# **CURRICULUM VITAE**

(Unabridged version, 4 July 2024)

# STÉPHAN REEBS

Birth: Nicolet, QC, Canada, October 1961. Raised on a dairy farm.

Citizenship: Canadian.
Written and spoken languages: French, English.

Current position : Professor of Biology, Département de biologie, Université de Moncton.

(Assistant 1991, Associate 1996, Full 2001.)

Current address: Département de biologie

Université de Moncton

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#### **EDUCATION:**

BSc: Years: 1980-83.

University: Université Laval (Biologie), Quebec City.

Grade average: 4.9 / 5.0.

Honours thesis: Diel patterns of fanning activity and nocturnal behaviour of parental

sticklebacks in the field.

Supervisor: Dr. Gerry FitzGerald.

MSc: Years: 1983-85.

University: University of Alberta (Zoology), Edmonton.

Thesis: Ecological aspects of sleep in black-billed magpies.

Supervisor: Dr. David Boag.

Financial support: NSERC Centennial (1967) Scholarship.

PhD: Years: 1985-89.

University: University of Toronto (Zoology), Toronto.

Thesis: Effects of nonphotic factors on the circadian system of house

sparrows and Syrian hamsters.

Supervisor: Dr. Nicholas Mrosovsky.

Financial support: NSERC Centennial (1967) Scholarship, U of T's Ramsay Wright

Scholarship.

Post-doc: Years: 1989-91.

University: Queen's University (Biology), Kingston.
Research: Nocturnal parental care in convict cichlids.

Supervisor: Dr. Patrick Colgan.

Financial support: NSERC Postdoctoral Scholarship.

# **TEACHING**

#### **COURSES TAUGHT:**

1990: Biology Department, Queen's University.

BIO 307 Field Ichthyology (only once)

1991-present : Département de Biologie, Université de Moncton.

BIOL 1111 Travaux Pratiques de Biologie Générale I BIOL 1211 Travaux Pratiques de Biologie Générale II

BIOL 1133 Anatomie et Physiologie Humaine I BIOL 1233 Anatomie et Physiologie Humaine II BIOL 2233 Physiologie Humaine II (only once)

BIOL 2363 Zoologie des Vertébrés

BIOL 3633 Concepts de Physiologie Animale Comparée I

BIOL 3363 Ornithologie

BIOL 4633 Concepts de Physiologie Animale Comparée II (in part)

BIOL 4393 Évolution

BIOL 6183 Lecture Dirigée: Savoir-faire Scientifique

BIOL 6313 Évolution de la Pensée Scientifique (only once)

BIOL 6323 Séminaire en Écologie (only once)

BIOL 6383 Séminaire en Écologie du Comportement

BIOL 6972 Séminaire en Physiologie Animale (only once)

FSCI 1003 Introduction aux Études en Sciences (only once)

# **AWARDS**:

- Teacher of the Year Award, Université de Moncton, 2006.
- Bernard Vanbrugghe Award for Excellence in Science Teaching, Université de Moncton, 2006.

#### TEACHING EVALUATION BY STUDENTS:

<u>Course</u>	N students	N years	<u>Score</u>
BIOL 1133 Anatomie et Physiologie Humaine I	100-190	27	3.8 / 4
BIOL 1233 Anatomie et Physiologie Humaine II	63-134	26	3.9 / 4
BIOL 3633 Concepts de Physiol. Anim. Comp. I	18-60	26	3.8 / 4
BIOL 4393 Évolution	6-42	16	3.8 / 4
BIOL 3363 Ornithologie	25-50	4	3.8 / 4
BIOL 2363 Zoologie des Vertébrés	36-45	4	3.9 / 4
BIOL 2233 Physiologie Humaine II	131	1	3.6 / 4
FSCI 1003 Introduction aux Études en Sciences	135	1	3.8 / 4

# SOME COMMENTS RECEIVED ALONG WITH THE TEACHING EVALUATIONS:

#### BIOL 1133-1:

Enseignant exceptionnel. Cours très bien organisé and intéressant. Beaucoup d'applications pratiques. Bien clair des attentes and des objectifs. Meilleur prof que j'ai eu dans mes 13 années d'études.

Très bon prof! Bien organisé and connait sa matière. Il stimule l'intérêt des étudiants and il rend notre apprentissage le fun. Prof très compétent, bonnes techniques d'enseignement. Prof idéal, prof modèle.

M. Reebs est une perle rare parmi les enseignants à l'U de M. Durant mes années d'études ici, je n'ai jamais eu un prof aussi stimulant (qui donne le goût d'apprendre).

#### BIOL 1233-1:

Je n'ai pas l'habitude d'écrire des commentaires mais j'ai vraiment envie que M. Reebs sache qu'il est un très bon professeur and que je m'aurais décourager / le plan de carrière s'il n'avait pas bien enseigné le cours au premier and deuxième semestre. Si je pouvais prendre tous mes cours de bio avec M. Reebs d'ici la fin de mon bacc, je le ferais. Merci beaucoup!

J'ai vraiment aimé la manière dont le prof enseignait. C'était le cours le plus intéressant. Quand il n'avait pas la réponse aux questions, il les trouvait and nous les donnait au prochain cours.

Super de bon prof. Il rend le cours très intéressant and simple.

Le professeur Stéphan Reebs est un des meilleurs enseignants que j'ai eu pendant toute ma scolarité. Non seulement est-il toujours intéressé dans sa matière, mais il réussit à transmettre un enthousiasme extraordinaire aux étudiants aussi. Une espèce rare.

#### BIOL 2233:

C'est le meilleur prof à l'Université de Moncton.

De mon expérience à l'Université de Moncton, cet enseignant a été le meilleur que j'ai eu.

Meilleur prof à l'Université de Moncton!! Si j'étais certain de suivre tous mes cours en biologie avec Reebs, je changerais de domaine de nutrition à biologie!

M. Reebs est un super bon prof de biologie. Tu vois clairement qu'il est passionné de sa matière and qu'il la connaît un peu comme le fond de sa poche. Il est drôle également. Il donne des exemples des fois humoristiques, alors on se souvient plus de ces exemples. Il est très à l'aise à enseigner and il nous met à l'aise quand nous avons des questions à lui poser! Je trouve que les exercices qu'il donne avant l'examen sont très utiles. Ça m'aide beaucoup lors de mes études. Si j'avais su qu'il était si bon que ça j'aurais voulu l'avoir comme prof avant.

#### BIOL 2363:

Un prof fantastique!! Un cours extrêmement bien organisé et intéressant.

Je ne crois pas qu'il pourrait y avoir des changements pour améliorer le cours, jusqu'à date, c'est le cours le plus organisé que j'ai suivi et Stéphane veut vraiment que tous ses étudiants réussissent.

Reebs permet aux étudiants de visiter son bureau lorsque sa porte est ouvert, ce qui permet de le visiter beaucoup plus, pas seulement dans les heures allouées. Il est attentif et très connaissant sur la matière.

#### BIOL 3363:

M. Reebs est un excellent professeur. Ses notes de cours sont très bien structurées and son enseignement est dynamique and stimulant.

Enseignement de qualité, si tous mes enseignants étaient comme vous, mon bacc aurait été beaucoup plus intéressant. Votre cours est très intéressant and utile. Les notes de cours sont bien structurées and plus faciles à étudier.

C'est la première fois que je prends un cours de biologie and que je suis aussi intéressé par son contenu. Étant un étudiant en éducation avec majeure en biologie, j'aime toujours observer le côté pédagogique du cours. Je dois admettre que ton enseignement est très bien. Tu donnes la chance aux étudiants de participer, tu poses des questions. Bravo! Continue. J'aime aussi le fait que tu donnes de bons exemples qui nous aident à comprendre la matière.

#### BIOL 3633:

C'est un des meilleurs profs que j'ai jamais eu and ça fait longtemps. Il est clair, intéressant and a une manière de présenter les choses pour que ça capte l'attention de son auditoire. Il connait très bien sa matière and c'est évident qu'il adore ce qu'il fait. On a besoin de plus de profs comme lui.

Cours très intéressant, car le professeur sait le rendre intéressant en utilisant des exemples pertinents, comiques. J'ai bien apprécié votre enseignement à cause de vos exemples, mais aussi parce que vous savez comment vous exprimer pour qu'on puisse comprendre le mieux possible la matière. Continuez.

Très disponible. Facile d'approche, dialogue. Notes de cours très bien faites et qui retiennent l'attention grâce aux parties que l'on doit remplir nous-mêmes. Très intéressant.

#### BIOL 4393:

Cours très intéressant et l'attitude de Stephan est très agréable. Malgré la lourdeur de la charge de cours, les résumés en classe sont détendus, éducatifs et ressemblent à une histoire avec toutes les anecdotes. J'aime aussi le format unique des examens, il me semble que je retiens mieux de cette façon.

Excellent cours. Les connaissances que j'ai acquises sur l'évolution ont certainement changé ma façon de voir la nature et le monde qui nous entoure.

#### **DEVELOPMENT OF TEACHING MATERIAL:**

These class notes completely cover the material, include problems, and show all exam questions from previous years (to familiarize students with my exam style and to offer a tool for self-testing, even though this forces me to write new exams every year).

- Reebs, S.G. Notes de cours d'Ornithologie. Université de Moncton. First written in 1991; revised and expanded 1993, 1997, 2018, and 2021 (173 pages). Mandatory for students of BIOL3363.
- Reebs, S.G. Notes de cours de Savoir-Faire Scientifique. Université de Moncton. First written in 1991; revised 1992, 1994, and 2009 (15 pages). Mandatory for students of BIOL6183.
- Reebs, S.G. Notes de cours de Physiologie Animale Comparée I. Université de Moncton. First written in 1992; revised and expanded 1993, 1996, 2000, 2008, 2016, and 2021 (228 pages). Mandatory for students of BIOL3633.
- Reebs, S.G. Notes de cours d'Anatomie and Physiologie Humaine I. Université de Moncton. First written in 1995, revised and expanded 1996, 1998, 1999, 2008, 2016, and 2021 (154 pages). Mandatory for students of BIOL1133-1 and BIOL1143-1.
- Reebs, S.G. Notes de cours d'Anatomie and Physiologie Humaine II. Université de Moncton. First written 1996, revised and expanded 1999, 2008, 2017 and 2022 (157 pages). Mandatory for students of BIOL1233-1 and BIOL1243-1.
- Reebs, S.G. Notes de cours d'Évolution. Université de Moncton. First written 2009, revised 2011, 2015, and 2021 (147 pages). Mandatory for students of BIOL4393.
- Reebs, S.G. Science et pensée critique. Completed 2020, revised 2023 (140 pages). Recommended for students of FSCI1003 (Introduction to science studies).
- Reebs, S.G. Notes de cours de Zoologie des Vertébrés. Université de Moncton. First written 2022, revised 2023 (136 pages). Mandatory for students of BIOL2363.
- I also wrote all the modules on critical thinking, and all the material about biology, for the first-year course FSCI1003 (Introduction to science studies).

#### MASTER'S STUDENTS SUPERVISED:

Martin Laguë, 1995-1999 (graduated 1999).

Topic: Food-anticipatory activity in golden shiners. (3 published articles)

Caroline Leblond, 2003- 2005 (graduated 2005)

Topic: Leadership and boldness within golden shiner shoals. (1 published article)

Mélisa Veillette, 2007 - 2009 (graduated 2009)

Topic: Use of shelters by captive hamsters. (3 published articles)

#### UNDERGRADUATE HONOURS THESES SUPERVISED:

Denis Doucette, September 1992 - April 1993.

Topic: Influence of environmental factors on the daily roosting times of mourning doves. (Article published in Canadian Journal of Zoology).

Joanne St-Coeur, September 1992 - April 1993.

Topic: Activity-induced changes in the free-running period of circadian rhythms in hamsters. (Article published in Physiology and Behavior).

Lyne Boudreau, September 1993 - April 1994.

Topic: Diel activity patterns of fishes in Catamaran Brook. (<u>Article published in Canadian Journal of Zoology</u>).

Catherine Poussart, September 1993 - April 1994.

Topic: Vigilance behaviour in common terns. (Technical report published for Parks Canada).

Isabelle Robichaud, September 1994 - April 1995.

Topic: Sleep and vigilance in common terns. (Technical report published for Parks Canada).

Pierre Doucet, September 1994 - April 1995.

Topic: Relationship between free-running period and maximum phase-shift of circadian activity rhythms in hamsters. (<u>Article published in Physiology and Behavior</u>).

Brigitte Landry, September 1995 - April 1996 (co-supervised by André St-Hilaire of DFO Canada). Topic: Abundance of shore fish according to time of day and tide in the Miramichi River.

Nathalie Girouard, September 1995 - April 1996.

Topic: Shoal choice and intention behaviour in golden shiners.

Nancy Saulnier, September 1995 - April 1996.

Topic: Influence of hunger on shoal choice in golden shiners. (<u>Article published in Ethology</u>).

Bruno Gallant, September 1996 - April 1997.

Topic: Shoal choice and food anticipation in golden shiners. (Article published in Ethology)

Sonia Robitaille, September 1998 - April 1999.

Topic: Non-visually mediated local enhancement in golden shiners.

Rachel Cormier, September 1999 – April 2000.

Topic: Phase-shifts of hamster activity after simulations of natural dawn or dusk. (Article published in Chronobiology International).

Dominique Maillet, September 2001 – April 2002.

Topic: Effect of cage enrichment on circadian parameters of activity in hamsters. (Article published in Chronobiology International).

Phillipe St-Onge, September 2002 – April 2003.

Topic: Running wheel choice in hamsters. (Article published in Laboratory Animals).

Mélanie Lanteigne, September 2003 – April 2004.

Topic: Bedding material choice in hamsters. (Article published in Laboratory Animals)

Stéphan Leblanc, September 2003 – April 2004.

Topic: Instream and outstream migrations of lake chub at Catamaran Brook. (<u>Technical report published by Fisheries and Oceans Canada</u>).

Philippe Leblanc, September 2003 – April 2004 (co-supervised by Ken Doe of Environment Canada). Topic: Establishing a protocol for toxicological tests using trout larvae.

Marc-Antoine Guitard, September 2003 – April 2004 (co-supervised by Marc Mazerolle). Topic: Nocturnal road crossings by amphibians in Kouchibouguac National Park.

Nathalie LeBlanc, September 2004 – April 2005.

Topic: Cage choice in hamsters.

Anick Beaulieu, September 2005 – April 2006.

Topic: Effect of bedding material and running wheel surface on foot injury in hamsters. (Article published in Laboratory Animals).

Margo Rioux, September 2009 – April 2010.

Topic: Time-place learning based on habitat characteristics.

Ambre Ribardière, September 2011 – April 2012.

Topic: Avoidance of lime deposits by sand shrimp.

# SUMMER STUDENTS SUPERVISED:

Denis Doucette, summer 1992.

Topic: Time-place learning in convict cichlids.

Claude Gauthier, summer 1993.

Topic: Circadian rhythms of activity in house sparrows and hamsters.

Lyne Boudreau, summer 1993.

Topic: Diel activity patterns of fishes in Catamaran Brook.

Catherine Poussart, summer 1993, NSERC summer student.

Topic: Vigilance in common terns.

Isabelle Robichaud, summer 1994, NSERC summer student.

Topic: Sleep and vigilance in common terns.

Rémi-Bertin Robichaud, summer 1994, NSERC summer student.

Topic: Reaction to sound by captive fishes.

Nancy Saulnier, summer 1995.

Topic: Shoal choice in golden shiners.

Bruno Gallant, summer 1996, NSERC summer student.

Topic: Shoal choice in golden shiners.

Alexandre Parent, summer 1997.

Topic: Pavlovian conditioning of circadian activity rhythms in hamsters.

Sonia Robitaille, summer 1998, NSERC summer student.

Topic: Local enhancement in shoals of golden shiners.

Dominique Maillet, summer 2001, NSERC summer student.

Topic: Circadian rhythms of hamsters, and learning in fishes.

Mélanie Lanteigne, summer 2003, NSERC summer student.

Topic: Bedding material choice in hamsters.

Stéphan Leblanc, summer 2003.

Topic: Migrations by lake chub in Catamaran Brook.

Julie Guitard, summer 2008, NSERC summer student.

Topic: Palliative measures for foot injury in hamsters.

Margo Rioux, summer 2009.

Topic: Time-place learning based on habitat characteristics.

# RESEARCH TECHNICIANS EMPLOYED AND SUPERVISED:

Darren MacKinnon, 1999-2007.

Temporal aspects of behaviour in fishes and hamsters.

Julie-Anne Mallais, summer 2007.

Leadership in shoals of golden shiners.

# MEMBERSHIP ON MASTER'S THESIS ADVISORY COMMITTEES:

Nadine Caissie, graduated 1997.

Topic: Inventory of fruit trees on the Acadian Peninsula.

Fran Mowbray, graduated 1998.

Topic: Spawning waves of herring at Fisherman's Bank.

Rachel Gautreau, graduated 1998.

Topic: Habitat and energy budget of piping plovers.

Mathieu Dumont, graduated 1999.

Topic: Year-round diet of coyotes in Kouchibouguac National Park.

Nicole Brun, graduated 1999.

Topic: Host and habitat choice by a parasite of American oysters.

Julie Bourque, graduated 1999.

Topic: Impact of forestry practices on neotropical migrant birds.

George-Henri Grondin, withdrew from program.

Topic: Resistance of potato plants to potato beetles.

Jean-François Gobeil, graduated 2001.

Topic: Permeability of various habitat to bird movements.

Daniel Bourque, graduated 2001.

Topic: Predators of clams on Prince Edward Island.

Christine Ouellette, graduated 2002.

Topic: Impact of peat moss exploitation on sand shrimps.

Janice Godin, graduated 2002.

Topic: Life cycle of a cranberry insect pest.

Matthieu Bélanger, graduated 2003.

Topic: Exercise and recovery after a cardiac intervention.

Jean-Sébastien Guénette, graduated 2003.

Topic: Impact of forestry on bird populations.

Jocelyne Bourque, graduated 2004 (MSc Environmental Studies).

Topic: Inventory of mosquito populations in the Moncton area.

Dominique Audet, graduated 2005.

Topic: Ecology of green crabs on Prince Edward Island.

Rémy Haché, graduated 2005.

Topic: Protein electrophoresis of potato tissue under stress.

Chantal Gallant, graduated 2005.

Topic: Risk factors during recovery following a heart operation.

Luc Savoie, graduated 2006.

Topic: Epibenthos on snow crabs.

Mireille Gravel, graduated 2006.

Topic: Effect of roads on amphibian population and movements.

Marie-Ève Michon, withdrew from program.

Topic: Diet of oysters near aquaculture sites.

Sonia Landry, graduated 2010.

Topic: Clam settlement in the intertidal zone.

Mélanie Chiasson, graduated 2012.

Topic: Behaviour of lobster larvae.

Alizée Vernouillet, graduated 2013.

Topic: Bird stress in exploited forests.

Benoit Bruneau, withdrew from program.

Topic: Effect of sedimentation on lobster larvae.

Cléa Frapin, graduated 2024.

Topic: Predator-prey interactions in circumpolar animal communities.

#### ATTENDANCE AT TEACHING WORKSHOPS:

- Teaching methods, September 1991, U. de Moncton.
- Exam preparation, August 1992, U. de Moncton.
- Course preparation, April 1994, U. de Moncton.
- Building a teaching dossier, November 1994, U. de Moncton.
- Teaching first-year classes, November 1994, U. de Moncton.
- Science teaching, November 1996, U. de Moncton.
- Exam preparation, August 2004, U. de Moncton.
- Computers as teaching aids, December 2004, U. de Moncton.
- Teaching to large groups, August 2005, U. de Moncton.
- Exams and teaching to small groups, May 2006, U. de Moncton.
- Integrating research and teaching, August 2006, U. de Moncton.
- Collaboration and student success, May 2007, U. de Moncton.
- Student motivation; Ergonomic exercises; 1 May 2008, U. de Moncton.
- Promoting student participation in homework and group discussions, March 2009, U. de Moncton.
- Use of Powerpoint for teaching, May 2009, U. de Moncton.
- Use of clickers; Evaluating contributions to group projects; December 2009, U. de Moncton.
- Discussion forums for students; Validity of internet sources; May 2011, U. de Moncton.
- Flipped classrooms, August 2017, U. de Moncton (I was one of the two co-organizers).
- Class participation, August 2018, U. de Moncton.

#### RESEARCH

#### **EXPERIENCE**:

Summer 81: Summer student, Fisheries and Oceans Canada, Québec; supervisor: Dr. Serge Demers.

Round-the-clock sampling of phytoplankton. Chemical analysis of phytoplankton.

Summer 82: NSERC summer student, Ile-Verte, Québec; supervisors: Fred Whoriskey and Dr. Gerry

FitzGerald.

Behavioural observations at night (with a starlight scope) of parental behaviour by sticklebacks in a salt marsh. Measurements of stickleback egg metabolism in the field.

Summer 83: Research assistant, Gorge Creek, Alberta; supervisor: Dr. David Boag.

Radio telemetry and capture of spruce grouse. Trapping and marking of ground squirrels.

Behavioural observations of red squirrels.

1983-85: MSc thesis, University of Alberta; supervisor: Dr. David Boag.

Behavioural observations of roosting magpies at night under winter conditions. Habitat measurements at roosting sites. Analysis of regurgitation pellets found at roosting sites.

1985-89: PhD thesis, University of Toronto; supervisor: Dr. Nicholas Mrosovsky.

Studies on nonphotic influences (most notably, sleep interruption) on the circadian activity

rhythms and photoperiodic system of hamsters and house sparrows.

1989-91: Post-doc, Queen's University; host: Dr. Patrick Colgan.

Studies on nocturnal parental care by cichlids in aquaria. Use of infrared viewing equipment.

1991-present: Professor, Université de Moncton.

Studies on circadian rhythms and temporal aspects of behaviour in fish, birds, and mammals. Studies on group vigilance in birds and shoaling in fish. Studies on welfare of laboratory

animals, especially hamsters. Studies on contaminant avoidance in marine decapods.

1997-98: Sabbatical leave, University of Otago (New Zealand); host: Dr. Robert Poulin.

Study on time-place learning based on predator avoidance in a freshwater fish. Writing of a

popular science book on fish behaviour.

2006-07: Sabbatical leave, Université de Moncton.

Development of a web site on fish behaviour (www.howfishbehave.ca). Laboratory visits in

Sweden and the UK.

#### **PUBLISHED WORK:**

# Original research in refereed journals

1) Reebs, S.G., F.G. Whoriskey, and G.J. FitzGerald. 1984. Diel patterns of fanning activity, egg respiration, and the nocturnal behavior of male three-spined sticklebacks, *Gasterosteus aculeatus* L. (f. trachurus). Canadian Journal of Zoology 62: 329-334.

First-time use of light-magnifying technology to unobtrusively observe that a parental fish, the three-spined stickleback, keeps on fanning its eggs through the night in the field, at levels similar to the daytime. First field report of nocturnal aquatic surface respiration in this species. Field measurements of egg metabolism, showing that eggs are more metabolically active with age, at higher temperatures, and under higher dissolved oxygen levels.

2) Boag, D.A., S.G. Reebs, and M.A. Schroeder. 1984. Egg loss among spruce grouse inhabiting lodgepole pine forests. <u>Canadian Journal of Zoology</u> 62: 1034-1037.

Quantification of predation by red squirrels on unattended spruce grouse eggs in the field.

3) Whoriskey, F.G., G.J. FitzGerald, and S.G. Reebs. 1986. The breeding season population structure of three sympatric territorial sticklebacks (Pisces: Gasterosteidae). Journal of Fish Biology 29: 635-648.

A report that three-spined stickleback males breeding in saltmarsh tide pools in Quebec go through only one nesting attempt, as successive spring tides completely replace the resident population.

4) Reebs, S.G. 1986. Influence of temperature and other factors on the daily roosting times of black-billed magpies. Canadian Journal of Zoology 64: 1614-1619.

"I found this paper to be **well-written and easy to follow**, although it is slightly wordy in places. It presents some **interesting and valuable information** about a poorly known phenomenon." – referee

Field report that black-billed magpies in harsh winter conditions (down to -30 °C, Edmonton, Alberta) spend more time at their roosting site (arrive at it earlier and leave it later) on colder days, indicating that they do not need additional foraging time to meet their energy demands when it gets colder.

5) Reebs, S.G. 1986. Sleeping behavior of black-billed magpies under a wide range of temperatures. Condor 88: 524-526.

"This is an important paper which gives insight to an aspect of ornithology which hitherto has received little attention" "...the author ... is obviously doing some interesting work" – referees

Use of near-infrared technology to unobtrusively observe the sleeping behaviour of black-billed magpies experiencing true winter (down to  $-30\,^{\circ}$ C) and summer conditions in an outdoor aviary in Edmonton, Alberta. The magpies went into their sleeping posture earlier on colder nights in winter, indicating thermoregulatory benefits to this sleeping posture. The sleeping posture was slightly modified (feet and eyes uncovered by feathers) in summer.

Reebs, S.G., and D.A. Boag. 1987. Regurgitated pellets and late winter diet of Black-billed Magpies, *Pica pica*, in Central Alberta. <u>Canadian Field-Naturalist</u> 101: 108-110.

This research was covered by the press ("Magpie pals: Don't kill that pesky bird", Alberta Report, 29 April 1985). About the manuscript, the referees wrote: "Excellent MS. An interesting and exciting new view of an abundant (and spreading) bird." and "This MS is informative and generally well-prepared".

Analysis of pellets regurgitated by magpies at a winter roost in Alberta. Grain was the main component, but two-thirds of the 64 pellets also contained meadow vole bones, indicating predation or scavenging on these small rodents to a greater extent than previously thought, considering the presence of snow cover.

7) Reebs, S.G. 1987. Roost characteristics and roosting behaviour of Black-billed Magpies, *Pica pica*, in Central Alberta. Canadian Field-Naturalist 102: 519-525.

"I found this paper to be **well-written and easy to follow**." "This ms is generally in good shape. It is **clearly expressed**, grammatical, and uncontroversial" – referees

Quantification of roosting habitat and roosting behaviour of black-billed magpies in harsh winter conditions (Edmonton, Alberta). Magpies roosted in dense deciduous thickets in the fall, but switched to dense stands of spruce trees once snow cover was established. Sleeping took place amid dense networks of branches (predator protection) in spots with good overhead cover and wind reduction (thermoregulation).

8) Reebs, S.G. 1989. Acoustical entrainment of circadian activity rhythms in house sparrows: Constant light is not necessary. Ethology 80: 172-181.

"This is a **well written** manuscript that addresses a significant issue in chronobiology." "This seems to me to be a **clear presentation of an interesting research result**." – referees

A laboratory demonstration that the circadian rhythms of locomotor activity in house sparrows can be entrained by either daily call playbacks or daily cage rattling in complete darkness, disproving the hypothesis that acoustical entrainment is a special case of photic entrainment in which the daily cue wakes up the animal and makes it see the ambiant light. A phase-response curve to 2-h pulses of cage rattling was obtained, one of the first phase-response curves to a non-photic stimulus in any organism.

9) Reebs, S.G., and N. Mrosovsky. 1989. Effect of induced wheel-running on the circadian activity rhythms of Syrian hamsters: entrainment and phase-response curve. <u>Journal of Biological Rhythms</u> 4: 39-48.

Probably the most cited of all my articles. This research introduced an experimental manipulation which has become a standard in the study of non-photic effects on circadian rhythms. The manipulation was induced wheel-running in hamsters. A phase-response curve and many examples of entrainment were obtained. The results led to the suggestion that previous cases of social entrainment of circadian rhythms in this and other species were mediated via arousal and sleep interruption.

10) Reebs, S.G., and N. Mrosovsky. 1989. Large phase-shifts of circadian rhythms caused by exercise in a re-entrainment paradigm: the role of light and pulse duration. <u>Journal of Comparative Physiology</u> (A) 165: 819-825.

"This paper reports an **interesting experiment** ... it makes a **useful contribution** to this area" "the **studies are carefully performed, analyzed and discussed**. The major conclusions are solid and worth communicating" – referees

A laboratory exploration of the minimum duration of induced wheel-running necessary to reliably phase-shift hamster circadian rhythms in a re-entrainment protocol. The answer turned out to be 3 h.

Reebs, S.G., R.J. Lavery, and N. Mrosovsky. 1989. Running activity mediates the phase-advancing effects of dark pulses on hamster circadian rhythms. <u>Journal of Comparative Physiology</u> (A) 165: 811-818.

With this work I won  $2^{nd}$  prize for Best Poster at the 1989 Annual meeting of the Animal Behavior Society, as well as  $2^{nd}$  prize for Best Student Presentation at the 1989 Annual meeting of the Canadian Society of Zoologists.

Previously, pulses of darkness on a background of constant light had been shown to phase-shift vertebrate circadian rhythms. This study demonstrates that, in hamsters, dark pulses do not work if the animal is prevented from running in its wheel during the pulse. It also shows that pulses of induced running without darkness lead to phase shifts similar to pulses of darkness. Thus, the research shows for the first time that the phase-shifting effect of dark pulses on a background of constant light is not truly photic as previously thought, and mediated by induced arousal instead.

Reebs, S.G., and N. Mrosovsky. 1990. Photoperiodism in house sparrows: testing for induction with nonphotic zeitgebers. <u>Physiological Zoology</u> 63: 587-599.

"This is an excellent paper, well written, with clear results that are discussed very competently"

"This contribution addresses an interesting question that has intrigued many photoperiodic scientists" – referees

Acoustical cues are known to entrain circadian rhythms in birds, and photoperiodic responses (e.g. gonad growth in the lengthening days of spring) are known to be based on a circadian mechanism. Therefore, could acoustical cues simulate light in inducing photoperiodic responses? This study tested this idea for the first time and disproved it. Two different protocols were used, and in neither of them did an acoustical cue known to entrain circadian rhythms in house sparrows succeed in mimicking the photoperiodic effects of light, leading to the conclusion that "photoperiodic responses are aptly named since, in practice, light remains the only physical factor known to induce them".

13) Reebs, S.G., and P.W. Colgan. 1991. Nocturnal care of eggs and circadian rhythms of fanning activity in two normally diurnal cichlid fishes, *Cichlasoma nigrofasciatum* and *Herotilapia multispinosa*. Animal Behaviour 41: 303-311.

In his letter of acceptance, the editor wrote: "Both reviewers recommend publication, their mean rating for scientific content was above average... My congratulations on the discovery of a new area that needs much further investigation. This was a fascinating paper!"

Laboratory use of near-infrared technology to observe that two species of normally diurnal cichlids keep on fanning their eggs throughout the night, at higher levels than during the day. This introduces the notion that evaluation of energy budgets in parental species must take nocturnal activity into account, even when the species are otherwise diurnal. The day-night difference (subjective night vs subjective day) was maintained for 48 hours in constant darkness, suggesting the influence of an endogenous circadian clock.

Reebs, S.G., and P.W. Colgan. 1992. Proximal cues for nocturnal egg care in convict cichlids, *Cichlasoma nigrofasciatum*. <u>Animal Behaviour</u> 43: 209-214.

"I have given this my best shot and am unable to find anything but a few minor cosmetic items that could be changed. It is an interesting and clever study, well written, and should be published by Animal Behaviour." – referee

Laboratory observations, with near-infrared technology, that parental convict cichlids at night fan teabags containing their eggs, but do not fan wax eggs nor outflows of deoxygenated water, showing that the parents use their sense of smell to locate their eggs in complete darkness, and that smell can trigger egg care at night. Previously, egg care was thought to be only visually mediated in cichlids.

15) Reebs, S.G. 1993. A test of time-place learning in a cichlid fish. Behavioral Processes 30: 273-282.

"Although the results are mostly negative, I found the experiments to be **interesting and informative.**"
"The study seems clean. The results are **correctly interpreted**, and I see no reason why this paper may not be **published more or less as it stands.**" – referees

Juvenile convict cichlids fail to learn to associate food delivery in various corners of their aquaria with various times of day, perhaps because the cost of sampling the various locations is too low.

Lavery, R.J., et S.G. Reebs. 1994. Effect of mate removal on current and subsequent parental care in the convict cichlid. Ethology 97: 265-277.

A laboratory study showing that, in convict cichlids, if either the female or male parent is removed from the breeding territory, the remaining parent compensates by increasing its fanning of the eggs. The study also reports and quantifies for the first time the nocturnal fanning of fry (the fanning of eggs had already been reported).

17) Reebs, S.G. 1994. The anticipation of night by fry-retrieving convict cichlids. <u>Animal Behaviour</u> 48: 89-95.

In her letter of acceptance, the editor wrote: "Both reviewers liked it a great deal, as did I. (...) I want to thank you for sending such fascinating work to the journal and complement you on the writing; I read more than 350 papers a year and this one was certainly one of the easiest on the eyes and stimulating to the brain that I have encountered. I wish you continued good luck with your research."

A rare demonstration of how animals can use their endogenous circadian clock to correctly schedule one of their daily activities. This laboratory study used daily light-dark schedules in which the transition between light and dark was abrupt; parental convict cichlids could still retrieve their young just before night, as they do when normal twilight announces night. Furthermore, they did not retrieve when dim light was imposed at times other than twilight, such as the middle of the day or the afternoon. The conclusion is that an endogenous clock tells the fish when the time has arrived to retrieve their young.

Reebs, S.G. 1994. Nocturnal mate recognition and nest-guarding by female convict cichlids (Pisces, Cichlidae: *Cichlasoma nigrofasciatum*). Ethology 96: 303-312.

"This is a **very interesting and informative article** that deserves to be published. It makes a nice addition to the fish behavior literature" "Using a simple design and some night vision equipment, Reebs was able to provide **a nice clear answer**. The manuscript is **well written**, without extraneous details." – referees

Use of near-infrared technology to show that female convict cichlids, a normally diurnal species, can defend their nest in the complete darkness of night, that they then recognize their mate through smell and do not attack them, but that they do attack strangers. Nocturnal fights with strangers were well coordinated but lacked some elements of fighting during the day, such as mouth-locking.

19) Reebs, S.G., and J. St-Coeur. 1994. Aftereffects of scheduled daily exercise on free-running circadian period in Syrian hamsters. Physiology and Behavior 55: 1113-1117.

"This paper is **well written and the experiments are well designed**. The introduction is clear. The results should be of interest to circadian biologists and behavioral scientists" and "A very straightforward paper (...) The authors have **carefully analyzed the data** (...) I recommend this paper for publication." – referees

A demonstration that non-photic stimuli (here in the form of induced wheel-running) can have after-effects on the free-running periodicity of circadian rhythms.

Doucette, D.R., and S.G. Reebs. 1994. Influence of temperature and other factors on the daily roosting times of mourning doves in winter. <u>Canadian Journal of Zoology</u> 72: 1287-1290.

"This paper presents the results of a nice little study examining the factors that influence the arrival and departure times of mourning doves at their winter roosts. The paper was **well written and the information clearly presented**. I have very few comments and none of major concern." – referee

A field study reporting that mourning doves (a bird species generally regarded as heat-adapted) wintering in Canada arrive at their roost slightly later on colder afternoons (perhaps to have more time to gather food), but that they also leave later on colder mornings (perhaps to benefit longer from the thermally advantageous microhabitat of the roost).

Reebs, S.G., L. Boudreau, P. Hardie, and R. Cunjak. 1995. Diel activity patterns of lake chub and other fishes in a temperate stream. <u>Canadian Journal of Zoology</u> 73: 1221-1227.

"This paper helps fill that gap (...) I have very few complaints about the paper. It is well done." – referee

Lake chub are normally diurnal in the laboratory, but this trapping study shows that in the field they are mostly crepuscular. During the spawning migration, they are in fact mostly nocturnal. Some diurnal activity appeared when traps were baited with food.

22) Reebs, S.G. 1996. Time-place learning in golden shiners (Pisces: *Notemigonus crysoleucas*). Behavioral Processes 36: 253-262.

"An interesting and enjoyable paper which doubtless should be published (...) this paper adds evidence in a group (fish) for which such evidence has been lacking." – referee

The first demonstration of time-place learning in a fish. Golden shiners were able to learn to go to one side of their aquarium in the morning, and the other side in the afternoon, to get food. They could also learn to go to one side in the morning, the other side at midday, and back to the first side in the afternoon. The presence of daily transients in side choice after the light-dark schedule was advanced by 6 h showed that a circadian clock underlied this time-place learning.

Reebs, S.G., and P. Doucet. 1997. Relationship between circadian period and size of phase shifts in Syrian hamsters. <u>Physiology and Behavior</u> 61: 661-666.

"A well-written description of a potential refutation of a long-held theory." "A well-written paper that clearly lays out a study of the relationship between tau and the magnitude of phase-shifts." – referees

Previous circadian studies had found that hamsters showed longer phase advances in response to light when their free-running period was longer. This study attempted to find a similar result using a non-photic phase-shifting stimulus (induced wheel running) instead of light. No relationship was found between circadian period and size of phase-advances or phase-delays, not only for the non-photic stimulus but also for the control photic group, calling into question the generality of these previous studies.

Reebs, S.G., and N. Saulnier. 1997. The effect of hunger on shoal choice in golden shiners (Pisces: *Notemigonus crysoleucas*). Ethology 103: 642-652.

"This study is **well designed**, the conclusions follow logically from the results and the findings make an **important contribution** to the understanding of shoaling behavior in fishes. The manuscript itself is **well written.**" "An interesting dataset." – referees

The study asked whether fish change their shoal preference when they are hungry, as they may then wish to decrease competition. In a choice of 20 or 10 vs 3 shoalmates, both well-fed and hungry golden shiners preferred the larger shoal despite the increased number of potential competitors. In a choice of similarly-sized versus smaller shoalmates, well-fed shiners preferred the shoalmates similarly sized to themselves (an anti-predator adaptation, as they then stick out less in the eyes of predators), but gave up this advantage when hungry, as they then preferred smaller (and thus less competitive) shoalmates.

Reebs, S.G., and B.Y. Gallant. 1997. Food-anticipatory activity as a cue for local enhancement in golden shiners (Pisces: Cyprinidae, *Notemigonus crysoleucas*). Ethology 103: 1060-1069.

"A nice clear-cut study of a phenomenon that deserves more research than it has received." "A cleverly designed study which I really enjoyed reading." – referees

Golden shiners can learn the daily time of food arrival, and they anticipate this food arrival by becoming more active near the food source as the time of feeding approaches. This laboratory study showed that other individuals, when they are hungry but not when they are well-fed, can notice this food-anticipatory activity and join the active fish, presumably in the "hope" of sharing the food. This was the first demonstration that food-anticipatory activity, not just feeding activity or mere presence, can be used as a cue for local enhancement in animals.

Reebs, S.G. 1999. Time-place learning based on food but not on predation risk in a fish, the inanga (*Galaxias maculatus*). Ethology 105: 361-371.

"This is an excellently planned, designed, and presented piece of work. It is clearly written and logical." "Worthy of publication." – referees

This laboratory study, performed during my sabbatical leave in New Zealand, asked whether an animal could learn to be in different places at different times of day not only to get food (the only tested incentive in the literature so far) but also to avoid predators. Inangas could learn the time-place association based on food (thus becoming the second fish in which time-place learning was shown, after my previous work with golden shiners) but not based on predator avoidance (a simulated heron strike).

27) Reebs, S.G. 2000. Can a minority of informed leaders determine the foraging movements of a fish shoal? Animal Behaviour 59: 403-409.

The press has covered this research: the popular science magazine New Scientist in the first March issue of 2000 (reproduced in the National Post of 2 March), the magazine Equinox in July 2000, the TV show @discovery.ca, and the newspaper Telegraph Journal. One review has called it "an elegant experiment".

A laboratory study in which groups of twelve individual golden shiners were trained to obtain food in one corner of a large tank at a particular time of day. Then all shoalmates but one (or three, or six) were replaced with naive individuals. Instead of staying in the shady part of their aquarium like naive fish normally do, these new individuals followed the lone (or few) trained fish to the correct illuminated corner at the correct time of day, showing that a small number of informed individuals can influence the foraging movements of a whole shoal of fish.

28) Laguë, M., and S.G. Reebs. 2000. Phase-shifting the light-dark cycle influences food-anticipatory activity in golden shiners. Physiology and Behavior 70: 55-59.

"The experimental procedures seem to be **sound**, the study appears to have been **well done**, the statistical analysis is appropriate and the conclusions are justified. Similarly, I found the manuscript to be **well written and very readable**." – referee

This laboratory study provides evidence that a circadian clock, rather than an hourglass mechanism, is involved in the timing of food-anticipatory activity, by documenting transient cycles of food-anticipatory activity, lasting 2-4 days, following 6-h advances or delays of the daily light-dark cycle, in golden shiners. The study also provides one of the few examples of transient cycles in the circadian activity of a fish.

29) Laguë, M., and S.G. Reebs. 2000. Food-anticipatory activity of groups of golden shiners during both day and night. <u>Canadian Journal of Zoology</u> 78: 886-889.

"This manuscript is a straight-forward and well-written account of a simple experiment." – referee

The first demonstration that fish can learn two daily times of food availability (as revealed by the timing of their food-anticipatory activity), even when one time is at night and the other is during the day.

Reebs, S.G., and M. Laguë. 2000. Daily food-anticipatory activity in golden shiners: a test of endogenous timing mechanisms. <u>Physiology and Behavior</u> 70: 35-43.

"The experiments are simple and appear **carefully conducted**." "This manuscript presents some interesting speculations in regards to daily food-anticipatory activity in golden shiners." – referees

An expansive laboratory study (108 shoals tested) concluding that food-anticipatory activity in a fish, the golden shiner, is based on a circadian clock entrained by the light-dark cycle, and not on an energy hourglass, nor on a photoperiodic hourglass, nor on a circadian clock entrained only by food.

Reebs, S.G., and R. Cormier. 2001. Phase-shifting effects of dusk-like and dawn-like light pulses on the circadian activity rhythms of Syrian hamsters. Chronobiology International 18: 413-421.

"The data are **clear-cut** and fully support the authors' conclusions." – referee

In this laboratory study, light pulses with a dawn-like onset phase-shifted hamster circadian activity rhythms to the same extent as light pulses with a dusk-like offset. This replicated the surprising results obtained in a previous study, from a different laboratory, that had used a different experimental protocol.

Reebs, S.G. 2001. Influence of body size on leadership in shoals of golden shiners, *Notemigonus crysoleucas*. Behaviour 138: 797-809.

"The paper extends the findings of Reebs (2000) on leading and following in shoals of shiners ... The entrainment results in the previous experiment were very interesting and the present experiment is a natural extension of this work." – referee

This laboratory study documented the leadership quality of small and large golden shiners within shoals in which they were the only individuals aware of where and when food was available. Large knowledgeable leaders were readily followed by small naive fish, but small knowledgeable leaders were followed by large naive fish on only half of the tests. The conclusion was that, in a shoal of golden shiners, large fish tend to be weary, unless they are the only ones who know where the food was, whereas small fish are more motivated by finding food, all the time.

Reebs, S.G., and D. Maillet. 2003. Effects of cage enrichment on the daily use of running wheels by Syrian hamsters. <u>Chronobiology International</u> 20: 9-20.

"The paper is admirably well written and structured." "An excellent and professional contribution." – referee

In three separate experiments, hamsters were offered a multi-cage arrangement, with toys in each cage, in either constant darkness or under a light-dark cycle. The hamsters' circadian/daily pattern of wheel-running activity was little affected as compared to single cage housing. Cage enrichment could therefore be implemented in future chronobiological studies, without fear of not being able to compare the results with past experiments.

Reebs, S.G., and P. St-Onge. 2005. Running wheel choice by Syrian hamsters. <u>Laboratory Animals</u> 39: 442-451.

The preference of male and female hamsters for different types of running wheel was tested in four choice experiments. Hamsters preferred larger wheels, and circular over truncated ones. They neither preferred nor avoided wheels with obstacles ("speed bumps") along their path. They neither preferred nor avoided wheels with plastic mesh covering the path (as opposed to metal rods spaced 9 mm apart). The paper recommends wheels that are as large as possible for the welfare of hamsters.

Lanteigne, M., and S.G. Reebs. 2006. Preference for bedding material in Syrian hamsters. Laboratory Animals 40: 410-418.

In three separate experiments, hamsters were offered a choice between various types of bedding material (pine shavings, aspen shavings, corn cob, wood pellets). A clear preference was expressed for shavings, but this preference disappeared when nesting material (paper towel) was supplied, implying that shavings are preferred because they more easily allow the construction of a nest.

Leblond, C., and S.G. Reebs. 2006. Individual leadership and boldness in shoals of golden shiners (*Notemigonus crysoleucas*). Behaviour 143: 1263-1280.

This is the first study where the intrinsic leadership tendencies of all fish in a foraging shoal (8-12 individuals, all marked differently) were measured when all fish were of the same size and with similar knowledge about food availability. In all six shoals tested, 1-3 individuals emerged as leaders, occupying the front three positions with at least twice the frequency expected by chance. A separate experiment found a tendency (P = 0.09) for these same leaders to explore unfamiliar tunnels more readily, suggesting that they were intrinsically bolder.

Beaulieu, A., and S.G. Reebs. 2009. Effects of bedding material and running wheel surface on paw wounds in male and female Syrian hamsters. <u>Laboratory Animals</u> 43: 85-90.

"An interesting, fluently and carefully written paper with practical recommendations and conclusions, and without any typing errors, which is quite seldom." – referee

The first description of the small paw wounds that develop in hamsters after they are introduced to running wheels. The study also documented small effects of sex (male vs female), bedding material (pine shavings vs wood chips) and running wheel surface (mesh vs metal rods) on the number, size, position, and duration of wounds. It is noted that hamsters kept on running at high levels despite the wounds.

Veillette, M., J. Guitard, and S.G. Reebs. 2010. Cause and possible treatments of foot lesions in captive Syrian hamsters (*Mesocricetus auratus*). <u>Veterinary Medicine International</u> 2010: 951708, 5 pages, doi:10.4061/2010/951708 (Open access).

This study finds that the topical application of vitamin E does not cure paw wounds in wheel-running male and female hamsters, but that wheel blocking does (thus confirming the reasonable, but so far untested, assumption that wheel-running causes the wounds). Complete healing took about 15 days, but blocking wheels for that duration is problematic because running wheels are an important cage enrichment for hamsters.

39) Veillette, M., and S.G. Reebs. 2010. Preference of Syrian hamsters to nest in old versus new bedding. Applied Animal Behaviour Science 125: 189-194.

An experimental finding that both male and female hamsters preferred to stay in their 14-day old bedding rather than move to another cage, with which they were already familiar, that contained new bedding material. This was even more pronounced when the old cage contained a shelter and the new cage did not. The study revealed, perhaps surprisingly, that hamsters do not mind soiled 14-d old bedding (indeed they prefer it over new bedding). The study also provided evidence that hamsters value shelters.

40) Veillette, M., and S.G. Reebs. 2011. Shelter choice by Syrian hamsters (*Mesocricetus auratus*) in the laboratory. Animal Welfare 20: 603-611.

"A nice study and a well-written manuscript." "This paper is well written and covers an interesting subject." – referees

Two large experiments testing the preference of both male and female hamsters for various types of shelters, in cages that were equipped with large running wheels which already worked as semi-shelters. PVC pipes, 15 cm long, 7.6 cm diameter, closed at one end, were consistently preferred. They make a good recommendation for cage enrichment in hamsters. However, the pipes were used directly for nesting only half of the time.

#### Refereed commentaries

- 1) Reebs, S.G. 1997. Abiotic factors and preroosting behavior of greylag geese: a comment. <u>The Auk</u> 114: 140-141.
- 2) Reebs, S.G. 2010. Temporal complementarity of information-based leadership. <u>Behavioural Processes</u> 84: 685-686.

# Refereed review articles or book chapters

- 1) Mrosovsky, N., S.G. Reebs, G.I. Honrado, and P.A. Salmon. 1989. Behavioural entrainment of circadian rhythms. <u>Experientia</u> 45: 696-702.
- 2) Reebs, S.G. 1992. Sleep, inactivity, and circadian rhythms in fish. Pp. 127-135 *In* Rhythms in Fishes (M.A. Ali, editor). Plenum, New York.
  - "I found the manuscript by Reebs to be an **excellent review** of a subject badly in need of review. Reebs has already established himself as the authority on the subject of sleep in fishes, and this paper will only distinguish him further. The paper integrates the available information and successfully indicates where more work is needed." referee
- Reebs, S.G. 2002. Plasticity of daily and circadian activity rhythms in fishes. <u>Reviews in Fish</u> Biology and Fisheries 12: 349-371.
  - "Overall, a **very good review** and synthesis." "A good review which summarises a great number of observations." referees
- 4) Zhdanova, I., and S.G. Reebs. 2006. Circadian rhythms in fish. Pp. 197-238 In Fish Physiology, Vol 24: Behaviour and Physiology of Fishes (K.A. Sloman, R.W. Wilson, and S. Balshine, eds.). Elsevier, New York.
- Reebs, S.G. 2011. Circadian rhythms in fish. Pp. 736-743 In Encyclopedia of Fish Physiology: From Genome to Environment, Vol. 1 (A. P. Farrell, ed.). Elsevier, New York.
   Updated: Reebs, S.G., 2024. Circadian rhythms in fishes. Pp. 419–428 In Encyclopedia of Fish Physiology, Vol. 1. 2<sup>nd</sup> ed. (S.L. Alderman, T.E. Gillis, éds.), Elsevier, New York.
  - **"Excellent manuscript."** "Exactly the sort of article we are looking for. **Well written** and broad coverage from environment through to molecular, and rich with examples." editors

"Very interesting." "Well written." - referees

# **Technical reports**

- 1) Poussart, C., I. Robichaud, E. Tremblay, and S.G. Reebs. 1997. Impact of seagull presence on the reproductive success and vigilance behaviour of common terns in Kouchibougac National Park, New Brunswick. Parks Canada Technical Report in Ecosystem Science, no. 8.
- 2) Reebs, S.G., S. Leblanc, A. Fraser, P. Hardie, and R.A. Cunjak. 2008. Upstream and downstream movements of lake chub, *Couesius plumbeus*, and white sucker, *Catostomus commersoni*, at Catamaran Brook, 1990-2004. Canadian Technical Report of Fisheries and Aquatic Sciences 2791.
- 3) Reebs, S.G., P.M. Jackman, A. Locke, and W.L. Fairchild. 2011. Avoidance by sand shrimp, *Crangon septemspinosa*, of sandy areas covered by hydrated lime (calcium hydroxide) deposits. Canadian Technical Report of Fisheries and Aquatic Sciences 2938.

#### ORAL OR POSTER PRESENTATIONS (IN PERSON) AT SCIENTIFIC MEETINGS:

- 1) Reebs, S.G., F.G. Whoriskey, and G.J. FitzGerald. Diel patterns of parental activity in male three-spined sticklebacks (*Gasterosteus aculeatus*). Oral presentation at the Regional (Northeast) Animal Behavior Society (ABS) Conference, 29-31 October 1982, Boston, MA.
- 2) Reebs, S.G., F.G. Whoriskey, and G.J. FitzGerald. Patron journalier d'activité parentale chez l'épinoche à trois épines *Gasterosteus aculeatus*. Oral presentation at the 7th annual meeting of Société Québécoise pour l'Étude Biologique du Comportement (SQEBC), 11-14 November 1982, Sherbrooke, QC.
- Reebs, S.G. Factors influencing the roosting times of black billed magpies wintering in central Alberta. Oral presentation at the 21st annual meeting of ABS, 24-28 June 1985, Raleigh, NC.
- 4) Reebs, S.G. Facteurs influençant les temps d'arrivée and de départ de pies bavardes au dortoir. Oral presentation at 10th Annual meeting of SQEBC, 1-3 November 1985, Québec, QC.
- 5) Reebs, S.G. Acoustical entrainment of activity rhythms in house sparrows. Poster presented at the 1st Poster Conference "Vital Signs", 23 March 1987, U of Toronto, ON.
- Reebs, S.G. Non-photic entrainment of activity rhythms in house sparrows and golden hamsters. Oral presentation at the 23rd annual meeting of ABS, 21-26 June 1987, Williamstown, MA.
- 7) Reebs, S.G. Influence de stimuli acoustiques sur le rythme d'activité de moineaux domestiques. Oral presentation at the 12th annual meeting of SQEBC, 23-25 October 1987, Rimouski, QC.
- 8) Mrosovsky, N., R. Lavery, and S.G. Reebs. Non-photic effect on circadian rhythms: What are the important variables? Poster presented at the 1st annual meeting of the Society for Research on Biological Rhythms (SRBR), 11-14 May 1988, Charleston, SC.
- 9) Reebs, S.G., and N. Mrosovsky. Non-photic entrainment of activity rhythms with corresponding phase response curves. Poster presented at 1st Annual meeting of the SRBR, 11-14 May 1988, Charleston, SC.
- 10) Reebs, S.G. Photoperiodism in house sparrows: Is light necessary? Oral presentation at the 106th annual meeting of the American Ornithologists' Union (AOU), 15-18 August 1988, Fayetteville, AR.
- 11) Reebs, S.G., R.J. Lavery, and N. Mrosovsky. Running activity enhances the phase-shifting effects of dark pulses on hamster rhythms. Oral presentation at the 18th annual meeting of the Society for Neuroscience, 13-18 November 1988, Toronto, ON.
- Reebs, S.G. The adventures of Hector and Herbert in the land of light and dark. Poster (**Co-winner of Best Poster prize**) presented at the 2nd Poster Conference "Vital Signs", 25 November 1988, U of Toronto, ON.
- Reebs, S.G. Running activity mediates the phase-shifting effect of darkness on hamster circadian rhythms. Oral presentation (**Second place for Best Student Presentation in the 'Hoar Award' competition**) at the 28th Annual meeting of the Canadian Society of Zoologists (CSZ), 16-20 May 1989, Toronto, ON.

- Reebs, S.G. The adventures of Hector and Herbert in the land of light and dark. Poster (**Second place for Best Poster in the 'Founders Award' competition**) presented at the 25th annual meeting of ABS, 11-17 June 1989, Highland Heights, KY.
- Reebs, S.G. Effet de la noirceur sur l'horloge interne du hamster: Un cas spécial d'influence nonphotique. Oral presentation at the 14th Annual meeting of SQEBC, 27-29 October 1989, Station Forestière de Duschesnay, QC.
- Reebs, S.G., and P.W. Colgan. Nocturnal behaviour and circadian rhythm of egg fanning in the convict cichlid (*Cichlasoma nigrofasciatum*). Oral presentation at the 29th annual meeting of CSZ, 2-5 May 1990, Vancouver, BC.
- 17) Reebs, S.G., and P.W. Colgan. Nocturnal egg care behaviour in the convict cichlid, *Cichlasoma nigrofasciatum*. Oral presentation at the 7<sup>th</sup> biannual meeting "Ecological and Evolutionary Ethology of Fishes", 19-23 May 1990, Flagstaff, AZ.
- Reebs, S.G., and P.W. Colgan. Nocturnal egg care behaviour in two species of normally diurnal cichlid fishes. Oral presentation at 26th annual meeting of ABS, 10-16 June 1990, Binghampton, NY.
- 19) Reebs, S.G., and P.W. Colgan. Comportement nocturne et rythme circadien de soins parentaux chez le cichlide *Cichlasoma nigrofasciatum*. Oral presentation at the 15th annual meeting of SQEBC, 9-11 November 1990, Sherbrooke, QC.
- 20) Reebs, S.G. Does the need for continuous parental care overcome the dictates of the circadian clock in convict cichlids? **Invited** conference at the NATO symposium "Rhythms in fishes", 4-17 August 1991, Lennoxville, QC.
- Reebs, S.G. Comment le poisson *Cichlasoma nigrofasciatum* retrouve-t-il ses oeufs la nuit? Oral presentation at the 16th annual meeting of SQEBC, 1-3 November 1991, Montreal, QC.
- Reebs, S.G. Can parental convict cichlids recognize their own eggs and mate at night? Oral presentation at the 31st annual meeting of CSZ, 13-17 May 1992, Antigonish, NS.
- Reebs, S.G. Can parental convict cichlids recognize their own eggs and mate at night? Poster presented at the 28th annual meeting of ABS, 13-18 June 1992, Kingston, ON.
- Reebs, S.G. Un test d'apprentissage spatio-temporel chez le cichlide zébré. Oral presentation at the the 17th annual meeting of SQEBC, 29-30 October 1992, Montreal, QC.
- Doucette, D., and S.G. Reebs. The influence of temperature on the roosting times of mourning doves wintering in Canada. Oral presentation at the 111th annual meeting of AOU, 9-12 June 1993, Fairbanks, AK.
- Reebs, S.G. Role of light and endogenous timing in the anticipation of night by fry-retrieving convict cichlids. Poster presented at the 29th annual meeting of ABS, 24-29 July 1993, Kingston, ON.

- Reebs, S.G. Comment le cichlide zébré sait-il que la nuit approche? Oral presentation at the 18th annual meeting of SQEBC, 22-24 October 1993, Rimouski, QC.
- Reebs, S.G. Time-place learning and circadian rhythms in golden shiners. Oral presentation at 30th annual meeting of ABS, 24-29 July 1994, Seattle, WA.
- Reebs, S.G. Apprentissage spatio-temporel et rythmes circadiens chez un poisson. Oral presentation at the 19th annual meeting of SQEBC, 21-23 October 1994, Trois-Rivières, QC.
- Reebs, S.G. Time-place learning in golden shiners. **Invited** oral presentation at the symposium "Understanding the biological clock" organized by the American Physiologists Society, 8-12 July 1995, Dartmouth College, Hanover, NH.
- Reebs, S.G. Two examples of ecologically relevant use of circadian clocks by fish. **Invited** oral presentation at the symposium "Biological rhythms", 24th World Ethology Conference, 10-17 August 1995, Honolulu, HI.
- Reebs, S.G., and N. Saulnier. The effect of hunger on the shoaling behaviour of golden shiners. Oral presentation at the 10th biannual meeting "Ecological and Evolutionary Ethology of Fishes", 25-30 May 1996, Albuquerque, NM.
- Reebs, S.G. Choix du groupe en fonction du comportement anticipatif d'arrivée de nourriture chez un poisson cyprinidé. Oral presentation at the 21st annual meeting of SQEBC, 18-20 October 1996, Sherbrooke, QC.
- Reebs, S.G., and B. Gallant. Food-anticipatory activity as a cue for local enhancement in golden shiners. Oral presentation at the 33rd annual meeting of ABS, 21-26 June 1997, Washington DC.
- Reebs, S.G. Food and predation risk as cues for time-place learning in inangas. Oral presentation at the 11th biannual meeting "Ecological and Evolutionary Ethology of Fishes", 24-28 June 1998, Seattle, WA.
- Reebs, S.G. Leadership à l'intérieur des bancs de poissons. Oral presentation at 23rd annual meeting of SQEBC, 6-8 November 1998, Montreal, QC.
- Reebs, S.G. Daily food anticipation in golden shiners. Oral presentation at the 12th biannual meeting "Ecological and Evolutionary Ethology of Fishes", 21-24 May 2000, Athens, GA.
- Reebs, S.G. Leadership à l'intérieur de groupes hétérogènes de poissons. Oral presentation at the 25th annual meeting of SQEBC, 3-5 November 2000, Rimouski, QC.
- Reebs, S.G., and D. Maillet. Effect of cage enrichment on running wheel use by Syrian hamsters. Poster presented at the 38<sup>th</sup> annual meeting of ABS, 19-23 July 2002, Bloomington, IN.
- 40) Reebs, S.G. Learning food-landmark associations in golden shiners. Poster presented at the 13th biannual meeting "Ecological and Evolutionary Ethology of Fishes", 16-19 August 2002, Québec, QC.

- Reebs, S.G., and P. St-Onge. Caractéristiques des roues d'exercice préférées par les hamsters syriens. Oral presentation at the 28th annual meeting of SQEBC, 7-9 November 2003, Montreal, QC.
- 42) Leblond, C., and S.G. Reebs. Individual leadership and boldness in shoals of golden shiners. Poster presented at the 41st annual meeting of ABS, 6-10 August 2005, Snowbird, UT.
- 43) Reebs, S.G. Circadian food anticipatory activity, social enhancement, and leadership in shoals of golden shiners. **Invited** oral presentation at the symposium "Circadian clocks and social behavior" of the SRBR annual meeting, 18-21 May 2008, Sandestin, FL.
- Reebs, S.G. Temporal complementarity of leadership in shoals of golden shiners. **Invited** oral presentation at the symposium "Animal leadership" of the 4th European Conference on Behavioural Biology, 18-20 July 2008, Dijon, France.

#### **DEPARTMENTAL CONFERENCES:**

- 1) Reebs, S.G. The effects of non-photic factors on the activity rhythms of house sparrows and Syrian hamsters. Departments of Biology, University of Ottawa, March 1989; Queen's University, September 1989; Brock University, February 1991; University of Lethbridge, February 1991.
- 2) Reebs, S.G. Influence de facteurs non-photiques sur les rythmes d'activité du hamster et du moineau domestique. Département de biologie, Université Laval, October 1989; Université de Moncton, February 1991.
- 3) Reebs, S.G. Le comportement nocturne du poisson *Cichlasoma nigrofasciatum*. Département de biologie, Université de Moncton, Moncton, 11 March 1992.
- 4) Reebs, S.G. Do parental cichlids take care of their young at night? Department of Biology, Mount Allison University, Sackville, 26 November 1992.
- Reebs, S.G. Biological clocks in fish: what are they good for? Department of Biology, St. Francis Xavier University, Antigonish, 3 November 1993.
- Reebs, S.G. Sommeil, éveil, et rythmes biologiques: peut-on transformer un lève-tard en lève-tôt? Département de psychologie, Université de Moncton, Moncton, 17 November 1993.
- 7) Reebs, S.G. Behavioural functions of 24-h clocks in fishes. Department of Zoology, University of Otago, Dunedin, New Zealand, 13 March 1998.
- 8) Reebs, S.G. Leadership and social facilitation of foraging in fish shoals. Department of Fisheries and Oceans, Moncton, 19 November 1998.
- 9) Reebs, S.G. Food anticipation, leadership, and group foraging in fish shoals. Friday Informal Seminar Series, Department of Biology, Dalhousie University, 22 January 1999.

- 10) Reebs, S.G. Leadership within uniform and mixed shoals of golden shiners. Department of Biology, University of New Brunswick at Saint John, 13 March 2000.
- Reebs, S.G. Big guys are wimps: effect of body size on leadership within fish shoals. Department of Biology, Mount Allison University, Sackville, 16 October 2001.
- Reebs, S.G. Writing a book on fish behavior: my personal experience. Department of Fisheries and Oceans, Moncton, 29 October 2001.
- Reebs, S.G. Leadership in shoals of golden shiners. Department of Biology, University of New Brunswick, Fredericton, 22 September 2006; Uppsala University, Sweden, 18 October 2006; University of Umea, Sweden, 25 October 2006; Leeds University, UK, 9 November 2006; University of Edinburgh, UK, 21 November 2006; University of St Andrews, UK, 22 November 2006.
- Reebs, S.G. Popular science writing. Department of Biology, Acadia University, Wolfville, 21 September 2006; University of Umea, Sweden, 26 October 2006; University of St Andrews, UK, 22 November 2006.
- Reebs, S.G. Le comportement d'un éthologiste. Département de biologie, Université de Moncton, Moncton, 11 October 2006.
- Reebs, S.G. Les cours XXX: exposés, exemples, exercices. Teaching days, 3 May 2007 (Moncton campus) and 14 May 2007 (Shippagan campus), Université de Moncton.

## ORAL OR POSTER PRESENTATIONS BY STUDENTS UNDER MY SUPERVISION:

- 1) Doucette, D. Influence de différents facteurs environnementaux sur les temps d'arrivée et de départ au dortoir chez la tourterelle triste en hiver. 24th Atlantic Universities Undergraduate Biology Conference, 5-7 March 1993, StFX U, Antigonish, NS.
- 2) St-Coeur, J. L'effet de l'activité physique, induite selon un horaire précis, sur la périodicité naturelle du rythme circadien du hamster syrien. 24th Atlantic Universities Undergraduate Biology Conference, 5-7 March 1993, StFX U, Antigonish, NS (**3rd prize for best oral presentation**).
- 3) Doucette, D. Influence de différents facteurs environnementaux sur les temps d'arrivée et de départ au dortoir chez la tourterelle triste en hiver. 4e Concours Annuel des Jeunes Chercheurs and Chercheures de l'ACFAS-FESR, May 1993, Moncton, NB (**3rd prize for best presentation at the undergraduate level**).
- 4) St-Coeur, J. L'effet de l'activité physique, induite selon un horaire précis, sur la périodicité naturelle du rythme circadien du hamster syrien. 4e Concours Annuel des Jeunes Chercheurs and Chercheures de l'ACFAS-FESR, May 1993, Moncton (**2nd prize for best presentation at the undergraduate level**).

- 5) Poussart, C. Impact of gull presence on terns nesting on Tern Island, Kouchibouguac National Park. 30th Annual meeting of the Atlantic Society of Fish and Wildlife Biologists (ASFWB), 15-17 September 1993, Richibucto, NB.
- Doucette, D. Effect of temperature on the roosting times of mourning doves wintering in Canada. 30th Annual meeting of the ASFWB, 15-17 September 1993, Richibucto, NB.
- 7) Boudreau, L. Le patron d'activité de quelques poissons d'un ruisseau. 18th Annual meeting of SQEBC, 22-24 October 1993, Rimouski, QC.
- 8) Poussart, C. Vigilance chez la sterne pierregarin (*Sterna hirundo*) nichant au centre ou en périphérie de la colonie. 18th Annual meeting of SQEBC, 22-24 October 1993, Rimouski, QC.
- 9) Boudreau, L., and S.G. Reebs. The activity patterns of some fish in Catamaran Brook. 25th Atlantic Universities Undergraduate Biology Conference, 4-6 March 1994, Charlottetown, PEI.
- 10) Poussart, C. Vigilance of terns nesting at the periphery or center of the colony. 25th Atlantic Universities Undergraduate Biology Conference, 4-6 March 1994, Charlottetown, PEI (4th prize for best oral presentation).
- Poussart, C. Comportement de vigilance de sternes pierregarins nichant au centre ou en périphérie de la colonie. 5e Concours Annuel des Jeunes Chercheurs and Chercheures de l'ACFAS-FESR, 29 April 1994, Moncton, NB (**3rd prize for best presentation at the undergraduate level**).
- Robichaud, I. Vigilance et sommeil chez la sterne pierregarin. 19th Annual meeting of SQEBC, 21-23 October 1994, Trois-Rivières, QC.
- Robichaud, I. Vigilance et sommeil chez la sterne pierregarin: comparaison entre le centre and la périphérie de la colonie. 6e Concours Annuel des Jeunes Chercheurs and Chercheures de l'ACFAS-FESR, 28 April 1995, Moncton, NB (**3rd prize for best presentation at the undergraduate level**).
- Saulnier, N., and S.G. Reebs. L'influence de la faim sur le choix du groupe chez la chatte de l'est. 20th Annual meeting of SQEBC, 3-5 November 1995, McGill U., Montreal, QC.
- Saulnier, N. L'influence de la faim sur le choix du groupe chez la chatte de l'est. 27th Atlantic Universities Undergraduate Biology Conference, 9-10 March 1996, Fredericton, NB.
- Saulnier, N. L'influence de la faim sur le choix du groupe chez la chatte de l'est. 7e Concours Annuel des Jeunes Chercheurs and Chercheures de l'ACFAS-FESR, 26 April 1996, Moncton, NB.
- 17) Laguë, M., and S.G. Reebs. Effets du cycle journalier de disponibilité de nourriture sur le rythme d'activité de la chatte de l'est (*Notemigonus crysoleucas*). 21st Annual meeting of SQEBC, 18-20 October 1996, Sherbrooke, QC.
- Gallant, B.Y., and S.G. Reebs. Choix du groupe en fonction du besoin en vigilance et en nourriture chez un poisson bien nourri ou affamé. 21st Annual meeting of SQEBC, 18-20 October 1996, Sherbrooke, QC.

- 19) Gallant, B.Y., and S.G. Reebs. Group choice and the need for vigilance and for food in satiated and starved golden shiners. 28th Atlantic Universities Undergraduate Biology Conference, 8-9 March 1997, Truro, NS.
- Gallant, B.Y. Choix du groupe en fonction du besoin en vigilance et en nourriture chez les chattes de l'Est nourries ou affamées. 8e Concours Annuel des Jeunes Chercheurs and Chercheures de l'ACFAS-FESR, 25 April 1997, Moncton, NB (1st prize for best presentation at the undergraduate level).
- Laguë, M. Effets du cycle journalier de disponibilité de la nourriture sur le rythme d'activité de la chatte de l'Est. 8e Concours Annuel des Jeunes Chercheurs and Chercheures de l'ACFAS-FESR, 25 April 1997, Moncton, NB (**3rd prize for best presentation at the graduate level**).
- 22) Laguë, M., and S.G. Reebs. Effets du cycle journalier de disponibilité de nourriture et de la photopériode sur le rythme d'activité de la chatte de l'est. 22nd Annual meeting of SQEBC, October 1997, Montreal, QC.
- 23) Robitaille, S. Détection indirecte de nourriture par les congénères chez les chattes de l'Est. 10<sup>e</sup> Concours Annuel des Jeunes Chercheurs and Chercheures de l'ACFAS-FESR, 23 April 1999, Moncton, NB.
- Cormier, R. Do dawn-like and dusk-like light pulses phase-shift activity rhythms differently in Syrian hamsters? 31st Atlantic Universities Undergraduate Biology Conference, 10-12 march 2000, Sackville, NB (honourable mention for best poster).
- 25) Maillet, D., and S.G. Reebs. Enrichissement du milieu et paramètres circadiens d'activité chez le hamster. 26<sup>th</sup> Annual meeting of SQEBC, 2-4 November 2001, Trois-Rivières, QC.
- Maillet, D. Enrichissement du milieu et paramètres circadiens d'activité chez le hamster. 13<sup>e</sup> Concours Annuel des Jeunes Chercheurs and Chercheures de l'ACFAS-FESR, March 2002, Moncton, NB (**3rd prize for best presentation at the undergraduate level**).
- St-Onge, P. La préférence des hamsters dorés pour des roues d'exercice présentant trois différentes surfaces de course. 14<sup>e</sup> Concours Annuel des Jeunes Chercheurs and Chercheures de l'ACFAS-FESR, April 2003, Moncton, NB (**3rd prize for best presentation at the undergraduate level**).
- Lanteigne, M., and S.G. Reebs. Les hamsters syriens ont-ils une préférence quant à la litière utilisée? 28th Annual meeting of SQEBC, 7-9 November 2003, Montréal, QC.
- 29) Lanteigne, M., and S.G. Reebs. Preference for bedding material and effects of different bedding material on body weight gain, paw condition and wheel running activity in golden hamsters. 35th Atlantic Universities Undergraduate Biology Conference, 5-7 March 2004, Sydney, NS.
- 30) Leblanc, S., and S.G. Reebs. Lake chub (*Couesius plumbeus*) seasonal migration in Catamaran Brook, New Brunswick. 35th Atlantic Universities Undergraduate Biology Conference, 5-7 March 2004, Sydney, NS.

- Guitard, M.-A., and S.G. Reebs. Nocturnal behaviour on roads by the green frog (*Rana clamitans*). 35th Atlantic Universities Undergraduate Biology Conference, 5-7 March 2004, Sydney, NS.
- Lanteigne, M. Choix de litière et état de santé chez le hamster doré. 15<sup>e</sup> Concours Annuel des Jeunes Chercheurs and Chercheures de l'ACFAS-FESR, March 2004, Moncton, NB (1st prize for best presentation at the undergraduate level).
- 33) Leblanc, S. Migration saisonnière du mené de lac (*Couesius plumbeus*) au Ruisseau Catamaran. 15<sup>e</sup> Concours Annuel des Jeunes Chercheurs and Chercheures de l'ACFAS-FESR, March 2004, Moncton, NB.
- 34) Leblond, C., and S.G. Reebs. Leadership individuel and témérité chez un poisson, la Chatte de l'est, *Notemigonus crysoleucas*. 29th Annual meeting of SQEBC, 12-14 November 2004, Sherbrooke, QC.
- Leblanc, N., and S.G. Reebs. Cage color and opacity preference of Syrian hamsters (*Mesocricetus auratus*). 36th Atlantic Universities Undergraduate Biology Conference, 4-6 March 2005, Antigonish, NS (**honourable mention for best poster**).
- 36) Beaulieu, A,. and S.G. Reebs. Effet de la litière et de la surface de course sur l'apparition et la guérison de plaies sur les paumes de hamsters. 17° Concours Annuel des Jeunes Chercheurs et Chercheures de l'ACFAS-FESR, March 2006, Moncton, NB.
- Veillette, M., and S.G. Reebs. Choix d'abris par le hamster syrien en captivité. 33rd Annual meeting of SQEBC, 31 October 2 November 2008, Rimouski, QC.
- Veillette, M., and S.G. Reebs. Shelter choice by Syrian hamsters (*Mesocricetus auratus*) in the laboratory. Regional Meeting of the International Society for Applied Ethology, 17-18 July 2009, Montreal, QC.
- 39) Veillette, M., and S.G. Reebs. Shelter choice by Syrian hamsters (*Mesocricetus auratus*) in the laboratory. 31<sup>st</sup> International Ethological Conference, 19-24 August 2009, Rennes, France.
- 40) Ribardière, A., and S.G. Reebs. Response of sand shrimp, *Crangon septemspinosa*, to sandy areas covered by lime deposits. 42nd Student Biology Conference (previously AUUBC) of Science Atlantic, 2-4 March 2012, Sackville, NB.
- Al) Ribardière, A. Réponse de la crevette de sable, *Crangon septemspinosa*, face à des zones sableuses recouvertes de dépôts de chaux. 23<sup>e</sup> Concours Annuel des Jeunes Chercheures et Chercheurs de la FESR, March 2012, Moncton, NB (**3rd prize for best presentation at the undergraduate level**).

#### ORAL OR POSTER PRESENTATIONS BY COLLABORATORS:

- 1) Fairchild, W.L., K.G. Doe, J.T. Arsenault, K. Benhalima, A.M. Cook, P.M. Jackman, S.G. Reebs, and M. Comeau. Potential for biological effects of pesticides and 4-nonylphenol on early life stages of American lobster (*Homarus americanus*). Oral presentation (by W. Fairchild) at the 8th International conference and workshop on lobster biology, 23-28 September 2007, Charlottetown, PEI, and also at the 34<sup>th</sup> Annual Aquatic Toxicity Workshop, 1-3 October 2007, Halifax, NS.
- Jackman, P., K.G. Doe, J.T. Arsenault, B. Ernst, S.G. Reebs, and W. Fairchild. The development and use of novel toxicity tests with native species to evaluate pesticide risks in Atlantic Canada. Oral presentation (by P. Jackman) at the 36<sup>th</sup> Annual Aquatic Toxicity Workshop, 27-30 September 2009, La Malbaie, QC.
- 3) Reebs, S.G., P. Jackman, A. Locke, and W. Fairchild. Avoidance by sand shrimp, *Crangon septemspinosa*, of sandy areas covered by hydrated lime (calcium hydroxide) deposits. Poster (presented by W. Fairchild) at the 38<sup>th</sup> Annual Aquatic Toxicity Workshop, 2-5 October 2011, Winnipeg, MB.
- 4) Daoud, D., P. Jackman, S. Greenwood, S.G. Reebs, M. Comeau, M. Mallet, K. Benhalima, and B. Bruneau. Effects of pesticide-spiked sediment exposure on stage V juvenile lobster *Homarus americanus*. Oral presentation (by D. Daoud) at the 10<sup>th</sup> International Conference and Workshop on Lobster Biology and Management, 18-23 May 2014, Cancun, Mexico.

# RESEARCH GRANTS AND SCHOLARSHIPS:

# Research grants

1992 :	Individual equipment grant, NSERC (\$ 9,650)
1992-95:	Individual grant, NSERC (\$ 25,000 per year)
1995-99:	Individual grant, NSERC (\$ 24,500 per year)
1999-03:	Individual grant, NSERC (\$ 26,250 per year)
2003-08:	Individual grant, NSERC (\$ 26,250 per year)
2008-09:	Individual grant, NSERC (\$ 15,000)
	<u> </u>
1991-92:	Starting funds, FESR, U de Moncton (\$ 1,000)
1992-93:	Individual grant, FESR, U de Moncton (\$ 1,800)
1993-94:	Individual grant, FESR, U de Moncton (\$ 1,625)
2001-02:	Individual grant, FESR, U de Moncton (\$ 1,000)
2002-03:	Individual grant, FESR, U de Moncton (\$ 1,200)
2003-04:	Individual grant, FESR, U de Moncton (\$ 1,200)
2004-05:	Individual grant, FESR, U de Moncton (\$ 1,200)
2005-06:	Individual grant, FESR, U de Moncton (\$ 1,200)
2006-07:	Individual grant, FESR, U de Moncton (\$ 1,120)
2008-09:	Individual grant, FESR, U de Moncton (\$ 1,000)
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# **Scholarships**

1982 : NSERC Undergraduate Summer Research Scholarship (\$ 2,800)

1983 : FCAC B1 Scholarship (declined) (\$ 7,500) 1983-88: NSERC 1967 Scholarship (\$ 17,500 per year)

1988 : AOU Travel Grant (\$ 250) 1988 : SRBR Travel Grant (\$ 200)

1988-89: Ramsay Wright Scholarship, U of Toronto (\$ 1,000) 1988-89: University of Toronto Open Fellowship (\$ 5,400) 1989-91: NSERC Postdoctoral Scholarship (\$ 27,000 per year)

# **RESEARCH CONTRACT:**

Sampling fish populations through seining along the shores of the Miramichi River. Contract # F4603-5-8138 from DFO, Moncton. 3 July 1995 - 31 March 1996. (\$ 3,968)

#### PROFESSIONNAL AFFILIATIONS:

- Société Québécoise pour l'Étude Biologique du Comportement, 1980-2010.
- Animal Behaviour Society, 1983-2010.
- Canadian Society of Zoologists, 1983-2010.
- American Ornithologists' Union, 1986-2000.
- Canadian Society of Ornithology, 1988-2000.
- Society for Research on Biological Rhythms, 1988-1998.

# **SERVICE**

# DEPARTMENTAL (BIOLOGY) OR FACULTY (SCIENCE, OR GRADUATE STUDIES & RESEARCH) COMMITTEES AT UNIVERSITÉ DE MONCTON:

# Biology:

- Biology Department Chair, one 3-year mandate, from July 2003 to July 2006.
- Biology Department Vice-Chair, 1996-97, 2001-02, 2002-03.
- Coordinator of Biology Honours theses (BIOL-4418), every year from 1992-93 to 2002-03 (except during my sabbatical in 1997-98), and 2004-2005.
- Coordinator of Biology Coop programs, 2002-present.
- President and member of Master's thesis defense juries of: Sylvie St-Jean (1993), Mathieu Dumont (1999), Nicole Brun (1999), Terrance Melanson (2000), Daniel Bourque (2001), Christine Ouellette (2002), Mathieu Bélanger (2003), Chantal Gallant (2004), Rémy Haché (2004), Isabelle Thériault (2007), Chantal Coomber (2008), Mélanie Chiasson (2012).
- Member of Master's thesis defense juries of: Martin Laguë (1999), Julie Bourque (1999), Isabelle Robichaud (2000), Jean-François Gobeil (2001), Venitia Joseph-Haché, Janice Godin (2002), Jean-Sébastien Guénette (2003), Dominique Audet (2005), Caroline Leblond (2005), Luc Savoie (2005), Daniel Gallant (2006), Mireille Gravel (2006), Samuel Haché (2008), Mélisa Veillette (2009), Sonya Landry (2009), Stéphane Thériault (2011), Alizée Vernouillet (2013), Laurie Maynard (2024).
- President, Selection committee for a position in physiology, 2004.
- Member, Selection committee for a position in microbiology, 2003.
- President, Selection committee for a position in ecophysiology, 2001.
- Coordinator of Biology teaching assistants, 2001-02.
- Member, Departmental Tenure committee, 1996-97.
- Registration team, September 1991-92-93-94.
- Member, Departmental Graduate Studies committee, 1991-97.
- Member, Departmental Undergraduate Curriculum committee, 1991-97, 2001-02, 2007-present
- Biology Representative, Faculty Union, 1993-95.

# Faculty of Science:

- Coordinator, Special Programs (mostly pre-meds), five consecutive 3-yr mandates, 2010-present.
- Member, Internal Affairs committee, 2003-2006, 2010-present.
- Member, Executive committees of each of the three CCNB-UdeM health programs (2010-2021).
- Member, Awards committee, 2013-present.
- Animal Care Committee: researchers' representative 1998-2012; in charge of ACC certification exams 2009-present, 167 exams administered.
- Member, Faculty Tenure committee, 1998-2004, 2007-08, 2009-2011.
- Member, Writing committee for the course FSCI1003 (Introduction aux études en sciences), 2011-2016.
- Awards coordinator, NB Science Fair, 1993, 1995, 1997, 2001, 2003, 2005, Université de Moncton.
- Judging coordinator, NB Science Fair, 1999, 2005, Université de Moncton.
- Member, Student Awards committee, 2002, 2003, 2004, 2005.

# Faculty of Graduate Studies and Research:

- Member, Council, representing the Faculty of Science, 1998-2000.
- Member, Graduate Scholarship Awards Committee, 1998-2000.
- Member, Ad hoc committee for the preparation of a guide on the writing of graduate theses, 1998-2000.
- Member, Graduate Programs committee, 1999-2001.

# OTHER DEPARTEMENTAL, FACULTY OR UNIVERSITY-WIDE ACTIVITIES:

- NSERC Representative at Université de Moncton, 2001-2006.
- Writer of « Le coin pédagogique », a collection of weekly tips on teaching for the benefit of the Biology department in 2003-05.
- Member, Executive committee, Teaching Support Service, U de Moncton, 2004-2018.
- Member, Selection committee for the position of Dean of Science, 2005, 2010.
- Member, Organizing committee, 7th Jeunes Chercheur(e)s ACFAS-FESR competition, Université de Moncton, April 1996.
- Judge, Jeunes Chercheur(e)s ACFAS-FESR competition, U de Moncton, May 1992, May 2000, March 2008, March 2023, March 2024.
- Presentation on "The ins and outs of graduate studies", for the benefit of undergraduates, every year 1993-2002.
- Organisation of a site visit to the offices of the Canadian Wildlife Service in Sackville, spring 1992.

# ACTIVITIES OUTSIDE THE UNIVERSITÉ DE MONCTON:

- Associate editor and principal writer for the "Samplings" column of Natural History magazine, April 2002-2010.
- External examiner for the PhD thesis of Marie-Hélène Pillot, Université Paul Sabatier (Toulouse), 2010.
- Judge, National Science Fair of Canada, Truro, NS, 15-16 May 2007.
- External examiner for the PhD thesis of Saeed Heydarnejad, University of Tasmania, 2006.
- Panelist at the workshop on Communication with the media, 1st Annual meeting of NSERC Reps, Ottawa, ON, 24 January 2003.
- Member of the writing committee for Chapter 2 of the book « Chronobiology: Biological Timekeeping » (J.C. Dunlap, J.J. Loros, and P.J. DeCoursey, eds; 2003, Sinauer, Sunderland, MA). This committee assisted the chapter writer, P.J. DeCoursey.
- Member of jury for selecting the best oral presentation by a student, Ecological and Evolutionary Ethology of Fishes (EEEF) meeting, Québec, QC, August 2002.
- Member of jury for the ACFAS Jacques Rousseau Award, given annually to recognize multidisciplinary research, 2002, 2003.
- Attendance at NSERC workshop on Training Highly Qualified Personnel, Halifax, NS, June 2002.
- Member of the thesis committee of Venitia Joseph-Haché, Master's student at Mount Allison University (1999-2001), and member of her thesis defense jury (19 December 2001).
- Member of jury for selecting the best oral presentation, EEEF meeting, Seattle, June 1998.
- Member of jury for selecting the best oral presentation, AUUBC meeting, Antigonish, March 1993.
- Member of jury, Founders' Award for Best Poster, ABS meeting, Kingston, ON, June 1992.
- Session Chair, June 1992 ABS meeting, and SQEBC meetings of November 1991, November 1992, October 1994, November 1995, October 1996, November 1998, November 2003.

- Departmental seminar series organiser, U of Toronto, 1987-88.
- President of the Zoology Union of Graduate Students, U of Toronto, 1987-88.
- Member of the ad hoc Committee for the development of the undergraduate curriculum, U of Toronto, 1987-89.
- Member of the Executive Committee of the Zoology Union of Graduate Students, U of Toronto, 1986-87.
- Member of the Executive Committee of the Zoology Union of Graduate Students, U of Alberta, 1984-85.
- Member of the Graduate Student Committee for Invited Speakers, U of Alberta, 1983-85.
- Secretary-Treasurer, Association des étudiants en biologie, U Laval, 1981-82.

#### REFEREEING FOR SCIENTIFIC JOURNALS:

Journal of Biological Rhythms (1987, 2 x 88, 92, 2001, 15)

Animal Behaviour (1989, 2000, 02, 06, 07, 08, 09, 10, 12, 13, 14, 15)

The Auk (1992)

Behaviour (1993, 2001, 03, 07, 15, 16)

Ethology (1994, 96, 2000, 02, 04)

Chronobiology International (1994, 2 x 2000, 2 x 2008, 2011)

Environmental Biology of Fishes (1994, 2 x 97, 2000, 07)

Physiology and Behavior (1995, 7 x 97, 98, 2002, 04, 09)

Journal of Fish Biology (1996, 3 x 99, 2 x 2000, 02, 03, 4 x 06, 07, 12, 2 x 13)

American Journal of Physiology (1996, 3 x 97, 98, 99, 2 x 2000, 01)

Naturwissenschaften (1998)

Behavioral Ecology and Sociobiology (1999, 2000, 01, 02, 05, 2 x 06, 07, 08)

Behavioural Brain Research (2 x 2001)

Canadian Journal of Zoology (2001, 05)

Fish and Fisheries (2002)

Marine Ecology Progress Series (2004, 05)

Animal Cognition (2004, 09, 16, 20)

Behavioural Processes (2004, 10, 12)

Journal of Comparative Psychology (3 x 2005, 09, 10)

Journal of Animal Ecology (2007, 08)

Laboratory Animals (2007)

Canadian Journal of Fisheries and Aquatic Sciences (2007)

Journal of Experimental Marine Biology and Ecology (2007)

Acta Ornithologica (2008)

Water Quality Research Journal of Canada (2008)

Journal of Applied Animal Welfare Science (2008)

Zoo Biology (2008, 09)

Biology Letters (2 x 2010)

Journal of Mammalogy (2010)

Current Zoology (2011)

Journal of the Royal Society: Interface (2011, 2 x 2012)

Proceedings of the Royal Society B (2012, 16)

Hydrobiologia (2012)

Neuroscience Letters (2012)

Acta Ethologica (2012)

Western North American Naturalist (2 x 2013, 16, 21, 22)

Applied Animal Behaviour Science (2015, 2016, 17, 18) Marine and Freshwater Behaviour and Physiology (2 x 2018) Journal of Zoology (2018, 19)

#### **REFEREEING GRANT PROPOSALS:**

- NSERC Canada (1993, 2001, 2003, 2004, 2009, 2016).
- Biotechnology and Biological Sciences Research Council UK (2001, 2002).
- Association for the Study of Animal Behaviour UK (2002).
- Leverhulme Trust UK (2002, 2005).
- National Science Foundation US (2003, 2004).
- Percy Sladen Fund UK (2004).
- CIRH Canada (2004, 2005).

#### **POPULAR SCIENCE BOOK:**

Reebs, S.G. 2001. Fish Behavior in the Aquarium and in the Wild. Cornell University Press, Ithaca. 252 p.

"His style is accessible, his writing authoritative and his examples right up to date ... This excellent book provides a comprehensive, well written and timely overview of fish behaviour." "Reebs, through his superb writing ability and clever illustrations, has done an outstanding job. In so doing, he has produced a book that will be of considerable interest to students and professional biologists." "A fine and well-referenced book, it teaches us to look at our fellow vertebrates with a new respect." "I found the book thoroughly enjoyable and highly educational ... Reebs does an excellent job of describing the academic research that has generated our current knowledge and does so with an infectious sense of wonder at the remarkable behaviour of fishes." "A book I would recommend to any hobbyist (beginner or advanced), any curator of a public aquarium, students of ichthyology, and any dealer in fishes who has a desire to more fully understand the how, why, what and wherefore of the fishy world." "This is a fascinating book ... a great starting point for anyone interested in the life of fishes." "Anyone who owns an aquarium should read this one." — Book reviews

## POPULAR SCIENCE WEB SITES

#### www.howfishbehave.ca

I wrote this site containing 21 chapters on various aspects of fish behaviour. The goal was to communicate science and the results of behavioural studies to fish hobbyists, fishers, and anyone who is interested in fishes. The site complements the book I published on the same subject in 2001 (see above). It went online in 2007 and has since been regularly updated.

# Faculty of Science web site

Reebs, S.G. 2007. L'éclipse solaire au service des biologistes.

Reebs, S.G. 2007. La logique des poissons.

Reebs, S.G. 2008. La jonction entre disciplines : lieu de créativité en science.

Reebs, S.G. 2008. Ornithologie : science à la portée de tous.

Reebs, S.G. 2008. Théories, preuves, inférence.

- Reebs, S.G. 2008. Les isotopes et leurs applications en science.
- Reebs, S.G. 2008. À la recherche de nouveaux records.
- Reebs, S.G. 2008. Une hirondelle ne fait pas le printemps.
- Reebs, S.G. 2008. La science et les nouvelles.
- Reebs, S.G. 2008. La science des prédictions climatiques.
- Reebs, S.G. 2009. Comment répondre aux objections à la théorie de l'évolution.
- Reebs, S.G. 2011. La pensée critique.
- Reebs, S.G. 2017. C'est quoi la science?
- Reebs, S.G. 2020. Science et pensée critique.

#### **POPULAR SCIENCE ARTICLES:**

Natural History magazine (with editors Rebecca Kessler, Avis Lang, Rebecca Finnell and Annie Gottlieb):

"Samplings" is a column presenting 200-word summaries of recently published research, written for a general audience. I wrote 407 such summaries from 2002 through 2010, when I was the main contributing editor for the column.

- 1) Reebs, S.G. April 2002. In Sum: Fear of foxes / United they wave / Plant economics / Trunk toolery / Lean mean fast machine / Knock knock, who's there? Natural History 111 (3): 18-20.
- 2) Reebs, S.G. May 2002. Samplings: Cretaceous mother / Double agent / Fish in the fast lane / Digestive move / Flared welcome. Natural History 111 (4): 16-18.
- 3) Reebs, S.G. June 2002. Samplings: Woolly ancestry / Sticky situation / Old partners / Delayed action / Experiment of the month. Natural History 111 (6): 16-18.
- 4) Reebs, S.G. July-August 2002. Samplings: Hidden to all / Drooling is good / Antsy home buyers / Cracking a mystery / Guppy love / Experiment of the month. Natural History 111 (7-8): 26-28.
- Reebs, S.G. September 2002. Samplings: Sexy bile / Bird sees, bird sings / High-altitude fireworks / Itsy-bitsy suitor / With or without / Experiment of the month. Natural History 111 (9): 28-30.
- Reebs, S.G. October 2002. Samplings: Accounting for taste / Of a right mind to fight / New narcs? / Sounds like trouble / Sewage treatment / Experiment of the month. Natural History 111 (10): 26-28.
- 7) Reebs, S.G. November 2002. Samplings: Grief on the reef / Fish dip / Green party / Manna for the sea / Winter's blast / Experiment of the month. Natural History 111 (11): 18-20.
- 8) Reebs, S.G. December 2002 Jan 2003. Samplings: Lots of foam, please / Shark sex / Hot plants / Surf and turf / Abandoned in the garden / Experiment of the month. Natural History 111 (10): 24-26.
- 9) Reebs, S.G. February 2003. Samplings: Heedless youth / Grain gain / Three's a crowd / Letting go / Experiment of the month. Natural History 112 (1): 20-22.
- 10) Reebs, S.G. March 2003. Samplings: Drinking in the dark / Aftermath of a cataclysm / Frozen dinners / Core values / Experiment of the month. Natural History 112 (2): 16-18.
- Reebs, S.G. April 2003. Samplings: Incredible journey II / Your place or mine? / Multitasking / Eau de danger. Natural History 112 (3): 16-18.
- Reebs, S.G. May 2003. Samplings: You say tomato, I say tomahto / Fold three times and drink / Not guilty / Traveling light / Experiment of the month. Natural History 112 (4): 14-16.
- Reebs, S.G. June 2003. Samplings: Un-solid ground / Cold passage / Home, Sweet Home / In the same vein / Experiment of the Month. Natural History 112 (5): 14-16.

- Reebs, S.G. July-August 2003. Samplings: Little engines that could / Ocean dwellers of Avalon / Bones of contention / Up in smoke / Experiment of the month. Natural History 112 (6): 16-18.
- Reebs, S.G. September 2003. Samplings: Blowin' in the wind / Drugs from seaweed? / The fruits of prehistory / Love and death / Experiment of the month. Natural History 112 (7): 14-16.
- Reebs, S.G. October 2003. Samplings: Hot rocks / Reading the leaves / Serious gravity / A matter of taste / Experiment of the month. Natural History 112 (8): 16-17.
- 17) Reebs, S.G. November 2003. Samplings: Naked: It's so 68000 B.C. / Spinmeisters / Poisoning the waters / Elemental question / Really sinister. Natural History 112 (9): 14-16.
- Reebs, S.G. December-January 2004. Samplings: Save the Earth / Small is powerful / Many moons / Fair is fair / The mouse that roared. Natural History 112(10): 12-14.
- Reebs, S.G. February 2004. Samplings: Cramped quarters / Death by gluttony / Save a wolf, save a tree / Watered-down fish / Frog find / You gotta have skin. Natural History 113(1): 14-16.
- 20) Reebs, S.G. March 2004. Samplings: Hobson's choice / Clear and present danger / How flies show off / Smoke signals / Going to great lengths / Green means go. Natural History 113(2): 12-13, 23.
- Reebs, S.G. April 2004. Samplings: Palliative or poison? / Evolutionary circles / All in the family / Feeling pressured. Natural History 113(3): 12-14.
- 22) Reebs, S.G. May 2004. Samplings: Cozy 1BR, forest vu / Like mother, like son / Aftermath of occupation / Seeing red. Natural History 113(4): 12-14.
- Reebs, S.G. June 2004. Samplings: How to spread diversity / Bear beware / Invasion of the giant blobs / Public information / Need for speed. Natural History 113(5): 15-17.
- Reebs, S.G. July-August 2004. Samplings: CO<sub>2</sub>: Still guilty as charged / Trading floor / Stuffed / The first Garfield / Work incentive / Risk and reward. Natural History 113(6): 12-14.
- Reebs, S.G. September 2004. Samplings: Fried rice / hard-hat zone / Defying gravity / What is a picture worth? / Grains of evidence. Natural History 113(7): 16-20.
- Reebs, S.G. October 2004. Samplings: Birth of a salesman / Hex wax / Before the invention of pumpkin pie / A taste of our own medicine / Sit up when you snooze. Natural History 113(8): 14-18.
- Reebs, S.G. November 2004. Samplings: Blackout is beautiful / Whence the dingo / Hey there, big boy / The prehistory of housekeeping / Let the germs in / Cold fission. Natural History 113(9): 14-16.
- 28) Reebs, S.G. December 2004 January 2005. Samplings: Job growth / Convenience food / Cool characters / Green gone / Lean and mean. Natural History 113(10): 14-16.
- 29) Reebs, S.G. February 2005. Samplings: Preflight meals / Why we count by tens / Meltdown / A fine romance. Natural History 114(1): 14-17.
- Reebs, S.G. March 2005. Samplings: Room to breathe? / Battlefield protocol / Birds of a feather sink together / Marriage of convenience / Housing shortage. Natural History 114 (2): 15-18.
- Reebs, S.G. April 2005. Samplings: A breath of fresh...hydrogen / Which way is up? / Picky eaters / Crow bar / Slick sisters / Talented newcomer. Natural History 114(3): 12-14.
- Reebs, S.G. May 2005. Samplings: Awakening the "dead" / Green tide / A taste for dinos / Thinker's brain / Not Jurassic Park? Natural History 114(4): 10-11, 24.
- Reebs, S.G. June 2005. Samplings: Report card / Rock of ages / Preservation halls / Beyond DNA? / Strike, counterstrike. Natural History 114(5): 14-16.
- Reebs, S.G. July-August 2005. Samplings: Chain Letters / Growing strains / Shakers and movers / By any means available. Natural History 114(6): 12-14.
- Reebs, S.G. September 2005. Samplings: Color coordinated / Female radicals / The birth of left and right. Natural History 114(7): 14.
- Reebs, S.G. October 2005. Samplings: Steps back in time / Shades of green / Fly long, live longer / Amuse me or lose me. Natural History 114(8): 11-13.

- Reebs, S.G. November 2005. Samplings: Happy farmers / Tree impostors. Natural History 114(9): 24-25.
- Reebs, S.G. December 2005 January 2006. Samplings: Holding up the Amazon / Tale of a two-tailed virus / Salt in the wound. Natural History 114(10): 14-18.
- Reebs, S.G. February 2006. Samplings: Genes for jaws / Fossil by proxy / Birth of the spud. Natural History 115(1): 17-19.
- 40) Reebs, S.G. March 2006. Samplings: Ain't no ocean wide enough / Cannibal canard / Worm sperm / Three stars in one / Love potion. Natural History 115(2): 14-16.
- 41) Reebs, S.G. April 2006. Samplings: Cloudy skies / Made in India / Time dilation / Impermafrost. Natural History 115(3): 29-32.
- 42) Reebs, S.G. May 2006. Samplings: Sink in the sea / Dogs gone mild / Goat-getters / Long dig. Natural History 115(4): 12-14.
- 43) Reebs, S.G. June 2006. Samplings: Icequake / Europe's first fashionistas / One big toxic family / Red means grow. Natural History 115(5): 14-15.
- Reebs, S.G. July-August 2006. Samplings: Oh, the trials of motherhood / Proto-Alexandria / Soap in your vegetables? / Death zone / Avian Einsteins. Natural History 115(6): 12-14.
- 45) Reebs, S.G. September 2006. Samplings: Side benefits / Baby bat chat. Natural History 115(7): 14.
- Reebs, S.G. October 2006. Samplings: Feast or famine / Buzzing off / Before Appellation Contrôlée / A rash of consequences / Uphill battle. Natural History 115(8): 12-14.
- 47) Reebs, S.G. November 2006. Samplings: Breakdown in the desert / Rain stalls / Neanderthals get smarter / True grit / City serenity. Natural History 115(9): 18-20.
- 48) Reebs, S.G. December 2006 January 2007. Samplings: Running man / Baked eggs / Four-winged migration / Enemy at the gates / New planets on the block. Natural History 115(10): 14-15.
- 49) Reebs, S.G. March 2007. Samplings: 400-yard dash / The chemistry of B.O. / Cosmic rain / Warm down, cool up / Northward bound. Natural History 116(2): 11-13.
- Reebs, S.G. April 2007. Samplings: Space bling / Grow long / Cold wind from the east / Reading the leaves / The carnivore's dilemma. Natural History 116(3): 12-14.
- Reebs, S.G. May 2007. Samplings: Unbound by fog / Family ties / But who's gonna read it? / Cool acres. Natural History 116(4): 12-14.
- Reebs, S.G. June 2007. Samplings: No left turn / What do you know? / Whence the beef? / Great lake bake / Let the sunshine in (or maybe not). Natural History 116(5): 12-16.
- Reebs, S.G. July-August 2007. Samplings: Escape from the vortex / In the swing of things / Phytoplankton to the rescue / Neptune's farms. Natural History 116(6): 12-16.
- Reebs, S.G. September 2007. Samplings: Flip-flop flap / A lonely future / Deaths, foretold / Green for the green / No place to hide. Natural History 116(7): 12-16.
- Reebs, S.G. October 2007. Samplings: Collective medicine / The kindness of strangers / Who's your mommy / A hot new trend / Snow Gray. Natural History 116(8): 12-14.
- Reebs, S.G. November 2007. Samplings: Animal aqueduct / A grave mistake / When life gives you lemmings / Nothing much / Losing contact. Natural History 116(9): 14-18.
- 57) Reebs, S.G. December 2007 January 2008. Samplings: Eau de bird / A fluke of foresight / Fitness for grandmas / Did skimming fit the bill? / It's not just the heat / Earlier birds. Natural History 116(10): 10-14.
- Reebs, S.G. February 2008. Samplings: Good morning, honey / Spider insider / Emergency broadcast system / Seafood shack / Spring timing / Warm and fuzzy. Natural History 117(1): 12-14.
- Reebs, S.G. March 2008. Samplings: Multiple personalities / An old foe / The great rope in the sky / Not-so-North Sea / Blue in the feathers. Natural History 117(2): 10-14.

- Reebs, S.G. April 2008. Samplings: No dumping / The dog's meow / Hold the crust / Take once a day, with dirt / Want ice in your water? / Protein shake-up. Natural History 117(3): 10-14.
- Reebs, S.G. May 2008. Samplings: Eye-spotting / Shivering flirts / Masters of disguise or display? / Rainy workdays / Building their own beds / Sulfur Spritzer. Natural History 117(4): 10-14.
- Reebs, S.G. June 2008. Samplings: Turn tail / In the zone / Time to split / Swimming the walk / Stuck in the red / Uprooted. Natural History 117(5): 10-14.
- Reebs, S.G. July-August 2008. Samplings: A whiff of DNA / Poison control / The petal effect / Bugs smell funny / Clouds and mirrors / Six-legged agents of change. Natural History 117(6): 10-14.
- Reebs, S.G. September 2008. Samplings: Raw deal / Junk food diet / Jurassic undertakers / Not so slothful / Gut reactors / Arm wrestling. Natural History 117(7): 10-14.
- Reebs, S.G. October 2008. Samplings: Green bling / Immigrant pathogen / Wet suit. Natural History 117(8): 12-16.
- Reebs, S.G. November 2008. Samplings: The ancients' antiques / Bacterial banquet / Whose poo? / Early life lessons / Big bird brains / Cooking up males? Natural History 117(9): 10-14.
- Reebs, S.G. December 2008 January 2009. Samplings: Creative destruction / Games fishes play / More before less / The power of ten / Picky mouse club / Copepods cope with climate change. Natural History 117(10): 10-14.
- Reebs, S.G. February 2009. Samplings: Mystery leaf / DNA Hopscotch / In or out? / Onboard computer / Hog Haven / Let there be light. Natural History 118(1): 10-14.
- Reebs, S.G. March 2009. Samplings: Feeling light-headed / You can't hide, glycolaldehyde / Grow your own oasis / The spark of love / Zippety zoo dah. Natural History 118(2): 10-12.
- Reebs, S.G. April 2009. Samplings: Career change / Thermo dino / It takes all kinds / Sow, shine, and reap / Out of sync with science / A pardon for plants. Natural History 118(3): 10-12.
- Reebs, S.G. May 2009. Samplings: Drawing on the wall / Tube viewing / Portrait of a virus / Half a nap / Ozone and the greenhouse / Nutcracker suite. Natural History 118(4): 10-14.
- Reebs, S.G. June 2009. Samplings: Fireproofing for a flame / Special-occasion dress / Botanic mechanics / Misaligned by power lines / Mum's the word / Aphid sandbag brigade. Natural History 118(5): 12-16.
- Reebs, S.G. July-August 2009. Samplings: Antique explorer's gear / Light meal / Wet galaxy / Clone ranger / Home growth / Deactivating the clathrate bomb. Natural History 118(6): 10-12.
- Reebs, S.G. September 2009. Samplings: Shrew loo / Landing pad for pollinators / Rising stars / Trilobite togetherness. Natural History 118(7): 10-12.
- Reebs, S.G. October 2009. Samplings: Death whiff / Hunter-gardeners? / Who, moa? / Freshening up the nest / Fish or shrimp? / Fortune and fertility. Natural History 118(8): 10-12.
- Reebs, S.G. November 2009. Samplings: Spider's no dummy / Play it again Sakura / Herp hatcheries/ Young and hungry / Ghost of predation past / Neigh-neigh sisterhood. Natural History 118(9): 10-14.
- Reebs, S.G., December 2009 January 2010. Samplings: Agri-invasion / Floral fraud / Room and board / Good dingo / Ray-dar / Save the conifers. Natural History 118(10): 10-14.
- Reebs, S.G. October 2010. Samplings: In a pig's eye / Rising waters / Fine times for pines / Deep sleep / Vertebrate bias / Citizen Maya. Natural History 119(1): 10-12.
- Reebs, S.G. November 2010. Samplings: Nano no-no? / Glow in the shark / Give and take / Old cold-bloods / Get an early starch / Three can be company. Natural History 119(2): 10-12.
- 80) Reebs, S.G. December 2010 January 2011. Samplings: Mayans pipe down / Belief blowers / Polar exit poll / Taming turkey / A lone end for all / No plant left behind. Natural History 119(3): 8-10.
- 81) Reebs, S.G. February 2011. Samplings: Resilience / Cool males are hot. Natural History 119(4): 8-9.

# Freshwater and Marine Aquarium magazine:

- 1) Reebs, S.G. 1991. Do fish sleep at night? Freshwater and Marine Aquarium 14(4): 59-60.
- 2) Reebs, S.G. 1993. How much can fish learn? Freshwater and Marine Aquarium 16(9): 204-205.
- 3) Reebs, S.G. 1994. How do fish react to low oxygen levels? <u>Freshwater and Marine Aquarium</u> 17(4): 214-216.
- 4) Reebs, S.G. 1996. What kind of school do fish prefer? <u>Freshwater and Marine Aquarium</u> 19(6): 123-126.

# Le Naturaliste du Nouveau-Brunswick:

1) Reebs, S.G. 1992. Le sommeil des oiseaux. Le Naturaliste du N.-B. 19: 50-51.

# **PUBLIC CONFERENCES:**

- 1) Reebs, S.G. Les êtres vivants qui font tic-tac: à la recherche de moyens pour manipuler leur horloge interne. Faculté des Sciences, Université de Moncton (as part of National Science and Technology Week), 24 October 1991.
- 2) Reebs, S.G. L'horloge biologique et le sommeil. Carrefour de l'Île St-Jean, Charlottetown (as part of a series of public conferences sponsored by APICS), 20 November 1992.
- 3) Reebs, S.G. Sleep and the biological clock. Cumberland County Museum, Amherst, NS (as part of a series of public conferences sponsored by APICS), 12 May 1993.
- 4) Reebs, S.G. Hypnotisé par un mené. Hôtel Delta Beauséjour, Moncton (as part of Biogames 2003), 11 January 2003.
- 5) Reebs, S.G. Hamsters qui dorment, menés qui mènent, et la recherche en comportement animal. 7th Annual Conference of the Faculté des Études Supérieures et de la Recherche, Université de Moncton, 9 March 2004.
- Reebs, S.G. Des expériences simples mais intéressantes sur le comportement des poissons. Invited conference at the 1st Congrès d'Aquariophilie de Québec, Université Laval, Québec, 16 April 2005.
- 7) Reebs, S.G. Interesting and simple experiments on fish behaviour. Invited conference at the FishTalk Symposium, East Coast Aquarium Society, Bedford Institute of Oceanography, Halifax, 15 May 2005.
- 8) Reebs, S.G. Interesting experiments on fish behaviour. Invited conference at the 2007 Cichlid Classic, Greater Chicago Cichlid Association, Chicago, 25-27 May 2007.

- 9) Reebs, S.G. Huit objections à la théorie de l'évolution et comment y répondre. Faculté des Sciences, Université de Moncton (as part of Science Week), 12 February 2009.
- 10) Reebs, S.G. Interesting and simple experiments on fish behaviour. Invited conference at the Moncton Chapter of the East Coast Aquarium Society, Moncton, 19 May 2009.
- 11) Reebs, S.G. Three presentations to the Café Scientifique de l'Université de Moncton, in 2013-15 : Comment répondre aux objections à la théorie de l'évolution; Évolution et religion : incompatibles?; Hans le malin : un exercice de pensée critique en science.

# **BOOK REVIEWS:**

- 1) The Magpies (Tim Birkhead, author). <u>Canadian Field-Naturalist</u> 106: 408-409 (1992).
- 2) Golden-Crowned Kinglets (Robert Galati, author). Can. Field-Nat. 106: 284-285 (1992).
- 3) Bird trapping and bird banding (Hans Bub, author). <u>Can. Field-Nat.</u> 106: 412-413 (1992).
- 4) The ostrich communal nesting system (Brian C.R. Bertram, author). <u>Can. Field-Nat.</u> 107: 549 (1993).
- 5) Atlas of breeding birds of the Maritime provinces (Anthony Erskine, author). <u>Can. Field-Nat.</u> 108:119 (1994).
- 6) Bird Census Techniques (Colin Bibby et al., authors). Can. Field-Nat. 108: 124 (1994).
- 7) Fishwatching (C.L. Smith, author). <u>Can. Field-Nat.</u> 109: 133 (1995).
- 8) Kangaroos: the marvelous mob (Terry Domico, author). Can. Field-Nat. 109: 486 (1995).
- 9) The Northern Goshawk: ecology and management (W.M. Block et al., editors). <u>Can. Field-Nat.</u> 109: 495 (1995).
- 10) Bats: a community perspective (J.S. Findley, author). Can. Field-Nat. 110: 373-374 (1996).
- Polygygy and sexual selection in Red-winged Blackbirds (W. Searcy and K. Yasukawa, authors). Can. Field-Nat. 110: 717 (1996).
- 12) Leks (J. Höglund and R. Alatalo, authors). Can. Field-Nat. 111: 526-527 (1997).
- Foundations of animal behavior: classic papers with commentaries (Lynne D. Houck and Lee C. Drickamer, editors). <u>Can. Field-Nat.</u> 111: 683-684 (1997).
- 14) Coloniality in the Cliff Swallow: The effect of group size on social behavior (C.R. Brown and M.B. Brown, authors). Can. Field-Nat. 112: 171-172 (1998).

# **RADIO INTERVIEWS**: (On circadian rhythms, animal behaviour, or evolution.)

24 October 1991: "Bonjour Atlantique", Radio-Canada Moncton.
28 October 1991: "Bonjour Atlantique", Radio-Canada Moncton.

7 November 1991: "Sonar", Radio-Canada Moncton.

3 April 1992: "Information Morning", CBC Radio, Moncton.

27 March 1993: "À loisir", Radio-Canada Moncton.
29 March 1993: "423-TALK", CJCA Edmonton.
30 October 1993: "À loisir", Radio-Canada Moncton.
4 December 1995: "D'Est en Ouest", Réseau Radio-Canada.

16 October 1996: "À propos", CKUM, Moncton.

27 March 1997: "BKS Bonjour", Radio-Canada Regina.
3 March 2001: "Grain de Soleil", Radio-Canada Moncton.

2 December 2001: "Au mi-temps de la place", Radio-Canada Moncton.

27 April 2012 : "Main Street", CBC Halifax.

4 September 2018: "Regard 9", Radio-Canada Moncton.
11 January 2019: "Regard 9", Radio-Canada Moncton.
21 March 2019: "Regard 9", Radio-Canada Moncton.
14 May 2019: "Regard 9", Radio-Canada Moncton.

15 April 2020: "Heure de Pointe Acadie", Radio-Canada Moncton. 17 November 2021: "Heure de Pointe Acadie", Radio-Canada Moncton 20 May 2022: "Heure de Pointe Acadie", Radio-Canada Moncton

# **INTERVIEWS WITH JOURNALISTS**: (Leading to articles in the press.)

- "Life is a battle with our biological clock", Moncton Times-Transcript, 18 March 1993.
- "L'heure juste / l'horloge biologique", L'Acadie Nouvelle, 22 November 1993.
- "Follow the leader", NB Reader (Telegraph Journal's weekend supplement), 23 October 1999.
- "Follow me", New Scientist, first issue of March 2000 (reproduced in the National Post of 2 March 2000).
- "A few good fish", Equinox, July 2000 issue.
- "Professor finding ways to get hamsters to perform at their best", Telegraph Journal, 12 October 2004.
- "Marvels of sealife: Attack and defense strategies of fishes", Venerdi di Repubblica, 11 July 2008.
- "Do fish sleep", Dive Training Magazine, 2012.
- "Des animaux sont perturbés par une éclipse solaire? Vrai", Le Détecteur de rumeurs, Agence Science-Presse, 17 August 2017.
- "How will ocean animals react to the solar eclipse", Oceana, 17 August 2017.
- "Can my cat tell time?", Every Little Thing (Gimletmedia.com), 11 June 2021.

# **OTHER**

#### **PHOTOGRAPHY:**

www.SGRphoto.ca (reviewed in Outdoor Photography magazine, November 2005: "Designed primarily as a way of displaying his favourite images to family and friends, this offering from Stéphan Reebs goes way beyond a basic family album. The introductory text is friendly, and, despite its original intention, the site never falls short of professional. Landscapes from New Zealand, the UK and Nova Scotia positively leap out of the black background, and the quality is great, with many colourful abstracts and well-spotted compositions. The pictures open and enlarge with ease and navigation is a dream. Stéphan has not only met his objective, but he has soared right past it. 4 stars out of 5.")

Canadian Geographic magazine's Annual Photo Contest:

Category runner-up, 12<sup>th</sup> annual contest (see CG Jan/Feb 1997). Grand Prize winner, 14<sup>th</sup> annual contest (see CG Jan/Feb 1999). Category runner-up, 18<sup>th</sup> annual contest (see CG Jan/Feb 2003).

Member of Moncton's Focus Camera Club, 1991-present. President 1999-2001.

Freeman Patterson Award for best cumulative contest score (1995, 1996, 1999, 2001, 2003, 2008). Ken Dunphy Award for best landscape (2001, 2002). Brian Townsend Illuminator Award for best "image with a message" (2003, 2005).