

Philip William Lienesch
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Educational Background:

Ph.D. Zoology, University of Oklahoma (Norman, OK)	1991-1997
M.S. Biology, James Madison University (Harrisonburg, VA)	1989-1991
B.S. Biology, Towson State University (Towson, MD)	1985-1989

Current Position:

Associate Professor of Biology, Western Kentucky University	2001-present
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Research Experience:

Associate Professor. I have performed studies on fish ecology in streams, 2001-present rivers, and reservoirs in south-central Kentucky. Topics have included community ecology, effects of introduced species, population genetics, and fisheries management.

Post-doctoral Research Associate. Investigate fish ecology in conjunction 1999-2001 with a multi-disciplinary team working at the Arctic Long-Term Ecological Research area in Alaska. Main topics examined are trophic relationships and geographic constraints on fish distributions. Dr. Anne Hershey. University of North Carolina-Greensboro, Greensboro, NC.

<i>Doctoral student.</i> Examined effects of an introduced zooplankter on zooplantivorous fishes in a large reservoir. Drs. Moshe Gophen and William Matthews. University of Oklahoma, Norman, OK.	1991-1997
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<i>Field Assistant.</i> Freshwater Mussel Surveys. Worked on a project attempting to explain freshwater mussel distributions based on fish abundance and environmental conditions. Dr. Caryn C. Vaughn, University of Oklahoma, Norman, OK	1996-1997
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<i>Field Assistant.</i> I worked on various research projects (Wichita Wildlife Refuge Survey, Red Shiner Invasion Project, and Water Transfer Project). Duties included fish and invertebrate sampling, identification, and use of artificial streams. Dr. William Matthews, University of Oklahoma, Norman, OK	1992-1994
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<i>Masters student.</i> Evaluated the effect of using automatic fish feeders at aquaculture facilities on the size variability of rainbow trout populations. Dr. Cletus Sellers. James Madison University, Harrisonburg, VA.	1989-1991
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Teaching Experience:

- Associate Professor*, Western Kentucky University, Bowling Green, KY 2001-present
--Biological Concepts – Evolution, Diversity, and Ecology
--Human Anatomy and Physiology
--Animal Biology and Diversity (lecture and laboratory)
--Animal Biology and Diversity Lab Coordinator (maintain manual/ instruct TAs)
--Vertebrate Natural History (lecture and laboratory)
--Ichthyology (lecture and laboratory)
--Principles of Ichthyology (online graduate class)
--Fisheries Management (lecture and laboratory)
--Seminars: Watershed Ecology, Management of Public Lands
--Study Abroad: Splendors of Coral Reefs, Belize; Exploration of Research Opportunities in Germany
- Visiting Assistant Professor*, Oklahoma State University, Stillwater, OK. 1997–1998
--Limnology (lecture and laboratory)
--General Ecology Lecture and Laboratory
- Adjunct Instructor*, Tulsa Community College, Tulsa, OK 1997-1998
--Introduction to Zoology (lecture and laboratory)
- Teaching Assistant*, University of Oklahoma, Norman, OK 1995-1997
--Introduction to Zoology Laboratory, Limnology Laboratory
- Teaching Assistant*, James Madison University, Harrisonburg, VA 1989-1991
--General Contemporary Biology Laboratory

Service:

- Departmental – Chair of the Undergraduate Curriculum Committee, Biology Representative to Ogden College Undergraduate Curriculum Committee, Chair of 3 past search committees, member of the graduate committee (2010-2012), undergraduate curriculum committee (2012-13), scheduling committee (2011-2013), library representative (2003-2004, 2008-present), Assessment committee (prepared SACS documents in 2005 and 2014)
- University – Member of WKU IACUC (Chair 2005 - 2015), Member of the Assistant Dean Search (2004), International Year of South Africa (2015-16), the American Democracy Project (2005-2009), and the Graduate Council (2007-2009, alternate 2009-2013), Member of the Dean of Libraries Search (2012), WKU rep. to KY Biology Professional Learning Community
- State – Kentucky Academy of Sciences (member, 2001- present; Section Officer 2003-2005, 2014-2015; Board member, 2005-2007; Awards Committee member, 2013), Kentucky Chapter of the American Fisheries Society (member, 2003-present, President 2006-2007)
- Community – Upper Green River Watershed Watch, a citizen-based water quality monitoring group (Science advisory committee [Chair since 2015], data quality assurance officer, volunteer trainer, volunteer sampler); President, Bowling Green League of Bicyclists; Founder/Organizer of Bowling Green Hiking Club

Reviews for Scientific Journals:

American Midland Naturalist, Copeia, Fisheries, Journal of Fish Ecology, Serials Review, Southeastern Naturalist, Southwestern Naturalist

Fellowships and Awards:

American Fisheries Society Hutton Program Mentor 2014
George Miksch Sutton Award in Conservation Research. SW Ass. of Naturalists 2001
University of Oklahoma: Centennial Research Assistantship 1991-1995
James Madison University: Summer Research Fellowship 1990, 1991
Towson University: Dean's Merit Scholarship, Junior Biology Student of the Year 1988

Professional Society Memberships:

American Fisheries Society (President of the Kentucky Chapter, 2007)
American Society of Ichthyology and Herpetology
Southwestern Association of Naturalists
Southeastern Council of Fishes
Kentucky Academy of Sciences (Board Member, 2005-2007)

Grants:**Submitted****Active**

2016 RCAP Category I - Preliminary Evaluation of Black Bass Distribution in Small Kentucky Streams for Comparison with Introduced Bass in South Africa. \$7,843
2016 QTAG – Upgrading WKU Ichthyology collection. \$2,915
2016 Fuse Grant w/ Davis Elliot Stream health assessment based on direct fish and invertebrate sampling versus water quality data collected by a citizen science group. \$4,500
2016 Fuse Grant w/ Jacob Brumley. The relationship between the distribution of Madtom catfishes and Mussel Shells within the Green River Watershed in Kentucky. \$4,500

Completed

2011. Examination of fishes of Big Reno Lake. KY Department of Military Affairs. 24,800.
2008. Limnology of Barren River Reservoir. WKU – Faculty Scholarship Award \$6,000
2006-2007. Effects of Dams on Fish Upstream of Reservoirs. KY EPSCoR. \$24,996
2006. Stewardship of Public Lands Activities (#I-06-157). Co-authored with Sally Kulhenschmidt. WKU - Provost Initiatives for Excellence. \$5740
2003-2005. Interactions between the endangered Kentucky Cave Shrimp and exotic rainbow trout in cave springs. Submitted in collaboration with scientists at Mammoth Cave National Park. Department of the Interior. \$54,000
2003. Effect of dams on fishes upstream of reservoirs. WKU. Junior Faculty Fellowship. \$4,000
2001-2002. Support of graduate student working on Long Term Fish Population Monitoring grant from Mammoth Cave National Park. Kentucky Department of Fish and Wildlife Resources. \$8,760

- 2001-2008. Mammoth Cave National Park Long Term Monitoring Program. Long Term Fish Population Monitoring. Funded for 5 years, first year budget \$50,000.
1995. University of Oklahoma Graduate Student Senate Grant, Long Term Changes in the Fish Community of a Small Creek Isolated by a Reservoir. \$175.
1993. University of Oklahoma Graduate Student Senate Grant, Community Analysis of the Fishes in Walnut Creek, \$75.

Submitted – not funded

- 2015 A controlled experiment on the effect of study abroad experiences on retention and long-term success in the STEM disciplines. NSF- IUSE, 2,000,000
- 2014 A controlled experiment on the effect of study abroad experiences on retention and long-term success in the STEM disciplines. NSF- IUSE, 2,598,337

Theses:

- Ph.D. Dissertation. 1997. Interactions between fishes and zooplankton, with emphasis on an exotic cladoceran, *Daphnia lumholtzi*, in Lake Texoma, Oklahoma-Texas. University of Oklahoma. Norman, OK.
- Master's Thesis. 1991. Effect of feeding method on size variability in rainbow trout, *Oncorhynchus mykiss*. James Madison University. Harrisonburg, VA.

Graduate Students:

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| Jacob Fose | 2013 | Interference in White Bass reproduction by two introduced predators in Barren River Lake, KY. |
| Derek Rupert | 2012 | Comparison of creel survey data to traditional sampling techniques in pit-lake fisheries of Muhlenburg County, KY. |
| Peter Zervas | 2010 | Age, reproduction, growth, condition and diet of the introduced yellow bass, <i>Morone mississippiensis</i> , in Barren River Lake, Kentucky. |
| Kerstin Edberg | 2009 | The effects of a reservoir on genetic isolation in two species of darter. |
| Mario Sullivan | 2008 | Effects of Barren River Lake on upstream fish assemblages of Barren River tributaries. |
| Michael Ruhl | 2005 | Flow reversal events increase the abundance of nontroglobitic fish in the subterranean rivers of Mammoth Cave National Park. |
| Zacchaeus Compson | 2004 | Trophic interactions within Mammoth Cave National Park. |

I am a member on the Graduate Advisory Committee for 12 (3 currently) additional students.

Publications:

In Revision:

Edberg, K. L., P. W. Lienesch, R. M. Wood, and J. M. Marcus. Rivers to Reservoirs: the effect of impoundment on population structure in darters. Submitted to Southeast Fishes Council Proceedings.

Published:

- 11) Keyse, M. D., K. Fortino, A. E. Hershey, **P. W. Lienesch**, C. Luecke, M. E. McDonald, W. J. O'Brien. 2007. The effects of large lake trout (*Salvelinus namaycush*) on the dietary habits of small lake trout. *Hydrobiologia* 579:175-185.

- 10) Hershey, A. E., and 13 others (**PWL**). 2006. Effect of landscape factors on fish distributions in arctic Alaskan lakes. *Freshwater Biology* 51:39-55.
- 9) **Lienesch, Philip W.**, Michael E. McDonald, Anne E. Hershey, W. John O'Brien & Neil D. Bettez. 2005. Effects of a whole-lake, experimental fertilization on lake trout in a small oligotrophic arctic lake. *Hydrobiologia* 548:51-66.
- 8) **Lienesch, Philip W.** and M. Gophen. 2005. Size-Selective predation by inland silversides on an exotic cladoceran, *Daphnia lumholtzi*. *The Southwestern Naturalist* 50(2):158-165.
- 7) **Lienesch, Philip W.** and M. Gophen. 2001. Predation by inland silversides on an exotic cladoceran, *Daphnia lumholtzi*, in Lake Texoma, U. S. A. *Journal of Fish Biology* 59: 1249-1257.
- 6) **Lienesch, Philip W.** and William J. Matthews. 2000. Daily fish and zooplankton abundances in the littoral zone of Lake Texoma, Oklahoma-Texas, in relation to abiotic variables. *Environmental Biology of Fishes* 59(3):271-283.
- 5) Hobbie, John E., Anne E. Hershey, **Philip W. Lienesch**, and Michael E. McDonald. Studies of Freshwaters on the North Slope. In Fifty more years below zero: tributes and meditations on the Naval Arctic Research Laboratory's first half century at Barrow, Alaska. 2000. Edited by Dave Norton. U. of Alaska Press.
- 4) **Lienesch, Philip W.**, William I. Lutterschmidt, and Jacob F. Schaefer. 2000. Seasonal and long-term changes in the fish assemblage of a small stream isolated by a reservoir. *The Southwestern Naturalist* 45(3):274-288.
- 3) Gido, Keith B., Jacob F. Schaefer, Kirsten Work, **Philip W. Lienesch**, Edie March-Matthews, and William J. Matthews. 1999. Effects of red shiners (*Cyprinella lutrensis*) on Red River pupfish (*Cyprinodon rubrofluviatilis*). *The Southwestern Naturalist* 44:287-295.
- 2) Taylor, Christopher M. and **Philip W. Lienesch**. 1996. Regional parapatry of the congeneric cyprinids *Lythrurus snelsoni* and *L. umbratilis*: Species replacement along a complex environmental gradient. *Copeia* 1996:493-496.
- 1) Taylor, Christopher M. and **Philip W. Lienesch**. 1995. Environmental correlates of distribution and abundance for *Lythrurus snelsoni*: a range-wide analysis of an endemic fish species. *The Southwestern Naturalist* 40(4): 373-378.

Manuscripts in preparation:

- Fose, Jacob and **P.W. Lienesch**. Interference in White Bass reproduction by two introduced predators in Barren River Lake, KY. Prepared for North American Journal of Fisheries Management.
- Rupert, Derek and **P.W. Lienesch**. Comparison of creel survey data to traditional sampling techniques in pit-lake fisheries of Muhlenburg County, KY. Prepared for Transactions of the American Fisheries Society.
- Zervas, Peter, and **P.W. Lienesch**. Life history traits of yellow bass introduced in Barren River Lake, Kentucky, and implications for competition with native white bass. Prepared for American Midland Naturalist.

Selected Papers Presented at Scientific Meetings:

- 2016 Jacob Brumley and **Philip Lienesch**. Changes to the fish assemblage of the Middle Fork of Drakes Creek in south-central Kentucky over 40 years. Joint Meeting of Ichthyologists and Herpetologists (New Orleans, LA).
- 2014 Jacob Fose, Peter Zervas, and **Philip Lienesch**. Possible reproductive interference by introduced yellow bass (*Morone mississippiensis*) on native white bass (*Morone chrysops*) in Barren River Lake, KY. American Society of Ichthyology and Herpetology (Chattanooga, TN)
- 2012 Derek Rupert and **Philip Lienesch**. Comparison of creel survey data to traditional sampling techniques in pit-lake fisheries of the Wendell Ford Regional Training Center. Kentucky Chapter of the American Fisheries Society (Jamestown, KY).
- 2007 **Philip Lienesch** and Zacchaeus Compson. Effects of Lock & Dam #6 on fish distributions in Mammoth Cave National Park. Kentucky Chapter of the American Fisheries Society (Leitchfield, KY).
- 2005 **Philip W. Lienesch**. Effects of dams on the distribution of fishes in isolated tributaries. Kentucky Academy of Sciences (Richmond, KY).
- 2004 Michael Ruhl, Zacchaeus Compson, and **Philip Lienesch**. A survey of nontroglobitic fishes in the subterranean rivers of Mammoth Cave National Park, KY. American Society of Ichthyology and Herpetology (Norman, OK).
- 2003 **Philip W. Lienesch**, Fish ecology in Mammoth Cave National Park. Mammoth Cave Science Conference (Bowling Green, KY)
- 2000 **Philip W. Lienesch**, Michael E. McDonald, Neil Bettez, Anne E. Hershey, Effects of fertilization on lake trout (*Salvelinus namaycush*) in a small oligotrophic arctic lake, American Fisheries Society (St. Louis MO).
- 2000 **Philip W. Lienesch**, Michael E. McDonald, Anne E. Hershey. Response of benthivorous lake trout (*Salvelinus namaycush*) to fertilization in an oligotrophic arctic lake. North American Benthological Society (Keystone, CO) and American Fisheries Society (St. Louis, MO).
- 1997 **Philip W. Lienesch** and William Matthews. Daily fish and zooplankton abundances in the littoral zone of Lake Texoma, OK-TX, in relation to abiotic variables. 24th Annual Great Plains Limnology Conference (Stillwater, OK).
- 1996 **Philip W. Lienesch** and Moshe Gophen. Size selective predation by *Menidia beryllina* on *Daphnia lumholtzi*. Invited Talk: special session on spined exotic zooplankters. American Society of Limnology and Oceanography (Reno, NV).
- 1996 **Philip W. Lienesch**, Jacob Scheafer, and William Lutterschmidt. Long term changes in the fish assemblage of a small stream isolated by a reservoir. Southwestern Association of Naturalists (McAllen, TX).

Selected papers presented by students at scientific meetings (presenter underlined):

- 2016 Jacob Brumley and **Philip Lienesch**. Changes to the fish assemblage of the Middle Fork of Drakes Creek in south-central Kentucky over 40 years. 46th Annual WKU Student Research Conference.
- 2013 Jacob Fose and Philip Lienesch. Investigation interference of white bass reproduction by yellow bass and hybrid striped bass in Barren River Lake, KY. Annual Meeting of the Southeastern Fishes Council (Guntersville Lake, AL).

- 2013 Micaela Montgomery, Jacob Fose, and Philip Lienesch. Competition for food resources of the white bass by two introduced congeners in Barren River Lake. 43rd Annual WKU Student Research Conference. (won best poster, Session 10)
- 2011 Derek Rupert and Philip Lienesch. Employing creel survey data and simple sampling techniques to evaluate the pit-lake fishery of Muhlenberg County, KY. Kentucky Academy of Sciences (Murray, KY)
- 2010 Peter Zervas and Philip Lienesch. Age, growth, and diet of the yellow Bass, *Morone mississippiensis*, in Barren River Lake, Kentucky. Southern Division of the American Fisheries Society. (Asheville, NC)
- 2009 Kerstin Edberg and Philip Lienesch. Possible genetic isolation in stream fishes as a result of reservoirs: a look at the effects on two species of darters. American Fisheries Society (Nashville TN).
- 2008 Mario Sullivan, Steven Mavis, and Philip Lienesch. Upstream effects of a dam on fish assemblages of the Barren River. Southwestern Association of Naturalists (Memphis, TN)
- 2007 Wesley Daniel, Jeff Jack, and Philip Lienesch. Wilson Creek Restoration and the Response in food web function and fish community structure. Meeting of the Kentucky Chapter of the American Fisheries Society (won student presentation award) and the annual meeting of the North American Benthological Society.
- 2005 Micheal E. Ruhl, Philip W. Lienesch, and Travis B. Varney. A survey and investigation of nontroglobitic fishes in the subterranean waterways of Mammoth Cave National Park, KY. American Fisheries Society (Anchorage AK).
- 2005 Mike Ruhl, Philip Lienesch, and Travis Varney. Effects of Hydrology on Nontroglobitic Fishes in the Subterranean Rivers of Mammoth Cave National Park, Kentucky. Meeting of the Kentucky Chapter of the American Fisheries Society (won student presentation award).
- 2004 Zacchaeus Compson and Philip Lienesch. An isotopic examination of cave and epigeal trophic structures in Mammoth Cave National Park. Meeting of the Ecological Society of America (Portland, OR).
- 2003 Michael Ruhl and Philip Lienesch. A survey of nontroglobitic fishes in the subterranean rivers of Mammoth Cave National Park, KY. Meeting of the Southern Division of the American Fisheries Society (Oklahoma City, OK).