

# CURRICULUM VITAE

**Matthew B. Parks**

Ph.D. Research Associate

Department of Botany and Plant Pathology

Oregon State University

## EDUCATION

- 2011 Ph.D., Botany and Plant Pathology, Oregon State University  
Thesis: *Plastome Phylogenomics in the Genus Pinus Using Massively Parallel Sequencing*
- 2001 M.S., Botany, University of Idaho  
Thesis: *The Role of Soil Nitrogen Levels in the Distribution of Protocarnivorous Plants*
- 1994 B.A., Biology. Washington University in St. Louis

## PROFESSIONAL EXPERIENCE

- 2011-present **Postdoctoral Scholar**, Aaron Liston Lab, Department of Botany and Plant Pathology, Oregon State University
- 2007-2011 **Research Assistant**, Aaron Liston Lab, Department of Botany and Plant Pathology, Oregon State University
- 2002-2007 **Lecturer**, Department of Biological Sciences, University of Idaho.
- 2002-2007 **Associate Curator**, Stillinger Herbarium, University of Idaho
- 1998-2001 **Teaching Assistant**, Department of Biological Sciences, University of Idaho
- 1998 **Research Assistant**, Missouri Department of Conservation
- 1997 **Project Intern**, USGS-BRD, Kauai, Hawaii
- 1995-1996 **NMFS Certified Domestic Fisheries Observer**, Alaskan Observers, Inc.

## HONORS AND AWARDS

- 2011 Margaret Menzel Award, Botanical Society of America, Best Oral Presentation in Genetics Section of Botany 2011
- 2010 Outstanding Graduate Student Award for 2010, Department of Botany and Plant Pathology, Oregon State University
- 2010 Oregon Lottery Academic Scholarship.
- 2009 Anita Summers Travel Grant for Presentation at a Scientific Meeting. Department of Botany and Plant Pathology, Oregon State University.

- 2008 Best Poster Presentation Award, CGRB Fall Conference, Oregon State University  
*Applying Multiplexed Solexa Sequencing and a Novel Assembly Protocol to Increase Phylogenetic Resolving Power*
- 2003, 2004 Kappa Delta Sorority Professor of the Month, University of Idaho
- 1999-2001 Herma Albertson Scholarship, University of Idaho
- 1998-2001 Dean's List, University of Idaho
- 1999 Mazamas Scholarship for Field Research
- 1998 Outstanding Graduate Teaching Assistant, Department of Biological Sciences, University of Idaho
- 1990-1994 Academic Scholarship, Washington University in St. Louis
- 1993 Dean's List, Washington University in St. Louis

### PROFESSIONAL ACTIVITIES

- Member American Society of Plant Taxonomists (ASPT)
- Member Society for the Study of Evolution (SSE)
- Reviewer Molecular Ecology Resources

### PUBLICATIONS

- Cronn, R., Knaus, B., Liston, A., Maughan, J., Parks, M., Syring, J., and Udall, J. Simplifying the Complex: Targeted Sequencing Strategies for Population, Phylogenetic and Genomic Studies in Plants. In review.
- Straub, S., Parks, M., Weitemier, K., Fishbein, M., Cronn, R., and Liston, A. Navigating the tip of the genomic iceberg: Next-generation sequencing for plant systematics. In review.
- Handy, S.M., Parks, M., Rader, J.I., Diachenko, G.W., Callahan, J., Liston, A., Deeds, J.R. Genetic Identification of Pine Nuts Obtained from Consumers Experiencing Dysgeusia. In prep.
- Parks, M., Liston, A., and Cronn, R. Separating the wheat from the chaff: Mitigating the effects of noise in a plastome phylogenomic data set. In prep.
- Parks, M., Liston, A., and Cronn, R. Newly Developed Primers for Complete *ycf1* Amplification in *Pinus* (Pinaceae) Chloroplasts with Possible Family-Wide Utility. In press.
- Straub, C.K., Fishbein, M., Livshultz, T., Foster, Z., Parks, M., Weitemier, K., Cronn, C., and Liston, A. 2011. Building a Model: Developing Genomic Resources for Common Milkweed (*Asclepias syriaca*) with Low Coverage Genome Sequencing. BMC Genomics 12:211.
- Parks, M., Liston, A. and Cronn, R. 2010. Meeting the challenges of non-referenced genome assembly from short-read sequence data. Acta Horticulturae 859: 323-332.

Whittall, J.B., Syring, J., Parks, M., Buenrostro, J., Dick, C., Liston, A. and Cronn, R. 2010. Finding a (pine) needle in a haystack: chloroplast genome sequence divergence in rare and widespread pines. *Molecular Ecology* 19 Suppl 1: 100-114.

Parks, M., Cronn, R., Liston, A. 2009. Increasing phylogenetic resolution at low taxonomic levels using massively parallel sequencing of chloroplast genomes. *BMC Biology* 7:84.

Cronn, R.C., Liston, A., Parks, M., Gernandt, D., Shen R., and Mockler, T. 2008. Multiplex sequencing of plant chloroplast genomes using Solexa sequencing-by-synthesis technology. *Nucleic Acids Research* 36(19): e122.

Sexton, O.J., Phillips, C., Parks, M., Stinn, J., and Preston, R. 1998. Cooperative resolution of an environmental dilemma: a case study. In M. Lannoo, ed., *Status and Conservation of Midwestern Amphibians*. Iowa City, University of Iowa Press.

## POSTERS AND SPEAKING PRESENTATIONS

- 2011            Botany 2011. St. Louis, Missouri  
Talk: *Separating the Wheat from the Chaff: Mitigating the Effect of Noisy Data in Plastome Phylogenomic Analyses.*
- 2011            International Plant and Animal Genome Conference XIX. San Diego, California.  
Poster: *A Plastome-Level Phylogeny and Highly Calibrated Evolutionary History for the Entire Genus Pinus.*
- 2010            Botany 2010. Providence, Rhode Island.  
Talk: *Striving for the First Finish Line: A Whole-Plastome Phylogeny for the Entire Genus Pinus and Early Implications.*
- 2010            Evolution 2010. Portland, Oregon.  
Talk: *Striving for the First Finish Line: A Whole-Plastome Phylogeny for the Entire Genus Pinus.*
- 2010            Invited speaker, Illumina Users Symposium 2010. Napa, California.  
Talk: *Using Plastome-Level Sequencing to Increase Phylogenetic and Phylogeographic Resolution in the World's Pine Species.*
- 2010            Graduate Student Recruitment Weekend. Oregon State University  
Poster: *Chloroplast Population Genomics in Narrowly Endemic and Widespread Species of Pinus.*
- 2009            Botany and Mycology 2009. Snowbird, Utah.  
Talk: *Increasing Phylogenetic Resolution at Low Taxonomic Levels Using Massively Parallel Sequencing.*
- 2009            Evolution 2009. University of Idaho, Moscow, Idaho.  
Talk: *Increasing Phylogenetic Resolution at Low Taxonomic Levels Using Massively Parallel Sequencing.*
- 2009            Graduate Student Recruitment Weekend. Oregon State University

Poster: *Applying Multiplexed Solexa Sequencing and a Novel Assembly Protocol to Increase Phylogenetic Resolving Power.*

- 2008 UCSD Next-Generation Sequencing and Informatics Symposium. University of California in San Diego  
Poster: *Applying Multiplexed Solexa Sequencing and a Novel Assembly Protocol to Increase Phylogenetic Resolving Power*
- 2008 CGRB Fall Conference. Oregon State University  
Poster: *Applying Multiplexed Solexa Sequencing and a Novel Assembly Protocol to Increase Phylogenetic Resolving Power*
- 2008 Botany 2008: Botany without Borders. Vancouver, British Columbia  
Talk: *Phylogenetic Analysis of Pinus Based on 33 Chloroplast Genomes*
- 2008 Gymnosperm Tree of Life Annual Meeting. Miami, Florida  
Oral presentation to attendees on our assembly methodology for Illumina short read sequence data.
- 2008 Graduate Student Recruitment Weekend. Oregon State University  
Poster: *Plastid Phylogenomics Using the Illumina 1G Genome Analyzer*
- 2005 National EduCause Conference. Jacksonville, Florida  
Poster: *BIONET: Online Learning for the Masses.*