

CURRICULUM VITAE
Jennifer Ann Fike

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PROFESSIONAL INTERESTS

Wildlife Genetics, Non-invasive Sampling, Genotyping Errors, Wildlife Reintroductions, Carnivore Ecology, Conservation Biology, Conservation Genetics, Wildlife Forensics.

EDUCATION

M.S. in Wildlife/Fisheries Biology
May 2005
47 credit hours, 3.875 GPA

Thesis: "Genetic Structure of River Otter Populations in Eastern North America and an Assessment of Genotyping Error Rates Associated With Alternative Sources of DNA"
Frostburg State University, Frostburg, Maryland 21532
Advisor: Dr. Thomas L. Serfass

B.S. in Biology
May 2000
132 credit hours, 3.568 GPA
Furman University, Greenville, South Carolina 29613

High School Diploma
June 1996
4.000 GPA
Greece Olympia High School, Rochester, New York 14626

PROFESSIONAL EXPERIENCE

Research Assistant, Wildlife Genetics Laboratory, Purdue University
Supervisor: Dr. Olin E. Rhodes, Jr. (765) 494-3601
July 2006-present
Duties: I conduct independent research projects, help graduate students with their research, train new lab personnel on the use of equipment and laboratory protocols, maintain sample databases, develop budgets for individual projects and help lab personnel troubleshoot problems.

Laboratory Technician VII, Wildlife Genetics Laboratory, Purdue University

Supervisor: Dr. Olin E. Rhodes, Jr. (765) 494-3601

July 2003-July 2006

Duties: As a laboratory technician I conduct research projects, help graduate students with their research, train new lab personnel on the use of equipment and laboratory protocols, maintain sample databases and ultra-cold freezer organization, develop budgets for individual projects and help lab personnel troubleshoot problems.

Temporary Laboratory Manager, Wildlife Genetics Laboratory, Purdue University

Supervisors: Dr. Olin E. Rhodes, Jr. (765) 494-3601, Dr. Andrew DeWoody, Dr.

Keith Woeste, and Dr. Charles Michler

June 2004-September 2004

Duties: I was in charge of purchasing laboratory supplies, maintaining equipment, and ensuring the lab adhered to safety regulations. I interacted with sales representatives and trained new lab personnel.

Visiting Graduate Researcher, Wildlife Genetics Laboratory, Purdue University

Supervisors: Dr. Thomas L. Serfass (301) 687-4171 and Dr. Olin E. Rhodes, Jr. (765) 494-3601

June 2002-July 2003

Duties: I developed microsatellite markers for the North American river otter and helped write a Primer Note describing these loci. I conducted the laboratory portion of my Master's work, which involved the isolation, PCR amplification and microsatellite genotyping of DNA from river otter tissue, blood, and scat and an assessment of genotyping errors associated with non-invasive sources of DNA.

Graduate Research and Teaching Assistant, Frostburg State University

Supervisor: Dr. Thomas L. Serfass (301) 687-4171

August 2001-July 2003

Duties: I was a teaching assistant for 4 undergraduate biology labs (2 for biology majors and 2 for non-majors). As a teaching assistant, I wrote quiz and lab practical questions, taught lab materials, graded lab assignments, and ran help sessions. As a research assistant I helped with river otter releases as part of the Pennsylvania River Otter Reintroduction Project, helped other graduate students conduct scat surveys at latrine sites, and collected the otter scat and blood samples for my Master's research project.

Animal Caretaker, Frostburg State University

Supervisor: Dr. Thomas L. Serfass (301) 687-4171

August 2000- June 2002

Duties: I transported river otters from trappers in the Adirondack region of NY to holding facilities at Frostburg State University as part the Pennsylvania River Otter Reintroduction Project. While the otters were held in captivity I was in charge of feedings, cleaned their holding rooms and assisted with Veterinary examinations.

Research Assistant, Frostburg State University

Supervisor: Dr. Thomas L. Serfass (301) 687-4171

August 2000-January 2001

Duties: I researched and developed a feasibility study for the reintroduction of American Marten (*Martes americana*) into Pennsylvania.

PUBLICATIONS

- Beheler, A. S., J. A. Fike, L. M. Murfitt, O. E. Rhodes, Jr., and T. L. Serfass. 2004. Development of polymorphic microsatellite loci for North American river otters (*Lontra canadensis*) and amplification in related Mustelids. *Molecular Ecology Notes* 4:56-58.
- Beheler, A. S., J. A. Fike, G. Dharmarajan, O. E. Rhodes, Jr., and T. L. Serfass. 2005. Ten new polymorphic microsatellite loci for North American river otters (*Lontra canadensis*) and their utility in related mustelids. *Molecular Ecology Notes* 5:602-604.
- Anderson, S.J., J.A. Fike, G. Dharmarajan, and O.E. Rhodes, Jr. 2007. Characterization of 12 polymorphic microsatellite loci for eastern chipmunks (*Tamias striatus*). *Molecular Ecology Notes* 7:513-515.
- Beheler, A.S., J.A. Fike and O.E. Rhodes, Jr. 2007. Eight new polymorphic microsatellite loci from the eastern phoebe (*Sayornis phoebe*). *Conservation Genetics* 8:1259-1261.
- Fike, J.A., G. Dharmarajan, A. M. Drauch and O.E. Rhodes, Jr. 2007. Development of polymorphic microsatellite loci for raccoons (*Procyon lotor*). *Molecular Ecology Notes* 7:525-527.
- Drauch, A. M., B.E. Fisher, E.K. Latch, J. A. Fike and O. E. Rhodes, Jr. 2008. Evaluation of a remnant lake sturgeon population's utility as a source for reintroductions in the Ohio River system. *Conservation Genetics* 9:1195-1209.
- Latch, E.K, D.G. Scognamillo, J.A Fike, M.J. Chamberlain and O.E. Rhodes, Jr. 2008. Landscape genetics of coastal and inland river otters (*Lontra canadensis*) in Louisiana. *Journal of Heredity* 99:265-274.
- Victory, E.R., J.C. Glaubitz, J.A. Fike, O.E. Rhodes, Jr. and K.E. Woeste. 2008. Different histories but similar genetic diversity and structure for black walnut in Indiana and Missouri. Pages 436-445, In Jacobs, D.F. and Michler C.H. (eds) *Proceedings, 16th Central Hardwood Forest Conference*; 2008 April 8-10: Lafayette, USDA Forest Service Northern Research Station Technical Report NRS-P-24.
- Fike, J.A., N.G. Athrey, R. Bowman, P.L. Leberg and O.E. Rhodes, Jr. 2008. Development of twenty-five polymorphic microsatellite markers for the endangered red-cockaded woodpecker (*Picoides borealis*). *Conservation Genetics (In Press)*.
- Dharmarajan, G., J.A. Fike, J. Beasley, and O.E. Rhodes, Jr. Characterization of 12 polymorphic microsatellite loci for the American dog tick (*Dermacentor variabilis*). *Molecular Ecology Resources (In Press)*.

Dharmarajan, G., J.A. Fike, J. Beasley, and O.E. Rhodes, Jr. Characterization of 14 polymorphic microsatellite loci for the raccoon tick (*Ixodes texanus*). Molecular Ecology Resources (*In Press*).

PUBLICATIONS (In Review and in Prep)

- Fike, J.A., T.L. Serfass, A.S. Beheler and O.E. Rhodes, Jr. Evaluation of preservation methods for DNA analyses of river otter scat: Probability of amplification and genotyping accuracy. Proceedings of the XI International Otter Colloquium. *In Review*
- Fike, J.A., T.L. Serfass and O.E. Rhodes, Jr. Assessment of genetic structure of river otter populations in eastern North America. *In Review*.
- Fike, J.A., E.K Latch, O. E. Rhodes, Jr. and T. L. Serfass. Influence of time and temperature on amplification potential and genotyping error of DNA derived from river otter fecal material. *In prep*.
- Fike, J.A., J.C. Beasley and O.E. Rhodes, Jr. Development of polymorphic microsatellite markers for the virginia opossum (*Didelphis virginiana*). *In prep*.
- Fike, J.A. and O.E. Rhodes, Jr. Twenty-nine novel polymorphic microsatellite markers for the fox squirrel (*Sciurus niger*). *In prep*.
- Fike, J.A., C. Hennessy and O.E. Rhodes, Jr. Polymorphic microsatellite markers for the gray squirrel (*Sciurus carolinensis*). *In prep*.
- Fike, J.A., T.L. DeVault and O.E. Rhodes, Jr. Identification of polymorphic multiplexed microsatellite markers for the double-crested cormorant (*Phalacrocorax auritus*). *In prep*.
- Fike, J.A., J.M. Jacques, B.N. Govindan, R.K. Swihart and O.E. Rhodes, Jr. Development of polymorphic microsatellite markers for *Curculio sulcatulus*. *In prep*.
- Fike, J.A., J.M. Jacques, B.N. Govindan, R.K. Swihart and O.E. Rhodes, Jr. Characterization of polymorphic microsatellite markers for *Curculio proboscoides*. *In prep*.
- Fike, J.A., J.M. Jacques, B.N. Govindan, R.K. Swihart and O.E. Rhodes, Jr. Development of multiplexed polymorphic microsatellite markers for *Curculio pardalis*. *In prep*.
- Beheler, A.S., J.A. Fike and O.E. Rhodes, Jr. Seasonal variation in the prevalence of extra-pair young in broods of socially monogamous, single-brooded eastern phoebe (*Sayornis phoebe*) females. *In prep*.
- Beheler, A.S., J.A. Fike and O.E. Rhodes, Jr. Mate-retention after initial nest failures influences the rate of extra-pair young in renests of Eastern Phoebes. *In prep*.
- Beheler, A.S., J.A. Fike and O.E. Rhodes, Jr. The presence of extra-pair young in broods of socially polygynous Eastern Phoebes (*Sayornis phoebe*). *In prep*.
- Dharmarajan, G., J.C. Beasley, J.A. Fike and O.E. Rhodes. Evidence of source-sink dynamics in a generalist mesocarnivore inhabiting an agriculturally fragmented landscape. *In prep*.

Rella-Hapeman, P., E.K. Latch, J.A. Fike, O.E. Rhodes, Jr. and C.W. Kilpatrick.
Landscape Genetics of Fishers (*Martes pennanti*) in the Northeast: Dispersal
Barriers and Historical Influences. *Molecular Ecology (In Review)*.
Rella-Hapeman P., E.K. Latch, J. A. Fike, O. E. Rhodes, Jr. and C.W. Kilpatrick.
Postglacial recolonization of fisher in the Northeastern United States. *In prep.*

PRESENTATIONS AT PROFESSIONAL MEETINGS

Forestry and Natural Resources Research Symposium, Purdue University, “Microsatellite
Marker Development for *Curculio sulcatulus*...in a nutshell” West Lafayette, Indiana,
2008. *Poster Presentation*.

Center for the Environment Research Showcase, Purdue University, “A raccoon, a
chipmunk, and 2 ticks walk into a lab...” West Lafayette, Indiana, 2007. *Poster
Presentation*.

Forestry and Natural Resources Research Symposium, Purdue University, “A raccoon, a
chipmunk, and 2 ticks walk into a lab...” West Lafayette, Indiana, 2007. *Poster
Presentation*.

Center for the Environment Research Showcase, Purdue University, “Effectiveness of a
Spatially Explicit Model for Identifying Genetic Discontinuities in Louisiana River
Otters.” West Lafayette, Indiana, 2006, *Poster Presentation*

Forestry and Natural Resources Research Symposium, Purdue University, “Effectiveness
of a Spatially Explicit Model for Identifying Genetic Discontinuities in Louisiana River
Otters.” West Lafayette, Indiana, 2006, *Poster Presentation*

New York State Chapter Meeting of The Wildlife Society, “An Assessment of
Genotyping Error Rates and the Development of a Collection Protocol for Non-
Invasively Collected North American River Otter Samples.” Brookhaven National
Laboratory, Long Island, New York, 2006, *Oral Presentation*

Conservation Genetics Meeting, “Assessment of Preservation Methods and Genotyping
Error Rates for Non-invasively Collected North American River Otter Samples.” Pacific
Grove, California, 2005, *Poster Presentation*

Forestry and Natural Resources Research Symposium, Purdue University, “Genetic
Structure of River Otter Populations Across Eastern North America.” West Lafayette,
Indiana, 2005, *Poster Presentation*

65th Midwest Fish and Wildlife Conference, “Evaluation of Preservation Methods for
North American River Otter Scat and an Assessment of the Reliability of Genotypes
Obtained.” Indianapolis, Indiana, 2004, *Oral Presentation*

International Otter Colloquium, "Evaluation of Preservation Methods for North American River Otter Scat and an Assessment of the Reliability of Genotypes Obtained." Frostburg, Maryland, 2004, *Oral Presentation*

Forestry and Natural Resources Research Symposium, Purdue University, "Evaluation of Preservation Methods for North American River Otter Scat and an Assessment of the Reliability of Genotypes Obtained." West Lafayette, Indiana, 2004, *Poster Presentation*

Forestry and Natural Resources Research Symposium, Purdue University, "Preliminary Assessment of the Genetic Structure of River Otter Populations in Eastern North America." West Lafayette, Indiana, 2003, *Poster Presentation*

LABORATORY SKILLS AND EXPERIENCE

Isolation of DNA (from muscle/liver tissue, blood, feathers, hair and fecal material), collection of microsatellite genotype data (PCR amplification, optimization of single locus and multiplex PCR amplifications, and scoring of genotypes), collection of sequence data, construction and screening of microsatellite libraries for wildlife species (construction of enriched libraries, single colony PCR, DNA sequencing for the identification of microsatellites, primer design and optimization), electrophoretic separation of nucleic acids in agarose and polyacrylamide gel matrices, preparation of solutions and buffers, and DNA quantification.

LABORATORY EQUIPMENT

ABI Prism 377 DNA Sequencer, Eppendorf epMotion 5070 liquid handling robot, AutoGen NA-2000 Automatic Nucleic Acid Isolation System, Bio-Tek FL600 Microplate Fluorescence reader, thermocyclers (MJ and Eppendorf), Savant AS160 Automatic Speedvac, Autoclave, centrifuge, plate spinner, hybridization oven and pH meter.

COMPUTER /DATA ANALYSIS SOFTWARE

Microsoft Word, Microsoft Excel, Microsoft PowerPoint, Genescan 3.1, Genotyper 2.5, GeneMapper 3.7, Sequencer 4.1, CONVERT, GDA, Structure, BAPS, Doh assignment test, Cervus, Genepop, Treeview and Geneland.