

George A. Lozano

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Citizenship: Canadian

WORK

Term Lecturer	University of California, Merced	Summer 2014
Researcher§	Estonian Centre of Evolutionary Ecology	2010-present
Research Fellow*	Tartu University	2008 - 2010*
Visiting Associate Prof.	St. Matthew's University	2006 - 2007
Visiting Scientist§	Tartu University	Winter 2006
Sessional Lecturer	University of British Columbia, Okanagan	09/05 – 04/06
Research Assistant	University of Georgia, Athens	summer 2005
Term Lecturer	University of Northern British Columbia	winter 2005
Instructor	Ewha Academy, Gumi, South Korea	09/04 - 11/04
Part-time Term Instructor	University of Ottawa	10/03 - 07/04†
Visiting Scientist§	Simon Fraser University	07/02 - 08/02
Research Assistant	Patuxent Wildlife Research Center	06/01 - 05/02†
Visiting Assistant Professor	University of Memphis	2000-2001
Term Lecturer	Simon Fraser University	Winter 2000
NSERC Post-Doctoral Fellow	Taken to Simon Fraser University	1998-1999
FCAR Post-Doctoral Fellow	Taken to U. of Calif., Riverside	1997
President	McGill Post-Graduate Students' Society	1994 - 1995

EDUCATION

Ph.D., Biology, McGill University. Advisor: R. E. Lemon (Deceased).

Thesis: "Parental care and female mate choice in yellow warblers (*Dendroica petechia*)"

M.Sc., Zoology, University of Western Ontario. Supervisor: P. T. Handford (Retired).

Thesis: "Intrasexual competition and delayed plumage maturation in female tree swallows"

B.Sc., Wildlife Biology and Ecology, University of Guelph.

SCHOLARSHIPS, FELLOWSHIPS, GRANTS AND AWARDS

NSERC Post-Doctoral Fellowship (taken to Simon Fraser U.)	\$69,269	1998-1999
FCAR Post-Doctoral Fellowship (taken to UC, Riverside)	\$44,000	1996-1997
FCAR Doctoral Scholarship (McGill)	\$26,000	1993-1994
NSERC Postgraduate Scholarship (taken to McGill)	\$34,734	1991-1993
John K. Cooper Foundation Research Award	\$1000	1993
Sigma Xi Grant-in-Aid of Research Award	\$500 USD	1990
Canadian Wildlife Service Univ. Research Support Fund	\$2000	1990

TEACHING

Symposia

- 1) Univ. Neuchâtel – Immunoxidative ecology symposium. 10-11 March, 2011 (co-organizer).
- 2) Univ. of Turku – Evol. Psychol. Field Course. 9-13 Aug., 2010 (Grad. course. team taught, one of several faculty participants).

§ *pro-bono* work. † including *pro-bono* work. * 3 separate, non-continuous contracts.

NSERC info at <http://www.outil.ost.uqam.ca/CRSNG/Outil.aspx?Langue=Anglais>

FCAR: Fonds pour la Formation de Chercheurs et l'Aide à la Recherche (Quebec), now FRQNT.

Lecturer

- 1) University of California, Merced – Evolution BIO 141. Summer 2014.
- 2) Tartu University – Public Speaking in Science LOOM 04.068. Fall 2009. 15 students.
- 3) St. Matthew’s University – Veterinary Physiology II, VM 321. 2006-2007 - twice.
- 4) St. Matthew’s University – Behaviour and Welfare VM 381- 2006-2007 - thrice.
- 5) U. of British Columbia, Okanagan – Animal Behaviour BIO 359, fall 2005. 40 students.
- 6) U. of Northern British Columbia – Evolution BIO 323, winter 2005. 80 students.
- 7) U. of Northern B. C. – Parasite & Disease Ecology BIO 315, winter 2005. 40 students.
- 8) U. of Ottawa – Vertebrate Zoology BIO 3108, winter 2004, lectures and labs. 80 students.
- 9) U. of Memphis – Intro. Biology II (for non-majors) – BIO 1081, winter 2001. 40 stud.
- 10) U. of Memphis – Intro. Biology I (for non-majors) – BIO 1071, fall 2000. 240 students.
- 11) Simon Fraser U. – Wildlife Biology BISC 419, winter 2000, lectures and labs. 20 stud.

Teaching assistant

- University of British Columbia – Anatomy and Physiology (nursing program).
- McGill University – Statistics, Ornithology, Behavioural Ecology and Introductory Biology.
- University of Western Ontario – Animal Behaviour and Introductory Biology.

STUDENT RESEARCH SUPERVISION AND ADVISING**McGill University**

- Co-supervised an Independent Studies Research project (see LaFleur *et al.* 1997, below).
- Worked with several 4th year students affiliated with our lab: C. Daniel, C. Riley, R. Tittler, K. Mottley and others.

Simon Fraser University

- Helped to design and develop an M.Sc. research thesis project (Wardrop).

Patuxent Wildlife Research Center

- Designed and developed a Ph.D. research thesis project (Fallacara).

PROFESSIONAL AFFILIATIONS

American Ornithologists’ Union, Animal Behavior Society, Behavioral and Brain Sciences*, British Ecological Society, International Carotenoid Society* (* = current).

PROFESSIONAL SERVICE**Journal Reviewing** (number of papers)

Acta Zoologica Fennica (1); American Journal of Primatology (1); American Naturalist (3); Animal Behaviour (7); Auk (3); Behavioral Ecology (6); Behavioral Ecology & Sociobiology (1); Behaviour (1); Biology Letters (4); Chinese Science Bulletin (1); Ecology Letters (2); Ecoscience (1); Ethology (2); Evolutionary Ecology (2); Folia Primatologica (1); Functional Ecology (1); Hypotheses in the Life Sciences (1); Ibis (2); Ideas in Ecology and Evolution (1); Information Processing & Management (1); Integrative and Comparative Biology (1); International Journal for Parasitology (1); International Journal of Zoology (1); Journal of Avian Biology (8); Journal of Field Ornithology (3); Journal of Fish Biology (1); Journal of the American Society for Information Science and Technology (2); Naturwissenschaften (2); Oikos (3); Oecologia (2); Physiological and Biochemical Zoology (3); Proceedings of the Royal Society (of London), B (6); Psychology and Psychotherapy: theory research and practice (1); Scandinavian Journal of Psychology (1); Solutions (1); Wilson Bulletin (4).

Editorial Work

- Hypotheses in the Life Sciences – Editorial Board Member, 2011-now.
- International Journal of Zoology – Editorial Board Member, 2010-now.
- Encyclopedia of Earth: Topic Editor – Animal behaviour, 2006-2010, member thereafter.

External Reviewer

- National Science Foundation, Research Grant proposal – Ecological and Evolutionary Physiology. 2004, 2006.
- Cornell University, Dept. of Natural Resources, Tenure and Promotion committee (2001).

Conference and Symposium Organizer

- Co-organizer, with A. F. H. Ros of a symposium on “Immunoxidative ecology”. Univ. Neuchâtel -10-11 March, 2011.
- Co-organizer with A. F. H. Ros of a symposium on “Effects of immunity and oxidative stress on behavioural ecology, conceptual and technical relationships”. 5th European Conference on Behavioural Biology, 16 to 18 July, 2010. Ferrara, Italy.
- Co-organiser, SFU/UBC/UVic Ecology Retreat. Simon Fraser University. Nov. 6-8, 1998.

Committee work - St. Matthew’s University

- Grade Appeals Committee 2006.
- Student Discipline Committee 2006.
- Curriculum Committee 2007-2007.
- Member and parliamentarian of the Faculty Assembly 2007.

Committee work - McGill University

- Member of Senate, Graduate Students' representative, 1995-1996.
- Member of the Senate Nominating Committee, 1995-1996.
- Member of Council, Faculty of Graduate Studies and Research (FGSR), 1994-1996.
- Member of the Executive Committee, FGSR, 1994-1996.
- President, Post-Graduate Students' Society (PGSS), 1994-1995 (*all posts linked to this one*).
- Member of the Committee on the Co-ordination of Student Services, 1994-1995.
- Dept. of Biology representative at PGSS Council, 1995-96.
- Member of the Research Policy Committee, FGSR, 1994-1995.
- Dept. of Biology General Assembly Graduate Students' representative, 1994-1995.

INVITED SEMINARS*

- Carleton University, Ottawa, Ontario, Canada, September 2014
 - Jagiellonian University, Krakov, Poland, September 2012 (S).
 - Tallinn University, Tallinn, Estonia, May 2011 (S).
 - University College Dublin, Dublin, Ireland, July 2010 (S).
 - Seoul National University, Seoul, South Korea, October 2004.
 - Wilfrid Laurier University, Waterloo, Ont., Canada, July 2003 (S).
 - Okanagan University College, Kelowna, B.C., Canada, June 2003 (S).
 - Laurentian University, Sudbury, Ont., Canada, June 2003 (R).
 - Ferris State University, Big Rapids, MI, USA, April 2002 (S).
 - State University of New York, Fredonia, NY, USA, February 2002 (R).
 - University of Mississippi, University-Oxford, MS, USA, February 2001.
 - University College of Cariboo, Kamloops, B.C., Canada, April 2000 (S).
- * “in-house” talks excluded. S = short-term job interview, R = real job interview)

PUBLICATIONS (h = 14, h_i = 10)

- Lozano, G. A.** 2015. SAD effects on grantsmanship. BioEssays 37(1): 10-11.
- Lozano, G. A.** 2014. Ethics of using language editing services in an era of digital communication and heavily multi-authored papers. Science and Engineering Ethics 20(2): 363-367.
- Lozano, G.A.** 2014. Specificity in parasites with multiple hosts: the view from the hosts' perspective. Ideas in Ecology and Evolution 7: 25-26.
- Larivière, V., **Lozano, G. A.** and Gingras, Y. 2014. Are elite journals declining? Journal of the American Society for Information Science and Technology 65(4):649–655.
- Lozano, G. A.** 2013. The elephant in the room: multi-authorship and the assessment of individual researchers. Current Science 105(4): 443-445.
- Lozano, G. A.,** Lank, D. B. and Addison, B. 2013. Immune and oxidative stress tradeoffs in four classes of ruffs (*Philomachus pugnax*) with alternative reproductive strategies. Canadian Journal of Zoology 91(4): 212-218.
- Lozano, G. A.,** Larivière, V. and Gingras, Y. 2012. The weakening relationship between the Impact Factor and citation rates in the digital age. Journal of the American Society for Information Science and Technology 63(11): 2140-2145 (**popular media coverage - see below**).
- Lozano, G. A.** 2010. A new criterion for allocating research funds: “impact per dollar”. Current Science 99(9): 1187-1188.
- Lozano, G. A.** 2010. Evolutionary explanations in medicine: how do they differ and how to benefit from them. Medical Hypotheses 74(4): 746-749.
- Lozano, G. A.** 2009. Multiple cues in mate selection: the sexual interference hypothesis. BioScience Hypotheses 2: 37-42.
- Lozano, G. A.** 2009. The other side of the coin: intersexual selection and the expression of emotions to signal youth or maturity. Behavioral and Brain Sciences 32(5): 398-399.
- Lozano, G. A.** 2008. Obesity and sexually selected anorexia nervosa. Medical Hypotheses 71: 933-940.
- Lozano, G. A.** and Lank, D. B. 2004. Immunocompetence and testosterone-induced condition traits in male ruffs (*Philomachus pugnax*). Animal Biology 54(4): 315-329.
- Lozano, G. A.** and Lank, D. B. 2003. Seasonal trade-offs in cell-mediated immunosenescence in ruffs (*Philomachus pugnax*). Proceedings of the Royal Society of London, Series B 270: 1203-1208.
- Lozano, G. A.** and Ydenberg, R. C. 2002. Transgenerational effects of maternal immune challenge in tree swallows (*Tachycineta bicolor*). Canadian Journal of Zoology 80: 918-925.
- Lozano, G. A.** 2001. Carotenoids, immunity and sexual selection: comparing apples and oranges? American Naturalist 158: 200-203.

- Lozano, G. A.** 2000. Affirmative action won't solve sex discrimination*. Nature 403 (6770): 825 (*editors' misleading and sensationalist title, not mine).
- Lozano, G. A.** and Lemon, R. E. 1999. Effects of prior residence and age on breeding performance in yellow warblers. Wilson Bulletin 111: 381-388.
- Lozano, G. A.** 1998. Parasitic stress and self-medication in wild animals. In . Møller, A. P., Milinski, M., and Slater, P. J. B. (Eds.). Advances in the Study of Behavior Volume 27, Stress and Behavior. Chapter 6, pp. 291-317. Academic Press, London. (**Book chapter-invited contribution-see popular media coverage below**: "Expert Instinct" and "Pharmacopia").
- Lozano, G. A.** and Lemon, R. E. 1998. Adoption of yellow warbler nestlings by song sparrows. Wilson Bulletin 110: 131-133.
- Lozano, G. A.** and Lemon, R. E. 1998. Parental care responses by yellow warblers (*Dendroica petechia*) to simultaneous manipulations of food abundance and brood size. Canadian Journal of Zoology 76: 916-924.
- LaFleur, D. L., **Lozano, G. A.** and Sclafani, M. 1997. Female mate choice copying in guppies, *Poecilia reticulata*: a re-evaluation. Animal Behaviour 54: 579-586.
- Lemon, R. E., Perreault S. and **Lozano, G. A.** 1996. Breeding dispersions and site fidelity of American redstarts (*Setophaga ruticilla*). Canadian Journal of Zoology 74: 2238-2247.
- Lozano, G. A.** and Lemon, R. E. 1996. Male plumage, paternal care and reproductive success in yellow warblers, *Dendroica petechia*. Animal Behaviour 51: 265-272.
- Lozano, G. A.**, Perreault S. and Lemon, R. E. 1996. Age, arrival date, and reproductive success of male American redstarts, *Setophaga ruticilla*. Journal of Avian Biology 27: 164-170.
- Lozano, G. A.** and Handford, P. T. 1995. A test of an assumption of delayed plumage maturation hypotheses using female tree swallows. Wilson Bulletin 107: 153-164.
- Lozano, G. A.** and Lemon, R. E. 1995. Food abundance and parental care in yellow warblers (*Dendroica petechia*). Behavioral Ecology and Sociobiology 37: 45-50.
- Lozano, G. A.** 1994. Carotenoids, parasites, and sexual selection. Oikos 70: 309-311 (**see popular media coverage below** - Walker 2000).
- Lozano, G. A.** 1994. Size, condition, and territoriality in male tree swallows (*Tachycineta bicolor*). Canadian Journal of Zoology 72: 330-333.
- Lozano, G. A.** 1991. Optimal foraging theory: a possible role for parasites. Oikos 60: 391-395.

PRESENTATIONS (presenter in **bold**)

- Lozano, G. A.** and Ros A. F. H. 2011. Species with alternative mating strategies in immunoeology: what can they tell us? University of Neuchâtel - Immunoxidative ecology: progress and prospects. 10-11 March, Interuniversity Doctoral Program in Organismal Biology Symposium, Neuchâtel, Switzerland (**Symposium's organizers**)

- Lozano, G. A.** 2010. Obesity and sexually selected anorexia nervosa. 9-10 August, Evolutionary Psychology Research Symposium. Hyttiälä Field Station, Finland.
- Lozano, G. A. and **Ros, A. F. H.** 2010. Immunity and oxidative stress in behavioural ecology: results and insights from species with alternative reproductive tactics/strategies. 5th European Conference on Behavioural Biology, 16-18 July, Ferrara, Italy. (**Symposium's organizers and keynote presenters**).
- Lozano, G. A.** 2010. My work, my life. Archimedes Foundation's 6th Annual Science Student's Association Conference. 16-17 April, Tallinn, Estonia (**for high-school science students**).
- Lozano, G. A.** 2008. Obesity and sexually selected anorexia nervosa. 12th International Behavioral Ecology Congress, 9-15 August, Cornell University, Ithaca, New York, USA.
- Lank, D. B.** and Lozano, G. A. 1999. Does immunosenescence occur as predicted by life history theory? an interspecific test of T-cell mediated responses among three genders of ruffs, *Philomachus pugnax*. 113th Stated Meeting, American Ornithologists' Union, 10-14 August, Cornell University, Ithaca, New York. U.S.A.
- Lozano, G. A.** and Lemon, R. E. 1996. Parental care responses by yellow warblers (*Dendroica petechia*) to simultaneous manipulations of food abundance and brood size. 21st Annual meeting, Société Québécoise pour l'Étude Biologique du Comportement, 18-20 October, Université de Sherbrooke, Sherbrooke, Quebec, Canada.
- Lozano, G. A.**, Perreault S. and Lemon, R. E. 1995. Age, arrival date, and reproductive success of male American redstarts (*Setophaga ruticilla*). 20th Annual Meeting, Société Québécoise pour l'Étude Biologique du Comportement, 3-5 November, McGill University, Montreal, Quebec, Canada.
- Lafleur, D., **Lozano, G. A.** and Sclafani, M. 1995. Mate choice copying in female guppies, *Poecilia reticulata*, NOT!! 20th Annual Meeting, Société Québécoise pour l'Étude Biologique du Comportement, 3-5 November, McGill University, Montreal, Quebec, Canada.
- Lozano, G. A.** and Lemon, R. E. 1995. Food abundance and paternal care in yellow warblers (*Dendroica petechia*). 20th Annual Meeting, Société Québécoise pour l'Étude Biologique du Comportement, 3-5 November, McGill University, Montreal, Quebec, Canada.
- Lozano, G. A.** and Lemon, R. E. 1995. Food abundance and paternal care in yellow warblers (*Dendroica petechia*). 113th Stated Meeting, American Ornithologists' Union, 15-19 August, The Cincinnati Museum Center, Cincinnati, Ohio, U.S.A.
- Lozano, G. A.** and Lemon, R. E. 1994. Paternal care and female mate choice in yellow warblers (*Dendroica petechia*). 31st Annual Meeting, Animal Behavior Society, 23-28 July, University of Washington, Seattle, Washington, U.S.A.

- Lozano, G. A.** 1992. A test of an assumption of delayed plumage maturation hypotheses using tree swallows (*Tachycineta bicolor*). 4th International Behavioral Ecology Congress, 17-22 August, Princeton University, Princeton, New Jersey, U.S.A.
- Lozano, G. A.** 1991. Age-related differences in foraging ability and condition in female tree swallows (*Tachycineta bicolor*). 109th Stated Meeting, American Ornithologists' Union, 14-17 August, McGill University, Montreal, Quebec, Canada.
- Lozano, G. A.** 1991. Age-related differences in competitiveness in female tree swallows, *Tachycineta bicolor*. Ontario Ecology and Ethology Colloquium, 12-14 May, University of Guelph, Guelph, Ontario, Canada.

IN THE POPULAR MEDIA . . .

By me

- Lozano, G. A. 2013. Registered Reports: a new publishing initiative aimed at countering publication bias. London School of Economics' Impact of Social Sciences blog. September 24. <http://blogs.lse.ac.uk/impactofsocialsciences/2013/09/24/registered-reports-countering-publication-bias/#comment-31030>
- Lozano, G. A. 2013. Elite journals are losing their position of privilege London School of Economics' Impact of Social Sciences blog. May 16. <http://blogs.lse.ac.uk/impactofsocialsciences/2013/05/16/elite-journals-are-losing-their-position-of-privilege/#more-10582>
- Lozano, G. A. 2012. Kuidas mõõta teaduse tõhusust? [Measuring the effectiveness of science funding]. Eesti Loodus [Estonian Nature] 63(9): 40-43.
- Lozano, G. A. 2012. The demise of the impact factor? London School of Economics' Impact of Social Sciences blog. June 8. <http://blogs.lse.ac.uk/impactofsocialsciences/2012/06/08/demise-impact-factor-relationship-citation-1970s/>
- Lozano, G. A. 2010. Evolutsion tuleb meditsiinile appi [Evolution helps medicine]. Tarkade Klubi [Wise Club] 39(3): 24-25. <http://issuu.com/tarkadeklubi/docs/tarkadeklubi201003>
- Lozano, G. A. 2003. Letter to the Editor- Sexual differences in human risk-taking behaviour. Ottawa Citizen, January 5. <http://www.georgealozano.com/papers/mine/Lozano2003OttawaCitizen.jpg>
- Featuring me (commenting on others' work)**
- Withers, M. 2008. Modern persuasions and foreign liaisons. The Baltic Times, December 3. <http://www.baltictimes.com/news/articles/21897/>
- Pennisi, E. 2003. Colorful males flaunt their health. Science 300: 29-30. <http://georgealozano.com/papers/carotenoids/Pennisi2K03.pdf>
- Canadian Broadcasting Corporation. 2003. Brightest beak signals a healthy male. July 3. http://www.cbc.ca/health/story/2003/04/03/bird_beaks030403.html

Pickrell, J. 2003. Bright beaks signal health to female birds, study says. National Geographic News - On line. April 3.

http://news.nationalgeographic.com/news/2003/04/0403_030403_beaks.html

Expert Instinct. 2000. Pharmucopia. Presenter: Jolyon Jenkins. Producer: Paul Arnold. British Broadcasting Corporation- Radio 4. Aired April 24, 2000.

<http://www.georgealozano.com/Pharmucopia.wma>

Walker, M. 2000. She's gotta have it. New Scientist 165(2223): 22-26 (January 29).

Furlow, B. 2000. Kills all known germs. New Scientist 165(2222): 36-39 (January 22).

MOST IMPORTANT CONTRIBUTIONS

Lozano, G. A. 1994. Carotenoids, parasites, and sexual selection. *Oikos* 70: 309-311.

This seminal paper brought forth one of the most exciting and productive areas of research in evolutionary ecology in the past 20 years. This is the 5th most cited paper in *Oikos* that year, out of 195, and the 43rd most cited paper in *Oikos* ever, out of over 6200. Several of the most prominent researchers in the field have based their entire careers on this idea, and it has been the basis of at least 2 dozen Ph.D. graduate theses. Giants, and their students, stand on my shoulders (**372 Citations**).

Lozano, G. A., Perreault S. and Lemon, R. E. 1996. Age, arrival date, and reproductive success of male American redstarts, *Setophaga ruticilla*. *Journal of Avian Biology* 27: 164-170.

We analyzed the effects of several sequential events (arrival, mating, egg-laying, etc) on reproductive success, correcting for prior effects at each stage. The idea has been emulated repeatedly. This is the 3rd most cited paper in JAB that year, out of 50 papers, and the 16th most cited paper in JAB ever, out of over 1360 (**132 Citations**).

Lozano, G. A., Larivière, V. and Gingras, Y. 2012. The weakening relationship between the Impact Factor and papers' citations in the digital age. *Journal of the American Society for Information Science and Technology* 63(11): 2140-2145.

Now we read papers, not journals. I surmised that the relationship between papers' citation rates and journal impact factors had to be weakening. It turned out to be true. Four related papers followed, plus at least one more in the making. This work can be viewed as evidence of me having the ability to successfully enter other fields, or as an interesting application of my behavioural work (**64 citations**).

LaFleur, D. L., **Lozano, G. A.** and Sclafani, M. 1997. Female mate choice copying in guppies, *Poecilia reticulata*: a re-evaluation. *Animal Behaviour* 54: 579-586.

One of the problems with ecology is that experiments are seldom replicated. Here we attempted, unsuccessfully, to replicate what is still the most clear experimental evidence of female mate choice copying. Few researchers would have the audacity to replicate a study, and fewer still the ability get their results published, particularly when they differ from those of the first report. I must give proper credit to my undergraduate student, Daniel LaFleur, who spearheaded the study and ensured a high-quality result (**44 Citations**).

Lozano, G. A. and Lank, D. B. 2003. Seasonal trade-offs in cell-mediated immunosenescence in ruffs (*Philomachus pugnax*). Proceedings of the Royal Society of London, Series B 270: 1203-1208.

This is the first report of senescence of immune function in a wild bird, and the first to address differences in immunocompetence between the sexes by comparing both the mean and the variance of the response (**45 Citations**).

Lozano, G. A. 1991. Optimal foraging theory: a possible role for parasites. Oikos 60: 391-395.

This paper, along with my paper on self-medication (**Lozano 1998 – 84 Citations**), provided a general framework for the study of the effects of actual or perceived parasitism on foraging behaviour. It became the basis for much research on the subject (**94 Citations**).

Publications = 15, with co-authors = 30

Citations = 1060 per author = 803.2

Raw Hirsch Index (h) = 14

Individual h index (h_i) = 10

Citations/paper = 35.3

Median citations/year = 51

Citations/year, previous 9 years = 73

Citations this year, so far = 53

