

# Curriculum Vitae for Luc F. Bussière, Mar 22, 2021

## ACADEMIC HISTORY

<b>Associate Professor</b>	<b>Nov. 2020-</b>
Institute of Biological and Environmental Sciences, University of Gothenburg, SWEDEN	
<b>Senior Lecturer</b>	<b>May 2019-Oct. 2020</b>
Institute of Biological and Environmental Sciences, University of Stirling, UNITED KINGDOM	
<b>Lecturer</b>	<b>Apr. 2007-May 2019</b>
Institute of Biological and Environmental Sciences, University of Stirling, UNITED KINGDOM	
<b>Post-doctoral appointment</b>	<b>Jan. 2005-Mar. 2007</b>
Zoologisches Museum der Universität Zürich, Zürich, SWITZERLAND Supervisor: Prof. Paul I. Ward	
<b>NSERC (Canada) post-doctoral fellowship</b>	<b>2003-2004</b>
School of Biological, Environmental, and Earth Sciences University of New South Wales, Sydney, New South Wales, AUSTRALIA Supervisor: Dr. Rob Brooks	
<b>Ph. D.</b>	<b>1996 – 2003 (awarded June 4, 2003)</b>
Biology Group, University of Toronto at Mississauga, Mississauga, Ontario, CANADA Supervisor: Prof. Darryl T. Gwynne Thesis title: The influence of mate choice on courtship feeding by males	
<b>B. Sc. (High Honours)</b>	<b>1992 – 1996</b>
University of Saskatchewan, Saskatoon, Saskatchewan, CANADA Cumulative Grade Point Average: 87%	

## PUBLICATIONS

- 65) Demont M, Ward PI, Blanckenhorn WU, Lüpold S, Martin O, Bussière LF. In press. How biases in sperm storage relate to sperm use during oviposition in female yellow dung flies. *Behav. Ecol.*
- 64) Ahnesjö I & Bussiere LF. "Evolution of Animal Mating Systems." In press. In Oxford Bibliographies in Evolutionary Biology. Ed. Douglas Futuyma. New York: Oxford University Press.
- 63) Buckerfield SJ, Quilliam RS, Bussière LF, Waldron S, Naylor L, Li S & Oliver DM. 2020. Chronic urban hotspots and agricultural drainage drive microbial pollution of karst water resources in

- rural developing regions. **Sci. Tot. Environ.** 744: 140898. DOI: 10.1016/j.scitotenv.2020.140898
- 62) Murray RL, Herridge EJ, Ness RW, Wiberg RAW, & Bussière LF. 2020. Competition for access to mates predicts female-specific ornamentation and male investment in relative testis size. **Evolution** 74:1741-1754. DOI: 10.1111/evo.13986
- 61) Etzler EA, Brown WD, Bussière LF, & Gwynne DT. 2020. *Oecanthus nigricornis* (Orthoptera: Gryllidae) as the first known host of *Stylogaster neglecta* (Diptera: Conopidae). **Can. Entomol.** 152: 613-621. DOI: 10.4039/tce.2020.21
- 60) Santori C, Bussière LF & Houslay TM. 2020. Heightened perception of competition hastens courtship. **Behav Ecol.** 31:239-246 DOI: 10.1093/beheco/arz183.
- 59) Murray RL, Gwynne DT & Bussière LF. 2019. The role of functional constraints in non-random mating patterns in a dance fly with female ornaments. **J. Evol. Biol.** 32:984-993 DOI: 10.1111/jeb.13500
- 58) Leivesley J, Bussière LF, Pemberton JM, Pilkington JG, Wilson K & Hayward AD. 2019. Survival costs of reproduction are mediated by parasite infection in wild Soay sheep. **Ecol. Lett.** DOI: 10.1111/ele.13275
- 57) Pollard C, Redpath S, Bussière LF, Keane A, Thompson D, Young J & Bunnefeld N. 2019. The impact of uncertainty on cooperation intent in a conservation conflict. **J. Appl. Ecol.** 56:1278-1288.
- 56) Hunter F & Bussière LF. 2019. Comparative evidence supports a role for reproductive allocation in the evolution of female ornament diversity. **Ecol. Entomol.** 44: 324-332.
- 55) Murray RL, Wheeler J, Gwynne DT & Bussière LF. 2018. Sexual selection on multiple female ornaments in dance flies. **Proc. R. Soc. B.** 285:20181525.
- 54) Bussière LF. 2018 How bombardier beetles survive being eaten, and other amazing animal defence mechanisms. **The Conversation**. Published Feb 6.
- 53) Murray RL, Herridge EJ, Ness RW & Bussière L. 2017 Are sex ratio distorting endosymbionts responsible for mating system variation among dance flies (Diptera: Empidinae)? **PLoS ONE**, 12(6): e0178364.
- 52) Houslay TM, Houslay KF, Rapkin J, Hunt J, Bussière LF. 2017. Mating opportunities and energetic constraints drive variation in age-dependent sexual signalling. **Funct. Ecol.** 31:728-741.
- 51) Bussière LF. 2016. Genotype-by-Environment Interactions and Sexual Selection edited by John Hunt and David J. Hosken, **Quart. Rev. Biol.** 91: 515-516.
- 50) Bussière LF. 2016. Review of “Approaches to R education in Canadian Universities” by Carson & Basilioko. **F1000Research Review** DOI: 10.5256/f1000research.11021.r18125 15 Dec. 2016.
- 49) Herridge EJ, Murray RL, Gwynne DT, Bussière LF. 2016. Diversity in mating and parental sex roles. In **Encyclopedia of Evolutionary Biology**. Ed. R Kliman. pp. 453-458.
- 48) Ahnesjö I, Bussière LF. 2016. eLetter response to “Darwinian sex roles confirmed across the animal kingdom” by Janicke et al. Published Mar 22. **Sci. Adv.**
- 47) Bussière LF. 2016 What species would become dominant on earth if humans died out? **The Conversation**. Published Jan 26. (Republished in many outlets and languages, including IFLScience, RawStory, The Daily Mail, ScienceFinders.com, Pikiran Rakyat, Jijitang.com; over 1.7m reads worldwide; republished in French in Aug. 2016).

- 46) Rotheray EL, Goulson D, Bussière LB. 2016. Growth, development and life history strategies in an unpredictable environment: case study of a rare hoverfly *Blera fallax* (Diptera: Syrphidae). **Ecol. Entomol.** 41:85-95.
- 45) Houslay TM, Hunt J, Tinsley MC & Bussière LF. 2015. Sex differences in the effects of juvenile and adult diet on age-dependent reproductive effort. **J. Evol. Biol.** 28:1067-1079.
- 44) Lewis SM, Vahed K, Koene JM, Engqvist L, Bussière LF, Perry JC, Gwynne D & Lehmann GUC. 2014. Emerging issues in the evolution of animal nuptial gifts. **Biol. Lett.** 10:20140336.
- 43) Rotheray EL, Bussière LB, Moore P, Bergstrom L, Goulson D. 2014. Mark recapture estimates of dispersal ability and observations on the territorial behaviour of the rare hoverfly, *Hammerschmidia ferruginea* (Diptera, Syrphidae). **J. Ins. Cons.** 18:179-188.
- 42) Buser C, Ward PI & Bussière LF. 2014. Adaptive maternal plasticity in response to perceptions of larval competition. **Funct. Ecol.** 28:669-681. (*Shortlisted for Funct. Ecol. 2014 JBS Haldane Prize, awarded each year to the best paper in the journal by a young investigator at the start of their research career.*)
- 41) Schäfer MA, Berger D, Jochmann R, Blanckenhorn WU & Bussière LF. 2013. The developmental plasticity and functional significance of an additional sperm storage compartment in female yellow dung flies. **Funct. Ecol.** 27:1392-1402.
- 40) Goulson D, Park K, Tinsley MC, Bussière LF & Vallejo-Marín M. 2013. Social learning drives handedness in nectar-robbing bumblebees. **Behav. Ecol. Sociobiol.** 67:1141-1150.
- 39) De Luca PA, Bussière LF, Souto-Vilaros D, Goulson D, Mason AC, & Vallejo-Marín M. 2013. Variability in bumblebee pollination buzzes affects the quantity of pollen released from flowers. **Oecologia** 172:805-816.
- 38) Bussière LF, Tinsley MC & Laugen AT. 2013. Female preferences for masculine faces are probably not adaptations for securing good immunocompetence genes. **Behav. Ecol.** 24:593-594.
- 37) Lee P, Bussière LF, Webber CE, Poole JH & Moss CJ. 2013. Enduring consequences of early experiences: 40 year effects on survival and success among African elephants (*Loxodonta africana*). **Biol. Lett.** 9:20130011.
- 36) Rotheray EL, Lepais O, Nater A, Krützen M, Greminger M, Goulson D & Bussière LF. 2012. Genetic variation and population decline of an endangered hoverfly *Blera fallax* (Diptera: Syrphidae). **Cons. Genet.** 13:1283-1291.
- 35) Wheeler J, Gwynne DT & Bussière LF. 2012. Stabilizing sexual selection for female ornaments in a dance fly. **J. Evol. Biol.** 25:1233-1242.
- 34) Terenius O, Lindh J, Eriksson-Gonzales K, Bussière LF, Laugen AT, Bergquist H, Titanji K & Faye I. 2012. Midgut bacterial dynamics in *Aedes aegypti*. **FEMS Microbiol. Ecol.** 80:556-565.
- 33) Amin MR, Bussière LF, Goulson D. 2012. Effects of male age and size on mating success in the bumblebee *Bombus terrestris*. **J. Insect Behav.** 25:362-374.
- 32) Demont M, Martin OY & Bussière LF. 2012. Wild yellow dung fly females may not select sperm based on dung pat microclimate but could nevertheless benefit from polyandry. **Evol. Ecol.** 26:715-731.
- 31) Rotheray EL, Greminger MP, Nater A, Krützen M, Goulson D & Bussière LF. 2012. Polymorphic microsatellite loci for the endangered pine hoverfly *Blera fallax*. **Cons. Genet. Res.** 4:117-120.
- 30) Houslay TM & Bussière LF. 2012. Sexual selection and life history allocation. In: **Encyclopedia of Life Sciences**. John Wiley & Sons, Ltd: Chichester. DOI: 10.1002/9780470015902.a0023667

- 29) MacKenzie D, Bussière LF & Tinsley MC. 2011. Senescence of the cellular immune response in *Drosophila melanogaster*. **Exp. Gerontol.** 46:853-859.
- 28) Demont M, Buser C, Martin O, Bussière LF. 2011. Natural levels of polyandry: differential sperm storage and temporal changes in sperm competition intensity in wild yellow dung flies. **Funct. Ecol.** 25:1079-1090.
- 27) Thüler K, Bussière LF, Postma E, Ward PI, & Blanckenhorn WU. 2011. Genetic and environmental sources of covariance among reproductive traits in the yellow dung fly. **J. Evol. Biol.** 24:1477-1486.
- 26) Jochmann R, Blanckenhorn WU, Bussiere LF, Eirkson CE, Jensen J, Kryger U, Lahr J, Lumaret J-P, Römbke J, Wardhaugh K & Floate KD. 2011. How to test non-target effects of veterinary pharmaceutical residues in livestock dung in the field. **Integr. Environ. Assess. Manag.** 7:287-296.
- 25) Kelly CD, Bussière LF & Gwynne DT. 2010. Pairing and insemination patterns in a giant weta (*Deinacrida rugosa*: Orthoptera; Anostostomatidae). **J. Ethol.** 28:483-489.
- 24) Fricke, C, Martin OY, Bretman A, Bussière LF & Chapman T. 2010. Sperm competitive ability and indices of lifetime reproductive success. **Evolution** 64:2746-2757.
- 23) Blanckenhorn WU, Pemberton AJ, Bussière LF, Roembke J, & Floate KD. 2010. A review of the natural history and laboratory culture methods for the yellow dung fly, *Scathophaga stercoraria* (L.; Diptera: Scathophagidae). **J. Ins. Sci.** 10:11.
- 22) Hall MD, Bussière LF, Demont M, Ward PI & Brooks R. 2010. Competitive PCR reveals the complexity of postcopulatory sexual selection in *Teleogryllus commodus*. **Molec. Ecol.** 19:610-619.
- 21) Bussière LF, Demont M, Pemberton AJ, Hall MD & Ward PI. 2010. The assessment of insemination success in yellow dung flies using competitive PCR. **Molec. Ecol. Res.** 10:292-303.
- 20) Hall, MD, Bussière LF & Brooks R. 2009. Diet-dependent female evolution influences male life-span in a nuptial feeding insect. **J. Evol. Biol.** 22:873-881.
- 19) Hall, MD, Bussière LF & Brooks R. 2008. The effect of diet quality and wing morph on male and female reproductive investment in a nuptial feeding ground cricket. **PLoS ONE** 3(10): e3437.
- 18) Bussière LF, Gwynne DT & Brooks R. 2008. Sexual selection on males and females in a role-reversed swarming dance-fly, *Rhamphomyia longicauda* (Diptera: Empididae). **J. Evol. Biol.** 21:1683-1691.
- 17) Hall MD, Bussière LF, Hunt J & Brooks R. 2008. Experimental evidence that sexual conflict influences the opportunity, form and intensity of sexual selection. **Evolution** 62:2305-2315.
- 16) Marshall DJ, Bonduriansky R & Bussière LF. 2008. Offspring size variation as a maternal bet-hedging strategy in unpredictable environments. **Ecology** 89:2506-2517.
- 15) Kelly CD, Bussiere LF & Gwynne DT. 2008. Sexual selection for male mobility in a giant insect with female-biased size dimorphism. **Am. Nat.** 172:417-423.
- 14) Bussière LF, Hunt JH, Stölting KN, Jennions MD & Brooks R. 2008. Mate choice for genetic quality when environments vary: suggestions for empirical progress. **Genetica** 134:69-78.
- 13) Lorch PD, Bussière LF & Gwynne DT. 2008. Quantifying the potential for sexual dimorphism using upper limits on Bateman gradients. **Behaviour** 145:1-24.
- 12) Gwynne DT, Bussière LF & Ivy TM. 2007. Female ornaments hinder escape from spider webs in a role-reversed swarming dance fly. **Anim. Behav.** 73:1077-1082.

- 11) Bussière LF. 2007. Richard Dawkins: How a scientist changed the way we think (book review). **ISBE Newsletter** 19:17-18.
- 10) Bussière LF, Hunt J, Jennions MD & Brooks R. 2006. Sexual conflict and cryptic female choice in the black field cricket, *Teleogryllus commodus*. **Evolution** 60:792-800.
- 9) Brooks R, Hunt J, Blows MW, Smith MJ, Bussière LF & Jennions MD. 2005. Experimental evidence for multivariate stabilizing sexual selection. **Evolution** 59:871-880.
- 8) Bussière LF, Basit HA & Gwynne DT. 2005. Preferred males are not always good providers: female choice and male investment in tree crickets. **Behav. Ecol.** 16:223-231.
- 7) Bussière LF, Clark AP & Gwynne DT. 2005. Precopulatory choice for cues of material benefits in tree crickets. **Behav. Ecol.** 16:255-259.
- 6) Bussière LF & Head ML. 2004. Book review: Mating systems and strategies. **Austr. Ecol.** 29:603-604.
- 5) Hunt J, Brooks R, Jennions MD, Smith MJ, Bentsen CL & Bussière LF. 2004. High-quality male field crickets invest heavily in sexual display but die young. **Nature** 432:1024-1027.
- 4) Hunt J, Bussière LF, Jennions MD & Brooks R. 2004. What is genetic quality? **Trends Ecol. Evol.** 19:329-333.
- 3) Brooks R, Bussière LF, Jennions MD & Hunt J. 2004. Sinister strategies succeed at the 2003 cricket world cup. **Proc R. Soc. Lond. B (Suppl)** 271:S64-S66.
- 2) Gwynne DT & Bussière LF. 2002. Female mating swarms increase predation risk in a 'role-reversed' dance fly (Diptera: Empididae: *Rhamphomyia longicauda* Loew). **Behaviour** 139:1425-1430.
- 1) Bussière LF. 2002. A model of the interaction between "good genes" and direct benefits in courtship feeding animals: when do males of high genetic quality invest less? **Phil. Trans. R. Soc. Lond. B** 357:309-317.

## RECENT RESEARCH GRANTS

Awarding agency or scheme	Title	Main applicant	Joint applicants	Award period	Grant value
Carl Tryggers Stiftelsen för Vetenskaplig Forskning	The stability of quantitative genetic constraints on pesticide resistance evolution	Luc Bussière	Matthew Tinsley	2021-2023	SEK600,000
Stirling Spark	Sustainable futures for Kenyan crop protection	Matthew Tinsley	Luc Bussière	2020	£14,803
BBSRC Pathfinder Scheme	Assessing The Market Potential Of A Novel Resistance Management Framework For Fungal Biopesticides In The UK Glasshouse Horticulture Sector	Matthew Tinsley	Luc Bussière Rosie Mangan Belinda Luke Steve Edgington	2019-2020	£24,394
BBSRC & FAPESP Newton Fund	ENDORSE: Enhancing Diversity to Overcome Resistance Evolution	Luc Bussière (UK) Ricardo Polanczyk (Brazil)	Matthew Tinsley Rosie Mangan Brad Duthie Nils Bunnefeld Belinda Luke Yelitza Colmenarez Natália Corniani Leonardo Fraceto Renata de Lima	2019-2021	£628,299 from BBSRC and R\$253,690 from FAPESP
BBSRC & FAPESP Newton Fund	Overcoming insecticide resistance using diverse fungal pathogens and heterogeneous agricultural landscapes	Luc Bussière (UK) Ricardo Polanczyk (Brazil)	Matthew Tinsley	2018-19	£100,788 from BBSRC and R\$136,192 from FAPESP
Stirling Connect	Overcoming insecticide resistance using diverse fungal pathogens and heterogeneous agricultural landscapes	Luc Bussière	Matthew Tinsley	2018	£3,800
British Ecological Society	Sexual partitioning in diet and habitat use in mandrills	David Lehmann	Kate Abernethy Luc Bussière Nils Bunnefeld Al Jump Koumba Pambo	2016-2018	£19,798
European Society for Evolutionary Biology	Causes of gender disparity in academic achievement	Luc Bussière	Kirsty Park Elizabeth Herridge	2016	€1,000
University of New Orleans	Mechanisms of inbreeding avoidance in wild mandrills	Nicola Anthony	Katy Morgan Kate Abernethy Luc Bussière David Lehmann Patrick Mickala Stephan Ntie	2016-2018	US\$12,000
NERC Biomolecular Analysis Facility	Rates of polyandry across species of dance flies	Luc Bussière		2012-2013	£28,003
Swedish Research Council Guest Researcher Grant	Assessing trade-offs in wild populations	Ane T. Laugen	Luc Bussière	2011	SEK21,300
Royal Society of London	Fitness consequences of sexual trait investment.	Luc Bussière		2010	£14,292

## GRADUATE STUDENTS SUPERVISED

Student	Start date	Award date	Degree	My role (current role after moving institutions)	Host institution	Other supervisors
Ellen Rotheray	2008	2012	PhD	Supervisor	Stirling	Dave Goulson
Danielle MacKenzie	2008	2014	PhD	Cosupervisor	Stirling	Matthew Tinsley
Thomas Houslay	2010	2014	PhD	Supervisor	Stirling	Matthew Tinsley
Sumayah Bashir	2010	2014	PhD	Cosupervisor	Stirling	Matthew Tinsley
Rosalind Murray	2010	2015	PhD	Supervisor	Stirling	Matthew Tinsley
Elizabeth Herridge	2010	2016	PhD	Supervisor	Stirling	Andre Gilburn
Phil Cannard	2010	2011	MSc	Supervisor	Stirling	Alistair Jump
Katie Murray	2013	2018	PhD	Cosupervisor	Stirling	Matthew Tinsley
Geoff Wilkinson	2012	2013	MSc	Supervisor	Stirling	Andre Gilburn
Leah Brown	2013	2014	MSc	Supervisor	Stirling	David Copplestone & Matthew Tinsley
Chris Pollard	2014	2019	PhD	Cosupervisor	Stirling	Nils Bunnefeld
Marco Kubiak	2014	2018	MPhil	Cosupervisor	Stirling	Matthew Tinsley
John Paterson	2017		PhD	Supervisor*	Stirling	Brad Duthie, Mario Vallejo-Marin & Phil Stephens
Marialuisa Cassia	2017	2018	MSc	Supervisor	Stirling	Katharine Abernethy & David Lehmann
Joshua Bauld	2018		PhD	Supervisor*	Stirling	David Lehmann, Katharine Abernethy, Jason Newton & Isabel Jones
Sarah Glover	2018	2019	MSc	Cosupervisor	Stirling	Katharine Abernethy
Ana Drago Rosa	2019		PhD	Cosupervisor	St. Andrews	Nathan Bailey
Rose McKeon	2020		PhD	Supervisor*	Stirling	Matthew Tinsley, Stuart Auld, Mike Ritchie & Carolin Kosiol
Mia Graham	2020		PhD	Cosupervisor*	Stirling	Matthew Tinsley, Stuart Auld & Dave George
Ruth Smith	To begin 2021		PhD	Cosupervisor	Glasgow	Jason Newton, David Lehmann & Katharine Abernethy
William Tejler	To begin 2021		MSc	Supervisor	Gothenburg	Katharine Abernethy & Robbie Whytock

\*In late 2020 I relocated to the University of Gothenburg. While from the University administration perspective I no longer have an official role in supervision, I maintain weekly meetings and continue to shape the research and student development of these students.

## GRADUATE THESIS EXAMINATION COMMITTEES

Candidate	Defence date	Supervisor(s)	Institution
Will Pitchers (PhD)	2010	John Hunt & Tom Tregenza	Univ. of Exeter in Cornwall
Denis Limousin (PhD)	2011	Michael Greenfield	Univ. François Rabelais, Tours
Anna Moynihan (PhD)	2011	Dave Shuker	Univ. of St. Andrews
Penelope Whitehorn (PhD)	2011	Dave Goulson & Matthew Tinsley	Univ. of Stirling

**Dr. Luc F. Bussière**, Associate Professor  
University of Gothenburg

Native: English & French, Intermediate: Swedish (B1), Basic: Norwegian (A2),

Beginner: German & Portuguese (A1)

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<b>Margo Adler (PhD)</b>	2012 (no oral exam)	Russell Bonduriansky	Univ. of New South Wales
<b>Ciaran Ellis (PhD)</b>	2014	Dave Goulson & Kirsty Park	Univ. of Stirling
<b>Laurence Belcher (MRes)</b>	2015	John Hunt	Univ. of Exeter in Cornwall
<b>Junyao Sun (PhD)</b>	2016	Peter Hunter, Andrew Tyler & Nigel Willby	Univ. of Stirling
<b>Matthew Carey (MRes)</b>	2017 (no oral exam)	John Hunt and David Hosken	Univ. of Exeter in Cornwall
<b>Robbie Whytock (PhD)</b>	2018	Kirsty Park	Univ. of Stirling
<b>Ian Skicko (PhD)</b>	2018	Tom Tregenza & Rolando Rodriguez-Munoz	Univ. of Exeter in Cornwall
<b>Joshua Parry (MRes)</b>	2019 (no oral exam)	John Hunt	Univ. of Exeter in Cornwall
<b>Tom Bradfer-Lawrence (PhD)</b>	2020	Daisy Dent	Univ. of Stirling
<b>Samuel Perini (PhD)</b>	2021	Roger Butlin	University of Gothenburg
<b>Badreddine Bererhi (PhD)</b>	2021 (upcoming)	Mats Olsson	University of Gothenburg

## **ADMINISTRATIVE EXPERIENCE**

Mental Health Champion, Faculty of Natural Sciences (Univ. of Stirling) since 2018  
Chair and coordinator of Univ. of Stirling Biol. & Env. Sciences NSS Review, 2018-19  
Chair and coordinator of Univ. of Stirling Biol. & Env. Sciences Programme Review, 2017-18  
Programme director for Animal Biology degree (Univ. of Stirling) since 2012, and for Biology and Mathematics degree 2008-2015  
Member of Biol. & Env. Sciences Teaching and Learning Committee since 2012  
Member of Biol. & Env. Sciences Equality and Diversity committee since 2013  
Member of Biol. & Env. Sciences Controlled Environment Facility steering committee since 2011  
Coordinator and manager of Honours Biology Field Course 2009-2016  
Founder and manager Biol. & Env. Sci. Undergraduate Summer Vacation Awards Scheme 2009-2014

## **SERVICE FOR THE SCIENTIFIC COMMUNITY**

External examiner for University of Glasgow MRes in Ecology and Environmental Biology 2014-2017

Associate editor for *Journal of Insect Science*

Reviewer for many funding agencies, including:

BBSRC and NERC (UK), NRF (South Africa), NSERC (Canada), NSF (USA), and NOSR (Netherlands)

Frequent reviewer for many journals, including: *American Naturalist*, *Animal Behaviour*, *Behavioral Ecology and Sociobiology*, *Behavioural Ecology*, *Biological Journal of the Linnean Society*, *Biology Letters*, *BMC Evolutionary Biology*, *Canadian Entomologist*, *Conservation Genetics*, *Ecology*, *Ecological Entomology*, *Ethology*, *Evolution*, *Evolutionary Ecology*, *Heredity*, *Journal of Animal Ecology*, *The Journal of Evolutionary Biology*, *The Journal of Insect Behaviour*, *Journal of Orthopteran Research*, *Oikos*, *PNAS (USA)*, *Proceedings of the Royal Society of London (B)*, *Physiological Entomology*, and *Trends in Ecology and Evolution*.

## UNDERGRADUATE AND MSc TEACHING AT STIRLING UNIVERSITY

NB For each of the modules listed below, I developed my own material after consulting relevant analogous lectures and practical exercises delivered by colleagues at Stirling and elsewhere. I also redesigned substantial portions of the Biology Field Course, the Evolution and Genetics module, and the MSc and UG Statistics Course when they superseded the previous courses. Most modules at the University of Stirling are team-taught, with more than one member of staff contributing, while the coordinator organizes the module and deals with all module administration. I have designated for each of the modules in the table above my role as module coordinator or contributor. Module coordination includes taking responsibility for maintaining module coherence across lecturers, all student administration, and improvements to module delivery year on year.

Unit code	Subject	Lecture topics	Year of study	Years taught	Typical enrollment	Current role	LFB lecture contact hrs	LFB practical contact hrs
Sci2FS	Field skills	Philosophy of science; Experimental design	1	2010-2017	240	Contributor	2	~8 (online practical)
Bio3EG	Evolution and genetics	Classical & molecular genetics; evolution; natural selection	2	2008-present	210	Contributor	12	16
Bio3FC	Biology Field Course	Experimental design and analysis, scientific writing	2	2014-2017	50	Contributor	-	20
Bio4BD	Biodiversity	Diversity of chordates	2	2007-2009	80	Contributor	6	16
Bio5AP	Animal physiology	Evol. dynamics in physiological traits	3	2008-2010	60	Contributor	3	4
Bio7FC	Honours field course	Field studies in ecology & evolution	4	2007-2016	30	Module coordinator	4	10 days residential field course
Bio7A/EH	Biology hons seminar	Current topics in evolutionary biology	4	2007-2008	30	Contributor	1	3
Bio7SX	Evolution of sex	Mate choice models; sexual conflict	4	2009-2011	24	Contributor	8	10
Sci7SR	Statistics Using R	Phil. of statistics, regression, multiple regression, generalized models, GLMMs	4	2013-present	55	Module coordinator	11	24
ENMP03	Analysis of environmental data	Phil. of statistics, regression, multiple regression, generalized models, GLMMs	MSc	2011-present	25	Module coordinator	10	20
ENMP24	Tropical ecology and conservation	Biodiversity, land use, nutrient flux, invasive species, sustainable resource use	4 & MSc	2016-present	10	Contributor	2	12 days residential field course

## RECENT AWARDS

Award	Date of award	Awarding body	Institution
Best teaching assistant	2001	Univ. of Toronto Mississauga Campus	Univ. of Toronto
Excellence in student feedback (runner-up)	2011	Univ. of Stirling Student's Union	Univ. of Stirling
Excellence in championing career development (runner-up)	2012	Univ. of Stirling Student's Union	Univ. of Stirling
Excellence in e-Learning (runner-up)	2013	Univ. of Stirling Student's Union	Univ. of Stirling
Most Read Contribution	2017	The Conversation Awards	Univ. of Stirling
Excellence in Teaching in Faculty of Natural Sciences (finalist)	2019	Univ. of Stirling Student's Union	Univ. of Stirling
Most Memorable Contribution	2019	The Conversation Awards	Univ. of Stirling

## PEDAGOGICAL & MENTOR DEVELOPMENT COURSES TAKEN

Course title	Course duration	Date completed	Course provider	Institution
Teaching Higher Education	12 weeks	2001	Woodsworth College	Univ. of Toronto
Quantitative Genetics and QTL Mapping	1 week	2004	Bruce Walsh & Brad Anholt	North Carolina State Univ.
Induction for new lecturers	3 days	2007	Human resources and staff development	Univ. of Stirling
R for All	1 week	2009	Andrew Beckerman & Owen Petchey	Stirling Univ.
Personal tutor training	1 day	2014	Student services	Univ. of Stirling
Teaching Bites: Teaching, assessing and engaging large groups of students: a biological example	1 hr	2014	Information Services	Univ. of Stirling & Univ. of Glasgow
Geometric morphometrics	1 week	2014	Chris Klingenberg	PR-Statistics
What is employability, and how do I take it forward in my programme?	4 hrs	2015	School of Natural Science	Univ. of Stirling
Teaching Bites: PeerWise: more new fangled technology or a useful tool?	1 hr	2015	Information Services	Univ. of Stirling
Teaching Bites: Communicating with students through a Virtual Learning Environment	1 hr	2015	Information Services	Univ. of Stirling & Univ. of Glasgow
Understanding and implementing Bayesian analyses	2 weeks	2018	Matt Low & Malin Aronsson	Swedish Univ. of Agricultural Sciences
International Mentoring Partnership Programme	1 week	2019	Human resources and staff development	Univ. of Stirling

## PROFESSIONAL DEVELOPMENT COURSES DELIVERED

Course provider	Course name	Date(s)
PR~Statistics ( <a href="http://www.prstatistics.com">www.prstatistics.com</a> )	Advancing in Statistical Modelling Using R	Annually from 2014 - 2019
PR~Statistics ( <a href="http://www.prstatistics.com">www.prstatistics.com</a> )	Introduction to Statistics and R for Biologists	December 2015
PS~Statistics ( <a href="http://www.psstatistics.com">www.psstatistics.com</a> )	Introduction to Statistical modelling for Psychologists in R	April 2018, April 2019
IAPETUS Doctoral Training Programme	Advanced linear, nonlinear and hierarchical modelling	Annually since November 2017
Researcher Professional Development Initiative, IRET, Libreville, Gabon	Initiation au logiciel 'R' et traitement de données écologiques (course provided in French)	Annually since January 2017
Department of Plant Protection, UNESP Jaboticabal, Brazil	Statistical Modelling Using R	January 2018
Department of Plant Protection, UNESP Jaboticabal, Brazil	Statistical Modelling Using R & Insecticide Resistance to Biocontrol	December 2019