

Curriculum Vitae
(Through November 2008)
On Leave/ Sabbatical Jan 2008-2009

1. Jonathan K. Waage

A. Professor, Biology
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3. Education:

Princeton University A.B. Biology, with honors, 1966
University of Michigan Ph.D. Zoology, 1971

4. Professional Appointments:

Instructor in Biology, Brown University - 7/72 - 6/73
Assistant Professor, Biology, Brown University - 7/73 - 6/79
Associate Professor, Biology, Brown University - 7/79 - 6/90
Professor, Biology, Brown University - 7/90 –
Executive Associate Dean of the College, Brown University – 1/02 – 6/07

5. Publications (complete):

a. Book Chapters:

- Waage, J. K. 1997. Parental Investment -- Minding the kids or keeping control? In, P.A. Gowaty (ed.) Feminism and Evolutionary Biology: Boundaries, Intersections and Frontiers. Chapman & Hall, pp. 527-553
- Waage, J. K. & P. A. Gowaty. 1997. Myths of Genetic Determinism. In, P.A. Gowaty (ed.) Feminism and Evolutionary Biology: Boundaries, Intersections and Frontiers. Chapman & Hall, pp. 585-613.
- Fincke, O. M., J. K. Waage & W. D. Koenig. 1997 Natural and Sexual Selection Components of Odonate Mating Systems. In, J. Choe and B.J. Crespi (Eds.) The Evolution of Mating Systems in Insects and Arachnids. Cambridge University Press

b. Journal articles

- Waage, J. K. 1972. Longevity and mobility of adult *Calopteryx maculata*. Odonatologica. 1:155-162.
- Waage, J. K. 1973. Reproductive behaviour and its relation to territoriality in *Calopteryx maculata* (Beauvois) (Odonata; Calopterygidae). Behaviour. 47:240-256.
- Waage, J. K. 1975. Reproductive isolation and the potential for character displacement in the damselflies, *Calopteryx maculata* and *C. aequabilis* (Odonata: Calopterygidae). Syst. Zool. 24:24-36.
- Waage, J. K. 1978. Oviposition duration and egg deposition rates in *Calopteryx maculata*. Odonatologica. 7:77-88.
- Waage, J. K. 1979. Adaptive significance of postcopulatory guarding of mates and nonmates by male *Calopteryx maculata* (Odonata). Behav. Ecol. Sociobiol. 6:147-154.
- Waage, J. K. 1979. Dual function of the damselfly penis: sperm removal and transfer. Science. 203:916-918.

- Waage, J. K. 1979. Reproductive character displacement in *Calopteryx* (Odonata: Calopterygidae). Evolution. 33:104-116.
- Waage, J. K. 1980. Adult sex ratios and female reproductive potential in *Calopteryx* (Zygoptera: Calopterygidae). Odonatologica. 9:217-230.
- Waage, J. K. 1982. Sperm displacement by male *Lestes vigilax* Hagen (Zygoptera: Lestidae). Odonatologica. 11:201-209.
- Waage, J. K. 1983. Sexual selection, ESS theory and insect behavior: Some examples from damselflies (Odonata). Fla. Entomol. 66:19-31.
- Waage, J. K. 1984. Influence of oviposition behavior on female and male responses during courtship in *Calopteryx maculata* and *C. dimidiata* (Odonata: Calopterygidae). Anim. Behav. 32:400-404.
- Waage, J. K. 1984. Sperm competition and the evolution of odonate mating systems. In R.L. Smith (ed.) Sperm Competition and the Evolution of Animal Mating Systems. Academic Press, New York 8: 251-290.
- Waage, J. K. & J. M. Bergelson. 1985. Differential use of pin and black cherry by the eastern tent caterpillar *Malacosoma americanum* (Fab.) (Lepidoptera: Lasiocampidae). Amer. Midl. Natur. 113:45-56.
- Waage, J. K. 1986. Evidence for widespread sperm displacement ability among Zygoptera (Odonata) and the means for predicting its existence. Biol. J. Linn. Soc. 28:285-300.
- Waage, J. K. 1986. Sperm displacement by two libellulid dragonflies with disparate copulation durations (Anisoptera). Odonatologica 15(4): 429-444.
- Oppenheimer, S. D. and J. K. Waage. 1987. Hand-pairing: a new technique for obtaining copulations within and between *Calopteryx* species (Zygoptera: Calopterygidae). Odonatologica 16:291-296.
- Waage, J. K. 1987. Choice and utilization of oviposition sites by female *Calopteryx maculata* (Odonata: Calopterygidae). I. Influence of site size and the presence of other females. Behav. Ecol. Sociobiol. 20:439-446.
- Waage, J. K. 1988. Confusion over residency and the escalation of damselfly territorial disputes. Anim. Behav. 36:586-595
- Waage, J. K. 1988. Reproductive behaviour of the damselfly *Calopteryx dimidiata* Burm. (Odonata: Calopterygidae). Odonatologica 17:365-378.
- Marden, J. H. & J. K. Waage. 1990. Escalated damselfly territorial contests are energetic wars of attrition. Anim. Behav. 39:954-959.

c. Invited Book Reviews:

- 1984 - R. Thornhill & J. Alcock. 1983. The Evolution of Insect Mating Systems. Science 223:808-809.
- 1988 - R. Michod & B. Levin 1988. The Evolution of Sex. for Bioscience
- 1989 - T.H. Clutton-Brock 1988. Reproductive Success. for Bioscience
- 2000 – P. Corebet 1999 Dragonflies. For Quarterly Review of Biology

d. Invited Lectures (Since 1985):

- 1985: Dept. of Zoology, Arizona State University (Mar.); Dept. of Entomology, Rutgers University (Oct.); Dept. of Entomology, Univ. Massachusetts, Amherst (May)
- 1986: Paper and symposium organizer, N.E. Regional Animal Behavior Meetings, U. Vermont (Oct); Dept. of Psychology, Brown (two lunch talks - spring and fall).
- 1987: Dept. of Biology, Vassar College (Feb.); Dept. of Zoology, University of Oxford (Sept, 2 seminars); Dept. of Zoology, Liverpool University (Oct); Dept. of Zoology, Stockholm University (Oct, 2 seminars); Dept. of Zoology, Uppsala University (Oct, 2 seminars)
- 1988: Dept. of Anthropology, Harvard Univ. (Nov.); Dept. of Biology, U. Chicago (Dec.)
- 1989: Dept. of Entomology, Cornell University - Grace Griswold Seminar (Sept)

- 1990: Symposium on Sperm Competition - AAAS Meetings, New Orleans (Feb.);
 Department of Ecology and Evolutionary Biology, University of Minnesota (April);
 Department of Zoology, University of Rhode Island (March)
- 1991: Cambridge Entomological Society, Cambridge MA (Feb.); Department of Biology,
 University of Connecticut (March)
- 1992: Department of Biology, U. California at Santa Barbara (March)
- 1993: Department of Biology, U. California at San Diego (January); Department of
 Zoology, U. New Hampshire at Durham (October)
- 1994: Symposium on Feminism and Evolutionary Biology, University of Georgia (June);:
 Max-Planck-Institut für Verhaltensphysiologie, Seewiesen (June); Department of
 Ecology and Evolution, Universität Bonn (July)
- 1995: Department of Biology, U. Georgia (February)
- 1996: Connecticut Entomological Society, New Haven CT (April)
- 1997: Sheffield University, Department of Zoology (March)
- 1997: Symposium on Sperm Competition, Animal Behavior Meetings, College Park, MD
 (June)
- 1998: Marine Biological Laboratories, Woods Hole (February)
- 1998: Department of Biology, Williams College (April)
- 2006 Department of Biology, Dartmouth University (3 November)

7. Service

i. Service to the University:

A. University Committees - since 1985:

- Environmental Studies Center, Executive Committee (1978-1993)
- Promotions Committee, Biology and Medicine (1990- 1994)
- Special Promotions Committee, Psychology – chair (1997-99)
- Modes of Analysis Course Screening Committee (1987)
- Member, Advisory Committee on Summer Studies (1988-1993)
- Environmental Sciences Committee for establishing the E.S. Sc.B. degree - chair
 (1991)
- Biomed Undergraduate Curriculum Committee (1979-86) and 2006 -
- Member, College Curriculum committee (1990-1993, 1997- 99, 2000, 2002-06)
- Member of CCC screening committee (1997-99)
- Vice Chair of CCC (1999)
- Chair of subcommittee on the Grading Issue (2003)
- Taskforce on Teaching and Doctoral Education (2003-4)
- Commerce, Organizations and Entrepreneurship Committee (2003-4)
- Chair of subcommittee on undergraduate education
- Member, College Advisory Board (2004-06)
- Member, Committee on Diversity in the Sciences (2005)
- Member, K-12 Content Knowledge Committee -- MAT teaching standards, Brown
 University (2005-)
- Member, Brown's Mellon Advisory Board (2004- 07)
- Member, Third World Center Advisory Board (2007-)

B. Departmental Committees - since 1985:

- Chair, Biomed Search Committee, Temporary Evolutionary Biology position (1988);
 Temporary Evolutionary Biology position (1990)
- Biomed Search Committee Member; Theoretical Ecologist (1986-87); Evolutionary
 Genetics (1990); Senior Evolutionary Morphologist (1988-89)
- Acting Chair, Sections of Population Biology and Genetics and Morphology (1988-89)

C. Presentations on Teaching - since 1985:

- 1985, 1996 & 1989: Lecturer in Brown/Rhode Island Biology Seminar Series for high
 school teachers

- 1990: Organizer and lecturer for Brown/Rhode Island Biology Seminar Series for high school teachers 1990
- 1991: Invited lecture to Dana Hall School, Wellesley, MA (Jan. 1991)
- 1993: Speaker for WISE Panel on Women in Science, Parent's Weekend (October)
- 1993: Speaker for Center for Advancement of College Teaching meeting (October)
- 1994: Discussant at Pembroke Center Roundtable, "Marks of Gender and the Crisis of Legal forms", (March)
- 1997: Participant in Roundtable on: Gender Equity in the Science Classroom, WISE
- 1997: Workshop on the use of journals in teaching, Biology Retreat (May)
- 1997: Session for Conference on Reflective Teaching in Higher Education, Sheridan Center (October)
- 2000: Presenter and Participant in Evolution Symposium for Teachers – Brown University (May)
- 2001: Participant in "Talking Across the Borders: Curriculum Seminars for K-18 Faculty" (sponsored by the Education Department)
- 2004: Perils and Pearls of PowerPoint – EEB brown bag talk
- 2005: Panel member, Teagle Foundation Project Conference: The Values of the Open Curriculum: An Alternative Tradition in Liberal Education

D. Other Service to the University - since 1992:

- 1992: Speaker for Parent's Weekend (October)
- 1997- Faculty Teaching Fellow, Sheridan Center -- Individual Teaching Consultations for and advising to the Center
- 1998- : Faculty Teaching Liaison, Dept. Ecol. & Evol. Biol. , Sheridan Center
- 1999- : Sheridan Center Advisory Board
- 2000: Dean of the College search committee
- 2002: Chair, Search Committee for 2 Associate Dean of the College positions
- 2004- : Micro-teaching session for EEB graduate students
- 2004 : Panel leader for Career Week session on International Careers
- 2005: Chair, Search Committee for 2 Associate Dean of the College positions
- 2004-6 – Ivy Dean's Meetings – MIT, Brown University, Cornell University
- 2005 – Represented faculty on Brown Admission Office recruiting trips to Washington, DC and Los Angeles, CA
- 2005 – Co-organized two all day advising events for sophomores (Sophomore Explorations (January and November)
- 2005- 2007 Pre-medical student interviewer – interview and draft recommendations for Brown pre-med students
- 2006 Represented Brpwn at the Ivy Dean's Meeting – Cornell University (March)
- 2006 Coordinated the External Review of Undergraduate Biology – (May)
- 2007 Faculty and Dean member of Academic Code Case hearings (10 cases)
- 2006 Co-Cordinator of Transfer Student Orientation (Fall 2006)
- 2004- Member of UTRA Proposal Review Committee (2004-2007)

ii. to the Profession - since 1985:

Editorial Service

- 1991 - Reviewed textbook for new edition - Alcock, J. *Animal Behavior*. Sinauer Press
- 1996 - Reviewed chapter on evolution of behavior -- D. Futuyma's revised evolution text - Sinauer Press
- 1997 - Reviewed chapters on sexual selection for new edition of Alcock. J *Animal Behavior* - Sinauer Press
- 1998 – Reviewed book proposal on Animal Behavior for Oxford U. Press

Memberships: American Society of Naturalists (elected member), Society for the Study of Evolution, Animal Behaviour Society, and International Society for Behavioral Ecology. Executive committee and editorial board of *Societas Internationalis Odonatologica* (1972-97)

Reviewer of manuscripts for: American Naturalist, American Scientist, Animal Behaviour, Behavioral Ecology, Behavioral Ecology and Sociobiology, Behaviour,

Canadian J. Zoology, Ecology, Ethology, European Journal of Entomology, Evolution, Genetica, Journal of Insect Behavior, J. Theoretical Biology, Nature, Proc. Royal Soc London (Biology), and Science,

Reviewer of grant proposals for NSF. Population Biology and Psychobiology Panels

Member, external review committee for Biology - Hamilton College (Winter 1988)

NSF Post-doctoral Fellowship Review Panel (1988)

Grants-in-Aid of Research review committee, Sigma Xi (1988-93)

External examiner for tenure promotion, Department of Biology, Tufts Univ. (Fall, 1996)

8. Honors (since 1985):

1994: Elizabeth H. Leduc Award for Excellence in Teaching, Brown University

1994: Invited faculty member for Summer School on the Evolution of Cooperation -- Max-Planck Institut für Verhaltensphysiologie, Seewiesen, Germany

1997- : Member of editorial board of Pantala, Journal of Odonatology, The World Dragonfly Association

1999-00: Harriet W. Sheridan Award for Distinguished Contribution to Teaching and Learning

1997-2001 : Faculty Teaching Fellow, Sheridan Center

9. Teaching

A. Undergraduate Teaching (2000-2007):

Biomed 19.3 – The Nature of Adaptation (2001)

Biomed 20 - Introduction to Biology (two guest lectures) (2000)

Biomed 42 – Ecology (guest lecture 2001)

Biomed 45 - Animal Behavior - an evolutionary perspective (2000-07)

Biomed 140 - Behavioral Ecology Seminar (2000-07)

B. Independent studies (last 4 years)

Ross Loomis – independent study – fall 2003/Spring 2004

Sarah Kingan – science writing

Sarah Kingan (Utra co-sponsor w/ M. Tatar

Katy Greenwald (Hughes/Utra)

Vaughn Edelson – science writing independent study (Fall 2006)

C. Graduate Students (since 1990):

Suzzane Oppenheimer - Ph.D., 1990 - Function of courtship in odonates

Martha Dunham - Ph.D., 1993 - Determinants of territory tenure in dragonflies

Diane Angell - Ph.D., 1993 - Determinants of variations in red squirrel caching patterns

Katja Schultz - visiting student from Germany - Dungfly mating systems

Collin Purrington Ph.D., 1993 - member of committee

Patricia Wilhelm Ph.D., 1993 - member of committee

Jeffery Parrish - Ph.D., 1996 - member of committee

Kathleen Earls – Ph.D., 1999 – member of committee

Edgar Leighton – Ph.D., - member of committee

Bruce Brian – Ph.D. – member of committee (2006-)

Mary Bates – Ph.D. (Psychology) – member of committee (2007-)

D. Post-doctoral students:

James Marden - 1988 - NSF Post-doctoral Fellowship - Dynamics of damselfly territorial disputes

Nico Michiels - 1990 - NATO and Belgium Science Fund - Odonate sperm competition

Heike Hadrys - 1990-91 - Yale University - External advisor - Molecular genetics of odonates

E. External Ph.D. Committee Member or Reader for:

Susan Allen, Department of Psychology, Brown University (Reader - Spring 1991)

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Seth Boatright-Horowitz, Dept. Psychology, Brown University (external member, 1992)

Mark Schofield Dept. Psychology, Brown University (external member MS Thesis - 1997)

Ph. D. examiner, Department of Zoology, Sheffield University (1997)

Heather Mason-jones, Biology Department, Tufts University (external reader for Ph.D. Thesis 1999)

Thomas Artis, Biology Department, Clark University (external advisor on Ph.D. project – 1997-2000)

Dena Hyman, Department of Biology, University of Miami (external member of Thesis Committee) 1999 –

F. Undergraduate Advising - since 1985

Freshman Advisor (1985-86, 2003-) – 9 students in 2005, 8 students 2006/07

Biomed A.B. Concentration Advisor (1986-89, 1990-93, 1996-2000, 2004-) 10 students in 2005-7

Randall Counselor (1989-93, 1995-97)

Sophomore Advisor for University (1990-91, 2003-2007) – 9 students in 2005, 8 students 2006-07

Faculty Liaison, Brown Men's Soccer Team (1989 -96)

Faculty Liaison, Brown Women's Soccer Team (1992 -97)

Faculty Liaison, Brown Women's Volleyball Team (2006-2007)

A Day on College Hill – Represented Biomed (April 2000, 2005, 2006)

Advising Seminar for Brown Freshman Orientation (2004-)

Coordinated Academic Expo for incoming Freshmen (2004, 2005)

Transfer Student Advisor (2006-)