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

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.

Doctoral student. Examined effects of an introduced zooplankter 1991-1997 on zooplantivorous fishes in a large reservoir. Drs. Moshe Gophen and William Matthews. University of Oklahoma, Norman, OK.

Field Assistant. 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

Field Assistant. I worked on various research projects (Wichita Wildlife 1992-1994 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

Masters student. Evaluated the effect of using automatic fish feeders 1989-1991 at aquaculture facilities on the size variability of rainbow trout populations. Dr. Cletus Sellers. James Madison University, Harrisonburg, VA.

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 (20112013), library representative (2003-2004, 2008-present), Assessment committee
 (prepared SACS documents in 2005 and 2014)
- University Chair of the IACUC (2005 present), 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); Vice 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 – 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

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.

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:

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, Morone mississippiensis, 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 Review:

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:

- 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):

- 2013 <u>Jacob Fose</u> 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 <u>Micaela Montgomery</u>, 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 <u>Derek Rupert</u> 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 <u>Peter Zervas</u> 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. (Ashville, NC)
- 2009 <u>Kerstin Edberg</u> 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 <u>Mario Sullivan</u>, 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 <u>Micheal E. Ruhl</u>, 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 epigean trophic structures in Mammoth Cave National Park. Meeting of the Ecological Society of America (Portland, OR).
- 2003 <u>Michael Ruhl</u> 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).