

CURRICULUM VITAE
KAREN S. OBERHAUSER

Department of Fisheries, Wildlife and Conservation Biology
University of Minnesota

Education

- B.A. Harvard University, 1979
Biology
- B.S. University of Wisconsin, Madison, 1981
Natural Science Education
- Ph.D. University of Minnesota, 1989
Ecology and Behavioral Biology, Genetics Minor
[Advisors: P.A. Abrams and J.W. Curtsinger]

Positions/Employment

- University of Minnesota, Twin Cities (1991-present)
 - Professor, 2013-present
 - Associate Professor, 2008-2013
 - Assistant Professor, 2003-2008
 - Outreach/Teaching Assistant Professor, 2002-2003
 - Research Associate and Adjunct Assistant Professor, 1991-2002
- Onalaska High School, Wisconsin (Biology and Chemistry Teacher), 1981-1984

Brief Biography

My students and I conduct research on several aspects of monarch butterfly (*Danaus plexippus*) ecology, including reproductive ecology, host-parasite interactions, factors affecting the distribution and abundance of immature monarch stages, habitat management and availability, and risks posed by global climate change and pest control practices to monarch butterflies. Our research employs traditional lab and field techniques, as well as contributions of a variety of other audiences through citizen science. I have a strong interest in engaging K-12 students and teachers in inquiry-based science and promoting a citizenry with a high degree of scientific and environmental literacy. To this end, I have developed a comprehensive science education program called *Monarchs in the Classroom*, which involves courses and workshops for teachers, opportunities for youth to engage in research and share their findings with broad audiences, a nationwide Citizen Science project called the Monarch Larva Monitoring Project, and curriculum development.

I am passionate about the conservation of the world's biodiversity, and believe that the connections my projects promote between monarchs, humans, and the natural world will help to promote conservation actions. I chair the Steering Committee of the Monarch Joint Venture, am an officer and founding member of the Monarch Butterfly Fund, and am a member of state and national organizations that are focused on pollinator conservation and citizen science.

HONORS AND AWARDS

University of Minnesota

Richard C. Newman Teaching Award. 2011.

Richard C. Newman Community Impact Award. 2008.

External Sources

Governor of the State of Michoacan. 2013 and 2015. Recognition for work on monarch conservation and research.

Xerces Society for Invertebrate Conservation Scientific Advisor. 2014-present.

Wings Across the Americas Award. Presented by the US Forest Service. 2014.

Recognized in Xerces Society Conservation Spotlight (Wings Magazine). Spring 2014.

White House Champion of Change award. 2013.

Minnesota Land Trust; Member, Board of Directors. 2012-2014.

Minnesota Association of Natural Resources Extension Professionals. 2010. Excellence in Natural Resources Educational Materials: Linnaeus List Field Guides

Minnesota Association of Extension Educators and Epsilon Sigma Phi. 2010. Teamwork Award.

EXTRAMURAL GRANTS FOR EXTENSION/CONSERVATION AND RESEARCH

Extension/Conservation (total = \$14,049,100)

Role	Agency/Institution	Title and funding interval	Amount
PI	USFS-IP	Monarch Joint Venture. 2016-2020	\$202,020
PI	New York Community Trust	Habitat Restoration for Monarchs Part 2: Demonstrating How Farmers and Other Landowners Can Support an Iconic Insect (2016-2017)	\$105,000
PI (Rob Blair co-PI)	Improving Teacher Quality Program	Schoolyard Ecology Explorations (2016-2017)	\$119,863
Co-PI (Rob Blair PI)	Improving Teacher Quality Program	Schoolyard Ecology Explorations (2015-2016)	\$119,811
PI	New York Community Trust	Habitat Restoration for Monarchs: Demonstrating How Farmers and Other Landowners Can Support an Iconic Insect (2015-2016)	\$110,000
PI	US FWS	Monarch Joint Venture. 2015-2020	\$126,774
PI	US BLM	Monarch Joint Venture. 2015-2020	\$125,000
PI	USGS	Monarch Joint Venture. 2015-2020	\$55,006
PI	US Forest Service – International Programs	Monarch Joint Venture. 2014-2019	\$280,000
PI (R Blair, M Koomen, G Roehrig, A Lorek-Strauss, coPIs)	NSF	Driven to Discover: Citizen Science Inspires Classroom Investigation (DRL-1417777, 2014 –2018)	\$2,299,550
Co-PI (Rob Blair PI)	Improving Teacher Quality Program	Citizen Science Research for Teachers. 2014-2015	\$119,979
PI	US Forest Service – International Programs	Monarchs, Science Research, and Schoolyard Gardens. 2010-2016 (continued through four iterations)	\$1,183,079
PI	Improving Teacher	Citizen Science Research for Teachers.	\$60,000

	Quality Program	2013-2014	
PI	Improving Teacher Quality Program	Citizen Science Research for Teachers. 2012-2013	\$60,000
PI	Medtronic Foundation	Monarchs in the Classroom: Student Research and Monarch Fair. 2012-2013	\$15,000
PI	Improving Teacher Quality Program	Insect Ecology for Teachers. 2011-2012	\$60,000
PI	US Forest Service – International Programs	Monarch Joint Venture. 2008-2012 (continued through four iterations)	\$1,281,826
PI (Rob Blair, coPI)	Improving Teacher Quality Program	Citizen Science for Teachers. 2010-2011	\$120,000
PI (Co-PI's N Meyer, A Lorek Strauss, P Larson Nippolt, R Blair)	National Science Foundation	Driven to Discover: Enabling Authentic Inquiry through Citizen Science. 2009-2014	\$1,328,588
PI	Medtronic Foundation	Monarchs in the Classroom: Student Research and Research Fair. 2009-2012	\$112,367
PI (Co-PI M Koomen)	Improving Teacher Quality Program.	Monarchs and More: Insect Ecology for Elementary School Teachers Summer Workshop. 2009-2010	\$59,083
PI (Co-PI M. Koomen)	Improving Teacher Quality Program	Monarchs and More: Insect Field Ecology for Teachers Summer Workshop. 2008-2009	\$104,371
PI	Education Minnesota Affinity Program for Excellence in Teaching and Learning	Materials for Monarchs and More: Insect Ecology Workshops. 2008	\$5000
PI (Co-PI M. Koomen)	Improving Teacher Quality Program	Monarchs and More: Insect Field Ecology for Teachers Summer Workshop. 2007-2008	\$101,921
PI	Improving Teacher Quality Program	Monarchs and More: Insect Ecology for Elementary School Teachers Summer Workshop. 2006-2007	\$47,963
PI	Improving Teacher Quality Program	Schoolyards, Science and Sustainability Summer Workshop. 2006-2007	\$43,456
PI	Medtronic Foundation	Monarchs in the Classroom: Student Research and Research Fair. 2006-2009	\$91,763
Co-PI (R Blair, PI. Co-PIs M Main, A Rager)	National Science Foundation	Model Master Naturalist Programs: A Minnesota/Florida Collaboration. 2006-2010	\$1,712,504
PI	Northern Environmental Support Trust	Schoolyard Outdoor Learning Labs. 2005-2007	\$30,000
PI (Co-PIs L Covington Clarkson, S Lanyon, S Weller)	National Science Foundation	Track 1 GK-12: Graduate Fellows and Environmental Biology. 2005-2008	\$1,857,847
PI	Education Minnesota Affinity Program for Excellence in Teaching and Learning	Materials for Monarchs and More: Insect Ecology Workshops. 2005	\$5000
PI	Improving Teacher Quality Program	Monarchs and More: Insect Field Ecology for Teachers Summer Workshop. 2005-2006	\$91,419
PI	Education Minnesota Affinity Program for Excellence in Teaching and Learning	Materials for Monarchs and More: Insect Ecology Workshops. 2004	\$5000

PI	Improving Teacher Quality Program	Monarchs and More: Insect Field Ecology for Teachers Summer Workshop. 2004-05	\$92,838
PI	Medtronic Foundation	Monarchs in the Classroom: Student Research and Research Fair. 2003-2006	\$63,180
PI	Improving Teacher Quality Program	Monarchs and More: Insect Ecology Teachers Summer Workshop. 2003-2004	\$89,946
PI	Medtronic Foundation	Monarchs in the Classroom: Student Research and Monarch Fair. 2002-2003	\$17,675
PI	Eisenhower Professional Development Program.	Monarchs and More: Insect Ecology for Teachers Summer Workshop. 2002-2003	\$83,218
PI	Medtronic Foundation	Monarchs in the Classroom: Student Research and Monarch Fair. 2001-2002	\$19,630
PI	Eisenhower Professional Development Program	Monarchs in the Classroom Summer Workshop and Planning. 2001-2002	\$83,866
PI	Medtronic Foundation	Monarchs in the Classroom: Student Research and Monarch Fair (4 separate grants). 1997-2001	\$60,970
PI	Eisenhower Professional Development Program	Monarchs in the Classroom Summer Workshops 1997-2001 (4 separate grants)	\$233,465
Co-PI (O.R Taylor, PI., B. Williamson, Co-PI)	National Science Foundation (to Univ of KS, UM sub-contract)	Monarchs in the Classroom: Science education and outreach. 1995-1998	\$475,000
PI (M. Houtz, Co-PI)	National Science Foundation (to Science Museum of Minnesota)	Monarch Monitoring: A Teacher/Student/Scientist Collaborative Research Project. 1998-2001	\$597,967
PI	Medtronic STAR Foundation	Monarchs in the Classroom Mini-workshops (2 separate grants). 1995-1996	\$17,000

Research (total = \$1,679,139)

Role	Agency/Institution	Title and funding interval	Amount
PI	National Cooperative Highway Research Program (through the NAS)	Evaluating the suitability of roadsides corridors for use by monarch butterflies (2017-2019)	\$349,821
PI (co-PI, Rob Blair)	US Fish and Wildlife Service	Karner Blue Butterfly Assisted Migration in Western Wisconsin. 2016-2017	\$150,000
PI	National Resources Conservation Service	Agricultural Landscape Monarch Monitoring. 2016-2017	\$150,000
PI	National Fish and Wildlife Foundation	Monarch's View of Urban Landscapes: Productivity and Habitat Monitoring in Minnesota. 2016-2017	\$44,584
PI	National Science Foundation	Monarch Butterfly Larval Monitoring: A Nationwide Citizen Science Initiative. 2001-2005	\$713,029
PI	National Science Foundation	Supplement to Monarch Butterfly Larval Monitoring. 2001-2004	\$129,414
PI	USDA Agricultural Research Service	The Importance of Cornfields to Monarchs: Large-scale Monitoring. 2000-2001	\$25,648
PI	National Science Foundation	Function of Material Investment in Mating by Male Lepidoptera. 1993-1995	\$106,403
PI	National Science Foundation	REU supplement to Function of Material Investment in Mating by Male Lepidoptera. 1994-1995	\$5,000
PI	National Science	Doctoral Dissertation Improvement Grant:	\$5,240

Foundation	Monarch Butterfly Mating Strategies. 1988-1989
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Student Grants

Student Name	Agency/Institution	Title and funding interval	Amount
K. Nail	Xerces Society	Impacts of Climate on Monarch Migration Behavior. 2011-2012	\$3000
R. Batalden	National Science Foundation	Dissertation Research: Potential Impacts of Climate Change on Monarch Butterflies. 2007-2008	\$10,275
M. Solensky	National Science Foundation	Dissertation Research: Mechanisms of Female Mate Choice in a Coercive Mating System. 2002-2003	\$10,000
S. Altizer	National Science Foundation	Dissertation Research: Host Movement and Disease Dynamics: Interactions Between Monarch Butterflies and a Protozoan Parasite. 1997-1998	\$9,943
M. Prysby	Xerces Society	Monitoring Larva Monitoring Project Workshops. 1996-1998	\$3000

Received at another institution

Role	Agency/Institution	Title and funding interval	Amount
Co-PI (S. Altizer, PI; L. Ries, Co-PI)	National Center for Ecology Research and Synthesis (support for 12 participants)	MonarchNet: Synthesizing monarch monitoring data. 2010-2011	\$79,150
Co-PI (OR Taylor, PI)	United States Fish and Wildlife Service (to University of Kansas)	Monarch Population Dynamics Meeting and Data Synthesis. 2001-2002	\$21,325

UNIVERSITY FUNDING

CFANS Sabbatical Salary Supplement, 2012-2013, 30% of salary
CFANS Faculty Development Grant, 2012-2013, \$5955

PUBLICATIONS

Books or Monographs

- Oberhauser, K.S., K.R. Nail, and S.M. Altizer (Eds). 2015. Monarchs in a changing world: biology and conservation of an iconic butterfly. Cornell University Press, Ithaca, NY.
- Oberhauser, K.S., R. Batalden, E. Howard. 2009. Monarch monitoring in North America: Overview of initiatives and protocols. Commission on Environmental Cooperation. Montreal, Canada.
- Oberhauser, K.S., D. Cotter, D. Davis, R. Décarie, A.E. Behnumea, C. Galino-Leal, M.P. Gallina Tessaro, E. Howard, J. Lauriault, W. Macziewski, S. Malcolm, F. Martínez, J.M. González, M. McRae, D. Nernberg, I. Pisanty Baruch, I. Ramírez, J.J. Reyes, A. Wilson. 2008. North American Monarch Conservation Plan. Commission on Environmental Cooperation. Montreal, Canada.
- Oberhauser, K.S., M.J. Solensky (Eds.). 2004. The Monarch Butterfly: Biology and Conservation. Cornell University Press, Ithaca NY. (248 pp).

Hoth, J, L Merino, K. Oberhauser, I. Pisanty, S. Price (Eds.). 1999. Proceedings of the North American conference on the Monarch Butterfly. Commission for Environmental Cooperation: Montreal, QC. (441 pp). (authors listed in alphabetical order, equal contributions to conception and editing)

Refereed Journal Articles or Book Chapters (* = my student when research was conducted)

Research Publications

Saunders, S.P., L. Ries, K.S. Oberhauser, W.E. Thogmartin, E.F. Zipkin. In revision. Local and cross-seasonal associations of climate and land use with monarch butterflies (*Danaus plexippus*). Ecography.

Lewandowski*, E. J., W.J. Caldwell*, D. C. Elmquist*, K.S. Oberhauser. In revision. Public perceptions of citizen science. Citizen Science: Theory and Practice.

Thogmartin, W. E., J. E. Diffendorfer, L. Lopez-Hoffman, K. Oberhauser, J. Pleasants, B. X. Semmens, D. Semmens, O. R. Taylor, and R. Wiederholt. In review. A meta-analytic estimate of the density of monarch butterflies overwintering in central Mexico. Submitted to Ecological Entomology.

Thogmartin, W.E., L. López-Hoffman, J. Rohweder, J. Diffendorfer, R. Drum, D. Semmens, S. Black, I. Caldwell, D. Cotter, P. Drobney, L.L. Jackson, M. Gale, D. Helmers, S. Hilburger, E. Howard, K.S. Oberhauser, J. Pleasants, B. Semmens, O. Taylor, P. Ward, J.F. Weltzin, R. Wiederholt. In revision. Restoring monarch butterfly habitat in the Midwestern U.S.: All hands on deck. Submitted to Conservation Letters.

Lewandowski*, E. J., K.S. Oberhauser. 2016. Contributions of citizen scientists and habitat volunteers to monarch conservation. Human Dimensions of Wildlife. DOI: 10.1080/10871209.2017.1250293

Kasten*, K., C. Stenoien*, W. Caldwell*, K.S. Oberhauser. 2016. Can roadside habitat lead monarchs on a route to recovery? Journal of Insect Conservation DOI 10.1007/s10841-016-9938-y

Stenoien*, C., K.R. Nail, J. Zalucki, H. Parry, K.S. Oberhauser, M. Zalucki. 2016. Monarchs in decline: a collateral landscape level effect of modern agriculture. Insect Science. DOI 10.1111/1744-7917.12404

Oberhauser K.S., R. Wiederholt, J.E. Diffendorfer, D. Semmens, L. Ries, W.E. Thogmartin, L. Lopez-Hoffman, B. Semmens. 2016. A trans-national monarch butterfly population model and implications for regional conservation priorities. Ecological Entomology. DOI: 10.1111/een.12351

Lewandowski*, E. J., K.S. Oberhauser. 2016. Butterfly citizen science projects support conservation activities among their volunteers. Citizen Science: Theory and Practice, 1(1): 6, pp. 1–8, DOI: <http://dx.doi.org/10.5334/cstp.10>

McCoshum, S.M., S.L. Andreoli, C. Stenoien*, K.S. Oberhauser, K.A. Baum. 2016. Species distribution models for natural enemies of monarch butterfly (*Danaus plexippus*) larvae and pupae: distribution patterns and implications for conservation. Journal of Insect Conservation DOI 10.1007/s10841-016-9856-z

Semmens B.X., D.J. Semmens, W.E. Thogmartin, R. Wiederholt, L. López-Hoffman, J.E. Diffendorfer, J.M. Pleasants, K.S. Oberhauser, O.R. Taylor. 2016. Quasi-extinction risk and population targets for the Eastern, migratory population of monarch butterflies (*Danaus plexippus*). Nature Reports 6, 23265; doi: 10.1038/srep23265

Brower, L. P., D. A. Slayback, P. Jaramillo-López, I. M. Ramirez, K. S. Oberhauser, E. H. Williams, and L. S. Fink. 2016. Illegal logging of 10 hectares of forest in the Sierra Chincua monarch butterfly overwintering area in Mexico. American Entomologist Summer 2016:92-97 (Featured article)

- Saunders, SP, L Ries, KS Oberhauser, EF Zipkin. 2016. Evaluating confidence in population-level predictions from climate impacts on the migratory monarch butterfly. *Global Ecology and Biogeography* DOI: 10.1111/geb.12461.
- Pleasants, J. M., E.H. Williams, L.P. Brower, K.S. Oberhauser, and O.R Taylor. 2016. Conclusion of no decline in summer monarch population not supported. *Annals of the Entomological Society of America* doi: 10.1093/aesa/sav115.
- Stenoien*, C., S. McCoshum, W. Caldwell*, A. De Anda*, and K.S. Oberhauser. 2015. New reports that monarch butterflies (Lepidoptera: Nymphalidae, *Danaus plexippus* Linnaeus) are hosts for a pupal parasitoid (Hymenoptera: Chalcidoidea, *Pteromalus cassotis* Walker). *Journal of the Kansas Entomological Society* 88:16-26.
- Lewandowski*, E., K.S. Oberhauser. 2016. Butterfly citizen scientists in the United States increase their engagement in conservation. *Biological Conservation* <http://dx.doi.org/10.1016/j.biocon.2015.07.029>.
- Lewandowski*, E., K.S. Oberhauser. 2016. Butterfly citizen science projects support conservation activities among their volunteers. *Citizen Science: Theory and Practice* 1:1-8.
- Nail* K.R., Stenoien* C., Oberhauser K.S. 2015. Immature monarch survival: Effects of site characteristics, density, and time. *Annals of the Entomological Society of America*. doi: 10.1093/aesa/sav047
- Stenoien*, C., K. Nail*, and K.S. Oberhauser. 2015. Habitat productivity and temporal patterns of monarch butterfly egg densities in the Eastern U.S. *Annals of the Entomological Society of America*. doi: 10.1093/aesa/sav054
- Ries, L., D. J. Taron, E. Rendon-Salinas, K.S. Oberhauser. 2015. Connecting eastern monarch population dynamics across their migratory cycle. pp. 268-282 in Oberhauser, K.S., K.R. Nail, and S.M. Altizer, eds. *Monarchs in a changing world: biology and conservation of an iconic butterfly*. Cornell University Press, Ithaca, NY.
- Oberhauser, K.S., L. Ries, S. Altizer, R.V. Batalden*, J. Kudell-Ekstrum, M. Garland, E. Howard, S. Jepsen, J. Lovett, M. Monroe, G. Morris, E. Rendón-Salinas, R.G. RuBino, A. Ryan, O.R. Taylor, R. Treviño Ulloa, F.X. Villablanca, and D. Walton. 2015. Contributions to monarch biology and conservation through citizen science: 70 years and counting. In Oberhauser, K.S., K.R. Nail, and S.M. Altizer, eds. *Monarchs in a changing world: biology and conservation of an iconic butterfly*, Chapter 2. Cornell University Press, Ithaca, NY.
- Oberhauser, K.S., M. Anderson, S. Anderson, W. Caldwell*, A.P. De Anda*, M.D. Hunter, M. Kaiser*, and M.J. Solensky*. 2015. Lacewings, wasps and flies - oh my: insect enemies take a bite out of monarchs. In Oberhauser, K.S., K.R. Nail, and S.M. Altizer, eds. *Monarchs in a changing world: biology and conservation of an iconic butterfly*, Chapter 6. Cornell University Press, Ithaca, NY.
- Nail*, K.R., R.V. Batalden*, and K.S. Oberhauser. 2015. What's too hot and what's too cold? Lethal and sub-lethal effects of extreme temperatures on developing monarchs. In Oberhauser, K.S., K.R. Nail, and S.M. Altizer, eds. *Monarchs in a changing world: biology and conservation of an iconic butterfly*, Chapter 8. Cornell University Press, Ithaca, NY.
- De Anda*, A., and K.S. Oberhauser. 2015. Invertebrate natural enemies and stage-specific mortality rates of monarch eggs and larvae. In Oberhauser, K.S., K.R. Nail, and S.M. Altizer, eds. *Monarchs in a changing world: biology and conservation of an iconic insect*, Chapter 5. Cornell University Press, Ithaca, NY.
- Ries, L., K.S. Oberhauser. 2015. A citizen-army for science: quantifying the contributions of citizen scientists to our understanding of monarch butterfly biology. *Bioscience* 65:419-420.

- Oberhauser, K.S., O. R. Taylor, S. M. Reppert, H. Dingle, K. R. Nail*, R. M. Pyle, C. Stenoien. 2013. Are monarch butterflies true navigators? The jury is still out. *Proceedings of the National Academy of Sciences* 110(39):E3680.
- Diffendorfer J.E., Loomis J.B., Ries L., Oberhauser K.S., Lopez-Hoffman L., Semmens D., Semmens B., Butterfield B., Bagstad K., Goldstein J., Wiederholt R., Mattsson B., Thogmartin W.E. 2013. National valuation of monarch butterflies indicates an untapped potential for incentive-based conservation. *Conservation Letters* 7:253-262.
- Zipkin, E., L. Ries, R. Reeves, J. Reetz, K.S. Oberhauser. 2012. Tracking climate impacts on the migratory monarch butterfly. *Global Change Biology* 18:3039–3049
- Barve N., Bonilla A.J., Brandes J., Brown J.C., Brunsell N., Cochran F.V., Crosthwait R.J., Gentry J., Gerhart L.M., Jackson T., Kern A.J., Oberhauser K.S., Owens H.L., Peterson A.T., Reed A.S., Soberón J., Sundberg A.D., Williams L.S. 2012. Climate change and mass mortality events in overwintering monarch butterflies. *Revista Mexicana de la Biodiversidad*. 83: 817-824. DOI:10.7550/rmb.26460
- Pleasants, J., K.S. Oberhauser. 2013. Milkweed loss in agricultural fields because of herbicide use: Effect on the monarch butterfly population. *Insect Conservation and Diversity*. 6:135-144.
- Oberhauser, K.S. 2012. Tachinid flies and monarch butterflies: Citizen Scientists document parasitism patterns over broad spatial and temporal scales. *American Entomologist* 58:19-22.
- Bartel, R.E., K.S. Oberhauser, J.C. De Roode, S.M. Altizer. 2011. Monarch migration, seasonal habitat use and parasite transmission in eastern North America. *Ecology* 92(2): 342-351.
- Fargione, J.E., T.R. Cooper, D.J. Flaspohler, J. Hill, C. Lehman, T. McCoy, S. McLeod, E.J. Nelson, K.S. Oberhauser, D. Tilman. 2009. Bioenergy and wildlife: Threats and opportunities for grassland conservation. *Bioscience* 59:767-777.
- Lindsey, E., M. Mudresh, V. Dhulipala, K.S. Oberhauser, S. Altizer. 2009. Crowding and disease: effects of host density on response to infection in a butterfly-parasite interaction. *Ecological Entomology* 34:551–561.
- Solensky*, M.S., K.S. Oberhauser. 2009. Sperm precedence in monarch butterflies (*Danaus plexippus*). *Behavioral Ecology* 20 (2):328-334
- Solensky*, M.S., K.S. Oberhauser. 2009. Male monarch butterflies (*Danaus plexippus*) adjust their ejaculates in response to risk and intensity of sperm competition. *Animal Behavior* 77:465-472.
- Oberhauser, K.S., S. Manweiler, R. Lelich, M. Blank, R. Batalden, A. De Anda. 2009. Impacts of ULV resmethrin applications on non-target insects. *Journal of the American Mosquito Control Association* 25:83–93.
- Batalden*, R., K.S. Oberhauser, A.T. Peterson. 2007. Ecological niches in breeding generations of Eastern North American monarch butterflies. *Environmental Entomology* 36:1365-1373.
- Brower, L., K. Oberhauser, M. Boppré, A.V.Z. Brower, R.I. Vane-Wright. 2007. Monarch sex: Ancient rites, or recent wrongs? *Antennae* 31:12-18.
- Oberhauser, K.S., I. Gebhard, C. Cameron, S. Oberhauser. 2007. Parasitism of monarch butterflies (*Danaus plexippus*) by *Lespesia archippivora* (Diptera: Tachinidae). *American Midland Naturalist* 157:312-328.
- Oberhauser, K.S., S.J. Brinda*, S. Weaver*, R.D. Moon, S.A. Manweiler, N Read. 2006. Growth and survival of monarch butterflies (Lepidoptera: Danaidae) after exposure to permethrin barrier treatments. *Environmental Entomology* 35 (6): 1626-1634.

- Szymanski*, J., J.A. Shuey, K. Oberhauser. 2004. Population structure of the endangered Mitchell's Satyr, *Neonympha mitchellii mitchellii* (French). *American Midland Naturalist* 152(2):304-322.
- Lavoie*, B., K.S. Oberhauser. 2004. Compensatory feeding in *Danaus plexippus* (Lepidoptera: Nymphalidae) in response to variation in host plant quality. *Environmental Entomology* 33:1062-1069.
- Borland, J., C. Johnson, T. Crumpton, T. Thomas, S. Altizer, K. Oberhauser. 2004. Characteristics of fall migratory monarch butterflies, *Danaus plexippus*, in Minnesota and Texas. Pp. 97-104. In Oberhauser, K.S. & M.J. Solensky (Eds.). *The Monarch Butterfly: Biology and Conservation*. Cornell University Press. Ithaca NY.
- Altizer*, S.M., K.S. Oberhauser, K.A. Geurts*. 2004. Transmission of the protozoan parasite *Ophycystis elektroscirrha* in monarch butterfly populations: implications for prevalence and population-level impacts. Pp. 203-218. In: Oberhauser, KS, MJ Solensky (Eds.). *The Monarch Butterfly: Biology and Conservation*. Cornell University Press. Ithaca NY.
- Solensky*, M.J., K.S. Oberhauser. 2004. Behavioral and genetic components of male mating success in monarch butterflies. Pp. 61-68. In: Oberhauser, KS, MJ Solensky (Eds.). *The Monarch Butterfly: Biology and Conservation*. Cornell University Press. Ithaca NY.
- Oberhauser, K.S. 2004. Effects of female age, female mass and nutrients from males on monarch egg mass. Pp. 21-26. In: Oberhauser, KS, MJ Solensky (Eds.). *The Monarch Butterfly: Biology and Conservation*. Cornell University Press. Ithaca NY.
- Goehring*, L., K.S. Oberhauser. 2004. Environmental factors influencing postdiapause reproductive development in monarch butterflies. Pp. 187-198. In: Oberhauser, KS, MJ Solensky (Eds.). *The Monarch Butterfly: Biology and Conservation*. Cornell University Press. Ithaca NY.
- Prysky*, M., K.S. Oberhauser. 2004. Temporal and geographical variation in monarch densities: Citizen scientists document monarch population patterns. Pp. 9-20 in: Oberhauser, KS, MJ Solensky (Eds.). *The Monarch Butterfly: Biology and Conservation*. Cornell University Press. Ithaca NY.
- Oberhauser, K.S., E.R.L. Rivers*. 2003. Monarch butterfly (*Danaus plexippus*) larvae & Bt corn pollen: A review of ecological risk assessment for a non-target species. *AgBiotechNet* 5:1-7.
- Oberhauser, K.S., T. Peterson. 2003. Modeling current and future potential wintering distributions of Eastern North American monarch butterflies. *Proceedings of the National Academy of Science* 100:14063-14068.
- York*, H., K.S. Oberhauser. 2002. Effects of duration and timing of heat stress on monarch butterfly (Lepidoptera: Danaidae) development. *Journal of the Kansas Entomological Society* 75:290-298.
- Goehring* L., K.S. Oberhauser. 2002. Effects of photoperiod, temperature and host plant age on induction of reproductive diapause and development time in *Danaus plexippus*. *Ecological Entomology* 27:674-685.
- Oberhauser, K.S., M.D. Prysby*, H.R. Mattila, D.E. Stanley-Horn, M.K. Sears, G. Dively, E. Olson, J.M. Pleasants, W.F. Lam, R. Hellmich. 2001. Temporal and spatial overlap between monarch larvae and corn pollen. *Proceedings of the National Academy of Science* 98(21):11913-11918.
- Sears, M.K., R.L. Hellmich, D.E. Stanley-Horn, K.S. Oberhauser, J.M. Pleasants, H.R. Mattila, B.D. Siegfriedi, G.P. Dively. 2001. Impact of Bt corn pollen on monarch butterfly populations: A risk assessment. *Proceedings of the National Academy of Science* 98(21):11937-11942.
- Altizer*, S.M., K.S. Oberhauser, L.P. Brower. 2000. Associations between host migration and the prevalence of a protozoan parasite in natural populations of monarch butterflies. *Ecol. Entomol.* 25:125-139. (received Royal Entomological Society's Excellence in Ecological Entomology Reward.

See: Leather, S. 2002. Excellence in ecological entomology- the Royal Entomological Society's awards for scientific writing. *Ecological Entomology* 27:513)

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Education and Outreach Publications

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- Strauss A., Oberhauser K.S., Meyer N.J., Nippolt P.L. In press. Citizen science in education: Driven to Discover. In Lepczck O, Boyle O, Vargo T, eds. Handbook of citizen science in ecology and conservation.
- Koomen M.H., Blair R., Young-Isebrand E., Oberhauser K. 2016. Disciplinary literacy in the science classroom: Using adaptive primary literature. *Journal of Research in Science Teaching* 53:847-894.
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- Guiney*, M.S., K.S. Oberhauser. 2009. Conservation volunteers' connection to nature. *Ecopsychology special issue: Emotional Well-being and Sustainable Behaviors* 1:187-198.
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Non-refereed Journal Articles, Essays, and Book Chapters

Research

- Oberhauser, K.S. 2015. Conservación de mariposas monarca: imperativo el trabajo trilateral. Oikos (Mexican Creative Commons article). 25 January 2015.
<http://web.ecologia.unam.mx/oikos3.0/index.php/articulos/mariposas-monarca>
- Oberhauser, K.S. 2007. Programa norteamericano de monitero de la mariposa Monarca. Pp 33-58 in Pisanty, I. and M Caso (Eds.). Especies, espacios y riegos: Monitoreo para la conservación de la biodiversidad. Instituto Nacional de Ecología (INE-SEMARNAT). Mexico DF.
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- Oberhauser, K.S. 2004. Review of Boggs et al. Butterflies: Ecology and Evolution Taking Flight. Ethology 110 (10):839-840.
- Oberhauser, K.S., M.J. Solensky*. 2002. 2001 Monarch Population Dynamics Meeting: Meeting and Working Group Summaries.
- Oberhauser, K.S., K. Kuda. 1997. A field guide to monarch caterpillars (*Danaus plexippus*). (14 pp.). Monarchs in the Classroom, University of Minnesota.
- Subject author of four ecology chapters in 4th edition of Campbell, N. 1996. Biology. Benjamin Cummings, Inc.

Extension and Outreach

- Strauss A.L., T. Homayoun, R. Meyer, P.L. Nippolt, K. Oberhauser, C. Petersen, A. Rager, E. Young Isebrand. 2015. Driven to Discover: Investigator's Field Journal – Birds. St. Paul. MN: University of Minnesota Extension.
- Strauss A.L., T. Homayoun, R. Meyer, P.L. Nippolt, K. Oberhauser, C. Petersen, A. Rager, E. Young Isebrand. 2015. Driven to Discover: Facilitator's Guide to Citizen Science – Birds. St. Paul. MN: University of Minnesota Extension.
- Strauss A.L., T. Homayoun, R. Meyer, P.L. Nippolt, K. Oberhauser, C. Petersen, A. Rager, E. Young Isebrand. 2015. Driven to Discover: Investigator's Field Journal – Monarchs. St. Paul. MN: University of Minnesota Extension.
- Strauss A.L., T. Homayoun, R. Meyer, P.L. Nippolt, K. Oberhauser, C. Petersen, A. Rager, E. Young Isebrand. 2015. Driven to Discover: Facilitator's Guide to Citizen Science –Monarchs. St. Paul. MN: University of Minnesota Extension.
- Oberhauser, K.S. 2013. Has the monarch lost its realm? American Butterflies 21(3/4):56-63.
- Caldwell*, W., K.S. Oberhauser. 2013. The monarch butterfly: traveling through Louisiana on an epic journey. Louisiana Wildlife Insider Summer 2013:2-4.
- Meyer, N., R. Blair, K. Oberhauser, A. Rager, A.L. Strauss, D. Flinn. 2010. North Woods, Great Lakes Linnaeus List: Characteristic plants, animals, and geologic features of Minnesota's coniferous forests. University of Minnesota Extension Service: St. Paul.
- Rager A., R. Blair, N. Meyer, K. Oberhauser, A.L. Strauss. 2009. Prairies & Potholes Linnaeus List: Characteristic plants, animals and geologic features of western Minnesota's prairie grasslands. University of Minnesota Extension Service: St. Paul.

- Ekstrum, J., K. Oberhauser. 2009. Reaching Across Borders to Conserve the Monarch Butterfly. USFS Global Leaflet. No. 8. Migration: 4-7.
- Oberhauser, K.S. 2007. Monarchs and More: An insect and inquiry based curriculum for Middle School. (254 pp.). Monarchs in the Classroom, University of Minnesota.
- Oberhauser, K.S. 2007. Monarchs and More: An insect and inquiry based curriculum for Grades 3-6. (314 pp.). Monarchs in the Classroom, University of Minnesota.
- Oberhauser, K.S. 2007. Monarchs and More: An insect and inquiry based curriculum for Grades K-2. (215 pp.). Monarchs in the Classroom, University of Minnesota.
- Oberhauser, K.S., M. Prysby, M. Solensky, J. Lushine, C. Petersen. 2003. How you can help scientists learn more about monarchs. *American Butterflies* 11:14-23.
- Rea, B., K. Oberhauser, M. Quinn. 2002. A field guide to invertebrates on milkweed. (96 pp.) Bas Relief Publishing Group, Pennsylvania.
- Oberhauser, K.S. 2000. Meet the Monarch! *Green Teacher* 60: 12-13.
- Oberhauser, K.S. 1996, 2nd edition 1997, 3rd edition 1999. Monarchs in the classroom: an inquiry-based curriculum for Middle School. (216 pp.). Monarchs in the Classroom, University of Minnesota.
- Oberhauser, K.S. 1996, 2nd edition 1997, 3rd edition 1999. Monarchs in the classroom: an inquiry-based curriculum for grades 3-6. (206 pp.). Monarchs in the Classroom, University of Minnesota.
- Oberhauser, K.S. 1996, 2nd edition 1997, 3rd edition 1999. Monarchs in the classroom: an inquiry-based curriculum for grades K-2. (151 pp.). Monarchs in the Classroom, University of Minnesota.

Proceedings of Conferences

- Prysby, M.D., K.S. Oberhauser, C. Petersen. 2008. Citizen science: Active, inquiry and service learning for environmental educators. Proceedings: NAAEE 2007 Conference. www.naaee.org (refereed)
- Oberhauser, K., C. Petersen. 2007. The Monarch Larva Monitoring Project: Authentic Environmental Research for Teachers, Students and Nature Centers. Proceedings: NAAEE 2006 Conference. www.naaee.org (refereed)
- Oberhauser, K., G. Childs, T. Gamble, D. Kountoupes, O. Ledee, C. McLinn, A. Mosser, D. Pennington, K. Weidenbach, K. Williams. 2007. Environmental Scientists and Elementary Students Joining Forces to Address Environmental Justice Issues. Proceedings: NAAEE 2006 Conference. www.naaee.org (refereed)
- Young-Isebrand, L., K. Oberhauser, R. Blair, S. Barrott. 2007. Schoolyards, Science and Sustainability: Curriculum, Garden Grants and Summer Workshops. Proceedings: NAAEE 2006 Conference. www.naaee.org (refereed)
- Guiney, M.S., R.B. Blair, D. Flinn, M.M. Haggerty, M.B. Main, K.S. Oberhauser, A. Rager, G. Wallace. 2007. Master Naturalist: A Multiple State Natural History Education and Community Service Program. Proceedings: NAAEE 2006 Conference. www.naaee.org (refereed)

PRESENTATIONS

Invited Research and Conservation Presentations

- Purdue University Entomology Department. Science-based Conservation for Monarchs. Lafayette Indiana. November 2016
- Madison Audubon Society. Monarch Conservation. Madison Wisconsin. October 2016.

Commission on Environmental Conservation. Overview of the Monarch Monitoring Efforts. Webinar Presentation for meeting in Washington DC. October 2016.

National Parks Association. The Monarch Joint Venture. St. Louis Missouri. October 2016

International Congress of Entomology. Invited speaker in symposium on using technology to study insects. Citizen Science and Technology. Orlando Florida. September 2016.

Michigan Monarch Summit. Cooperating for Monarch Conservation. Lansing Michigan. September 2016.

Commission on Environmental Conservation. Overview of the Monarch Joint Venture. Ottawa Ontario. September 2016.

McHenry County Conservation District. Invited speaker. McHenry County Illinois. August 2016.

Prairie Restorations Inc. Field Day. Invited speaker for public open house. Princeton MN. August 2016.

Terrestrial invertebrate Taxon Advisory Group. Keynote Speaker. Tucson AZ. July 2016.

North American Conservation Biology meeting (2 presentations). Symposium speaker (and organizer): Monarchs and Agriculture. Karen Oberhauser (presenter) and Wendy Caldwell. Setting the stage. Eva Lewandowski (presenter) and Karen Oberhauser. Public perceptions of citizen science. Madison WI. July 2016.

Quad Cities Pollinator Conference. Keynote Speaker. Davenport IA. June 2016.

Minnesota Master Naturalist Annual Meeting. Keynote presentation. Winona MN. May 2016.

Monarch Mania: Duluth Monarch Buddies. Keynote presentation. Duluth MN. May 2016.

Garden Club of America Annual Meeting. Keynote presentation. Minnesota Landscape Arboretum. May 2016.

Cerro Gordo County Conservation Board Annual Meeting. Keynote presentation. Mason City IA. April 2016.

Wood Lake Nature Center Annual Meeting. Keynote presentation. Galena IL. March 2016.

Jo Davies Conservation Foundation Annual Meeting. Bloomington MN. Keynote presentation. March 2016.

Master Gardener Keynote Presentation: Gardening for Butterflies and Monarch Conservation. Wausau WI. February 2016.

Tercer Simposio Internacional de investigacion y conservacion del mariposa monarca. Morelia, Michoacan (Mexico). Conservation goals in the US: Research and Action for monarch butterflies. Invited by the Governor of Michoacan. December 2015.

Entomological Society of America Meeting. Minneapolis MN. Four invited presentations in workshops and Symposia. Citizen Science Symposium: Monarch Larva Monitoring Project (D Elmquist and KS Oberhauser). Monarch Conservation Symposium: Monarch Citizen Science and the Monarch Joint Venture (K Oberhauser). Insects and Education Symposium (C Stenoien and K Oberhauser). Butterfly Conservation: Can a common species be threatened? (K Oberhauser, symposium organizer with N Haddad and S Black). November 2015

Hamline University Biology Department Seminar. Monarchs, Citizen Scientists, and Conservation Policy. October 2015.

International Congress on Conservation Biology. Herbicide tolerant crops implicated in declining monarch butterfly population. Karen Oberhauser, John Pleasants, Carl Stenoien (presenter), Kelly

Nail, Myron Zalucki. Invited participant in symposium (Genetically modified crops and conservation). Organizer: Gabor Lovei. August 2015. Montpellier, France.

Wisconsin State Master Gardeners Annual Meeting. Keynote Address. August 2015. LaCrosse WI.

St. Croix River Association (National Park Service Speaker Series). Monarch Biology and Conservation: moving beyond the documentation of declines. April 2015. St. Croix Falls WI.

Blank Park Zoo. On the Front Line Speaker Series. Monarch Biology and Conservation: moving beyond the documentation of declines. April 2015. Des Moines IA.

Pine County Horticultural Day. Keynote Address. March 2015. Pine City MN.

Chisago County Master Gardeners Annual Meeting. Keynote Address. March 2015. Albertville MN.

Wright County Master Gardeners Annual Meeting. Keynote Address. March 2015. North Branch MN.

Springbrook Nature Center Discover Dinner. Monarch Biology and Conservation: moving beyond the documentation of declines. February 2015. Fridley MN.

Citizen Science Association. Minnesota Master Naturalists and citizen science. Invited participant in panel (Citizen science and Master Naturalist Programs). Organizers: Michelle Prysby and Alycia Crall. February 2015.

Entomological Society of America. A citizen-army for science: Quantifying the contributions of citizen scientists to our understanding of monarch biology. L Ries (presenter) and K. Oberhauser. invited participant in Symposium (Ecoinformatics (Big Data) For Entomology: Pitfalls, Progress, And Promise). Organizers: Jay Rosenheim, and Claudio Gratton. November 2014

Entomological Society of America. Collaboration and conservation: Monarch citizen science and the Monarch Joint Venture. K. Oberhauser, L Ries (presenter) and W. Caldwell. Invited participant in Section Symposium (Recovering Monarch Butterfly Populations in North America: A Looming Challenge for Science, the Public, Industry and Legislators). Organizer: Myron Zalucki. November 2014

NCTC Conservation Webinar. Monarch biology and conservation (for FWS and other federal agency staff). November 2014.

Future First Women's Congress. Monarch biology and conservation (part of panel on Birds, Bees, Butterflies, and Food). November 2014. Brooklyn Center MN.

Taxonomic Databases Working Group Annual Conference. Butterfly monitoring in North America: impacts on science and opportunities for the future. October 2014. Jönköping, Sweden. with L. Ries (presenter)

Oklahoma State University: The Margaret S. Ewing Distinguished Lecture: Bridges Between Biology and the Arts and Humanities. September 2014.

Door County Climate Change Working Group. Monarchs and climate change. September 2014. Bailey's Harbor, WI.

Graduate Women in Science. Keynote Address: Monarch Biology and Conservation: moving beyond the documentation of declines. June 2014. Minneapolis MN.

Trilateral Meeting for Ecosystem and Wildlife Conservation. May 2014. Plenary presentation: Monarch Status in the US and Canada. Ecosystem Table Working Group Presentation: The Monarch Joint Venture and Monarch Monitoring, Models for Conservation.

Minnesota Phenology Meeting. May 2014. Monarch butterfly phenology, citizen science, and conservation. Keynote address. Sandstone MN.

Minnesota Landscape Arboretum Pollinator Conference. April 2014. Monarch butterfly biology and conservation. Chanhassen MN.

American Association of University Women, St. Paul Chapter. January 2014. Dwindling Numbers for an Iconic Insect: A Conservation Biologist Ponders Moving Beyond the Documentation of Declines. St. Paul Minnesota.

Conversations of the Valley. November 2013. Dwindling Numbers for an Iconic Insect: A Conservation Biologist Ponders Moving Beyond the Documentation of Declines. Stillwater Minnesota.

Isaac Walton League. November 2013. Dwindling Numbers for an Iconic Insect: A Conservation Biologist Ponders Moving Beyond the Documentation of Declines. Bloomington Minnesota.

Simposio Internacional de Investigación y Conservación de la Mariposa Monarca. October 2013. A Shrinking Monarch Population: How should we respond? Invited Keynote address.

Minnesota Land Trust Minnesota Made Program. May 2012. The importance of land preservation. Keynote speaker. Minneapolis MN.

Entomological Society of American Annual Meeting. November 2011. Monarchs and tachnid flies. Symposium on Citizen Scientists in Entomology Research. Reno NV.

Carleton College. September 2011. Insects in the Prairie. Presentation and nature walk with Carleton students. Northfield MN.

Citizen Science Design Workshop. May 2011. Monarch Larva Monitoring Project: Data structure and management. Syracuse NY

Public Participation in Science Research and Conservation. April 2011. Monarch Larva Monitoring Project: A Research Army for Conservation. American Museum of Natural History, New York NY

Department of Wildlife and Forestry Seminar. March 2011. Potential impacts of global climate change on monarch butterflies. University of Wisconsin-Madison.

Entomology Department Seminar. February 2011. Potential impacts of global climate change on monarch butterflies. University of Minnesota

NCEAS. October 2010. Using Citizen Science Data to Understand Monarch Migration and Population Dynamics. Santa Barbara, CA.

International Conference on the Biology of Butterflies. July 2010. The story of 100 volunteers, 6515 monarch caterpillars and over 1000 tachnid flies (K Oberhauser), and Monarch migration, seasonal habitat use and parasite transmission in eastern North America (S Altizer, K Oberhauser). (Two presentations). Symposium speaker. Edmonton Alberta.

Geography Department Seminar. January 2010. Potential impacts of global climate change on monarch butterflies. University of Minnesota.

University of Kansas C-Change Colloquium series (UK IGERT Program). Lawrence KS. November 2009. Potential impacts of global climate change on monarch migration.

North Central Mosquito Control Association Annual Meeting. April 2009. Toxicity of Permethrin and Resmethrin to Monarch Butterflies. Andover MN.

Biology Department Seminar. April 2009. Potential impacts of global climate change on monarch butterflies. Carleton College, Northfield MN.

Monarch Monitoring Workshop. April 2009. The North American Monarch Conservation Plan, Monitoring Monarchs, Trilateral Conservation Activities (3 presentations). Austin TX.

Applied Economics Department Seminar. February 2009. Potential impacts of global climate change on

monarch butterflies. University of Minnesota.

Biology Department and Public Seminar. November 2008. Monarch butterfly evolution and The Monarch Larva Monitoring Project: A research army for conservation (2 presentations). Gustavus Adolphus College, St. Peter MN.

Monarch Monitoring Workshop. October 2008. The North American Monarch Conservation Plan, Monitoring Monarchs, Trilateral Conservation Activities (3 presentations). Saltillo Mexico.

North American Pollinator Protection Campaign Annual meeting. October 2008. The North American Monarch Conservation Plan. Washington DC.

Trilateral Meeting of Wildlife Agencies (US, Mexico, Canada). May 2008. The North American Monarch Conservation Plan. (M Higgins (presenter) and K Oberhauser). Vera Cruz Mexico.

Entomological Society of America. December 2007. Insect conservation: Creating a research army for conservation. San Diego CA.

North American Pollinator Protection Campaign Annual Meeting. October 2007. Updates on North American Monarch Conservation Plan. Washington DC.

Biofuel Production and Wildlife Protection. July 2007. Potential impacts of biofuel production on insects. Symposium speaker. St. Paul MN.

Biology of Butterflies Conference. July 2007. North American monarch butterfly monitoring programs: What do they tell us? Symposium speaker. Rome Italy.

Commission for Environmental Cooperation (CEC) 14th Regular Session of the CEC Council on "Environmental Facts, Trends and Scenarios in North America." June 2007. Monarch butterfly biology and conservation. Guadalajara Mexico.

XII Annual Meeting of the Trilateral Committee for Wildlife and Ecosystem Conservation and Management. May 2007. North American Monarch Conservation Plan. Quebec City, Quebec.

Monarch Flyway Conservation Workshop, sponsored by USFS. . December 2006. Two presentations: Outcomes of past monarch conservation meetings, and promoting a strategy for integrated monarch monitoring programs. Mission TX

Minnesota Interprofessional Club. November 2006. Monarch migration. St. Paul MN.

Southeastern North American Butterfly Association Chapter Keynote Presentation. August 2006. The Monarch Larva Monitoring Project. Raleigh NC.

North American Butterfly Association. The Monarch Larva Monitoring Project. Duluth MN. May 2006.

Department of Biology seminar. March 2006. Impacts of global climate change on monarch butterflies. Wisconsin Lutheran College, Milwaukee WI.

Urban Ecology Center. Talk to donors and members. March 2006. Impacts of global climate change on monarch butterflies. Milwaukee WI.

Monarch Biology and Conservation Meeting. December 2005. Invited presenter, keynote speaker. Potential impacts of pest control programs on monarch butterflies. Cal Poly University, San Luis Obispo CA.

Ecological Society of America Annual Meeting, Invited participant in symposium on the role of professional ecologists and educators in citizen science. August 2005. The Monarch Larva Monitoring Project: Ensuring quality data collection that meets scientific muster. Montreal Canada.

First North American Capacity Building Workshop for Biodiversity Conservation: Monitoring of Species, Spaces and Threats of Common concern. April 2005. Invited presentation and advisory capacity on monitoring insects. Jalisco Mexico.

Pacific Chapter of Entomology Society Annual Meeting. March 2005. Invited participant in Monarch Butterfly Biology and Conservation Symposium. Monterey CA.

Citizen Science Conference organized by WI DNR. August 2004. The Monarch Larva Monitoring Project. Madison WI.

Society for Conservation Biology Annual Meeting. July 2004. Invited participant in Biotechnology and Biodiversity Symposium. Monarch butterfly (*Danaus Plexippus*) larvae & Bt corn pollen: A review of ecological risk assessment for a non-target species. New York NY.

Madeline Island Trust. May 2004. Keynote speaker at annual meeting for donors. The Monarch Larva Monitoring Project. Madeline Island, WI.

University of Kentucky. May 2004. Keynote speaker at Spring Symposium in Ecology, Evolution and Behavior. Lexington KY.

Biology Departmental Seminar. April 2004. Impacts of Bt corn on monarch butterflies. St. Thomas University, St. Paul MN.

Isaac Walton League. April 2004. Impacts of exposure to pyrethroid pesticides on growth and survival of monarch butterfly larvae. Minneapolis MN.

Keynote speaker at the annual Department of Environmental and Atmospheric Sciences Senior Banquet. April 2004. Global climate change and monarch butterflies. Creighton University. Omaha NE.

Three Rivers Park. April 2004. Monarch butterfly conservation. Brooklyn Park MN.

Biology Department Seminar Speaker. April 2004. Global climate change and monarch butterflies. Gustavus Adolphus College, St. Peter MN.

Friends of St. Croix Research Station. December 2003. Monarch butterfly conservation. Marine on St. Croix MN.

Texas Master Naturalists' Meeting. October 2003. The Monarch Larva Monitoring Project. Houston TX.

St. Paul Audubon Society. September 2003. Monarch conservation. St. Paul MN.

Symposium: Monitoring the Effects of Climate Change in Minnesota. May 2003. Round Table Participant: Species Biodiversity and Phenology. Minneapolis MN.

Biology Department Seminar Speaker. April 2003. The effects of Bt corn on monarch butterflies. Macalester College, St. Paul MN.

Biology Department Seminar Speaker. April 2002. Citizen science, monarch butterflies, and corn fields. Pennsylvania State University, State College PA.

Entomology Department Seminar Speaker. March 2002. The importance of agricultural habitats to monarch butterflies. Michigan State University. Lansing, MI.

Biology Department Seminar Speaker. February 2002. The importance of agricultural habitats to monarch butterflies. Emory University. Atlanta GA.

Biology-Life Science Teacher Conference. December 2001. Ecological risks of Bt plant pesticides. St. Paul MN.

Safety First Workshop: Management of Genetic Engineering Processes and Products for Safety. 2001. Ecological risks of Bt plant pesticides. Minneapolis MN.

Entomology and Zoology Departments (jointly sponsored) Seminar Speaker. October 2001. The importance of agricultural habitats to monarch butterflies. Iowa State University, Ames IA.

Department of Ecology, Evolution and Behavior Seminar Speaker. Bt corn, monarchs and citizen science: involving volunteers in research and public policy. October 2001. Mary Lynn Cohen Memorial Lecture. University of Minnesota, St. Paul MN.

Cedar Creek Noon Seminar. June 2001. Monarch biology and research. East Bethel, MN.

Department of Environmental and Occupational Health Seminar Speaker. April 2001. Environmental effects of Bt plant pesticides. University of Minnesota, Minneapolis, MN.

Entomology Department Seminar Speaker. February 2001. Monarchs in cornfields. University of Minnesota, St. Paul MN.

Biology Department Seminar Speaker. December 2000. Ecological effects of Bt plant pesticides. St. Catherine's University, St. Paul MN.

USDA Workshop on the Effects of Genetically-modified Corn on Monarch Populations. February 2000. Sub-lethal Effects of Bt Toxin on Monarchs. Kansas City MO.

Invited Education and Outreach Presentations

North American Forestry Commission Annual Meeting. Outreach with monarch butterflies. Chicago IL. June 2016.

Blair R., K. Oberhauser, A. L. Strauss, N. Meyer. Driven to Discover: A Model for Using Citizen Science in the Classroom. European Citizen Science Association. Berlin, Germany. May 2016.

Blair R., K. Oberhauser, A. L. Strauss, N. Meyer. Driven to Discover with Citizen Science. National Association of Biology Teachers' Global Perspectives Committee's 3rd Annual 2015 Poster Session and Workshop: Citizen Science – Teaching Conservation. Providence RI. November 2015.

Next Generation STEM Learning and Education Forum. Special NSF-sponsored forum for leaders in Science Education. Driven to Discover: Citizen science as a springboard into science investigations. November 2015.

Presentation to MN Legislators in program on pollinator conservation. Maplewood Community Center. October 2015.

Wild Ones Richfield Chapter. Monarchs, citizens, and flagship species. Woodlake Nature Center. October 2015.

National Association of State Park Directors. Webinar keynote speaker on promoting monarch conservation in state parks. October 2015.

Monarch Habitat on Farms. 6 workshops in Iowa, Wisconsin and Minnesota. September and October, 2015.

Wild Ones National Membership Meeting. Monarch Citizen Science and Monarch Larva Monitoring Project. August 2015. Appleton WI.

Science Museum of Minnesota Donors Breakfast. Monarch Biology and Conservation. November 2014.

Phoenix Arizona Audubon Society. Monarch Biology and Conservation. October 2014.

Minneapolis AAUW. Monarch Biology and Conservation. October 2014.

Minnesota Zoo Evening Speaker Series. Monarch Biology and Conservation: moving beyond the documentation of declines. September 2014. Apple Valley MN.

Minnesota Association of Environmental Education. Keynote Speaker. Monarch Biology and

Conservation. June 2014. Sandstone MN

Symposium Speaker: Make Way for Monarchs. Models for Collaboration and Cooperation: the Monarch Joint Venture and Monarch Citizen Science. June 2014. Chicago IL.

Master Gardener Regional Meeting (Upper Midwestern US). July 2012. Monarch mission: Midwest to Mexico. Keynote presentation. Univ of MN Landscape Arboretum. Chanhassen MN.

Association of Minnesota Counties' (AMC) Annual Conference . December 2011. Minnesota Master Naturalist Program. Minneapolis MN.

Entomological Society of American Annual Meeting. November 2011. Middle School Students aren't as Scary as You Remember: Students Engaging Students at the U of M Insect Fair. Symposium on Extracurricular Engagements Enrich Entomology Education. Reno NV.

Park Board Monarch Festival. September 2011. Monarchs from Minnesota to Mexico. Minneapolis MN.

Master Gardener meeting. May 2011. Monarchs from Minnesota to Mexico: How you can support monarchs and other insects in your gardens. Farmington MN.

Cibolo Nature Center. April 2011. Monitoring monarchs (skype presentation to monarch monitoring workshop). Boerne TX.

Park Volunteers Meeting. January 2011. Monarch butterfly biology and conservation. St. Paul MN.

American Association of University Women, Minneapolis Chapter. January 2010. Monarch Conservation. Minneapolis MN.

Monarch Live webcast, feature presenter. October 2008. Woodbridge VA.
http://monarch.pwnet.org/mom/ko_webcast.php

Presentation to High School Biology Class. Monarch butterfly research. September 2008. Roseville HS, Roseville MN.

Monarch Festival Presentations. September 2008. Milkweed, Monarchs and More; Potential Impacts of Climate Change on Monarch Butterflies; and The Monarch Larva Monitoring Project (3 presentations). North Chagrin Nature Center, Cleveland OH.

Society for the Study of Evolution Annual Meeting. Symposium for K-12 teachers and Scientists. June 2008. Using Insects to Teach about Evolution. Minneapolis MN.

American Association for the Advancement of Science Annual Meeting. February 2008. Invited participant in Career Enhancement Symposium: Scientists partnering with Educators: why and how? Organized by Katherine Nielsen and Patricia Caldera. Boston MA.

American Association for the Advancement of Science Annual Meeting. February 2008. Invited participant in 2008 Forum for School Science: Programs that create a new science professional: the PhD as public educator. Boston MA.

Cornell Lab of Ornithology Citizen Science Conference. June 2007. The Monarch Larval Monitoring Project: Educational goals and outcomes. Ithaca NY.

Minnesota Science Teachers Association. April 2007. Keynote Speaker. Science in the elementary classroom. Brainerd MN.

Westwood Nature Center. October 2006. Talk to Nature Center Volunteers about Monarch Larva Monitoring Project and Monarch Biology. St. Louis Park, MN.

Springbrook Nature Center Master Naturalist Class. May 2006. Panel member for presentation on volunteer opportunities. Fridley, MN.

Master Gardeners' West Central Minnesota presentation. April 2006. Working with schools to attract butterflies and teach ecology. Morris MN.

Conference on Teacher Research Experiences. April 2005. Poster on involving K-12 teachers in university research. Providence RI.

Informal Science Education Meeting. October 2004. Poster on the Monarch Larva Monitoring Project, sponsored by National Science Foundation and Hosted by American Association for the Advancement of Science. Washington DC.

Upward Bound Summer Class (for disadvantaged HS students). July 2004. Two talks on monarch butterfly biology. St. Paul MN.

Partners for Success. November 2003. Two presentations in symposium sponsored by MN Department of Education on school/industry/university partnerships. Minneapolis MN.

Tennessee State University. Three day workshop on Monarchs in the Classroom. Nashville TN. June 2003.

Office of Environmental Assistance. Citizen Monitoring Programs. March and May 2003 (2 presentations). Presentation for environmental education professionals. St. Paul MN.

Entomological Society of America. Turning citizens into entomological detectives: the Monarch Larva Monitoring Project. Invited participant in formal conference Integrating Insects into Classroom Education and Beyond. Fort Lauderdale FL. November 2002.

Biology Department Seminar Speaker. February 2002. Monarchs and Science Education: Involving Students, Teachers and the Public in Research. Western Michigan University, Kalamazoo MI.

North Central Branch of the Entomologists' Society. March 2000. Symposium presentation: Monarchs in the Classroom: Conservation, science and research for teachers, students and scientists. Minneapolis MN.

Friends of Belwin Spring Evening. May 1998. Monarch butterfly biology and conservation. Afton MN.

Mahtomedi Club. May 1998. Monarch butterfly biology and conservation. Mahtomedi MN.

Eau Claire Sierra Club. January 1998. The Monarch Larva Monitoring Project. Eau Claire WI.

The Monarch Project Western Monarch Conference (Keynote Speaker). December 1997. Monarchs in the Classroom: Using monarchs to promote science and conservation education. San Diego, CA.

School Nature Area Preserve Workshop. November 1997. Monarchs in the Classroom. Northfield, MN.

Contributed Research Papers and Posters

November 2015 Entomology Meeting. Nail KR and Oberhauser KS. Modeling impacts of Climate Change on Monarch Butterflies.

Citizen Science Association. February 2015. Driven to Discover: Using Citizen Science as a Springboard into Science Investigations. A Lorek Strauss and K Bunney (presenters), K Oberhauser, R Blair, N Meyer, P Larson Nippolt. Citizen science volunteers show increased involvement in conservation. E Lewandowski and K Oberhauser. San Jose CA (two presentations).

North American Association for Environmental Education. 2013. Citizen Science Research for Teachers, and Driven to Discover: Citizen Science as a springboard for independent research (2 presentations). K Oberhauser, R Blair, K Bunney, A Lorek Strauss, S Weaver. Baltimore MD.

Society for Conservation Biology. July 2013. A citizen army for conservation: quantifying participatory research on monarch butterflies and its impacts on science, conservation, and behavior. Poster presentation. L Ries and K Oberhauser. Baltimore MD.

Ecological Society of America. July 2013. A mechanistic species distribution model for the monarch butterfly: clues to long distance migration and a platform for understanding large-scale insect distributions. L Ries and K Oberhauser. Minneapolis MN.

Monarch Biology and Conservation Meeting. July 2012. (Five presentations) Citizen scientists and conservation (K Oberhauser); Potential changes to the fall and winter breeding behavior of monarch butterflies (R Batalden (presenter), K Oberhauser); Citizen science sparks independent scientific investigations (poster: G Bowers, R Blair, K Kies, A Lorek Strauss, N Meyer, R Meyer, K Nail, S Nichols, P Nippolt, K Oberhauser, A Rager, S Scott, A Stevenson, E Young-Isebrand); The Monarch Larva Monitoring Project (poster: W Macziewski, K Oberhauser); Monarchs in the Classroom summer teacher courses (poster: K Oberhauser, R Blair, L Young-Isebrand, M Koomen); Loss of milkweeds in agricultural fields: Effect on the monarch population (J Pleasants (presenter), K Oberhauser)

Monarch Monitoring Network. L Ries (presenter), D Taron, A Caldas, J Daniels, K Oberhauser, N Brockman, K Wilson, P Allen, G Breed, B Fagan, J Glassberg, M Howie, J JaJa, K Lotts, S McGaffin, S Moore, L Morgan, T Naberhaus, C Parr, G Pe'er, R Ruggles, J Sauer, M Scott, L Scott, J Scott, M Smorul, J Springer, R Stevenson, S Stichter, D Waetjen, J Wiedmann. (Six poster presentations): June 2012: Monarch Conservation Conference, Minneapolis, MN; June 2012, Data Integration in the Life Sciences, University of MD, College Park; July 2012, Lepidopterists' Society meeting, Denver, CO (Astrid Caldas presenter); August 2012, Public Participation in Scientific Research, Portland, OR; August 2012, Ecological Society of America, Portland, OR; November 2012, Entomological Society of America meeting, Knoxville, TN

Ecological Society of America. Continental patterns in North American monarch populations. L Ries (presenter), K Oberhauser, D Taron. August 2010.

Biodiversity Informatics Conference. London England. May 2009. Butterfly informatics: The use of North American monitoring databases for answering large-scale ecological and evolutionary questions in butterfly ecology. L Ries (presenter), K Oberhauser, D Taron, J Glassberg, J Wiedmann. Poster Presentation. May 2009.

Society for the Study of Evolution Annual Meeting. June 2008. Ecological niches in sequential generations of monarch butterflies: Ecology of migration and likely climate change implications. R Batalden, (presenter), K Oberhauser, AT Peterson. Poster presentation.

American Mosquito Control Association National Meeting. April 2006. Nontarget effects of permethrin and resmethrin on Monarch butterflies: toxicity and exposure studies. N Read (presenter), K Oberhauser, S Manweiler. Kansas City MO.

Monarch Butterfly Population Dynamics Meeting. May 2001. The importance of agricultural habitats to Eastern North American monarchs. Lawrence KS.

Contributed Extension Papers and Posters

National Association of Interpreters. Science and Conservation Messages from Monarchs. November 2011. Joint with D Marcinski. St. Paul MN.

Alliance of Natural Resource Outreach and Service Programs. October 2011. Driven to Discover: Engaging youth in inquiry via citizen science. Joint with A Lorek Strauss. Park City UT.

University of Minnesota Extension Program Summit. October 2010. Poster: From concept to delivery: a scholarly approach to developing an Extension publication. AL Strauss, A Rager, R Blair, M Guiney, J Loegering, N Meyer, K Oberhauser. St. Paul MN.

Alliance of Natural Resource, Outreach and Service Professionals. September 2010. Caring for Nature: Motivations for and outcomes of conservation volunteer work. M Guiney, K Oberhauser, R Blair, A Rager. Moline IL.

Minnesota Extension Program Summit. October 2009. Poster: Conservation Volunteers' Connection to Nature. M Guiney, R Blair, N Meyer, K Oberhauser, AL Strauss, A Rager. St. Paul, MN

National Association of Environmental Education Annual Meeting. November 2006. Citizen science: Engaging the public in data collection for conservation (joint with M Prysby, C Petersen). Virginia Beach VA.

National Association of Environmental Education Annual Meeting. October 2006. Four presentations: Schoolyards, Science and Sustainability (with L Young-Isebrand); Environmental scientists and elementary students address environmental justice issues (with G Childs, T Gamble, D Kountopes, O Ledee, A Mosser, D Pennington, K Weidenbach); Master Naturalist: A Multiple State Natural History Education and Community Service Program (with M Guiney, R Blair, D Flinn, MM Haggerty, MB Main, A Rager, G Wallace); The Monarch Larva Monitoring Project (with C Petersen). St. Paul MN.

Long Term Ecological Research Meeting. September 2006. Poster presentation for Schoolyards LTER: Schoolyards, Science and Sustainability. Contributions to working group on sLTER activities. (Joint with E Young-Isebrand). Estes Park CO.

Minnesota Science Teachers Association. October 2005. Using insects and schoolyards to promote learning in diverse classrooms (joint with D Cansler and M Koomen). St. Paul MN.

Education Minnesota Professional Conference. October 2005. Using monarchs in diverse classrooms (joint with D Cansler and E Young-Isebrand). Minneapolis MN.

Minnesota Science Teachers Association. April 2004. Monarchs and More: Insect Ecology for Teachers and Monarch Larva Monitoring Project (2 presentations, joint with L Molenaar). Mankato MN.

National Science Teachers Association. November 2003. The Monarch Larva Monitoring Project. Joint with C Petersen and D Cansler. Minneapolis MN.

Minnesota Association of Alternative Programs: 20th Annual Conference. February 2003. Monarchs in the Classroom. Rochester MN.

National Science Teachers Association. November 2002. The Monarch Larva Monitoring Project. Joint with C Petersen. Louisville KY.

Minnesota Science Teachers Association. April 2002. Monarchs and More: Insect Ecology for Teachers. Willmar MN.

WEBSITES

Monarch Larva Monitoring Project: Oversee development, data management. <http://www.mlmp.org/>

Monarch Lab: Oversee development and content. <http://www.monarchlab.org/Default.aspx>

Monarch Joint Venture: Advise coordinator on development and content. <http://www.monarchjointventure.org/>

Monarch Butterfly Fund: Contributor to development and management. <http://www.monarchbutterflyfund.org/>

INVITED PARTICIPATION IN WORKING GROUPS

Monarch Science Conservation Partnership. Various locations, co-leader of national partnership of agency, NGO and university personnel. 2015-2016.

Association of Fish and Wildlife Agencies. Promoting Monarch Conservation at the State Level. Three day meeting in Des Moines Iowa, October 2015.

White House meeting on Open Science and Innovation. Invited participant in national meeting, member of pollinator working group. October 2015.

High Level Monarch Conservation Working Group. Advisor to group that includes leaders of federal agencies. 2015-present

Keystone Monarch Conservation Collaborative. Various locations. 2015-2016.

Organizer and Participant in Powell Center Working Group, Fort Collins CO. Fall 2014-Spring 2015.

Monarch Butterfly Recovery. Organizer and Participant in Powell Center Working Group, Fort Collins CO. Fall 2014-Spring 2015.

Insect Monitoring Data Analysis and Management. SESYNC Working Group. Spring 2014-Fall 2015.

Animal Migration and Spatial Subsidies: Establishing a framework for conservation markets. Invited Participant in Powell Center Working Group, Fort Collins CO. Fall 2011-Spring 2013.

Models for Insect Citizen Science Data. Invited participant in SESYNC Working group. Annapolis MN. Spring 2014-Fall 2015.

TEACHING AND CURRICULUM DEVELOPMENT

University of Minnesota (I developed all courses listed except those with CBIO designators)

Spring 2016. ESPM 3000. How do we know what we know? 1 credit.

Spring 2007, 2009-2016. FWCB 4102. Principles of Conservation Biology. 3 credits.

Summers 2010, 2012-2016. ESPM 5480-001. Citizen Science Research for Teachers. 3 credits (co-taught with R Blair).

Spring 2012. DSSC 8310. Energy Production and Impacts on Biodiversity. 1 credit.

Fall and Spring 2009-2014. CBIO 8001. Conservation Biology Seminar. 1 credit.

Fall 2011. ESPM 1901. Freshman Seminar: Minnesota Master Naturalist. 3 credits (co-taught with S Carlson).

Summer 2004-2009, 2011. ESPM 5480-001. Monarchs and More: Insect Field Ecology for Teachers. 3 credits.

Spring 2010. CBIO 8004. Conservation Biology Core Course. 3 credits (co-taught with S Polasky).

Fall 2009. DSSC 8310-001: Monarch Butterfly Conservation: Uniting a Continent. 1 credit.

Fall 2008. ESPM 1901. Freshman Seminar: The Omnivore's Dilemma. 3 credits (co-taught with E Hoover).

Fall 2007. ESPM 3000. Colloquium: Biotechnology and the Natural Environment. 1 credit.

Summers 2005-2006. ESPM 5480-002. Graduate Students and K-12 Teachers. 3 credits.

Summer 2006. ESPM 5480-002. Schoolyards, Science and Sustainability for Teachers. 3 credits (co-taught with R Blair).

Falls 2004-2005. FW 1901-002. Freshman Seminar: Monarch Butterfly Conservation. 3 credits.

Spring 2005. ENR 3000/5000. Colloquium: Biotechnology and the Natural Environment. 1 credit.

Summers 2004-2005. ESPM 5480. Insect Ecology for Elementary Teachers. 3 credits.

Summers 2002-2003. Biology Special Topics. Insect Field Ecology for Teachers. 3 credits.
Summers 2002-2003. Biology Special Topics. Insect Ecology for Elementary Teachers. 3 credits.
Summers 1997-2001. Biology Special Topics. Monarchs in the Classroom. 3 credits.
Falls 1991, 1992, 1996 and Summer 1992. EEB 3001. Ecology. 3 credits.
Spring 1991. EEB 3111. Animal Behavior. 3 credits.

ADVISING AND MENTORING

Undergraduates, High School Students, and K-12 Teachers

Undergraduate research projects

Sarah Stai. Summer Undergraduate Research Program. 1993.
Christine Jessup. Summer Undergraduate Research Program. 1994.
Kari Guerts. Undergraduate Research Opportunities Program. 1997 and 1998.
Sally Beach. Undergraduate Research Opportunities Program. 1998.
Jolene Lushine. Undergraduate Research Opportunities Program. 2001.
Jennifer Guequierre. Undergraduate Directed Research. 2001.
Radames Gonzales-Ramos. Life Sciences Undergraduate Research Program. 2002.
Sonja Lin. Undergraduate Research Opportunities Program. 2002 and 2004.
Lynnette Barr. Life Sciences Undergraduate Research Program. 2003.
Jenny Gundale. Directed Research. 2003.
Erik Lam. Research Assistant. 2002-2003.
Alma Deanda. Life Sciences Undergraduate Research Program. 2004.
Erin Clark. Directed Research. 2004.
Ben Bloemke. Research Assistant. 2004.
Lynn Knutson. Undergraduate Research Opportunities Program. 2005.
Grant Bowers. Research Assistant & Undergraduate Research Opportunities Prog. 2005-2007.
Matt Kaiser. Research Assistant and Undergraduate Honors Research. 2006-2007.
Kate Plowman. Research Assistant. 2006-2007.
Alexandra Wilson. Research Assistant. 2006-2007.
Scott Babcock. Directed Research. 2006.
Wendy Macziewski. Research Assistant. 2007-2009.
MacKenzie Kelly. Research Assistant. 2009-present.
Joe Shekleton. Research Assistant. 2010-2011.
Quentin Knutson. Research Assistant. 2010.
Kelly Duhn. Research Assistant. 2011-present.
Nicole Howard. Research Assistant. 2011-present.
Meaghan Watson. Research Assistant. 2011-2012.
Amanda Stephenson. Research Assistant. 2012.
Stephanie Rath sack. Undergraduate Research Opportunities Program. 2012.
Dane Elmquist. Directed Research. 2013.
Andrea Gruver (Gustavus Adolphus College). Research assistant. Summer 2013.
Sophia Crosby. 2014. Research Assistant.
Charlie Jackson. 2014. The effects of superparasitism on maternal behaviors and offspring success of *Pteromalus puparum*. HHMI Undergraduate Mentoring Program
Lauren Heinrich. 2014-2015. Multiple poster presentations including the Wilcox Award for Excellence in Ecology and Environmental Science, Winchell Undergraduate Research Symposium, 2015.
Laura Lukens. Directed Research. 2014-2015. Poster presentation. HHMI Undergraduate Mentoring Program, directed research for course credit, research assistant.

Joe Miller. 2015-2016. Research Assistant. Independent research on larval coloration and parasitoid host location.

Rebecca Meyer. 2015-2016. Directed Research. Effects of *Pteromalus* wasps on hosts, and interactions with climate (UROP 2016)

Jonathan Lundquist. 2015. Supervised research on parasitoid oviposition decisions under conditions of superparasitism.

Douglas Ayega, University of Minnesota. Conducted directed research on the rate of oviposition and minimum brood size as part of requirements for high school life sciences teaching licensure. Fall 2015.

Peter Xiong, 2015-2016. Research assistant, Independent research.

Yixuan Liu. 2015. Research assistant.

Lizzy Lincoln. 2016. Research assistant.

Wesley Marchand. 2016. Research assistant.

Alexander Jack. 2016. Research assistant.

Undergraduate theses or honors projects directed

Rachel Hampton. Honors Thesis. Sperm competition in monarch butterflies. 1994.

Heather York. Undergraduate Honors thesis. Effects of heat stress on monarch butterflies. 2001.

Sonja Lin. Undergraduate Honor's Research. 2004-2005.

High School Student Research Projects

Emily Yueh. High School Mentor Program. 1997.

Youa Yang. High School Mentor Program. 1998.

Elizabeth Larkin. Breck HS Summer Research Program. 1998.

Stephanie Friedland. Breck HS Summer Research Program. 1999.

Cassie Clark. High School Mentor Program. 1999.

Cara Sandburg. Breck HS Summer Research Program. 2000.

Mike Hektner. Breck HS Summer Research Program. 2001.

Trisha Dwivedi. Breck HS Summer Research Program. 2002.

Sara Brinda. Breck HS Summer Research Program. 2003.

Rosemary Lelich. Breck HS Summer Research Program. 2004.

Meredith Blank. Breck HS Summer Research Program. 2005.

Kaitlyn Creasey. Breck HS Summer Research Program. 2006.

Emily Nimmer. Breck HS Summer Research Program. 2007 and 2008.

Kristina Tester. Breck HS Summer Research Program. 2009.

Cameron Swenson. HS Summer Researcher. 2014.

K-12 Teachers

De Cansler. Research Explorations for Teachers. 1994. Teacher on Sabbatical 2005-2006.

Ann Feitl. Research Explorations for Teachers. 1994.

Margaret Russell. Research Explorations for Teachers. 1995.

Jennifer Brophy. Directed Research. 2003.

Cindy Petersen. Teacher on Sabbatical. 2002-2003.

Laura Molenaar. Teacher on Sabbatical. 2003-2004.

Bruce Leventhal. Directed Research. 2003 and 2004; Teacher on Sabbatical 2004-2005.

Sarah Weaver. Directed Research. 2005-2007.

Graduate Student Activities

Master's Theses Directed

Liz Goehring (MS 1999). Ecology, Evolution and Behavior. Thesis: Monarch diapause induction (co-advisor with D. Alstad). Currently Citizen Science Coordinator for NEON, National Science Foundation.

- Jennifer Szymanski (MS 1999). Conservation Biology. Thesis: Population dynamics of endangered Mitchell's Satyrs in Michigan. Currently Regional Endangered Species Act Section 7 Coordinator, USFWS.
- Michelle Prysby (MS 2001). Ecology, Evolution and Behavior NSF Predoctoral Fellow. Thesis: Monarch larval abundance and distribution. Currently Science Education and Outreach Coordinator, University of Virginia.
- Kim Mason (MS 2001). Conservation Biology. Thesis: Effects of habitat fragmentation on Regal Fritillary abundance and distribution. Currently Faculty member at Anoka-Hennepin Community College.
- Beth LaVoie (MS 2002). Ecology, Evolution and Behavior. Thesis: Effects of nutrient quality on monarch larval growth and development. Currently Professor, Minnesota State University, Mankato.
- Jon Poppele (MS 2005). Conservation Biology. Thesis: Tracking and Environmental Ethics.
- Bruce Leventhal (MS 2007). Interactions between a dipteran parasitoid and monarch butterflies. Currently HS teacher.
- Eneida Montesinos (MS 2009). Conservation Biology. Thesis: Improving training for tour guides in monarch Natural Protected Areas: Toward a sustainable ecotourism. Currently Education Contractor, Monarch Butterfly Fund.
- Dina Kountoupes (MS 2007). NRS. Thesis: Children and citizen science case study: The Monarch Larva Monitoring Project. Currently Gardens in the City Coordinator.
- Alma De Anda (MS 2010). Ecology, Evolution and Behavior. Thesis: Impacts of invertebrate predators on monarch butterfly population dynamics. Currently Instructor, Citrus College.
- Sarah Weaver (MS 2010). Impacts of permethrin insecticides on non-target insects. Currently University of Minnesota MonarchLab Instructor and Evaluator.
- Karen Christenson. (MS 2012). Natural Resources Science and Management. (co-advised with Stephen Carlson). Currently with MN DNR.
- Doctoral Dissertations Directed***
- Sonia Altizer (PhD 1999). Ecology, Evolution and Behavior. NSF Predoctoral Fellow, recipient of NSF Doctoral Dissertation Improvement Grant. Thesis: Interactions between monarch butterflies and an obligate protozoan parasite (Co-advised with Don Alstad). Currently Professor, University of Georgia.
- Michelle Solensky (PhD 2003). Ecology, Evolution and Behavior. NSF Predoctoral Fellow, recipient of NSF Doctoral Dissertation Improvement Grant. Thesis: Effects of female choice on male reproductive success in monarch butterflies. Currently Professor, Jamestown College.
- Peggy Savanick Guiney (PhD 2009). Conservation Biology (Co-advised with Rob Blair). Thesis: Impacts of participation in Master Naturalist Project on adult volunteers. Currently UM Program Assistant.
- Rebecca Batalden (PhD 2011). Ecology, Evolution and Behavior. NSF Predoctoral Fellow, recipient of NSF Doctoral Dissertation Improvement Grant. Thesis: Potential impacts of climate change on monarch butterflies. Currently at home with children.
- Philip Vaughter (PhD 2012). Conservation Biology. Thesis: The role of information flow in climate change policy formation in New Zealand: A social analysis (Co-advised with Jeff Broadbent). Current: Post-Doc at University of Edmonton
- Kelly Nail. (PhD 2016). Conservation Biology. NSF Predoctoral Fellow. Thesis: Monarchs in a Changing World. Currently with US Fish and Wildlife Service.
- Eva Lewandowski (PhD 2016). Conservation Biology. Thesis: Conservation outcomes of citizen science participation. Currently Citizen Science Coordinator with WI DNR.

Current Graduate Students

- Carl Stenoien (began 2012). PhD. Ecology, Evolution and Behavior. NSF Predoctoral Fellow.
- Julia Leone (began 2015). PhD. Conservation Biology. Co-advised with Diane Larson.
- Patrick Pennarola (began 2015). PhD. Entomology. Co-advised with Diane Larson.

Ami Thompson (began 2014). PhD. Conservation Biology. Co-advised with Rob Blair.
Michael Lopez (began 2016). MS. Conservation Sciences. Co-advised with Rob Blair.

Visiting Scholars Hosted

Dr. Mahendra Satapathy. Fulbright Scholar (India). Fall 2008.

SERVICE AND PUBLIC OUTREACH

Service to the Discipline

Editorial board of the Journal *Citizen Science: Theory and Practice*.

Journal Reviewer

Frequent reviewer for multiple journals: American Midland Naturalist, Annals of the Entomological Society, Behavioral Ecology, Behavioral Ecology and Sociobiology, Biological Conservation, Biology Letters, Canadian Geographic, Conservation Biology, Ecological Entomology, Ecological Monographs, Ecology, Entomologia Experimentalis et Applicata, Environmental Biosafety Research, Environmental Entomology, Ethology, Evolutionary Ecology, Frontiers in Ecology, Functional Ecology, Integrative and Comparative Biology, International Journal of Zoology, Journal of Insect Behavior, Journal of Insect Conservation and Biodiversity, J. Kansas Entomological Society, Journal Lepidopterists' Society, Oxford University Press, Parasitology, Philosophical Transactions: Biological Sciences, Psyche, Science, Tropical Lepidopteran Research

Review panels for external funding agencies, foundations, etc.

USDA AFRI Frontiers in Pollinator Health Program Review panel. 2016

NSF AISL: Review panel for preliminary proposals. 2012.

NSF Informal Science Education: Youth and Community Programs Preliminary Proposal Review Panel. 2005.

NSF Informal Science Education: ITEST Panel. 2004.

NSF Research Experiences for Undergraduates Panel. 2004.

NSF Informal Science Education: Youth and Community Programs Preliminary Proposal Review Panel. 2003.

NSF Informal Science Education: ITEST Panel. 2003.

NSF Informal Science Education: Youth and Community Programs Panel. 2002.

United States Environmental Protection Agency FIFRA Scientific Advisory Panel (SAP) to review the Agency's Bt plant pesticides risk and benefit assessments. 2000.

NSF Instructional Materials Development Panel. 1997.

NSF Population Biology Panel: 1996.

NSF Doctoral Dissertation Advisory Panel: 1993, 1994.

NSF Ad Hoc Reviews: 7 from 2003- 2012.

Program review experience

United States Environmental Protection Agency FIFRA Scientific Advisory Panel (SAP) to review the Agency's Bt plant pesticides risk and benefit assessments. 2000.

Organization of conferences, workshops, panels, symposia: Research and Conservation

Symposium Organizer: North American Society for Conservation Biology. Monarchs and agriculture. 2016. Madison WI.

Symposium Organizer: Entomological Society of America. Conserving Rare Butterflies: Challenges and Successes (Co-organized with Scott Black and Nick Haddad). 2015. Minneapolis MN.

Meeting Organizer: Monarch Butterfly Biology and Conservation. International Meeting at University of MN Arboretum. 2012.

Symposium Organizer: 6th International Conference on the Biology of Butterflies. Monarch Butterfly Monitoring Data Analysis. 2010. Edmonton Alberta.

Symposium Organizer: 5th International Conference on the Biology of Butterflies. A symposium in honor of Lincoln Pierson Brower (organized with Michael Boppre (Forstzoologisches Institut, Germany) and Richard Vane-Wright (Natural History Museum, UK)). 2007. Rome Italy.

Co-organizer of Monarch Population Dynamics Meeting in Lawrence KS (with O.R. Taylor). 2001. Lawrence KS.

Symposium organizer: North Central Branch of the Entomologists' Society: Science and the Public: Insects as the Missing Link. 2000. Minneapolis MN.

Symposium organizer: Lepidopterists' Society: Butterfly and Moth Mating Behavior. 1995. Minneapolis MN.

Organization of conferences, workshops, panels, symposia: Extension

Symposium Organizer: North American Association of Environmental Education annual meeting. 2007. Citizen Science: Engaging the Public in Data Collection for Conservation. Joint with M. Prysby and C. Peterson. Virginia Beach, VA.

Reviews for Promotion and Tenure

Gustavus Adolphus College 2017

University of Hawaii 2011

Other Service

Member of Research Coordination Network for Citizen Science Advisory Group

Member of Publication Steering Committee for Citizen Science Advisory Group

Service to the University

University-wide service

Presentation to Promotion and Tenure meeting: career advancement as a community engaged scholar. Fall 2013.

Standing Committee on Graduate Education: Subcommittee on Graduate Student Financing. Fall 2013.

Ad Hoc Committee on Graduate Student Financing. Fall 2013.

Design and installation of community learning garden west of Skok Hall. Spring 2013.

Design and installation of community learning garden south of Green Hall. Spring 2005-2007.

Curriculum Development for Environmental Training Program with K-8 teachers Minneapolis School District, Science CentrUM advisory committee. 1995.

Scientific Advisor for “*Beauty and Biology: Butterflies and Moths in Art and Science*” exhibit at the Bell Museum of Natural History. 1995.

Workshop Development and Presentation. Fall 2011. K-12 Outreach by Environmental Science Graduate Students (for EEB, CB, NRSM, Plant Bio Graduate Students).

Internal Reviewer for UM G-K12 submissions. Fall 2009, Spring 2010.

Course Proposals Committee of the Biological Sciences P&R Council. Fall 2009.

Interdisciplinary Center for the Study of Global Change (ICGC) affiliated faculty member. 2007-present.

University Strategic Positioning Process: Research Infrastructure Task Force Advisory Group. 2005.

Faculty representative to Conservation Biology Graduate Program Steering Committee. 2003-2005.

Collegiate Service

Search Committee Chair: Gullion Chair in Fisheries, Wildlife and Conservation Biology. 2015-2016.

Search Committee: Chair of Entomology Department. 2015-2016.

Search Committee: Faculty Position in Pollinator Conservation, Entomology/EEB Department. 2014-2015.

Entomology Written Preliminary Exam committee. 2014, 2016.

Promotion and Tenure Committee. 2014.

Director of Graduate Studies: Conservation Biology. 2009-2015.

Newman Award Committee. 2012.

Chair, Graduate and Research Policy and Review Curriculum Subcommittee. 2010-present

Civic Engagement and Outreach Committee. 2011-present.

Extension/College Connection Committee. Spring 2010.

Search Committee: Extension Service Position, Environmental Science Education REE. Spring 2007.

Undergraduate Research Opportunities Program Committee. 2008-2009.

Dean's representative to the Regional Sustainable Development Partnerships' Statewide Coordinating Committee. 2008-2011.

Faculty representative to College of Food, Agriculture and Natural Resource Sciences Undergraduate Honors Committee. 2006-2009.

Environmental Education and Communication track representative for ESPM Coordinating Council. 2005-present.

Environmental Education/Environmental Studies, Curriculum Design Working Group. Representative to College Coordinating Council. 2005.

Outreach and Engagement Working Group, CNR/COAFES/CHE College Design Task Force. 2005.

Search Committee: Faculty Position in Environmental Communication, Rhetoric Department. 2005-2006.

Faculty representative to College of Natural Resources Student Scholastic Standing Committee. 2003-2006.

Department Service

Member of Faculty Consultative Committee. 2015-present

Member of mentoring committee for Assistant Professors. 2010-2016

Curriculum Committee. 2103-2014.

Kolshorn Lecture Committee Chair. 2010-2012.

LCCMR Statewide Conservation and Preservation Plan – Wildlife Committee Member. 2007-2008.

Fall Welcome Committee. 2003-2004.

Scholarships Committee. 2003-2004.

Awards Committee. 2005-2006.

Public Service

Research and Conservation

Founder and Director: Monarch Larva Monitoring Project. 1996-present.

Xerces Society for Invertebrate Conservation; Board of Advisors. 2014-present.

Minnesota Land Trust; Member, Board of Directors. 2012-2014.

Scientific Advisor, Pacific Grove Monarch Conservancy. 2011-2013.

Monarch Joint Venture. 2009 – present. Chair of the steering committee for the Monarch Joint Venture, a collaborative program that supports the work of NGOs, federal and state agencies, and university researchers in monarch and pollinator conservation.

Monarch Butterfly Sanctuary Foundation (now Monarch Butterfly Fund). 1997-present. President, Treasurer, and Founding Officer of conservation organization dedicated to preserving monarch overwintering sites in Mexico.

Member of Technical Advisory Board for Metropolitan Mosquito Control District. 2001-2014.

North American Monarch Butterfly Conservation Plan: Committee Chair. 2006-2009. Chair of committee that consists of three individuals each from the US, Mexico and Canada that produced a comprehensive plan for monarch butterfly conservation from a trilateral perspective.

Advisor at the First North American Capacity Building Workshop for Biodiversity Conservation: Monitoring of Species, Spaces and Threats of Common concern. 2005. La Primavera, Jalisco Mexico.

United States Environmental Protection Agency Workshop on the Monarch Butterfly, Milkweed and Tropospheric Ozone Air Pollution. 2001. Raleigh NC.

Minnesota Environmental Education Advisory Board Member: Representative of Congressional District 4. 2001-2005.

Testified for MN Senate Environment Committee on Bill to require testing mosquito-control pesticides on non-target insects. 2001.

US Representative to Commission on Environmental Cooperation (NAFTA) working group on Cooperation for the Conservation of the Monarch Butterfly. 1997-2001.

Extension

Founder and Director: Monarchs in the Classroom. 1996-present.

Monarch Expert; Journey North “Ask the Expert” series. 1996-present.

Weaver Lake Elementary School, Osseo MN. Interviewer at monarch research fair. 2011, 2013.

Advisory Board: Minnesota Citizens for Science Education. 2007-2009.

Advisory Committee: Citizen Science: Development and Dissemination of a Model for Program Developers. NSF-funded project, R. Bonney, PI. 2007.

Scientist-Teacher Partnerships. Selected as one of 12 individuals from throughout the US to write a partnership handbook. Organized by Katherine Nielsen, Co-Director, Science & Health Education Partnership, UC San Francisco. 2006-2007

Scientific Advisor for IMAX film: Flight of the Butterflies. 2006-2012.

Science Content Presenter for MN Science Teachers' Association: MN State Fair. 2004-2007.

Professional Development

Women's Leadership Institute. 2011-2012. Offered by Office of Organizational Effectiveness. Competitive participation.

Mid-career Faculty Women's Community. 2010-2011. Offered by Center for Teaching and Learning.