

FUNDED PROJECTS:

- 2003 Ithaca College Summer Grant for Faculty Research: Auditory constraints and ultrasound sensitivity of moth ears. \$3,350
- 2001 Ithaca College Summer Grants for Faculty Research: The sensory ecology of a day-flying moth: are they listening? \$3,350
- 1999 Ithaca College Summer Grant for Faculty Research: What is the cost of being a good host? *Sympetrum* spp. dragonflies parasitized by *Arrenurus planus* water mites. \$3,350
- 1996 Ithaca College Summer Grant for Faculty Research: Sexual selection in Red-winged Blackbirds. \$3,350
- 1992+94 James L. Baillie Memorial Fund Grant with Floyd Connor and Peggy Latimer. Hummertime - involving amateur bird-watchers in a study of migration of ruby-throated hummingbirds in eastern North America: Can\$ 800 per year
- 1985-87 NSERC Postgraduate Scholarship: Can\$ 12,000
- 1984 NSERC Summer Undergraduate Research Scholarship: Can\$ 3,000

RESEARCH INTERESTS:

Behavioral Ecology, Sexual Selection
Evolution of Host-Parasite Systems
Sensory Ecology, Neurophysiology

TEACHING INTERESTS:

Introductory Biology
Human Anatomy and Physiology
Ecology and Evolution

PROFESSIONAL ACTIVITIES:

A. TEACHING

Curriculum Development (since 1991)

- 2003 Review of 5 labs in *Inquiry Into Life Laboratory Manual* by Sylvia Mader for McGraw-Hill Higher Education Publishing
- 2002 Changed Fundamentals of Biology lectures over to Powerpoint format.
- 2001 Developed a 3-credit course in Biology of Aging, for Gerontology program and general education credit for non-science majors. I posted a web site for the course with regular updates.
- 2000 Major revisions to Primary Human Anatomy course for Physical Therapy and Occupational Therapy majors. Involved changes to both lab and lecture to coordinate

better with Rochester program. I transferred my lectures to Powerpoint to make use of the E-classroom facilities, posted a web site for the course with extensive lecture outlines and revised “flash cards” for muscles.

- 1996 Developed and taught a 4-credit course in Fundamentals of Biology for Physical and Occupational Therapy majors. This included coordinated a laboratory component.
- 1995 Developed and taught a 4-credit course in Primary Human Anatomy for Physical and Occupational Therapy majors. This included a lab component.
- 1993 Revised lab manual for Fundamentals of Biology including updating exercises and diagrams.

B. SERVICE TO ITHACA COLLEGE

- 1991-present Regular participant in Convocation and Commencement Exercises
- Queen’s University Biological Station Open House (yearly: 1 day in July)
presentation of research to general public)
- 1995-present Faculty Advisor to TriBeta Biological Honor Society / Biology Club
- Information Provider for Biology Home Page on World Wide Web
(Design and maintain Biology Department Web Page: www.ithaca.edu/biology)
- Biology Department Public Relations (submit KUDOS, H&S Newsletter articles,
update bulletin boards around department)
- Participant in Person-to-Person Interview Program
- 2001- present *Assistant Chair* for Biology Department: Scheduling of classes and revisions to the Supplement and Catalog
- Sexual Harassment Contact and Referral Volunteer
- 2000-present Biology Alumni Coordinator
- 2004 Assisted in search for part-time faculty for Spring 2005 (4 interviews)
- 2003 Chair of Search Committee for 3-year CNTE

- 2002 Departmental committee to discuss merit guidelines
Addressed the Oracle Society (Monday October 21st) - congratulatory remarks
Ithaca College Open House (December 7th)
Search committee for Instructor to teach Biology of Aging
- 2001 Biology Department Search Committee - Faculty Position in Science Education
- 1999 Participant in Roundtable Discussion of future of library
Submitted report from Biology Department for Faculty Workload Survey
Biology Department Search Committee - Faculty Position in Animal Physiology
- 1997 Biology Department Search Committee - Faculty Position in Plant Taxonomy
- 1996 Biology Department Search Committee - Prep. Room Coordinator
- 1993 Open House for New Science Building

C. SCHOLARLY PRESENTATIONS (note: for coauthorship the presenter(s) is/are underlined)

- 2003 **Muma, K.E.**, B.P. Smith, and M.R. Forbes. Patterns of Parasitism: Crowding of *Arrenurus planus* water mites on *Sympetrum internum* and *Sympetrum obtrusum* dragonflies. Annual Meeting of American Society of Parasitologists, Halifax N.S. Canada. Aug. 1-5. (*Poster)
- 2002 Fullard, J., Soutar A., **K. Muma**. Bat-moth interactions: Ecology, behaviour and physiology of a high-stakes predator-prey contest. Queen's University Biological Station - Friends of Opinion Seminar Series. July 31 2002.
Smith, B.P., **Muma, K.E.**, Forbes, M.R. To have and to hold, or, life history adaptations of *Arrenurus planus*, an ephemeral pool mite. Ontario Ecology and Ethology Colloquium, Queen's University, Kingston, ON, Canada, April 21-23.
- 1999 Smith, B.P., **Muma, K.E.**, Forbes, M.R. Rooting for the underdog: do parasitic mites afford an advantage to a less common species of potentially competing dragonfly host? Int. Congress of Odonatology and 1st Symposium of World Dragonfly Association, Colgate University, Hamilton NY. July 11-16 1999.
- 1995 **Muma, K.E.** Anatomy of the Human Heart: What's love got to do with it? Ithaca College, Biology Seminar Series - February 15.
- 1987 **Muma, K.E.** Sexual selection and plumage variation in female red-winged blackbirds. Carleton University Graduate Seminar Series, November.

- 1986 **Muma, K.E.** Violent femmes: Interactions between female red-winged blackbirds. Queen's University Biological Station Seminar Series, July 8.

D. PROFESSIONAL PUBLICATIONS

- 2004 **Muma, K.E.** and J.H. Fullard. Persistence of hearing in the exclusively diurnal moths, *Trichodezia albobittata* (Geometridae) and *Lycomorpha pholus* (Arctiidae). *Ecological Entomology* 29(6): 718-726.
- 2004 Forbes, M.R., **K.E. Muma**, B.P. Smith. Recapture of male and female dragonflies in relation to parasitism by mites, time of season, wing length and wing cell symmetry. *Experimental and Applied Acarology*. 34:79-93.
- 2003 Fullard, J.H., **K.E. Muma**, J.W. Dawson. Quantifying an anti-bat flight response in eared moth. *Can. J. Zool.* 81: 395-399.
- 2001 Forbes, M.R.L., **K.E. Muma**, B.P. Smith. Diffuse coevolution: constraints on a generalist parasite favor use of a dead-end host. *Ecography* 25: 345-351.
- 1999 Forbes, M.R.L., **K.E. Muma**, B.P. Smith. Parasitism of *Sympetrum* dragonflies by *Arrenurus planus* mites: host coexistence lessens parasite-host conflict? *Int. J. Parasit.* 29:991-999.
- 1995 Weatherhead, P.J., K.J. Metz, D. Shutler, **K.E. Muma** and G.F. Bennett. Blood parasites and dominance in captive blackbirds. *Journal of Avian Biology* 26(2):121-123.
- 1991 **Muma, K.E.** and P.J. Weatherhead. Plumage variation and dominance in captive female red-winged blackbirds. *Can. J. Zool.* 69:49-54.
- 1989 **Muma, K.E.** and P.J. Weatherhead. Male traits expressed in females: direct or indirect sexual selection? *Behav. Ecol. Sociobiol.* 25:23-31.
- 1988 Teather, K.L., **K.E. Muma** and P.J. Weatherhead. Estimating female settlement from nesting data. *Auk* 105:196-200.
- 1987 **Muma, K.E.** and C.D. Ankney. Variation in weight and composition of Red-winged Blackbird eggs. *Can. J. Zool.* 65:605-607.
- 1986(b) Ried, M.L., C.G. Eckert and **K.E. Muma**. Booming odontocetes and deaf cephalopods: putting the cart before the horse. *Am. Nat.* 128:438-439.
- 1986(a) **Muma, K.E.** Seasonal changes in the hour of oviposition by red-winged blackbirds in southwestern Ontario. *J. Field Ornith.* 57:228-229.