

## Job Announcement: Redwoods Rising Apprenticeship 2020

### Redwoods Rising

Redwoods Rising is a unique collaboration between the California Department of Parks and Recreation, Redwood National Park, and Save the Redwoods League that integrates multiple disciplines to achieve landscape-scale ecosystem restoration. The primary goal of the Redwoods Rising Apprenticeship is twofold: to provide a career development opportunity to the next generation of natural resource managers, and to boost capacity for Redwoods Rising projects. Redwoods Rising is currently beginning implementation of ecosystem restoration projects in two geographies: the **Greater Mill Creek (GMC)** project area (comprised by Del Norte Coast Redwoods State Park, and Redwood National Park), and the **Greater Prairie Creek (GPC)** project area (comprised by Prairie Creek Redwoods State Park, and Redwood National Park).

### Position Overview

Apprentices will be selected to work on new restoration projects in **Redwood National and State Parks (RNSP)** and will function as a team, working closely with staff from Redwood National Park and/or California State Parks on redwood ecosystem restoration. This program will provide professional networking opportunities with Save the Redwoods League, Redwood National Park, and California State Parks. Apprentices will develop skills in: scientific inventory and monitoring, data development and management, outreach, public speaking, radio usage, and field safety. Necessary field equipment will be provided by Redwoods Rising. Apprentices are expected to supply their own clothing, boots, and basic camping gear.

Applicants should expect long days with arduous fieldwork, hiking off trail, variable hours, and work that will require attention to detail. Some positions may require camping during the work week at the Mill Creek Campground at Del Norte Coast Redwoods State Park. **Work will begin on May 26th and end on August 14th (11.5 weeks).** Apprentices will be allowed one week of unpaid vacation as part of their term. Reporting locations will be assigned by project leads and include:

- Fort Humboldt State Historic Park (Eureka)
- the Mill Creek Watershed Day Use Area at Del Norte Coast Redwoods State Park (Crescent City)
- RNSP South Operations Center (Orick).
- Patrick's Point State Park (Trinidad)

Students will be required to provide their own transportation to work reporting locations. Compensation will include a wage of \$15/hour, paid as a stipend.

### Qualifications

This Apprenticeship is open to all students enrolled for classes in the Fall semester of 2020 to be eligible.

**A successful applicant will demonstrate:** Attention to detail and direction, an eagerness to learn, values and respect for collaboration and shared responsibility, and a positive attitude.

**A successful applicant will need to obtain an HSU Defensive Driver Card.** Further information may be found here:

HSU Students: <https://training.humboldt.edu/content/defensive-driver-training-students>

CR Students: <http://www.dgs.ca.gov/orim/Programs/DDTOnlineTraining.aspx>

### Program Requirements

- Applicant must willing to complete a federal or state background check
- Orientation: The program begins with a required 3-day orientation (May 26-28, 2020).
- Brown Bag Presentation: As part of this program, apprentices are expected to deliver a presentation to Redwood National & State Parks staff at the end of the field season as a culmination of the term. This is a required activity for all apprentices (week of August 10th; exact date TBD).

**There will be a presentation and informational meeting on February 10, 2019, at 6:00 PM in WLDF 258.**

**Applications are due, by email, to [redwoodsrising@humboldt.edu](mailto:redwoodsrising@humboldt.edu), Monday, February 24 by 5 pm. The email subject line must include "Redwoods Rising".**

# **Forestry Apprenticeship - Position Description**

## **Positions available:**

- 2 positions available at GMC with California State Parks (CSP)
- 3 positions available at GPC with Redwood National Park (RNP)

## **Reporting Locations**

- **CSP:** Mill Creek Watershed Day Use Area at DNCRSP (Crescent City)
  - Apprentices reporting to DNCRSP (i.e. GMC) may camp at Mill Creek Campground (free of charge)
- **RNP:** RNSP South Operations Center (Orick)

## **Project Objectives:**

- **CSP:** To prepare for restoration thinning operations in the Greater Mill Creek (GMC) Project Area and monitor the long-term effects of thinning on forest conditions.
- **RNP:** To prepare for restoration thinning operations in the Greater Prairie Creek (GPC) Project Area and map riparian tree composition.

## **Apprentice Duties and Responsibilities:**

- **CSP:**
  - Assist with sample marking management units using prescribed guidelines
  - Establish, measure and remeasure monitoring plots
  - Establish management unit boundaries and delineate riparian management zones
- **RNP:**
  - Establish management unit boundaries and delineate riparian management zones
  - Assist with sample marking using prescribed guidelines
  - Update GIS database to reflect the work completed
  - Map the riparian tree composition (dbh and species) in the Streelow Creek and North Fork Streelow Creek floodplains

## **Desired Skills and Qualifications**

- Working towards a degree in Forestry
- Has taken the Forest Measurements class – Proficient in:
  - the use of BAF angle gauges
  - the use of diameter tapes, clinometers
  - calculating tree heights using basic forestry field equipment
  - reading and navigating using field maps
  - the operating of GPS units
- Applicant should:
  - Display good field orientation and map reading skills.
  - Be able to take detailed, accurate notes on forest conditions and enter data into electronic databases for later summarization and analysis
  - Have knowledge of or ability to learn common vegetation of the redwood forest
- Applicant must:
  - Be flexible and able to shift duties as priorities change.
  - Be able to work well with others on interdisciplinary teams and cross train others assisting with daily tasks
- Understands the arduous nature of the job, which requires hiking long distances, off-trail in steep terrain, in all weather conditions
- A driver's license is required

## **Preferred Courses:**

- **HSU:**
  - FOR 130: Dendrology
  - FOR 210: Forest Measurements and Biometry
- **CR:**
  - FNR 51: Dendrology
  - FNR 54: Natural Resource Inventory Techniques

## **Botany Apprenticeship - Position Description**

### **Positions available:**

- 8 positions available with California State Parks (CSP)

### **Reporting Locations**

- GMC Crew: Mill Creek Watershed Day Use Area at DNCRSP (Crescent City)
  - Apprentices reporting to DNCRSP (i.e. GMC) may camp at Mill Creek Campground (free of charge)
- GPC Crew: RNSP South Operations Center (Orick)

### **Project Objectives:**

- To protect rare plants in the Greater Mill Creek (GMC) and Greater Prairie Creek (GPC) project areas and meet compliance requirements to survey before restoration thinning and road removal operations. Crews will also treat exotic plant populations to control their spread within treatment areas.

### **Apprentice Duties and Responsibilities:**

- GPC Crew: Conduct rare plant surveys in GPC and assist in GMC as needed
- GMC Crew: Conduct rare plant surveys in GMC and assist in GPC as needed
- Treat exotic plant infestations upon discovery using the CSP Early Detection Rapid Response (EDRR) protocol
- Treat large exotic plant infestations

### **Desired Skills and Qualifications**

- Working towards a degree in Botany preferred; other fields will be considered
- Applicant should display:
  - The ability to identify rare plants, exotic plants, and plant communities found in the redwood region of Humboldt and Del Norte counties
  - Some experience with GIS equipment to map rare plants and plant communities
  - Good field orientation and map reading skills
- Applicant must possess:
  - A flexible demeanor and ability to shift duties as priorities change
  - An attention to detail in collecting and recording data
  - The ability to work well with others on interdisciplinary teams and cross train others assisting with daily tasks
- Understands the arduous nature of the job, which requires hiking long distances, off-trail in steep terrain, in all weather conditions

### **Preferred Courses:**

- HSU:
  - BOT 310: Plant Physiology
  - BOT 350: Plant Taxonomy
- CR:
  - BIOL 5: Botany

## **Hydrology Apprenticeship - Position Description**

### **Positions available:**

- 2 positions available with California State Parks (CSP)

### **Reporting Location**

- Mill Creek Watershed Day Use Area at DNCRSP (Crescent City)
  - Apprentices reporting to DNCRSP (i.e. GMC) may camp at Mill Creek Campground (free of charge)

### **Project Objectives:**

- Assist with monitoring efforts required for regulatory compliance of forestry work and conduct surveys to plan for aquatic and riparian restoration in GMC and GPC.

### **Apprentice Duties and Responsibilities:**

- Stream classification surveys that will inform canopy retention and equipment exclusion zones outlined in the GMC Riparian Management Zone table of the GMC IS/ND
- Map and quantify current conditions of LWD in the active channel and adjacent floodplain to inform restoration planning and post-implementation monitoring
- Map riparian tree composition to inform future conifer management and restoration in the riparian corridor
- Assist the forestry crew with flagging stream buffers for GMC Phase I implementation

### **Desired Skills and Qualifications**

- Applicant should display:
  - Experience with hydrologic processes and stream surveys
  - A level of comfort in and near swift and deep water
  - Experience with GIS equipment to map stream features
  - Good field orientation and map reading skills
  - Familiarity with identification of aquatic species (fish, non-fish, and invertebrates) and plant (particularly tree) species
- Applicant must possess:
  - A flexible demeanor and ability to shift duties as priorities change
  - Ability to work well with others on interdisciplinary teams and cross train others assisting with daily tasks
  - An attention to detail in collecting and recording data
- Understands the arduous nature of the job, which requires hiking long distances, off-trail in steep terrain with thick brush and large, downed logs through forests and riparian areas in all weather conditions
- A driver's license is required

### **Preferred Courses:**

- **HSU (any of the following):**
  - FISH 380: Techniques in Fisheries Biology
  - WSHD 310: Hydrology
  - ENGR 351: Introduction to Water Quality
  - ENGR 440: Hydrology I
  - ENGR 448: River Hydraulics
- **CR:**
  - FNR 54: Introduction to Natural Resource Inventory Techniques

# **Wildlife Apprenticeship - Position Description**

## **Positions available:**

- 4 positions available with California State Parks (CSP)

## **Reporting Location**

- Mill Creek Watershed Day Use Area at DNCRSP (Crescent City)
  - Apprentices reporting to DNCRSP (i.e. GMC) may camp at Mill Creek Campground (free of charge)

## **Project Objectives:**

- Surveying and monitoring of species of conservation concern to support environmental compliance necessary to support restoration activities.
  1. Determine the distribution, abundance, and population trends of Humboldt martens (*Martes caurina humboldtensis*), Pacific fisher (*Pekania pennanti*), and their major predators (e.g. bobcats [*Lynx rufus*]).
  2. Determine the distribution, abundance, and population trends of Northern spotted (*Strix occidentalis caurina*) and Barred owls (*S. varia*).
  3. Assist, as needed, to support additional natural resource projects that are necessary to support meeting environmental compliance, planning, or execution of restoration activities in the Greater Mill Creek and Greater Prairie Creek project areas.

## **Apprentice Duties and Responsibilities:**

- Conduct surveys for forest carnivores following the Humboldt marten population monitoring protocol across the entire Greater Prairie Creek ecosystem restoration project area. Deploy, check, and assist with photographic data management and species level identification.
- Conduct surveys for owls using autonomous recording units across the entire Greater Mill Creek ecosystem restoration project area. Deploy, check, and assist with acoustic data management and analysis for species level identification. Assist with follow-up surveys to confirm the locations of potential spotted owl activity centers following the USFWS 2012 protocol.

## **Desired Skills and Qualifications**

- Applicant should display:
  - Some experience navigating with the use of map, compass, and GPS devices
  - Some first aid training applicable to remote outdoor situations
  - some experience with following standardized protocols to collect biological data
- Applicant must possess:
  - A flexible demeanor and ability shift duties as priorities change
  - The ability to work well with others on interdisciplinary teams and cross train others assisting with daily tasks
  - An attention to detail in collecting and recording data
- Understands the arduous nature of the job, which requires hiking long distances, off-trail in steep terrain, in all weather conditions

## **Preferred Courses:**

- HSU:
  - WLDF 311: Wildlife Techniques
- CR:
  - FNR 87: Introduction to Wildlife Ecology and Management