

BIOGRAPHICAL SKETCH

NAME John W. Bickham	POSITION TITLE Director of the Center for the Environment and Professor of Forestry and Natural Resources, Purdue University		
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
University of Dayton, Dayton, OH	B.S.	1971	Biology
University of Dayton, Dayton, OH	M.S.	1973	Biology
Texas Tech University, Lubbock, TX	Ph.D.	1976	Zoology

A. Positions and Honors. List in chronological order previous positions, concluding with your present position. List any honors. Include present membership on any Federal Government public advisory committee.

Professional Positions:

1976-1983 Assistant Professor of Wildlife and Fisheries Sciences, Texas A&M University
 1983-1986 Associate Professor of Wildlife and Fisheries Sciences, Texas A&M University
 1986-2006 Professor of Wildlife and Fisheries Sciences, Texas A&M University
 1986-2006 Professor, Faculty of Toxicology, Texas A&M University
 1986-2006 Professor, Faculty of Genetics, Texas A&M University
 2006-Present Director, Center for the Environment, Purdue University
 2006-Present Professor, Department of Forestry and Natural Resources, Purdue University

Other Professional Activities and Awards:

1985-1987 President of the Southwestern Association of Naturalists; 1990-Present Vice President, LGL Ecological Genetics, Inc., Bryan, Texas; 1991 Donald W. Tinkle Award for Research Excellence, Southwestern Association of Naturalists; Presently on the editorial board for the journal *Ecotoxicology*; 2001-2003 served on the editorial board of journal *Environmental Toxicology and Chemistry*

Federal Government Advisory Committees:

2003-Present Member of the Scientific Advisory Committee of the US delegation to the International Whaling Commission.

Current Grants and Contracts:

NOAA and Alaska Department of Fish and Game "Steller sea lion genetics" (project funding began in 1992) 2002-2007 \$335,000. North Slope Borough "Bowhead whale genetics" 2003 \$50,000; 2004-2007 \$300,000. NIEHS Superfund Basic Research Program 2000-2007 (ES04917) approximately \$50,000 per year direct costs only, CoPI with Dr. Steve Safe (PI) and others. NSF 2003-2006 \$89,000 "REU site: Undergraduate research in biodiversity and ecological processes in fluctuating environments," CoPI with Dr. Rodney Honeycutt (PI) and others. NSF 2004-2006 \$126,985 plus \$54,423 from TAMU, "A Capillary-based Automated Sequencer and Associated Equipment for High-throughput Sequencing and Genotyping at the Center for Biosystematics and Biological Diversity (CBBD)," CoPI with Dr. Rodney Honeycutt and Dr. Anthony Cognato (PIs). US Geological Survey \$22,490, Cooperative Agreement No. 02HQG0113, "Using swallows as sentinels of environmental health in US Mexico border regions," PI with Dr. Miguel Mora. National Science Foundation, \$600,000, "Resolving Mammalian Phylogeny Using Genomic and Morphological Approaches", 2006- 2011 Co-PI with William Murphy (PI) and Rodney Honeycutt (Co-PI).

Selected peer-reviewed publications (from a total of 180):

Bickham, J. W., S. M. Carr, B. G. Hanks, D. W. Burton, and B. J. Gallaway. 1989. Genetic analysis of population variation in the Arctic Cisco using electrophoretic, flow cytometric, and mitochondrial DNA restriction analyses. *Biol. Pap. Univ. Alaska* 24:112-122.

Bickham, J. W. 1990. Flow cytometry as a technique to monitor the effects of environmental genotoxins on wildlife populations. Pp. 97-108, in *In Situ Evaluations of Biological Hazards of Environmental Pollutants* (S. S. Sandhu et al., eds.). Plenum Publ. Corp., New York, 277 pp.

Lockwood, S. F., B. T. Seavey, R. E. Dillinger, Jr., and J. W. Bickham. 1991. Variation in DNA content among age classes of broad whitefish (*Coregonus nasus*) from the Sagavanirktok River delta. *Canadian Journal of Zoology* 69:1335-1338.

Lockwood, S. F., and J. W. Bickham. 1991. Genetic stock assessment of spawning Arctic cisco (*Coregonus autumnalis*) populations by flow cytometric determination of DNA content. *Cytometry* 12:260-267.

Lockwood, S. F., and J. W. Bickham. 1992. Genome size in Beaufort Sea coastal assemblages of Arctic cisco. *Trans. Amer. Fish. Soc.* 121:13-20.

- Morales, J. C., B. G. Hanks, J. W. Bickham, J. N. Derr, and B. J. Gallaway. 1993. Genetic analysis of population structure in Arctic cisco (*Coregonus autumnalis*) from the Beaufort Sea. *Copeia* 1993:863-867.
- Cronin, M. A., W. J. Spearman, R. L. Wilmot, J. Patton, and J. Bickham. 1993. Mitochondrial DNA variation in chinook and chum salmon detected by restriction enzyme analysis of polymerase chain reaction (PCR) products. *Can. J. Fish. Aquat. Sci.* 50:708-715
- Bickham, J. W., C. C. Wood, and J. C. Patton. 1995. Variation in mitochondrial cytochrome *b* sequences and allozymes in sockeye (*Oncorhynchus nerka*). *Journal of Heredity* 86:140-144.
- Bickham, J. W., J. C. Patton, and T. R. Loughlin. 1996. High variability for control-region sequences in a marine mammal: implications for conservation and maternal phylogeny of Steller sea lions (*Eumetopias jubatus*). *Journal of Mammalogy* 77:95-108.
- Bickham, J. W., J. C. Patton, S. Minzenmayer, L. L. Moulton, and B. J. Gallaway. 1997. Identification of Arctic and Bering ciscoes in the Colville River delta, Beaufort Sea coast, Alaska. Pp. 224-228, *in* Fish Ecology in Arctic North America (J. Reynolds, ed.). American Fisheries Society Symposium 19, Bethesda, MD, 345 pp.
- Bickham, J. W., T. R. Loughlin, J. K. Wickliffe, and V. N. Burkanov. 1998. Geographic variation in the mitochondrial DNA of Steller sea lions: haplotype diversity and endemism in the Kuril Islands. *Biosphere Conservation*, 1:107-117.
- Bickham, J. W., J. A. Mazet, J. Blake, M. J. Smolen, Y. Lou, and B. E. Ballachey. 1998. Flow-cytometric determination of genotoxic effects of exposure to petroleum in mink and sea otters. *Ecotoxicology*, 7:191-199.
- Bickham, J. W., T. R. Loughlin, D. G. Calkins, J. K. Wickliffe, and J. C. Patton. 1998. Genetic variability and population decline in Steller sea lions from the Gulf of Alaska. *Journal of Mammalogy*, 79:1390-1395.
- Cronin, M. W., and J. W. Bickham. 1998. A population genetic analysis of the potential for a crude oil spill to induce heritable mutations and impact natural populations. *Ecotoxicology*, 7:259-278.
- Politov, D. V., N. Yu. Gordon, K. I. Afanasiev, Yu. P. Altukhov, and J. W. Bickham. 2000. Identification of Palearctic coregonid fish species using mtDNA and allozyme genetic markers. *Journal of Fish Biology*, 57 (Supplement A):51-71.
- Wynen L. P., S. D. Goldsworthy, S. J. Insley, M. Adams, J. W. Bickham, J. Francis, J. P. Gallo, A. R. Hoelzel, P. Majluf, R. W.G. White, and R. Slade. 2001. Phylogenetic relationships within the eared seals (Otariidae: Carnivora): Implications for the historical biogeography of the family. *Molecular Phylogenetics and Evolution* 21:270-284.
- Politov, D. V., J. W. Bickham, and J. C. Patton. 2004. Molecular Phylogeography of Palearctic and Nearctic Ciscoes. *Ann. Zool. Fennici* 41:13-23.
- Trujillo, R. G., T. R. Loughlin, N. J. Gemmell, J. C. Patton, and J. W. Bickham. 2004. Variation in microsatellites and mtDNA across the range of the Steller sea lion, *Eumetopias jubatus*. *Journal of Mammalogy* 85:12-20.
- Baker, Alyson R., Thomas R. Loughlin, Vladimir Burkanov, Cole W. Matson, Robert G. Trujillo, Donald G. Calkins, Jeffrey K. Wickliffe, and John W. Bickham. Variation Of Mitochondrial Control Region Sequences Of Steller Sea Lions, *Eumetopias jubatus*: The Three-Stock Hypothesis. *Journal of Mammalogy* 86:1075-1084.
- Harlin-Cognato, A., J. W. Bickham, T. R. Loughlin, and R. L. Honeycutt. 2005. Glacial refugia and the phylogeography of Steller's sea lion (*Eumatopias jubatus*) in the North Pacific. *Journal of Evolutionary Biology* doi:10.1111/j.1420-9102.2005.01052.x.
- Hoffman, J. I., C. W. Matson, W. Amos, T. R. Loughlin, and J. W. Bickham. 2006. Deep genetic subdivision within a continuously distributed and highly vagile marine mammal, the Steller's sea lions *Eumetopias jubatus*. *Molecular Ecology* 15:2821-2832.

- O'Corry-Crowe G., B. L. Taylor, T. Gelatt, T. R. Loughlin, J. Bickham, M. Basterretche, K. W. Pitcher, and D. P. DeMaster. Demographic independence along ecosystem boundaries in Steller sea lions revealed by mtDNA analysis: implications for management of an endangered species. *Canadian Journal of Zoology* (in press).
- Jorde, P. E., T. Schweder, J. W. Bickham, G. H. Givens, R. Suydam, D. Hunter, and N. C. Stenseth. Detecting genetic structure in migrating bowhead whales off the coast of Barrow, Alaska. *Molecular Ecology* (in press).