

FALL 2014 - ERS 375

The Bird Course: birds in ecology, social sciences and the humanities



Plate 201 of Birds of America by John James Audubon depicting Canada goose. Louisiana 1825.

COURSE INFORMATION

Term/year: Fall 2014

Professor: J. Cristóbal Pizarro

Contact: Email jcpizarr@uwaterloo.ca

Lectures & Tutorials:

RCH-106 Wednesdays, 2.30-3.30pm
Fridays, 2.30-4pm

Office hours:

EV2-2036 Thursdays, 2.30-4.30

Enrolment capacity

25 students

Hawk-watching field trip, estimated fee \$20

Materials required: Sketch/note book and Binoculars (see below for more details).

Introduction

Birds, as probably no other animal group, have been capturing the attention of human beings since ancestral times in almost every known culture and biome on earth; from the isolated Sub-Antarctic region to the most populated cities in North America. Advocating for their study, humans have developed “knowledges” of birds from different perspectives, including studies and applications from specific sub-disciplines of sciences (ornithology, ethno-ornithology) and the arts and humanities. In spite of this broad interest for birds, few interdisciplinary courses on birds are taught in other academic institutions in the world (probably one in Oxford), so you have the novel opportunity to join such a course at the University of Waterloo.

Course scope and audience

ERS 375 is a “reflexive” course, meaning that it is envisioned for students who want to closely connect previous and new knowledge to first-hand field experiences. It explores different aspects of birds, including perspectives from **three biocultural lenses: natural sciences, social sciences and the humanities**. It is intended for third and fourth year ERS undergraduates, and graduates, including students from other disciplines and faculties, who have a keen interest for birds and wildlife. Specifically, this course covers “bird basics” from biology, ecology, anthropology, geography, visual arts and literature. These perspectives will be amalgamated to critically assess practical issues for bird conservation,

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cultural studies, birdwatching and visual arts and literature. It has theoretical and hands-on participatory learning activities, integrating the three lenses. Lectures cover the main course topics and are prepared for a broad audience; however, lectures will mainly rely on expected participation involving student-directed discussions. At the same time, field experiences and term projects are designed so each student can deepen their own interests and improve skills, especially critical thinking and observation. This course is highly recommended for students pursuing careers/research in topics such as bird conservation, environmental education, human-animal studies, nature and artwork, birding, or leisure and recreation.

Learning innovation

This course will help students to learn basics about birds from the perspective of three biocultural lenses, practicing **natural history**, integrating scientific inquiry, ecological thinking and artwork and using specific novel methodologies such as **ethical birding** (Rozzi et al. 2010). This course also contains several field trips to conduct diverse outdoors birdwatching experiences. Field trips will include, bird identification workshops on Campus and Columbia Lake area. Student's bird interest/knowledge will be surveyed during the first class to calibrate course topics and activities to meet student/instructor expectations. Evaluations include short assignments, a midterm, classroom participation and a term project.

Three guest lecturers



Maca Suazo, MA - Birds and art.

Maca has been interested in the artistic expression of emotion, movement and essence through the media of painting, literature and drama. She holds a diploma in Physical Theatre from La Mancha International School of Gesture and Image, in Santiago, Chile. Since immigrating to Canada, she has increasingly dedicated herself to Visual Arts. She has exhibited and sold her work in Chile, Ireland and Canada. Maca graduated from Fine Arts at the University of Waterloo and completed her Master of Arts at the University of Guelph.



Paul Kay, PhD – Birds, their names and meanings in the literature and human life

Paul was a teaching member of ERS for 20 years, including five as department chair. His research considered climate variability and change, and water resources management under conditions of uncertainty and scarcity. Not being strictly left-brained, he delighted in offering the elective course *Nature: Art, Myth, Folklore*. Since retirement in 2013, he is enjoying the pursuit of greater proficiency in birding and photography.



Virgil Martin, BIS – Changing soundscapes

Virgil is a Planning Information Specialist at the Regional Municipality of Waterloo. He grew up in St. Jacobs and has an Independent Studies degree from the University of Waterloo (1991), where he researched the origins and evolution of local woodlots. He is the author of two books: *The Early History of Jakobstettel* (1978) and *Changing Landscapes of Southern Ontario* (1988). In addition to landscape photography, he has had a life-long interest in birds—both watching and listening! His penchant for combining historical geography and natural history is reflected in various articles, chapters, and presentations on local flora and fauna.

The Canada goose and other feathered allies. One of the main characters of this course will be “our” charismatic, but all too often problematic, Canada goose. The goose will be our model species to study several of the topics of this course, including social perceptions, wildlife/human conflicts, literature and art work. Other species may consist of birds that can easily be found on UW campus and the surrounding community, including Columbia Lake and UW North Campus



Canada goose's goslings

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area. These birds may include species such as the American crow, black-capped chickadee, red-tailed hawk, blue-jay, several “sea” gulls, and great blue heron.

Instructor's expectations



First and foremost, I hope students really enjoy this course. I think that careful preparation for each lecture and tutorial holds the key to achieve that. Preparation simply includes doing assigned readings, bringing your required materials, and **formulating questions in advance for each class/group discussions** (see evaluation, class participation). Please use your skills/previous knowledge to help advance class topics and discussion; do not be afraid to express your own thoughts. I encourage you to be open-minded by engaging in discussions and conversations that you may find outside of your “comfort zone.” Use my office hours, which is time set apart from my schedule just for you.

Course materials, text books and other resources

No specific materials are mandatory for this course other than a *paper notebook/ sketch book* that each student will use as a personal journal. We will be using an identification field guides for birds of Eastern North America or North America and a pair of binoculars (8X42 or similar) during birding field trips (see a good review about field guides [here](#)). You can borrow those materials from the ecology lab located in EV1-135 using your Watcard (ensure availability in advance by emailing env.ecology@uwaterloo.ca). Several other field guides/books are available at UW Library system. Weekly readings, activities instructions, discussion topics and other materials will be posted on LEARN.

Learning objectives

1. Learn and manage basic information about bird biology and ecology, including notion of birds' behavior, migration and their habitats.
2. Understand the relevance of birds for human life, material and symbolic culture and history, through literature, visual arts, and other cultural representations.
3. Improve bird identification skills depending on initial personal experience/knowledge of bird species and their habits, with a specific focus on Southern Ontario.
4. Analyse different bodies of knowledge about birds and critically integrate them into research, art expression or representation.
5. Evaluate bird practices and activities applied to nature conservation, recreation, social cohesion and cultural integration.
6. Co-create a source of collective knowledge on birds through collaboration on class discussion, collection of terms reflections in learning activities, such as glossaries and discussion forum.
7. Develop a practical outcome to bird knowledge, conservation and/or community environmental engagement.

Learning activities

Lectures are weekly short, theoretical classroom expositions followed by a broad discussion based on readings and topics. Lectures are about one hour, but their length may be variable depending on the duration of the tutorials/fieldtrip.

Tutorials are weekly practical sessions, including **field trips and workshops**. Field trips are outdoor learning experiences to practice bird observation, field ethnographic observations and drawing, among others. There is one long-distance Saturday field trip (See schedule on WEEK 7, Hawkcliff). I estimate a **transportation fee of \$20 per student for that field trip**. Workshops are a combination of theoretical lessons and outdoor activities. During workshops, students will

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conduct independent fieldwork for their term project after a brief meeting with the instructor. Field trips and workshops are **mandatory**.

Term projects (TP) will be an individual or small group (2 to 3) student project. It comprises a final paper (or other similar outcome) and an oral presentation. The TP's topic and the final outcome can be agreed between the students and the instructor during office hours, early in the term (see schedule). TP is a process, meaning that, it will be gradually developed through the course of the term in different steps, including **(a) main idea, (b) research question/thesis, (c) short project proposal and references, (d) final paper and (e) presentation**. Some examples of term projects include pilot (natural or social science) research, assessments, essays, literature review or art work. Each component has to be submitted in a text file (MS word compatible) on LEARN through the TP **dropbox**. Deadlines for submissions are indicated in the schedule bellow. I will provide feedback by email or in person during office hours the following week. The **main idea** component will be written in a format of a short report of 1 page long (single line space), and it will contain a general idea of what research/project would entail. **The research question(s)/thesis** will be a short paragraph stating the question, thesis or hypothesis. The question will be inserted bellow the updated text of the main idea in a new document (max. 2 pages). **Short project proposal plus references** will be the main idea or background of the project followed by the main research question and a proposed methodology, timeline, and a short paragraph of expected results/outcomes. The proposal will need the support of 5 to 10 bibliographical references. This proposal does not have to be longer than 5 pages, excluding references. The final paper might include all previous sections, in addition to results, discussion and final remarks sections. We can agree on alternative models of term projects for art or literature projects in a case-by-case fashion. Some suggested topics would be, for example, a pilot bird conservation project (e.g., focused in local conservation area or urban park), a study of human perceptions of, and attitudes toward Canada Geese, or an examination of the role of birds in literature and art. Before the submission of **Short project proposal plus references**, I set a TP week early in October (week #6) free in the schedule for student to conduct independent work on their project. The standard references style for the course will be APA.

Participation. The main purpose of the course is that students can actively participate during the course. There are two modalities of participation: **in-class** and **on-line**. In-class participation involves engaging in debates, asking questions, and actively listening during lectures and fieldtrips (see rubric chart below). The on-line participation includes three components that can be uploaded on the designated discussion forum on LEARN; they are **(1) anticipated questions (AQ)** on readings, **(2) personal reflections (PR)** about fieldtrips, and contributions to the **(3) Glossary** of the course. The objective of these learning activities is to provide the student with a space for self-reflection and anticipated contributions to classroom discussion and further development of the course. I also expect that students are able to integrate ideas and concepts in their writing, accomplishing learning objectives 4 and 6.

Specifically, **AQ** and **PR** are expected in two kinds of situations: 1) **AQ** before class about assigned reading or film, and 2) **PR** after field trips or workshops about personal experiences. The format of personal reflection will be in a short report of 200-300 words or *revised piece of free writing*. In the same manner, I also expect students can independently collect (unfamiliar or unknown) words and terms (and their definitions) from assigned readings or films for the course **glossary**. Students must submit using LEARN a list of one or two definitions from the readings before the corresponding lectures (See schedule). The main idea of the Glossary is to build a collective vocabulary for the course, and inspire others with interesting concepts for further studies. I expect that each student will be able to upload one posting of either **AQ**, **PR** or **Glossary** posting on the class' discussion forum on LEARN as much as once per week and **at least 4 times during the term**. To avoid heavy loads of postings at the end of the term, I will seek for volunteers each week or assign students randomly. I will give you feedback and mark each posting, and finally select the top 4.

Submissions and lateness penalty

TP **components** will be submitted electronically to a **LEARN drop boxes**. Likewise, participation **contributions** will be posted on **LEARN discussion forums**, unless otherwise specified in assignments instructions. Contributions and components submitted in a different format than specified in the instructions above will not be accepted.

TP components are due on the date set in the outline by me. Contributions have to be posted before the next class' day by 10 am. The first day a component is late brings a 20% penalty. An additional 20% penalty is assessed for an additional late day. A student's assignment more than 2 days late will not be accepted. Please, contact me (by email) immediately if you are going to miss a deadline due illness or family issues.

Evaluation

Participation: in-class (10%) and (10%) online. Students are responsible to prepare for lectures and tutorials, interact with peers and guest lecturers. They are also responsible for the submission of online participation components (AQ, PR, and Glossary terms) on LEARN. Participation marks will be evaluated using a 4-levels rubric (From A to F) for **peer interaction, preparation, group dynamics** and **contributions** during the entire term. Becoming an active student by making effective comments, asking questions, and engaging your peers in discussion will contribute to your final mark. Please consider that quantity does not replace quality, and I will consider participation marks during the entire course of the term. In that regard, I highly encourage to all students to use my office hours to check about their progress and areas of improvements in terms of participation.

Midterm (25%) will be a short quiz evaluating more theoretical material from three biocultural lenses of the course.

Terms project final paper (40%) will be from 10 to 15 pages long including references. The format may vary from an essay to a scientific journal article. In both cases, be aware of proper structure and objective/thesis statements and, of course, academic integrity issues (see below). Students pursuing visual arts and literature term projects must present art work inserted in a general but complete report. The final paper and other term project activity are expected to be discussed early in the semester with the instructor. The delivery of previous pieces of work (main idea (5%), research question (5%), research proposal (10%)) will contribute to the 50% of the final mark of the project (20% overall).

Terms project presentation (15%) involves 15 minute oral presentation accompanied by a visual aid (i.e. slide-show or other visual materials).

In-Class Participation Rubric (Modified from website *Teacher Professor*, 2005)

Component	A	B	C	D
Peer Interaction	Actively supports, engages, and listens to peers	Makes a sincere effort to interact with peers	Limited interaction with peers	Virtually no interaction with peers
Preparation	Arrives fully prepared at every class session	Arrives mostly, if not fully, prepared	Preparation is inconsistent	Rarely or never prepared
Participation	Plays an active role in discussions	Participates constructively in discussions	When prepared, participates constructively in discussions	Comments vague if given; frequently demonstrates lack of interest
Contribution to Class	Comments advance level and depth of dialogue	Relevant comments are based on assigned material	When prepared, relevant comments are based on assignments	Demonstrates a noticeable lack of interest on occasion
Group Dynamics	Group dynamic and level of discussion are often better because of student's presence	Group dynamic and level of discussion are occasionally better, but not worse, because of student's presence	Group dynamic and level of discussion are sometimes disrupted by student's presence	Group dynamic and level of discussion are often disrupted by student's presence

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Important! You may negatively affect your in-class participation grade by:

- Not attending class, even though you may have submitted assigned work. No attendance = no marks
- Disrupting or dismissing others' opinions and opportunities to listen and participate in class. Participation ≠ competition
- Making offensive or disrespectful comments during discussions. Be fair with the opinions of your peers, and be aware of gender, ethnic and religious issues.
- Excessively using electronic devices for personal or other issues different to coursework during class

COURSE SCHEDULE

Week	Date	Learning activity	Location	Activity	Due dates / Guest lecturers /Readings/materials
1	Sept. 10	Welcome Lecture: Introduction to the world of birds	Classroom	Discussion: A happy medium - recalibrating expectations	Course outline (Please read in detail)/ Rozzi et al., 2010 Notebook / Journal
	Sept. 12	Field trip #1. Observing birds	UW campus.	Brief introduction about E-bird followed by bird identification practice on campus	Binoculars, birds guides, journal Homework – participating online
2	Sept.17	Lecture 1: Lens #1. Ornithology: Bird Biology and Ecology	Classroom	Group discussion: Science without birds	Homework due 11am Gill 1995. Ch1 Birkhead et al. 2014. Ch. 1 and 4
	Sept. 19	Workshop #1 Observing birds II.	Columbia Lake	Designing term project & Birding	Select between groups or individual projects Binoculars, birds guides, journal
3	Sept. 24	Lecture 2: Lens #2. Ethno-ornithology: Birds and social science	Classroom	Group discussion: Ethno-ornithology	Moller and Kitson 2009; Lyver and Moller.2010.
	Sept. 26	Field trip #2 Canada Goose in UW campus	UW campus	Canada geese observation, drawings and self-reflections	Binoculars, birds guides, sketch books, digital recorder, other materials. UW geese article and video http://cstv.uwaterloo.ca/tag/geese http://mathnews.uwaterloo.ca/issues/mn1_1001/geese.php
4	Oct. 1	Lecture 3: Lens #3 Birds in Art & Science	Classroom	Art history lecture	Main Project idea due Film – John James Audubon: The Birds of America (1986) http://archive.org/details/gov.archives.arc.55178 Field guides paper / Apps Journal -- Sketchbook
	Oct. 3	Field trip 3 Outdoor reading	Waterloo Park	Art work workshop Discussion about selected poems & Birding	Pablo Neruda, 1985 The arts of birds selected poems - The condor - Penguin
5	Oct. 8	Library session (2.30-3pm) Mandatory	Classroom	Developing research Skills	Research question due Fees due for Long-distance field trip activity

		Lecture 4: Lens #1 revisited. Birds ecology, habitat and migration		Birds with multiples homes	Film: http://gulfcrossingmovie.com (Cotton, 2003; Rioux Paquette, Pelletier, Garant, & Belisle, 2014)
	Oct. 10	Workshop 2: Crafting term projects	Classroom	Term Project Q&A Group Work	Term project materials
6	Oct. 15	Independent study week Term projects	Classroom	Students independent work	Term project materials
	Oct. 17	Independent study week Term projects	Classroom	Students independent work	Term project materials
7	Oct. 22	Lecture 5: Birding	Classroom	Group discussion: Birdwatching, twitching or listing?	Research proposal due Film. The Big Year (2011). Rare birds (2002) Scott and Lee (2010)
	Oct. 25	Long-distance Field trip, e.g., Hawk-watching	E.g., Hawk cliff, Union, ON	Hawk-watching	Saturday tutorial - Term project materials http://www.ezlink.ca/~th ebrowns/HawkCliff/
8	Oct. 29	Lecture 6: Lens #2 revisited. Birds names and cultural meaning in the literature	Classroom	Activity (1) Find colloquial or local names for a few bird species; and (2) suggest (and explain) names, in the manner that Terry Tempest Williams talks about.	<i>Guest Lecturer: Paul Kay Williams. 1984.</i>
	Oct. 31	Workshop: Perceiving the change with birds	UW campus	Group discussion	<i>Guest Lecturer: Virgil Martin</i>
9	Nov. 5	Midterm	Classroom		
	Nov. 7	Workshop #3: Bird Diversity and Conservation	Classroom	Midterm and participation review.	(Butchart, Walpole, & Collen, 2010; Hoffmann et al., 2010)
10	Nov. 12	Lecture 9: Lens #3 revisited. Birds in art and science	Classroom	Group discussion: Representing birds	<i>Guest lecturer: Maca Suazo</i>
	Nov. 14	Workshop #4: Art workshop	Classroom	Brief meeting and Independent field work	Term project materials. Finals details of term projects Sent early draft: optional
11	Nov. 19	Lecture 10 : Revisiting the 3 lenses -Bird Conservation	Classroom	Group discussion: Synthesis	(Lerman & Warren, 2011)
	Nov. 20	Lecture 11: Revisiting the 3 lenses- Main conclusions	Classroom	Students presentations	Final paper due No assigned readings– Course Glossary
12	Nov. 26	Term project #1 presentations 1	Classroom	Students presentations	No assigned readings
	Nov. 28	Term project #2 presentations 2	Classroom	Students presentations	No assigned readings

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Course communication:

- By LEARN: lessons, readings, announcements discussion forums, and dropboxes
- Office hours (you don't need an appointment), or via official uwaterloo email.
- Time conflicts with other courses: obtain a signature from the other instructor on a "resolution of conflict form"

Assistance for students with special needs

If you require special assistance, please ensure that the instructor is aware of your needs through the Office for Persons with Disabilities (<http://www.studentservices.uwaterloo.ca/disabilities>).

About Academic integrity and Academic Offences

Please read the following statements from ENV Faculty:

"A student is expected to know what constitutes academic integrity, to avoid committing academic offenses, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offense, or who needs help in learning how to avoid offenses (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offenses and types of penalties, students should refer to Policy 71 - Student Discipline, <http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm>"

"Within ENV, those committing academic offences (e.g. cheating, plagiarism) will be placed on disciplinary probation and will be subject to penalties which may include a grade of 0 on affected course elements, 0 on the course, suspension, and expulsion. Students who believe that they have been wrongfully or unjustly penalized have the right to grieve; refer to Policy #70, Student Grievance, <http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm> "

REFERENCES

- Birkhead et al. 2014. Chapter 1. *Yesterday birds*. In: Ten Thousand Birds. Ornithology since Darwin. Princeton University Press.
- Birkhead et al. 2014. Chapter 4. *Ecological Adaptation for Breeding*. In: Ten Thousand Birds. Ornithology since Darwin. Princeton University Press.
- Butchart, S., Walpole, M., & Collen, B. (2010). Global biodiversity: indicators of recent declines. *Science*, 328(May), 1164–1168. Retrieved from <http://www.sciencemag.org/content/328/5982/1164.short>
- Cotton, P. A. (2003). Avian migration phenology and global climate change. *Proceedings of the National Academy of Sciences of the United States of America*, 100(21), 12219–22. doi:10.1073/pnas.1930548100
- Hoffmann, M., Hilton-Taylor, C., Angulo, A., Böhm, M., Brooks, T. M., Butchart, S. H. M., ... Stuart, S. N. (2010). The impact of conservation on the status of the world's vertebrates. *Science (New York, N.Y.)*, 330(6010), 1503–9. doi:10.1126/science.1194442
- Gill, F.B. (2006). *Ornithology*. 3rd Revised edition. W.H. Freeman & Company. 795 pp.
- Lerman, S. B., & Warren, P. S. (2011). The conservation value of residential yards: linking birds and people. *Ecological Applications*, 21(4), 1327–1339.
- Lyver and Moller. 2010. *An alternative reality: Maori Spiritual guardianship of New Zealand*. In *Ethno-ornithology*. Tideman and Gosler (ed) Earthscan

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Moller, H. and Kitson, J.(2009): Knowing by doing: learning for sustainable muttonbird harvesting, *New Zeal. J. Zool.*, 36(3), 243–258.

Neruda P. 1985. *The Art of Birds*. 1st ed. The Texas Pan American series. Austin : University of Texas Press. 8 7p

Rioux Paquette, S., Pelletier, F., Garant, D., & Belisle, M. (2014). Severe recent decrease of adult body mass in a declining insectivorous bird population. *Proceedings of the Royal Society B: Biological Sciences*, 281, 20140649.

Retrieved from <http://rspb.royalsocietypublishing.org/content/281/1786/20140649.short>

Rozzi, R., Anderson, C. B., Pizarro, J. C., Massardo, F., Medina, Y., Kennedy, J. H., ... Kalin, M. T. (2010). Environmental philosophy and biocultural conservation at the Omora Ethnobotanical Park: methodological approaches to broaden the ways of integrating the social. *Revista Chilena de Historia Natural*, 83(S), 27–68.

Scott D and Lee J-H. 2010. Progression, Stability, or Decline? Sociological Mechanisms Underlying Change in Specialization Among Birdwatchers. *Leis Sci* 32: 180–94.

Williams, TT. 1984. "A bouquet of feathers bound by yarn", in *Pieces of White Shell*, pp. 61-73.

Additional readings and other interesting resources

I include this list of resources available only for giving you some ideas what topics can be interesting to address for term projects. Note that Waterloo and Kitchener Public Libraries have also very interesting books and materials available.

Books

Culture and Birds

Tidemann S., Gosler, A. 2010. *Ethno-ornithology. Birds, Indigenous Peoples, Culture and Society*. Earthscan. London and Washington D.C.

Ingersoll, E. 1923. *Birds in legend, fable and folklore*. Longmans, Green and Co. New York.

Cocker M, Tipling D. 2013. *Birds and People*. The Random House Group. London

Lynn Haupt, L. *Crow Planet: Essential Wisdom from the Urban Wilderness*. Little Brown Co. NY and London

Marzluff, JM, T.Angell. 2005. *In the Company of Crows and Ravens*. Yale Univeristy Press.

Literature/poetry

Kaufman K. 2006. *Kingbird Highway. The biggest year in the life of an extreme birder*. Houghton Mifflin Company, Boston.

McKay D. *Vis a Vis. Field notes on poetry & Wilderness*. Gaspereau Press. 2001.

Film/Music

Cluzaud, Jacques (Director) *Winged Migration* (2003)

Hitchcock, Alfred (Director) *The Birds* (1963)

Kimball, Jeffrey (Director) *Birders: The Central Park Effect* (2012)

Messiaen, Olivier. *Réveil des oiseaux ("Dawn chorus")*, solo piano and orchestra (1953)

Oiseaux exotiques ("Exotic birds"), solo piano and orchestra (1955–56)

Catalogue d'oiseaux ("Bird catalogue"), piano (1956–58)

Websites Ornithology/Birding

Ebird <http://ebird.org>

Ebird Canada <http://ebird.org/content/canada/>

Birds Studies Canada <http://www.bsc-eoc.org/>

Ontario Field Ornithologists (OFO) www.ofo.ca

The Cornell Lab of Ornithology <http://www.allaboutbirds.org/Page.aspx?pid=1189>