

CURRICULUM VITAE

William Henry Cade

President and Vice Chancellor *Emeritus*
Professor of Biological Sciences *Emeritus*

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PERSONAL INFORMATION

Born July 5, 1946, San Antonio, Texas
Married and one daughter
United States and Canadian citizen

EDUCATION

Ph.D. The University of Texas at Austin, Zoology, 1976
M.A. The University of Texas at Austin, Zoology, 1972
B.A. The University of Texas at Austin, Zoology, 1968

PROFESSIONAL EXPERIENCE

Professor of Biological Sciences *Emeritus*, The University of Lethbridge (July 1, 2012-present)
President and Vice Chancellor *Emeritus*, The University of Lethbridge (July 1, 2010-present)
President and Vice-Chancellor, The University of Lethbridge (July 1 2000-June 30, 2010)
Professor of Biological Sciences, The University of Lethbridge (July 1 2000-June 30, 2012)
Visiting Scholar, Department of Biology, Trinity University (1999-2000, sabbatical)
Dean, Faculty of Mathematics and Science, Brock University (1989-1999)
Acting Vice President Academic, Brock University (1996-1997)
Chair, Department of Biological Sciences, Brock University (1988-1989)
Chair, Department of Technical Services, Brock University (1985-1988)
Professor of Biological Sciences, Brock University (1986-2000)
Visiting Scholar, The University of Texas at Austin (1982-83, sabbatical)
Associate Professor, Brock University (1981-1986)
Assistant Professor, Brock University (1977-1981)
Visiting Scientist, Smithsonian Tropical Research Institute, Panama (1977)
High School Science Teacher, San Antonio (1968-71)

RESEARCH INTERESTS

Evolution of animal behavior, Insect reproductive behavior, Biogeography and biosystematics of African Orthoptera

TEACHING EXPERIENCE

The University of Lethbridge: Evolution of Insect Behavior (seminar course) and Special Topics in Laboratory Research

Brock University: Behavior Genetics (honors and graduate course), Biogeography, Biology - A Human Perspective (first year, non-majors), Concepts in Biology (first year, majors), Evolution (team taught with faculty from Philosophy and Geology), Insect Behavior (honors and graduate course), Insect Behavior and Ecology (field course), Introductory Insect Biology, Invertebrate Zoology, Natural Selection and Social Behavior (honors and graduate course), Parasitology, and Principles of Environmental Biology

UNIVERSITY AND COMMUNITY SERVICE - LETHBRIDGE

UNIVERSITY

2007 – 2010	Board Member, Canada School for Energy and the Environment (a partnership between the Universities of Alberta, Calgary and Lethbridge)
2006 – 2010	Chair, Vice Presidential appointment committees
2002 – 2005	Board Member, Association of Universities and Colleges of Canada
2002 – 2004	Chair, Council of Western Canadian University Presidents
2001 - 2004	Chair, Universities Coordinating Council (includes all Alberta Universities)
2000 - 2010	Board of Governors and all standing Committees of the Board (Ex Officio)
2000-present	University Senate and several standing Committees of the Senate (Vice Chancellor)
2000 - 2010	Chair, General Faculties Council (GFC)
2000 - 2010	Chair, GFC Executive Committee
2000 - 2010	Dean's Council
2000 - 2010	Directors Council
2000 - 2010	Chair, Senior Executive Committee

COMMUNITY

2010	Public Lecture, Telus World of Science Edmonton, "Sex on Six Legs"
2009	External Reviewer, Department of Biological Sciences, Queen's University
2007 - 2009	Chair, Committee on Water and Sustainable Development, Alberta Economic Development Authority (AEDA)
2000 - 2010	Member, AEDA
2007	Co-chair, Roundtable discussion on the participation of undergraduates in faculty research, Association of Universities and Colleges of Canada meeting, Saskatoon
2005 - 2006	Co-organizer of the 9 th International Conference of the Orthopterists' Society and Chair of an invited symposium on Sexual Selection in crickets, grasshoppers and their relatives.
2000 - present	Member, Rotary Club of Lethbridge
2001 - 2004	Board Member, Lethbridge United Way
2002 - 2003	Member of planning group, Lethbridge Economic Development Initiative (now Lethbridge Economic Development)
2002	Keynote Address, Canadian Club of Calgary, 95 th anniversary meeting
2001	Keynote Address, District meeting of Toastmasters (Lethbridge)

- 2000 - 2010 Board Member, Miller Thompson Foundation
 2000 - 2010 Many presentations on various topics involving The University of Lethbridge to service clubs, government groups, prospective and new students, Faculty Councils, University Senate, and other meetings

UNIVERSITY AND COMMUNITY SERVICE - BROCK

UNIVERSITY

- 1989-99 Committee of Academic Deans
 1989-99 Senior Administrative Council
 1989-99 University Committee on Promotion and Tenure
 1989-99 All of the Academic Senate Committees including Scholarships, Student Appeals, Library, Computing and Communications and Executive
 1997-99 Joint Brock - Niagara College Vineyard Management Committee
 1996-99 Chair, Advisory Council, Cool Climate Oenology and Viticulture Institute
 1990 Member, University negotiating team with the Faculty Association
 1996-97 Chair, Strategic Enrollment Management Task Force
 1996-97 Board of Trustees, ex-officio
 1990-94 Joint University-Faculty Association Committee on Administration of the collective agreement
 1987-89 President, Brock University Faculty Association (2 terms)
 1986-88 Grievance Officer, Brock University Faculty Association

COMMUNITY

- 1998 -1999 Board Member, Taste of Niagara
 1998 -1999 Board Member, Niagara Agricultural Weather Network
 1991-1999 Chair, Niagara Science Dean's Council
 1990-1999 Chair, Niagara-Brock Science Interface Group with science educators
 1997-2000 Member, St. Catharines Rotary Club
 1992-1996 Chair, Public Relations Committee, Alliance for Ontario Universities, (sponsored by the Council of Ontario Universities)
 1996 -1999 Board Member, Institute for Enterprise Education
 1990-1999 Presentations on Brock's educational and research programs to many groups including Rotary and other service clubs, professional societies, governing boards, schools and parents of students
 1990 -1999 Judge, Niagara Regional Science and Engineering Fair

AWARDS AND HONORS

- 2012 Doctor of Laws, Honorary, The University of Lethbridge
 2010 Generosity of Spirit Award (with Elsa Salazar Cade), Association of Fund Raising Professionals, Calgary and area chapter
www.uleth.ca/unews/content/generosity-spirit-award-given-bill-and-elsa-cade
 2006 Lifetime appointment to the Kainai Chieftainship, an honorary society of the Kainai Nation

- 2005 Alberta Centennial Medal
- 2003 Queen Elizabeth's Golden Jubilee Medal
- 1998 Royal Bank Business Citizen of the Year, Niagara Grape and Wine Festival

RESEARCH PRESENTATIONS AT MEETINGS (last 10 years)

- Judge, K. A., Smith, B. E., Shawna Ohlmann and W. H. Cade. 2013. The evolution of weaponry and aggressive behaviour in North American field crickets (Gryllidae, *Gryllus*). International Congress of Orthopterology , Kunming, China.
- Judge, K. A., Smith, B. E., and W. H. Cade. 2011. Aggressive competition between two day old crickets (*Gryllus veletis*) affects development. Animal Behavior Society, Indiana University, Bloomington.
- Logue, D., I. Abiola, and W. Cade. 2009. Individual differences in aggression among male Hissing Cockroaches, *Gromphadorhina portentosa*. Dan Otte Symposium, University of Lethbridge.
- Abiola, I. D., Logue, and W. Cade. 2009 Function of agonistic signaling in *Teleogryllus oceanicus*. Dan Otte Symposium, University of Lethbridge.
- Logue, D., S. Mishra, D. McCaffrey, D. Ball, and W. Cade. 2008. Behavioral syndrome links honosexual courtship to reproductive success in Hissing Cockroaches, *Gromphadorhina portentosa*. Animal Behavior Society, Snowbird, Utah.
- Logue, D.M, Keyes, J., & Cade, W.H. 2006. Relating structure to function in the acoustic courtship signals of the Madagascar hissing cockroach *Gromphadorhina portentosa*. 11th Congress of the International Society for Behavioural Ecology. Tours, France.
- Walker, S. E. and W. H. Cade. 2006. The relationship between time-spent calling, song structure and mating in crickets, *Teleogryllus oceanicus*. Animal Behavior Society annual meeting.
- McCarthy, T. M., J. Keyes, and W. H. Cade. 2006. Male calling and phonotactic behaviors in the field cricket *Gryllus texensis*. International meeting of The Orthopterist Society.

RESEARCH GRANTS (last 10 years)

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|---------|--|-----------|
| 2007-12 | Natural Science and Engineering Research Council (NSERC)
Research Grant (total)
Evolution of acoustical communication in insects | \$129,900 |
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NSERC funding has been received continuously since 1978.

RESEARCH SUPERVISION

The University of Lethbridge: Undergraduate Research Students (21 students since 2000), Postdoctoral Research Fellows (6 since 2000)

Brock University: Honours students (36 students), graduate students (15 M.Sc. students), postdoctoral fellows (4), high school mentor students (several).

PUBLICATIONS

McCarthy, T. M., J. Keyes, and W. H. Cade. 2013. Phonotactic behavior of male field crickets (*Gryllus texensis*) in response to acoustic calls from conspecific males. *Journal of Insect Behavior*. Published online February 3. [PDF](#)

Logue, D. M., Takahashi, A. and W. H. Cade. 2011. Aggressiveness and size: A model and two tests. *The American Naturalist*. 177: 202-210. [PDF](#)

Mishra, S., D. M. Logue, I. Abiola, and W. H. Cade. 2011. Developmental environment affects risk acceptance in the hissing cockroach, *Gromphadorhina portentosa*. *Journal of Comparative Psychology* 125: 40-47. [PDF](#)

Logue, D.M., Abiola, I.O., Rains, D., Bailey, N.W, Zuk, M., and W.H. Cade. 2010. Does signalling mitigate the cost of agonistic interactions? A test in a cricket that has lost its song. *Proceedings B of the Royal Society*. 277: 2571-2575. [PDF](#)

Logue, D.M., Mishra, S., McCaffrey, D., Ball, D., & Cade, W.H. (2009). A behavioral syndrome links courtship toward males and females predicts reproductive success from a single mating in the hissing cockroach, *Gromphadorhina portentosa*. *Behavioral Ecology*. 20:781-788. [PDF](#)

Pellis, S. M., D. Gray, and W. H. Cade. 2009 The judder of the cricket: the variance underlying the invariance in behavior. *International Journal of Comparative Psychology* 22: 188 – 205. [PDF](#)

Gray, D. A, C. Banuelos, S. E. Walker, W. H. Cade and M. Zuk. 2007. Behavioural specialization among populations of the acoustically-orienting parasitoid fly *Ormia ochracea* utilising different cricket species as hosts. *Animal Behaviour* 73: 99 – 104. [PDF](#)

Walker, S. E. and W. H. Cade. 2003. A simulation model of the effects of frequency dependence, density dependence, and parasitoid flies on the fitness of male field crickets. *Ecological Modelling* 169: 119-130. [PDF](#)

Walker, S. E. and W. H. Cade. 2003. The effects of temperature and age on calling song in a field cricket with a complex calling song, *Teleogryllus oceanicus* (Orthoptera: Gryllidae). *Canadian Journal of Zoology* 81: 1414-1420. [PDF](#)

- Gray, D. A., T. J. Walker, B. E. Conley, and W. H. Cade. 2001. A morphological means of distinguishing females of the cryptic field cricket species, *Gryllus rubens* and *G. texensis* (Orthoptera: Gryllidae). *Florida Entomologist* 84: 314-315. [PDF](#)
- Gray, D. A. and W. H. Cade. 2000. Sexual selection and speciation in field crickets. *Proceedings of the National Academy of Sciences USA* 97:14449-14454. [PDF](#)
- Cade, W. H. and D. Otte. 2000. *Gryllus texensis* n. sp.: A widely studied field cricket (Orthoptera; Gryllidae) from the southern United States. *Transactions of the American Entomological Society* 126: 117-123. [PDF](#)
- Martin, S. D., Gray, D. A. & Cade, W. H. 2000. Fine-scale temperature effects on cricket calling song. *Canadian Journal of Zoology* 78: 706-712. [PDF](#)
- Gray, D. A. & Cade, W. H. 2000. Senescence in field crickets (Orthoptera: Gryllidae): examining the effects of sex and a sex-biased parasitoid. *Canadian Journal of Zoology* 78:140-143. [PDF](#)
- Gray, D. A., and W. H. Cade. 1999. Correlated-response-to-selection experiments designed to test for a genetic correlation between female preferences and male traits yield biased results. *Animal Behaviour* 58: 1325-1327. [PDF](#)
- Gray, D. A., and W. H. Cade. 1999. Quantitative genetics of sexual selection in the field cricket *Gryllus integer*. *Evolution* 53: 848-854. [PDF](#)
- Tachon, G., A-M. Murray, D. A. Gray and W. H. Cade. 1999. Agonistic displays and the benefits of fighting in the field cricket, *Gryllus bimaculatus*. *Journal of Insect Behavior* 12: 533-543. [PDF](#)
- Gray, D. A. and W. H. Cade. 1999. Sex, death and genetic variation: natural and sexual selection on cricket song. *Proceedings of the Royal Society of London, Series B.* 266: 707-709. [PDF](#)
- Cade, W. H. 1999. Mating Behavior, Insects. In E. Knobil and J. D. Neill (eds.) *Encyclopedia of Reproduction*, 3: 129-136. Academic Press, N.Y.
- Lickman, K., A.-M. Murray, and W. H. Cade. 1998. Effect of mating on female phonotactic response in *Gryllus integer* (Orthoptera: Gryllidae). *Canadian Journal of Zoology* 76: 1263-1268. [PDF](#)
- Prosser, M. R., A.-M. Murray and W. H. Cade. 1997. The influence of female age on phonotaxis during single and multiple song presentations in the field cricket, *Gryllus integer*. *Journal of Insect Behavior* 10: 437-449. [PDF](#)
- Cade, W. H., M. Ciceran, and A. M. Murray. 1996. Temporal patterns of parasitoid fly (*Ormia ochracea*) attraction to field cricket song (*Gryllus integer*). *Canadian Journal of Zoology* 74: 393-395. [PDF](#)
- Murray, A. M. and W. H. Cade. 1995. Differences in age structure among field cricket

- populations (Orthoptera; Gryllidae): possible influence of a sex-biased parasitoid. *Canadian Journal of Zoology* 73: 1207-1213. [PDF](#)
- Wagner, W., A. M. Murray and W. H. Cade. 1995. Phenotypic variation in the mating preferences of female field crickets, *Gryllus integer*. *Animal Behaviour* 49: 1269-1281. [PDF](#)
- Souroukis, K. and W. H. Cade. 1993. Reproductive competition and selection on male traits at varying sex ratios in the field cricket, *Gryllus pennsylvanicus*. *Behaviour* 126: 45-62. [PDF](#)
- Rowell, G. A. and W. H. Cade. 1993. Simulation of alternative male reproductive behavior: calling and satellite behavior in field crickets. *Ecological Modeling* 65: 265-280. [PDF](#)
- Souroukis, K., W. H. Cade and G. A. Rowell. 1992. Factors that possibly influence variation in the calling song of field crickets: temperature, time, and male size, age and wing morphology. *Canadian Journal of Zoology* 70: 950-955. [PDF](#)
- Cade, W. H. and E. S. Cade. 1992. Male mating success, calling and searching behavior at high and low densities in the field cricket, *Gryllus integer*. *Animal Behaviour* 43: 49-56. [PDF](#)
- Cade, W. H. 1991. Inter and intraspecific variation in nightly calling duration in field crickets, *Gryllus integer* and *G. rubens*. *Journal of Insect Behavior* 4: 185-194. [PDF](#)
- Cade, W. H. and M. G. Tyshenko. 1990. Geographic variation in song structure and hybrid fertility in the field crickets *Gryllus integer*, *G. rubens* and *Gryllus* sp. *Canadian Journal of Zoology* 68: 2697-2700. [PDF](#)
- Solymar, B. and W. H. Cade. 1990. Age of first mating in female field crickets, *Gryllus integer* (Orthoptera: Gryllidae). *Florida Entomologist* 73: 193-195. [PDF](#)
- Solymar, B. and W. H. Cade. 1990. Heritable variation for female mating frequency in field crickets, *Gryllus integer*. *Behavioral Ecology and Sociobiology* 26: 73-76. [PDF](#)
- Cade, W. H. 1989. Nightly and hourly rates of phonotaxis by flying field crickets, *Gryllus integer*, to conspecific song. *Canadian Journal of Zoology* 67: 2540-2542. [PDF](#)
- French, B. W. and W. H. Cade. 1989. Sexual selection at varying population densities in male field crickets, *Gryllus veletis* and *G. pennsylvanicus*. *Journal of Insect Behavior* 2: 105-121. [PDF](#)
- Otte, D., R. Toms, and W. H. Cade. 1988. New species and records of east and southern African crickets (Orthoptera: Gryllidae; Gryllinae). *Annals of the Transvaal Museum* 34: 405-468.
- Smith, C. J. and W. H. Cade. 1987. Song characteristics and fertility in hybridization experiments on the field crickets, *Gryllus integer* and *G. rubens*. *Canadian Journal of Zoology* 65: 2390-2394. [PDF](#)

- Otte, D., R. D. Alexander and W. H. Cade. 1987. The crickets of New Caledonia. Proceedings of the Academy of Natural Sciences of Philadelphia 139: 375-457. [PDF](#)
- French, B. W. and W. H. Cade. 1987. The timing of mating, calling, and locomotion in the field crickets, *Gryllus veletis*, *G. pennsylvanicus*, and *G. integer*. Behavioral Ecology and Sociobiology 21: 157-162. [PDF](#)
- Backus, V. L. and W. H. Cade. 1986. Sperm competition in the field cricket *Gryllus integer* (Orthoptera: Gryllidae). Florida Entomologist 69: 722-728. [PDF](#)
- Dixon, K. A. and W. H. Cade. 1986. Some factors influencing male-male aggression in field crickets (time of day, weight, sexual maturity). Animal Behavior 34: 340-346. [PDF](#)
- Cade, W. H. 1985. Insect courtship and mating behaviour. In G. A. Kerkut and L. I. Gilbert (eds.), *Comprehensive Insect Physiology, Biochemistry and Pharmacology*, vol. 9. Behaviour. Pergamon Press, Oxford, pp. 591-619.
- Cade, W. H. 1984. Effects of fly parasitoids on nightly calling duration in field crickets. Canadian Journal of Zoology 62: 226-228. [PDF](#)
- Cade, W. H. 1984. Genetic variation underlying sexual behavior and reproduction. American Zoologist 24: 355-366. [PDF](#)
- Cade, W. H. and D. Wyatt. 1984. Factors affecting calling behaviour in field crickets, *Teleogryllus* and *Gryllus* (age, weight, density, and parasites). Behaviour 88: 61-75. [PDF](#)
- Otte, D. and W. H. Cade. 1984. African crickets (Gryllidae). 6. On the genus *Gryllus* and some related genera (Gryllinae, Gryllini). Proceedings of the Academy of Natural Sciences of Philadelphia 136: 98-122. [PDF](#)
- Otte, D. and W. H. Cade. 1984. African crickets (Gryllidae). 5. On the east and south African species of *Modicogryllus* and several related genera (Gryllinae: Modicogryllini). Proceedings of the Academy of Natural Sciences of Philadelphia 136: 67-97. [PDF](#)
- Otte, D. and W. H. Cade. 1984. African crickets (Gryllidae). 4. On the genus *Platygryllus* from eastern and southern Africa (Gryllinae, Gryllini). Proceedings of the Academy of Natural Sciences of Philadelphia 136: 45-66. [PDF](#)
- Otte, D. and W. H. Cade. 1983. African crickets (Gryllidae). 3. On the African species of *Velarifictorus* Randall (Gryllinae, Modicogryllini). Proceedings of the Academy of Natural Sciences of Philadelphia 135: 241-253. [PDF](#)
- Otte, D. and W. H. Cade. 1983. African crickets (Gryllidae). 1. *Teleogryllus* of eastern and southern Africa. Proceedings of the Academy of Natural Sciences of Philadelphia 135: 102-127. [PDF](#)

- Nagel, M. and W. H. Cade. 1983. On the role of pheromones in aggregation formation in camel crickets, *Ceuthophilus secretus* (Orthoptera; Gryllacrididae). Canadian Journal of Zoology 61: 95-98. [PDF](#)
- Sakaluk, S. and W. H. Cade. 1983. The evolution of multiple mating in female insects. In D. Gwynne and G. Morris (eds.), *Mating Systems in Orthoptera*. Westview Press, Boulder Co. pp. 319-336.
- Cade, W. H. and D. Otte. 1982. Alternation calling and spacing patterns in the field cricket *Acanthogryllus fortipes* (Orthoptera; Gryllidae). Canadian Journal of Zoology 60: 2916-2920. [PDF](#)
- Cade, W. H. 1981. Alternative male strategies: genetic differences in crickets. Science 212: 563-564. [PDF](#)
- Cade, W. H. 1981. Field cricket spacing and the phonotaxis of crickets and parasitoid flies to clumped and isolated cricket songs. Zeitschrift fur Tierpsychologie 55: 365-375. [PDF](#)
- Cade, W. H. 1980. Alternative male reproductive behaviors. Florida Entomologist 63: 30-45. [PDF](#)
- Cade, W. H. and R. Rice. 1980. Field crickets (Orthoptera; Gryllidae) as the prey of the toad *Bufo marinus*. Canadian Entomologist 112: 335-336. [PDF](#)
- Sakaluk, S. and W. H. Cade. 1980. Female mating frequency and progeny production in singly and doubly mated house and field crickets. Canadian Journal of Zoology 58: 404-411. [PDF](#)
- Cade, W. H. 1979. The evolution of alternative male reproductive strategies in field crickets. In M. S. Blum and N. A. Blum (eds.) *Sexual Selection and Reproductive Competition in Insects*. Academic Press, N.Y. pp. 343-379.
- Cade, W. H. 1979. Field cricket dispersal flights measured by crickets landing at lights. Texas Journal of Science 31: 125-130. [PDF](#)
- Cade, W. H. 1979. Effects of male deprivation on female phonotaxis in field crickets (Orthoptera: Gryllidae; *Gryllus*). Canadian Entomologist 111: 741-744. [PDF](#)
- Cade, W. H., P. H. Simpson, and O. P. Breland. 1978. *Apiomerus spissipes* (Hemiptera: Reduviidae): A predator of Harvester Ants in Texas. Southwestern Entomologist 3: 195-197. [PDF](#)
- Cade, W. H. 1978. Of cricket song and sex. Natural History 87: 64-73.
- Otte, D. and W. H. Cade. 1976. On the role of olfaction in sexual and interspecies recognition in crickets (*Acheta* and *Gryllus*). Animal Behaviour 24: 1-6. [PDF](#)
- Cade, W. H. 1975. Acoustically orienting parasitoids: Fly phonotaxis to cricket song. Science 190: 1312-1313. [PDF](#)

