

BIOGRAPHICAL SKETCH

I am a Professor of Professional Practice in the Department of Public Health, Food Studies, and Nutrition at Syracuse University. I teach graduate and undergraduate courses related to nutritional biochemistry, nutritional genomics, and human metabolism. I maintain an active research program on vertebrate metabolism, energetics, reproductive physiology, and embryonic development. My work focuses on how light intensity, wavelength, and photoperiod alter adult physiology, with subsequent consequences for metabolic health. I have specific interest in how different wavelengths of light stimulate the endocrine system to modify hormonal regulation of lipolytic and lipogenic metabolic pathways. I have ongoing collaborative projects that include studies on latitudinal variations in avian metabolism (both parental and embryonic) and the effects of environmental variation on endocrine control of ovulation. The unifying concept underlying all of my research is the link between environmental influences (e.g., photoperiod, food availability, dietary components and substrate availability) and genotype and phenotype (e.g. changes in the timing of embryonic development and changes in reproductive physiology). I conduct my research in accordance with the One Health Initiative, a worldwide strategy for expanding interdisciplinary collaborations and communications in all aspects of health care for humans, animals and the environment.

EDUCATION

Ph.D.	Syracuse University, Department of Biology	2002
M.S.	SUNY Env. Sci. and Forestry, Dept. Environmental and Forest Biology	1995
B.S.	SUNY Env. Sci. and Forestry, Dept. Environmental and Forest Biology	1992

Graduated *Summa cum Laude*

EMPLOYMENT

2014-present, Professor of Professional Practice, Dept. of Public Health, Food Studies, and Nutrition, Syracuse University David B. Falk College of Sport and Human Dynamics, Syracuse, New York 13244

- Teaching includes courses in nutritional biochemistry, metabolism, nutritional genomics, advanced nutrition

2008-2014, Associate Professor of Biology, School of Science, The Pennsylvania State University at Erie, the Behrend College, Erie, PA

- Taught General biology, Human physiology, Comparative anatomy, Medical Terminology (on-line), Human A&P, Exercise physiology

2002-2008, Assistant Professor of Biology, School of Science, The Pennsylvania State University at Erie, the Behrend College, Erie, PA

2000-2002, Assistant Professor of Biology, SUNY College at Potsdam, Potsdam, NY

- Taught General biology, Human physiology, Comparative anatomy, Skeletal-muscular biomechanics.

1996-2000, Graduate Teaching Associate, Syracuse University, Syracuse, NY

- Human physiology, Vertebrate anatomy

1995-1996, Research Assistant, SUNY College-ESF, Syracuse, NY

1993-1995, Teaching Assistant, SUNY College-ESF, Syracuse, NY

- Comparative physiology, Comparative anatomy,

PUBLICATIONS

- Potter, B.A., Hyde, EJ, Pier, HN, Rutter, MA and MA Voss. 2014. A comparison of the bacterial microflora found on the surface of American Kestrel and House Wren eggs. *Open Ornithology Journal* 7 (1): 40-48.
- Voss, MA, and CB Cooper. 2013. Solar noon and tactile cues synergistically regulate clutch size: Implications reveal a new approach to investigations of avian life-history theory. *Ibis*, Volume 155, Issue 4, pages 709–713
- Carlson, BM, Adams, AE, Potter, BA and MA Voss. 2013. An assessment of the microbial diversity present on the surface of naturally incubated House Wren eggs. *The Open Ornithology Journal*. 6:32-39
- Cooper, CB and MA Voss. 2013. Incubation patterns reflect dynamic temporal changes in developing clutches. *PLoS ONE* 8(6): e65521. doi:10.1371/journal.pone.0065521
- Voss, MA. 2012. Avian Architecture. How Birds Design, Engineer & Build (Goodfellow). Book Review, *Wilson Journal of Ornithology* 124 (3) September 2012.
- Loker, DR, Wu, Y, Voss, M A, Roth, JT, Strom, SA. 2011. Wireless nerve positional control of prosthetic device. ASME 2011 *International Mechanical Engineering Congress and Exposition, IMECE* 2011, v 2, p 581-586
- Cooper, C, MA Voss, D Ardia, S. Austin, WD. Robinson. 2011. Light increases the rate of embryonic development: implications for latitudinal trends in incubation period. *Functional Ecology* 25 (4):769–776, doi: 10.1111/j.1365-2435.2011.01847.x.
- Schnars, JL, MA Voss, JR Stauffer. 2011. Hatching success of PCB injected snapping turtle (*Chelydra serpentina serpentina*) Eggs. *Environmental Toxicology and Chemistry*. 30 (4):915–919.
- Voss, MA and CB. Cooper. 2010. Using a free on-line citizen science project to teach observation and quantification of animal behavior. *American Biology Teacher* Vol. 72, No. 7, pages 437–443. ISSN 0002-7685, electronic ISSN 1938–4211
- Voss, MA, D Shutler and J Werner. 2010. A hard look at blood-sampling of birds. *The Auk* 123 (3): 704–708
- Cooper, CB, MA Voss, and B Zivkovic. 2009. Extended laying interval of ultimate eggs of the Eastern Bluebird. *The Condor* 111(4): 752-755.
- Ardia, DR, JH Pérez, EK Chad, MA Voss, and ED Clotfelter. 2009. Temperature and life history: experimental heating leads female Tree Swallows to modulate egg temperature and incubation behavior. *Journal of Animal Ecology* 78: 4–13 (doi: 10.1111/j.1365-2656.2008.01453.x).
- Voss, MA, MA. Rutter, N. Zimmerman (student author), and K. Moll (student author). 2008. The adaptive value of thermally inefficient male incubation in the American Barn Swallow (*Hirundo rustica erythrogaster*). *The Auk* 125 (3):637-642. (doi: 10.1525/auk.2008.07046)
- Voss, MA, Hainsworth, FR, and SN Ellis-Felege (student author). 2006. Use of a new model to quantify compromises between embryo development and parental self-maintenance in three species of intermittently incubating passerines. *Journal of Thermal Biology* 31 (6): 453-460.
- Hunnicut, DW, Cingolani, J, and MA Voss. 2005. Use of mtDNA to identify genetic introgression among related species of catfish. *Journal of Great Lakes Research* 31(4): 482-491
- Hainsworth, FR, and MA Voss. 2002. Intermittent Incubation: Predictions and Tests for Time and Heat Allocations. Chapter 15 in *Avian Incubation: Behaviour, Environment and Evolution*, D.C. Deeming, editor. Oxford Ornithology Series, Oxford University Press, Oxford, England. ISBN: 0-19-850810-7
- Voss, MA and FR Hainsworth. 2001. Relatively Simple, Precise Methods to Analyze Temperature Transients in Ectotherms. *Journal of Thermal Biology*. 26:121-132).
- Hainsworth, FR, T Moonan, MA Voss, KA Sullivan, and WW Weathers. 1998. Time and heat allocations

to balance conflicting demands during intermittent incubation by Yellow-eyed Juncos. *Journal of Avian Biology*. 29:113-118

Nueman, J, DL Pearl, PJ Ewins, R Black, DV Weseloh, M Pike (né Voss), and K Karwowski. 1997. Spatial and temporal variation in the diet of Double-crested Cormorants (*Phalacrocorax auritus*) breeding on the lower Great Lakes in the early 1990's. *Canadian Journal of Fisheries and Aquatic Sciences*. 54(7):1569-1584.

Referred Proceedings

Loker, D., Wu, Y., Voss, M, Roth, J Morris, P., and V. Canino. 2011. "Wireless Nerve Control of Prosthetic Device," Proceedings of the International Association of Science and Technology for Development (IASTED, 6th IASTED International Conference on Biomechanics, BioMech 2011, November 7 – 9, 2011, Pittsburgh, USA

Loker, D., Wu, Y., Roth, J., Voss, M, and S. Strom. 2011. "Wireless Nerve Positional Control of Prosthetic Device," Proceedings of the ASME 2011 International Mechanical Engineering Congress & Exposition, IMECE2011, November 11-17, 2011, Denver, Colorado, USA

Morris, P., Canino, V., Abdalla, A., Budziszewski, K., Loker, D., Wu, Y., Roth, J., and M. Voss. 2010. "Nerve Control of Artificial Limb – Feasibility Study," ASME 2010 International Manufacturing Science and Engineering Conference, Erie, PA, October 14, 2010.

Research Reports to Sponsors

Harrell, R and M Voss. Summary of 2003 Erie National Wildlife Refuge Grassland Bird Survey. United States Fish and Wildlife Service. (July 2003).

VanDruff, LWS. and M Pike (né Voss). Wildlife and Habitats of the Onondaga Lake Area. Onondaga Lake Management Conference, Syracuse, NY. (September 1992).

Manuscripts in Review

A framework to assess evolutionary responses to anthropogenic light and sound. Swaddle, J, Aschehoug, K, Barber, J, Cooper, C, Dominoni, D, Francis, CD, Goodwin, S, Kawahara, AY., Kyba, C, Luther, D, Shannon, G, Spoelstra, K, Voss, MA, and T Longcore. To be submitted to Trends in Ecology and Evolution, September 2014.

Manuscripts in Preparation

A different view of clutch size patterns as evidence for the photoperiodic regulation of clutch size. Cooper, CB, Voss, MA, Winkler, D.

Hidden rhythms in avian incubation behavior. Voss, M.A., Cooper, C.B. *Biology Letters*,

Insights into the pace of life: perspectives from the avian embryo. Martin, M., Cooper, C.B., Voss, M.A., Ardia, D., Green, D.

Cooper, C.B. and M. A. Voss. Homology and scaling of avian incubation behavior.

Schnars, J.L. and M.A. Voss. The effects of PCBs on carbon dioxide production in neonate snapping turtles (*Chelydra serpentina serpentina*) Hatchlings.

Schnars, J.L. and M.A. Voss. A non-invasive technique to estimate mercury levels in the common snapping turtle (*Chelydra serpentina*).

HONORS AND AWARDS FOR SCHOLARSHIP OR PROFESSIONAL ACTIVITY

American Ornithological Union Elective Member 2012
Faculty Member of the Year, Penn State Behrend School of Science, 2007
Council of Fellows Excellence in Teaching Award, Penn State Erie, Behrend College, 2005
Nominated, Guy W. Wilson Excellence in Academic Advising Award, Penn State Erie, Behrend College, 2003 & 2005
Nominated, Council of Fellows Faculty Excellence in Outreach Award, Penn State Erie, 2003
Graduate School Outstanding Teaching Assistant Award, Syracuse University, 1998
American Women in Science Education Foundation Citation of Merit, 1998
Canadian Society of Zoologists Helen I. Battle Award, 1997
Outstanding Graduate Teaching Award, SUNY-ESF, 1994
Leroy C. Stegeman Scholar (Invertebrate Biology) SUNY-ESF, 1994
Edna Bailey Sussman Research Scholarship SUNY-ESF, 1994
Ralph T. King Award in Wildlife/Fisheries Biology SUNY-ESF, 1993

PRESENTATIONS

Eggshell microstructure and temperature fluctuation facilitate microbial invasion during incubation. 2012. B. Potter, B. Carlson, K. Pander, MA Voss (presenter). 5th North American Ornithological Conference Vancouver, BC, CA, August 14-18, 2012

Latitudinal, Seasonal, and Photoperiodic trends in clutch size: the importance of peripheral clocks in songbird. 2012. C. Cooper (presenter), MA Voss, P. Bartell, V. Cassone. 5th North American Ornithological Conference Vancouver, BC, CA, August 14-18, 2012

Using the avian nest as a model system to explore biodiversity. MA Voss (presenter), M Campbell, B. Potter. Wilson Ornithological Society, Kearney Nebraska, March 2011

Light increases the rate of embryonic development: implications for latitudinal trends in incubation period. CB Cooper (presenter) & MA Voss. 25th International Ornithological Congress. Campos do Jordao, SP, Brazil August 2010

(poster) Can circadian rhythms influence the pace of embryo development? Cooper, C.B., Voss, M.A. (presenter), and H. Greeney. American Ornithologists' Union. Philadelphia, PA. August 2009

(invited talk, symposium) Shifting Priorities: Embryo Age Influences Parental Behavior. Voss, M.A. (presenter) and C. Cooper. American Ornithologists Union, Portland, OR. August 2008.

(invited talk, symposium) Heating vs. Eating: Latitudinal Constraints on Parent-Embryo Trade-Offs. Cooper, C (presenter) and M.A. Voss. American Ornithologists Union, Portland, OR. August 2008.

The Adaptive Significance of Thermally Inefficient Male Incubation. Voss, M.A. (presenter). Wilson Ornithological Society, Mobile, AL. April 2008.

The Effect of Clutch Volume on Incubation Period in Black Brant. Wolfe, K (presenter), MA Voss, P Lemons, and J Sedinger. North American Ornithological Congress, Vera Cruz Mexico, October 2006

Thermal Environment and Physiological Constraints on Incubation as Influences on Geographic Variation in Clutch Size. Cooper, C (presenter), W. Hochacka, M. Voss, and A. Dhondt. 24th International Ornithological Congress, Hamburg, Germany, August 2006

Use of mtDNA to Identify Genetic Introgression among Related Species of Catfish Fish. Hunnicutt, DW (presenter), Cingolani, J, and MA Voss. Tumors Related to Great Lakes Areas of Concern Conference, Sea Grant, Erie, PA. October 2005

Are Male Barn Swallows Inefficient Egg Warmers or Effective babysitters? Who Benefits from Male Incubation? Voss, MA (presenter) International Society of Behavioral Ecologists, Jyväskylä, Finland. July 2004

Changes in Maternal Time Allocation over the Course of Incubation. Voss, MA (presenter) and S Ellis. Wilson Ornithological Society and Association for Field Ornithology, Delaware, OH. March 2003

- (poster) Male Incubation Behavior in a Breeding Colony of North American Barn Swallows. Kovatch, JJ (presenter), MA Voss, and K Moll. International Society of Behavioral Ecologists, Enhanced Embryonic Development Session, Montreal, July 2002
- Hot Chicks in Cool Places: Methods to Find Effective Equilibrium Temperatures in Endothermic Animals. Kovatch, J (presenter), FR Hainsworth, MA Voss, and KM Moll. Syracuse University Thornfield Conference, Cazenovia, NY. 2000
- The Functional Dynamics of Egg Incubation. Voss, MA (presenter) and FR Hainsworth. Syracuse University Thornfield Conference, Cazenovia, NY. 1998
- (poster) Incubation, Foraging, and the Costs for Not Being Perfect. Voss, MA (presenter), S MacLean, and FR Hainsworth. Optimal Foraging Conference, Santa Cruz, CA. 1998
- Time and Heat Allocations During Intermittent Incubation by Yellow-Eyed Juncos (*Junco phaeonotus*). Voss, MA (presenter), T Hainsworth, FR Hainsworth, KA Sullivan, and WW Weathers. Canadian Society of Zoologists, London, Ontario. May 1997
- (poster) Arthropod Plumbing and Heat: SunDriven Thermosiphon Ventilation in the Simple Nest Structure of a North American Ant.” Voss, MA (presenter) and JS Turner. Canadian Society of Zoologists, London, Ontario, Canada. May 1997
- Sun Driven Thermosiphon in the Ventilation of the Simple Nest Structure of the Allegheny Mound-Building Ant, *Formica exsectoides* (Hymenoptera: Formicidae). Voss, MA (presenter) and JS Turner. Eastern Branch Entomological Society of America, Burlington, VT. 1997
- Arthropod Architects of Northern Namibia. Voss, MA (presenter) and JS Turner. Annual Entomological Society of America Conference, Lexington, KY. 1996
- Nest Ventilation in the Allegheny Mound-Building Ant, *Formica exsectoides*. Voss, MA (presenter) and JS Turner. New York Natural History Conference IV, Albany, NY. 1996

SEMINARS, WORKSHOPS, AND COLLOQUIA

- Invited participant National Science Foundation – National Evolutionary Center Meeting. Anthropogenic Sensory Stimuli as Drivers of Evolution: A conceptual synthesis and roadmap for an integrated citizen-science research network. April 2014, Duke University
- (invited presentation/panelist) Innovative teaching in ornithology. American Ornithologists’ Union, Philadelphia PA August 2009.
- Bioacoustics Workshop, Wilson Ornithological Society and American Field Ornithology Annual Meeting, Ithaca New York. April 2004
- Annual Meeting of the Association of Field Ornithologists, Delaware, Ohio. March 2003.
- Grant Writing Workshop, Council on Undergraduate Research Institute on Proposal Writing, Wooster, OH. July 2003.
- Bird Identification Workshop, United States Fish and Wildlife Service’s Annual Coordination Meeting for the National Grassland Breeding Bird Survey, Patuxent, MD. April 2003.
- Grant Writing Workshop, Council on Undergraduate Research Dialogues Conference, Fairfax, VA. February 2003.
- Fish Tumors Related to Great Lakes Areas of Concern Conference, Sea Grant, Erie, PA. January 2003.
- Chair, Contributed Paper Session on Egg Size, International Society for Behavioral Ecology Conference, Montreal, Canada. July 2002.
- State University of New York Medical School’s Summer Workshop on Molecular Genetics, Syracuse, NY. June 2002.
- Botulism Working Group Meeting, State University of New York, Fredonia, NY. May 2002.

Great Lakes Research Consortium's Faculty-Student Conference, State University of New York-Environmental Science and Forestry, Syracuse, NY. March 2002.

National Science Foundation's Summer Workshop: New Approaches for Teaching Science, Bradford, PA. July 2001.

Great Lakes Research Consortium's Faculty-Student Conference, State University of New York-Environmental Science and Forestry, Syracuse, NY. March 2001.

National Science Foundation Model Institutes for Excellence Conference, Oglala Lakota College at Pine Ridge, Rapid City, SD. April 1999.

Gateway Fellowship Student Forum on Teaching and Learning, Syracuse University, Syracuse, NY. February 1999.

Speaking Engagements – Invited

Invited Lecture, SUNY Potsdam Biology Seminar Series, You are when you eat - How Clock and Diet Interactions Influence Metabolic Health: October 20, 2014

The faculty and student relationship, Behrend College Teaching Seminar, M.A. Voss (presenter) and Jim Kurre (presenter) Erie PA 9/20/2010 & 9/23/2010

From hummingbirds to turkeys: How body size constrains avian incubation rhythms. C. Cooper (presenter) and M.A. Voss. Wells College, Aurora NY. October 2008.

Quantifying the Compromise between Foraging and Incubation: Do Developing Embryos Influence Parental Behavior? University of Boise Colloquium, Boise, ID. March 2007.

Shifts in Incubation Patterns during Embryonic Development: Quantifying the Compromise between Foraging and Incubation. Biology Seminar Series, Slippery Rock University, Slippery Rock, PA, October 2005

The Effect of Urban Noise on Breeding Behavior and Reproductive Success in Songbirds. Alfred University Environmental Science Seminar Series, Alfred, NY. September 2003.

Transitioning from Teaching Associate to Faculty. Keynote address, Future Professoriate Project Commencement Luncheon, Syracuse University, Syracuse, NY. May 2002.

Mentoring: A Collaboration of Individual Success. Keynote address, Collegiate Science and Technology Entry Program; Teacher Opportunity Corps Award Ceremony, State University of New York, Potsdam, NY. April 2002.

Novel Mechanisms of Colonial Respiration in Social Insects. Indian Creek Nature Center, 25th Anniversary Lecture, Ogdensburg, NY. April 2002.

The Sheltering Desert: Life in the Arid Biomes of Southern Africa. Geology Club Brown Bag Seminar, State University of New York, Potsdam, NY. 2001.

Two Parent Versus Single Parent Incomes: Is Intermittent Incubation Bad for Your Offspring? Clarkson University Biology Seminar Series, Potsdam, NY. 2000.

Single Parent Birds in the 90's: The Effect of Parental Behavior on Avian Development. Pathways to Knowledge Lecture Series, Syracuse University, Syracuse, NY. 1999.

SERVICE

Government Agencies

United States Fish and Wildlife Service Volunteer, Cortland, NY. 1991-1994.

New York State and United States Federal Wildlife Rehabilitator, Syracuse NY. 1989-1992.

Federal Migratory Bird Scientific Collecting Permit

Federal Bird Banding permit

Professional Associations

Book Review editor, *Wilson Journal of Ornithology* (2011-2013)

Ad Hoc Reviewer for *Ibis*, *Ardea*, *Behavioral Ecology*, *The Auk*, *The Wilson Journal of Ornithology*, *PLoS one*, *Journal of Applied Ecology*, *Canadian Journal of Zoology*, *Proceedings of The Royal Society B. Biological Sciences*, *Behavior*, *Behavioral Ecology and Sociobiology*, *The Journal of Ethology*, *National Science Foundation*, *Oxford University Press*, *Benjamin Cumming*, *Pearson Press*, *The American Biology Teacher*

Wilson Ornithological Society; Council Member, 2008-2011, Chair, Nominating Committee, 2010-2012, Research Award Committee, 2009-2010

Wilson Ornithological Society and Association of Field Ornithologists; Student Presentation Awards Judge, 2007, 2008, 2009, 2010

Executive Committee/Newsletter Editor, Society for College Science Teachers, 2001-2004

Educational Institutions

Penn State Erie, Behrend College, Council of Fellows 2011-2013

Penn State Erie, Behrend College, Faculty Council 2008-2009, Chair 2011-2013

Penn State University Institutional Animal Care and Use Committee (University Park), 2011-2013

Penn State Erie, Behrend College, School of Science Promotion and Tenure Committee 2009-2012, chair, 2010-2011

Penn State Erie, Behrend College, 5 Faculty Search Committees, chair twice, 2002-2010

Penn State Erie, Behrend College, Chair of College Scholarship and Awards Committee 2008-2009

Center for Mathematical Biology, Penn State Erie, The Behrend College. 2004-present

Pre-Health Advising Committee, 2003-present

Penn State Erie, Behrend College, School of Science Committee on Research 2004- 2009

SUNY Potsdam Institutional Care and Use Committee 2000-2002

Syracuse University Institutional Animal Care and Use Committee 1996-2000

FUNDED PROJECTS, GRANTS, COMMISSIONS, AND CONTRACTS

Internal Coincidence of Endogenous Circadian Clocks in the Avian Brain and Ovary. MA Voss (PI), P. Bartell (Co-PI). \$10,000. The Pennsylvania State University Research Collaboration Fellowship (UP) February 2011.

Effects of Urban Noise on Breeding Behavior and Reproductive Success in Songbirds. American Association for University Women, Short Term Publication Grant, \$6,000. July 2004.

The Effect of Urban Noise on Extrapair Paternity in a Socially Monogamous Bird Species: An Analysis of Microsatellite Markers in Black-Capped Chickadees. Penn State Erie, The Behrend College Research Incentive Grant for Early Career Faculty, \$2,000. December 2003

Presence and Significance of Hybridization in a Population of Brown Bullhead Catfish in Presque Isle Bay. Hunnicutt, D. (PI) and M.A. Voss (co-PI). Pennsylvania Sea Grant, \$3,000. July 2003.

2003 Grassland Breeding Bird Survey on the Erie National Wild-life Refuge. United States Fish and Wildlife Service, \$500. May-June 2003.

The Effect of Polychlorinated Biphenyl (PCB) Contamination on Passerine Reproductive Behavior and Embryo Development. Clarkson University Research Experience for Undergraduates in Environmental Sciences and Engineering Project, \$1,000. June 2002.

The Physiological Basis for Microhabitat Selection in Salamander Species of Northern New York. Faculty-Undergraduate Summer Research Program, State University of New York, Potsdam, NY, \$2,500. 2001.

The Effects of Polychlorinated Biphenyl (PCB) Contaminated Wetlands on Avian Incubation Behavior and Embryonic Development. Research and Creative Endeavors Program, State University of New York, Potsdam, NY, \$1,500. 2000-2001.

A Comparative Study of Physiology and Behavior in Sympatric Species of North American Salamanders.

State University of New York-Potsdam Mini-Grant Program, \$500. 2000

Proposed -Not Funded

National Science Foundation - IOS Preliminary Proposal: You Are When You Eat: How Clock and Diet Interactions Influence Metabolic Health and Induce Spendthrift Phenotypes C. Cooper (PI), M.A. Voss (Co-PI), V. Cassone (Co-PI), submitted 1/27/2014

Central and peripheral clock regulation of songbird clutch size, C. Cooper (PI) P. Bartell (Co-PI), V. Cassone (Co-PI), M.A. Voss (Co-PI), D. Winkler (Co-PI), pre-proposal, National Science Foundation, submitted 1/12/2012

Monitoring Lake Erie Coastal Wetlands, J. Schnars (PI), Collaborators: R. Whyte, D. Klarer, J. Bissell, B. Mitsch, J. Holomuzki, C. Bocetti, K. Stanford, K. Bekker, S. Ludsin, M. Voss, J. Titus, K. Kaczmarek, M. Martz, H. Leslie, H. Best, S. Arrigo Nelson, \$2,902,161 Great Lakes Restoration Initiative- I.D.3. Monitoring Great Lakes Coastal Wetlands Grant Program, 1/31/2010

The regulation of latitudinal trends in clutch size and oviposition patterns of birds via internal coincidence of endogenous circadian clocks in the brain & ovary, P. Bartell (PI), M.A. Voss (Co-PI), \$706,956, National Science Foundation, 7/12/2010

MRI-R2: Advanced Instrumentation to Support Peer-Reviewed Faculty Research in Undergraduate Biology and Chemistry Programs. MA. Voss (PI), M. Campbell (coPI), B. Potter, M. Kociolek, and M. Justik. National Science Foundation \$352,609 for two years, August 2009

Teaching Biodiversity Through the Integration of Multiple Courses. Campbell, M.A. (principal investigator), Q. Dunsworth (co-principal investigator), S.J. Ewing (co-principal investigator), B.A. Potter (co-principal investigator), and M.A. Voss (co-principal investigator). NSF, \$157,269. 5/2008.

RUI: The Molecular Characterization of Bacterial Communities in Pre- and Post-Fledge Nest Material from North American Passerines. Hunnicutt, D. (P.I.), M. Campbell (Co-P.I.), and MA Voss (Co-PI). NSF, Microbial Observatories and Microbial Interactions and Processes Program, \$363,345. 10/2005

Egg physiology as a constraint on clutch size: A temperate range-wide study of Eastern bluebirds. A. Dhondt (PI), MA Voss, C. Cooper, W. Hochachka (Co-PIs). NSF, \$904,700.00, 01/2005

Does egg physiology drive clutch size trends? A continent-wide study. A. Dhondt (PI), MA Voss, C. Cooper, W. Hochachka (Co-PIs). NSF, \$714,104 7/2004

RUI: The Effect of Urban Noise on Breeding Behavior and Reproductive Success in Songbirds. NSF, Research in Undergraduate Institutions, MA Voss (PI) \$394,714. 12/2003

Identification, Protection, and GIS Analysis of Turtle Nesting Sites and Movements of Nesting Females in Northwestern Pennsylvania. Schnars, J (PI) and MA Voss (co-PI). Bureau of Wildlife Management, Pennsylvania Game Commission. \$206,627. 11/2002

MEMBERSHIP IN PROFESSIONAL SOCIETIES

American Ornithological Union, member 2002-2012, elective member 2012

Association for Field Ornithologists

Association for Women in Science

International Society for Behavioral Ecology

National Council for Undergraduate Research

National Science Teachers Association

Sigma Xi

Society for College Science Teachers, Newsletter Editor, 2001-2004

Tri-Beta Biological Honor Society (Faculty adviser Rho Omicron Chapter, 2002-present & Lambda Xi Chapter 2001-2002)

Wilson Ornithological Society (Council member 2008-2011; chair, nominating committee 2010-2011, student awards committee 2007-2011)

GRADUATE MS THESIS ADVISOR

Martina Loncarica: *How does gender affect the college athlete's ability to meet metabolic requirements?*
MS May 2015

Anna Riverso: *Sorority Houses as Information Centers: The potential for College Living Arrangements to Shape Eating Patterns.* MS May 2015

Sarah Skinner: *Substrate utilization patterns in postmenopausal women during moderate-intensity endurance exercise.* MS May 2016

UNDERGRADUATE HONORS THESIS ADVISOR

Fiscus, Garret. *Light Induced Acceleration of Embryonic Development.* Biology BS May 2013

Ranayhossaini, Daniel. *An Investigation of the Hemotoxicity of the Secretion of the Duvernoy's Gland of the Northern Water Snake (Nerodia sipedon).* Biology BS May 2010.

Trozzo, Lara. *The Effect of Thermoregulation on Foraging in Anolis carolinensis.* Biology BS May 2010.

Ellis, Susan N. *Changes in Maternal Time Allocation over the Course of Incubation in House Wrens.*
Biology B.S. May 2005. Penn State Chapter of Phi Kappa Beta Outstanding Thesis Award.

Morse, Emily J. *The Roles of Rank and Season on Foraging Behavior in Black-Capped Chickadees.*
Biology B.S. December 2004.

Belasco, Jon. *The Effect of Lead on Spontaneous Calcium Signaling in Rat Brain Cortical Neurons.*
Biology B.S. May 2004. Co-advised with Dr. David Hunnicutt

FUNDED UNDERGRADUATE STUDENT RESEARCH GRANTS SUPERVISED

More than 50 projects funded through intra- and extramural grants (\$85,000) for undergraduate research

Projects have resulted in more than 70 student presentations at undergraduate research conferences as well as national professional societies in the past 12 years