

RESTORATION ECOLOGY 2-UNIT INTERNSHIPS – Fall 2009

Those students interested getting some hands-on experience in the field of Restoration Ecology may enroll to do a 2-unit internship (~6 hr/week) affiliated with this class. Students will work in groups with agencies in the Santa Cruz area on a range of restoration tasks. The requirements for this course are:

1. Do ~5 hr/wk (50 hr total) of restoration fieldwork with your agency, and keep a log of work hours for this internship (field work, journal entries, etc.) which should be signed by your agency sponsor and turned in at the end of the quarter.
2. Attend a brief mid-quarter and end-of-quarter meeting to discuss internships.
3. Keep a field journal with a minimum 250-word entry after each day of fieldwork.
4. Write a 4-5 page reflective paper at the end of the quarter integrating your fieldwork experience with what you learned in class. Due Monday, Dec. 7 by 9 am.
5. Attend the class field trip on October 17.
6. Discuss your agency sponsor's evaluation of your work at the end of the quarter.

Those students interested in doing an internship should meet briefly with Dr. Holl at the end of class on Monday, Sept. 28 and must attend at meeting with agency sponsors at 5 pm on Wednesday, Sept. 30 in ISB 486. Students will need to have a 4-5 hr time block open during the week and interns working with the same sponsor will need to coordinate times for field work. There may not be enough spaces with each sponsor and/or your schedule may not match with students who want to work with the same sponsor so please come to the meeting with a couple of choices for intern placements.

Internship opportunities:

Restoration at Younger Lagoon Reserve (2-10 interns): *Sponsor: Elizabeth Howard, UCSC Natural Reserves.* These interns will participate in a variety of tasks related to restoration at Younger Lagoon Reserve including: (a) seed collection, processing and accession, (b) plant propagation and greenhouse work, (c) invasive species removal, (d) restoration maintenance and monitoring, and (e) planning and preparation for volunteer work days. The work site is located on the west side of town adjacent to UCSC's Long Marine Lab. Bus service to the site is limited. Students will need their own transportation; it is within biking distance of campus and car parking is free.

Restoration planting, vegetation monitoring, erosion control and invasive plant removal (3-4 interns) *Sponsor: Bill Reid, UCSC Site Stewardship Program.* Interns will work on current Site Stewardship projects involving vegetation monitoring of species diversity and residual dry matter in campus grasslands and percent cover in the coastal scrub vegetation zone at Long Marine Lab. Additional projects include native plant propagation and greenhouse work, site preparation and planting at the Long Marine Lab buffer adjacent to the Younger Lagoon Natural Reserve, identification/removal of exotic invasive plants on campus, and planning and preparation for volunteer workdays.

Native plant propagation and restoration planning at the UCSC arboretum (2-5 interns): *Sponsor: Brett Hall, UCSC Arboretum* – These interns will work with staff at the UCSC Arboretum in the native plant garden. Activities will include planting, propagating and garden care. Native plant restoration, propagation, seed, cutting and division propagation techniques will be practiced. Coordinating schedules with other interns will be very helpful.

Restoring Watsonville wetlands (2-3 interns): *Sponsor: Jonathan Pilch, Watsonville Wetlands Watch* Interns will work with restoration staff on wetland and grassland restoration projects in the Watsonville Slough System. Projects are located on public lands, school sites, private lands, and local farms. Interns will assist in all aspects of restoration, including native plant propagation, seed collection, invasive species removal, planting, and restoration projects designed for threatened and endangered species recovery (Santa Cruz tarplant, California Red-legged frog). Interns will also have an opportunity to learn about urban slough and trail management, community-based habitat restoration, and restoration-education projects for Watsonville youth. This internship will require a 30 min. drive one day per week, so at least one intern will need a car.

Habitat restoration at the Elkhorn Slough National Estuarine Research Reserve (2 interns, Tuesdays, Wednesdays, or Thursdays): *Sponsor: Bree Candiloro, ESNERR Stewardship Specialist.* Interns will work on new and ongoing stewardship projects. Tasks will include: (a) maintaining an oak woodland restoration project by removing non-native invasives and planting native plants, (b) nursery propagation experiment for fire-dependent germinators (c) set up and maintenance of native grass restoration plots. This internship will require a 30-40 min. drive one day per week, so at least one intern will need a car.

Restoring farm and habitat buffer (2 interns): *Sponsor: Laura Kummerer, Restorationist, High Ground Organics Farm* Interns will take part in restoring damaged land that is an essential buffer between a thriving organic farm and a wetland ecosystem in Watsonville. The work includes; assisting with a grazing program designed to restore native bunch grasses and annual wildflowers including the endangered Santa Cruz tarplant; planting, collecting seed and growing up local varieties of native grasses, sedges and wildflowers; and removing invasive plant species. This internship is based in Watsonville but is located within 10 min. walking distance of a bus stop with express bus service from Santa Cruz.

Native plant propagation and restoration work in CA state parks (2-4 interns): *Sponsor: Bridgette Payne and Portia Halbert, California State Parks.* These interns will work with staff at various state parks in the Santa Cruz area. Interns will work on threatened and endangered species protection, and vegetation and fuel management. Tasks will include but are not limited to participating in regional prescribed burns (training provided), chainsaw operation, removal of invasive plants using hand tools, operation of weed whackers and mowing equipment, stacking wood into burn piles, manual fire line creation, applying herbicide from backpacks and spray rigs, interpretation of resource work to park visitors, and fencing installation and removal. Interns must be available to spend one entire day (7:30-3:30 pm) per week (Tues. or Thurs.), but can skip a couple days over the course of the term to average 5-6 hr/week.