

Ecosystems Management and Forestry Career Snapshot

Ecosystem Management and Forestry (EMF) focuses on the conservation and restoration of the earth's natural resources through hands-on study of the ecology, stewardship, and management of forest, woodland, and grassland ecosystems. The program offers two specializations to choose from, and if the student chooses a specialization in Forestry, they can qualify to take the Registered Professional Forester's licensing exam in California. Topics studied include wildlife and conservation biology, ecosystem restoration, rangeland management, water policy, fire science, GIS and remote sensing, environmental justice, and rural sociology. Majors can participate in an 8-week summer field program in the Sierra Nevada or semester long research program in Moorea. Offered by [the Department of Environmental Science, Policy, and Management \(ESPM\)](#)

Key Skills

- Complete your lower division requirements as soon as you can to take advantage of advanced courses.
- Learn how to use technical systems well, namely Geographic Information Systems (GIS)
- Acquire broad knowledge in areas including fire ecology and management, California land use and history, Native American land use and history, and natural resources policy.
- Strengthen your ability to manage datasets accurately.
- Seek out undergraduate research opportunities in labs or out in the field to gain hands-on experience.
- Develop your public speaking and technical writing skills, as good communication with the public, other scientists, specialists, and managers is important. Learning to interact collaboratively and to communicate clearly is also valuable because working in interdisciplinary teams is a crucial aspect of natural resource management.

Career Pathways

The degree provides specific analytical tools needed for graduate school or virtually any type of career in natural resources. Graduates can pursue careers in environmental consulting, public agencies, non-profit conservation organizations, private companies, professional forestry, wildlife biology, and range management. Some may tackle the planning and implementation of forest management projects, including fuel reduction, timber harvest, reforestation, urban forestry, and prescribed burning. Others focus their professional work in areas such as wildfire, fire, water, wetlands, restoration, vegetation management, soil/erosion, cultural resources, policy, and the human aspects of natural resources. Much of natural resource management today is about working with, communicating with, and engaging the public and landowners. The program itself has a longstanding history, so our graduates often find themselves sought after for employment by alumni established in both the public and private sectors.

Public and Non-Profit Sector Jobs

- **U.S. Forest Service or California Department of Forestry and Fire Protection:** Due to the high retirement rates in government agencies such as these, younger employees are being heavily recruited to work in the area of grassland and woodland management, fire hazard reduction and other fire related issues, assessment of stand conditions for treatments such as hazard tree reduction, or restoration and management of a particular tree species or habitat type. Social science expertise is needed for developing participatory projects, researching public needs, and assessing the social and economic factors

contributing to project successes and shortfalls.

- **Other federal and state government agencies:** Many agencies hire well-trained forestry and natural resource professionals to work as research assistants or associates to study topics such as basic forest ecology, wildlife conservation and ecology, the effects of different treatments on tree growth, mortality, and seedling recruitment, or the effects of management strategies for goals like fuel reduction. Land use planning, development of habitat conservation plans, and compliance with environmental regulations are crucial to agency activities.
- **Non-profit firms and organizations, local governments:** Administer conservation or natural resource programs, conduct research, and carry out land management activities and monitoring. Assist landowners in managing their properties, and work with groups of stakeholders on environmental management projects. Work on land conservation, management, and restoration projects for land trusts, parks, and reserves, including the development and monitoring of conservation easements.

Private Sector Jobs

- **Private Timber Companies**
- **Environmental consulting firms:** Offer environmental consulting and management services to assist in urban forestry or forest management, ranching, hunting or wildlife conservation, management of homeowner association properties, and land use planning. Provide assistance in management and conservation of resources found on Native American lands and public lands.
- **Business and economics:** Prepare timber harvest plans for private timber companies or other purchasing/supply firms. Manage power line vegetation and other kinds of environmental risks or hazards. Work in real estate and appraisal services, agricultural businesses, or market analysis firms.

Recent Alumni: Where Are They Now?

Courtesy of the UC Berkeley Career Center: <http://career.berkeley.edu/Major/major.stm>

- UCANR, Post-Wildfire Forest Health Researcher
- California Department of Forestry and Fire Protection, Forestry Aide/Forestry Technician
- Center for Tropical Research, Research Assistant Environmental Stewardship and Planning, Associate KPMG, Auditor
- National Park Service, Park Ranger
- Earth Sciences, PhD, UC Santa Cruz
- Progressive Insurance, Claims Representative Scientific Certification Systems, Certification
- Forester, US Forest Service
- Sierra Pacific Industries, Botany Survey Technician
- University of California, Berkeley, Senior Agricultural Technician/Intern Forester
- Environmental Sciences, Masters, University of California, Santa Barbara

Internship & Career Resources

- **[Rausser College Virtual Bulletin Board](#):** Our constantly updated bulletin board of College announcements, job & internship opportunities, scholarships, student org events, and more!
- **[CareerMail](#):** These Career Center mailing lists target specific career fields and topics, so you can choose whichever ones are ideal for you.
- **[Handshake](#):** For a list of current jobs and internships, career center events and networking opportunities, visit the Handshake website Access 1000s of jobs/internships, RSVP for Career Center events, Schedule a counseling appointment *for Cal students & eligible alumni
- **[UC Berkeley Career Center](#):** Whether you are seeking to clarify your career plans, enhance your career competitiveness or make connections with employers and alumni, the Career Center is committed to providing you the best service. Their services are free and available to all undergraduate and graduate students as well as alumni within 5 years of graduation.