

Joy B. Zedler
Aldo Leopold Professor of Restoration Ecology, Botany Department and Arboretum

Academic and Professional History:

- PhD in Botany at the University of Wisconsin-Madison with a minor in Zoology in 1968.
- Taught at the University of Missouri (Biology Department) for one year (1968-69).
- In 1969, joined San Diego State University faculty, where I taught many courses and supervised dozens of graduate students.
- In 1998, became the first Aldo Leopold Professor in Restoration Ecology, as well as Professor of Botany, at the University of Wisconsin-Madison.

Research Focus: Wetland ecology; structure and functioning of wetlands; adaptive restoration (using science to improve the restoration of ecosystems); interactions of native and invasive species, effects of topographic heterogeneity on wetland functioning, experimentation using mesocosms.

Graduate Training Focus: Applied ecology (restoration and management of wetlands and rare plant species). To date, I have graduated 43 MS & 4 PhD degrees and supervised over a dozen postdocs. IGERT funding would allow testing of new and innovative graduate training approaches. In 2001, I was the first recipient of the William A. Niering Outstanding Educator Award given by the Estuarine Research Federation. This award was based on recommendations of many former graduate students and postdocs who evaluated my graduate education and research training ability.

Current Research Support:

- National Science Foundation. Manipulation of vertical and horizontal heterogeneity in a large-scale restoration experiment. \$390,129. Zedler, Madon and Callaway. 2002-2006
- National Science Foundation-Small Grants for Exploratory Research. Early responses of an experimental coastal marsh ecosystem to varied topographic heterogeneity. Co-PI with S. Madon. \$50,038. 2001-2002.
- EPA Star Grant: Indicators of Ecosystem Integrity in Great Lakes Coastal Wetland Vegetation. Co-PI with C. Johnston. \$153,660. 2001-2004
- National Oceanic and Atmospheric Administration. Water quality and nutrient dynamics in Tijuana Estuary as a component of the NERR system-wide monitoring plan. Co-PI with S. Madon. \$108,000. 2001-2004.
- US Geological Survey. Ecological costs and benefits of restoring reed canary grass wetlands to native wetlands. \$45,000. 2002-2004.
- The Wetlands Institute. Vegetation responses to variable hydroperiods. \$125,585. 2002-04.

Select Publications:

- Zedler, J. B., editor. 2001. *Handbook for Restoring Tidal Wetlands*. Marine Science Series, CRC Press LLC, Boca Raton. Florida.
- Zedler, J. B., J. C. Callaway, and G. Sullivan. 2001. Declining biodiversity: Why species matter and how their functions might be restored. *BioScience* 51:1005-1017.
- Keer, G., and J. B. Zedler. 2002. Salt marsh canopy architecture differs with the number and composition of species. *Ecological Applications* 12:456-473.
- Maurer, D. A., and J. B. Zedler. 2002. Differential invasion of a wetland grass explained by tests of nutrients and light availability on establishment and vegetative growth. *Oecologia* 131:279-288.
- Lindig-Cisneros, R. and J. B. Zedler. 2002. *Phalaris arundinacea* L. seedling establishment: Effects of canopy complexity in fen, mesocosm and restoration experiments. *Canadian Journal of Botany* 80:617-624.