

Curriculum Vitae of Joyce Maschinski

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Education

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| 1985-1989 | Northern Arizona University Flagstaff, AZ | Ph.D., Botany |
| 1978-1981 | University of Arizona Tucson, AZ | M.Ed., Reading Education |
| 1975-1978 | University of Arizona Tucson, AZ | B.S., Secondary Education major in Biology, minor in Chemistry |
| 1971-1973 | College of Lake County Grayslake, IL | |

Professional Experience

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| 2002- present | Conservation ecologist/ South Florida Team Leader, Fairchild Tropical Botanic Garden, Miami, FL |
| 2000- 2002 | Director of Research, The Arboretum at Flagstaff, Flagstaff, AZ |
| 1998 -1999 | Interim Director, The Arboretum at Flagstaff, Flagstaff, AZ |
| 1990 - 2000 | Curator of Plants, The Arboretum at Flagstaff, Flagstaff, AZ |
| Spring 1990 | Instructor, Dept. of Biological Sciences, Northern Arizona University, Flagstaff, AZ |
| 1989-1990.1 | Contract Biologist and Statistical Analyst, Glen Canyon Environmental Studies, Flagstaff, AZ and Grand Canyon National Park, Grand Canyon, AZ |
| Spring 1989 | Contract Botanist, US Forest Service, Lake Mary District, Flagstaff, AZ |
| 1985-1986 | Teaching assistant, Dept. Biological Sciences, Northern Arizona University, Flagstaff, AZ |
| 1978-1984 | Science Department Head and Instructor (7-12), Green Fields Country Day School, Tucson, AZ |

Appointments

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| 1990 - present | Adjunct Professor, Dept. of Biological Sciences, Northern Arizona University, Flagstaff, AZ |
| 2002 – present | Research Scientist, Adjunct, Dept. of Biological Sciences, Florida International University, Miami, FL. |
| 2002 – present | Assistant Professor, Adjunct, Dept. of Biology, University of Miami, Miami, FL |
| 2004 – present | Courtesy Professor, University of Florida Tropical Research and Education Center, Homestead, FL |

Scholarships Patricia Roberts Harris Graduate and Professional Opportunity Program Scholarship (U.S. Dept. of Education) \$24,000

Center for Plant Conservation Star Award 2009

Publications

- Maschinski, J., E. Sirkin and J. Fant. *In Press*. Using genetic and morphological analysis to distinguish endangered taxa from their hybrids with the cultivated exotic pest plant *Lantana camara*. *Conservation Genetics*.
- Possley, J., J. Maschinski, C. Rodriguez, and J. Dozier. 2009. Alternatives for reintroducing a rare ecotone species: manually thinned forest edge versus restored habitat remnant. *Restoration Ecology* 17:668-677.
- Wendelberger, K.S., J. Maschinski. 2009. Linking GIS, observational and experimental studies to determine optimal seedling microsites of an endangered plant in a subtropical urban fire-adapted ecosystem. *Restoration Ecology* 17: 845-853.
- Possley, J., Woodmansee, S., Maschinski, J. 2008. Patterns of plant diversity in fragments of globally imperiled pine rockland forest: effects of recent fire frequency and fragment size. *Natural Areas Journal* 28:379-394.
- Thornton, H.E.B., J. Roncal, C. E. Lewis, J. Maschinski, and J. Francisco-Ortega. 2008. Genetic structure and diversity of *Jacquemontia reclinata*, an endangered coastal morning glory species from Southern Florida: Implications for conservation management. *Biotropica* 40: 507-514.
- Lane, C., S.J. Wright, J. Roncal, and J. Maschinski. 2008. Characterizing environmental gradients and their influence on vegetation zonation in a subtropical coastal sand dune system. *Journal of Coastal Research* 24: 213-224.
- Travis, S.E., J.E. Baggs, and J. Maschinski. 2007. Disentangling the role of hybridization in the evolution of the endangered Arizona cliffrose (*Purshia subintegra*; Rosaceae): a molecular and morphological analysis. *Conservation Genetics* 9:1183-1194.
- Wendelberger, K. S., M. Q.N. Fellows and J. Maschinski. 2007. Rescue and restoration: Experimental translocation of *Amorpha herbacea* Walter. var. *crenulata* (Rybd.) Isley into a novel urban habitat. *Restoration Ecology* 16:542-552.
- Possley, J., K. Hines, J. Maschinski, J. Dozier, and C. Rodriguez. 2007. A common passion: multiple agencies and volunteers unite to reintroduce goatsfoot passionflower to rockland hammocks of Miami, Florida, USA. *Native Plants Journal* 8:252-258.
- Maschinski, J. and J. Duquesnel. 2006. Successful reintroductions of the endangered long-lived Sargent's cherry palm, *Pseudophoenix sargentii*, in the Florida Keys. *Biological Conservation* 134:122-129.
- Maschinski, J. and S. J. Wright. 2006. Using Ecological Theory to Plan Restorations of the Endangered Beach Jacquemontia in Fragmented Habitats. *Journal for Nature Conservation* 14: 180-189.
- Possley, J. and J. Maschinski. 2006. Competitive effects of the invasive grass *Rhynchelytrum repens* (Willd.) C.E. Hubb. On native pine rockland vegetation. *Natural Areas Journal* 26:390-394.
- Maschinski, J. 2006. Implications of Population Dynamic and Metapopulation Theory for Restoration. *In Foundations of Restoration Ecology*, D. Falk, M. Palmer, and J. Zedler (editors). Island Press, Washington, DC.

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- Roncal, J., J. Fisher, M.Q.N. Fellows, K. Wendelberger, J. Maschinski, and M.W. Fidelibus. 2006. Propagation protocol for the endangered crenulate lead plant, *Amorpha herbacea* Walter var. *crenulata* (Rydberg) Isely. *Native Plants Journal* 7:89-93.
- Roncal, J., J. Fisher, S.J. Wright, A. Frances, K. Griffin, J. Maschinski, and M.W. Fidelibus. 2006. Propagation protocol for the endangered *Jacquemontia reclinata* House from South Florida. *Native Plants Journal* 7:301-306.
- Maschinski, J., J. Possley, M. Q.N. Fellows, C. Lane, A. Muir, K. Wendelberger, S. Wright, and H. Thornton. 2005. Using Thinning as a Fire Surrogate to Improve Native Plant Diversity in a South Florida Pine Rockland Habitat. *Ecological Restoration* 23:2.
- Cariaga, K.A., C.E. Lewis, J. Maschinski, S.J. Wright, and J. Francisco-Ortega. 2005. Patterns Of Genetic Diversity In The Critically Endangered Florida Key Endemic *Consolea Corallicola* Small (Cactaceae): Evidence From Inter Simple Sequence Repeat (ISSRs) DNA Polymorphisms. *Caribbean Journal Of Botany* 41:225-233.
- Albrecht, W. D., J. Maschinski, A. Mracna, and S. Murray. 2005. A Community Participatory Project to Restore a Native Grassland. *Natural Areas Journal* 25:137-146.
- Maschinski, J., J. E. Baggs, and C.F. Sacchi. 2004. Seedling Recruitment and Survival of an Endangered Limestone Endemic in its Natural Habitat and Experimental Reintroduction Sites. *American Journal of Botany* 91: 689-698.
- Beier, P. and J. Maschinski. 2003. Threatened, Endangered, and Sensitive Species. in P. Friederici and Ecological Restoration Institute at Northern Arizona University (eds.) *Ecological Restoration of Southwestern Ponderosa Pine Forests*. Island Press, Washington, DC.
- Maschinski, J. 2001. Impacts of ungulate herbivores on a rare willow at the southern edge of its range. *Biological Conservation* 101(1):119-130.
- Maschinski, J. and L. Holter. 2001. *Southwestern Rare and Endangered Plant Conference: Proceedings of the Third Conference*; 2000 September 25-28; Flagstaff, AZ. RMRS-P-23. Fort Collins,Co: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 250 pp.
- Maschinski, J. 2001. Timing and intensity of Herbivory on a rare understory species. *Southwestern Rare and Endangered Plant Conference: Proceedings of the Third Conference*; 2000 September 25-28; Flagstaff, AZ. RMRS-P-23. Fort Collins,Co: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 250 pp.
- Maschinski, J. 2001. Extinction Risk of *Ipomopsis sancti-spiritus* in Holy Ghost Canyon With and Without Management Intervention. *Southwestern Rare and Endangered Plant Conference: Proceedings of the Third Conference*; 2000 September 25-28; Flagstaff, AZ. RMRS-P-23. Fort Collins,Co: USDA, Forest Service, Rocky Mountain Research Station. 250 pp.

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- Baggs, J. and J. Maschinski. 2001. The threat of increasing hybridization to a rare plant species, *Purshia subintegra*, in the Verde Valley. *Southwestern Rare and Endangered Plant Conference: Proceedings of the Third Conference*; 2000 September 25-28; Flagstaff, AZ. RMRS-P-23. Fort Collins, Co: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 250 pp.
- Busco, J.K. and J. Maschinski. 1999. Propagation of promising high-elevation species native to the Colorado Plateau. *The International Plant Propagators' Society*. Volume 49.
- Maschinski, J., G. Southam, J. Hines, S. Strohmeyer. 1999. Efficiency of a subsurface constructed wetland system using native Southwestern U.S. plants. *Journal of Environmental Quality* 28: 225-231.
- Maschinski, J., T. E. Kolb, E. Smith, and B. Phillips. 1997. Potential impacts of timber harvest on a rare plant species, *Clematis hirsutissima* var. *arizonica*. *Biological Conservation* 80: 49-61.
- Maschinski, J., S. Rutman and R. Frye. 1997. Demography and Population Viability of an endangered plant species before and after protection from trampling. *Conservation Biology* 11:990-999.
- Travis, S. E., J. Maschinski, and P. Keim. 1996. An analysis of genetic variation in *Astragalus cremnophylax* var. *cremnophylax*, a critically-endangered plant, using AFLP markers. *Molecular Ecology* 5: 735-745.
- Maschinski, J., H.D. Hammond and L. Holter, tech. eds. 1996. *Southwestern rare and endangered plants: Proceedings of the second conference*; 1995 September 11-14; Flagstaff, AZ. Gen Tech. Rep RM-GTR-283. Fort Collins, Co: U.S. Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station. 326p.
- Maschinski, J. 1996. Seed germination and pollination requirements of Holy Ghost Ipomopsis (*Ipomopsis sancti-spiritus*). In J. Maschinski, H.D. Hammond and L. Holter, tech. eds. *Southwestern rare and endangered plants: Proceedings of the second conference*; 1995 September 11-14; Flagstaff, AZ. Gen Tech. Rep RM-GTR-283. Fort Collins, Co: U.S. Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station. 326p.
- Kolb, T.E. and J. Maschinski. 1996. An ecophysiological analysis of shade effects on *Clematis hirsutissima* var. *arizonica*. In J. Maschinski, H.D. Hammond and L. Holter, tech. eds. *Southwestern rare and endangered plants: Proceedings of the second conference*; 1995 September 11-14; Flagstaff, AZ. Gen Tech. Rep RM-GTR-283. Fort Collins, Co: U.S. Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station. 326p.
- Strohmeyer, S. and J. Maschinski. 1996. Cattle and elk herbivory on Arizona willow (*Salix arizonica*). In J. Maschinski, H.D. Hammond and L. Holter, tech. eds. *Southwestern rare and endangered plants: Proceedings of the second conference*; 1995 September 11-14; Flagstaff, AZ. Gen Tech. Rep RM-GTR-283. Fort Collins, Co: U.S. Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station. 326p.

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Maschinski, J. 1993. Integrated conservation strategies for recovery of sentry milk-vetch at the south rim of Grand Canyon National Park. In *Proceedings of the first biennial conference on research on Colorado Plateau national parks*. National Park Service, Natural Resources Publication Office, Denver, CO.

Maschinski, J. and S. Rutman. 1993. The price of waiting may be too high: *Astragalus cremnophylax* var. *cremnophylax* at Grand Canyon National Park. In R. Sivinski and K. Lightfoot, eds. *Proceedings of the southwestern rare and endangered plant conference*. New Mexico Forestry and Resources Conservation Division, Santa Fe.

Maschinski, J. and B. Phillips. 1993. Impacts of experimental manipulation of overstory on Arizona Leatherflower (*Clematis hirsutissima* var. *arizonica*) Demography. In R. Sivinski and K. Lightfoot, eds. *Proceedings of the southwestern rare and endangered plant conference*. New Mexico Forestry and Resources Conservation Division, Santa Fe.

Mopper, S., J. Maschinski, N. Cobb, and T.G. Whitham. 1991. A new look at habitat structure: consequences of herbivore-mediated plant architecture. In S.S. Bell, E.D. McCoy, and H.R. Mushinsky, eds. *Habitat structure: the physical arrangement of objects in space*. Chapman and Hall, New York.

Whitham, T.G., J. Maschinski, K.C. Larson, and K.N. Paige. 1991. Plant responses to herbivory: the continuum from negative to positive and underlying physiological mechanisms. In P.W. Price, T.W. Lewinsohn, G.W. Fernandes, and W.W. Benson, eds. *Plant-Animal Interactions: evolutionary ecology in tropical and temperate regions*. John Wiley & Sons, Inc., New York.

Maschinski, J. and T.G. Whitham. 1989. The continuum of plant responses to herbivory: the influence of plant association, nutrient availability and timing. *American Naturalist* 134:1-19.

McAndrews (Maschinski), J. 1978. Ecology. In T. H. Estes and J.L. Vaughan, Jr. eds. *Reading and Learning in the content classroom*. Allyn and Bacon, Inc., Boston

Manuscripts In Review

Roncal, J., J. Maschinski, B. Schaffer, S. M. Gutierrez, and D. Walters. *In Review*. Endangered species translocation outside its known historic range: A case study of *Amorpha herbacea* var. *crenulata* (Fabaceae) in south Florida. *Restoration Ecology*.

Manuscripts In Prep

Joie L. Goodman, J.L., J. Maschinski, P. Hughes, J. McAuliffe, K. Rice, J. Roncal. *In prep*. Climate Change Effects Threaten Endangered Key Tree Cactus (*Pilosocereus robinii*) in the Florida Keys, USA. For submission to *Conservation Biology*.

Maschinski, J. and K. E. Haskins (editors). *In Prep*. *Managing Eden: Plant Reintroduction's Promises, Perils, and Uses in a Changing Climate*. For submission to Island Press.

Technical Reports

Maschinski, J., Lewis, S., Powell, D., Walters, D., J. Possley, & K. Minkowski. 2009. Developing Corridors to Alleviate Problems of Urban Fragmentation on Rare Plant Populations in South Florida: July 2009. Report to U.S. Fish and Wildlife Service on Agreement No. 401816G137, South Florida Ecological Services Office, Vero Beach, FL.

Maschinski, J., J.L. Goodman, and D. Powell. 2009. Assessment of Population Status and Causes of Decline for *Pilosocereus robinii* (Lem.) Byles & G.D. Rowley in the Florida Keys. Final Report to U.S. Fish and Wildlife Service, South Florida Ecological Services Office, Vero Beach, FL.

Maschinski, J., S.J. Wright, J. Possley, D. Powell, V. Pence and J. Pascarella. 2009. Conservation of South Florida Endangered and Threatened Flora: 2008-2009 Program at Fairchild Tropical Garden. Interim Report Contract #013925. Florida Department of Agriculture and Consumer Services, Division of Plant Industry, Gainesville, FL. July 2009

Wright, S.J., J. Maschinski, J., J. Possley, J. Goodman, V. Pence, D. Walters, and D. Powell. 2008. Interim Report On Major Products Delivered for Conservation of South Florida Endangered and Threatened Flora Program at Fairchild Tropical Botanic Garden. Contract #013925. Florida Department of Agriculture and Consumer Services, Division of Plant Industry, Gainesville, FL. Dec 2008.

Maschinski, J., S.J. Wright, J. Possley, J. Goodman, J. Roncal, V. Pence, D. Walters, S. Lewis, and N. Spencer. 2008. Conservation of South Florida Endangered and Threatened Flora: 2007-2008 Program at Fairchild Tropical Botanic Garden. Final Report Contract #012863. Florida Department of Agriculture and Consumer Services, Division of Plant Industry, Gainesville, FL. July 2008.

Maschinski, J., Lewis, S., Walters, D., and Minkowski, K. 2008. Developing Corridors to Alleviate Problems of Urban Fragmentation on Rare Plant Populations in South Florida: March 2008. Report to U.S. Fish and Wildlife Service on Agreement No. 401816G137, South Florida Ecological Services Office, Vero Beach, FL.

Maschinski, J. and J.L. Goodman. 2008. Assessment of Population Status and Causes of Decline for *Pilosocereus robinii* (Lem.) Byles & G.D. Rowley in the Florida Keys. Report to U.S. Fish and Wildlife Service, South Florida Ecological Services Office, Vero Beach, FL.

Maschinski, J., S. J. Wright, K. Wendelberger, J. Pascarella, B. Schaffer, and J. Roncal. 2007. Ongoing efforts to reintroduce and study two endangered plant species, beach jacquemontia and crenulate lead-plant. Final report to U.S. Fish and Wildlife Service, South Florida Ecological Services Office, Vero Beach, FL.

Possley, J. and J. Maschinski. 2007. Year 5 (of 5) Development and implementation of a biological monitoring program for rare plants in Miami-Dade County natural areas. Miami-Dade County Resolution #R-841-02. Unpublished scientific report from Fairchild Tropical Botanic Garden.

Goodman, J.L., S. J. Wright, and J. Maschinski. 2007. Assessing Impacts on Populations and Taking Conservation Steps for the Endangered Key Tree Cactus (*Pilosocereus robinii*): Sept 2007. Report to U.S. Fish and Wildlife Service, South Florida Ecological Services Office, Vero Beach, FL.

Technical Reports (continued)

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Maschinski, J., B. Schaffer, S. J. Wright, K. Wendelberger, and J. Roncal. 2007. Ongoing efforts to reintroduce and study two endangered plant species, beach jacquemontia and crenulate lead-plant: Fall 2007. Report to U.S. Fish and Wildlife Service, South Florida Ecological Services Office, Vero Beach, FL.

Maschinski, J., S.J. Wright, K.S. Wendelberger, J. Possley, D. Walters, J. Roncal, J. Stolt, C. Walters, and J. Fisher. 2007. Conservation of South Florida Endangered and Threatened Flora: 2006-2007 Program at Fairchild Tropical Garden. Final Report Contract #011299. Florida Department of Agriculture and Consumer Services, Division of Plant Industry, Gainesville, FL. July 2007.

Maschinski, J., J. Pascarella, S. J. Wright, K. Wendelberger, and J. Roncal. 2007. Ongoing efforts to reintroduce and study two endangered plant species, beach jacquemontia and crenulate lead-plant: Spring 2007. Report to U.S. Fish and Wildlife Service, South Florida Ecological Services Office, Vero Beach, FL.

Maschinski, J., D. Walters and C. Walters, 2007. Developing Corridors to Alleviate Problems of Urban Fragmentation on Rare Plant Populations in South Florida: June 2007. Report to U.S. Fish and Wildlife Service on Agreement No. 401816G137, South Florida Ecological Services Office, Vero Beach, FL.

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Maschinski, J. 1999. Comparative impacts of Cattle and Elk Herbivory on Growth and Reproduction of the rare Arizona willow (*Salix arizonica*). Report to AZ Dept. of Agric.

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Maschinski, J. 1993. "Germination studies of *Puccinellia parishii*" Report to U.S. Fish and Wildlife Service. Albuquerque, NM.

Maschinski, J. 1993. "Report of 1993 Research: Effects of shading on sexual and asexual reproduction and population dynamics of *Clematis hirsutissima* var. *arizonica*." Report to Coconino National Forest. October 20, 1993. 16 pp.

Maschinski, J. 1993. "Report of 1992 Research: Effects of shading on sexual and asexual reproduction and population dynamics of *Clematis hirsutissima* var. *arizonica*." Report to Coconino National Forest. January 7, 1993. 15 pp.

Maschinski, J. 1992. "IV. Surveys for sentry milk-vetch *Astragalus cremnophylax* var. *cremnophylax* in Grand Canyon National Park." Report to U.S. Fish and Wildlife Service. Phoenix, Arizona.

Maschinski, J. 1992. "Report of 1991 Research: Effects of shading on sexual and asexual reproduction and population dynamics of *Clematis hirsutissima* var. *arizonica*." Report to Coconino National Forest. November 20, 1991. 9 pp.

Maschinski, J. 1991. "Recovery plan for *Astragalus cremnophylax* var. *cremnophylax*." Report to U.S. Fish and Wildlife Service. Phoenix, AZ

Maschinski, J. 1991. "III. Reintroduction of *Astragalus cremnophylax* var. *cremnophylax*." Report to U.S. Fish and Wildlife Service. Phoenix, AZ

Maschinski, J. 1990. "Germination studies of the Fern Mountain population of Bebb willow," Report to The Nature Conservancy. Tucson, AZ

Maschinski, J. 1990. "II. Reintroduction of *Astragalus cremnophylax* var. *cremnophylax*." Report to U.S. Fish and Wildlife Service. Phoenix, AZ

Maschinski, J. 1990. "I. Germination studies of *Astragalus cremnophylax* var. *cremnophylax*." Report to U.S. Fish and Wildlife Service. Phoenix, AZ

Technical Reports (continued)

Maschinski, J. 1989. "Factors limiting reproductive success of Arizona leatherflower growing the the Lake Mary timber sale area," Report to Coconino National Forest, Flagstaff, AZ

Recent Lay Publications

Maschinski, J., Joie Goodman, Samuel J. Wright, Don Walters, Jennifer Possley, and Caroline Lewis. 2009. The Connect to Protect Network: Botanic gardens working to restore habitats and conserve rare species. *BGJournal* 6:6-9.

Lewis, S. and J. Maschinski. 2009. Connect to Protect: creating corridors to save South Florida's pine rockland plants. *Palmetto* 26:4-7.

Maschinski, J. 2008. Good news for the Endangered Sargent's cherry palm in the Florida Keys. *The Tropical Garden*, Spring 2008.

Maschinski, J. and S. Lewis. 2008. Fairchild launches the Connect to Protect Network. *The Tropical Garden*, Spring 2008.

Carl W. Weekley, C.W., D.R. Gordon, J. Maguire, J. Maschinski, E.S. Menges, C. L. Peterson, and V. C. Pence. 2008. Saving Florida's Rarest Plants: Florida's Endangered and Threatened Plant Conservation Grants Program. *The Palmetto* 25: 8-13.

Maschinski, J., Goodman, J., Wright, S.J., Roncal, J. D. Walters, D. Lewis, S. Possley, J. Minkowski, K. and Spencer, N. 2008. Hurdles and Leaps: Evaluating Extinction Risks of Endangered Species and Making Decisions for their Conservation in the Face of Climate Change," *Proceedings of 2nd World Scientific Congress, Botanic Gardens International Congress, 29 June - 4 July 2008, Delft Netherlands*

Presentations, Published Abstracts, Poster Sessions

2010 Maschinski, J. "Conservation Solutions: from relatively easy to extremely difficult," Conservation and Ethics Class, Memorial University, St Johns, Newfoundland

2010 Maschinski J. "The difficulty of finding smoking gun evidence: High salinity and other threats to the Endangered Key Tree Cactus (*Pilosocereus robinii*) in the Florida Keys," Archbold Biological Station, FL

Presentations, Published Abstracts, Poster Sessions

2009 Maschinski, J. "Fairchild's South Florida Conservation Program," Fairchild Volunteers, Miami, FL

2009 Maschinski, J., J. L. Goodman, P. Hughes, J. McAuliffe, K. Rice, J. Roncal. "Climate Change Threatens Endangered Key Tree Cactus (*Pilosocereus robinii*) in the Florida Keys USA," Ecological Society of America, Albuquerque, NM

2009 Maschinski, J. Roncal, B. Schaffer and S. M. Gutierrez. "The feasibility of assisted migration for endangered crenulate leadplant outside its known historic range," 10th International Congress of Ecology, Brisbane, Australia

2009 Maschinski, J., S. Wright, J. Possley, K. Wendelberger, and J. Roncal. "The feasibility of assisted migration: When will moving endangered plant species to novel sites work?" Society for Ecological Restoration, Perth, Australia

2009 Maschinski, J. "The Connect to Protect Project," Rotary Club of South Miami, Miami, FL

2008 Maschinski, J. "How Schools can help Conserve Endangered Plants and Ecosystems in South Florida," Fairchild Challenge Teachers Workshop, Miami, FL (two sessions)

2008 Maschinski, J. "How Private Landowners can help Conserve Endangered Plants and Ecosystems in South Florida," Miami-Dade Chapter Florida Native Plant Society, Miami, FL

2008 Maschinski, J. "Fairchild Threatened and Endangered Plant Conservation Program," Ponce de Leon Business Association, Miami, FL.

2008 Maschinski, J. "How Private Landowners can help Conserve Endangered Plants and Ecosystems in South Florida," Eastridge Garden Club, Miami, FL

2008 Maschinski, J. "Fairchild Threatened and Endangered Plant Conservation Program," Tram Drivers of Fairchild, Miami, FL.

2008 Maschinski, J. "Taller sobre Reintroducción: Asociando la conservación Ex situ e In situ," XXI Reunión Nacional De Jardines Botánicos at Jardín Botánico de Acapulco, Acapulco, Mexico

Maschinski, J., Bradley, K. , Gann, G., Maunder, M. , Possley, J., Lewis, S. and Minkowski, K. 2008. The Natural Fit: Reconnecting Natural Areas With The Miami-Dade Open Space Plan, Miami-Dade County Park and Recreation Department, Miami, FL.

Maschinski, J., Goodman, J., Wright, S.J., Roncal, J. D. Walters, D. Lewis, S. Possley, J. Minkowski, K. and Spencer, N. 2008. Hurdles and Leaps: Evaluating Extinction Risks of Endangered Species and Making Decisions for their Conservation in the Face of Climate Change," Botanic Gardens International Congress, Delft Netherlands

2007 Maschinski, J. "How Schools can help Conserve Endangered Plants and Ecosystems in South Florida," Fairchild Challenge Teachers Workshop, Miami, FL.

2007 Maschinski, J. Samuel J. Wright, Jennifer Possley, and Julissa Roncal. Using rare plant reintroductions to predict future states for optimal restoration in dynamic urban ecosystems. Ecological Society of America and Society for Ecological Restoration, San Jose, CA.

2007 Developing Corridors to Alleviate Problems of Urban Fragmentation on Rare Plant Populations in South Florida," Florida Rare Plant Task Force Meeting, Historic Bok Sanctuary, Lake Wales, FL

2007 "Fairchild Threatened and Endangered Plant Conservation Program" Endangered Plant Advisory Council, Lake Wales, FL

2007 "Why Save South Florida Native Plants?" Gifford Arboretum, UM, Miami, FL.

2007 "South Florida Native Plants," Fairchild Challenge Art Day, Miami FL

Presentations, Published Abstracts, Poster Sessions (continued)

2007 "Developing Corridors to Alleviate Problems of Urban Fragmentation on Rare Plant Populations in South Florida," Pine Rockland Working Group, Homestead, FL

2006 "Assessing Success Of Reintroductions Of The Endangered Long-Lived Sargent's Cherry Palm, *Pseudophoenix Sargentii*, in the Florida Keys," Society for Conservation Biology, San Jose, CA.

2005 "Using Ecological Theory to Plan Restorations of Endangered Species in Fragmented Habitats," Society for Ecological Restoration, Zaragoza, Spain

2004 "Conserving Endangered Plants: The FTBG Plant Conservation Program." Florida International University, Miami, FL

2004 "Conserving Endangered Plants: The FTBG Plant Conservation Program and how we are using ecological theory to help." University of Florida Tropical Research and Education Center, Homestead, FL

2004 "The conservation program at Fairchild Tropical Garden" and "Rare plant reintroductions: genetic issues and case studies from Arizona and Florida" Oral presentations to Biology Department, Memorial University, Newfoundland, Canada

2003 "Lessons from reintroductions of endangered plants and suggestions for improving protocols to assess success: a call for collective documentation." Florida Rare Plant Task Force, Lake Wales, FL

2003 "Lessons from reintroductions of endangered plants and suggestions for improving protocols to assess success." Society for Conservation Biology, Duluth, MN

2003 "Rare plant reintroductions: genetic issues and case studies from Arizona and Florida" Oral presentation to Biology Department, Florida International University, Miami, FL

2003 "Key genetic issues in rare plant introductions" Oral presentation to Association of Southeast Biologists, Washington, D.C. Co-authors Eric S. Menges and Carl W. Weekley

2002 "Conservation research in the southwestern U.S.: roads, rascals, politics and promises." Oral presentation to Kings Park & Botanic Garden, Perth, Western Australia

2001 "Conservation research in the southwestern U.S.: roads, rascals, politics and promises." Oral presentation to Archbold Biological Station, Lake Placid, FL

2001 "Reintroduction of *Purshia subintegra*," Center for Plant Conservation, Framingham, MA.

2000 "The problem of being small: Demographic and reproductive patterns of *Ipomopsis sancti-spiritus*," Poster presentation for SW Rare and Endangered Plant Conference, Flagstaff, AZ

2000 "Impacts of domestic and wild herbivores on rare plants," Oral presentation for SW Rare and Endangered Plant Conference, Flagstaff, AZ

1998 "Impacts of Ungulate Herbivory on Rare Plants," International Congress of Ecology, Florence, Italy

1 "Reintroduction efforts at The Arboretum at Flagstaff," Center for Plant Conservation, Lake Wales, FL

Presentations, Published Abstracts, Poster Sessions (continued)

1997 "Compensatory response of the rare Arizona leatherflower to variable timing and intensity of herbivory: implications for management," Ecological Society of America, Albuquerque, NM

1996 "Research studies and educational outreach for endangered plants in the national collection at The Arboretum at Flagstaff," Center for Plant Conservation, Denver, CO

1995 "Potential impacts of timber harvest and herbivory on a rare understory plant species," Department of Biological Sciences, Northern Arizona University

1995 "Demography and population viability of an endangered plant species before and after protection from trampling," Ecological Society of America, Snowbird, UT

1994 "Studies of rare plants on forest service lands and implications for management," School of Forestry, Northern Arizona University

1993 "The role of botanical gardens in plant conservation," Society for Conservation Biology, Tempe, AZ (invited)

1990 "Proactive management for a rare plant threatened by timber harvest," Ecological Society of America, Madison, WI

1992 "The price of waiting may be too high: *Astragalus cremnophylax* var. *cremnophylax* at Grand Canyon National Park," and "Impacts of experimental manipulation of overstory on Arizona Leatherflower (*Clematis hirsutissima* var. *arizonica*) Demography," Southwestern Rare and Endangered Plant Conference, Santa Fe, NM

1991 "Integrated conservation strategies for recovery of sentry milk-vetch at the south rim of Grand Canyon National Park," First Biennial Conference on Research on Colorado Plateau National Parks, Flagstaff, AZ

1991 "Public involvement in plant conservation," The Flagstaff Festival of Science, Flagstaff, AZ

1991 "Tolerance to herbivory: genetic, environmental, and physiological bases of compensatory response of two Ipomopsis species," Ecological Society of America, San Antonio, TX (poster)

1990 "Indirect effects of herbivore-induced changes in plant architecture on fruit-flower ratios and pollinator efficiency," Ecological Society of America, Snowbird, UT

1990 "Case studies in conservation: when theory and application butt heads," Southwestern Assoc. of Biologists, Portal, AZ

Research Experience

- 1992 – present Reintroductions of endangered plants
- 1992- present Demography of endangered plants
- 2002- present Conservation of South Florida Endangered and Threatened Flora
- 2001- 2004 Impacts of slash pile burning in ponderosa pine forests
- 2001- present Eliminating invasive exotics and restoring a native grassland
- 1996- 2008 Factors influencing the distribution, demography, and genetics of the endangered Arizona cliffrose
- 1995- 1999 Impacts of timing and intensity of herbivory on Arizona leatherflower
- 1995- 1998 Use of native plants for wastewater treatment
- 1994- present Demography, germination and pollination requirements of *Ipomopsis sancti-spiritus*
- 1993- 2000 Impacts of herbivory on Arizona willow
- 1990- present Conservation of the rare plant: sentry milk-vetch, *Astragalus cremnophylax* var. *cremnophylax* at Grand Canyon National Park.
- 1990- present Limitations of reproduction in rare plant species.
- 1989- 1999 The influence of tree canopy on sexual and asexual reproduction of Arizona leatherflower.
- 1985- 2000 Environmental, genetic, and physiological factors influencing compensation in *Ipomopsis arizonica*.
- 1985-present Insect herbivores of *Ipomopsis arizonica*
- 1990-1992 Factors limiting reproduction of Bebb willow.
- 1985-1990 Indirect effects of herbivory on plant architecture.
- 1987-1990 Physiological mechanisms of compensatory regrowth in *Ipomopsis arizonica* and *Ipomopsis aggregata*: comparisons of carbon assimilation and carbon allocation.
- 1989 Impacts of Glen Canyon Dam on riparian vegetation and community structure within Grand Canyon National Park.
- 1989 Impact of fluctuating flows on water quality and beach erosion in Grand Canyon National Park.