

## Curriculum Vitae, December 2008

**MARTIN F. WOJCIECHOWSKI**  
Associate Professor, School of Life Sciences  
Website: <http://www.public.asu.edu/~mfwojci/>

PO Box 874501  
Arizona State University  
Tempe, AZ 85287-4501 USA

phone: 480-727-7767  
fax: 480-965-6899  
email: mfwojciechowski@asu.edu

### EDUCATION

University of Northern Colorado, Greeley Ph.D. 1981 Biological Sciences  
Northern Michigan University, Marquette B.S. 1975 Botany

### ACADEMIC POSITIONS HELD

Associate Professor, School of Life Sciences, Arizona State University, 2007–present  
Assistant Professor, School of Life Sciences, Arizona State University, 2003–present  
Assistant Professor, Department of Plant Biology, Arizona State University, 2001–2003  
Visiting Researcher, DOE-Joint Genome Institute, Walnut Creek, CA, summer 2001  
Museum Scientist, Museum of Paleontology and Research Scientist, University/Jepson Herbaria,  
University of California, Berkeley, 1997–2001  
Visiting Scholar, Section of Evolution & Ecology, University of California, Davis, 1997–2001  
Program Coordinator, NSF Research Training Group, University of Arizona, 1991–1997  
Adjunct Assistant Professor and Research Associate, Department of Ecology & Evolutionary  
Biology, University of Arizona, 1986–1997  
Staff Scientist, Departments of Biochemistry and Microbiology, University of Rochester Medical  
Center, 1984–1986  
NIH Postdoctoral Fellow, Michigan Molecular Institute, Midland, MI, 1981–1984

### PROFESSIONAL AFFILIATIONS

American Society of Plant Taxonomists  
Botanical Society of America  
Society for Molecular Biology and Evolution  
Society for Systematic Biology

### RESEARCH INTERESTS

Molecular systematics, biogeography, and evolution of green plants. Molecular biology and genetics of bacteria, organelles, transposable elements. Evolution of genes and genomes, especially in bacteria and plants. Theoretical aspects of phylogeny reconstruction and molecular evolution.

### FELLOWSHIPS, AWARDS, AND HONORS

Board of Regents Academic Scholarships, Northern Michigan University, 1973–1975  
Undergraduate Honors Research Program, Argonne National Laboratory, 1975  
Phi Kappa Phi, 1976  
Boettcher Foundation Fellow, University of Northern Colorado, 1979–1980  
Outstanding Graduate Biologist of the Year, University of Northern Colorado, 1981  
National Research Service Award (Postdoctoral), National Cancer Institute, 1981–1984  
Sigma Xi, Elected Full Member 1984  
Species of *Astragalus* (Fabaceae) from Iran named in my honor (*Botanical J. of the Linnean Society* 143: 443, 2003)  
Author of one of the “Ten most cited papers published in *Systematic Biology*, 2005–2007 (Lavin, Herendeen, and Wojciechowski, 2005)

## PUBLICATIONS IN REFEREED JOURNALS

38. Sanderson, M. J., M. F. **Wojciechowski**, M. M. McMahon, and M. Lavin. Leguminosae. In *Companion Volume to the Phylocode*, K. de Queiroz, J. Gauthier, and P. Cantino (eds.). University of California Press, Berkeley, CA. *In press* (expected 2009).
37. Pigg, K. B., M. L. DeVore and M. F. **Wojciechowski**. 2008. *Paleosecuridaca curtisii* gen. et sp. nov., *Securidaca*-like samaras (Polygalaceae) from the Late Paleocene of North Dakota, USA and their significance to the divergence of families within the Fabales. *International J. Plant Sciences* 169: 1304-1313.
36. Jansen, R. K., M. F. **Wojciechowski**, E. Sanniyasi, S-B Lee, and H. Daniell. 2008. Complete plastid genome sequence of the chickpea (*Cicer arietinum*) and the phylogenetic distribution of *rps12* and *clpP* intron losses among legumes (Leguminosae). *Molecular Phylogenetics and Evolution* 48: 1204-1217.
35. Pennington, R. T., and M. F. **Wojciechowski**. 2008. The status of *Sophora*. *The Plantsman*, 186-189.
34. Champagne, C. E. M., T. E. Goliber, M. F. **Wojciechowski**, R. W-B. Mei, B. T. Townsley, K. Wang, M. M. Paz, R. Geeta, and N. R. Sinha. 2007. Compound leaf development and evolution in the legumes. *The Plant Cell* 19: 3369-3378.
32. Dugan, L. E., M. F. **Wojciechowski**, and L. R. Landrum. 2007. A large-scale plant survey: efficient vouchering with identification through morphology and DNA analysis. *Taxon* 56: 1238-1244.
32. Javadi, F., M. F. **Wojciechowski**, and H. Yamaguchi. 2007. Geographical diversification of the genus *Cicer* (Papilionoideae: Leguminosae) inferred from molecular phylogenetic analyses of chloroplast and nuclear DNA sequences. *Botanical J. Linnean Society* 154: 175-186.
31. Lavin, M., P. S. Herendeen, and M. F. **Wojciechowski**. 2005. Evolutionary rates analysis of Leguminosae implicates a rapid diversification of lineages during the Tertiary. *Systematic Biology* 54: 530-549.
30. **Wojciechowski**, M. F. 2005. *Astragalus* (Fabaceae): a molecular phylogenetic perspective. *Brittonia* 57: 382-396.
29. **Wojciechowski**, M. F., and A. Liston. 2005. Rupert Barneby and his legume legacy. *Brittonia* 57: 299-300.
28. Luckow, M., C. Hughes, B. Schrire, P. Winter, C. Fagg, R. Fortunato, J. Hurter, L. Rico, F. J. Breteler, A. Bruneau, M. Caccavari, L. Craven, M. Crisp, A. Delgado S., S. Demissew, J. J. Doyle, R. Grether, S. Harris, P. S. Herendeen, H. M. Hernández, A. M. Hirsch, R. Jobson, B. B. Klitgaard, J-N. Labat, M. Lock, B. MacKinder, B. Pfeil, B. B. Simpson, G. F. Smith, M. Sousa S., J. Timberlake, J. G. van der Maesen, A. E. Van Wyk, P. Vorster, C. K. Willis, J. J. Wieringa, and M. F. **Wojciechowski**. 2005. *Acacia*: the case against moving the type to Australia. *Taxon* 54: 513-519.
27. Ickert-Bond, S. M., and M. F. **Wojciechowski**. 2004. Phylogenetic relationships in *Ephedra* (Gnetales): evidence from nuclear and chloroplast DNA sequence data. *Systematic Botany* 29: 834-849. [student dissertation research]
26. Lavin, M., B. P. Schrire, G. P. Lewis, R. T. Pennington, A. Delgado-Salinas, M. Thulin, C. Hughes, A. Beyra Matos, and M. F. **Wojciechowski**. 2004. Metacommunity process rather than continental tectonic history better explains geographically structured phylogenies in legumes. *Philosophical Transactions of the Royal Society, London, B*, 359: 1509-1522.
25. **Wojciechowski**, M. F., M. Lavin, and M. J. Sanderson. 2004. A phylogeny of legumes (Leguminosae) based on analysis of the plastid *matK* gene resolves many well-supported subclades within the family. *American Journal of Botany* 91: 1846-1862.
24. Lavin, M., M. F. **Wojciechowski**, P. Gasson, C. Hughes, and E. Wheeler. 2003. Phylogeny of robinoid legumes (Fabaceae) revisited: *Coursetia* and *Gliricidia* recircumscribed, and a biogeographical appraisal of the Caribbean endemics. *Systematic Botany* 28: 387-409.
  
23. Hu, J-M., M. Lavin, M. F. **Wojciechowski**, and M. J. Sanderson. 2002. Phylogenetic analysis of nuclear ribosomal ITS/5.8 S sequences in the tribe Millettieae (Fabaceae):

- Poecilanthe-Cyclolobium*, the core Millettieae, and the *Callerya* group. *Systematic Botany* 27: 722-733.
22. Lavin, M., M. F. **Wojciechowski**, A. Richman, J. Rotella, M. J. Sanderson, and A. Beyra Matos. 2001. Identifying Tertiary radiations of Fabaceae in the Greater Antilles: alternatives to cladistic vicariance analysis. *International Journal of Plant Sciences* 162: S53-S76.
  21. Hu, J-M., M. Lavin, M. F. **Wojciechowski**, and M. J. Sanderson. 2000. Phylogenetic systematics of the tribe Millettieae (Leguminosae) based on *matK* sequences, and implications for evolutionary patterns in Papilionoideae. *American Journal of Botany* 87: 418-430.
  20. McCourt, R. M., K. G. Karol, J. Bell., S. Fritz, K. Helm-Bychowski, A. Grajewska, M. F. **Wojciechowski**, and R. W. Hoshaw. 2000. Phylogeny of the conjugating green algae (Zygnemophyceae) based on *rbcL* sequences. *Journal of Phycology* 36: 747-758.
  19. Sanderson, M. J., and M. F. **Wojciechowski**. 2000. Improved bootstrap confidence limits in large-scale phylogenies, with an example from Neo-Astragalus (Leguminosae). *Systematic Biology* 49: 671-685.
  18. Sanderson, M. J., M. F. **Wojciechowski**, J-M. Hu, T. Sher Khan, and S. G. Brady. 2000. Error, bias, and long-branch attraction in data from two chloroplast photosystem genes in seed plants. *Molecular Biology and Evolution* 17: 782-797.
  17. **Wojciechowski**, M. F., M. J. Sanderson, and J-M. Hu. 1999. Evidence on the monophyly of *Astragalus* (Fabaceae) and its major subgroups based on nuclear ribosomal DNA ITS and chloroplast DNA *trnL* intron data. *Systematic Botany* 24: 409-437.
  16. Campbell, C. S., M. F. **Wojciechowski**, B. G. Baldwin, L. A. Alice, and M. J. Donoghue. 1997. Persistent nuclear ribosomal DNA sequence polymorphism in the *Amelanchier* (Rosaceae) agamic complex. *Molecular Biology and Evolution* 14: 81-90.
  15. Carareto, C. M. A., W. Kim, M. F. **Wojciechowski**, P. O'Grady, A. V. Prokchorova, J. C. Silva and M. G. Kidwell. 1997. Testing transposable elements as genetic drive mechanisms using *Drosophila P* element constructs as a model system. *Genetica* 101:13-33.
  14. Sanderson, M. J., and M. F. **Wojciechowski**. 1996. Diversification rates in a temperate legume clade: Are there "so many species" of *Astragalus* (Fabaceae)? *American Journal of Botany* 83: 1488-1502.
  13. Baldwin, B. G., M. J. Sanderson, J. M. Porter, M. F. **Wojciechowski**, C. S. Campbell, and M. J. Donoghue. 1995. The ITS region of nuclear ribosomal DNA: a valuable source of evidence on angiosperm phylogeny. *Annals of the Missouri Botanical Garden* 82: 247-277.
  12. Campbell, C. S., M. J. Donoghue, B. G. Baldwin, and M. F. **Wojciechowski**. 1995. Phylogenetic relationships in Maloideae (Rosaceae): evidence from sequences of the internal transcribed spacers of nuclear ribosomal DNA and its congruence with morphology. *American Journal of Botany* 82: 903-918.
  11. Prokchorova, A. V., C. M. A. Carareto, M. F. **Wojciechowski**, and M. G. Kidwell. 1995. A new autonomous *P* element vector with a multiple cloning site for insertion of a variety of DNA sequences. *Drosophila Information Service* 76: 191-192.
  10. Michod, R. E., and M. F. **Wojciechowski**. 1994. DNA repair and the evolution of transformation IV. DNA damage increases transformation. *Journal of Evolutionary Biology* 7: 147-175.
  9. Kim, W., M. F. **Wojciechowski**, L. Bieling and M. G. Kidwell. 1994. Genetic transformation with *P* element vectors carrying the *rosy* gene in *Drosophila melanogaster*. *Drosophila Information Service* 75: 169-171.
  8. **Wojciechowski**, M. F., M. J. Sanderson, B. G. Baldwin and M. J. Donoghue. 1993. Monophyly of aneuploid *Astragalus* (Fabaceae): evidence from nuclear ribosomal DNA internal transcribed spacer sequences. *American Journal of Botany* 80: 711-722.
  7. Sanderson, M. J., B. G. Baldwin, G. Bharathan, C. S. Campbell, C. von Dohlen, D. Ferguson, J. M. Porter, M. F. **Wojciechowski**, and M. J. Donoghue. 1993. The growth of phylogenetic information and the need for a phylogenetic data base. *Systematic Biology* 42: 562-568.
  6. **Wojciechowski**, M. F., K. R. Peterson, and P. E. Love. 1991. Regulation of the SOS response in *Bacillus subtilis*: Evidence for a LexA repressor homolog. *Journal of Bacteriology* 173: 6489-6498.

5. **Wojciechowski**, M. F., M. A. Hoelzer, and R. E. Michod. 1989. DNA repair and the evolution of transformation in *Bacillus subtilis* II. Role of inducible repair. *Genetics* 121: 411–422.
4. Michod, R. E., M. F. **Wojciechowski**, and M. A. Hoelzer. 1988. DNA repair and the evolution of transformation in the bacterium *Bacillus subtilis*. *Genetics* 118: 31–39.
3. **Wojciechowski**, M. F., and M. E. Heimbroke. 1984. Dinitrogen fixation in the alpine tundra, Niwot Ridge, Front Range, Colorado. *Arctic and Alpine Research* 16: 1–10.
2. **Wojciechowski**, M. F., and T. Meehan. 1984. Inhibition of DNA methyltransferases *in vitro* by benzo[a]pyrene diol epoxide-modified substrates. *Journal of Biological Chemistry* 259: 9711–9716.
1. Shen-Miller, J., R. E. McNitt, and M. **Wojciechowski**. 1978. Regions of differential cell elongation and mitosis, and root meristem morphology in different tissues of geotropically stimulated maize root apices. *Plant Physiology* 61: 7–12.

### PEER-REVIEWED BOOK & PERIODICAL CHAPTERS

- Steele, K. P., and M. F. **Wojciechowski**. 2003. Phylogenetic systematics of tribes Trifolieae and Viciae (Leguminosae). In *Advances in Legume Systematics, Higher Level Systematics*, B. B. Klitgaard and A. Bruneau (eds.), part 10, pp. 355–370. Royal Botanic Gardens, Kew.
- Wojciechowski**, M. F. 2003. Reconstructing the phylogeny of legumes (Leguminosae): an early 21<sup>st</sup> century perspective. In *Advances in Legume Systematics, Higher Level Systematics*, B. B. Klitgaard and A. Bruneau (eds.), part 10, pp. 5–35. Royal Botanic Gardens, Kew.
- Wojciechowski**, M. F., M. J. Sanderson, K. P. Steele, and A. Liston. 2000. Molecular phylogeny of the “temperate herbaceous tribes” of papilionoid legumes: a supertree approach. In *Advances in Legume Systematics*, P. Herendeen and A. Bruneau (eds.), part 9, pp. 277–298. Royal Botanic Garden, Kew.
- Kessler, J. O., and M. F. **Wojciechowski**. 1997. Collective behavior and dynamics of swimming bacteria. In *Bacteria as Multicellular Organisms*, J. A. Shapiro and M. Dworkin (eds.), pp. 417–450. Oxford University Press, New York.
- Wojciechowski**, M. F. 1992. The mechanisms of genetic transformation. In *Encyclopedia of Microbiology*, Joshua Lederberg (ed.), vol. 2, pp. 299–310. Academic Press, San Diego.

### INVITED SYMPOSIUM CONTRIBUTIONS

- Wojciechowski, M. F. “*Astragalus*: evolutionary success or failure?” Keynote address, First International Workshop on *Astragalus* (Fabaceae), Munich, Germany, April 2007.
- Wojciechowski, M. F., K. P. Steele, and M. J. Sanderson. “Are there so many species of *Astragalus*?” a reprise”, XVII International Botanical Congress, Vienna, Austria, July 2005, invited presentation in the symposium “Does size matter? Phylogenetic and taxonomic issues in giant genera”.
- Wojciechowski, M. F. “Legume phylogenetics in a genomics world”, 1<sup>st</sup> Model Legume Congress, Pacific Grove, California, June 2005, invited plenary presentation.
- Lavin, M., B. P. Schrire, G. P. Lewis, R. T. Pennington, A. Delgado-Salinas, M. Thulin, and M. F. **Wojciechowski**. 2004. Ages of trans-oceanic crown clades implicate meta-community processes rather than continental history in explaining structured phylogenies”, the Royal Society, London, March 2004, invited presentation for Discussion Meeting “Plant phylogeny and the origin of major biomes”.
- Wojciechowski, M. F. “*Astragalus*: a molecular phylogenetic perspective”, BSA/ASPT annual meeting, Snowbird, Utah, August 2004, contributed presentation in the colloquium “Rupert Barneby and his legume legacy”.
- Lavin, M., M. F. **Wojciechowski**, P. S. Herendeen, and M. J. Sanderson. “Timing and patterns of diversification in papilionoid legumes”, BSA/ASPT annual meeting, Mobile, Alabama, August

2003, invited presentation in the symposium “Dating in the 21<sup>st</sup> century: Theory and reality in finding a date for your clade”.

Wojciechowski, M. F. “Reconstructing the evolutionary history and diversification of legumes”, 1<sup>st</sup> International Conference on Legume Genomics and Genetics, University of Minnesota, Minneapolis, June 2002, invited plenary presentation on legume phylogenetics.

Wojciechowski, M. F. “Recent progress in reconstructing a legume phylogeny”, 4<sup>th</sup> International Legume Conference, Canberra, Australia, July 2001, invited plenary presentation.

Wojciechowski, M. F., M. Lavin, A. Richman, J. Rotella, M. J. Sanderson, and A. Beyra Matos. “Identifying Tertiary radiations of Fabaceae in the Greater Antilles: alternatives to cladistic vicariance analysis”, BSA/ASPT annual meeting, Albuquerque, New Mexico, August 2001, invited symposium presentation on “Caribbean Plant Biogeography”.

Wojciechowski, M. F., M. J. Sanderson, K. P. Steele, and A. Liston. “Phylogenetic relationships of the temperate herbaceous papilionoid tribes”, XVI International Botanical Congress, St. Louis, Missouri, July 1999, invited presentation in legume phylogenetics symposium.

### **Current GRANTS**

2006–2009, NSF Systematic Biology (#0542958), “Molecular systematics of the temperate IR-lacking clade of papilionoid legumes (Leguminosae) and the evolution of nod factor receptor genes”; M. F. Wojciechowski PI, \$263,305

### **TEACHING**

#### **Graduate Teaching Assistant, University of Northern Colorado, 1977–1981**

Introductory Plant Biology, Plant Physiology  
General Microbiology, Human Anatomy, Physiology  
Introductory Organic Chemistry and Biochemistry

#### **University of Arizona, 1986–1997**

General Genetics (laboratory coordinator)  
Molecular Systematics Methods workshop (Laboratory of Molecular Systematics & Evolution)  
Molecular Sequence Alignment workshop (Laboratory of Molecular Systematics & Evolution)

#### **Courses and workshop offered at Arizona State University, 2002–2008**

Comparative Plant Diversity, PLB300 (4 cr.); Spring 2007 (taught w/ K. B. Pigg)  
Flora of Arizona, PLB 310 (4 cr.); Spring semesters, 2002–2006, 2008  
Molecular Phylogenetic Analysis, PLB 598 (4 cr.); S2002  
Phylogeny and Macroevolution, PLB 494/598 (3 cr.); F2002  
Seminars in Evolution – Plant Systematics, Paleobiology, Phylogenetic Approaches to  
Community Ecology, BIO/GLG/PLB 591 (1-2 cr.); spring semesters, 2003–2008  
Phylogenetic Biology and Analysis, BIO, PLB & CBS 494/598 (4 cr.); F2003, F2006  
Plant Morphology and Evolution, PLB 394/598 (3 cr.); F2004 (taught w/ K. B. Pigg)  
Macroevolution, BIO 498/598 (2 cr.); Fall 2007

#### **Workshops Taught**

Family Fabaceae (Bishop, CA), Jepson Herbarium Botanical Workshop; 1995  
Legumes of the White Mountains (California), Jepson Herbarium Botanical Workshop; 1998  
Flora of the Sweetwater Mountains (California), Jepson Herbarium Botanical Workshop; 2002

### **CURRENT STUDENT ADVISEMENT**

#### **Ph.D. Students**

Jamie Howard, Plant Biology (chair): Diversity in legume-rhizobial symbioses; recipient of a Graduate Student Research Award from the Botanical Society of America (2006)

Frank Farruggia, Plant Biology (chair): Phylogenetic systematics of *Sesbania* (Fabaceae)  
Raul Gutierrez, Plant Biology (chair): Systematics of Martyniaceae  
Tanya Do Soule, Microbiology (committee)  
Scott Bates, Microbiology (committee)  
Malcolm Taylor, Plant Biology (committee)  
Karen Fisher, Plant Biology (committee)  
Cyd Hamilton, Biology (committee)

### **M.S. Students**

Mark Buhanan, M.S. program in Plant Biology (committee)  
Jessica Mohler, M.S., and Ph.D. program in Microbiology (committee)

### **Undergraduate Students**

Josue Lopez, B.S. in Molecular Biology & Biotechnology (summer 2008–present)  
Tia Alhquist, B. S. in Plant Biology, SOLUR Researcher (fall 2008–present)

## **PROFESSIONAL SERVICE**

Ad hoc reviewer for manuscripts for journals, especially: *American J. of Botany*, *Botanical J. of the Linnean Society*, *International J. of Plant Sciences*, *J. of Molecular Evolution*, *Molecular Phylogenetics and Evolution*, *Plant Systematics and Evolution*, *Systematic Botany*, *Taxon*  
Ad hoc reviewer for proposals: NSF, University of Maine, Princeton University Press.  
Systematics consultant and photographic contributor to *Jepson Desert Manual* (U. California Press, 2002), Jepson Herbarium, University of California, Berkeley, 1997–present  
Program Committee, Biosystematists (San Francisco Bay area), 1998–2001  
Environment and Public Policy Committee, American Society for Plant Taxonomy, 2002–2005  
NSF Systematics Program panel member, 2003 & 2008  
Family Fabaceae editor for the 2<sup>nd</sup> edition of the *The Jepson Manual* (the flora of the vascular plants of California), 2003–present  
Systematics and photographic contributor to *Legumes of the World*, 2005, Lewis et al. (eds.), Royal Botanic Garden, Kew, UK, 577 pages  
Scientific Contributor, Tree of Life Web Project: Fabales (<http://tolweb.org/Fabales/21030>), Fabaceae (<http://tolweb.org/Fabaceae/21093>)  
Legume Advisory Committee, Flora of North America Project (<http://www.fna.org/FNA/>)  
Steering Committee, Legumes of Arizona Project, 2006–present

## **RECENT INVITED SEMINARS**

Arizona Botanists 2008, Desert Botanical Garden, Phoenix, February 2008  
Institute for Bioinorganic Chemistry, Polish Academy of Sciences, Poznan, May 2007, “Evolution of a model flowering plant family: the legumes (Fabaceae)”  
Botanische Staatssammlung, Munich, Germany, April 2007, “*Astragalus*: evolutionary success or failure”  
Northern Arizona University, Flagstaff, January 2006. “Tales from the phylogeny, phyloinformatics, and diversification of legumes”  
California Academy of Science, San Francisco, December 2005, “Three peas in a pod; the phylogeny, phylogenomics, and phylodiversity of legumes”, w/ M. J. Sanderson and M. McMahon (Biosystematists of the Bay Area)