2016 Curriculum Vitae

NAME: Cole Gilbert
DEPARTMENT/UNIT: Entomology
TITLE: Professor
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EMAIL: cg23@cornell.edu
WEB PAGE: http://entomology.cals.cornell.edu/people/cole-gilbert

POSITIONS HELD

Professor: 70% teaching: 30% research (July 2015-present; Acting Chair, Nov 2000, 2001)
The Hays & James M. Clark Director of Undergraduate Biology, Cornell University (July 2015 – present)
Member of Graduate Fields: Entomology (1992–present), Neurobiology & Behavior (1993–present)

Director of Undergraduate Studies, Department of Entomology (July 2009 – June 2016)
Director of Graduate Studies, Field of Entomology (Jan 2007 – June 2009).
Associate Professor (July 1999)
Assistant Professor (March1992)

LEAVES of ABSENCE

National Science Foundation, Integrative Organismal Biology, Program Director, Aug 2004-Aug 2005
Center for Visual Science, RSBS, Australian National University, Canberra. Jan - May 2002

EDUCATION

Ph.D. (Honors) 1986 (Entomology). University of Kansas, with Prof. R. Jander, "Behavioral studies of visual movement perception by larvae and adults of cicindelid beetles".
M.A. 1980 (Entomology). University of Kansas, with Prof. R. Jander, " An examination of the prey localization and pursuit behavior of *Cicindela* (Insecta: Coleoptera)".
B.A. 1976 (Biology). Washington University, St. Louis, MO, with Prof. M.W. Fox, "An analysis of play behavior during late winter and early spring in a captive pack of wolves".

HONORS & AWARDS

2014. Richards-Hodson Lectureship, Department of Entomology, University of Minnesota.
2010. State University of New York Chancellor's Award for Excellence in Teaching.
2009. Circle Link Award (Cornell) for Outstanding Teaching, Advising, & Student Development
2005. Class of 2005 Faculty Commendation. Cornell College of Agriculture and Life Sciences
2003. Recognition Award in Teaching. Entomology Society of America (Eastern Branch)

2002. Visiting Fellow. Centre for Visual Science, RSBS, Australian National University, Canberra
1997. Faculty Fellow in Service, Cornell University. $1998. "Biodiversity in Tompkins County"
1986-1989. National Research Service Award, NIH, EY05903. "Neurophysiology of visual movement detection" with Prof. R. DeVoe, Indiana University, Bloomington, IN
1984. Fulbright Fellow. "Neurophysiology of the landing response in Flies" with Priv. Doz. Dr. H.Eckert, Ruhr Universitaet, Bochum, Germany
1967. Eagle Scout. St. Louis Area Council, Boy Scouts of America

GRANTS & FELLOWSHIPS

2012-2014 National Science Foundation. Undergraduate Education (DOE 1240006) $295,565. "Partnerships to prepare science teachers for inclusive, back-to-nature education" (10/1/2012 – 9/30/2014)
2010-2013 National Science Foundation. IOS-Neural Systems (IOS 0950688) $325,000. "Blinding speed: The effects of relative motion on arthropod vision" (5/1/2010 – 4/30/2013)

TEACHING AND OTHER PROFESSIONAL EXPERIENCE

Comparative Physiology [BioG 1440] S'13,'14,'15,'16. This is a one-semester lecture and laboratory course for about 360 biology majors and covers the functions of animal organ systems. I co-teach with Dr. Ron Booker and I present 1/2 of the lectures covering topics of metabolism, energetics, thermoregulation, circulation, osmoregulation, motor and sensory systems.

Insect Biology [ENT 2120], F '95,'97,'99,'01,'03,'06,'10,'12,'14,'15. I present an introductory level lecture and laboratory course to 25-38 undergraduate and graduate students that focuses on taxonomic diversity and basic general entomology.

Professional Development in Entomology [ENTOM 7670] F'13. I developed this new one-semester course to introduce first semester graduate students in the Field of Entomology to professional skills. We met 2x 1.5 hr/week and worked on critically reading/presenting research articles, writing grant proposals, making posters, CVs, using bibliographic search and management software, discussing ethics, etc.

Evolutionary Biology & Biodiversity [BioEE 1780] F'11, S'12, F'13. This is a one-semester lecture and lab course for 350+ life science majors. The course is team taught by 4-5 instructors. I presented 1/3 of the lectures (more than any other instructor), which cover the phyletic diversity in the Tree of Life.

Insect Physiology [ENT 4830], S'93, F'94,'96,'98,'00,'02,'05,S'09,'11,'13,'15. I presented a graduate level lecture and laboratory course to 15-30 students on fundamental concepts and modern techniques in insect physiology. In S '09 and '11 the course was equally co-taught with Dr. Angela Douglas. In S'13,'15 I presented only 6 lectures and 2 labs on sensory/neuro/muscular systems.

Introductory Biology [BioG 1101] F'07,'08,'09. This was a 2 semester course for 625-700 life science majors. I presented the first semester, which included macromolecules, energy transformation, cell biology, physiology, and behavior.

Seminar in Insect Physiology [ENT 6850]. This is a two hr/week graduate seminar course discussing papers from the primary literature in topical areas.
S '07. Optimal design of sensory systems
S '00. Sensory biology of arthropods.
S '94. Physiology of parasites and pathogens in arthropods

Guest lectures. Every year I give guest lectures in several courses from the following: ENT 2010 (Alien Empire), ENT 3150 (Spider Biology), ENT 3250 (Insect Behavior), ENT 3350 (Naturalist Outreach), ENT 7670 (Current Topics in Entomology), as well as BioNB 7202 (Current topics in Neuroethology), BioNB 7210 (Graduate Survey in Neurobiology).

Summer Bug Camp for Teens (Aug '15). This was a day camp for children aged 13-16 in which I presented a daily mix of classroom, laboratory, and field exposure to aspects of introductory entomology, including field, forest, stream and nocturnal habitats.

Cornell Institute for Biology Teachers

Each year for the past 5 years, I lead about 20 adult teachers on a local field insect collecting trip and then indoor session on insect identification as part of a larger project with other instructors to map the diversity of *Wolbachia* strains in insects.

Cornell Adult University

The Way Bugs Work. Summer 2002, 2003, 2004, 2006. Co-Instructor with E. Richard Hoebeke in a week-long lecture, lab, and field course for adults on general entomology.

Faculty leader for off-campus ecotours. Dr. Linda Rayor and I present natural history lectures and lead field trips for groups of adults. Wyoming 2003, Tanzania 2006, 2007, Panama 2008, Galapagos Is. & Ecuador 2010, Alaska 2011, Brazil 2013.

New York Master Naturalists

At Arnot Forest I present half-day indoor/outdoor workshops to groups of about 20 adults seeking certification as Master Naturalists on general biology of insects or specific groups, such as butterflies or dragonflies/damselflies.
Workshops: 2011 (1), 2012 (2), 2013 (2), 2014 (1), 2015 (1)

High Jump Chicago. 2010. This was a 3-day workshop managed by the Cornell Public Service Center. I presented hands-on lessons for 4 classes of 15 each at risk middle school children in basic insect biology and neurobiology.

Cayuga Nature Center, Ithaca, NY. Fourth of July Butterfly Count 1994-2004, 2006. Half-day introduction to biology and conservation of Lepidoptera for the general public.

Marine Biological Laboratory, Woods Hole, MA, 1988 - 1994. Co-instructor in summer

graduate-post-doc course "Neural Systems and Behavior". Dr. Alexander Borst and I presented behavioral, neurophysiological, and computer modeling exercises on visual motion perception.

INTERNATIONAL SYMPOSIUM ORGANIZATION

"Are sensory systems optimally organized?", VIII Int. Cong. Neuroethology. Vancouver, Canada, Aug 2007 (with Dr. John Miller)

"Comparative neuroethology of visually-guided behavior of arthropods", III Int. Cong. Neuroethology. Montréal, Canada, Aug 1992 (with Dr. Alexander Borst)

PUBLICATIONS

INVITED SCIENTIFIC PUBLICATIONS

Gilbert, C. 2013. Brain Connectivity: Revealing the fly visual motion circuit. Current Biology 23: 851-853

Gilbert, C. and D.B. Zurek. 2012. Visual neuroscience: How flies segregate moving objects from the optic flow field. Current Biology 22: 565-567.

Gilbert, C. 2008. Visual neuroscience: Molecular approaches elucidate motion detecting circuitry. Current Biology 18:745-748.

Gilbert, C. and L.P.S. Kuenen. 2008. Multimodal integration: Visual cues help odor-seeking flies straighten up and fly right. Current Biology 18:295-297.

Gilbert, C. 2007. Hypercomplex cells in the arthropod visual system. Current Biology 17: 412-414.

REFERREED SCIENTIFIC PUBLICATIONS (undergraduate co-authors are underlined)

36. Zurek, D.B. Perkins, M.Q., and **C. Gilbert.** 2014. Dynamic visual cues induce jaw opening and closing by tiger beetles during pursuit of prey. Biology Letters 10(11): 20140760
35. Villarreal, S.M. and **C. Gilbert.** 2014. Male *Scudderia pistillata* katydids defend their acoustic duet against eavesdroppers. Behavioral Ecology and Sociobiology 68: 1669–1675.
34. Kuenen, L.P.S. and **C. Gilbert**. 2014. Visual ground pattern modulates flight speed of male Oriental Fruit Moths. Physiological Entomology 39: 271-279.
33. Haselsteiner, A., **C. Gilbert**, and J. Wang. 2014. Tiger beetles pursue prey using a proportional control law with a delay of one half stride. Jour. Roy. Soc. Interface 11: 20140216.
32. Kuenen, L.P.S., **C. Gilbert,** J. Siegel. 2014. Flying slower: Floor pattern object size affects orthokinetic responses during moth flight to sex pheromone. Jour. Insect Behavior 27: 581-592.
31. Zurek, D.B. and **C. Gilbert**. 2014. Static antennae act as locomotory guides that compensate for visual motion blur in a diurnal, keen-eyed predator. Proc. Roy. Soc. Lond. B 281: 20133072
30. Villarreal, S.M. and **C. Gilbert,** 2013. Female acoustic reply to variation in the male call in a duetting katydid, *Scudderia pistillata.* Behaviour, 150:525-546.
29. Villarreal, S.M. and **C. Gilbert,** 2011. The unique counting call of a katydid, *Scudderia pistillata* (Tettigoniidae: Phaneropterinae). Anna. Entom. Soc. Amer. 104(5):945-951.

28. **Gilbert, C.** and M.P. Kim. 2007. Effects of male age and cervical proprioceptors on sexual aerial pursuit by male flesh flies, *Neobellieria bullata* (Diptera: Sarcophagidae). Jour. Insect Behavior, 20:427-435.
27. Layne, J., P.W. Chen, and **C. Gilbert.** 2006. The role of target elevation in prey selection by tiger beetles (Carabidae: *Cicindela* spp.). J. Exp. Biol. 209:4295-4303.
26. Krans, J., **C. Gilbert,** and R. Hoy, 2006. Teaching insect retinal physiology with newly designed, inexpensive micromanipulators. Adv. Physiol. Educ. 30:254-261.
25. Paulk, A.C. and **C. Gilbert.** 2006. Proprioceptive encoding of head position in the black soldier fly, *Hermetia illucens* (L.) (Stratiomyidae). J. Exp. Biol. 209:3913-3924.
24. **Gilbert C.** and C. Klass. 2006. Decrease in geographic range of the Finger Lakes Brood (Brood VII) of the periodical cicada (Homoptera: Cicadidae: *Magicicada* spp.). Jour. New York Entomol. Soc. 114(1-2):78-85.

POPULAR ARTICLES

Rayor, L.S. and **Gilbert, C.** 2007. Common Spiders of New York. New York Conservationist, 61(6): 15-18.

Gilbert, C. 2006. You gotta have heart(s). The Ithaca Journal, 18 January, p10A.

BOOK REVIEWS

Gilbert, C. 2013. A World of Insects. The Harvard University Press Reader, (Eds.) R. Cardé and V. Resh, 2012. Quarterly Review of Biology, 88:358-359

MANUSCRIPTS SUBMITTED OR IN PREPARATION

Russell, A. and **C. Gilbert.** Serial homology in the coxal propriosensory-motor system in a flesh fly (Diptera: Sarcophagidae) (for Brain, Behavior, and Evolution)

Gilbert, C., and A. Shah. Dynamics of visual perception and UV sexual signaling in orange sulphur butterflies (Pieridae: *Colias eurytheme*) (for Proc Roy Soc Lond B)

Rayor, L.S. and **C. Gilbert**, *SpiderWatching*. Book length manuscript on behavior of spiders currently under contract with Harvard University Press (expected Dec 2016)

ABSTRACTS & PAPERS PRESENTED AT SCIENTIFIC MEETINGS (presenter in **bold**)

2016 Spatial cognition in jumping spiders: Assessment of path length to prey and vantage point. International Congress of Arachnology, Denver, CO, July (Madeleine Q. Perkins, **Cole Gilbert)**

Visual scanning by the principal eyes of freely moving jumping spiders. International Congress of Arachnology, Denver, CO, July (**Cole Gilbert**, Madeleine Q. Perkins, Daniel B. Zurek)

2015 Target image expansion and contraction during visually-guided pursuit of prey induce jaw opening and closing by tiger beetles. Society for Integrative & Comparative Biology, W. Palm Beach, FL, Jan (**Cole Gilbert**, Madeleine Q. Perkins, Daniel B. Zurek)

Visual scanning by retinal movements of freely behaving jumping spiders. hhmi Janelia Conference: Insect Vision, Janelia Farm, VA, Apr (**Invited speaker, Cole Gilbert,** Daniel B. Zurek,

Madeleine Perkins)

2014 An insight into situational gaze movements of jumping spiders.11th Intl. Cong. Neuroethology, Sapporo, Japan, Aug (Daniel Zurek, **Cole Gilbert**)

Dynamic visual cues trigger jaw opening and closing by tiger beetles during pursuit of prey. J.B. Johnston Club, Washington DC, Nov (**Cole Gilbert**, Madeleine Q. Perkins, Daniel B. Zurek)

Change of gaze by retinal movements during locomotion by jumping spiders. Society for Neuroscience, Washington DC, Nov (**Cole Gilbert**, Daniel Zurek)

2013 Running blind: Antennae are necessary and sufficient for obstacle negotiation by tiger beetles. Animal Behavior Society, Boulder, CO, July, (**Daniel Zurek**, Cole Gilbert)

Visual guidance of prey pursuit by tiger beetles. Janelia Conference: Dynamics of Prey Capture and Escape. March, hhmi Janelia Farm, VA (**Invited speaker, Cole Gilbert,** Andreas Haselsteiner, Jane Wang)

A test of the hypothesis of depressed metabolic rate as an adaptation for group living in social sparassid and eresid spiders. 19th Intl Arachnology Cong., Kenting, Taiwan, June, (**Marissa Cardillo**, Linda Rayor, Cole Gilbert, Carolyn LaRow)

2012 Closed loop visual guidance of prey pursuit by tiger beetles. 10th Intl. Cong. Neuroethol, Aug, College Park, MD (**Cole Gilbert**, Andreas Haselsteiner, Jane Wang)

Dynamic Duet: Acoustic and behavioral dynamics of the katydid *Scudderia pistillata*, June, Animal Behavior Society, Albuquerque, NM (**Susan Villarreal**, Cole Gilbert)

Acoustic and behavioral interactions between male and female dueting katydids. Entomological Society of America, Eastern Branch, March, Hartford, CT (**Susan Villarreal**, Cole Gilbert)

2011 1 pulse, 2 pulse, 3 pulse, 4: Acoustic communication in a dueting katydid, *Scudderia pistillata.* 13th Intl. Invertebrate Sound & Vibration, June, Columbia, MO (**Susan Villarreal**, Cole Gilbert)

Female photoreceptor speed and perception of male courtship displays in orange sulphur butterflies (Pieridae: *Colias eurytheme*). Cornell Lepidoptera Symp., Oct (**Cole Gilbert**, Anosh Shah)

2010 A male you can count on: The complex call of male *Scudderia pistillata* and the acoustic tick response of the female**.** 9th Int. Cong. Neuroethology, Aug, Salamanca, Spain (**Cole Gilbert**, Susan Villarreal)

Evolution of propriosensory organs on the legs of flies. 9th Int. Cong. Neuroethology, Aug, Salamanca, Spain (**Avery Russell**, Angelique Paulk, Cole Gilbert)

Blinding speed: Effects of relative motion on insect vision. 9th Int. Cong. Neuroethology, Aug, Salamanca, Spain (**Cole Gilbert**, John Layne)

2007 Stealthy tracking in satellite flies. Flying Insects and Robots Symposium, Monte Verita Switzerland, Aug (**Jochen Zeil**, Norbert Boeddeker, Nicole Carey, Cole Gilbert)

Are sensory systems optimally designed? 8th Int. Cong. Neuroethology, July, Vancouver. (**Cole Gilbert**)

Size specific resting metabolic rates and colony demographics set threshold prey requirements of colonies and populations of social huntsman spiders, *Delena cancerides.* Int. Soc. Arachnol., Sao Paulo, Brasil. Aug (**Linda S. Rayor**, Ariel Zimmerman, Eric Yip, Cole Gilbert)

2006 Vision on the run: Suboptimal spatio-temporal resolution of natural moving images by tiger beetles, Soc. Neurosci., Atlanta, Abstr. 351.10, (**Cole Gilbert**, John E. Layne)

INVITED PRESENTATIONS AT UNIVERSITIES, etc (last 10 years)

2015 Paleontology Research Institute (Darwin Days Panel)
2014 Richards-Hodson Lecture, University of Minnesota (Entomology)
2013 HHMI/Janelia Farm, Case Western Reserve (Biology)
2011 Trumansburg NY High School (Science Night)
2010 Harvard (Entomology), Paleontology Research Institute (Darwin Days Panel),
Cornell (Machines & Organisms IGERT Group)
2008 University of Massachusetts (Entomology), University of Maryland (Neuroscience)
2007 Mt. Holyoke (Biology)
2006 Wells College (Science Colloquium), Ithaca College (Biology), Entomological Society of Washington DC

PROFESSIONAL AFFILIATIONS

International Society for Neuroethology
(Developing Neuroethology Committee, 2014 - present)
Society for Neuroscience
Society for Sigma Xi
Fulbright Association
J.B. Johnston Club
Society for Integrative and Comparative Biology
Entomology Society of America

SERVICE

2016 Cornell University:
Department of Entomology:
Director of Undergraduate Studies, Curriculum & Teaching Committee,
Faculty Advisor Undergraduate Entomology Club, Space Committee
Manuscript referee: Philosophical Transactions of the Royal Society

2015 Cornell University: Graduate School General Committee
Office of Undergraduate Biology: Executive Committee
Department of Entomology:
Director of Undergraduate Studies, Curriculum & Teaching Committee,
Faculty Advisor Undergraduate Entomology Club, Space Committee
Manuscript referee: Journal of Undergraduate Neurobiology Education,
MIT Press (book proposal on Insect Conservation)
Consultant: National Geographic

2014 Cornell University: Graduate School General Committee
Office of Undergraduate Biology: Executive Committee
Department of Entomology:
Director of Undergraduate Studies, Curriculum & Teaching Committee,
Faculty Advisor Undergraduate Entomology Club
Manuscript referee: Frontiers in Behavioral Neuroscience, Nature Reviews Neuroscience
Consultant: Current Biology, National Geographic Kids, First Big Book of Bugs;
New Republic, New York Times Science

2013 Cornell University: Graduate School General Committee
Office of Undergraduate Biology: Executive Committee
Department of Entomology:

Director of Undergraduate Studies, Curriculum & Teaching Committee,
Faculty Advisor Undergraduate Entomology Club
Manuscript referee: Current Biology (2), Journal of Experimental Biology
Consultant: NY Conservationist, Scholastic Magazine, BBC,
Periodical cicadas (Associated Press, BBC, Time Magazine,
NBC Nightly news, Popular Science, Times Herald Record (NY),
many others too numerous to mention)

2012 Cornell University: Graduate School General Committee
Office of Undergraduate Biology: Executive Committee
CALS Ad Hoc Committee on Promotion & Tenure (Chair)
Faculty Advisor for student club: LOL
Department of Entomology:
Director of Undergraduate Studies, Curriculum & Teaching Committee,
Faculty Advisor Undergraduate Entomology Club
Manuscript referee: Frontiers in Neural Circuits, Current Biology (2), Animal Behaviour,
Journal of Experimental Biology (2), Entomologia Experimentalis et Applicata
Consultant: Maxim, Nat. Geog. Kids, Springer Pub. Co. Book on Grasshoppers,
Radio WNYC on air interview

2011 Cornell University: Graduate School General Committee
Office of Undergraduate Biology: Executive Committee
Department of Entomology:
Director of Undergraduate Studies, Curriculum & Teaching Committee,
Faculty Advisor Undergraduate Entomology Club
Manuscript referee: Proc. R. Soc. Lond B.
National Science Foundation: ad hoc reviews (3), BIO-IOS; CNIC; CISE-IIS
Editorial Board (Neurobiology specialty): BioScience
Consultant: Sinauer Pub. Co. Introductory Biology text, HarperCollins Pub Co eBook,
National Geographic Kids Magazine (3), NY Conservationist (5),
Syracuse Post-Standard

2010 Cornell University: Office of Undergraduate Biology: Executive Committee,
Hughes Fellowship Selection Committee
Department of Entomology:
Director of Undergraduate Studies Curriculum & Teaching Committee,
Faculty Advisor Undergraduate Entomology Club
Manuscript referee: Current Biology, Science, PNAS
National Science Foundation: ad hoc review of grant application for BIO-IOS
US Air Force Office of Scientific Research: ad hoc review of grant application
Editorial Board (Neurobiology specialty): BioScience
Consultant: Sinauer Pub. Co. Introductory Biology text, BBC Wildlife Magazine
NY Conservationist, National Geographic Kids magazine

2009 Cornell University: Office of Undergraduate Biology: Introductory Biology Committee,
Hughes Fellowship Selection Committee
Department of Entomology:

Director of Graduate Studies; Curriculum & Teaching Committee,
Faculty Advisor Undergraduate Entomology Club
Editorial Board (Neurobiology specialty): BioScience
Manuscript referee: Current Biology (4), Journal of Experimental Biology,
Journal of comparative Physiology A
National Science Foundation: ad hoc review for BIO-IOS
Consultant: Nat. Geog. Kids magazine, Sinauer Pub. Co. Introductory Biology text

2008 Cornell University: Office of Undergraduate Biology: Introductory Biology Committee
Hughes Fellowship Selection Committee,
Department of Entomology:
Director of Graduate Studies; Curriculum & Teaching Committee,
Faculty Advisor Undergraduate Entomology Club
Editorial Board (Neurobiology specialty): BioScience
Manuscript referee: Current Biology, Proceedings of the Royal Society London (2), PLoS
Entomology Society of America: Judge in student paper competition (Eastern Branch)

2007 Cornell University: Office of Undergraduate Biology: Introductory Biology Committee
Hughes Fellowship Selection Committee,
Department of Entomology:
Director of Graduate Studies; Curriculum & Teaching Committee,
Faculty Advisor Undergraduate Entomology Club
Editorial Board (Neurobiology specialty): BioScience
National Science Foundation: BIO-IOS workshop neuroscience reorganization,
ad hoc review for BIO-IOS
Manuscript referee: Current Biology (3), Journal of comparative Physiology A,
Arthropod Structure & Development
Canadian NSERC: Discovery Grant ad hoc referee
Air Force Office of Scientific Research – grant reviewer

2006 National Science Foundation: Advisory Panel – Frontiers in Biological Research;
Chair, Site Visit Team, Science & Technology Center (Behavioral
Neuroscience - Atlanta)
Cornell University: Office of Undergraduate Biology: Introductory Biology Committee,
Senior Instructor Search Committee; Hughes Fellowship Selection Committee
Department of Entomology:
Curriculum & Teaching Committee, Faculty Advisor Undergraduate
Entomology Club
Department of Neurobiology & Behavior:Molecular Behavioral Ecology Search Committee
Editorial Board (Neurobiology specialty): BioScience
Manuscript referee: Journal of Insect Physiology (2), Journal of Experimental Biology (2),
Current Biology, Journal of Comparative Physiology A,
Sinauer Press (Introductory Biology textbook)
Canadian NSERC: Discovery Grant ad hoc referee
Consultant: Ranger Rick Magazine, CRC Press (Insect Physiology text book),

2005 National Science Foundation: Site Visit Team, Science & Technology Center (Behavioral Neuroscience - Atlanta)
Cornell University: Office of Undergraduate Biology: Introductory Biology Committee
Department of Entomology:
Curriculum & Teaching Committee
Department of Neurobiology & Behavior: Chemical Ecology Search Committee
Editorial Board (Neurobiology specialty): BioScience
Manuscript referee: Proceedings of the National Academy of Sciences (USA), Proceedings of the Royal Society of London
Consultant: HarperCollins (Book: Extreme Animals), NY Conservationist

2004 Cornell University: Molecular & Chemical Ecology Search Committee
Cornell University Press: Science Advisory Board
Office of Undergraduate Biology: Introductory Biology Committee, Curriculum Committee
College of Agriculture & Life Sciences: Curriculum Committee
Department of Entomology:
Executive Committee, Curriculum and Teaching Committee (Chair), Graduate Admissions Committee
Editorial Board (Neurobiology specialty): BioScience
Board of Directors: Cayuga Nature Center
National Science Foundation: Ad Hoc referee, IBN-Animal Behavior; IBN-Computational Neuroscience
Manuscript referee: Journal of Experimental Biology (2), Arthropod Structure and Function, Cell & Tissue Research, Princeton University Press (Entomology text prospectus)
Consultant: BBC, Ithaca Radio Hour (WEOS), NEWS 10 TV (Syracuse)

2003 Cornell University: Molecular & Chemical Ecology Search Committee
Cornell University Press: Science Advisory Board
Office of Undergraduate Biology: Curriculum Committee
College of Agriculture & Life Sciences: Curriculum Committee
Department of Entomology:
Curriculum and Teaching Committee (Chair); Graduate Admissions Committee
Editorial Board (Neurobiology specialty): BioScience
Board of Directors: Cayuga Nature Center
Manuscript referee: Journal of Experimental Biology
Consultant: Audubon Magazine, Associated Press, BioPhotonics, Der Spiegel, Natural History New Zealand, Xerces Society

2002 Cornell University: Molecular & Chemical Ecology Search Committee
Cornell University Press: Science Advisory Board
Office of Undergraduate Biology: Curriculum Committee
Agriculture Experiment Station: Ad Hoc referee, Hatch/ McIntire-Stennis proposal
College of Agriculture & Life Sciences: Curriculum Committee
Department of Entomology:
Curriculum and Teaching Committee (Chair),

Graduate Admissions Committee
Editorial Board (Neurobiology specialty): BioScience
Board of Directors: Cayuga Nature Center
National Science Foundation: Ad Hoc referee, IBN-Animal Behavior
Manuscript referee: Journal of Neuroscience Methods, Journal of Comparative Physiology, Journal of Experimental Biology, Vision Research
Consultant: BBC, National Public Radio, Science, Audubon magazine

2001. Cornell University: Howard Hughes Scholarship Selection Committee
College of Agriculture & Life Sciences: Curriculum Committee
Department of Entomology:
Curriculum and Teaching Committee (Chair), Graduate Admissions Committee Faculty Advisor Entomaniax (undergraduate organization),
Editorial Board (Neurobiology specialty): BioScience
Board of Directors: Cayuga Nature Center
National Science Foundation: Ad Hoc referee, IBN-Computational Neuroscience, IBN-Animal Behavior
Manuscript referee: BioMed Central, Journal of Insect Physiology, Journal of Hymenoptera Research, Journal of Experimental Biology (2), Brain Behavior & Evolution
Consultant: Audubon Magazine, Wild TV

2000. Cornell University: Howard Hughes Scholarship Selection Committee
Department of Entomology:
Curriculum and Teaching Committee (Chair)
Faculty Advisor Entomaniax (undergraduate organization),

Editorial Board (Neurobiology specialty): BioScience
Board of Directors: Cayuga Nature Center
National Science Foundation: Ad Hoc referee, IBN-Computational Neuroscience, IBN-Animal Behavior
Manuscript referee: Animal Behaviour, Journal of Neurophysiology, Journal of Insect Physiology
Consultant: Natural History New Zealand, Harper's Magazine

1999. Cornell University: Howard Hughes Scholarship Selection Committee
Department of Entomology:
Curriculum and Teaching Committee, Faculty Advisor Jugatae (graduate) and Entomaniax (undergraduate organization),
Editorial Board (Neurobiology specialty): BioScience
National Science Foundation: Ad Hoc referee, IBN-Computational Neuroscience
Manuscript referee: Journal of Computational Neuroscience, Journal of Neurophysiology, Journal of Comparative Neurology (2), Harvard University Press (book length manuscript on neurobiology), Animal Behaviour (2)

1998. Department of Entomology:

Curriculum and Teaching Committee, Griswold Award Selection Committee, Jugatae Advisor (Graduate Student Organization)
Editorial Board (Neurobiology specialty): BioScience
National Science Foundation: Ad Hoc referee, IBN-Computational Neuroscience (2)
Manuscript referee: Science, Journal of Comparative Neurology (2), WCB/McGraw-Hill "The Science of Entomology" textbook, 5th ed.
Consultant: AAAS radio show, ABC-TV Kidzine

1997. Cornell University: Undergraduate Research Forum: Session moderator
Department of Entomology:
Curriculum and Teaching Committee, Griswold Award Selection Committee, Jugatae Advisor (Graduate Student Organization),
Cornell Agricultural Experiment Station: Ad Hoc referee, Hatch/McIntire-Stennis proposals
National Science Foundation: Ad Hoc referee, IBN-Animal Behavior (2), IBN-Behavioral Neuroscience
Manuscript referee: Journal of Computational Neuroscience (2), Visual Neuroscience, Transactions of the American Society of Agricultural Engineers, Entomologia Experimentalis et Applicata
Consultant: BBC Insect Vision program

1996. Cornell University:
Department of Entomology
Curriculum & Teaching Committee, Griswold Award Selection Committee, Jugatae advisor (Graduate Student Organization)
Manuscript referee: Journal of Insect Physiology, Vision Research, Journal of Computational Neuroscience (2), Journal of Neurophysiology, Journal of Comparative Neurology

1995. Cornell University:
Department of Entomology:
Executive Committee, Curriculum & Teaching Committee, Griswold Award Selection Committee, Jugatae advisor (Graduate Student Organization)
Manuscript referee: Journal of Insect Physiology (3), Journal of Comparative Neurology, Entomologia Experimentalis et Applicata

1994. Cornell University:
Department of Entomology:
Executive Committee, Curriculum & Teaching Committee, Griswold Award Selection Committee Jugatae advisor (Graduate Student Organization)
Cayuga Nature Center: Program Committee
Manuscript referee: Journal of Insect Physiology, MIT Press (Book chapter)
Consultant: Boston Museum of Science - Science by Mail Program

1993. Cornell University:
Department of Entomology
Curriculum & Teaching Committee, Griswold Award Selection Committee

USDA-SBI: Ad Hoc referee
Manuscript referee: Neuroscience, MIT Press (Book on Insect Vision)
Consultant: Boston Museum of Science - Science by Mail Program

1992. Cornell University:
Department of Entomology:
National Science Foundation: Ad Hoc referee – IBN Animal behavior
Manuscript referee: Journal of Neurophysiology (2), Ecology
Consultant: Boston Museum of Science - Science by Mail Program