CURRICULUM VITAE Mary C. Garvin June 2022

Department of Biology Oberlin College Oberlin, Ohio 44074 <u>mgarvin@oberlin.edu</u> 8445 Bank Rd. Vermilion, Ohio 44089

Research interests: ecology of arthropod-borne diseases, effect of disease on avian demography, environmental monitoring of carcinogenic heavy metals via dendrochronology

Education:

Ph.D. Infectious Diseases (1996) Univ. of Florida, Coll. of Vet. Medicine, Dept. PathobiologyM.S. Zoology (1989) Louisiana State Univ., Dept. Zool. and Physiol. and Museum of Nat. Sci.B.A. Biology and Secondary Education (1986) Hiram College

Academic positions:

Oberlin College, Dept. of Biology Professor Emeritus (2022-present) Gertrude Lemle Teaching Fellow (2018-2022) Professor (2013-2022) Chair (2011, 2013-2016) Donald R. Longman Associate Professor (2006-2011) Associate Professor (2004-2013) Assistant Professor of Biology (1998-2004) Univ. Notre Dame, Dept. of Biology, Vector Biology Concurrent Visiting Assistant Professor of Biology (1998) Postdoctoral Research Associate (1996-1998) Hiram College: Managing Director, J.H. Barrow Biology Field Station (1989-1991)

Teaching:

Oberlin College (1998-present): Genetics, Evolution and Ecology; Community Ecology; Disease Ecology; Invertebrate Biology; First-year Seminar: Ecology of the Vermilion River Watershed; Introduction to Global Health Univ. of Notre Dame (1998) Avian Biology Hiram College (1990) Instructor: General Biology National Audubon Society of Maine (1989): Ecol. of the Maine Coast, Plant Ecol., Ornithology

Academic honors and awards:

J.J. Turner Alumni Award, Dept. Biology, Hiram College (2017)
First Year Instructor of the Year, Oberlin College (2017)
Elected Fellow of the American Ornithologists' Union (2014)
Research Status, Oberlin College (2004-05, 2012-13, 2019-20)
Ohio Environmental Education Fund Project of the Year, OEPA (2012)
Teaching Excellence Award, Oberlin College (2009)
Elected Member of the American Ornithologists' Union (2008)
Academic Advisor of the Year, Oberlin College (2007, 2010)
Donald R. Longman Professorship of Natural Science, Oberlin College (2006)
Sigma Xi, Scientific Research Society, Oberlin College (1999)
Achievement Award in Graduate Studies, Univ. of Florida, College of Veterinary Med. (1997)
Dale A. Porter Student Paper Award, Southern Conference on Animal Parasites (1993, 1995)
A.O.U. Council Student Paper Award, American Ornithologists' Union (1989)

Marcia Brady Tucker Travel Award, American Ornithologists' Union (1989) Phi Beta Kappa, Hiram College (1986)

Publications (*Oberlin College student):

- Garvin M.C., J. Schijf, S.R. Kaufman*, C. Konow*, D. Liang, A.E. Nigra*, N.H. Stracker*, R.J. Whelan, and G.C. Wiles. 2020. A survey of trace metal burdens in increment cores from eastern cottonwood (*Populus deltoides*) across a childhood cancer cluster, Sandusky County, OH, USA. Chemosphere 238, 124528, doi:10.1016/j.chemosphere.2019.124528.
- Garvin, M.C., A. Austin*, K. Boyer*, M Gefke*, C. Wright*, Y. Pryor*, A. Soble*, and R.J.
 Whelan. 2018. Attraction of *Culex pipiens* to House Sparrows is influenced by host age but not uropygial gland secretions. *Insects* 9:127. doi.org/10.3390/insects9040127.
- Schijf, J. and M.C. Garvin. 2018. A method for the routine analysis of trace metals in tree increment cores using microwave digestion and ICP-MS. *Geochemical Journal*. 52: doi:10.2343/geochemj.2.0524.
- Garvin, M.C., A.L. Austin*, N.H. Stracker*, S.P. Slowinski*, J.E. Rutter*, M. Butler*, M. Michel*, and R. J Whelan. 2018. Attraction of *Culex pipiens* to uropygial gland secretions of American Robins. *Journal of Vector Ecology* 43:110-116.
- Owen, J.C., M.C. Garvin, and F.R. Moore. **2014.** Elevated testosterone advances onset of migratory restlessness in a nearctic-neotropical landbird. *Behavioral Ecology and Sociobiology* 68: 561-569.
- Owen, J.C., E.A. Cornelius, D.A. Arsnoe, and M.C. Garvin. **2013.** Leucocyte response to Eastern Equine Encephalomyelitis Encephalitis virus in a wild passerine bird. *Avian Disease* 57: 744-749.
- Owen, J.C., F.R. Moore, A.J. Williams, L.Stark, E.A. Miller*, V.L. Morley*, A.R. Krohn*, and M.C. Garvin. 2011. Test of recrudescence hypothesis for overwintering of eastern equine encephalitis virus in gray catbirds. *Journal of Medical Entomology* 48: 896-903.
- Shaw, C.L*., J.E. Rutter*, A.L. Austin*, M.C. Garvin, and R.J. Whelan. 2011. Volatile and semivolatile compounds in gray catbird uropygial secretions vary with age and between breeding and wintering grounds. *Journal of Chemical Ecology* 37: 329-339.
- Whelan, R., T. Levin*, J.C. Owen, and M.C. Garvin. 2010. Short-chain carboxylic acids from gray catbird (*Dumetella carolinensis*) uropygial secretions vary with testosterone level and photoperiod. *Comparative Biochemistry and Physiology, Part B* 156:183-188.
- Owen, J.C., F.R. Moore, A.J. Williams, E.A. Miller*, L.C. Wilson*, V. Morley*, R.N. Abbey-Lee*, B.A. Veeneman*, B. DeRussey, M. McWhorter, M.C. Garvin. 2010. Test of recrudescence hypothesis for overwintering of West Nile virus. *Journal of Medical Entomology* 47:451-457.
- Owen, J.C. and M.C. Garvin. 2010. Emerging Issues: Epizootiology of West Nile virus in birds. In: S.K. Majumdar, T.L. Master, R. Mulvihill, M. Brittingham, and J. Huffman Eds. Avian Ecology and Conservation: A Pennsylvania Focus with National Implication. Pennsylvania Academy of Science.
- White, B.J.*, D.R. Andrew*, N.Z. Mans*, O.J. Ohajuruka, and M.C. Garvin. 2006. West Nile virus in mosquitoes of northern Ohio. *American Journal of Tropical Medicine* and Hygiene 75(2):346-349.
- Garvin, M.C., C.C. Szell and F.R. Moore. **2006.** Blood parasites of neartic-neotropical passerine birds during spring trans-Gulf migration: Impact on host body condition. *Journal of Parasitology* 92(5):990-996.
- Garvin, M.C. and S.J. Schoech. **2006.** Hormone levels and infection of *Haemoproteus danilewskyi* in free-ranging blue jays (*Cyanocitta cristata*). Journal of Parasitology 92(3): 659-662.

- Scheidler, L.C.*, M.M. Dunphy-Daly*, B.J. White*, D.R. Andrew*, N.Z. Mans*, and M.C. Garvin. 2006. Survey of Ochlerotatus triseriatus (Diptera: Cilicidae) for LaCrosse encephalitis virus and West Nile virus in Lorain County Ohio. Journal of Medical Entomology 43(3):589-593.
- Garvin, M.C., K.A. Tarvin, J. Smith, O.A. Ohajuruka, and S.D. Grimes. **2004.** Patterns of West Nile virus infection in Ohio blue jays: implications for initiation of the annual cycle. *American Journal of Tropical Medicine and Hygiene* 70:566-570.
- Mans, N.Z.*, S.E. Yurgionas*, M.C. Garvin, R. Gary, J.D. Bresky*, A.C. Galaitsis*, and O.A. Ohajuruka. 2004. West Nile virus in mosquitoes of northern Ohio 2001-2002. *American Journal of Tropical Medicine and Hygiene* 70:562-565.
- Garvin, M.C., L.C. Scheidler*, D.G. Cantor*, and K.E. Bell*. **2004.** Abundance and temporal distribution of *Ornithonyssus sylviarum* Canestrini and Fanzago (Acarina: Mesostigmata) in gray catbird (*Dumatella carolinensis*) nests. *Journal of Vector Ecology*
- Garvin, M.C., P.P. Marra, and S. Crain*. **2004**. Prevalence of hematozoa in overwintering American Redstarts (*Setophaga ruticilla*): no evidence for local transmission. *Journal of Wildlife Diseases* 40 (1):115-118.
- Garvin, M.C., O.A. Ohajuruka, K.E. Bell*, and S.L. Ives*. **2004**. Seroprevalence of eastern equine encephalitis virus in birds and larval survey of *Culiseta melanura* Coquillett during an interepizootic period in central Ohio. *Journal of Vector Ecology* 29(1):73-78.
- Garvin, M.C., K.A. Tarvin, L.M. Stark, G.E. Woolfenden, J. W. Fitzpatrick, and J. F. Day. 2004. Arboviral infection in two species of wild jays (Aves: Corvidae): evidence for population impacts. *Journal of Medical Entomology* 41:215-225.
- Garvin, M.C., J.P. Basbaum*, R.M. Ducore*, and K. E. Bell*. **2003.** Patterns of *Haemoproteus beckeri* parasitism in the gray catbird (*Dumatella carolinensis*) during the breeding season. *Journal of Wildlife Diseases* 39:582-587.
- Garvin, M.C., B.L. Homer, and E.C. Greiner. **2003.** Pathogenicity of *Haemoproteus* danilewskyi, Kruse, 1890, in blue jays (*Cyanocitta cristata*). Journal of Wildlife Diseases 39:161-169.
- Garvin, M.C. and E.C. Greiner. **2003.** Epizootiology of *Haemoproteus danilewskyi* (Haemosporina: Haemoproteidae) in blue jays in south-central Florida: Patterns of infection and ecology of suspected *Culicoides* spp. (Diptera: Ceratopogonidae) vectors. *Journal of Wildlife Diseases* 39:1-9.
- Garvin, M.C. and E.C. Greiner. **2003.** Ecology of *Culicoides* (Diptera: Ceratopogonidae) in southcentral Florida and experimental *Culicoides* vectors of the avian blood haematozoa *Haemoproteus danilewskyi* Kruse. *Journal of Wildlife Diseases* 39:170-178.
- Tarvin, K.A., and M.C. Garvin. **2002.** Habitat and nesting success of Blue Jays: the importance of scale. *Auk: The Quarterly Journal of Ornithology 119*: 971-983.
- Tarvin, K.A., M.C. Garvin, J.M. Jawor, and K.A. Dayer. **1998**. A field evaluation of techniques to estimate density of Blue Jays. *Journal of Field Ornithology* 69:209-222.
- Garvin, M.C., J.M. Bates, and J.M. Kinsella. **1997.** Field techniques for collecting and preserving helminth parasites from birds, with new geographic and host records of parasitic nematodes from Bolivia. Theodore A. Parker Memorial Volume. *Ornithological Monographs* No. 48:161-166.
- Garvin, M.C. and J.V. Remsen, Jr. **1997**. Evidence for an alternative explanation for the Hamilton-Zuk hypothesis concerning parasitism and sexual dimorphism. *Auk: The Quarterly Journal of Ornithology* 114:179-191.
- Michot, T.C., M.C. Garvin, and E.H. Weidner. **1995**. Blood parasites in overwintering populations of redhead ducks on the Chandeleur Islands, Mississippi. *Journal of Wildlife Diseases* 31:90-92.
- Young, B.E., M.C. Garvin, D.B. McDonald. **1993**. Blood parasites of some birds from Monteverde, Costa Rica. *Journal of Wildlife Diseases* 29:555-560.

- Garvin, M.C., J.V. Remsen, Jr., M.A. Bishop, and G.F. Bennett. **1993.** Hematozoa in passeriform birds in Louisiana. *Journal of Parasitology* 79:318-312.
- Garvin, M.C. and P.P. Marra. **1991**. Blood parasites of some Puerto Rican birds. *Caribbean Journal of Science* 27:93-94.
- Bennett, G.F., M.C. Garvin, and J. M. Bates. **1990**. Blood parasites of some birds from Bolivia. *Journal of Parasitology* 77:207-211.
- Bates, J.M., M.C. Garvin, G.C. Schmitt, and D.C. Schmitt. 1989. Notes on bird distribution in northeastern Dpto. Santa Cruz, Bolivia, with 15 new species to Bolivia. *Bulletin of the British Ornithologists' Union* 109:236-244.
- Huehner, M.K., K. Hannan, and M.C. Garvin. 1989. Feeding habits and marginal organ histochemistry of Aspidogaster conchicola, (Trematoda: Aspidogastrea). Journal of Parasitology 75:848-852.

Invited book review:

Garvin, M.C. **2004.** Book Review. Parasites and Diseases of Wild Birds in Florida by Donald J. Forrester and Marilyn G. Spalding. *Florida Field Naturalist* 32:114-116.

General audience, peer-reviewed:

Garvin, M.C. and J. Cooper (Eds.) **2008**. Living in the Vermilion River Watershed. POV Communications, Chardon, OH.

General audience/not peer-reviewed:

- Garvin, M.C. **2001.** Mosquitoes and the changing landscape of northern Ohio. In: Changing Visions of the North American Landscape. Allen Memorial Art Museum Bulletin. 52(2): 35-41.
- Garvin, M.C. **1993.** "Science and Society" essays relating the topics of each chapter to social issues. In: Life Science (junior high school biology text) Glencoe/McGraw-Hill.

Paper presentations at professional meetings (*Oberlin College student):

- Boyer K*., C. Wright*, A. McCrea*, M. Gefke*, Y. Pryor*, A. Soble*, M. Campos-Lopez*, T. Shrenker*, M. Butler*, B. Lovett*, A. Austin*, R. Whelan, M. Garvin. Effect of semivolatile components of uropygial gland secretions on attraction of *Culex pipiens* mosquitoes. Assoc. of Field Ornithologists/Wilson Ornithological Soc., Chattanooga, TN, June 2018.
- Garvin, M., M. Butler*, M Michel*, R. Whelan. Influence of bird preen gland secretions on *Culex pipiens* feeding preferences. AORDC mosquito working group, Ohio Agricultural Research and Development Center, Wooster, OH, April 2018.
- Garvin, M., M. Butler*, M Michel*, R. Whelan. Influence of bird preen gland secretions on *Culex pipiens* feeding preferences. Entomological Society of America, Denver, CO November 2017.
- Garvin, M., M. Butler*, M Michel*, R. Whelan. Influence of bird preen gland secretions on *Culex pipies* feeding preferences. American Ornithological Society, East Lansing, MI, August 2017.
- Garvin, M.C., R.J. Whelan, and S.J. Schoech. Volatile components of uropygial gland secretions and community-level interactions in disease transmission. North American Ornithological Conference, Vancouver, British Columbia 2012 (Invited symposium presentation).
- Morse, J*., M.C. Garvin, R.J. Whelan, S. Bonner*, A. Halperin*. Volatile compounds in Gray Catbird (*Dumetella carolinensis*) uropygial secretion influence attraction with the mosquito *Culex pipiens*. North American Ornithological Conference, Vancouver, British Columbia 2012.

- Shaw, C.L. *, J.E. Rutter*, A.L. Austin*, M.C. Garvin, and R.J. Whelan. Volatile and semivolatile compounds in gray catbird uropygial secretions vary with age and between breeding and wintering grounds. American Ornithologists' Union, Jacksonville, FL 2011.
- Austin, A.L*., S. P. Slowinski*, N. H. Stracker*, J.E. Rutter*, M.C. Garvin, and R.J. Whelan. Characterization of the semi-volatile compounds of uropygial gland secretions of three avian reservoir hsots of West Nile virus. American Ornithologists' Union, Jacksonville, FL 2011.
- Whelan, R., J. Rutter*, E. Ross*, J. Owen, and M. Garvin. Volatiles in the uropygial gland secretions of gray catbirds (*Dumetella carolinensis*) through solid-phase microextraction head space sampling and gas-chromatograph-mass spectrometry. International Wildlife Disease Association Conference, Blaine, Washington, 2009.
- Owen, J.C., A.J. Williams, F.R. Moore, and M.C. Garvin. Role of Gray Catbirds (*Dumetella carolinensis*) in the overwintering of eastern equine encephalitis virus. American Ornithologists' Union, the Cooper Ornithological Society and the Society of Canadian Ornithologists Meeting, Portland, Oregon, 2008.
- Owen, J.C., A.J. Williams, F.R. Moore, and M.C. Garvin. Role of Gray Catbirds (*Dumetella carolinensis*) in the overwintering of eastern equine encephalitis virus International Wildlife Disease Association Conference, Edmonton, Alberta, 2008.
- Whelan, R., T. Levin*, and M. Garvin. Detection of volatiles in the uropygial gland secretions of gray catbirds (*Dumetella carolinensis*) through solid-phase microextraction head space sampling and gas-chromatograph-mass spectrometry. International Wildlife Disease Association Conference, Edmonton, Alberta, 2008.
- Dirks, K.*, M. Grove*, A. Roles, and M. Garvin. DNA sequence-based identification of rootlets used in gray catbid (*Dumetella carolinensis*) nest linings. Joint Meeting of The Wilson Ornithological Society and the Association of Field Ornithologists Mobile, Alabama, 2008.
- Whelan, R., T. Levin*, and M. Garvin. Detection of volatiles in the uropygial gland secretions of gray catbirds (*Dumetella carolinensis*) through solid-phase microextraction head space sampling and gas-chromatograph-mass spectrometry. Joint Meeting of The Wilson Ornithological Society and the Association of Field Ornithologists Mobile, Alabama, 2008.
- Whelan, R., T. Levin*, and M. Garvin. Detection of volatiles in the uropygial gland secretions of gray catbirds (Dumetella carolinensis) through solid-phase microextraction head space sampling and gas-chromatograph-mass spectrometry. Pittsburgh Conference on Analytical Chemistry and Applied Stereoscopy, New Orleans, Louisiana, 2008.
- Garcia-Grossman, L.*, L. Moore*, H. Wisebram*, A. Manos*, and M. Garvin. Feeding preference of *Culex pipiens* between two potential West Nile virus reservoir host species. Joint Meeting of The Wilson Ornithological Society and the Association of Field Ornithologists Mobile, Alabama, 2008.
- Williams, A.J., J.C. Owen, F.R. Moore and M.C. Garvin. Changes in immunocompetence of the gray catbird during an experimental West Nile virus infection. Joint Meeting of The Wilson Ornithological Society and the Association of Field Ornithologists Mobile, Alabama, 2008.
- Dirks, K.*, M. Grove*, A. Roles, and M. Garvin. DNA sequence-based identification of rootlets used in gray catbird (Dumetella carolinensis) nest linings. Midwest Ecology and Evolution Conference, Athens, Ohio 2008.
- Garcia-Grossman, L.*, L. Moore*, H. Wisebram*, A. Manos*, and M. Garvin. Feeding preference of Culex pipiens between two potential West Nile virus reservoir host species. Midwest Ecology and Evolution Conference, Athens, Ohio 2008.
- Owen, J.C., A.J. Williams, F.R. Moore, and M.C. Garvin. Effects of migratory stress and testosterone on the recrudescence of latent West Nile virus infections in the Gray Catbird. Meeting of the American Ornithologists' Union, University of Wyoming, 2007.

- Williams, A.J., J.C. Owen, F.R. Moore, and M.C. Garvin. Changes in immunocompetence of the Gray Catbird during an experimental West Nile virus infection. Meeting of the American Ornithologists' Union, University of Wyoming, 2007.
- Owen, J.C., A.J. Williams, F.R. Moore, and M.C. Garvin. Effects of migratory stress and testosterone on the recrudescence of latent West Nile virus infections in the Gray Catbird. Wildlife Disease Association Conference, Estes Park, Colorado. 2007.
- Williams, A.J., J.C. Owen, F.R. Moore, and M.C. Garvin. Changes in immunocompetence of the Gray Catbird during an experimental West Nile virus infection. Wildlife Disease Association Conference, Estes Park, Colorado. 2007.
- Garvin M.C. Mosquitoes in constructed wetlands in Lorain County. Ohio Mosquito Control Association Meeting. Columbus, Ohio, October 2005
- Garvin, M.C., K.A. Tarvin, J. Smith, O.A. Ohajuruka, and S.D. Grimes. Patterns of West Nile virus infection in Ohio blue jays: implications for initiation of the annual cycle. American Ornithologists' Union, University of Illinois. 2003.
- Garvin, M.C., K.A. Tarvin, J. Smith, O.A. Ohajuruka, and S.D. Grimes. Patterns of West Nile virus infection in Ohio blue jays: implications for initiation of the annual cycle. joint meeting of the Association of Field Ornithologists and the Wilson Ornithological Society, Ohio Wesleyan University. 2003.
- Cantor, D*, L.C. Scheidler*, K.E. Bell* and M.C. Garvin. Ornithonyssus sylviarum (Acarina: Mesostigmata) in gray catbird nests in relation to the nestling cycle. joint meeting of the Assoc. of Field Ornithologists/Wilson Ornithological Soc., Ohio Wesleyan University. 2003.
- Garvin, M.C. K.A. Tarvin, J. Smith, O.A. Ohajuruka, and S.D. Grimes. Patterns of West Nile virus infection in Ohio blue jays: implications for initiation of the annual cycle. West Nile Virus Wildlife Workshop, sponsored by Smithsonian Institution, U.S. Geological Service, U.S. Department of Agriculture, National Audubon Society, 2003.
- Garvin, M.C. Arthropod-borne viruses of the birds of North America. North American Ornithological Conference; New Orleans, Louisiana, 2002.
- Bell, K*. and M.C. Garvin. Arthropod fauna of Gray Catbird nests. Joint Annual Meeting of the Entomological Society of Canada and the Entomological Society of America; Montreal 2000.
- Garvin, M.C. and K. Bell*. Involvement of the Gray Catbird in eastern equine encephalitis virus cycle in Wayne County, Ohio. Ohio Mosquito Control Association Meeting, Columbus, Ohio, 2000.
- Garvin, M.C., H. Lyons*, A. Fisher*, and J. Waterman*. Oberlin Mosquito Control Program. Ohio Mosquito Control Association Meeting, Columbus, Ohio, 2000.
- Garvin, M.C. and S.Ives*. Eastern equine encephalitis virus cycle in Wayne County, Ohio and Cass County Michigan. Ohio Mosquito Control Association Meeting, Columbus, Ohio, 1999.
- Garvin, M.C., K.A. Tarvin, and J.F. Day. Encephalitis virus in Blue Jays in Florida. American Ornithologists' Union, St. John's Newfoundland, 2000
- Tarvin, K.A. and M.C. Garvin. Habitat, scale and nesting success of Blue Jays. American Ornithologists' Union, St. John's Newfoundland, 2000
- Szell, C.S., M.C. Garvin, F.R. Moore. Protozoan blood parasites of migratory passerine birds. American Ornithologists' Union, Cornell, 1999
- Garvin, M.C. and K.A. Tarvin. The effects of blood parasites on blue jay reproductive success. American Ornithologists' Union, St. Louis, 1998
- Garvin, M.C. and P.R. Grimstad. Population dynamics of *Culiseta melanura* in a tamarack bog in southwest Michigan. American Mosquito Control Association, Reno, 1998
- Garvin, M.C. Epizootiology of *Haemoproteus danilewskyi* in blue jays. Annual Midwest Conference of Parasitologists, Indianapolis, 1997
- Garvin, M.C. Ecology of vector-borne blood parasites of passerine birds. Michigan Mosquito Control Association, Traverse City, 1997
- Tarvin, K.A., M.C. Garvin, K.A. Dayer, and J.M. Jawor. A field evaluation of techniques used to estimate density of blue jays. American Ornithologists' Union, Boise, ID, 1996

Garvin, M.C. *Haemoproteus danilewskyi* in the Blue Jay in south-central Florida. American Ornithologists' Union, Cincinnati, 1995

Day, J.M., M.C. Garvin, L.M. Stark, G.E. Woolfenden, J.W. Fitzpatrick, and K.A. Tarvin. Arboviral serosurvey of Florida Scrub Jays and Blue Jays in Highlands County, Florida. Southern Conference on Animal Parasites, Gainesville, Florida, 1995

Garvin, M.C. Epizootiology of *Haemoproteus danilewskyi* in the blue jay in south-central Florida. Southern Conference on Animal Parasites, Gainesville, Florida, 1995

Meshaka, W.E. and M.C. Garvin. *Skrjabinoptera scelopori* in the Cuban Tree Frog. Herpetological League, Albert Schwartz Symposium, Atlanta, 1994

Garvin, M.C. and K.A. Tarvin. *Haemoproteus danilewskyi* in the blue jay in south-central Florida (poster). XXI International Ornithological Congress, Vienna, Austria, 1994

- Garvin, M.C. In sickness and in health: jay populations from a parasite's perspective. Florida Ornithological Society, Lake Placid, Florida, 1993.
- Garvin, M.C. and F. R. Moore. Effect of blood parasites on the energetic condition of migrating passerine birds. Southern Conf. on Animal Parasites. Blacksburg, VA, 1993.
- Garvin, M.C. Relationship between blood parasites, plumage brightness and nesting strata in passerine birds. Southeast Society of Parasitologists, Mobile, Alabama, 1992.
- McDonald, M.V., M.C. Garvin, and F.R. Moore. Bird sperm production and insemination of females during spring migration. American Ornithologists' Union, Montreal, 1991.
- Garvin, M. C., F. R. Moore, and C. C. Szell. Physiological cost of blood parasites on the nutritional condition of transcontinental migrating passerine birds. American Ornithologists' Union, Montreal, 1991.
- Garvin, M.C. and F.R. Moore. Effect of blood parasites on the stop-over biology of transcontinental migrant passerine birds. American Ornithologists' Union, Los Angeles, 1990.
- Garvin, M.C. Relationship between blood parasites, plumage brightness, and nesting strata in passerine birds. American Ornithologists' Union, Pittsburgh, 1989.

External grants:

- GLCA New Directions Initiative: Tree Core Analysis for Carcinogenic Heavy Metals. \$10,705, May 2012 – March 2013.
- NSF Collaborative Research for Undergraduate Institutions, with Frank Moore (co-PI) and Jennifer Owen University of Southern Mississippi: Effects of migratory stress and breeding hormones on the spring recrudescence of latent West Nile and eastern equine encephalitis virus infections in the Gray Catbird. \$450,000, Sept. 2004-2008.

Ohio EPA, Env. Educ. Fund: Vermilion River Watershed Educational Book, \$50,000 Nov. 2006

- North Coast Park District: Mosquito abundance and diversity across the North Coast Park District, \$35,000, June 2003.
- American Museum of Natural History: Chapman Memorial Fund, Effect of *Haemoproteus danilewskyi* on reproductive success of the Blue Jay in central Florida. \$2200, 1995.
- Florida Game and Fresh Water Fish Commission (1994) Florida Scrub-Jay disease analysis. \$26,912 (with Glen Woolfenden).
- American Museum of Natural History (1994) Frank M. Chapman Memorial Fund, The effect of *Haemoproteus danilewskyi* on the reproductive success of the Blue Jay in southcentral Florida. \$780.

American Museum of Natural History (1990) Frank M. Chapman Memorial Fund, \$994. National Society of Sigma Xi (1988) The role of blood parasites in avian sexual selection. \$800. American Museum of Natural History (1988) Frank M. Chapman Memorial Fund, \$600.

Oberlin College in-house grants:

McGregor-Oresman Fund for Research (1999, 2001) Howard Hughes Medical Institute Grant (1999, 2000) Melon Environmental Studies Research Grant (2000, 2001, 2002, 2003) Grant-in-Aid of Research (2010, 2012, 2013) Research and Development Research Assistantships (2005, 2006, 2007, 2009, 2010, 2015, 2017) First-Year Seminar Program Curriculum Dev. Fellowship (with J. Cooper, Rhet. and Comp., 2002) Teaching Grant (2006)

Invited seminars:

Hiram College (2015, 2017) Ohio State University (2014) Ohio Wesleyan University (2010, 2000) Ohio State University (2005) Auburn University (2004) College of Wooster (2001) University of Southern Mississippi, Dept. Biological Sciences (1999) Hiram College, Dept. Biology (1998) Indiana State University, Dept. of Life Sciences (1997) University of Southern Mississippi, Ecology Group (1997) Michigan State University, Dept. of Entomology (1997) University of Florida, Population Ecology Group (1995)

Major Oberlin College Service

Academic and Administrative Program Review (2018-19) College Faculty Council (2005-07; 2013-15, 2020-22) Chair of Biology (2011, 2013-2016) Professional Conduct Review Committee (2016-17 proceeding chair; 2017-18) Mediation Committee (2017-18) College Trustee Development and Alumni Affairs Committee (2017-present) ENVS Program Review (2017-18) Strategic Planning Advising Task Force (2016-17) First Year Seminar Program Committee (2013-present) Science Advisory Committee (2013-2016) Community-based Learning Committee (2016-present)

Reviewing Services:

Manuscripts : American Journal of Tropical Medicine and Hygiene, American Midland Naturalist, Auk: Quarterly Journal of Ornithology, Comparative Biochemistry and Physiology, Condor: International Journal of Avian Biology, Ecological Entomology, Journal of Field Ornithology, Journal of Medical Entomology, Journal of Parasitology, Journal of Tropical Ecology, Journal of Vector Ecology, Journal of Wildlife Diseases, Journal of Zoo and Wildlife Medicine, Ibis: The International Journal of Ornithology, Oecologia, Ohio Journal of Science, OIKOS, Ornithologia Neotropical, Journal of Vector-borne and Zoonotic Diseases, Ornithological Monographs, Malaria Journal, PLOS One. **Proposals:** US Geological Survey, National Science Foundation, Ohio EPA

Recent Professional Society Service:

Wilson Ornithological Society: elected council member (2010-2013) Sub-committee member: student paper awards Association of Field Ornithologists: elected council member (2017-2020) Sub-committee member: student travel awards (current chair), student paper awards, early professional development

Entomological Society of America: annual meeting session chair (2017)

Professional Society Memberships:

Amer. Ornithologists' Union, Amer. Soc. of Tropical Medicine and Hygiene, Amer. Soc. of Parasitologists, Entomological Soc. of Amer., Ohio Biol. Survey, Soc. for Vector Ecology, Wildlife Disease Assoc., Wilson Ornithological Soc., Soc. for Field Ornithologists