

PETER WARREN FRITSCH
Curriculum Vitae

Birth date: 21 December 1961. Milwaukee, Wisconsin

Address

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Education

Ph.D. (Botany) Rancho Santa Ana Botanic Garden Program in Botany and Claremont
Graduate School, Claremont, California, 1995, C. T. Philbrick, advisor
M.S. (Botany) University of Michigan, Ann Arbor, 1988
B.S. (Biology) University of Michigan, Ann Arbor, 1983

Present Positions

Chair, Department of Botany, California Academy of Sciences, 2012–
Curator of Botany, California Academy of Sciences, 2007–
Research Professor, San Francisco State University, 1998–

Appointments

Board Member, Quarryhill Botanic Garden, 2009–
Fellow of the California Academy of Sciences, 2001–
Visiting Professor for Senior International Scientists, Kunming Institute of Botany,
Chinese Academy of Sciences, July-Sept 2011 and Sept–Oct 2013
Associate Curator of Botany, California Academy of Sciences, 2002–2007
Chair, Department of Botany, California Academy of Sciences, 2000–2002
Assistant Curator of Botany, California Academy of Sciences, 1996–2002
Visiting Professor, Zhongshan University, People's Republic of China, 2001–2004
Mellon Postdoctoral Fellow, Department of Botany, Duke University, 1994–1996
Research Assistant, The Rancho Santa Ana Botanic Garden, 1989–1992
Teaching Assistant, Cytogenetics, The Rancho Santa Ana Botanic Garden, 1992
Botanical Surveyor, U.S. Forest Service and Rancho Santa Ana Botanic Garden, 1990
Herbarium Technician, University of Michigan, 1989
Field and Research Assistant, School of Natural Resources, University of Michigan, 1988
Teaching Assistant, Woody Plants, University of Michigan, 1988
Research Assistant, Department of Paleontology, University of Michigan, 1987–88

Field Assistant, Department of Botany, University of Michigan, 1987
Laboratory Assistant, University of Michigan, 1983

Educational Service

Docent lecture, 3 hrs, Quarryhill Botanical Garden, 31 March 2012
Docent tours for 4th-5th grade Sonoma County schools, Quarryhill Botanical Garden, 2009–
Annual lecturer, Summer Systematics Institute 3-hr course on molecular systematics, 1998–2006
Dissertation Opponent for Ida Trift, Stockholm University, 2004
3-hour seminar, Strybing Arboretum, docents training course on biogeography, 2002
Guest lecturer on the biogeography of plants, San Francisco State University/CAS, 1999
Science Advisor for a high school course on evolution ("Voyages through Time"), a collaboration between the SETI Institute, California Academy of Sciences, NASA Ames Research Center, and San Francisco State University, 1998–2002.
3-hour seminar (given twice), CAS, docents training course, land plant evolution, 1998

Advisor for the following students and postdoctoral scholars:

Shannon Lucas (1997), Kara Shockey (1998), Candice Meldrum (1999), Jessica Oppenheimer (2003), Anja Schiller (2004, 2005), Sarah Bury (2006), Adam Bruehl (2007), Alexandra Campbell (2010), and Lila Leatherman (2012), all through the Summer Systematics Institute, an NSF-sponsored eight- to ten-week summer program for undergraduates in systematic biology
Anya Illis and Meg Stalcup, Biological Illustration interns (summer, 1998, 1999)
Kayla Sweeten, undergraduate Follette Intern (summer 2012)
Edith Davis (2008), undergraduate summer intern
Heather-Rose Kates, undergraduate intern (January 2010)
Ph.D. co-advisor for the following students: Yelin Huang, Zhongshan University, Guangzhou, China; Yuguo Wang, Zhongshan University, Guangzhou, China; Lu Lu, Kunming Institute of Botany, Kunming, China; João Aranha, University of Campinas, Campinas, Brazil; Ji Yunheng, Kunming Institute of Botany, China
M. Sc. advisor for Camille Nowell and Gary Li, San Francisco State University
M. Sc. Committee member, San Francisco State University, for: Noel Graham, Diana Gamba, Ricardo Kriebel, Rebecca Wenk, Daniel Grimm, Emily Magnaghi, Jean Claude Rakotonirina, Heritiana Ranarivelo
Post-doc (shared advisorship with other curators, California Academy of Sciences): Dylan Burge, Darin Penneys, R. Douglas Stone

Grants and Awards

National Geographic Society, "Understanding species diversity in the Himalayan-Hengduan Shan small-leaved wintergreens (*Gaultheria* ser. *Trichophyllae*: Ericaceae)," September–October 2013, \$13,900. PI.
Visiting Scholar Fellowship, Kunming Institute of Botany, Chinese Academy of Sciences, September–October 2013, \$14,000.
National Science Foundation, "Assessing phylogeny and biogeography in a megadiverse tropical plant family (Melastomataceae)," 2012–2015, \$545,200. Co-PI; PI, Darin S. Penneys; other PIs: Frank Almeda, Fabian Michelangeli.

Visiting Scholar Fellowship, Kunming Institute of Botany, Chinese Academy of Sciences, July-September 2011, \$22,000.

National Science Foundation, "Collaborative Research: Phylogenetic, Biogeographic, and Monographic Studies in the Wintergreen Group", 2007–2010, \$255,837. PI; collaborative PI: Kathy Kron, Wake Forest University.

John D. and Catherine T. MacArthur Foundation, "Biodiversity of the Gaoligongshan", 2005–2008, \$225,000. PI; N. Jablonski, co-PI.

National Geographic Society, "Biotic Survey of the Gaoligongshan, a Biodiversity Hotspot in China", 2002–2003, \$35,000. PI; N. Jablonski, D. Kavanaugh, S. L. Dao, co-PIs.

National Science Foundation Systematic Biology, "Historical Biogeography of *Symplocos*, an Amphi-Pacific Tropical Disjunct Clade", 2002–2006, \$147,209; PI; co-PI, Frank Almeda.

National Science Foundation Biotic Surveys and Inventories, "Biotic Survey of the Gaoligongshan, a Biodiversity Hotspot in Western Yunnan, China", 2002–2007, \$2,403,296; PI; Nina Jablonski, co-PI.

CAS research grants, 1997–2001, total of \$6000

Duke/Mellon Postdoctoral Fellowship, 1994–1996

Duke Research Awards, 1994, 1995, \$2700

National Science Foundation Dissertation Improvement Grant (C.T. Philbrick, PI), 1993, \$9500

Mellon Foundation Graduate Fellowship, 1993

Mellon Foundation Travel/Research Award, 1992–1993, \$5000

Mellon Foundation Summer Fellowship, 1992–1993

Hardman Foundation Grant, 1992, \$500

American Society of Plant Taxonomists/NSF AIBS Travel Award, 1992, \$500

Claremont Graduate School, Graduate Student Council Research Grant, 1991, \$230; 1992, \$500; 1993, \$497

American Society of Plant Taxonomists Research Grant, 1991, \$250

Rancho Santa Ana Botanic Garden Research Fellowship, 1989–1992

Claremont Graduate School Tuition Scholarship, 1989–1994

Hanes Fund Grant, 1988–1989, \$1280

University of Michigan Tuition Scholarship, 1987–1988

University of Michigan Biological Station Summer Scholarship, 1982

Publications

In-press:

- Fritsch, P. W.**, S. R. Manchester, R. D. Stone, B. C. Cruz, and F. Almeda. In press. Northern Hemisphere origins of the amphi-Pacific tropical plant family Symplocaceae. *Journal of Biogeography*.
- Fritsch, P. W.** and F. Almeda. In press. A taxonomic revision of Antillean *Symplocos* (Symplocaceae). *Phytotaxa*.
- Nowell, C. M. and **P. W. Fritsch**. In press. *Cercis*. In M. Bierner et al. (eds.), *Legumes of Arizona*. Desert Legume Program, University of Arizona.

- Fritsch, P. W.** In press. Styracaceae. In P. M. Jørgensen (ed.), *Catalogue of Vascular Plants of Bolivia*. Missouri Botanical Garden, St. Louis.
- Fritsch, P. W.** In press. Styracaceae. In R. Bernal (ed.), *Catalogue of the plants of Colombia*. Missouri Botanical Garden, St. Louis.
- Fritsch, P. W.** and H. Nootebom. In press. Symplocaceae. In P. H. Raven and J. R. Abbott (eds.), *List of Species of the Plants of India*. Missouri Botanical Garden, St. Louis.
- Fritsch, P. W.** In press. Styracaceae. In P. H. Raven and J. R. Abbott (eds.), *List of Species of the Plants of India*. Missouri Botanical Garden, St. Louis.
- Fritsch, P. W.** In press. Styracaceae. In Flora do Estado de Rio de Janeiro. Jardim Botânico Rio de Janeiro.
- Fritsch, P. W.** In press. Styracaceae. In K. de Toni (ed.), List of species of the Brazilian flora. Rio de Janeiro Botanical Garden, Rio de Janeiro, Brazil.
82. Rocha, L. A. et al. 2014. Specimen collection: an essential tool. *Science* 344: 814–815.
81. Strijk, J.S., R.E. Bone, C. Thébaud, S. Buerki, **P.W. Fritsch**, T.R. Hodkinson, and D. Strasberg. 2014. Timing and tempo of evolutionary diversification in a biodiversity hotspot: Primulaceae on Indian Ocean islands. *Journal of Biogeography* 41: 810–822.
80. Manchester, S. R. and **P. W. Fritsch**. 2014. European fossil fruits of *Sphenotheca* related to extant Asian species of *Symplocos*. *Journal of Systematics and Evolution* 52: 68–74.
79. Aranha Filho, J. L. M., **P. W. Fritsch**, F. Almeda, and A. B. Martins. 2013. Three new species of *Symplocos* sect. *Hopea* (Symplocaceae) from Brazil. *Kew Bulletin* 68: 625–633.
78. Aranha Filho, J. L. M., **P. W. Fritsch**, F. Almeda, and A. B. Martins. 2013. *Symplocos dasyphylla* (Symplocaceae): revised description and lectotypification. *Rodriguésia* 64: 655–660.
77. Aranha Filho, J. L. M., L. D. Meireles, **P. W. Fritsch**, F. Almeda, and A. B. Martins. 2012. A new species of *Symplocos* (Symplocaceae) from the Itatiaia Plateau of Brazil. *Brittonia* 64: 252–256.
76. Bone, R. E., J. S. Strijk, **P. W. Fritsch**, S. Buerki, D. Strasberg, C. Thébaud, and T. R. Hodkinson. 2012. Phylogenetic inference of *Badula* (Primulaceae), a rare and threatened genus endemic to the Mascarene Archipelago. *Botanical Journal of the Linnean Society* 169: 284–296.
75. **Fritsch, P. W.** 2012. Styracaceae. In C. M. Jacobi and F. Fonseca do Carmo (eds.), *Diversidade Florística nas Cangas do Quadrilátero Ferrífero*, pp. 195–196. Código Editora, Belo Horizonte.
74. **Fritsch, P. W.** 2012. Styracaceae. In B. G. Baldwin et al. (eds.), *The Jepson Manual. Vascular Plants of California*. 2nd Ed, pp. 1258–1259. University of California Press, Berkeley.
73. **Fritsch, P. W.** and B. C. Cruz. 2012. Phylogeny of *Cercis* based on DNA sequences of nuclear ITS and four plastid regions: implications for transatlantic historical biogeography. *Molecular Phylogenetics and Evolution* 62: 816–825.
72. Pereira, C. G., D. P. Almenara, C. E. Winter, **P. W. Fritsch**, H. Lambers, and R. S. Oliveira. 2012. Underground leaves of *Philcoxia* trap and digest nematodes. *Proceedings of the National Academy of Sciences U.S.A.* 109: 1154–1158.
71. **Fritsch, P. W.** 2011. Styracaceae. In A. I. Piedrahíta et al. (eds.), *Flora de Antioquia: Catalogo de las Plantas Vasculares*. Vol. 2. Universidad de Antioquia, Missouri Botanical Garden & Oficina de Planeación Departamental de la Gobernación de Antioquia, Editorial D’Vinni, Bogotá, Colombia.

70. **Fritsch, P. W.**, L. Lu, C. M. Bush, B. C. Cruz, K. A. Kron, and D.-Z. Li. 2011. Phylogenetic analysis of the wintergreen group (Ericaceae) based on six genic regions. *Systematic Botany* 36: 990–1003.
69. **Fritsch, P. W.** and C. M. Bush. 2011. A new species of *Gaultheria* (Ericaceae) from Mount Kinabalu, Borneo, Malaysia. *Novon* 21: 338–342.
68. Lu, L., **P. W. Fritsch**, B. C. Cruz, H. Wang, and D.-Z. Li. 2010. Reticulate evolution, cryptic species, and character convergence in the core East Asian clade of *Gaultheria* (Ericaceae). *Molecular Phylogenetics and Evolution* 57: 364–379.
67. **Fritsch, P. W.** 2010. Our scientific link with the California Academy of Sciences. *The Quarryhill Quarterly* 7: 5.
66. **Fritsch, P. W.** and L. M. Garrison. 2010. The flowering plant family Styracaceae in the Gaoligong Shan, along the border region of China and Myanmar. *Proceedings of the California Academy of Sciences* 61: 597–616.
65. Aranha Filho, J. L. M., **P. W. Fritsch**, F. Almeda, and A. B. Martins. 2010. Proposal to reject the name *Barberina hirsuta* (*Symplocos hirsuta*) (Symplocaceae). *Taxon* 59: 1287–1288.
64. Zhang, M. L. and **P. W. Fritsch**. 2010. Evolutionary response of *Caragana* (Fabaceae) to Qinghai-Tibetan Plateau uplift and Asian interior aridification. *Plant Systematics and Evolution* 288: 191–199. DOI 10.1007/s00606-010-0324-z.
63. **Fritsch, P. W.** 2010. Styracaceae. In Milliken, W., B. Klitgaard, A. Baracat, and N. Hind (eds.), *Neotropikey - Interactive key and information resources for flowering plants of the Neotropics*. www.kew.org/neotropikey (accessed July 29, 2010).
62. **Fritsch, P. W.** 2010. Styracaceae. In R. C. Forzza et al. (eds.), *Catálogo de plantas e fungos do Brasil Volume 2*, pp. 1649–1650. Jardim Botânico do Rio de Janeiro. Also on-line at <http://floradobrasil.jbrj.gov.br/2010/FB024928>.
61. Lu, L., **P. W. Fritsch**, C. M. Bush, L.-N. Dong, H. Wang, and D.-Z. Li. 2010. Systematic implications of seed coat diversity in the Gaultherieae (Ericaceae). *Botanical Journal of the Linnean Society* 162: 477–495.
60. **Fritsch, P. W.** 2009. Styracaceae. In G. Davidse et al. (eds.), *Flora Mesoamericana Volume 4(1)*, pp. 617–620. Universidad Nacional Autónoma de México, México, D. F. Also available on-line at <http://mobot.mobot.org/Pick/Search/meso.html>.
59. Aranha Filho, J. L. M., **P. W. Fritsch**, F. Almeda, and A. B. Martins. 2009. Validation of the name *Symplocos pentandra* (Symplocaceae). *Journal of the Botanical Research Institute of Texas* 3: 659–660.
58. Aranha Filho, J. L. M., R. Bertoncello, **P. W. Fritsch**, F. Almeda, and A. B. Martins. 2009. *Symplocos atlantica* (Symplocaceae), a new species from the Atlantic rain forest of Brazil. *Harvard Papers in Botany* 14: 101–104.
57. Almeda, F. and **Fritsch, P. W.** 2009. Symplocaceae. In Flora of North America Editorial Committee (ed.), *Flora of North America, Volume 8. Magnoliophyta: Paeoniaceae to Ericaceae*, pp. 329–331. Oxford University Press, New York.
56. **Fritsch, P. W.** 2009. Styracaceae. In Flora of North America Editorial Committee (ed.), *Flora of North America, Volume 8. Magnoliophyta: Paeoniaceae to Ericaceae*, pp. 339–347. Oxford University Press, New York.
55. **Fritsch, P. W.**, A. M. Schiller, and K. W. Larson. 2009. Taxonomic implications of morphological variation in *Cercis canadensis* (Fabaceae) from Mexico and adjacent parts of Texas. *Systematic Botany* 34: 510–520.

54. Bush, C. M., S. Wagstaff, **P. W. Fritsch**, and K. A. Kron. 2009. The phylogeny, biogeography and morphological evolution of *Gaultheria* (Ericaceae) from Australia and New Zealand. *Australian Systematic Botany* 22: 229–242.
53. Aranha Filho, J. L. M., A. B. Martins, **P. W. Fritsch**, and F. Almeda. 2009. Symplocaceae. In Giullietti, A. M. et al. (eds.), *Plantas Raras do Brasil*, pp. 381–382. Conservação Internacional, Belo Horizonte.
52. Bush, C. M., L. Lu, **P. W. Fritsch**, D.-Z. Li, and K. A. Kron. 2009. Phylogeny of Gaultherieae (Ericaceae: Vaccinioideae) based on DNA sequence data from *matK*, *ndhF*, and nrITS. *International Journal of Plant Sciences* 170: 355–364.
51. Lu, L., H. Wang, **P. W. Fritsch**, H. T. Li, D. Z. Li, and J.-Q. Chen. 2009. Pollen morphology of *Gaultheria* L. and related genera of subfamily Vaccinioideae: Taxonomic and evolutionary significance. *Review of Palaeobotany and Palynology* 154: 106–123.
50. Aranha Filho, J. L. M., **P. W. Fritsch**, F. Almeda, and A. B. Martins. 2009. Two new dioecious species of *Symplocos* (Symplocaceae) from southern Brazil. *Novon* 19: 1–6.
49. Zhang, M. L., **P. W. Fritsch**, and B. C. Cruz. 2009. Phylogeny of *Caragana* (Fabaceae) based on DNA sequence data from *rbcL*, *trnS-trnG*, and ITS. *Molecular Phylogenetics and Evolution* 50: 547–559.
48. Aranha Filho, J. L. M., **P. W. Fritsch**, F. Almeda, and A. B. Martins. 2009. Cryptic dioecy is widespread in South American species of *Symplocos* section *Barberina* (Symplocaceae). *Plant Systematics and Evolution* 277: 99–104.
47. **Fritsch, P. W.** 2008. Styracaceae. In Hokche, O., P. E. Berry, and O. Huber (eds.), *Nuevo catálogo de la flora vascular de Venezuela*, pp. 636–637. Fundación Instituto Botánico de Venezuela Dr. Tobías Lasser, Caracas.
46. Loeuille, B., **P. W. Fritsch**, and J. R. Pirani. 2008. Flora da Serra do Cipó, Minas Gerais: Styracaceae. *Boletim de Botânica da Universidade de São Paulo* 26: 175–182.
45. Almeda, F., **P. W. Fritsch**, and J. L. M. Aranha Filho. 2008. Symplocaceae. In Zuloaga, F. O., O. Morrone, and M. J. Belgrano (eds.), *Catalogue of the Vascular Plants of the Southern Cone (Argentina, Southern Brazil, Chile, Paraguay, and Uruguay)*, Vol. 3, pp. 3067–3069. Missouri Botanical Garden Press, St. Louis.
44. **Fritsch, P. W.** 2008. Styracaceae. In Zuloaga, F. O., O. Morrone, and M. J. Belgrano (eds.), *Catalogue of the Vascular Plants of the Southern Cone (Argentina, Southern Brazil, Chile, Paraguay, and Uruguay)*, Vol. 3, pp. 3064–3067. Missouri Botanical Garden Press, St. Louis.
43. **Fritsch, P. W.**, L. M. Kelly, Y. Wang, F. Almeda, and R. Kriebel. 2008. Revised infrafamilial classification of Symplocaceae based on phylogenetic data from DNA sequences and morphology. *Taxon* 57: 823–852.
42. **Fritsch, P. W.**, L. H. Zhou, L. Lu, and B. Bartholomew. 2008. The flowering plant genus *Gaultheria* (Ericaceae) in the Gaoligong Shan, along the border region of China and Myanmar. *Proceedings of the California Academy of Sciences*, ser. 4, 59: 147–214.
41. Yao, X. H., Q. G. Ye, **P. W. Fritsch**, B. C. Cruz, and H. W. Huang. 2008. Phylogeny of *Sinojackia* (Styracaceae) based on DNA sequence and microsatellite data: implications for taxonomy and conservation. *Annals of Botany* 101: 651–659.
40. Aranha Filho, J. L. M., **P. W. Fritsch**, F. Almeda, and A. B. Martins. 2007. *Symplocos saxatilis* (Symplocaceae), a new dioecious species from Serra do Cipó, Minas Gerais, Brazil. *Brittonia* 59: 233–237.

39. **Fritsch, P. W.**, F. Almeda, A. B. Martins, B. C. Cruz, and D. E. Estes. 2007. Rediscovery and phylogenetic placement of *Philcoxia minensis* (Plantaginaceae), with a test of carnivory. *Proceedings of the California Academy of Sciences*, ser. 4, 58: 447–467.
38. Aranha Filho, J. L. M., **P. W. Fritsch**, F. Almeda, and A. B. Martins. 2007. A revision of *Symplocos* Jacq. section *Neosymplocos* Brand (Symplocaceae). *Proceedings of the California Academy of Sciences*, ser. 4, 58: 407–446.
37. **Fritsch, P. W.** and D. K. Trock. 2007. Lectotypification of *Gaultheria pyrolifolia* and *G. pyroloides* (Ericaceae). *Journal of the Botanical Research Institute of Texas* 1: 97–102.
36. Zhou, L. H., **P. W. Fritsch**, and B. Bartholomew. 2006. The Symplocaceae of Gaoligong Shan. *Proceedings of the California Academy of Sciences*, ser. 4, 57: 387–431.
35. Wang, Y. H., H. He, T. L. Min, L. H. Zhou, and **P. W. Fritsch**. 2006. The phylogenetic significance of *Apterosperma* (Theaceae) based on morphological and karyotype characters. *Plant Systematics and Evolution* 260: 39–52.
34. Ji, Y. H., **P. W. Fritsch**, H. Li, T. J. Xiao, and Z. K. Zhou. 2006. Phylogeny and classification of *Paris* (Melanthiaceae) inferred from DNA sequence data. *Annals of Botany* 98: 245–256.
33. **Fritsch, P. W.**, B. C. Cruz, F. Almeda, Y. Wang, and S. Shi. 2006. Phylogeny of *Symplocos* based on DNA sequences of the chloroplast *trnC-trnD* intergenic region. *Systematic Botany* 31: 181–192.
32. **Fritsch, P. W.** and J. A. Steyermark. 2005. Styracaceae. In: P. E. Berry, K. Yatskievych, and B. K. Holst (eds.), *Flora of the Venezuelan Guayana, Volume 9*, pp. 283–289. Missouri Botanical Garden Press, St. Louis.
31. **Fritsch, P. W.** 2005. Styracaceae. In: T. F. Daniel (ed.), *Flora of Chiapas, Part 6*, pp. 24–32. California Academy of Sciences, San Francisco.
30. **Fritsch, P. W.** 2005. A new species of *Styrax* (Styracaceae) from southern Mexico. *Novon* 15: 421–424.
29. Aranha Filho, J. L. M., **P. W. Fritsch**, F. Almeda, and A. B. Martins. 2005. Two new species of *Symplocos* Jacq. (Symplocaceae) from Minas Gerais, Brazil. *Proceedings of the California Academy of Sciences* 56: 295–303.
28. Qin, H. N. and **P. W. Fritsch**. 2005. Clethraceae. In: C. Y. Wu and P. H. Raven (eds.), *Flora of China, Volume 14: Apiaceae through Ericaceae*, pp. 238–241. Science Press, Beijing and Missouri Botanical Garden Press, St. Louis.
27. Davis, C. C., **P. W. Fritsch**, C. D. Bell, and S. Mathews. 2004. High latitude Tertiary migrations of an exclusively tropical clade: Evidence from Malpighiaceae. *International Journal of Plant Sciences* 165 (4 Suppl.): S107–S121.
26. Wang, Y., **P. W. Fritsch**, S. Shi, F. Almeda, B. C. Cruz, and L. M. Kelly. 2004. Phylogeny and infrageneric classification of *Symplocos* (Symplocaceae) inferred from DNA sequence data. *American Journal of Botany* 91: 1901–1914.
25. **Fritsch, P. W.**, F. Almeda, S. S. Renner, A. B. Martins, and B. C. Cruz. 2004. Phylogeny and circumscription of the near-endemic Brazilian tribe Microlicieae (Melastomataceae). *American Journal of Botany* 91: 1105–1114.
24. **Fritsch, P. W.** 2004. New species and taxonomic changes in *Styrax* (Styracaceae) from South America. *Novon* 14: 43–57.
23. **Fritsch, P. W.** 2004. Styracaceae. In: K. Kubitzki (ed.), *The Families and Genera of Vascular Plants*, pp. 434–442. Springer-Verlag, Berlin.
22. **Fritsch, P. W.** 2003. Revision of 11 taxa of Styracaceae. In: Gamarra Rojas, C.F.L.; Mesquita, A.C. de; Sothers, C.; Mayo, S.J.; Barbosa, M.R.V. (eds.), *Checklist das plantas*

- do Nordeste, Centro Nordestino de informações sobre plantas*. CNIP, Recife. Internet publication on website: <http://www.cnip.org.br>.
21. **Fritsch, P. W.** 2003. Styracaceae. In N. Smith, S. A. Mori, A. Henderson, D. Wm. Stevenson, and S. V. Heald (eds.), *Flowering Plants of the Neotropics*, pp. 362–363. The New York Botanical Garden and Princeton University Press, Bronx and Princeton.
 20. Huang, Y. L., **P. W. Fritsch**, and S. Shi. 2003. A revision of the imbricate group of *Styrax* series *Cyrta* (Styracaceae) in Asia. *Annals of the Missouri Botanical Garden* 90: 491–553.
 19. **Fritsch, P. W.** 2003. Multiple geographic origins of Antillean *Styrax*. *Systematic Botany* 28: 421–430.
 18. **Fritsch, P. W.** and T. D. McDowell. 2003. Biogeography and phylogeny of Caribbean Plants—Introduction. *Systematic Botany* 28: 376–377.
 17. Davis, C. C., C. D. Bell, **P. W. Fritsch**, and S. Mathews. 2002. Phylogeny of *Acridocarpus-Brachylophon* (Malpighiaceae): Implications for Tertiary tropical floras and Afroasian biogeography. *Evolution* 56: 2395–2405.
 16. **Fritsch, P. W.**, S. A. Mori, and J. L. Brown. 2002. Styracaceae. In S. A. Mori, G. Cremers, C. A. Gracie, J.-J. de Granville, S. V. Heald, M. Hoff, and J. D. Mitchell (eds.), *Guide to the Vascular Plants of Central French Guiana. Part 2. Dicotyledons*. Memoirs of the New York Botanical Garden 76(2): 706–708.
 15. Davis, C. C., **P. W. Fritsch**, J.-H. Li, and M. J. Donoghue. 2002. Phylogeny and biogeography of *Cercis* (Fabaceae): Evidence from nuclear ribosomal ITS and chloroplast *ndhF* sequence data. *Systematic Botany* 27: 298–302.
 14. **Fritsch, P. W.**, C. M. Morton, C. T. Chen, and C. Meldrum. 2001. Phylogeny and biogeography of the Styracaceae. *International Journal of Plant Sciences* 162(S6): S95–S116.
 13. **Fritsch, P. W.** 2001. Phylogeny and biogeography of the flowering plant genus *Styrax* (Styracaceae) based on chloroplast DNA restriction sites and DNA sequences of the internal transcribed spacer region. *Molecular Phylogenetics and Evolution* 19: 387–408.
 12. **Fritsch, P. W.** and S. A. Lucas. 2000. Clinal variation in the *Halesia carolina* complex (Styracaceae). *Systematic Botany* 25: 197–210.
 11. **Fritsch, P. W.** 1999. Styracaceae. In P. M. Jørgensen and S. León-Yáñez (eds.), *Catalogue of the Vascular Plants of Ecuador*, p. 922. Missouri Botanical Garden Press, St. Louis.
 10. **Fritsch, P. W.** 1999. Phylogeny of *Styrax* based on morphological characters, with implications for biogeography and infrageneric classification. *Systematic Botany* 24: 355–378.
 9. **Fritsch, P. W.** 1997. A revision of *Styrax* (Styracaceae) from western Texas, Mexico, and Mesoamerica. *Annals of the Missouri Botanical Garden* 84: 705–761.
 8. **Fritsch, P. W.** 1996. Population structuring and patterns of morphological variation in the Californian endemic *Styrax redivivus*. *Aliso* 14: 205–218.
 7. **Fritsch, P. W.** 1996. Isozyme analysis of intercontinental disjuncts within *Styrax* (Styracaceae): Implications for the Madrean-Tethyan hypothesis. *American Journal of Botany* 83: 342–355.
 6. **Fritsch, P. W.** and L. H. Rieseberg. 1996. The use of random amplified polymorphic DNA (RAPD) in conservation genetics. In T. Smith and B. Wayne (eds.), *Molecular Genetic Approaches in Conservation*, pp. 54–73. Oxford Univ. Press, New York.
 5. **Fritsch, P. W.** 1993. Vascular plant species new to Hillsdale County, Michigan. *Michigan Botanist* 32: 269–282.

4. **Fritsch, P. W.**, M. A. Hanson, C. D. Spore, P. E. Pack, and L. H. Rieseberg. 1993. Constancy of RAPD primer amplification strength among distantly related taxa of flowering plants. *Plant Molecular Biology Reporter* 11: 10–20.
3. Rieseberg, L. H., C. T. Philbrick, P. E. Pack, M. A. Hanson, and **P. W. Fritsch**. 1993. Inbreeding depression in androdioecious populations of *Datisca glomerata* (Datisceae). *American Journal of Botany* 80: 757–762.
2. **Fritsch, P. W.** 1992. *Scutellaria nervosa* (Lamiaceae): A species of skullcap new to Michigan. *Michigan Botanist* 31: 37–38.
1. **Fritsch, P. W.** and L. H. Rieseberg. 1992. High outcrossing rates maintain male and hermaphrodite individuals in populations of the flowering plant *Datisca glomerata*. *Nature* 359: 633–636.

Presentations and Posters at Professional Meetings

- Penneys, D. S., F. Almeda, F. Michelangeli, **P. W. Fritsch**. 2013. A survey of remarkable evolutionary trends in the Melastomataceae. Oral presentation at the Botany 2013 national meeting, New Orleans, Louisiana, July 27-31.
- Leatherman, L. S. T., C. Nowell, A.M. Schiller, B.C. Cruz, and **P. W. Fritsch**. 2013. Taxonomic and adaptive significance of morphological variation in North American *Cercis*. Poster presentation at the Society for Integrative and Comparative Biology conference, San Francisco, California, January 3-7.
- Fritsch, P. W.**, C. Pereira, D. Almenara, C. Winter, H. Lambers, F. Almeda, and R. Oliveira. 2012. Underground leaves of *Philcoxia* (Plantaginaceae) trap and digest nematodes. Oral presentation at the Botany 2012 national meeting, Columbus, Ohio, July 7-12.
- Kron, K. A., W. S. Judd, C. M. Bush, **P. W. Fritsch**, L. Lu, and D.-Z. Li. 2012. A new classification of the wintergreen group (Gaultherieae) based on phylogenetic relationships and morphology. Oral presentation at the Botany 2012 national meeting, Columbus, Ohio, July 7-12.
- Fritsch, P. W.**, L. Lu, B. C. Cruz, H. Wang, and D.-Z. Li. 2012. A four-fold increase in the species diversity estimates of the Himalaya-Hengduan Mountains endemic *Gaultheria* ser. *Trichophyllae* (Ericaceae). Oral presentation at the Botany 2012 national meeting, Columbus, Ohio, July 7-12.
- Kron, K. A., C. M. Bush, S. J. Wagstaff, and **P. W. Fritsch**. 2011. The phylogeny, biogeography and morphological evolution of *Gaultheria* (Ericaceae) from Australia and New Zealand. Poster presentation at the International Botanical Congress 2011, Melbourne, Australia, July 23-30.
- Oliveira, R. S., C. G. Pereira, and **P. W. Fritsch**. 2011. Evidence of plant carnivory in *Philcoxia* (Plantaginaceae): underground leaves for nutrient acquisition from nematodes. Poster presentation at the International Botanical Congress 2011, Melbourne, Australia, July 23-30.
- Bush, C. M., **P. W. Fritsch**, and K. A. Kron. 2011. A taxonomic revision of the genus *Gaultheria* (Ericaceae) in Australia and New Zealand. Oral presentation at the Botany 2011 national meeting, St. Louis, Missouri, July 9-13.
- Bush, C. M., **P. W. Fritsch**, B. C. Cruz, A. Sanchez, and K. A. Kron. 2010. The phylogeny, morphology, and biogeography of the Brazilian *Gaultheria* species. Oral presentation at the Botany 2010 national meeting, Providence, Rhode Island, August 1-5.
- Fritsch, P. W.**, L. Lu, B. C. Cruz, H. Wang, and D.-Z. Li. 2010. Reticulate evolution, cryptic species, and character convergence in the core East Asian clade of *Gaultheria* (Ericaceae).

- Oral presentation at the Botany 2010 national meeting, Providence, Rhode Island, August 1-5.
- Bush, C. M., Wagstaff, S. J., **P. W. Fritsch**, and K. A. Kron. 2009. The phylogeny, biogeography, and morphological evolution of *Gaultheria* (Ericaceae) from Australia and New Zealand. Oral presentation at the Botany 2009 national meeting, Snowbird, Utah, July 26-30.
- Bush, C. M., **P. W. Fritsch**, B. C. Cruz, L. Lu, A. Sanchez, and K. A. Kron. 2009. The phylogeny and morphology of the Brazilian *Gaultheria* species. Poster presented at the Botany 2009 national meeting, Snowbird, Utah, July 26-30.
- Fritsch, P. W.**, A. M. Schiller, B. C. Cruz, and E. L. Davis. 2009. Taxonomic implications of morphological character variation in *Cercis canadensis* (Fabaceae) from Mexico and adjacent parts of Texas. Oral presentation at the Botany 2009 national meeting, Snowbird, Utah, July 26-30.
- Ranarivelo, H., F. Almeda, and **P. W. Fritsch**. 2009. Phylogenetic analysis of the Malagasy endemic genus *Rousseauxia* (Melastomataceae) based on morphological characters—preliminary results. Poster presented at the Botany 2009 national meeting, Snowbird, Utah, July 26-30.
- Garrison, L. M., **P. W. Fritsch**, J. A. Miller, and B. A. Bartholomew. 2009. Biodiversity of the Gaoligongshan, Yunnan, China. Poster presented at the Botany 2009 national meeting, Snowbird, Utah, July 26-30.
- Strijk, J. S., R. E. Bone, **P. W. Fritsch**, T. R. Hodkinson, C. Thébaud, S. Waldren, and D. Strasberg. 2009. Evolution of the genus *Badula* (Myrsinaceae): endemic rare trees of the Mascarene Islands. Poster at symposium: Evolutionary Islands 150 Years after Darwin, February 2009, Leiden, Netherlands.
- Fritsch, P. W.**, L. H. Zhou, L. Lu, and B. Bartholomew. 2008. A taxonomic revision of *Gaultheria* (Ericaceae) in the Gaoligong Shan, a biodiversity hotspot at the border of China and Burma. Oral presentation at the annual Botanical Society of America meeting, Vancouver, Canada, July 28-30, 2008.
- Kriebel, R., **P. W. Fritsch**, and F. Almeda. 2007. The discovery of styelar oil in *Symplocos* and its role in secondary pollen presentation. Poster at ASPT annual meeting, July 8-11, Chicago, Illinois.
- Fritsch, P. W.**, S. R. Manchester, and F. Almeda. 2007. Biogeographic patterns in the amphipacific tropical disjunct *Symplocos* (Symplocaceae) support the boreotropics hypothesis. ASPT annual meeting, July 8-11, Chicago, Illinois.
- Aranha Filho, J. L. M., **P. W. Fritsch**, F. Almeda, and A. B. Martins. 2007. As espécies Brasileiras da seção *Barberina* (*Symplocos*, Symplocaceae) são androdioicas? Uma análise baseada no estudo de pólen. Poster at Brazilian Botanical Congress annual meeting.
- Aranha Filho, J. L. M., **P. W. Fritsch**, F. Almeda, and A. B. Martins. 2006. Uma nova espécie de *Symplocos* Jacq. (Symplocaceae) da Serra do Cipó, Minas Gerais. Poster at Brazilian Botanical Congress annual meeting.
- Aranha Filho, J. L. M., **P. W. Fritsch**, F. Almeda, and A. B. Martins. 2006. Revisão taxonômica da seção *Neosymplocos* Brand (*Symplocos* Jacq., Symplocaceae). Poster at Brazilian Botanical Congress annual meeting.
- Zhou, L. H., **P. W. Fritsch**, and B. A. Bartholomew. 2006. The Symplocaceae of Gaoligong Shan. Poster at Kunming Institute of Botany Summer Symposium for C. Y. Wu 90th birthday celebration.

- Bush, C., L. Lu, **P. W. Fritsch**, and K. A. Kron. 2006. The phylogeny, morphology, and biogeography of the wintergreen group (Gaultherieae; Vaccinioideae; Ericaceae; Ericales). ASPT annual meeting, Chico, CA.
- Fritsch, P. W.**, F. Almeda, and S. R. Manchester. 2006. Phylogeny and classification of Symplocaceae: stasis, ranks, and the fossil record. ASPT annual meeting, Chico, CA.
- Fritsch, P. W.** 2005. Madrean-Tethyan links and amphi-Pacific tropical disjunctions. NESCent workshop, Duke University, NC.
- Aranha Filho, J. L. M., **P. W. Fritsch**, F. Almeda, and A. B. Martins. 2005. Duas novas especies de *Symplocos* Jacq. (Symplocaceae) de Minas Gerais, Brasil. Brazilian Botanical Congress, Curitiba, Brazil.
- Fritsch, P. W.** 2005. Phylogeny and biogeography of Styracaceae, Symplocaceae, and Diapensiaceae. International Botanical Congress, Vienna, Austria.
- Fritsch, P. W.**, Y. G. Wang, S. H. Shi, F. Almeda, and B. C. Cruz. 2003. Phylogeny and infrageneric classification of *Symplocos* (Symplocaceae) inferred from DNA sequence data. ASPT annual meeting, Mobile, Alabama.
- Fritsch, P. W.**, F. Almeda, S. S. Renner, A. B. Martins, and B. C. Cruz. 2002. Phylogenetic analysis of the Microlicieae (Melastomataceae) using ITS and *rpl16* intron sequences. ASPT Poster Session, Madison, WI.
- Fritsch, P. W.** 2001. The historical biogeography of Antillean *Styrax* (Styracaceae). ASPT annual meeting, Albuquerque, NM.
- Fritsch, P. W.**, C. C. Davis, J. H. Li, and M. J. Donoghue. 2001. The phylogeny and historical biogeography of *Cercis*: evidence from ITS and *ndhF* DNA sequences. ASPT annual meeting, Albuquerque, NM.
- Fritsch, P. W.** and C. M. Morton. 2000. Phylogeny of the Styracaceae based on four data sets: Implications for the historical biogeography of the northern hemisphere and amphi-Pacific tropical disjunctions. American Journal of Botany 87(supplement): 100–101. Part of BSA/ASPT symposium "Historical Biogeography of the Northern Hemisphere."
- Fritsch, P. W.** and C. M. Morton. 1999. Phylogeny of Styracaceae based on morphological characters. IBC Poster Session, St. Louis, Missouri.
- Fritsch, P. W.** 1999. Integrating molecular and morphological bases for systematics at museums. Stanford University Spring 1999 Symposium, "Museums, universities, and biodiversity in the 21st century."
- Fritsch, P. W.** 1998. Phylogeny of *Styrax* (Styracaceae) based on morphological characters, with implications for biogeography and infrageneric classification. American Journal of Botany 85(supplement): 130. A.I.B.S.
- Fritsch, P. W.** 1996. Patterns of genetic and morphological variation in Californian *Styrax* (Styracaceae). American Journal of Botany 83(supplement): 157. A.I.B.S.
- Fritsch, P. W.** 1996. A revision of *Styrax* (Styracaceae) from western Texas, Mexico, and Mesoamerica. American Journal of Botany 83(supplement): 156–157. A.I.B.S.
- Rieseberg, L. H., and **P. W. Fritsch**. 1994. RAPD markers in conservation biology. Proc. Pacific Div., AAAS 13:91. Symposium entitled "Molecular genetic approaches in conservation," AAAS, Pacific Division.
- Fritsch, P. W.** 1994. Phylogenetic analysis of *Styrax* (Styracaceae) based on ribosomal DNA sequences from the ITS region. American Journal of Botany 81(supplement): 156. A.I.B.S.
- Hanson, M. A., **Fritsch, P.**, and L. H. Rieseberg. 1993. Level and distribution of genetic diversity of endangered *Pogogyne* (Lamiaceae); genetic evidence warrants recognition of a

new species from Baja California. American Journal of Botany 80(supplement): 152. A.I.B.S.

Fritsch, P., and L. H. Rieseberg. 1993. Chloroplast DNA restriction site analysis of *Styrax* Series *Imbricatae* (Styracaceae): Implications for the Madrean-Tethyan hypothesis. American Journal of Botany 80(supplement): 149. A.I.B.S.

Fritsch, P., and L. H. Rieseberg. 1992. Outcrossing rates and the maintenance of androdioecy in *Datisca glomerata* (Datiscaceae). American Journal of Botany 79(supplement): 144. A.I.B.S.

Fritsch, P., and R. Scogin. 1991. Phylogenetic and ecological implications of secondary phenolic chemistry of the Callitrichaceae. American Journal of Botany 78(supplement): 188. A.I.B.S.

Invited Seminars Presented

University of California-Berkeley Herbarium, 2013

Quarryhill Botanical Garden, 2012

California Botanical Society, 2009 (at UC Berkeley)

Quarryhill Botanical Garden, 2008

University of California-Davis, 2008

Landcare Research, New Zealand, 2007

California Academy of Sciences brown-bag seminar on Gaoligongshan expedition, 2006

Hunan Normal University, 2006

Javeriana University, Bogotá, Colombia, 2006

Kunming Institute of Botany, 2005

Yunnan University, 2005

Stockholm University, 2004

San Francisco State University, 2002

Zhongshan University, Guanzhou, Peoples Republic of China, 2002

California Academy of Sciences Seminar Series, 2001

Colorado State University, 1999

Sonoma State University, 1999

Stanford University (Spring Symposium), 1999

Two 3-hr lectures to museum docents entitled "The evolution of early land plants", 1997

California Academy of Sciences (Bay Area Biosystematists), 1997

Rancho Santa Ana Botanic Garden, 1997

Stanford University, 1997

California Botanical Society, 1997

Bay Area Biosystematists, 1996

Department of Botany, Duke University, 1996

University of Washington, 1995

Michigan State University, 1995

California Academy of Sciences, 1995

Institute of Biodiversity of Nepal, 1994

Rancho Santa Ana Botanic Garden, 1994

Department of Botany, Duke University, 1994

Rancho Santa Ana Botanic Garden, 1992

Professional Service

Member, Program Committee, Quarryhill Botanical Garden Board, 2013–

Member, Education Committee, Quarryhill Botanical Garden Board, 2010–
Member, Environment and Public Policy Committee, American Society of Plant
Taxonomists, 2013–
Subject editor, *Nordic Journal of Botany*, 2013–
Judge for Cooley Award for best presentation by young investigator, American Society
of Plant Taxonomists at Botany 2012 in Columbus, OH
Awards Committee, American Society of Plant Taxonomists Botany 2010 meeting in
Providence, RI
Program reviewer for Kunming Institute of Botany 3-year performance evaluation, 2006
Session Moderator, ASPT annual meetings, 2003, 2012
Member, Editorial Committee, *Systematic Botany Monographs*, 2002–2003
Vice President, California Botanical Society, 2001–2002
Organizer (with Dr. Timothy McDowell) of "Biogeography and phylogeny of Caribbean
plants", a half-day symposium jointly sponsored by the American Society of Plant
Taxonomists and the Botanical Society of America, Albuquerque, New Mexico,
2000–2001.
Steering Committee, Bay Area Biosystematists, 1998–99
Chair, Curators Forum, CAS, 1998–99
Secretary, Curators Forum, CAS, 1997–98
Coordinator, CAS Systematics Discussion Group, 1996
Coordinator, Duke Systematics Discussion Group, 1994–1995
Associate Editor, *Biotechnology and Biodiversity Letters (Nepal)*, 1994–
Graduate Student Representative to the Faculty, Claremont Graduate School, 1993
Member, Graduate Student Council, Claremont Graduate School, 1992

Reviewer for the following scientific publications and organizations:

Acta Phytotaxonomica Sinica (Journal of Systematics and Evolution), *American
Journal of Botany*, *Annalen des Naturhistorischen Museums*, *Annals of Botany*,
Brittonia, *International Journal of Molecular Sciences*, *International Journal of
Plant Sciences*, *Journal of Biogeography*, *Molecular Ecology*, *Molecular
Phylogenetics and Evolution*, *Novon*, *Plant Science*, *Plant Systematics and
Evolution*, *New Phytologist*, *Nordic Journal of Botany*, *Phytotaxa*, *Proceedings of
the California Academy of Sciences*, *Systematic Biology*, *Systematic Botany*,
National Science Foundation, National Geographic Society

Professional Societies

American Society of Plant Taxonomists; Botanical Society of America; Society of
Systematic Biologists; Bay Area Biosystematists; International Association of Plant
Taxonomy

Field Experience

Philippines (Mindanao), 2014; Philippines (southern Luzon), 2011; Malaysia, Sabah,
Borneo, 2009; New Zealand, 2007; Central Colombia, 2006; Southern and Southwestern China,
1997, 2000, 2002, 2004, 2005, 2006, 2011, 2013; Southeastern Brazil, 2001, 2004, 2005, 2009;
Southern Mexico, 1992, 1995, 2004; Puerto Rico, 2003; Dominican Republic, 2001; Cuba, 2000;
Madagascar, 1998; Eastern Nepal, 1994; Greece, 1993; Baja California, Mexico, 1993; West
Texas and northeastern Mexico, 1991; California, ongoing since 1990; San Clemente Island,

California, 1990; Hillsdale County, Michigan, 1985–1989; University of Michigan Biological Station, 1982