

## CURRICULUM VITAE

**Ryan O'Dell**

Bureau of Land Management  
Central Coast Field Office  
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### **Education**

M.Sc. Soils and Biogeochemistry (2005)

'Revegetation of subgrade substrates: I. Barren serpentine substrates. II. Cu and Zn minespoil'

University of California, Davis

Major Advisor: Victor P. Claassen

B.S. Plant Biology (2002)

University of California, Davis

### **Professional Experience**

- Bureau of Land Management, Central Coast Field Office, Marina, CA. Natural Resource Specialist (2007 - Present) – applied ecology, land management practices, environmental compliance, NEPA, ESA. Rare, threatened and endangered plant species survey, monitoring, and recovery; seed collection and seed science; soil science; invasive plant species control; ecosystem restoration; paleontology; paleoclimate and climate change; serpentine; vertic clay; San Joaquin Desert and desert ecology; plant edaphic endemism; *research on all of the above* (PI: Ryan O'Dell).
- HT Harvey and Associates, Sacramento Office, Sacramento, CA. Associate Ecologist (2005) - environmental compliance, CEQA, CESA. Rare, threatened and endangered plant species survey; mitigation and monitoring.
- University of California, Davis, CA. Graduate Research Assistant (2002 - 2007). Revegetation of subgrade substrates: barren serpentine, Cu and Zn minespoil, decomposed granite, volcanic lahar, and alkaline/saline alluvium; *research on all of the above* (PI: Victor P. Claassen).
- University of California, Davis, CA. Post-Graduate Researcher (2002). Revegetation of Owens Dry Lake playa; planting, project maintenance, data collection assistant (PI: James H. Richards).
- US Forest Service, Fremont-Winema National Forest, Chemult Ranger District, Chemult, OR. Seasonal Botanist (Summer 2001). Rare, threatened and endangered plant species survey.

## Peer-Reviewed Journal Publications

- O'Dell RE**, Erwin DM, Holroyd P, Rankin BD, and Ibraheem El-Faramawi M. 2017. Flora and fauna of the Holocene Oil Canyon oil-sands from the poorly understood San Joaquin Desert Biozone. *In*: RE Reynolds (Ed.). ECSZ Does It: Revisiting the Eastern California Shear Zone. California State University Desert Studies Center. 2017 Desert Symposium Field Guide and Proceedings. April 2017.
- Curtis MJ, Rider DE, Lorenzato S, **O'Dell RE**, Fristensky A and Claassen V. 2015. Rainfall infiltration of soils under annual versus perennial grasses in California. *Grasslands* 25:9-12
- Dick CA, Herman JA, **O'Dell RE**, Lopez-Villalobos A, Eckert C, and Whittall JB. 2014. Cryptic genetic subdivision in the San Benito evening primrose (*Camissonia benitensis*). *Conservation Genetics* 15:165-175.
- O'Dell R**. 2014. Noteworthy collection. *Astragalus rattanii* var. *jepsonianus*. *Madroño* 61:250
- Rajakaruna N, Knudsen K, Fryday AM, **O'Dell RE**, Pope N, Olday FC, and Woolhouse S. 2012. Investigation of the importance of rock chemistry for saxicolous lichen communities of the New Idria serpentinite mass, San Benito County, California, USA. *Lichenologist* 44:695-714.
- Lazarus BE, Richards JH, Claassen VP, **O'Dell RE** and Ferrell MA. 2011. Species specific plant-soil interactions influence plant distribution on serpentine soils. *Plant and Soil* 342:327–344.
- O'Dell RE** and Claassen VP. 2009. Serpentine revegetation: A review. *Northeastern Naturalist* 16:253-271.
- O'Dell RE**, Dumlao MR, Samar D and Silk WK. 2008. Stage-dependent border cell and carbon flow from roots to rhizosphere. *American Journal of Botany* 95:441-446.
- O'Dell RE**, Young SL and Claassen VP. 2007. Native roadside perennial grasses persist a decade after planting in the Sacramento Valley. *California Agriculture* 61:79-84.
- Rider DE, **O'Dell RE**, and Claassen VP. 2007. Release of non-exchangeable  $^{15}\text{NH}_4^+$  from subgrade, decomposed granite substrates and uptake by non-mycorrhizal and mycorrhizal California native annual grass, *Vulpia microstachys*. *Plant and Soil* 300:83-94.
- O'Dell R**, Silk W, Green P and Claassen V. 2007. Compost amendment of Cu-Zn minespoil reduces toxic bioavailable heavy metal concentration and promotes establishment and biomass production of *Bromus carinatus* (Hook and Arn.) *Environmental Pollution* 148:115-124.
- Silk WK, Bambic D G, **O'Dell RE** and Green PG. 2006. Seasonal and spatial patterns of metals at a restored copper mine site. II. Copper in riparian soils and *Bromus carinatus* shoots. *Environmental Pollution* 144:783-789.
- O'Dell RE** and Claassen V. 2006. Relative performance of native and exotic grass species in response to amendment of drastically disturbed serpentine substrates. *Journal of Applied Ecology* 43:898-908.
- O'Dell RE** and Claassen VP. 2006. Vertical distribution of organic amendment influences the rooting depth of revegetation species on barren, subgrade serpentine substrate. *Plant and Soil* 285:19-29.

- O'Dell RE** and Claassen VP. 2006. Serpentine and nonserpentine *Achillea millefolium* accessions differ in serpentine substrate tolerance and response to organic and inorganic amendments. *Plant and Soil* 279: 253-269.
- O'Dell RE**, James JJ and Richards JH. 2006. Congeneric serpentine and nonserpentine shrubs differ more in leaf Ca:Mg than in tolerance of low N, low P, or heavy metals. *Plant and Soil* 280: 49-64.

### **Peer-Reviewed Book Chapter Publications**

- O'Dell RE**. 2014. Conservation and restoration of chemically extreme edaphic endemic flora. *In: Rajakaruna N, Boyd RS, and Harris TB (Eds.) Plant ecology and evolution in harsh environments.* Nova Science Publishers, Inc., New York, USA. 426 pp.
- O'Dell RE** and Rajakaruna N. 2011. Intraspecific variation, adaptation, and evolution. *In: Harrison S and Rajakaruna N (Eds.) Serpentine: The evolution and ecology of a model system.* University of California Press, Berkeley, California, USA. 446 pp.
- O'Dell RE** and Claassen VP. 2011. Restoration and revegetation of harsh soils. *In: Harrison S and Rajakaruna N (Eds.) Serpentine. The evolution and ecology of a model system.* University of California Press, Berkeley, California, USA. 446 pp.

### **Conference and Meeting Presentations**

California Native Plant Society Conservation Conference (Los Angeles, CA, USA) February 1 – 3, 2018. *Oral Presentation:* Approaches and methods for the quantification of soil seed banks: Overcoming seed blindness.

BOTANY 2017 Conference (Ft. Worth, TX, USA) June 24 - 28, 2017. *Oral Presentation:* Strict vertic clay endemic flora of the Inner South Coast Ranges, California.

CNPS San Luis Obispo Chapter meeting (San Luis Obispo, CA, USA). March 1, 2012. *Oral Presentation:* Serpentine Flora of California.

California Native Plant Society Conservation Conference (San Diego, CA, USA) January 11 – 16, 2012. *Oral Presentation:* Recovery of San Benito evening primrose (*Camissonia benitensis*; Onagraceae)

CNPS Santa Cruz Chapter meeting (Santa Cruz, CA, USA). September 12, 2011. *Oral Presentation:* Serpentine flora of California.

7th International Serpentine Ecology Conference (Coimbra, Portugal). June 12-16, 2011. *Oral Presentation:* Recovery of San Benito evening primrose (*Camissonia benitensis*; Onagraceae). *Poster:* The serpentine flora of northeastern Oregon, USA.

6th International Serpentine Ecology Conference (Bar Harbor, ME, USA). June 16-23, 2008. *Oral Presentation:* Flora of the New Idria serpentine mass and management

challenges of the Clear Creek Management Area. *Oral Presentation*: Parallel evolution and convergent physiological tolerance mechanisms of serpentine-tolerant *Achillea millefolium* (Asteraceae) edaphic ecotypes. *Oral Presentation*: Serpentine revegetation concepts.