

# Maydianne CB Andrade

## *Curriculum vitae*

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### **A. Biographical Information**

#### **1. Personal**

Name: Maydianne Christine Beaumont Andrade

Citizenship: Canadian

Department of Biological Sciences  
University of Toronto at Scarborough  
1265 Military Trail  
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#### **2. Degrees**

**Ph.D. Neurobiology & Behavior 2000 Cornell University**

Co-advisors: ST Emlen and PW Sherman

Thesis title: *Male mating strategies in a cannibalistic spider.*

**M.Sc. Zoology 1995 University of Toronto at Mississauga**

Supervisor: D.T. Gwynne.

Thesis title: *Sexual cannibalism in the Australian redback spider (*Latrodectus hasselti* Thorell):  
Natural selection for female feeding and sexual selection for male sacrifice*

**B.Sc. (1<sup>st</sup> class Honours) 1992 Simon Fraser University**

Supervisor: B.D. Roitberg.

Thesis title: *The effect of artificial selection on behavioural variation within clones of the pea aphid (*Acrythosiphon pisum*).*

#### **3. Employment**

1 April 2013 – 30 March 2018: **Canada Research Chair in Integrative Behavioural Ecology** (tier 2)

1 July 2011 - present: **Full Professor**, Department of Biological Sciences, University of Toronto  
Scarborough

2001 – present: **Research Associate**, Royal Ontario Museum

1 July 2007 – March 2013: **Canada Research Chair in Integrative Behavioural Ecology** (tier 2)

1 July 2006 – June 2011: **Associate Professor**, tenured, Department of Biological Sciences, University  
of Toronto Scarborough.

1 August 2001. Appointed to the **Graduate Faculty of University of Toronto**, Department of  
Ecology & Evolutionary Biology.

1 July 2000 – 30 June 2006: **Assistant Professor**, Department of Life Sciences, University of Toronto  
Scarborough

2004 – 2011: **Special (Associate) Graduate Faculty Member**, Department of Zoology, University of  
Guelph

1999: **Teaching Assistant**, John S. Knight Writing Program, Cornell University

1997, 1998: **Teaching Assistant**, Department of Neurobiology & Behavior, Cornell University

1993 – 1995 **Teaching Assistant**, Department of Biology, University of Toronto at Mississauga

#### **4. Honours (1992-present)**

##### **Academic Honours & Awards**

2016. Elected **Fellow of the Animal Behavior Society** (<http://www.animalbehaviorsociety.org/>). This is one of the two main international academic societies in my field of research. From the society handbook: *Fellows are members who have engaged in research in animal behavior for at least ten years and who in the opinion of the elected officers and current Fellows of the society have made distinguished contributions to the field. Not more than 10% of the active membership shall be Fellows.*

2016. Awarded **UTSC Principal's Research Award**

2015. **UTSC Underground** (student newspaper) '**Professors of the Year**' (one of four professors chosen from student nominations of UTSC "professors who have positively impacted students' lives, either in the classroom or in a broader setting...")

2007 – 2013; 2013 - 2018. **Canada Research Chair in Integrative Behavioural Ecology**, awarded by the government of Canada (<http://www.chairs-chaires.gc.ca/>). Value: \$100,000/year to the University of Toronto.

2000 – 2002; 2003– 2006. **University Faculty Award**, Natural Sciences and Engineering Council of Canada. Value: \$40,000/year to the University of Toronto.

2003. **Outstanding New Investigator Award**, Animal Behavior Society (USA). "...recognizes an outstanding contribution in animal behavior by a new investigator."

2001 – 2006. **Premier's Research Excellence Award (PREA)**, Ontario Ministry of Energy, Science & Technology. Value: \$25,000/yr to underwrite salaries to trainees in my research group.

2001. **Best faculty talk**, Department of Zoology Colloquium, University of Toronto.

2000. **Pitelka Award for Research Excellence**, International Society for Behavioral Ecology. Awarded for the paper: Andrade, MCB, 1998. Female hunger can explain variation in cannibalistic behaviour despite male sacrifice in the Australian redback spider. *Behavioral Ecology* 9:33-42. This paper was judged by the editorial board to be the most outstanding contribution published in the journal by a young investigator in the previous 2 years.

1999. **Clark Distinguished Teaching Award**, College of Arts and Sciences, Cornell University.

1999. **Whittaker Award**, best oral paper in the annual Ecology & Evolutionary Biology Graduate Student Symposium, Cornell University.

1996. **Honorable Mention**, student paper competition, Arachnological Society of America annual meeting.

1995. **Award for Academic Excellence**, the Black Business and Professionals Association of Toronto.

1992. **Dean of Science's Convocation Silver Medal.** Awarded to one undergraduate in the top 5% of the graduating class across the Faculty of Science, Simon Fraser University.

### **Popular Science Honours & Awards**

2007. **African Canadian Achievement Award** for Excellence in Science.

2007. Top 10 Finalist, **Television Ontario's Best Lecturer Competition.**

2006. Named to **Macleans Magazine's 2006 Honour Roll.** 'Discoverers and Thinkers' category, July 1, 2006.

2005. Named as one of the '**Brilliant 10**' by **Popular Science Magazine**, October issue. List features 10 of "...the most extraordinary, dynamic, innovative and promising young scientists in North America."

2002. Time Magazine (Canada), June issue. Featured in: "**Canada: the next generation.** ...some of the Canadians who define the new frontiers of science".

### **5. Professional affiliations and activities**

#### **Professional societies:**

**Co-host, Meeting of the Animal Behavior Society, 2017.** One of two local organizers for this conference which will be held at UTSC, with an expected enrolment of 1000.

**Member, Diversity committee, Animal Behaviour Society (USA). 2014 - present**

**Program Officer, Executive Committee of the Animal Behavior Society (USA). 2009 – 2013.**

Nominated by the executive committee, elected by membership of the society (February 2009). Duties include organizing academic program for annual conference, soliciting, judging and scheduling symposia, preparing conference program, managing budget for symposia and plenary speakers, and securing sites and outlining preliminary program for future meetings.

**Councillor, Executive Committee of the International Society for Behavioral Ecology. 2008 – 2012.** Nominated by executive committee, elected by membership of the society (March 2008). Duties include judging student grant applications, serving on search committee for executive editor of the journal *Behavioral Ecology*, and contributions to decisions regarding policies and constitution of the society.

#### **Service for Peer-reviewed Journals**

**Editorial Board (Associate Editor), *Proceedings of the Royal Society, B*** commencing in January 2017 - 2020

**Review Editorial Board, *Frontiers in Ecology and Evolution*, September 2014 – 2019.**

**Editorial Advisory Board, *Canadian Journal of Zoology*. February 2014 – February 2017.**

**Editorial Board (Associate Editor), *The American Naturalist*. July 2008 – January 2011.**

- Duties include handling ~14 manuscripts per year as associate editor.

#### **Review Activity**

*Reviewer for the following international journals:*

- (1) The American Naturalist
- (2) Animal Behaviour

- (3) Annales Zoologici Fennici
- (4) Behaviour
- (5) Behavioural Processes
- (6) Behavioral Ecology and Sociobiology
- (7) Behavioral Ecology
- (8) Biological Journal of the Linnaean Society
- (9) Biological Reviews
- (10) Canadian Entomologist
- (11) Current Biology
- (12) Ethology
- (13) Evolution
- (14) Journal of Arachnology
- (15) Journal of Ethology
- (16) Journal of Evolutionary Biology
- (17) Journal of Insect Behaviour.
- (18) Nature
- (19) Naturwissenschaften
- (20) PloS One
- (21) PloS Biology
- (22) Proceedings of the Royal Society, B
- (23) Proceedings of the National Academy of Sciences, USA
- (24) Science

*Reviewer for the following granting agencies:*

- (1) Australian Research Council, Australia
- (2) Deutsche Forschungsgemeinschaft (German Research Foundation)
- (3) National Science Foundation, USA
- (4) Natural Sciences and Engineering Research Council of Canada
- (5) Natural Environment Research Council, UK
- (6) United States-Israel Bi-National Science Foundation
- (7) Macquarie University fellowships program

*Reviewer of the following Book/Textbook Chapters:*

- (1) Eberhard, WG & Huber, BA. Spider genitalia: precise manoeuvres with a numb structure in a complex lock. *The evolution of primary sexual characters in animals* (working title). JL Leonard and A. Cordoba-Aguilar, eds. In preparation for Oxford University Press. (April 2008)
- (2) Alcock, J. Development of Behaviour, *Animal Behaviour: An Evolutionary Approach*, 8<sup>th</sup> ed. (June 2008)
- (3) Gwynne, DT, Chapter: Behavioural Ecology. In: *Ecology: A Canadian Context*. Publisher: Nelson Education Ltd.

**Member of the following professional societies:**

- (1) American Society of Naturalists
- (2) Animal Behavior Society
- (3) Canadian Society for Ecology & Evolution (lifetime member)
- (4) International Society for Behavioral Ecology

## B. Academic history

### 6A. Research Endeavours

The goal of my research is to understand how the reproductive behaviours of males and females evolve through the interaction of sexual and natural selection in variable ecological contexts, and how this shapes individual phenotypes, population-level characteristics, and ultimately, diversification. My work incorporates laboratory and field studies to examine mechanisms of sexual selection, and mechanisms and fitness effects of phenotypic and life history traits that affect mating success. My earlier insights regarding the evolution of self-sacrificial mating investment by males (terminal investment) have been used as a foundation to examine how the evolutionary ecology of mating is linked to mechanistic and ontogenetic traits of individuals, as well as how these relate to demography. One long term goal is to examine links among mating systems, plasticity, and divergence among populations distributed across wide geographical ranges.

My main study species are widow spiders (genus *Latrodectus*), a group of 30 species distributed world-wide, which vary significantly in male mating systems (some species are polygynous, while some show extreme monogyny-- male copulatory self-sacrifice), ecology, invasiveness, and demography. Male self-sacrifice behaviour in some of these species ensures male mating opportunities are constrained, and allows one to make strong predictions from theory about male behavioural, life history, and ontogenetic tactics related to reproduction. Due to extreme female-biased size dimorphism, the outcomes of mating interactions are generally closely aligned with the reproductive interests of females, rather than males. This makes studies of fitness effects of female tactics and inter-sexual conflict particularly tractable. In aid of planned comparative analyses, major current efforts involve constructing a robust molecular phylogeny for the genus, and amassing data sets on behaviour, life history, physiology, and sensory biology of representative species across different clades and biogeographic regions across which the genus is distributed.

### V

### 6B. Research Awards

Principal applicant(bold)	Title & Funding Source	Amount	Year awarded (duration)
<b>Castilho, L;</b> <b>Andrade, MCB;</b> <b>Macedo, R</b>	Emerging Leaders in the Americas Scholarship for visiting international graduate students. Government of Canada International Scholarships	CD \$7,200	January 2014 – April 2014
<b>Andrade, MCB</b>	Canada Research Chair in Integrative Behavioral Ecology (Tier 2)	CD 100,000/yr	April 2013 - 2018
<b>Andrade, MCB</b>	The role of mating systems in plasticity & divergence across variable environments ( <i>NSERC Discovery Grant</i> )	CD 41,000.00/yr	April 2012 - 2017
<b>MacGowan, P. ,</b> <b>Erb, S. Ito, Y. &amp;</b> <b>Andrade, MCB</b>	Exploring Drugs of abuse and transgenerational phenotypes (UTSC Research Competitiveness fund)	CD 13,600	2012 (OTO)
<b>B. Treanor, R.</b> <b>Harrison, M.</b> <b>Andrade</b>	Biological Irradiator (NSERC Research Tools & Instruments, Category 1)	CD 14,2059	2012 (OTO)

<b>Baruffaldi, L &amp; Andrade, MCB</b>	Sectorial Commission of Scientific Research (Uruguay) (visiting studentship)	CD \$5,500	January – April 2010 (OTO)
<b>Andrade, MCB</b>	Canada Research Chair in Integrative Behavioural Ecology ( <i>Canada Research Chairs Program</i> )	\$100,000/yr	2007-2013 (1 year extension)
<b>Andrade, MCB</b>	Title: Integrative Behaviour & Neuroscience Research & Rearing Facility <i>Leaders' Opportunity Fund Grant from: Canadian Foundation for Innovation Ontario Research Fund</i>	\$460,000	Awarded 2007 (OTO)
<b>Andrade, MCB</b>	Influence of mating system and variable selection on adaptive variation within and across species of black widow spiders ( <i>NSERC</i> )*	\$29,450/yr	2007-2012
<b>Andrade, MCB</b>	Untangling effects of choice, behavioural syndromes & conflict on mating system evolution using black widow spiders ( <i>NSERC</i> ) <sup>†</sup>	24,000/yr	2003-2006
<b>Andrade, MCB</b>	Sexual selection's holy grail: Identifying physiological bases of quality and honest signalling in black widow spiders. ( <i>Connaught, New Staff Matching Grant</i> )	\$17,933	2002-2003 (OTO)
<b>Andrade, MCB</b>	Sexual selection and mating strategies in black widow spiders ( <i>NSERC University Faculty Award</i> )	\$40,000/yr	2000 - 2006
<b>Andrade, MCB</b>	Sexual selection and mating strategies in black widow spiders ( <i>NSERC Discovery Grant</i> ) <sup>‡</sup>	\$23,600/yr	2000 - 2004
<b>Andrade, MCB</b>	Automatic Start-up Grant ( <i>Connaught Fund, University of Toronto</i> )	\$10,000	2000 (OTO)
<b>Andrade, MCB</b>	<i>Premier's Research Excellence Award (PREA, Government of Ontario)</i>	\$20,000/yr	2001 – 2006
<b>Andrade, MCB</b>	<i>Assessment of auditory transduction and vibrational signalling using laser vibrometry (NSERC Equipment Grant)</i>	\$65,000	2001 (OTO)
<b>Andrade, MCB</b>	Multi-level analysis of mating system evolution in cannibalistic black widow spiders ( <i>New Opportunities Grant. Canadian Foundation for Innovation &amp; Ontario Innovation Trust</i> )	\$139,996	2000-2002
<b>Andrade, MCB</b>	<i>Olin Graduate Fellowship (Cornell University)</i>	US\$22,000/yr	1997-2000
<b>Andrade, MCB</b>	Benefit of repeated mating in redback spiders ( <i>Student Research Grant, Animal Behavior Society</i> ).	US\$1,000	1998-1999

<b>Andrade, MCB</b>	Costs of self-sacrifice in cannibalistic redback spiders ( <b>Doctoral Dissertation Improvement Grant, NSF</b> )	US \$14,000	1996-1998
<b>Andrade, MCB</b>	<i>Is finding females risky for male redback spiders?</i> ( <b>Research Travel Grant, Olin Foundation, Cornell University</b> )	US\$750	1997
<b>Andrade, MCB</b>	The Cost of Sexual Cannibalism for Male Redback Spiders: Is Every Copulation Equally Valuable? ( <b>President's Council of Cornell Women Research Grant</b> )	US\$500	1997
<b>Andrade, MCB</b>	Assessing risks of mate search in wandering male spiders ( <b>Grant-in-Aid of Research, Sigma Xi, USA</b> )	US\$880	1996
<b>Andrade, MCB</b>	<b>Marion and Percy A. Leon Graduate Fellowship</b> , Cornell University	US\$1,000/yr	1995 & 1996.
<b>Andrade, MCB</b>	<b>NSERC 1967 Science and Technology Graduate Scholarship</b>	\$21,000/yr	1992 – 1994 & 1995 – 1997

‡First NSERC operating grant, written while a PhD student, at average for new investigators in Ecology and Evolution

†Second NSERC operating grant included a 1.6% increase relative to my first grant. The average change that year for grant renewals in Ecology and Evolution was a 6% decrease.

\*Third NSERC operating grant included a 23% increase relative to my previous grant. The average change that year for grant renewals in Ecology & Evolution was a 4% decrease.

## C. Scholarly and Professional Work

### 6. Refereed Publications

For multi-authored contributions, **Andrade and trainees are bolded with graduate students or post-doctoral fellows underlined**, \***undergraduates starred**, and the *senior author(s) in italics*.

Up-to-date citation information can be accessed via [Google Scholar](#) or [ORCID](#) (orcid.org/0000-0002-2931-5378)

### A. Articles Published

1. **Biaggio, MD**, Sandomirsky, I, Lubin, Y, Harari, AR and **Andrade MCB**. 2016 *Biology Letters*, published online 21 September 2016. <http://dx.doi.org/10.1098/rsbl.2016.0516>
2. **Baruffaldi, L** & **Andrade, MCB**. 2015. Contact pheromones mediate male preference in black widow spiders: avoidance of hungry sexual cannibals? *Animal Behaviour*. 102: 25-32.
  - o Featured on BBC Earth. (<http://www.bbc.com/earth/story/20150213-male-black-widows-spot-cannibals>)
3. DeLuca, PA, **Stoltz, JA**, **Andrade, MCB**, *Mason, AC*. 2015. Metabolic efficiency in courtship favors males with intermediate mass in the Australian redback spider, *Latrodectus hasselti*. *Journal of Insect Physiology*. 72: 35-42. doi: <http://dx.doi.org/10.1016/j.jinsphys.2014.11.004>.
4. Elias, DO, Sivalingham, S, Mason, AC, **Andrade, MCB**, *Kasumovic, MM*. 2014. Mate-guarding courtship behaviour: tactics in a changing world. *Animal Behaviour* 97: 24-33. DOI: 10.1016/j.anbehav.2014.08.007
5. **Modanu, M**, **Li, L DX\***, **Said, H\***, **Rathitharan, N\***, **Andrade, MCB**. 2014. Sibling cannibalism in a web-building spider: Effects of density and shared environment. *Behavioural Processes*. 106:12-16. DOI: 10.1016/j.beproc.2014.03.011

6. **MacLeod, EC & Andrade, MCB.** 2014. Strong, convergent male mate choice along two preference axes in field populations of black widow spiders. *Animal Behaviour*. 89, 163-169. [DOI 10.1016/j.anbehav.2013.12.023](https://doi.org/10.1016/j.anbehav.2013.12.023)
  - Featured by *Nature* as a 'Research highlight' (<http://www.nature.com/nature/journal/v506/n7488/full/506269a.html>)
  - Featured on Quirks & Quarks (CBC Radio) in interview with former PhD student (and current post-doc) EC MacLeod (April 19, 2014, <http://www.cbc.ca/player/Radio/Quirks+and+Quarks/Full+Episodes/ID/2450005034/>).
  - Featured on the University of Toronto homepage: <http://news.utoronto.ca/picky-male-black-widow-spiders-prefer-well-fed-virgins>
7. **Modanu, M, Michalik, P & Andrade, MCB.** 2013. Mating system does not predict permanent sperm depletion in black widow spiders. *Evolution & Development*, 15(3): 205-212.
8. **Stoltz, J. A., M. C. B. Andrade,** and M. M. Kasumovic. 2012. Plasticity in metabolic rates reinforces morphological plasticity in response to social cues of sexual selection. *Journal of Insect Physiology*. 58: 985-990
9. Kasumovic M.M., **Andrade, M.C.B.,** Mason and A.C., *Elias, D.O.* 2011. The relative importance of RHP and resource quality in contests with ownership asymmetries. *Behavioral Ecology*.22:39-45.
10. **Sivalinghem, S\***; Kasumovic, MM; Mason, AC, **Andrade, MCB;** *Elias, DO.* 2010. Vibratory communication in the jumping spider *Phidippus clarus*: Polyandry and male mating success. *Behavioral Ecology*. 21 (6): 1308–1314.
11. *Elias, DO, Sivalinghem, S\*,* Mason, AC, **Andrade, MCB &** Kasumovic, MM. 2010. Vibratory communication in the jumping spider *Phidippus clarus*: Substrate-borne courtship signals are important for male mating success. *Ethology*. 116:990-998.
12. **Stoltz, JA, Hanna, R\* & Andrade, MCB.** 2010. Longevity cost of remaining unmated under dietary restriction. *Functional Ecology*. 24 (6), 1270-1280
13. *JC Johnson, Kitchen, K & Andrade, MCB.* 2010. Family affects sibling cannibalism in the Black Widow Spider, *Latrodectus hesperus*. *Ethology*. 116: 770–777.
14. *Elias, DO, Botero, CA, Andrade, MCB, Mason, AC & Kasumovic, MM.* 2010. High resource valuation fuels "desperado" fighting tactics in female jumping spiders. *Behavioral Ecology*. 21(4):868-875
15. Jerhot, E., **Stoltz, J.A., Andrade, M.C.B. & Schulz, S.** 2010. Acylated Serine Derivatives: A Unique Class of Arthropod Pheromones of the Australian Redback Spider, *Latrodectus hasselti*. *Angewandte Chemie*, 49(11): 2037-2040. (IF: 10.879)
  - Featured in 'Chemical & Engineering News' (<http://pubs.acs.org/cen/news/88/i07/8807news4.html>)
16. **Kasumovic M.M.,** Elias, D.O., **Sivalinghem, S\*,** Mason, A.C, **Andrade, M.C.B.** 2010. Examination of prior contest experience and the retention of winner and loser effects. *Behavioral Ecology*. 21(2):404-409 (doi:10.1093/beheco/arp204). (IF: 3.224)
17. **Stoltz, J.A. & Andrade, M.C.B.** 2010. Female's courtship threshold allows intruding males to mate with reduced effort. *Proceedings of the Royal Society of London, Series B*, 277:585-592. (IF: 4.248).
  - Cover photo feature
  - Featured as a 'Research Highlight' in *Nature*. 2009. 461: 1177
18. **Kasumovic, MM,** Brooks, RC & **Andrade, MCB.** 2009. Condition but not dietary restriction prolongs life in a semelparous capital breeder. *Biology Letters*. 5:636-638 (IF: 3.000)

19. **Kasumovic MM**, Elias DO, Punzalan D, **Andrade MCB**, Mason AC. 2009. Experience affects the outcome of agonistic contests without affecting the selective advantage of size. *Animal Behaviour*. 77:1533–1538 (IF: 2.282)
20. **Stoltz, J.A.**, Elias, D.O. & **Andrade, M.C.B.** 2009. Male courtship effort determines female response to competing rivals in redback spiders. *Animal Behaviour*. 77:79-85.
21. **Kasumovic, MM**, Bruce, MJ, Herberstein, ME & **Andrade, MCB**. 2009. Evidence for developmental plasticity in response to demographic variation in nature. *Ecology*. 90: 2287-2296.
22. **Kasumovic, MM** & **Andrade, MCB**. 2009. A change in competitive context reverses sexual selection on male size. *J. Evolutionary Biology*. 22: 324-333. [10.1111/j.1420-9101.2008.01648.x](https://doi.org/10.1111/j.1420-9101.2008.01648.x)
23. **Mahmoudi, N\***, **Modanu, M**, **Brandt, Y** and **Andrade, MCB**. 2008. Subtle pedipalp dimorphism: a reliable method for sexing juvenile spiders. *Journal of Arachnology*. 36: 513-517.
24. **Kasumovic MM**, Bruce, MJ, **Andrade MCB**, & **Herberstein, ME**. 2008. Spatial and temporal demographic variation drives within-season fluctuations in sexual selection. *Evolution* 62: 2316-2325.
25. Elias, D.O., **Kasumovic, M.M.**, Punzalan, D., **Andrade, M.C.B.** Mason, A.C. 2008. Male assessment during aggressive contests in jumping spiders. *Animal Behaviour*. 76: 901-910.
26. **Perampaladas, K\***, **Stoltz, JA** and **Andrade MCB**. 2008. Mated redback spider females re-advertise receptivity months after mating. *Ethology*. Volume 114:589 – 598.
27. **Stoltz, J.A.**, Elias, D.O. & **Andrade, M.C.B.** 2008. Females reward courtship by competing males in a cannibalistic spider. *Behavioral Ecology and Sociobiology*, 62 :689-697.
28. **Stoltz, J.A.**, McNeil, J. & **Andrade, M.C.B.** 2007. Males assess chemical signals to discriminate just mated females from virgins in redback spiders. *Animal Behaviour*, 74:1669-1674.
29. **Brandt, Y** & **Andrade, MCB**. 2007. What is the matter with the gravity hypothesis? *Functional Ecology*. 21. 1182-1183. (counter-rebuttal)
30. **Brandt, Y** & **Andrade, MCB**. 2007. Testing the gravity hypothesis of sexual size dimorphism: Are small males faster climbers? *Functional Ecology*. 21(2): 379-385.
31. **Kasumovic, MM**, Bruce, MJ, **Herberstein, ME** & **Andrade, MCB**. 2006. Risky mate search and mate preference in the golden orb-web spider (*Nephila plumipes*). *Behavioral Ecology*. 18: 189-195.
  - Top-cited paper in the Journal for 2007 (see <http://www.behavecol.com/pages/journal/citations.html>)
32. **Kasumovic, MM** & **Andrade, MCB**. 2006. Male development tracks rapidly shifting sexual versus natural selection pressures. *Current Biology*. 16:R242-R243.
33. **Snow, LSE** , **Abdel-Mesih, A\*** & **Andrade, MCB**. 2006. Broken Copulatory Organs are Low-Cost Adaptations to Sperm Competition in Redback Spiders. *Ethology* 112: 379-389.
34. **Andrade, MCB** & **Kasumovic, MM**. 2005. Terminal Investment Strategies and Male Mate choice: Extreme Tests of Bateman. *Integrative & Comparative Biology* 45: 838-847.
  - Cover photo feature
35. **Andrade, MCB**, **Gu, L\*** & **Stoltz, JA**. 2005. Novel male trait prolongs survival in suicidal mating. *Biology Letters* 1(3): 276-279.
36. **Snow LSE** & **Andrade MCB**. 2005. Multiple sperm storage organs facilitate female control of paternity. *Proceedings of the Royal Society, Series B* 272: 1139 – 1144.
  - Cover photo feature
  - Featured in a *Current Biology* “ Gage MJG 2005. *Current Biology*. 15: R630-R632.

37. **Kasumovic, MM & Andrade, MCB**. 2004. Discrimination of airborne pheromones by mate-searching black widow males: species- and population-specific responses. *Canadian Journal of Zoology* 82: 1027-1034.
38. **Snow, LSE & Andrade, MCB**. 2004. Pattern of sperm transfer in redback spiders: implications for sperm competition and male sacrifice. *Behavioral Ecology* 15(5): 785-792.
  - Cover photo feature
39. **Laird, G, Gwynne, DT and Andrade, MCB**. 2004. Extreme repeated mating as a counter-adaptation to sexual conflict? *Proceedings of the Royal Society B (Suppl)* 271: S402-404.
40. **Andrade, MCB**. 2003. Risky mate search and male self-sacrifice in redback spiders. *Behavioral Ecology* 14: 531-538.
41. **Andrade, MCB & Banta, EM**.\* 2002. Value of male remating and functional sterility in redback spiders. *Animal Behaviour* 63: 857-870.
42. **Andrade, MCB & Mason, AC**. 2000. Male condition, female choice, and extreme variation in repeated mating in a scaly cricket, *Ornebius aperta* (Orthoptera: Gryllidae: Mogoplistinae). *J Insect Behaviour* 13: 483-497.
43. **Andrade, MCB**. 1998. Female hunger can explain variation in cannibalistic behaviour despite male sacrifice in the Australian redback spider. *Behavioural Ecology* 9:33-42.
44. **Andrade, MCB**. 1996. Sexual selection for male sacrifice in the Australian redback spider. *Science* 240:70-72.
45. Brown, WD, Wideman, J, **Andrade, MCB**, Mason, AC, & Gwynne, DT. 1996. Female choice for the songs of larger males in the black-horned tree cricket, *Oecanthus nigricornis* (Orthoptera: Gryllidae: Oecanthinae). *Evolution* 50:2400-2411.
46. **Andrade, MCB & Roitberg, BD**. 1995. Rapid response to intra-clonal selection in the pea aphid (*Acyrtosiphon pisum*). *Evolutionary Ecology* 9:397-410.

### Reviews & Book Chapters

1. **Andrade, MCB & MacLeod, EM**. 2015. Potential for Cryptic Female Choice in black widows (genus *Latrodectus*): Mechanisms & social context. (*In Cryptic Female choice in Arthropods: Patterns, Mechanisms & Prospects*, Peretti, AV & Aisenberg, A, eds). Springer International Publishing. [invited book chapter, peer reviewed]
2. **Schneider, J and Andrade, MCB**. 2011. Chapter 7: Mating Behaviour & Sexual selection. In: *Spider Behaviour: Flexibility and Versatility* (ed Herberstein, M.E.). Cambridge University Press. ISBN-13: 9780521749275. [invited book chapter, peer reviewed]
3. **Elias, DO, Andrade, MCB, Kasumovic, MM**. 2011. Dynamic Population Structure and the Evolution of Spider Mating Systems. In: *Advances in Insect Physiology, Vol. 41* (ed Jérôme Casas), Burlington: Academic Press, 2011, p. 65-114. [invited review].

### C. Articles in preparation

- **MacLeod, EM, Andrade, MCB**. First male sperm precedence despite frequent plug failure in Western black widow spiders. Rejected with invitation to resubmit to *Behavioural Ecology* (refereed). Revision in progress.
- **Baruffaldi, L and Andrade MCB**. Is mating with sub-adults coercive? Insights from pheromone production in black widows. Target: *Behavioral Ecology and Sociobiology* (refereed)

- Baruffaldi, L, Condy, C, Lovejoy, N and **Andrade, MCB**. Diversity of sex pheromones tracks genetic distance in widow spiders. Target: *Proceedings of the Royal Society*
- Stoltz, JA and **Andrade, MCB**. Natural remating interval alters sperm use patterns and costs of polyandry in a widow spider. Target: *The American Naturalist*.

### 8. Non-refereed publications

1. **Andrade, MCB**, Blagoev, G, Hubley, B, Mason, T. Spring 2012. Reprinted, Spring 2014. (Invertebrate biodiversity working group). *Spiders of Toronto*, City of Toronto Biodiversity booklet series. (authors listed in alphabetical order). Volunteer outreach effort, this guide is available free to the public at city of Toronto libraries and online ([http://www1.toronto.ca/City%20Of%20Toronto/City%20Planning/Zoning%20&%20Environment/Files/pdf/B/Biodiversity\\_SpiderBookTagged\\_Final.pdf](http://www1.toronto.ca/City%20Of%20Toronto/City%20Planning/Zoning%20&%20Environment/Files/pdf/B/Biodiversity_SpiderBookTagged_Final.pdf)). (This series has been the recipient of the OALA award for Service to the Environment)
2. **Andrade MCB & Stoltz, JA**. 2010. *Glowing sperm illuminate post-copulatory sexual selection in Drosophila*. *Bulletin of the Entomological Society of Canada*, September 2010. Invited review.
3. **Andrade MCB**. 2003. Terminal investment strategies and male mate choice: Extreme tests of Bateman. *Integr Comp Biol*. 43:833. (Abstract)
4. **Mason, AC & Andrade, MCB**. 2002. Review of: A spider's world: Senses and Behavior (FG Barth). *ISBE Newsletter* 14(2): 9 – 10.
5. **Sharp, JC & Andrade, M**. 1994. Investigations of behaviour in the pea aphid, *Acyrtosiphon pisum*. pp. 335-345, in *Tested Studies for Laboratory Teaching, Volume 15* (C.A. Goldman, Editor). Proceedings of the 15th Workshop/Conference of the Association for Biology Laboratory Education (ABLE).

### 10. Conference Contributions

#### Invited Talks, Workshops & Symposium Presentations

##### Gender equity & diversity:

- (1) Andrade, MCB. September 2016. *Unconscious bias and challenges to fair assessment*. Invited by the office of the Provost to speak at the first meeting of the tri-campus Principals, Deans, Academic Directors and Chairs group.
- (2) Andrade, MCB. August 2016. Discussion Facilitator, University of Toronto, *Provostial workshop on Unconscious Bias*.
- (3) Andrade, MCB. April 2016. *Unconscious bias and challenges to fair assessment*. University of Toronto. Presentation to group of University Professors prior to consideration of nominations to that role.
- (4) Andrade, MCB. April 2016. *Unconscious bias and challenges to fair assessment of female scientists*. Duke University, graduate student's women in science group.
- (5) Andrade, MCB. 2016. *Unconscious bias and challenges to fair assessment*. Presentation to senior leadership search committee.
- (6) Andrade, MCB. June 2015. COWALY Gender workshop, University of Toronto. Keynote speaker: *Gender Bias in Science: Manifestations, Effects & Countermeasures*.

- (7) Andrade, MCB. Main panelist: Panel on the status of Women in Science & Technology. Canadian Science Policy Centre. April 2013. <http://sciencepolicy.ca/women-in-science-technology-panel>. *Unconscious bias & assessment of woman as scientific leaders*
- (8) Andrade, MCB. February 2012. Invited workshop leader: Ursula Franklin High School, Black history month symposium. *Unconscious bias and how to fix it(?)*.

### **Academic research:**

- (9) **Andrade, MCB.** April 10, 2017 (*pending*). **Richard B Root Graduate student seminar**, Cornell University Department of Ecology & Evolutionary Biology
- (10) **Andrade, MCB.** January 25, 2017 (*pending*). **Senior College**, University of Toronto.
- (11) **Andrade, MCB.** 2016. Ontario Ecology, Ethology & Evolution Colloquium. Keynote speaker: The private lives of black widows: How behaviour links ecology & evolution.
- (12) **Andrade, MCB.** **Presidential Symposium: 50 years since Hamilton**, invited speaker, 50<sup>th</sup> annual meeting of the Animal Behaviour Society, Boulder Colorado, USA. 28 July – 1 Aug 2013
- (13) **Andrade, MCB.** **Invited Keynote address:** Uruguayan Regional Animal Behaviour Meeting, Montevideo, Uruguay. March 2013 (this invitation was declined for health reasons).
- (14) **Plenary talk. 26<sup>th</sup> European Congress of Arachnology**, Ben Gurion University, Sede Boqer, Israel (Sept 2011)
- (15) **Plenary talk.** Annual meeting the Entomological Society of Canada. Ottawa, Ontario. October 19, 2008.
- (16) **Symposium talk invitation** (declined due to scheduling conflict). Symposium on the **Evolution of Sex & Recombination: In Theory & In Practice**, Iowa City, June 16-19, 2008.
- (17) **Plenary talk invitation** (declined due to scheduling conflict). 24<sup>th</sup> European Congress of Arachnology. Bern, Switzerland, 25-29 August 2008.
- (18) **Symposium talk invitation** (declined due to scheduling conflict). Topic: *Pathways to Novelty & Diversity: The causes & consequences of polyphenism*. Animal Behaviour Society Meeting August 2008.
- (19) **Plenary talk.** XXX International Ethological Conference. Halifax, Nova Scotia. 15-23 August 2007 (400+ attendees).
- (20) **Symposium talk invitation** (declined due to scheduling conflict). Topic: *Biology & Diversity of Arachnids*. Entomological Society of Canada Annual Meeting. Canmore, Alberta. 2-5 November 2006.
- (21) **Plenary talk:** Ontario Ecology & Ethology Colloquium. University of Toronto at Mississauga. Mississauga, Ontario, Canada. 11 May 2004.
- (22) **Symposium talk** Topic: *Bateman's principles: Is it time for a re-evaluation?* Society for Integrative and Comparative Biology Annual meeting. New Orleans, Louisiana, USA. 6 Jan 2004.
- (23) **Symposium talk.** Topic: *Evolution of sexual and social behaviour*. Society for the Advancement of Chicanos and Native Americans in Science, National Conference. Phoenix, Arizona, USA. 29 Sept 2001.

### **Contributed Talks & Posters**

(supervised trainees underlined, undergraduates starred\*, first author is presenter unless otherwise noted, contributions are talks unless noted<sup>P</sup>)

**2015.****52<sup>nd</sup> annual meeting of the Animal Behaviour Society, Anchorage, Alaska**

1. Baruffaldi, L. Invited talk (following competition among graduating PhD students), Allee symposium and competition: Species-specific responses of male widow spiders to sex pheromones are the exception, not the rule.
2. Fry, S & Andrade, MCB. Does size matter? Effect of variable male size on mate searching in western black widow spiders.
3. Mowery, M, Mason, AC & Andrade, MCB. Metabolic rate tied to syndromes in a sit-and-wait predator.
4. <sup>P</sup>McPhee, M, Andrade, MCB & Mason, AC. All talk but no walk: Mate guarding success independent of female preference in a jumping spider.

**Ontario Ecology, Ethology and Evolution Colloquium, 2015 York University**

5. <sup>P</sup>Pakirathan, R\*, Mowery, M and Andrade, MCB. Triggers of sibling cannibalism in 'widow' spiderlings.

**2014****Ontario Ecology, Ethology & Evolution Colloquium, 2014. University of Guelph, May 8-10, 2014****Talk:**

6. Nithianandan, H\*, Rathitharan, G\*, Rajkumar, K\*, Condy, C, Andrade, MCB. An evaluation of DNA extraction methods for Western black widows across developmental stages: minimizing cost and effort.
7. Siddiqui, H\*, Baruffaldi, L, and Andrade, MCB. Chemical confusion: Sex pheromones trigger mistaken identity by male widow spiders.

**51st Annual Meeting of the Animal Behaviour Society, Princeton University, Princeton, USA, July 2014****Talk:**

8. Andrade, MCB, Baruffaldi, L, Sandomirsky, I, Biaggio, MD, Harrari, A, Lubin, Y. Male copulation with juveniles: does it occur in nature and is it widespread? 51st Annual meeting of the Animal Behaviour Society.

**30<sup>th</sup> Annual Meeting of the International Society of Chemical Ecology, 8 – 12 July 2014****Talk:**

9. Baruffaldi, L. and Andrade, MCB. Are male responses to chemicals associated with females' silk related to different hybridization histories in black widow spiders? *Travel Scholarship Award symposium*.

**15<sup>th</sup> International Behavioural Ecology Congress, New York, NY, 31 July – 5 August 2014.****Talk:**

10. Baruffaldi, L. and Andrade, MCB. Males mating with sub-adults is neutral to female fitness and may be widespread in invertebrates

**Canadian Society for Ecology & Evolution and Canadian Society of Zoologists, joint meeting, Montreal, PQ, May 2014****Poster:**

11. Condy, CE, Lovejoy, N, Miller, J, Garb, J & Andrade, MCB. Untangling evolutionary relationships of black widow spiders using nuclear and mitochondrial genes.
12. Fry, SE, & Andrade, MCB. Male phenotype tracks competitive context in western black widow spiders (*Latrodectus hesperus*).

**2013****50<sup>th</sup> annual meeting of the Animal Behavior Society, Boulder Colorado, USA. 28 July – 1 August 2013.****Talks:**

13. Andrade, MCB. Invited talk: Cannibals do it too? A social lens on solitary predators. *Presidential Symposium: 50 years since Hamilton*.
14. MacLeod, EC and Andrade, MCB. Invited talk (following competition among graduating PhD students), Allee symposium and competition: New insights in the evolutionary maintenance of male mate choice behaviour using the western black widow, *Latrodectus hesperus*.
  - Emily was one of 2 students who received an *honourable mention* for this talk about her PhD work, in competition with the best PhD graduates studying Animal Behaviour across the USA, Canada, and Latin America.
15. Baruffaldi, L and Andrade, MCB. Contributed talk: Is mating with sub-adults coercive? Insights from female pheromone production in black widows.

**Poster:**

16. Fry, Sheena and Andrade, MCB. Contributed poster: A change in distribution of male phenotype with a change in population structure over the breeding season in the western black widow spider (*Latrodectus hesperus*)

**Canadian Society of Zoologists 2013 annual meeting, Guelph, ON, 13 – 17 May 2013****Talk:**

17. MacLeod, EC and Andrade, MCB. Contributed talk: New insights in the evolutionary maintenance of male mate

choice behaviour using the western black widow, *Latrodectus hesperus*.

- Emily received the *Cas Lindsay award* for best talk in Ecology and Evolution.

#### Ontario Ecology, Ethology & Evolution Colloquium, 2-4 May 2013, London, ON

##### Talk:

18. <sup>P</sup>Condy, Charmaine, Andrade, MCB, Lovejoy, N. Phylogenetic analysis of the black widow spiders (*Latrodectus*, Theridiidae, Araneae): a preliminary investigation using mitochondrial and nuclear DNA.

#### 2012

#### Joint meeting of the Animal Behaviour Society & the Human Behaviour & Evolution Society. 10 – 14 June. Albuquerque, NM.

19. Baruffaldi, L & Andrade, MCB. Female value or risk: What fuels male mate choice in black widows?

#### 14<sup>th</sup> Congress of the International Society for Behavioral Ecology. 12 – 17 August 2012, Lund, Sweden

20. MacLeod, EM & Andrade, MCB. Male choice despite variable links between female traits and reproductive value in field populations of Western black widows.

#### 1<sup>st</sup> Joint Congress on Evolutionary Biology. 6 – 10 July 2012. Ottawa, ON.

21. <sup>P</sup>Rathitharan, N\*, Modanu, M & Andrade, MCB. Cold shocks increase spiderling size in two Black widow species.

#### 2011

#### Ontario Ecology, Ethology & Evolution Colloquium, May 2011, University of Toronto Scarborough

22. Maydianne Andrade & Jeff Stoltz. Female-controlled timing of remating alters paternity and costs of polyandry.
23. Iara Sandomirsky, Maydianne Andrade, Ally Harari, Yael Lubin. Lolita's web: juvenile female matings in the brown widow spider.
24. <sup>P</sup>Nizanthan Rathitharan\*, Lucy Dong Xuan Li\*, Hosay Said\*, Maria Modanu and Maydianne C. B. Andrade. Temperature, development time and sibling cannibalism in Australian Redback Spiders
25. <sup>P</sup>Lucy Dong Xuan Li\*, Nizanthan Rathitharan, Hosay Said, Maria Modanu and Maydianne C.B. Andrade. Family Effects on Sibling Cannibalism in Redback spiders (*Latrodectus hasselti*).

#### Joint meeting of Animal Behaviour Society and International Ethological congress, August, Bloomington, IN, USA

26. <sup>P</sup>Nizanthan Rathitharan\*, Lucy Dong Xuan Li, Hosay Said, Maria Modanu and Maydianne C. B. Andrade. Temperature, development time and sibling cannibalism in Australian Redback Spiders
27. <sup>P</sup>Lucy Dong Xuan Li\*, Nizanthan Rathitharan, Hosay Said, Maria Modanu and Maydianne C.B. Andrade. Family Effects on Sibling Cannibalism in Redback spiders (*Latrodectus hasselti*).
28. <sup>P</sup>Luciana Baruffaldi\*, Marija Modanu & Maydianne Andrade. Variation in sperm load unrelated to male morphology or developmental challenges in black widows spiders.

#### Canadian Society for Ecology & Evolution, Banff, Alberta

29. <sup>P</sup>Aiswarya Baskaran\*, Maria Modanu & Maydianne Andrade. Female plasticity driven by fecundity selection

#### 2010

#### 18<sup>th</sup> International Congress of Arachnology, Siedlce, Poland. 11-17 July 2010.

19. Stoltz, JA & Andrade, MCB. Female cryptic choice and a cost of simultaneous polyandry.

#### 47<sup>th</sup> Annual Animal Behaviour Society Meeting, Williamsburg, VA, July 25 – 30, 2010

20. Andrade, MCB & Stoltz, JA. Female-controlled timing of polyandry affects paternity & costs of polyandry
21. MacLeod, E, Velummaim, R\*, Modanu, M & Andrade, MCB. Polygyny despite male genital mutilation in the western Black Widow (*Latrodectus hesperus*)
22. Ting, J, Stoltz, JA & Andrade, MCB. Effects of energetically costly mate searching on male mating success in a sexually cannibalistic spider

#### Canadian Society of Zoology, Vancouver, BC, May 17-21, 2010

23. Andrade, MCB & Biaggio, MD. Opportunistic mating with juveniles circumvents female choice in cannibalistic redback spiders
24. <sup>P</sup>Stemberger, T\*, Modanu, M, MacLeod, E & Andrade, MCB. Effects of experience on competition in male black widow spiders.

#### Ontario Biology Day March 13 & 14, 2010, York University

25. <sup>P</sup>Kottapalli, S\* & Andrade, MCB. Seasonal variation in benefit of large size for male *Phiddipus clarus*.
26. Stemberger, T\* & Andrade, MCB. RHP, condition and male competition in black widow spiders.

**2009****Canadian Society of Zoology (CSZ), Toronto, ON, Canada, May 12-16, 2009**

27. Stoltz, J.A. & Andrade, M.C.B. Costs of reproduction and resting energetic rates of female Australian redback spiders.
  - a. *Cas Lindsey Award for best oral presentation within fields of Behaviour, Ecology or Evolution*)
28. Modanu, MM & Andrade, MCB. Limb-loss, life history and regeneration in black widow spiders.
29. <sup>P</sup>Tehami, Y\* & Andrade, MCB. Effect of energetic expenditure on male competition.

**46th Annual Animal Behavior Meeting. Pirenópolis, Brazil, June 22 to 26, 2009**

30. Stoltz, JA & Andrade, MCB. (talk). Courtship duration threshold of choosy females allows males to parasitize rival mating effort. (*Allee competition finalist-1/2 hour talk*)
31. Modanu, MM & Andrade, MCB. (talk). Regeneration of a sexual organ and life history trajectories in black widows. (talk)

**2008****Talks:****12<sup>th</sup> International Behavioural Ecology Congress. 9-15 August 2008, Ithaca, NY**

32. Kasumovic, MM, Bruce, MJ, Andrade, MCB & Herberstein, ME. Spatial and temporal demographic variation drives within-season fluctuations in sexual selection. 12<sup>th</sup> International Behavioural Ecology Congress. 9-15 August 2008, Ithaca, NY.
33. Stoltz, JA & Andrade, MCB. Variation in female sexual signals constrains the opportunity for polyandry in redback spiders. 12<sup>th</sup> International Behavioural Ecology Congress. 9-15 August 2008, Ithaca, NY.
34. <sup>P</sup>Biaggio, MD & Andrade, MCB. Cohabitation allows traumatic copulation with juvenile females. 12<sup>th</sup> International Behavioural Ecology Congress. 9-15 August 2008, Ithaca, NY.
35. <sup>P</sup>Modanu, MM & Andrade, MCB. Growth tradeoffs and reproductive tactics in male black widow spiders (*Latrodectus hesperus*). 12<sup>th</sup> International Behavioural Ecology Congress. 9-15 August 2008, Ithaca, NY.
36. <sup>P</sup>MacLeod, E, Modanu, M, Vellumani, R & Andrade, MCB. Polygyny despite male genital mutilation in the western black widow (*Latrodectus hesperus*). 12<sup>th</sup> International Behavioural Ecology Congress. 9-15 August 2008, Ithaca, NY.

**Ontario Ecology & Ethology Colloquium. 28-30 April 2008, Guelph, ON.**

37. Stoltz, JA & Andrade, MCB. Turned on or turned off: Female sexual signalling varies with mating & life history in redback spiders. Ontario Ecology & Ethology Colloquium. 28-30 April 2008, Guelph, ON.
38. MacLeod, E, Modanu, M & Ruthiran, R, Andrade MCB. Polygyny despite genital mutilation in western black widow spiders (*Latrodectus hesperus*). Ontario Ecology & Ethology Colloquium. 28-30 April 2008, Guelph, ON.

**2007****Toronto Entomologists' Student Symposium, 24 March 2007.**

39. Mahmoudi, N\*, Brandt, Y & Andrade, MCB. Development of sexual dimorphism in morphology and allometry in the redback spider (*Latrodectus hasselti*)
40. Perampaladas, K\*, Stoltz, JA & Andrade, MCB. Female control over sexual receptivity in male redback spiders.

**Ontario Ecology & Ethology Colloquium (OEEC), May 2007, University of Western Ontario, Canada**

41. Stoltz, JA & Andrade, M.C.B. The energetic cost of male courtship in the Australian redback spider (*Latrodectus hasselti*).

**Canadian Society for Ecology and Evolution. 17 – 20 May 2007, Toronto, ON.**

42. Mahmoudi, N\*, Brandt, Y and Andrade, MCB. Development of sexual dimorphism in morphology and allometry in the redback spider (*Latrodectus hasselti*).
43. Kasumovic, M.M., D.O. Elias, D. Punzalan, M.C. B. Andrade, and A. C. Mason. Intrasexual competition in spiders: the role of self assessment in male contests.
44. <sup>P</sup>Perampaladas, K\*, Stoltz, J & Andrade, MCB. Temporal variation in female sexual advertisement in redback spiders. Canadian Society for Ecology and Evolution. 17 – 20 May 2007, Toronto, ON.
45. <sup>P</sup>Rahnama, N., Y. Brandt & Andrade, MCB. Effects of size and sex on locomotor performance of size dimorphic spiders. Canadian Society for Ecology and Evolution. 17 – 20 May 2007, Toronto, ON.
46. <sup>P</sup>Stoltz, JA & Andrade, MCB. The energetic cost of male courtship in the Australian redback spider (*Latrodectus hasselti*). Canadian Society for Ecology and Evolution. 17 – 20 May 2007, Toronto, ON.

**2006****Annual Meeting of the Animal Behavior Society. 12-16 August 2006. Snowbird, Utah.**

47. Biaggio, MD & Andrade, MCB. Breaking an entry: Male redback spiders inseminate juvenile females by ripping through their exoskeleton.

**Invertebrate Sound & Vibration. Bi-annual international meeting. UTSC. 8 – 11 August, 2006.**

48. Stoltz, JA, Elias, DO & Andrade, MCB. The energetic cost of male courtship in redback and black widow spiders.
49. Lee, N, Elias, DO, Andrade, MCB & Mason, AC. Courtship communication in the Australian redback spider *Latrodectus hasselti*.

**Society for the Study of Evolution Annual Meeting. 23 – 27 June 2006. Stony Brook, New Jersey.**

50. Brandt, Y & Andrade, MCB. Testing the gravity hypothesis of sexual size dimorphism: Are smaller males faster climbers?

**11<sup>th</sup> International Behavioral Ecology Congress. 23-29 July 2006, Tours, France.**

51. Kasumovic, MM & Andrade, MCB. Scent of a woman: males track changes in selection pressures through cues of female density \*
52. Andrade, MCB, Stoltz, JA & Elias, DO. Context-dependent Female Suppression of Male Competition in Redback Spiders.

**26th Annual Midwest Ecology & Evolution Conference. 17-19 March 2006. St. Louis, Missouri.**

53. Biaggio, MD & Andrade, MCB. Mating decisions of female redback spiders are shaped by juvenile experience. *2<sup>nd</sup> place: best talk competition (conference-wide).*

**Ontario Ecology & Ethology Colloquium, May 2006. Brock University, St. Catherines, Ontario**

54. Andrade, MCB. Adaptationist lessons from the edge: sacrificial redback spiders dismantle spandrels.

**2005**

**Annual meeting of the Entomological Society of Canada. 2-5 November 2005. Canmore, Alberta.**

55. Kasumovic, MM & Andrade, MCB. Is bigger better? Examining male competition in context. \*Winner, *President's award for best talk in session.*

**Society for the Study of Evolution & American Society of Naturalists Annual meeting. 10-14 June 2005. Fairbanks, Alaska, USA.**

56. Johnston, JC & Andrade, MCB. Behavioural syndromes in sexually cannibalistic spiders.

**2004**

**41<sup>st</sup> annual meeting of the Animal Behavior Society. 12-16 June 2004. Oaxaca, Mexico.**

57. Andrade, MCB. Predicting male mate choice: female reproductive value and constraints on choosiness in sacrificial redback spiders.
58. Johnson, JC; Hanna, R\*; Hestick, M\* and Andrade MCB. Fear, food, sex and turf in redback spiders: role of behavioral syndromes.

**10<sup>th</sup> International Behavioral Ecology Congress. 10-15 July 2004. Jyväskylä, Finland.**

59. Andrade, MCB. Male mate choice predicted by female reproductive value and constraints on choosiness: tests in sacrificial redback spiders.
60. Kasumovic, MM & Andrade, MCB. Scrambling to search: male life history shifts in response to female cues.

**Ecology & Ethology Colloquium, 9 – 12 May 2004, Mississauga, Ontario, Canada.**

61. Johnson, JC; Hanna, R\*; Hestick, M\* and Andrade MCB. Fear, food, sex and turf in redback spiders: role of behavioral syndromes.

**2003**

**Ontario Ecology and Ethology Colloquium. 2-4 May 2003, Hamilton, Ontario, Canada.**

62. Kasumovic, MM & Andrade, MCB. Is staying power more important than size? Tests in the Australian redback spider.
63. Leverette, JA, Andrade, MCB & Mason, AC. What do web vibrations tell widows?
64. Snow, LSE and Andrade, MCB. Advantage of male self sacrifice in redback spiders: straight sperm transfer or cryptic choice?
65. Stoltz, JA & Andrade, MCB. Male-male competition in redback spiders (*Latrodectus hasselti*).

**40<sup>th</sup> Annual meeting of the Animal Behavior Society. 19-23 July 2003, Boise State University, Idaho, USA.**

66. Snow, LSE & Andrade, MCB. Female reproductive morphology and sperm use in redback spiders.

**1991 - 2002**

**39<sup>th</sup> Annual meeting of the Animal Behavior Society. 13-17 July 2002, Indiana University, Indiana, USA.**

67. Andrade MCB, Elias, DO & Banta, EM\*. Trading off courtship and competition: mating tactics of doomed male spiders.
68. <sup>P</sup>Gu, L & Andrade, MCB. Surviving sexual cannibalism: morphological adaptation for self-sacrifice in redback spiders. 39<sup>th</sup> Annual meeting of the Animal Behavior Society. 13-17 July 2002, Indiana University, Bloomington, Indiana, USA.
69. <sup>P</sup>Leverette, JA, Andrade, MCB & Mason, AC. What do web vibrations tell widows? 39<sup>th</sup> Annual meeting of the Animal Behavior Society. 13-17 July 2002, Indiana University, Bloomington, Indiana, USA.
70. <sup>P</sup>Sithamparanathan, A, Guerra, PA, Andrade, MCB & Mason, AC. Female cryptic choice based on post-copulatory acoustic cues in the house cricket. 39<sup>th</sup> Annual meeting of the Animal Behavior Society. 13-17 July 2002, Indiana University, Bloomington, Indiana, USA.
71. <sup>P</sup>Snow, LSE & Andrade, MCB. Advantage of self sacrifice in male redbacks: straight sperm transfer or cryptic choice? (and 9<sup>th</sup> Congress of the International Society for Behavioral Ecology. 7 – 12 July 2002, Montreal, Quebec, Canada).
72. <sup>P</sup>Snow, LSE, <sup>P</sup>Leverette, JA, Mason, AC & Andrade, MCB. Female 'receptivity signals': is the black widow really telling the truth?

**38<sup>th</sup> annual meeting of the Animal Behaviour Society. 14 – 18 July 2001, Corvallis, Oregon, USA.**

73. Andrade, MCB. Risky mate search and male terminal investment in redback spiders

**International Congress of Ethology. 22-29 August 2001, Tübingen, Germany.**

74. <sup>P</sup>Andrade, MCB & <sup>P</sup>Banta, EM. Female preference for prolonged copulation in redback spiders.

**Annual Meeting of the Animal Behaviour Society. June 1999, Bucknell University, Pennsylvania.**

75. Andrade MCB and Banta, EM\*. Multiple mating does not increase male fitness in a cannibalistic spider.

**Annual Ecology and Evolutionary Biology Graduate Student Symposium, Cornell University. Jan 1999**

76. Andrade, MCB. Sexual sacrifice as an adaptive male behaviour.

**Annual meeting of the Arachnological Society of America. July 1996, Tucson, Arizona, USA; &**

**Annual Meeting of the Animal Behaviour Society. August 1996, Flagstaff, Arizona, USA.**

77. Andrade, MCB. Females cannibalize only when hungry despite male sacrifice in redback spiders.

**Northeast Regional Animal Behaviour Meeting. 1994, Durham, New Hampshire.**

78. Andrade, MCB. Kamikaze copulation in redback spiders.

**5<sup>th</sup> International Behavioral Ecology Congress. 1994**

79. Andrade, MCB. Sexual selection for male suicide in redback spiders., Nottingham, UK.

**Entomological Society of British Columbia. 1991, Penticton, BC.**

80. Andrade MCB and Roitberg, BD. The effect of artificial selection on escape behaviour of clonal pea aphids (*Acyrthosiphon pisum*). [talk delivered as a senior undergraduate; winner, best talk, MSc category].

## 11. Invited Lectures

### Major lectures:

- (1) **James P. Holland Memorial Lecture.** *Between a Rock and a Hard Place: Evolution of Self-Sacrificial Male Mating Strategies.* Indiana University. Bloomington, Indiana. 11 Oct 2004.
- (2) **Women in Science: Distinguished Visitors Program.** University of New South Wales. Sydney, Australia. 6 Sept 2004.
  - Research Lecture: *Constraints and Novel Solutions in a Self-Sacrificial Mating Strategy*
  - Workshop panelist: *Retaining women in the Science Pipeline* & guest teaching lecturer: *Male mate choice*
- (3) **Darwin Keynote speaker,** Indiana State University. *Sexual selection and adaptive plasticity: extreme mating favours extreme tactics for doomed male black widows.* Terre Haute, IN, 26 April 2010.
- (4) **Helen Battle Memorial Seminar in Biology,** University of Western Ontario. 2010.
- (5) **Clafflin University, Keynote address,** Undergraduate Research symposium, Orangeburg, SC, USA. March 2012.

**Invited Departmental Seminars:**

- (6) Department of Biology, Duke University (27 April 2016)
- (7) Department of Biological Sciences, University of Massachusetts, Lowell (5 April 2016)
  - This talk was part of the NSF-funded 50/50 Lecture series whose goal is to ...*bring notable scientists to campus to give a lecture in a special format. Half of the speaker's time will be allotted to his/her technical, educational and research interests, and the other half will be devoted to his/her career path, detailing, for example, challenges overcome or the influence of mentors.* (see <https://www.uml.edu/Research/ADVANCE/Lecture-Series.aspx>)
- (8) Dept. Ecology, Evolution and Behavior, University of Minnesota (24 Sept 2014)
- (9) Dept Biology, Carleton University (7 March 2014)
- (10) Dept Biology, Sir Wilfrid Laurier University (17 January 2014)
- (11) Dept Biology, Trent University (18 October 2013)
- (12) Dept Psychology, Hunter College, CUNY (March 7 2012)
- (13) Dept Biology, Rutgers University (March 6 2012)
- (14) Boston University, Department of Biology Seminar Series. (March 28 2011).
- (15) University of Massachusetts Amherst, Seminar series in Organismic & Evolutionary Biology (3 Dec 2010).
- (16) Department of Neurobiology & Behavior, Cornell University (7 October 2010)
- (17) Biology Senior Project Symposium, Allegheny College, Meadville, OH. 28 April 2010.
- (18) Darwin Series, Department of Animal Behaviour Research Group. University of Chicago, Chicago, IL. 4 October 2009.
- (19) Dept Biology. Queen's College of City University of New York, Flushing, NY .11 Nov 2009.
- (20) Dept Ecology & Evolutionary Biology, Princeton University. 26 February 2009
- (21) Dept Entomology, UC Riverside, 13 November 2008.
- (22) Dept Ecology & Evolutionary Biology, UCLA, 12 November 2008.
- (23) Dept Biology, University of Western Ontario, 14 March 2008.
- (24) Dept Entomology Seminar Series, Rutgers University, 9 March 2007.
- (25) Dept Ecology & Evolutionary Biology, University of Kansas, Lawrence, Kansas. Nov 2006.
- (26) Dept Biology Colloquium Series, Akron University. Akron, Ohio, USA. 14 September 2006.
- (27) Dept Biology Seminar Series, Indiana University. Bloomington, Indiana, USA. 31 Jan 2006.
- (28) Dept Biology Seminar Series, University of Nevada at Reno. Reno, Nevada, USA. 17 Nov 2005.
- (29) Dept Biology & Marine Biology Seminar Series, Dalhousie University. Halifax, Nova Scotia, Canada. 25 Sept 2003.
- (30) Dept Biology Seminar Series, Simon Fraser University. Burnaby, British Columbia, Canada. 13 Nov 2003.
- (31) Dept Biology seminar series, Brock University. St. Catherines, Ontario, Canada. 22 Mar 2001.
- (32) Evolution seminar series. McMaster University. Hamilton, Ontario, Canada. 12 Feb 2001.
- (33) Dept. Zoology seminar series. University of Guelph. Guelph, Ontario, Canada. 18 Jan 2001.
- (34) 'Evolunch' seminar series. University of Toronto (St. George Campus). Toronto, Ontario, Canada. 17 Jan 2001.
- (35) Dept. Biology seminar series. University of Toronto at Mississauga, Mississauga, Ontario, Canada. 6 Oct 2000.
- (36) 'Entomaniac' (undergraduate entomology club) seminar series. Cornell University. Ithaca, New York, USA. April 1999.

- (37) Wildlife Biology Club (undergraduate club) meeting. Cornell University. Ithaca, New York, USA. April 1998.
- (38) Department of Entomology seminar series, New York State Agricultural Experimental Station, Cornell University. Geneva, New York, USA. March 1998.
- (39) Entomological Study Group of Western Australia. King's Park, Perth, WA, Australia. February 1997.
- (40) Dept. Biology Seminar Series, University of Western Australia. Perth, WA, Australia. January 1997.
- (41) Evolution and Ecology Seminar Series. Queens University. October 1996.

## **12. Research Delays**

Maternity leaves: October 2002 through September 2003 & November 2007 through June 2008

## **D. Teaching & Research Supervision**

### **13.A. Undergraduate courses taught**

I developed the syllabus and all lectures and assignments for the following lecture courses, for which I have sole responsibility (my *Teaching Dossier* is available on request). Starred\* courses were those I proposed and designed from scratch.

#### **BIOA01. Life on Earth: Unifying Principles. First-year core-course (~1100 students per year)**

I contributed 12 lectures, a multiple-choice exam, and online learning tools and assignments in a 1-month module on Evolutionary Biology.

Average student evaluation, Fall 2015

**4.5/5** “The instructor created an environment that was conducive to my learning”

**4.0/5** “The course provided me with a deeper understanding of the subject matter”

#### **BIOB51. Evolutionary Biology. Second-year core-course (~600 students per year)**

Term work has included: (1) A poster project. Student groups create posters to answer questions or outline current debates in evolution. Students use primary literature sources. The project is developed in several steps over the year then presented online or orally at a poster-session accessible to all members of the campus community or (2) An ‘exam question’ assignment. Students must write a (10-15 mark) short-answer question and answer key, (3) online quizzes and worksheets based on assigned documentary videos, video-shorts, and problem sets.

Average student evaluation, Fall 2015

**4.4/5** “The instructor created an environment that was conducive to my learning”

**4.1/5** “The course provided me with a deeper understanding of the subject matter”

#### **\*BIOC54. Animal Behaviour. Third-year elective course (~ 150 students per year).**

Term work includes: (1) In-class writing assignments, (2) Bi-weekly written discussions of primary literature papers, (3) Hypothesis-generation assignment and/or (4) Research paper developed in several steps over the semester (including data collection and peer review of first draft).

Average student evaluation, Spring 2011:

**5.93 /7** (question: “Overall, performs well as a university professor”).

**NRO C90. Supervised study in Neuroscience** (with AC Mason). **Student:** Saiera Alam. Title: Vibrational Communication in Spiders. Spring 2001.

**\*BIOD53. Special topics in Behavioural Ecology (~8 – 15 students/year)**. Term work includes a research proposal, annotated bibliography, oral presentation, peer review, in-class discussion and problem solving. In 2015 I added a 3-class laboratory exercise for which students collaborate to devise predictions, complete an observational lab exercise on mating behaviour of live spiders, then write up their results in a truncated (common methods omitted) research paper.

All exam questions require written answers and the final exam is an open-book/open internet essay exam. Lectures are tailored to topics of student interest and based heavily on the primary literature.

Average student evaluation, Spring 2015:

**5/5** “The instructor created an environment that was conducive to my learning”

**4.9/5** “The course provided me with a deeper understanding of the subject matter”

### **13.B. Graduate courses taught**

**ZOO1002. Independent reading course.** I provide an initial reading list in some area of interest determined in conferences with the student. We develop a thesis together, I then guide reading and interpretation in weekly to biweekly meetings. Students give two oral presentations and produce a review paper (including several marked drafts) by the end of the course. **Students:** LSE Snow & G Laird (2001-2002); MD Biaggio (2004-2005); JA Stoltz & MM Kasumovic (2005-2006).

**EEB1100. Faculty Research Course.** Core course in Ecology & Evolutionary Biology graduate program. My contribution involves one lecture and one discussion section based on assigned papers, and marking student commentaries on these papers. I was asked to teach a module for the second year in a row in 2010 because of positive student evaluations in the previous year. This year I have secured funding from the office of the Vice Dean, Graduate Studies (UTSC) for a shuttle bus so that one of my classes will be held at UTSC.

**EEB 1470. Special Topics in Behaviour: Integrative Biology of Behaviour.** I am one of 4 instructors for this course, offered every other year. My module of the course includes an introductory lecture, guiding students in oral presentations based on papers I assign, and guiding their work on a research proposal. I have designed two additional evaluations for this course, including a ‘talk self-reflection option’ and ‘real-time peer review’. I have been the lead instructor and coordinator for this course 4 years out of the 5 years it has been taught. This includes creating a Blackboard homepage for the course, creating rubrics for all assignments, arranging for video recording of student talks to facilitate talk delivery self-reflection, coordinating feedback and assigning marks as well as final grades.

### **13.C. Research Supervision**

**Summary.** Prof Andrade has recruited 14 outstanding graduate students since 2001, 8 of whom have held major scholarships (7 NSERC, 1 OGS, 1 Trillium) including three who have held highly-competitive advanced fellowships (NSERC Alexander Graham Bell/ CGS fellowships). She has

graduated five MSc students (two of these co-supervised) and four PhD students, and is currently supervising or co-supervising 6 PhD students. Two of her students have won prizes for their talks at national and regional conferences, two of her graduate students have won major University of Toronto research awards, and two of her PhD students have secured major post-doctoral fellowships. Her first PhD student is now an award-winning research and lecturer at University of New South Wales.

Prof Andrade has supervised 3 post-doctoral fellows, one of these ongoing. One of these (Johnson) held a highly-competitive NSF International Post-doctoral Research fellowship in her lab, and is now an Associate Professor at Arizona State University West.

### A. MSc students

**Current:** none

#### **Graduates:**

- (1) McPhee, Megan (BSc UBC). Co-supervised with AC Mason (UTSC). Alternative mating tactics and quality in jumping spiders.
  - September 2013 to July 2015 (graduated)
  - **NSERC Canada Graduate Scholarship (CGSM)** holder
- (2) Modanu, Marija (BSc Alberta). Adaptive sex ratio modification and sexual selection in cannibalistic spiders
  - July 2007 to 2009 (graduated)
  - **NSERC Canada Graduate Scholarship (CGSM)** holder
    - **Accomplishment:** Winner of competitive University of Toronto entrance fellowship, published 3 papers from her work in my lab (2 as first author). Currently a PhD student with an NSERC CGSD at Cornell University
- (3) Snow, Lindsay SE (BSc Guelph). *Post-copulatory sexual selection in the Australian redback spider (Latrodectus hasselti Thorell)*.
  - Sept 2001 – November 2003 (graduated)
  - NSERC Graduate scholarship holder
  - **Accomplishment:** Three publications from her thesis, two of which were cover photo features.
  - **Current position:** Formerly Assistant director for children's science programs at the Royal Ontario Museum (now on maternity leave)
- (4) Biaggio, Maria D (BSc Bryn Mawr). *Effect of experience on mating strategies of male and female redback spiders (Latrodectus hasselti Thorell)*
  - Sept 2004 – Dec 2006 (graduated)
  - International student, supported by my Premier's Research Excellence Award
  - **Accomplishments:**
    - i. 2<sup>nd</sup> place (conference-wide) for outstanding talk at the 26th Annual Midwest Ecology & Evolution Conference, 2006
    - ii. Popular science article in *Science News* (26 Aug, 2006) based on her talk at the 43<sup>rd</sup> Annual Meeting of the Animal Behaviour Society (Snowbird, Utah).
    - iii. Two papers in preparation from her thesis
  - **Current position:** Conservation Manager, Wellington Zoo Trust, New Zealand.
- (5) Glenn-Worrall, Gillian. (BSc Queens). *Repeat and multiple mating in an Australian scaly cricket, Ornebius aperta (Orthoptera: Mogoplistidae)*. Co-supervised.

- Sept 2001 – December 2003
- NSERC Graduate scholarship holder
- **Accomplishments:** Publication in *Biology Letters*
- **Current position:** Formerly a Program Assistant, Canadian Foundation for Innovation (now on maternity leave)

## B. PhD students

### Current:

- (6) Nishant Singh (BSc, U Pittsburg). Trillium graduate award holder (University of Toronto). Topic: *Ecological and Evolutionary Consequences of Variation in Dispersal Behavior, Behavioral Repeatability, and Social Behavior*
  - Sept 2015 - present
- (7) Catherine Scott (BSc, SFU), NSERC Canada Graduate Scholarship holder (CGSD). Topic: *Male silk pheromones in inter- and intra-sexual communication in western black widows (Latrodectus hesperus): function, structure, and production*
  - Sept 2015 - present
- (8) Monica Mowery (BSc, Tufts). Co-supervised with AC Mason (UTSC). *Implications of behavioural types for direct and indirect fitness of female redback spiders*
  - Sept 2014 - present
- (9) Charmaine Condy (MSc, Toronto). Co-supervised with N Lovejoy (UTSC). *Molecular phylogenetics and genetic evolution of widow spiders (Genus Latrodectus)*
  - Sept 2012 –present (currently on leave)
- (10) Sheena Fry (MSc, Memorial). Causes and consequences of phenotypic variation in males.
  - Sept 2011 – present

### Graduates:

- (11) Luciana Baruffaldi (BSc, MSc, Montevideo). *Function and evolution of chemical signals.*
  - May 2011 – October 2015
  - **Accomplishments:** Published 1 first authored paper, numerous conference talks, 4 conference travel grants and a student research grant from the Animal behaviour society.
  - Currently a post-doctoral researcher in my lab
- (12) Emily MacLeod (BSc Guelph). *New insights in the evolutionary maintenance of male mate choice behaviour using the western black widow, Latrodectus hesperus*
  - Sept 2007 to Jan 2013
  - **Accomplishment:** Winner of competitive University of Toronto entrance fellowship and NSERC **Canada Graduate Scholarship** holder

- Currently a research associate at the Michner Institute (University Health Network)
- (13) Kasumovic, Michael M. (MSc Queens). *Effects of developmental plasticity and antagonistic selection on phenotypic variation in spiders.*
- Sept 2002 to October 2007.
  - NSERC Graduate scholarship holder
  - **Accomplishments:**
    - i. 9 publications arising directly from work associated with his thesis, including papers in *Current Biology*, *Evolution*, and *Ecology*.
    - ii. Numerous popular science articles
    - iii. Winner, President's award for best talk in session, Annual meeting of the Entomological Society of Canada. 2-5 November 2005.
    - iv. Winner, Principal's Graduate Student Award, UTSC
    - v. Winner, Ramsay Wright Award, Department of Zoology (tri-campus award for most accomplished PhD student)
    - vi. NSERC post-doctoral fellowship holder
    - vii. Australian Research Council post-doctoral fellowship and research funding award holder
  - **Winner, American Society of Naturalists Young Investigator Prize, 2011**
  - **Current Position.** Senior Lecturer, University of New South Wales
- (14) Stoltz, Jeffrey A. (MSc Western Ontario). *Mechanisms, maintenance and function of female reproductive strategies in spiders.*
- Sept 2005 to 2010
  - NSERC Graduate scholarship holder
  - **Accomplishment:**
    - i. 9 publications arising directly from work associated with his thesis, including papers in *Proceedings of the Royal Society, B*, *Functional Ecology* and *Biology Letters*, with several others in preparation.
    - ii. Winner of Cas Linsday award for best EEB talk at CSZ 2009 conference
    - iii. Winner of NSERC post-doctoral fellowship
    - iv. 2x winner of Graduate Student research award, UTSC (cross-campus award)
  - **Current Position.** After completing his NSERC Post-doctoral fellowship at the University of Exeter at Cornwall (lab of Dr. Tom Tregenza), Jeff took up a position in banking.

### C. Post-doctoral fellows

- (1) **Malcolm Rosenthal.** (BSc Oberlin, PhD Nebraska). Topics: *Context-dependent signaling and mating success in spiders, Taxonomic biases in the literature*
- Sept 2015 – Dec 2016
  - Currently a post-doctoral fellow at University of California Berkeley
- (2) **Johnson, J Chadwick.** *Behavioural syndromes in cannibalistic black widow spiders.*
- Sept 2003 – July 2005
  - NSF international Post-doctoral Research Fellow
  - **Current position:** Associate Professor, Arizona State University West
- (3) **Brandt, JM.** (i) *Allometry, sexual dimorphism and locomotor performance in spiders,* and (ii) *Physiological ecology of aggressive signalling*
- Sept 2004 – October 2006
  - Supported by my Premier's Research Excellence Award
  - **Current position:** no longer pursuing a career in science

## ***SUPERVISORY COMMITTEE MEMBERSHIP***

### ***2012 to Present***

#### **Supervisory Committees memberships**

1. Francesco Janzen (MSc, Lovejoy [UTSC])
2. Pheobe Edwards (PhD, Boonstra [UTSC])
3. Emma Lehmberg (MSc, Lovejoy [UTSC])
4. Adam Lawson (Msc, Weir [UTSC]).
5. Senthurran Sivalingham (PhD, Mason [UTSC]).
6. Allan Edelsparre (PhD, Fitzpatrick [UTSC])
7. AJ Masson (MSc, Mason [UTSC])
8. Terrence Chang (MSc, Mason [UTSC])
9. Catherine Scott (MSc, Greis [Simon Fraser University, B.C.]).

#### **Examining Committee memberships**

##### **Final exams:**

1. Tiffany Shriver (PhD, Williams [UTSC]). Sept 2012
2. Ilke vanHazel (PhD, Chang [UT St George]). 12 Sept 2012
3. Penelope Groton (MSc, Rowe [UT St George]). Sept 2012
4. Maryam Mahmood (MSc, Arhonditsis [UTSC]). 19 Sept 2012 (Chair)

##### **PhD Appraisals:**

1. Lucia Kwan (PhD, Rowe & Rodd [St George]). May 2012
2. Paula Pulido-Santacruz (PhD, Weir [UTSC]), April 2014 (Chair)
3. Maya Faccio (PhD, Weir [UTSC]), August 2013 (Chair)
4. Sophie St Cyr (PhD, McGowan [UTSC]), September 2013

**Chair of PhD exams:**

1. Michael Prouse. Dept Cell & Systems Biology, 13 May 2013
2. Winnie Lo. Dept Molecular Genetics, 23 August 2012
3. Frances Hauser. Dept Ecology & Evolutionary Biology, 22 Aug 2014

**Committees prior to 2012:****Ph.D.**

Norman Lee (UTSC)	member, thesis committee	2007 – 2012
David Punzalan (UT St George)	member, thesis committee	2002 - 2007
Stephanie Hill (UT Mississauga)	member, thesis committee	2004 - present
Elinor Hughes (U Guelph)	member, thesis committee	2004 – 2010
Trevor Pitcher (UTStG)	member, thesis committee	2000 - 2004
Clint Kelly (UTM)	member, thesis committee	2000 - 2005

**M.Sc.**

Murray McConnell	member, thesis committee	2008 to present
Michelle denHollander (UTM)	member, thesis committee	2005 - 2007
Charmaine Condy (ROM)	member, thesis committee	2002 - 2004
Yun Chen (UTStG)	member, thesis committee	2002 - 2004
Patrick Guerra (UT Scarborough)	member, thesis committee	2001 - 2003
Katya Honsa (UTSC)	acting supervisor	2001

***EXAMINING COMMITTEE MEMBERSHIP***

Adam Bettio (UTStG)	MSc Exam chair	2010
Andrea Zikovitz (UTStG)	MSc exam chair	2010
Rosalind Murray (UTStG)	MSc examining committee	2009
Jessica Ward (UTStG)	PhD examining committee	2009
Laura Robson (UTStG)	MSc examining committee	2009
Rosemary Gibson (UTStG)	MSc exam chair	2009
Afshan Gheshmy-Bakht (UTSC)	MSc exam chair	2006
Stephanie Kamel (UTStG)	PhD examining committee	2006
Jessica McAneny (UTSC)	PhD qualifying exam	2004

Quinn Fletcher (UTSC)	MSc examining committee	2005
Joanne Castillo (UTSC)	MSc examining committee	2004
Peng Fu (UTStG)	MSc examining committee	2000

### 13. D. Other Teaching

#### **UNDERGRADUATE RESEARCH SUPERVISION**

**Summary.** Prof Andrade has supervised over 50 full-year independent undergraduate research projects (equivalent to an Honour's thesis), 7 NSERC Undergraduate Student Research Award holders, and more than 20 additional research-course students since taking up her faculty position at UTSC in 2000. Research contributions of nine undergraduates have warranted authorship on refereed publications (Rathitharan, Li, Said, Perampaladas, Sivalingham, Mahmoudi, Stoltz, Abdel-Mesih, Gu), and several undergraduates have attended local (Stoltz [while an undergraduate], Perampaladas, Mahmoudi, Kottapalli, Stemberger, Rathitharan, Nithianandan, Pakirathan), national (Perampaladas, Mahmoudi, Stemberger) or international (Gu) conferences to present their work.

#### **Supervision of NSERC Undergraduate Research Award Winners:**

- (1) **Harrish Nithianandan.** May – Sept 2014. Function of vibration receptors in widow spiders
- (2) **Said, Hosay.** May – Sept 2012. Behavioural syndromes in black widows
- (3) **Stemberger, Tanya.** May – Sept 2008. Effect of male experience on the resolution of competition in black widow spiders.
- (4) **Hanna, Ramez.** (i) May – Sept. 2004 & (ii) May – Sept 2005. (i) *Physiological responses to food stress and prey availability in redback spiders.* (ii) *Reproductive output and energetics of female redback spiders under food stress.*
- (5) **Smith, Camala.** May – Sept 2003. *Respirometric cost of web building in orb-weaving spiders.*
- (6) **Abdel-Mesih, Amal.** May – Sept 2002. *Fertility effects of copulatory organ damage in redback spiders.*
- (7) **Snow, Lindsay.** May – Sept 2001. *Mating behaviour of western black widow spiders.*

#### **Other undergraduate researchers**

#### **(independent study projects, BIOB98, \*BIOC99, \*\*BIOD95, \*\*\*BIOD98/BIOD99):**

- (8) \*Collaborative Research: Danielle Alvares, Imaan Javeed, Kishon Thaveswaran, Winter 2016
- (9) \*\*Ahiraa Supeinthiran supervisor Winter 2015
- (10) \*\*Sonal Prasad supervisor Winter 2015
- (11) \*\*\*Ramanja Pakirathan supervisor fall-winter 2015/2016
- (12) \*Collaborative research: Archchana Ramjohan, Gideon Canbanban, Rishawn Dhir, Fall 2015
- (13) Rishawn Dhir supervisor summer 2015

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- |      |  |            |                          |
|------|--|------------|--------------------------|
| (14) | ***Archchana Ramjohan  | supervisor | summer-fall 2015         |
| (15) | ***Moutushi Rahman   | supervisor | summer-fall 2015         |
| (16) | **MaryLouisse Feliciano  | supervisor | summer 2015              |
| (17) | **Tasnim Hashem  | supervisor | fall 2015                |
| (18) | **Iffat Naem   | supervisor | spring 2014              |
| (19) | ***Tanzina Islam   | supervisor | fall 2013-spring 2014    |
| (20) | ***Jonathan Chang  | supervisor | fall 2013-spring 2014    |
| (21) | *Group research: (Harrish Nithianandan, Gausiha Rathitharan, Jana Rajkumar), spring 2014   |            |                          |
| (22) | *Group research: (Medhat Chowdhury, Lauren Kong, Jonathan Peng, Jonathan Chang) spring 2013  |            |                          |
| (23) | *Group research: (Sandra Akinbinu, Ama Asare, Iffat Naeem)   |            | summer 2012              |
| (24) | ***Janine Gabriel  | supervisor | fall 2011 to 2012        |
| (25) | ***Julian deCruz   | supervisor | fall 2011 to 2012        |
| (26) | ***Hosay Said  | supervisor | fall 2010 to spring 2011 |
| (27) | *Group research: Lucy Li, Nizanthan Rathitharan, Hosay Said  |            | fall 2010 to spring 2011 |
| (28) | ***Aiswarya Baskaran   | supervisor | fall 2010 to spring 2011 |
| (29) | ***Sanjiv Kadijah  | supervisor | summer 2010-spring 2011  |
| (30) | ***Sai Kottapalli  | supervisor | summer 2009              |
| (31) | **Nerosanth Selvarajah   | supervisor | spring 2010              |
| (32) | **Steven Ramdeen   | supervisor | spring 2010              |
| (33) | **Viveka De Guerra   | supervisor | spring 2010              |
| (34) | **Valerie Peng   | supervisor | spring 2010              |
| (35) | **Sanjiv Kadijah   | supervisor | fall 2009                |
| (36) | **Aiswarya Baskaran  | supervisor | fall 2009                |
| (37) | ***Janine Gabriel  | supervisor | fall 2009- Winter 2010   |
| (38) | <b>Sara Arjomandpour.</b> Supervisor. May 2009 – December 2009. Polyandry & inbreeding in black widow spiders.                           |            |                          |
| (39) | <b>Vanessa Smith. Supervisor.</b> May 2009 – December 2009. Effect of energy expenditure on male competitive success in redback spiders  |            |                          |
| (40) | <b>Sai Kottapelli.</b> Supervisor. Sept 2009 – May 2009. Seasonal and functional variation in body size in jumping spiders.              |            |                          |
| (41) | <b>Stemberger, Tanya.</b> Supervisor. Sept 2008 – May 2009. Female preference, courtship and male competition in black widow spiders.    |            |                          |
| (42) | <b>Yasmina Tehami.</b> Supervisor. Sept 2008 – May 2009. Energy budgets, male condition, and competitive performance in redback spiders. |            |                          |
| (43) | <b>Sen Sivalinghem.</b> Supervisor. June 2008 – Dec 2008. Mate choice and signalling in jumping spiders.                                 |            |                          |
| (44) | <b>Russanthu Ruthiran.</b> Supervisor. <i>Polygyny and genital mutilation in black widow spiders.</i> 2007.                              |            |                          |
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- (45) **Nafis Rahnama.** Supervisor. *Sexual dimorphism in locomotory performance in spiders.* 2006-2007.
- (46) **Kuhan Perampaladas.** Supervisor. *Female receptivity and pheromone production in redback spiders.* 2006-2007. This work is in press in the journal *Ethology*
- (47) **Vanee Balasubramaniam.** Supervisor *Effects of age and mating history on female receptivity in spiders.* 2006.
- (48) **Sonia Joshi.** Co-supervisor *Aggressive signalling under hypoxia in Siamese Fighting Fish.* 2006.
- (49) **Nagissa Mahmoudi.** Supervisor. *Sexual dimorphism and allometry of redback spiders.* 2006. Part of this work is in press in the *Journal of Arachnology.*
- (50) **Farnoush Arabi.** Supervisor. *Copulatory postures & male vulnerability in arachnids.* 2005 – 2006.
- (51) **Uros Jovovic.** Supervisor. *Development of sexual dimorphism and sex-specific allometry in black widow spiders.* 2005- 2006.
- (52) **Ameesh Vora.** Supervisor. *Statistical and empirical assessment of condition indices in invertebrates.* 2005 – 2006.
- (53) **Ewelina Popkiewicz.** Supervisor. *Development and function of elaborate chelicerae of long-jawed spiders.* 2005 – 2006.
- (54) **Carolyn Watt.** Co-supervisor. *Karyotype of redback spiders.* 2004 – 2005.
- (55) **Melissa Hestick.** Supervisor. *Fitness effects of polyandry in redback spiders.* 2004 – 2005.
- (56) **Christopher McKinnon.** Sole supervisor. *Evolution of copulatory postures in arachnids.* 2003 – 2004.
- (57) **Jeffrey A Stoltz.** Sole supervisor. *Inter-male competition in redback spiders.* 2002 – 2003.
- (58) **Lei Gu.** Sole supervisor. *Function of abdominal constriction in redback spiders.* 2001 – 2002. Part of this work was published in *Biology Letters.*
- (59) **Jessica F Shaikh.** Co-supervisor. *Metabolic costs of reproduction in *Ormia ochracea*.* 2000 – 2001.

### **Supervision of Research Assistants**

**Summary.** Prof Andrade has supervised over 100 undergraduate laboratory assistants since 2000. Each year, she supervises 12- 15 undergraduates (work-study and volunteer) in her lab, in addition to employing one full-time undergraduate research assistant each summer, and a part-time undergraduate lab manager in the fall and winter. Assistants rear laboratory populations of spiders and their insect prey. Students are given the option of attending weekly discussion group meetings, and those who are capable also contribute to research projects after training in animal husbandry and data collection. The current lab complement is available here: <http://www.utoronto.ca/labs/andrade/lab-personnel-2/>

Undergraduate assistants supervised in 2006 and their current positions are listed here as an example of a typical year:

<b>Name</b>	<b>Role in Andrade lab</b>	<b>Current Position (where known)</b>
Kuhan Perampaladas	Full-time Summer Assistant/Lab Manager	Manager, Johnson & Johnson Assessment, McMaster University
Suzanna Chang	Work-Study	--
Ishtiaque Choudhury	Work-Study	Professional Program, University of Toronto School of Pharmacy

Jacqueline Goordial	Work-Study	PhD Program, Dept Natural Resource Sciences, McGill University
Pooja Mehta	Work-Study	Professional Program, University of London School of Pharmacy
Maria Murad	Work-Study	--
Gayathri Raveendran	Work-Study	Medical School, McMaster University
Sen Sivilinghem	Work-Study	MSc Program, Biology, Carleton University
Ana Muresan	Volunteer	MSc Program, Biotechnology, University of Toronto
Christopher Chan	Volunteer	Professional Program, University of Toronto Faculty of Pharmacy
Mohammed Khalfan	Volunteer	--
Rajeevan Selvaratnam	Work-Study	--
Owais Sultan	Volunteer	--

### **E. Administrative Service**

#### **14. A. Within the University of Toronto**

##### **Recent service: 2010-2015**

- Member: **Search committee for the Vice Principal and Dean**, UTSC (2015/2016)
- **Equity & Diversity mini-review**. One of two faculty members asked to review the current structure of the tri-campus equity offices. This effort involved confidential meetings with over 10 different groups (>30 individuals). This review was commissioned by Angela Hildyard (VP HR & Equity) and we submitted our confidential report to her office. March-May 2016.
- **Co-founder, MEaD UTSC (Mentoring Excellence and Diversity @ UTSC)**. This grassroots group is aimed at providing mentorship opportunities and education about barriers to career progress for early and mid-career faculty in the sciences. Together with Myrna Simpson (DPES), we secured funding from the Office of the VP –Research for the first meeting of this group in December 2014. One outcome of our successful first meeting is a new initiative in the Dean’s office to analyze past student evaluations, PTR and hiring pools and practices with respect to equity to provide benchmark data not currently available. Funding for a second meeting has been secured from the office of the Dean, and this is being planned for September 2016.
- **Speaker: CTL educator-exchange workshop**. *Designing and Giving Lectures that Engage Students*
- **Convocation speaker, School of graduate studies, June 2015**
- Vice-Chair, Academic Policies & Programs, University of Toronto (2014- present)
- Member: Academic Policies and Programs Agenda Committee (2014 – present)

- Member: Academic Board, University of Toronto (2009 - present)
- Editorial Advisory Board & creation committee, UTSC Commons Magazine (2010 - 2015)
- Member: **Search Committee for the Vice President of the University of Toronto and Principal of the University of Toronto Scarborough.** Summer 2014 to Fall 2014
- Member: **Search Committee for President of the University of Toronto** (June 2012 through March 2013)
- Member: **Search Committee for Principal and Vice-President,** University of Toronto Scarborough (spring 2012)
- ‘Academic offerings’ talk and discussion on teaching Evolutionary Biology. 6 May 2013. Presented to high school biology teachers as part of a PA-day enrichment session organized by UTSC.

#### ***Undergraduate administration:***

- Program Supervisor: Conservation & biodiversity and Integrative Biology Undergraduate programs. 2015 – 2016.
- Chair of Task Force on design of a new program in Ecology & Evolution & first Program Supervisor for this program (approved but then phased out)—Biodiversity, Ecology & Evolution (BEE) Undergraduate program. 2009 - 2012
  - I chaired the committee that proposed and secured approval for a specialist program in this area, I was then proposed a major in the same area (approval in progress). As part of this role, I secured funding for, and organized ‘BEE Café’ events to stir student interest in this new program.
- Program Supervisor, Conservation Biology Undergraduate Program. 2009 – 2011.
- High school recruitment. I have initiated a new program of recruitment efforts in local high schools in coordination with UTSC recruitment officers. Other participation in recruitment events includes:
  - High school guidance counselor information session, talk, April 2010
  - Woburn collegiate Science club, talk, May 2010 (up to 4 other similar talks are planned for fall 2010)
  - BEEs program introduction to University of Toronto recruiters, talk, Sept. 2010
  - BEE recruitment tactic overview, Deans’ Recruitment Advisory Council, talk, Sept 2010
  - BEE recruitment & information video short ([http://www.utsc.utoronto.ca/~info/videos/new\\_program2010.html](http://www.utsc.utoronto.ca/~info/videos/new_program2010.html))

#### ***Graduate Administration:***

- Department of Ecology & Evolutionary Biology Graduate Coordinator, 2010 – 2012.

I worked with the Associate Chair, Graduate Affairs on oversight of the tri-campus graduate program. *Ex officio* member of:

- Member, Graduate Admissions Committee (EEB)
- Member, Graduate Affairs Committee (EEB)

#### ***University Administration/service:***

- Member, University of Toronto Tribunal (Academic Board), 2010 – 2012
- Member, University of Toronto Academic Appeals committee (Academic Board), 2010 – 2012.

- Presentation & panel member, Workshop on promotion to professor.
  - Fall 2012(UTSC), fall 2011 (St. George)
- New Faculty orientation talk (UTSC), Fall 2009, 2010, 2011, 2012
- Green Path Program sample lecture. Summer 2009, 2010, 2011, 2013

### ***Departmental Administration:***

- Executive Committee, Department of Biological Sciences, UTSC. 2009 – 2012, 2014 to present

### **Promotion committees:**

- P. McGowan (chair, research sub-committee) Fall 2015
- J. Weir, (chair, research sub-committee) Fall 2015
- K. Welch (tenure), Fall 2014
- I. Stehlik (Lecturer), Fall 2012 (chair, teaching sub-committee)
- J. Nash (tenure), Fall 2012
- M. Aarts (tenure), Fall 2012

### **Three year review committees:**

- J. Weir, Fall 2012 (chair, teaching sub-committee)
- MJ Fitzpatrick 3-year review committee. Fall 2010. (chair, research review sub-committee).
- K Persaud senior lecturer promotion review committee. Fall 2010. (chair, Teaching review sub-committee).
- Member, Research review sub-committee. S. Gazzarini 3 year review. Fall 2008.
- Member, Research review sub-committee. A. Agrawal tenure review committee. Fall 2009

**Faculty Mentor:** I Stehlik (2010 to present), J. Nash (2010 to present); J. Weir (May 2014 to present); P. Molnar (January 2015 to present)

### **Faculty Search Committees:**

- Conservation Biology (2011)

**Organizer & Web-master: Organismal Biology Discussion Group**, UTSC, 6 member labs, (<http://www.utsc.utoronto.ca/~mandrade/organismal.html>), fall 2010 to 2013.

### **Past Service (prior to 2010)**

- **Dean's Representative. Faculty search committee, Dept. Anthropology (UTSC).** Fall 2009 – Spring 2010.
- **Chair, PhD examining committee:**
  - Department of Medical Genetics & Microbiology, University of Toronto. Sept 7, 2007.
  - Department of Health Policy, Management and Evaluation, University of Toronto. 2005.

- **Mix and Mingle event** with new students in Biological Sciences, departmental representative Sept 2004, 2005, 2007, 2009, 2010
- **New faculty orientation speaker (TLS):** *Field tested tips for recruiting graduate students.* October 2009, August 2010.
- **Composing draft Governance document** for the new Department of Biological Sciences, UTSC (with C. Hasenkampf), Summer 2007.
- **Green Path Program (UTSC)** reception attendee and guest lecturer, June 2007, 2009, 2010.
- **Executive Committee**, Department of Ecology & Evolutionary Biology, University of Toronto. 2006 – 2007.
- **Advisory Committee to the President, Search for a new Vice-President and Principal of UTSC.** Sept. – Dec 2006
- **Academic Committee, UTSC.** Biology representative, UTSC. 2006 – 2008..
- **Selection Committee member**, John Youson Entrance Award, UTSC. 2006.
- **Selection Committee member**, CK Govind memorial award, UTSC. 2004, 2005, 2007, 2008.
- **UTSC-mandated representative: Board of Directors, N'sheemaehn child care centre** (on-campus, not-for-profit organization. Appointed by UTSC CAO and the Office of the President, University of Toronto)
  - 2008 – 2009. President, Board of Directors
  - 2005 – 2008. Director of Communications & Privacy; Personnel committee member.
  - 2004 – 2005. Secretary of Board & Chair of the Personnel committee.
- **Website development committee**, Biological Sciences, UTSC (2007).
- **Planning and Budget Committee, UTSC**, Life Sciences representative, 2000 – 2002; 2005 – 2006.
- **Faculty Search Committees, UTSC:**
  - Evolution & Biogeography 2009
  - Neuroscience, 2007
  - Genomics & Population Genetics, 2005/2006
  - Biodiversity & Conservation Biology, 2004
  - Plant Developmental Biology, UTSC, 2003
  - Wildlife & Conservation Biology, UTSC, 2001.
- **Keynote speaker, 'Getting started'** (undergraduate orientation event). 2006, 2009, 2010.
- **Undergraduate career guidance talk:** "How to become a professor", organized by the Association of Chemistry & Biology Students, UTSC. Spring 2005, Fall 2005, fall 2006.
- **Closing address speaker**, UTSC Undergraduate Honours & Awards Night. 2004.
- **Featured** in University of Toronto recruitment brochure and 'Edge' magazine. 2002, 2004, 2006.
- **Keynote speaker, Take our daughters and sons to work** annual event. I also organized and ran a lab tour/activity session for children as part of this event. UTSC, 2003.

- **Invited panellist** on the University-wide new faculty orientation workshop on research start-up strategies. University of Toronto, 2003.
- **Organizational committee member and judge**, Department of Zoology Research Colloquium. University of Toronto, 2003
- **Coordination and drafting of growth plan document**, Ecology/Evolution/Organismal Biology group, UTSC, 2002.
- **Keynote speaker**, *Take our daughters to work* annual event, St George campus, University of Toronto, 2002.
- **Web-Master**, Integrative Behaviour & Neuroscience Group, UTSC. 2001 – 2006.
- **Co-founder, Integrative Behaviour & Neuroscience Group** ([www.utsc.utoronto.ca/ibn](http://www.utsc.utoronto.ca/ibn)), UTSC. 2001.
- **New Science Building Committee member**, Life Sciences representative, UTSC, 2001-2002.
- **Participation in political lobbying activities** coordinated by the office of the Vice President, Research and International Relations, University of Toronto (2001, 2002):
  - (i) I was one of 3 faculty who attended an editorial board meeting at the Toronto Star newspaper. Our purpose was to make clear the positive impact of provincial funding on research innovation. An editorial published following our meeting reversed the former, anti-innovation-funding position of the editorial board.
  - (ii) I was one of 15 faculty who attended a dinner meeting with the then-Ontario Minister of Finance. Our purpose was to convince him of the importance of provincial funding for research innovation.
- **Science Wing security task force**, Life Sciences representative, UTSC, 2001.
- **Undergraduate recruitment presenter**, Life sciences representative, UTSC Open House. 2001.

#### **14. B. Outside the University of Toronto**

##### **Service to other universities:**

##### **External reviewer:**

- (1) Jonathan Pruitt (tenure review), UC Santa Barbara, September 2016
- (2) Greg Holwell (tenure review), University of Auckland, September 2016
- (3) Eileen Hebets (promotion to Full Professor), U Nebraska, October 2014
- (4) William Eberhard (professional accomplishments review), Smithsonian Tropical Research Institute, summer 2014
- (5) Damian Elias (tenure review), University of Toronto, Berkeley, January 2014.
- (6) Mariella Herberstein (promotion to Full Professor), Macquarie University, Australia. January 2013
- (7) Anne Hedrick, (promotion to Adjunct Full Professor), University of California, Davis. October 2012
- (8) Marie Danielson-Francois (tenure review), University of Michigan, Dearborn. September 2012.
- (9) Vikram Iyengar (Tenure review), Villanova University, November 2009.

**Other:**

- (10) **Local Organizing Committee: Plenary symposium organizer. Canadian Society of Zoologists annual meeting, 2009**
- (11) **Conference submission judge:** Refereed abstracts submitted for consideration as oral presentations at 12<sup>th</sup> Biennial Congress of the International Society for Behavioural Ecology, April 15, 2008 (approx. 2/3 of applicants were invited to give talks)
- (12) **Local Organizing Committee.** Canadian Society for Ecology & Evolution, 1<sup>st</sup> General Meeting, University of Toronto, 17-20 May 2007.
- (13) **External Examiner,** MSc Thesis (ER Fairn, *Sexual selection in the whirligig beetle Dineutus nigrior Roberts (Coleoptera:Gryinidae)*, May 2007. Laurentian University
- (14) **External Examiner,** PhD dissertation (G Holwell, *Mating behaviour & genital morphology in Ciulfina praying mantids*). May 2006. Macquarie University (Sydney, Australia).

**Science outreach.**

- a. Talk: Brodie club, University of Toronto, Nov 2006.
- b. Invited Plenary address. Award ceremony for elementary & high school students in York region schools, Association of Educators of Black Students. May 2007Talk: Toronto Field Naturalists Talk Series. 10 Sept. 2006.
- c. Science and Invertebrate Biology presentations to preschool, kindergarten & 6<sup>th</sup> grade students, 2006.
- d. 'On being a professor'. Talk to gifted high-school students, Vancouver School Board, June 2006.
- e. Published interview, part of a series on non-traditional careers for women, *Chatelaine magazine*, July 2006.
- f. *Science Update* feature on black scientists (American Association for the Advancement of Science, <http://www.scienceupdate.com/newsite/spotlights/africanamerican.php>).
- g. Talk: Toronto Entomologist's Association, Sept 2003.
- h. **'Treehouse talk' series.** May 3, 2013. *Everything I need to know about evolution, I learned from a cannibalistic spider.* Toronto public library. I was one of 3 speakers from disparate areas giving a brief, data-free talk that included some experiential component to engage the audience, and participating in a broad discussion with the other speakers and audience after the talks. <http://treehousegroup.org/treehouse-talks/>
- i. **Radio Interview.** May 15, 2013. Colin McEnroe Show, WNPR, Connecticut Public Radio. Interview about sexual cannibalism and evolutionary biology.
- j. **Science Rendezvous.** May 2013, 2014, 2015. Toronto Zoo. I gave a number of interactive presentations about black widow spiders over the course of about an hour, contributed ideas for the hands-on component of the display, and organized graduate students to continue the display for most of the remainder of the day.
- k. **National Geographic online: 'News Watch' interview.** 14 February 2014. 'Dangerous dating: 4 Animals that take love to the extreme'  
<http://newswatch.nationalgeographic.com/2014/02/14/mating-sex-animals-science-black-widows-valentines-day/>

- l. **High school co-op placement supervisor.** In partnership with Dunbarton High School, I have agreed to provide one-term co-op placements for high school students (1 or 2 per term).  
I have supervised 5 such students since 2012.
- m. **SciTech evening seminar series talk and display.** Durham School Board, April 2015
- n. **Take your sons and daughters to work (several years)**
- o. **Science scavenger hunt award outreach activity—elementary school presentation May 2015**
- p. **Live skype Q&A with university and high school students (8 in the past 5 years).**
- q. **Feature in ‘Owl’ Magazine, October 2015**
- r. **Featured scientist from Canada: IANAS Committee on Women in Science publication on early and mid-career scientists** <http://www.ianas.org/index.php/programs/women-for-science?id=537>

(15) **Judge.** Animal Behavior Diversity Fund Grant Applications. 2003.

(16) **Presenter.** Animal Behaviour Public Education Night. 39<sup>th</sup> Annual meeting of the Animal Behavior Society. Bloomington, Indiana. 2002.

## **F. Other Evidence of Impact**

Textbook features: ‘Meet the Scientist’, interview/research feature in Herron et al. Introductory Biology, Canadian Edition. Pearson.

PBS NOVA (PBS) ScienceNow, program aimed at engaging young people in science (see <http://www.pbs.org/wgbh/nova/sciencenow/>) featured a profile of my work, and was aired repeatedly between July 2009 and March 2010.

Extensive media coverage of publications (with JA Stoltz) includes:

- Australian Broadcasting Corporation – The Science Show , March 20, 2010. “Redback spiders” with Robyn Williams
- Canadian Broadcast Corporation – Quirks and Quarks , November 7, 2009. “Cheatin and Eatin” with Bob McDonald.
- Discovery Channel News –Friday News Feedbag , October 31, 2009. (podcast available at
- The Globe and Mail, October 23, 2009. “Eat him, he's too fast” by Michael Kersterton.
- Nature news , October 21, 2009. “Lazy male spiders avoid dinner date” by Elie Dolgin.
- Discovery Channel News , October 21, 2009. “Deadly spider demands long courtship, or else” by Jennifer Viegas. (video:
- Australian Broadcasting Corporation , October 21, 2009. “Male redbacks' risky foreplay ritual” by Annabel McGilvray

**Other Popular Science coverage of my research includes:**

**Popular Science books:**

Judson, O. 2002. *Dr. Tatiana’s Sex Advice to all Creation.*

Zimmer, C. 2001. *Evolution: Triumph of an Idea*.

**Radio Interviews include:**

*Quirks and Quarks* (CBC, Canada, 2010 [<http://www.cbc.ca/quirks/episode/2010/11/>], 2005, 2004, 1997).

*Science Update* (AAAS, Jan 16, 2006, <http://www.scienceupdate.com/index.cfm>)

'*Up all night*' (BBC, UK, 2004)

*Science news* (ABC, Australia, 1997, 2004)

*Pulse of the Planet* (USA, 2000, [http://www.pulseplanet.com/feat\\_archive/Jan00/](http://www.pulseplanet.com/feat_archive/Jan00/))

*Science Magazine* (BBC, UK, 1997)

**Television interviews/documentaries include:**

Profiled on **Nova ScienceNow, 2009**: <http://www.pbs.org/wgbh/nova/nature/profile-andrade.html>

Radio Canada International interview on women in science, 2010 ([http://www.rcinet.ca/english/column/the-link-s-top-stories/15-57\\_2011-03-07-getting-homeless-off-the-street-key-to-a-better-future/](http://www.rcinet.ca/english/column/the-link-s-top-stories/15-57_2011-03-07-getting-homeless-off-the-street-key-to-a-better-future/))

'*Planet Q*' (Discovery Channel, Canada, 2006)

'*Dr. Tatiana's Sex Advice to all Creation*' Nature Documentary. (WagTV, UK, 2005)

'*The daily planet*' , (Discovery Channel, Canada, December 2005; 2000)

"*Girlz TV*". Arachnology. Aired on YouthTV (Canada, July 2004)

'*Small spiders get the girl*'. (CTV news, April 2002).

"*The Science of Spiderman*" (Discovery Channel Canada, 2002)

"*Ultimate guide: spiders*" Nature Documentary. (Discovery channel, USA, first aired: 2001)

"*The triumph of life: The mating game*", award-winning Nature Documentary (PBS, USA, first aired: 2001)

**Webpage features include:**

Interviewed in 'Women in Science' video produced by the Canadian Foundation for Innovation, 2011, (<http://innovationcanada.ca/en/articles/women-and-science>)

National Geographic News (<http://news.nationalgeographic.com/news>) *Sexual Prime Peaks When Males "Smell" Mates, Spider Study Shows* (16 June 2006).

News in Science (ABC, Australia, <http://www.abc.net.au/science/news/>), *Redback spiders sniff air then mature* (11 April 2006) and *Redback spiders picky about sperm* (26 June 2005).

News in Science: 12 May 2004. (ABC, Australia). *Virile cricket is world's top sex machine*. ([www.abc.net.au/science/articles/2004/05/12/1106630.htm](http://www.abc.net.au/science/articles/2004/05/12/1106630.htm))

[News@Nature.com](#) (Nature, UK) *Female spiders exploit double-barrelled sperm storage* (23 May 2005) and *Eight-legged antics* (19 July 2001).

ScienceNow, [www.sciencenow.sciencemag.org](http://www.sciencenow.sciencemag.org) (Science, AAAS) *Back for more* (6 September 2005).

**Print Media Articles include:**

*New York Times (Science Times, Sept 5 2006; 9  
Jan. 1996)*

*The Toronto Star (Sept 2006, Dec 2005)*

*Science News (USA, Aug 2006, Nov 1999)*

*Nature Australia (1997, 2005)*

*Sydney Morning Herald (2004)*

*Focus (Germany, Sept 2000)*

*The Sciences (USA, Sept/Oct. 1999)*

*Ottawa Citizen (Canada, 23 Jan 1996)*

*Scientific American (USA, Oct 1995)*

*Discover Magazine (USA, Nov 1995)*

*The Globe and Mail (Canada, Dec 1995)*