

Philip William Lienesch

Western Kentucky University
Department of Biology
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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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Teaching Experience:

<i>Associate Professor</i> , 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)	
--Challenges of a Changing Biosphere (local to global connections)	
--Ecology (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, Spring 2017 semester at Harlaxton College, England, Conservation Management of African Wildlife	
<i>Visiting Assistant Professor</i> , Oklahoma State University, Stillwater, OK.	1997–1998
--Limnology (lecture and laboratory)	
--General Ecology Lecture and Laboratory	
<i>Adjunct Instructor</i> , Tulsa Community College, Tulsa, OK	1997-1998
--Introduction to Zoology (lecture and laboratory)	
<i>Teaching Assistant</i> , University of Oklahoma, Norman, OK	1995-1997
--Introduction to Zoology Laboratory, Limnology Laboratory	
<i>Teaching Assistant</i> , James Madison University, Harrisonburg, VA	1989-1991
--General Contemporary Biology Laboratory	

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, 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 on zooplantivorous fishes in a large reservoir. Drs. Moshe Gophen and William Matthews. University of Oklahoma, Norman, OK. 1991-1997

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 1996-1997

Field Assistant. 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

Masters student. 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

Service:

Departmental

Undergraduate Curriculum Committee

Biology Representative to the Ogden College undergraduate curriculum committee (2018-2021)

Chair of 3 past search committees

Member of the graduate curriculum committee (2010-2012)

Member of the undergraduate curriculum committee (2012-present)

Member of schedule committee (2011-2013)

Biology Library Representative (2003-2004, 2008-2021)

Member of the Assessment Committee (prepared SACS document in 2005, 2014)

Faculty member for Biology at Harlaxton Program

Faculty Advisor Beta Beta Beta Biological Honor Society (2016-present)

Biology Representative on the University Senate (May 2021- present)

University

Member of WKU IACUC (Chair 2005 - 2015)

Member of the Assistant Dean Search (2004)

Participant of the International Year of South Africa (2015-16)

Participant of the American Democracy Project (2005-2009)

Member of the Graduate Council (2007-2009, alternate 2009-2013)

Member of the Dean of Libraries Search (2012)

WKU rep. to KY Biology Professional Learning Community
Reviewer for FUSE grants (2016-present)
Reviewer of International Year of country proposals (2019-2020)
Reviewer of International year of South Korea faculty participation proposals
(2018-2019)

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 (Chair of the Steering Committee [2021-24], Science advisory
committee [Chair 2015-17], volunteer trainer, volunteer sampler 2002-23)
member, Past-President (2015), Bowling Green League of Bicyclists
Founder/Organizer of Bowling Green Hiking Club (2008-2018)
Bowling Green Greenways Committee/ Bike and Pedestrian subcommittee (2015-
2021)

Reviews for Scientific Journals:

American Midland Naturalist, Aquatic Conservation: Marine and Freshwater
Ecosystems, Copeia, Fisheries, Journal of Fish Ecology, Hydrobiologia, Serials Review,
Southeastern Naturalist, and Southwestern Naturalist.

Fellowships and Awards:

Western Kentucky University: Nominated for CITL Teaching Honors 2020, 2022
American Fisheries Society: Hutton Program Mentor 2014
SW Ass. of Naturalists: George Miksch Sutton Award in Conservation Research 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

Completed

- 2019 Seasonal abundance of invasive *Daphnia lumholtzi* in Barren River Lake, KY.
WKU Fuse grant w/ Joseph Mattingly. \$4,500
- 2019 Repairing Hach Quanta water quality meter. QTAG – \$2,293
- 2018 A survey of madtom catfish population density at sites with differing mussel shell densities. WKU Fuse grant w/ Cole Clark. \$4,500
- 2016 The relationship between the distribution of Madtom catfishes and Mussel Shells within the Green River Watershed in Kentucky. WKU Fuse Grant w/ Jacob Brumley. \$4,500
- 2016 Preliminary Evaluation of Black Bass Distribution in Small Kentucky Streams for Comparison with Introduced Bass in South Africa. WKU RCAP Category I - \$7,843
- 2016 Stream health assessment based on direct fish and invertebrate sampling versus water quality data collected by a citizen science group. WKU Fuse Grant w/ Davis Elliot \$4,500
- 2016 Upgrading WKU Ichthyology collection. WKU QTAG – \$2,915
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

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, <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 have been a member on the Graduate Advisory Committee for over 20 additional students. I served as the external reviewer for a Rhodes University Master's Thesis (2016).

Mahurin Honors College Capstone Experience/Thesis students

Laurel Philpott	2022	Changes in the Zooplankton Community in Barren River Lake (South Central KY) Between 2008 and 2020
Mariah Slaughter	2020	An Investigation on the Cover Preference of the Mountain Madtom (<i>Noturus eleutherus</i>)
Jacob Brumley	2019	Use of Dead Mussel Shells by Madtom Catfish in the Green River
Micaela Montgomery	2015	Dietary overlap of Native White Bass and Introduced Yellow Bass in Barren River Lake

Publications:

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.

Published:

12) Brumley, Jacob and **P. W. Lienesch**. 2020. Use of dead mussel shells by madtom catfish in the Green River. Southeastern Fishes Council Proceedings: 1(59): article 3.

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.
- 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:

- 2019 **Philip Lienesch** Watershed Watch in Kentucky: A citizen science program providing water quality monitoring throughout Kentucky. Invited lecture to WKU Geology and Geography Department.
- 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):

- 2019 Mariah Slaughter and Philip Lienesch. Determination of madtom shelter preference. Annual meeting of the Southeastern Fishes Council. (Knoxville, TN)
- 2019 Cole Clark and Philip Lienesch. A survey of madtom population density at sites with differing mussel shell densities. Joint meeting of the Association of Southern Biologists and TriBeta Honor Society. (Memphis TN)
- 2017 Jacob Brumley and Philip Lienesch. Use of dead mussel shells by madtom catfish in the Green River. Annual Meeting of the Southeastern Fishes Council (Chattanooga, TN).
- 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. 46rd 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. (Ashville, 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).