

CHRISTAL NIEDERER
Creekside Center for Earth Observation

EXPERIENCE

Creekside Center for Earth Observation, Menlo Park, CA
Biologist (December 2005 to present)

Selected Projects

San Mateo Thornmint Habitat Enhancement and Introduction

Lead on project to restore single extant site of San Mateo thornmint (*Acanthomintha duttonii*) and to create additional colonies. Created experimental design, directed experimental treatments, and collected and analyzed soil moisture and composition data at potential introduction sites. This is a collaborative effort with UC Berkeley Botanical Garden, which is conducting a successful seed increase program.

Barbed Goatgrass Management at Coyote Ridge

Lead on weed management plan for barbed goatgrass (*Aegilops triuncialis*), which is threatening core Bay checkerspot butterfly (*Euphydryas editha* ssp. *bayensis*) habitat. Current treatments include burning, spraying with grass-specific herbicide (Envoy), string cutting, and hand pulling. This project includes coordination among multiple agencies, landowners, and contractors.

Grassland Management at Edgewood Natural Preserve

Lead on project to control weeds and enhance native cover in Edgewood's grasslands. Targeted weeds include medusahead, Harding grass (*Phalaris aquatica*), yellow starthistle (*Centaurea solstitialis*), annual falsebrome (*Brachypodium distachyon*), and others. Created experimental design to test treatments of medusahead and annual falsebrome, as well as a NONON (no nonnative) experiment to determine the efficacy of increasing weeding intensity. Initiated revegetation program with site-collected stock.

Serpentine Prairie Restoration

Contributed extensively to adaptive management plan for restoring the Serpentine Prairie at Redwood Regional Park, East Bay Parks and Recreation Department. This plan uses the endangered Presidio clarkia (*Clarkia franciscana*) as an umbrella species. Developed population monitoring plan, as well as experimental design for prairie enhancement treatments.

Presidio Clarkia Restoration at the Presidio

Created experimental design to test efficacy of different habitat restoration techniques at Inspiration Point. Led data collection and completed data analysis. Successful treatments included post-germination scraping, tarping, and flaming/thatch burning. Clarkia seeding was successful in areas where annual grass was controlled.

Checkerspot Larvae Monitoring

Conduct population monitoring for bay checkerspot butterfly larvae at various properties. Analyze and report results.

Vegetation Composition Monitoring

Conduct vegetation monitoring at various properties. Analyze and report results.

National Park Service, Yosemite National Park, El Portal, CA

Biological Science Technician, vegetation and ecological restoration (seasonally June 2001 to October 2007)

- Conducted statistical analysis of vegetation plots and groundwater data for Cook's Meadow restoration project.
- Assisted in rare plant survey in Tuolumne River corridor for Tuolumne River Plan.
- Mapped individual sequoias in Mariposa Grove using GPS/GIS and total station equipment. Matched individual trees to existing database and linked it to GIS.
- Collaborated on protocol development for erosion and vegetation monitoring along Merced River to assess visitor impacts. Collected and analyzed data, synthesized into report.
- Trained staff and volunteers on total station use and erosion monitoring protocols.
- Collected, processed, and graphed morphological data for Merced River. Trained other staff to do same.
- Monitored backcountry restoration sites.
- Wrote plan for restoration project in Mariposa Grove of Giant Sequoias.
- Wrote interpretive signs for restoration sites.
- Park Employee of the Month September 2007.

California State Parks, San Mateo coast sector, 95 Kelly Avenue, Half Moon Bay, California, 94019
Environmental Services Intern (seasonally January 2004 to March 2006)

- Lead planner for levee removal project at Pescadero Marsh Natural Preserve, including design, permitting, contracting, and CEQA documentation.
- Negotiated mitigation requirements with USFWS and CDFG for above project, a recovery action for endangered San Francisco garter snakes and threatened California red-legged frogs.
- Used GPS and ArcGIS to map habitat for sensitive plant and animal species at various park units.
- Took water quality measurements at Pescadero Marsh Natural Preserve as part of investigation into annual steelhead dieoff.
- Conducted grassland surveys at various park units.
- Led volunteers in habitat restoration projects.

University of California at Berkeley, Department of Environmental Science, Policy, and Management, Division of Forest Science, 145 Mulford Hall, #3114, Berkeley, CA 94720
Lab Assistant (June 2002 to August 2002)

- Collected vegetation data in backcountry of Sequoia-Kings and Yosemite National Parks.
- Measured forest attributes such as structure, composition, biodiversity, fuel loading, and fire history.

EDUCATION

San Francisco State University, San Francisco, California, 94132
Botany B.S.

- Graduated with Honors

San Jose State University, San Jose, California, 95192
B.S. in magazine journalism, with minor in urban planning/environmental studies

- Dean's Scholar, Graduated with Great Distinction.

West Valley Community College, Saratoga, California, 95070
A.S. in Park Management

- Park Management Scholar

Scholarships Received

- California Native Plant Society, East Bay Chapter
- Myrtle Wolf Scholarship (California Native Plant Society)
- San Jose State University Dean's Scholarship
- Thomas A. Smith (Park Ranger Association of California)
- Norman Barrett Scholarship
- Saratoga Rotary

TRAINING

Wilderness First Responder, 2002

DOT First Responder, 2002

Federal Interagency Wildland Firefighter's Red Card, 2002

Technical Rescue and Ropecraft, 2002

Mountain Medicine, 2001

32-Hour Basic Wildland Firefighting Course, 2000

Basic Chainsaw Use and Safety, 2000

OTHER SKILLS

Freelance writer: published in *The San Jose Mercury News*, *Youth Magazine*, *Parachutist*, *Sports 'n Spokes*, and *Peninsula*.

Leave No Trace Backpacking

MEMBERSHIPS

California Native Plant Society

California Invasive Plant Council

Friends of the Jepson Herbarium

Society for Ecological Restoration, California chapter (SERCAL)

Committee for Green Foothills