Massachusetts with a singular purpose. We had three days to figure out how to stop a hated little bird from going extinct.

The situation is dire. The Rusty Blackbird was once extremely common across North America. It is about the size of a robin, with alarming yellow eyes and glossy black feathers that turn reddish-brown in winter. It is often confused with the common grackle or red-winged blackbird, but has a shorter tail and lacks red bars on its wings. Its mating call, a cackle of scraping rusted metal, is one of the most horrible noises I've ever heard.

Population declines have been dramatic and catastrophic, especially where I live, in the Maritimes. Though it has been formally listed as a species of Special Concern by the Canadian government, its numbers continue to fall.

Though most people have never knowingly seen one, millions of these birds once blackened the skies. Over the past forty years, the population size plummeted by up to 96%. Until now, no one knew why. We convened in Plymouth from all four corners of the Rusty's range to determine the next step.

The night before the meeting began; I lounged in the dim hotel lobby and strained to find a familiar face as attendees entered for one of multiple conferences, suitcases clattering. The biologists were easy to identify: jeans and fleece vests, making a stark contrast to the suit and skirt-clad business conference attendees who strode in with shiny shoes and assurance of purpose.

Those in the suits would never know our business, not even notice us in our unofficial unisex uniforms of recycled plastic. Fleece is versatile—it insulates against the gratuitous air conditioning and accommodates impromptu outdoor botanizing. Beneath the vests, differences among the biologists emerged in rank and creed. The field ecologists wore classic plaid in red or blue. Government and forest company researchers wore collared button-ups. A pressed shirt meant senior management. Only the lab jocks lacked fleece—too hard to clean the spatters of blood and chemicals.

Rusty Blackbird. Photo by Clara Ferrari.

I'm not a lab jock, but I didn't have a vest. Such vests, embroidered with the insignia of this-or-that scientific conference or naturalist society, had to be earned. Just a green graduate student, my lot was to shiver alongside the artificial plants next to the vent.

We met in an unremarkable room in a hotel basement, tables arranged into a U-shape. Water droplets glistened on evenly-spaced silver jugs. The suits upstairs may have enjoyed resting their elbows on crisp white table linens, but I kept smudging the fibres with dirt from the morning birding session. The youngest scientist here, I dreaded my turn to speak. I wondered what brought everyone else to this moment, what strange turns their lives must have taken to lead them down the soggy wetland trails of a rusty blackbird researcher.

I studied the rest of the room as they introduced themselves. They bore the vestiges of swamps, mud from farmer's fields, bird blood, ground feather dust, and stacks and stacks of paper. As the day wore on outside the window, researchers who flocked in from across the continent, Florida to the Yukon, presented their findings on the Rusty Blackbird. The word decline dripped from everyone's lips. Decline-- a synonym for dead birds. Eggs that won't hatch, birds dying of mercury poisoning, birds mauled by predators, birds shot by farmers. Millions of dead birds.

We blamed parasites, disease. Blamed habitat loss, draining of wetlands. Hunting. Blamed the other blackbirds for outcompeting them. Lack of food: it's the insects' fault. The list went on and on. The reasons were varied as the accents of, ranging from southern drawl to a polite peppering of 'eh'. They all said the same thing. We are losing the Rusty Blackbird. What could we do? We tried to pick out one major threat that we could address. Was it the decline on the Canadian breeding grounds? Or on wintering grounds, in the southeastern U.S.? Politics crept in, accusations start to fly. The meeting descended into a battle of geography, as we sat in a battleground state from which the Rusty would likely disappear forever in a few short years.

It was an uphill battle any which way I looked at it. The Rusty is a hated little bird. People shoot them, mistaking them for a pest or just for the sheer joy of killing things that happen to have the misfortune of being ugly.

"We have a branding problem," said Carol. Perhaps we needed a new name. Rebrand the Rusty as the Boreal Oriole. Then people will want to save it. As she spoke, the rusty blackbird embroidered on her hat, complete with yellow eye, bobbed up and down. Russ

nodded slowly. He, the patriarch of the community, was one of the blackbird's most staunch fighters. He authored the seminal papers on its decline and put much of his muscle into coordinating this group to save the species.

The debate was cut short as the phone rang. It was our final presentation of the day. Steve, with the Boreal Avian Modeling Project, was in by conference call to talk about the expected effects of climate change on the rusty. We sat in muted shadow, the sun long since set, the only light the glow of the projector. He explained how the ranges of different North American songbirds were expected to change over the next 150 years as humans continued to cook the planet. The ranges were displayed as coloured blobs, splotched onto maps of North America. For most birds, the blobs mostly stayed roughly the same size, but moved north and west.

"Here is our model for the Rusty." Steve told us. "First, I will show you the current situation."

He clicks to a range map—a thick smear of red stretching from Alaska to Nova Scotia, then dipping down the eastern states. He continued. "Now, this is their breeding range in 2025."

The room was completely silent as he clicked forward in time. The thick red band became emaciated, pulling away from its margins. Red drained out of the U.S. northeast, out of the Canadian Maritimes, out of the prairies, out of almost the entire map. By the end there were only a few small blotches in Canada's remote boreal, isolated pockets where birds could still breed.

When Steve finally hung up, the dial tone reverberated hollowly off the silver jugs of water. No one spoke, there was just the echo and muted applause from the business conference in another room. Even the slouching, sarcastic naturalistic at the back ceased his banter. In hushed tones some of the senior scientists begin to question Steve's research methods, but they knew it was a futile gesture. The crushing blow was dealt. Like the passenger pigeon, yet another one of North America's most common birds may go extinct.

At least we had another day and a half to sort it out.

In the dimness, the Rusty on Carol's hat glared at me with its yellow eye. It accused me of being part of the problem, taking on two airplanes to this meeting and two planes back, polluting the Rusty Blackbird's air. It dared me to find a solution, to pay off my debts. Behind Carol, on the dour hotel walls, hung generic paintings of human conquest. Armies on horseback marching across bludgeoned landscapes, smoke rising in elegant plumes.

I felt overwhelmed, my lungs heavy with recycled air. We broke for the day and older researchers, close to retirement, kept pulling me aside. They'd shouldered the burden for long enough themselves. They suggested knowledge gaps and new angles and suddenly my PhD project was growing in twelve directions. Last of them to sit with me was Russ. We talked at length—with his mixture of quiet power and lighthearted banter he challenged me, with all my enthusiasm and (misplaced) hope, to find the solution. Saving the Rusty is now on me, he said. I laughed off his comment. I didn't think he meant it. I didn't know he was sick.

Although Russ passed away six months later, I can still find a few of his beloved rusty blackbirds in the forests and wetlands near my home. But for how much longer? Ultimately, human domination of the planet is the culprit. Until we all learn to tread more lightly, we cannot help the Rusty recover to its former millions. We can, I suppose, conserve what habitat is left and save a few of them. How many can we save? How many blackbirds is enough?

That meeting was two years ago. We've met again since and our efforts paid off, in some ways. Judith, the whip smart biologist who sat to my left and reassured me through that first meeting, went on to head up the Rusty Blackbird Migration Blitz. She coordinated hundreds of researchers, government scientists, naturalists, and backyard birders to look out for the rusty. Their support is invaluable for the 75 members of the international working group, fighting on the front lines.

But is it enough? I don't know the answer. I can only hope that the faces that continue to meet, year after year, who toil in our labs and dredge through swamps, are enough. We are bolstered by the growing force of backyard birders taking up their binoculars across North America, lending a hand to the cause. I can only hope we are enough to continue Russ' work: to save an ugly little bird that nobody likes.

Recent Canadian Ornithology Theses

Luke R. Halpin. 2014. Acoustic recorders reveal the impact of invasive rats on nocturnal burrow-nesting seabirds in Haida Gwaii. M.R.M. Thesis. Simon Fraser University, Burnaby, BC. E-mail: Lukehalpin@gmail.com

Haida Gwaii supports 1.5 million nesting seabirds, including 50% of the global Ancient Murrelet (*Synthliboramphus antiquus*) population and significant nesting populations of several other seabird species. Invasive rats pose a significant threat to the conservation of these populations. In 2010, Gwaii Haanas National Park Reserve and Haida Heritage Site initiated the Night Birds Returning project with the goal of eradicating invasive rats on a number of islands. I used automated acoustic recording units (ARUs) to explore seabird presence and relative abundance of Ancient Murrelets, Cassin's Auklets (*Ptychoramphus aleuticus*), Fork-tailed Storm-Petrels (*Oceanodroma furcate*), and Leach's Storm-Petrels (*Oceanodroma leucorhoa*) on rat-infested and rat-free islands in Gwaii Haanas during the main breeding season. I assessed the effect of rat presence using two measures derived from acoustic data: relative abundance and attendance period. Relative abundance was higher on rat-free islands compared to rat-infested islands. In addition, attendance periods were longer and vocal activity more regular on rat-free islands. Rat presence had a negative effect on detections of Ancient Murrelets (P = 0.01) and Fork-tailed Storm-Petrels (P = 0.03), but not Cassin's Auklets (P = 0.31) or Leach's Storm-Petrels (P = 0.47). That rats had not extirpated all seabirds from these islands came as a surprise. Indeed, data suggest that breeding may in fact be occurring, though whether this results in successful fledging remains unknown. My results suggest that seabird recovery may occur more rapidly following rat eradication on these islands, compared to islands where the species of interest are extirpated.

Marbled Murrelet. Photo by Ilya Povalyaev.

FRANÇAIS—Haida Gwaii comporte 1 500 000 oiseaux de mer nicheurs, dont 50% de la population mondiale de Guillemot à cou blanc (*Synthliboramphus antiquus*) et des populations nicheuses importantes de plusieurs autres espèces d'oiseaux marin. Les rats envahissants constituent une menace importante pour la conservation de ces populations. En 2010, la réserve de parc national et site du patrimoine haïda Gwaii Haanas a initié un projet Night Birds Returning avec comme objectif l'éradication des rats envahissants sur un certain nombre d'îles. J'ai utilisé des unités d'enregistrements acoustiques automatisés (ARU) pour déterminer la présence des oiseaux de mer et l'abondance relative de Guillemots à cou blanc, de Starique de Cassin (*Ptychoramphus aleuticus*), de l'Océanite à queue fourchue (*Oceanodroma furcata*), et d'Océanite cul-blanc (*Oceanodroma leucorhoa*) sur des îles infesté et des îles sans rats à Gwaii Haanas durant la saison de reproduction. J'ai évalué l'effet de la présence de rat en utilisant deux mesures dérivées de données acoustiques: l'abondance relative et la période de présence. L'abondance relative était plus élevée dans les îles sans rats par rapport aux îles infestées de rats. En outre, les périodes de présence étaient plus longues et l'activité vocale plus régulière sur les îles sans rats. La présence de rat avait un effet négatif sur les détections de Guillemots à cou blanc (P = 0,01) et de l'Océanite à queue fourchue (P = 0,03), mais pas celle de Starique de Cassin (P = 0,31) ou d'Océanite cul-blanc (P = 0,47). Le fait que les rats n'aient pas extirpé tous les oiseaux de mer de ces îles était une surprise. En effet, les données suggèrent que la nidification peut en fait se produire, bien que le succès à l'envol reste inconnu. Mes résultats suggèrent que le rétablissement des oiseaux de mer peut se produire plus rapidement suite à l'éradication des rats sur ces îles, par rapport aux îles où les espèces d'intérêt sont disparues du pays.

Sarah Hudson (née Trefry). 2015. Effect of wing tags and testing hypotheses of sexual size dimorphism in Frigatebirds. Ph.D. Thesis. University of New Brunswick, Fredericton, NB. E-mail: sarah.hudson@ec.gc.ca

Sexual size dimorphism (SSD) is one of the most apparent and puzzling differences between males and females across many different taxa. This dissertation explores the evolution and maintenance of female-biased SSD (females larger than males) in Magnificent Frigatebirds (*Fregata magnificens*) breeding on Barbuda, in the eastern Caribbean. I tested two hypotheses to explain SSD. The first, the resource division hypothesis, implicates natural selection in the evolution of SSD through selection for reduced intersexual competition via trophic niche divergence. Using prey, stable isotope, and foraging location data, I tested specific predictions relating to larger female size. My results did not support the resource division hypothesis in Magnificent Frigatebirds, given the similarities in breeding season prey, stable isotope values, and foraging locations between males and females. A second hypothesis attempting to explain smaller male size is the aerial agility hypothesis, which proposes that smaller males have an advantage during mating displays or other aerial acrobatics. Wing traits affecting flight performance and predicted to be under selection were measured from breeding birds, and fledging success was used as a measure of fitness. Projection pursuit regression and cubic splines were used to explore the strength and shape of selection acting on wing traits, respectively. Male wing traits influencing manoeuvrability were under stronger selection than in females and correlated with nest volume, providing support for the aerial agility hypothesis maintaining small male size. This likely reflects the male's role in collecting nest material. Large female size may be a result of extended parental care relative to males, and requires further study. Because of low fledging success early in the study, I also conducted an experimental study and meta-analysis on the effects of wing tags, a common avian field marker. Wing tags had a significant negative effect on nest success in Magnificent Frigatebirds, and on survival and hatch and nest success in other birds. Based on these findings, I strongly recommend against the use of wing tags in future studies.

FRANÇAIS—Le dimorphisme sexuel de la taille (DST) est l'une des différences les plus apparentes et énigmatiques entre les mâles et les femelles de nombreux différents taxons. Cette thèse explore l'évolution et le maintien d'un DST femelle (femelles plus grandes que les mâles) dans la reproduction de la Frégate superbe (*Fregata magnificens*) à Barbuda, dans l'est des Caraïbes. J'ai testé deux hypothèses pour expliquer le DST. La première étant l'hypothèse de la division des ressources, impliquant la sélection naturelle dans l'évolution des DST par une sélection pour une compétition intersexuelle réduite via une divergence de niche trophique. J'ai travaillé à partir de l'utilisation de proie, des isotopes stables et des données d'emplacements d'alimentation et testé des prédictions spécifiques relatives à une plus grande taille de la femelle. Mes résultats n'appuient pas l'hypothèse de la division des ressources chez la Frégate superbe, étant donné les similitudes dans la saison de reproduction des proies, dans les valeurs d'isotopes stables, et de l'emplacement d'alimentation entre les mâles et les femelles. La deuxième hypothèse testée pour expliquer la plus petite taille des mâles est celle de l'agilité aérienne laquelle suggère que les petits mâles ont un avantage pendant les parades accouplement ou d'autres acrobaties aériennes. Les caractéristiques de l'aile affectant les performances de vol et supposées être sous sélection ont été mesurées sur des oiseaux nicheurs et le succès d'envol a été utilisé comme une mesure de fitness. Des régressions (Projection pursuit regression et cubic splines) ont été utilisés pour explorer la force et la forme de la sélection agissant sur les caractéristiques de l'aile respectivement. Les caractéristiques de l'aile chez les mâles influençant la manœuvrabilité étaient sous une sélection plus forte que chez les femelles et en corrélation avec le volume du nid, soutenant l'hypothèse de l'agilité aérienne, ce qui témoigne probablement du rôle du mâle dans la collecte de matériaux pour le nid. Une taille plus grande des femelles peut être le résultat d'une plus grande implication dans les soins parentaux par rapport aux mâles, ce qui nécessite des études plus approfondies. En raison du faible succès d'envol au début de l'étude, j'ai également mené une étude expérimentale et une méta-analyse sur les effets de marqueurs alaires, communément utilisé dans les études ornithologiques. Ces derniers ont eu un effet négatif significatif sur le succès de nidification chez la Frégate superbe et sur la survie, l'éclosion et le succès de nidification de d'autres espèces d'oiseaux. Basé sur ces résultats, je déconseille fortement l'utilisation de marqueurs alaires pour l'étude des oiseaux.

Pair of Magnificent Frigatebirds. Photo by Geoff Holroyd.

Student Research

Smooth-billed Ani (*Crotophaga ani*) Research in Puerto Rico

Leanne Grieves, MSc Candidate, McMaster University

The Smooth-billed Ani (*Crotophaga ani*) is a highly social cooperatively breeding bird; more than two individuals raise young at a single nest (Brown 1987). Anis are a joint-nesting species. In contrast to the more common helper-at-the-nest system in which a dominant breeding pair would have non-breeding helpers, joint nesting occurs when two or more females contribute eggs to the same nest. This rare breeding system is limited to only 15 species worldwide (Vehrencamp and Quinn 2004). In *C. ani*, socially monogamous pairs form groups of two to ≥17 usually unrelated individuals and all group members provide parental care (Quinn and Startek-Foote 2000). Breeding groups have multiple diurnal incubators but only one nocturnal incubator. Dominance is not well understood in C. ani but the nocturnal incubator, a male, may be the dominant bird (J. Quinn, pers. comm.). Within-group conflict, including tossing eggs from the nest and burying eggs under a new nest floor, is high (Schmaltz et al. 2008), indicating costly reproductive competition. However, the benefits of group living and joint-nesting in this species remain unclear and long-term studies on the breeding biology of Smooth-billed Anis are needed.

I am combining field and molecular techniques to explore group dynamics and breeding biology in Smooth-billed Anis. I will include historical records from banded birds dating back to 1998 to address questions about the reproductive success of individuals and look for patterns in group membership. Specifically, I predict the nocturnal incubator and its social mate will have greater reproductive success than other group members. The same territories are used from year to year (J.S. Quinn, pers. comm.), but group membership and structure changes; territories will be used by different groups of individuals each year. Recently, some groups have remained on a territory over multiple breeding seasons. To explore these changes I will use rainfall data, reflecting insect food abundance, to look for correlations between territory use and group membership, and rainfall.

After taking morphometric measurements and a small blood sample, trapped birds are banded and marked. Photo by Nicolette Roach.

I am also interested in exploring benefits of group living in anis that may not directly relate to their breeding biology. Many social species use an early warning system to alert group members to predators or other danger. Generic alarms announcing danger are common and well-studied among birds. Less studied are referential alarm calls that convey specific information about the type of danger. These calls have stimulus specificity, meaning a call is elicited only by stimuli of a common category, and context independence, meaning the call alone should elicit an appropriate response in signal receivers (Macedonia and Evans 1993).

Some species not only differentiate alarms given by heterospecifics, but respond selectively by ignoring calls made in response to predators that pose no threat (Rainey et al. 2004; Platzen and Magrath 2005; Magrath et al. 2009). These birds might also produce referential signals. To date, avian studies of referential alarm calling have been limited to only a few orders (e.g. Galliformes, Evans et al. 1993; Coraciformes, Rainey et al. 2004; Passeriformes, Platzen and Magrath 2005) despite the level of complexity already demonstrated in these few studies and that the diversity of these orders suggests referential communication may be widespread among birds.

Our field observations and those of Davis (1940) indicate that Smooth-billed Anis (Order: Cuculiformes) use two distinct alarms, one for terrestrial and one for aerial predators, coupled with appropriate antipredator responses. Observations suggest call type and response are correlated, but whether this would be the case in the absence of both a caller and a source of danger (context independence) has not been tested. I conducted controlled playback experiments in 2011 and 2012 with J.S. Quinn and D.L. Logue to test these responses

and to show the responses are not based on observing a predator or alarm caller behaviour. Our results indicate that Smooth-billed Ani alarms are functionally referential.

Methods

Molecular work

In 2011 and 2012 I studied anis at Cabo Rojo National Wildlife Refuge in Puerto Rico during their breeding season (September to January) and collected blood samples from adults (N = 55) and chicks (N = 189). I will use microsatellite genotyping along with KINSHIP software to determine the pairwise relatedness of adult group members and CERVUS software to determine parentage within broods.

Playback experiments

Experiments took place at Cabo Rojo NWR between November and December 2011 and 2012. We selected 18 groups for playback in each year. Field recordings of alarms were high-pass filtered at 350Hz and a noise reduction filter was used to remove sample-specific noise from playback stimuli (Baker and Logue 2007). One of three stimulus types (aerial alarm, terrestrial alarm or control) was played per trial in a predetermined order using a balanced design. Control stimuli were bursts of white noise of equal duration and amplitude to aerial (2011) or terrestrial (2012) alarms. Playbacks to each group were spaced 5 to 10 days apart. A stimulus was played after a 1min pre-trial observation period starting when: 1) at least one bird was perched atop a tree in an exposed position (2011); or 2) when 1.5m from the ground or lower (2012). Responses within 5s after playback were recorded. Trials were postponed for at least 1h if predators were detected within 500m or if birds were interacting with another group. We avoided playback to groups with chicks younger than 30 days of age and only included adult responses in our analyses.

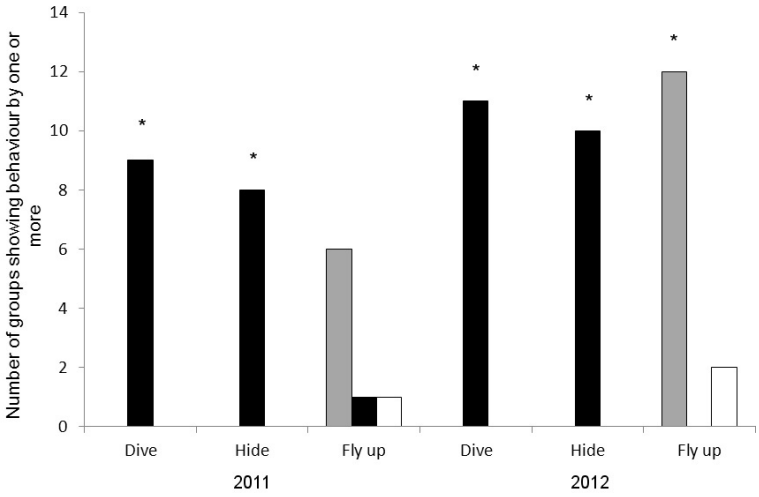

Figure 1. Responses of ani groups to aerial (black bars), terrestrial (grey bars) and white noise control (white bars) stimuli. Dives and hiding behaviours were seen only during aerial playbacks and responses marked by an asterisk (*) are significant at the 0.05 level (randomized G test).

Results

In 2011 anis dove for cover in response to 50% (9/18) of aerial, but never for terrestrial alarm playbacks or controls. In 2012 at least 1 focal bird flew up from a low position in 67% of terrestrial alarm playbacks (12/18) and dove or hid in 61% (11/18) of aerial alarm call playbacks (Figure 1). Anis respond appropriately to aerial alarm call playback both when perched high and exposed and when low to the ground. Birds that were already in trees (2011) often did not respond to terrestrial alarm playbacks, but usually flew up out of reach when they were near the ground when tested (2012).

Discussion

Anis use two distinct alarm types to refer specifically to aerial or terrestrial predators. They respond to these types adaptively even in the absence of a predator. The potential benefits of alarm signaling may help maintain the Smooth-billed Ani's unique social behaviour. This novel research direction will complement my research on ani breeding biology and together, these studies will provide insight into the evolution and maintenance of cooperative joint-nesting, group living and sociality.

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Information Exchange

Rusty Blackbird Spring Migration Blitz

Rusty Blackbirds have endured severe population declines. In 2014, the International Rusty Blackbird Working Group and its partners launched a three-year Spring Migration Blitz (http://rustyblackbird.org/outreach/migration-blitz/) that challenges birders to scour the landscape for Rusty Blackbirds during this species' northward migration. Year 1 was hugely successful, with 4750 birders submitting 13,400 checklists containing Rusty Blackbird observations. You can help Bird Studies Canada maintain this momentum by participating in Year 2 of the Blitz. Watch for Rusty Blackbirds passing through your area in late March and April. Please submit your sightings to eBird Canada (http://ebird.org/content/canada/) using the observation type "Rusty Blackbird Spring Migration Blitz." All Rusty Blackbird sightings are welcome, but whenever possible, please include the Areas of Interest for 2015 (http://rustyblackbird.org/outreach/migration-blitz/2015-areas-of-interest/) in your birding outings.

Vote for Canada's National Bird

Many people are surprised to learn that our country does not have an official national bird. Canadian Geographic wants to change that through their National Bird Project (http://www.canadiangeographic.ca/nationalbird/). Canadians are invited to vote for their favourite candidate, submit an essay, or suggest additional species for inclusion on the list.

Canadian Ornithological News

A Successful Great Backyard Bird Count

Bird Studies Canada was pleased to announce another successful Great Backyard Bird Count this year, despite very trying winter weather conditions in most of Canada. See details of the count at http://gbbc.birdcount.org/. Explore what's being reported with the new "Explore a Region" tool (http://ebird.org/ebird/gbbc/places). See what species have been observed and how many checklists are being turned in at the county, state/province, and country levels.

Documentaries on Songbird Declines

The documentary SongbirdSOS aired on March 19 on CBC's The Nature of Things. The documentary, narrated by David Suzuki, featured research on key threats causing migratory songbird declines in North America and featured insight from Canadian scientists Dr. Christy Morrissey (University of Saskatchewan), Dr. Erin Bayne (University of Alberta), and Dr. Bridget Stutchbury (York University, author of Silence of the Songbirds) on the human-made perils birds face. The documentary can be viewed online at http://www.cbc.ca/natureofthings/episodes/songbirdsos.

The Messenger (http://songbirdsos.com/), a related feature documentary, premieres on April 28 at the Canadian International Documentary Festival (Hot Docs), and will be coming soon to theatres across North America. The film documents threats to songbirds around the world and the efforts of ecologists and enthusiasts who are working for change.

Birds of North America Online Actively Revising Accounts

The Birds of North America Online is in the process of revision, with several revised accounts being published monthly. Revised accounts published in November were: Brown Thrasher, Cedar Waxwing, Lesser Scaup, and Northern Pintail. Revised accounts published in December and January were: Common Merganser, Double-crested Cormorant, House Wren, Pine Siskin, Red-breasted Merganser, and Whooping Crane. Revised accounts published in February were: Common Pauraque, Eastern Bluebird, and Snail Kite. See http://bna.birds.cornell.edu/bna/news/news-and-updates-to-bna-online for a full list of revised accounts since 2008.

Recent COSEWIC and SARA Reports on Birds

The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) released revised status reports for Western Grebe and Loggerhead Shrike (both subspecies) on December 15, 2014 and January 6, 2015, respectively. The reports can be viewed at http://www.sararegistry.gc.ca/search/advSearchResults_e.cfm?sType=doc&advkeywords=&startDate=&endDate=&docID=18&page=1.

The proposed federal management plans for Ancient Murrelet and Black-footed Albatross are under the 60-day comment period until April 27, 2015. To view the reports and make comments, access the Species at Risk Public Registry at http://www.registrelep-sararegistry.gc.ca/document/default_e.cfm?documentID=2723 (Ancient Murrelet) and http://www.registrelep-sararegistry.gc.ca/document/default_e.cfm?documentID=2724 (Black-footed Albatross).

The recovery strategy for the *migrans* subspecies of Loggerhead Shrike was released on February 19, 2015. The report can be viewed at: http://www.registrelep-sararegistry.gc.ca/document/default_e.cfm?documentID=948.

The action plan for the Magdalen Islands population of Horned Grebe was released on January 21, 2015. The report can be viewed at: http://www.registrelep-sararegistry.gc.ca/document/default_e.cfm?documentID=1259.

Announcements

Notice and Call for Papers

Joint 2015 meeting of the Association of Field Ornithologists, Society of Canadian Ornithologists/Société des ornithologistes du Canada, and the Wilson Ornithological Society

Acadia University, Wolfville, Nova Scotia, 16 - 19 July 2015

The Association of Field Ornithologists (AFO), the Society of Canadian Ornithologists / Société des ornithologistes du Canada (SCO-SOC), and the Wilson Ornithological Society (WOS) will hold their joint 2015 annual meetings at Acadia University, Wolfville, Nova Scotia (acadiau.ca/index.php), from **Thursday 16 July through Saturday 18 July**, preceded by council meetings. The WOS Council meeting will begin on Wednesday, 15 July and AFO and SCO Councils will meet on Thursday. Thursday afternoon will include an optional WOS-sponsored workshop on mentoring, and field trips are planned for Sunday 19 July.

Highlights of the scientific program include two plenary presentations, including the WOS Margaret Morse Nice Lecture, and two symposia. Dr. Erica Dunn, recipient of the 2015 WOS Nice Medal (http://www.wilsonsociety.org/awards/nicemedal.html), will give an opening plenary lecture on Friday, co-sponsored by the WOS and SCO-SOC, about the history and future of North American bird observatories. On Saturday, Dr. James Dwyer will open the day with an AFO-sponsored plenary lecture on non-breeding crested caracaras and the evolution of communal roosting. On Saturday afternoon, the societies will host two symposia, on "Successes and Challenges of Bird Conservation" and "Atlantic Canada and the Gulf of Maine: a Nexus for Migratory Birds." The former will convene as a contributed special session and panel discussion and submitted abstracts are welcome.

The **deadline for receipt of Abstracts by the Scientific Program Committee will be 10 April 2015**. Abstract submission will be online only; if all oral presentations are filled, it may be necessary to accept some abstracts for poster presentations instead of oral presentations. Please indicate if you are flexible in this regard. Abstracts for both oral and poster presentations will be reviewed by the scientific program committee who will select and organize presentations in appropriate sessions based on the scientific content of the abstract. We ask that participants **submit only one abstract as lead/presenting author**. Please contact Martin G. Raphael (mraphael@fs.fed.us), scientific program chair, with any questions about the program or submission process.

Registration for the meeting will be available through the conference website in **mid-March**. Early registration is $250 CAD for regular registrants and $125 CAD for students, and low-cost housing and meal options are available on the campus of Acadia University. For U.S. residents, the current US-CAD exchange rate is highly favorable, making the meeting expenses very reasonable. Registration rates will increase after 1 April and again after 1 June.

Nova Scotia is a wonderful place to visit. Tourism opportunities in connection with the conference abound. We encourage all ornithologists to join us in Wolfville! Post-conference field trips currently planned include bird- and whale-watching from Brier Island, a hike to Cape Split, and a bus tour of local wineries.

Any questions about local issues related to the conference should be directed to Dave Shutler (dave.shutler@acadiau.ca), chair of the local organizing committee. For more information about the WOS-sponsored mentoring workshop, please contact Ellen Paul (ellen.paul@verizon.net).

Key weblinks for the conference include the conference homepage (http://personalpress.acadiau.ca/ornithmeet2015/) and abstract submission (https://salveregina.formstack.com/forms/wos_annual_meeting_abstract).

In addition to the conference website, important announcements, up-to-date information, opportunities for roommate and ride sharing, and much more, can be found on the Ornithological Exchange at http://ornithologyexchange.org/forums/forum/254-ornithology-meeting-2015/.

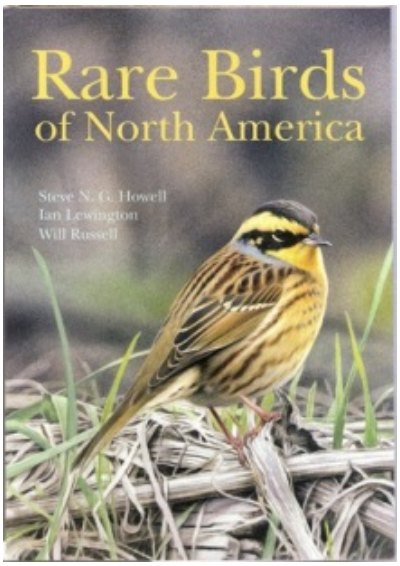
Environment Canada Seeking Volunteer Shorebird Technicians

VOLUNTEER SHOREBIRD TECHNICIAN Location: Remote locations along the James Bay coast, Ontario, Canada. Duration: Full-time volunteer position (40 hours/week) with a minimum 3-week commitment. Job Type: Technician Job Description: We are seeking 5-8 individuals to assist with field studies at shorebird field camps at remote locations along the James Bay coast in northern Ontario, Canada. We are collecting data to assist with the conservation of shorebirds staging at coastal zones along James Bay. Regular duties include conducting counts and behavioural observations of shorebirds, sampling of benthic invertebrates, assisting with camp chores, and depending on the site, trapping, banding and radio-tagging of shorebirds. Counts and sampling are conducted on foot and require walks of 10-20 km per day. Volunteers should expect to share in all camp-life tasks which may take as long as 2 hours per day (i.e., cooking, cleaning, collecting and filtering water). This is an excellent opportunity to gain additional field experience in a remote setting. This is a full-time volunteer position (40 hours/week) with a minimum 3-week commitment. Shared, rustic field housing is the only option, as participants are flown to remote camps via helicopter on a roughly 2-week rotation. All expenses are reimbursed up to $1,000 (CAD); travel to and from camps is covered. We are looking for volunteers to start mid-July 2015, with opportunities to participate until the late September, 2015. Maximum 4 weeks in camp. To Apply: Applicants will be screened, interviewed, and hired as applications are received. If interested, please send your (1) cover letter detailing any experience with shorebird ID, shorebird banding, telemetry work, invertebrate sampling, and living in remote situations, (2) resume and (3) contact information for 3 references to CHRISTIAN FRIIS (christian.friis@ec.gc.ca). Please send all documents in one pdf named: 2014_LastName.pdf. We thank all applicants for taking the time to apply, and regret that we can only contact successful candidates. Qualifications: The ideal candidate is a recent graduate with a BSc in a biology related field that has strong shorebird ID skills, is familiar with bird counting techniques, detail-oriented, responsible, motivated, and in good physical condition. Candidates must be comfortable working in remote situations, in shallow water, mud, and with biting insects. The field camps will be located along the Ontario coastline of James Bay, so participants must have good interpersonal skills and be comfortable sharing living quarters in a remote situation with a small, 3-4 person crew. Once at the camps, the ability to leave, outside of scheduled flights is difficult and expensive. Number of Openings: 5-8.

Book Review

Rare Birds of North America

By Steve N. G. Howell, Ian Lewingston, and Will Russell
Published in 2014 by Princeton University Press, Princeton, NJ. 444 pages.



Rare Birds of North America contains 262 species accounts and 275 colour plates. The authors define a "rare bird" as a bird species with five or fewer occurrences of individual birds per year in North America since 1950. I was surprised by the large number of rare species recorded in North America. First-time readers should read the How to Use This Book section and Introduction chapter to maximize the usefulness of the volume to the reader. How to Use This Book is used by the authors to explain the structure of the species accounts, what each section contains and does not contain and list eight key references that are not repeatedly cited throughout the book. How to Use This Book also contains very useful Abbreviations and Terminology and Geographic Terms sections. The bulk of the Introduction chapter discusses migration and vagrancy in birds. Effective illustrations strengthen the strong text in this section. In the vagrancy section, the authors clearly and fully explain false vagrancy and six types of vagrancy in birds: drift, misorientation, overshooting, dispersal, association, and disorientation. The authors next explain where vagrant birds come from. I had to take some time to study and understand the series of tables illustrating where each rare bird species comes from and where and when during the year the rare bird species were recorded in North America. The last section of the Introduction chapter covers topography, molt, and aging in birds. The first part of this section discusses topography, molt and aging applicable to all bird species followed by specific bird group situations. The text in both the Introduction and How to Use This Book sections is well-written and accurate. Having some basic understanding of ornithology would help readers to maximize their effective use of this book.

All species accounts are well-written, easy to read and free from errors. There are introductions to each species group (waterbirds, raptors, owls, etc.). Each species account contains the following sections: summary, taxonomy, distribution and status (global and North America), comments regarding published North American records of the species, field identification including similar species (where required), age/sex/season and habitat/behaviour. Species accounts contain abbreviated references in text excluding eight key references mentioned in the How to Use This Book section. These accounts are very good introductions to each of the rare bird species. The illustrations in the species accounts are large, accurate and contain handy labels. These illustrations are similar in outstanding quality to those found in the new edition of *The Sibley Guide to Birds*.

The book concludes with three appendices, a 13-page literature cited section, and a handy index of common names to help readers find species accounts easily. The first appendix contains short species accounts for three new bird species to North America observed between the fall of 2011 and the summer of 2012. The second appendix is a list of 27 species considered to hypothetically occur in North America and includes explanations for why these species are on this list. The third appendix is a list of bird species new to North America with documented records from 1950 to the fall of 2011 by year and US state (excluding Hawaii) or Canadian province or territory.

Given the book's many strengths and few weaknesses, I highly recommend *Rare Birds of North America* to any birder or ornithologist who encounters rare birds in North America.

Reviewed by Rob Warnock, e-mail: warnockr@accesscomm.ca

SCO – SOC Information

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(Non-voting) Past Presidents:

Ross Lein	1983-1986	Henri Ouellet	1994-1996	Charles Francis	2004-2006
Spencer Sealy	1986-1988	David Nettleship	1996-1998	Susan Hannon	2006-2008
Erica Dunn	1988-1990	Tony Diamond	1998-2000	David Bird	2008-2010
Jon Barlow	1990-1992	Kathy Martin	2000-2002	Erica Nol	2010-2012
Bruce Falls	1992-1994	Jean-Pierre Savard	2002-2004	Joe Nocera	2012-2014

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 international)
Sustaining	$50.00/year
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 edits for the website, contact Hazel Wheeler at hazel.wheeler@gmail.com.

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; issues are typically published 3-4 weeks later. Please send all submissions to Rob Warnock at warnockr@accesscomm.ca.

Disclaimer:

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