

AQUATIC MONITORING RIPARIAN BOTANIST

OVERVIEW

The Institute for Natural Resources (Portland, OR office; <https://www.pdx.edu/inr/institute-natural-resources>) is partnering with the Bureau of Land Management (BLM) to implement their Aquatic Assessment, Inventory, and Monitoring (AIM) strategy, which is targeted at collecting standardized data from streams across BLM Districts in the western U.S. Work will focus on wadeable streams and rivers across California, Oregon, and Washington. In total, there will be one crew based in Northern California (Applegate and Eagle Lake FOs), two crews based throughout California (El Centro to Ukiah FOs), and two crews based in Oregon and Washington (Burns, Prineville, Vale, and Spokane FOs). Aquatic data collection will follow the *AIM National Aquatic Monitoring Framework: Field Protocol for Wadeable Lotic Systems (TR 1735-2)*, specifically: 1) site evaluation, 2) water quality, 3) physical habitat and canopy cover, 4) macroinvertebrates, 5) photos, and 6) human influences. We will also implement vegetation assessment elements of the *Multiple Indicator Monitoring (MIM)* protocol.

To assist in this effort, we are recruiting five crew botanists in the following areas

1. Northern California [starting in May] (1)
2. California Statewide [starting in March] (2)
3. Washington and Oregon [starting in June] (2)

All crews will consist of 1 crew lead, 1 field technician, and 1 riparian botanist

All positions are field-based and require rough camping. Sampling sites may sometimes be near a town, but often the towns will have few amenities or entertainment, and crew members should plan to bring all their food with them each hitch. Cell phone service from any carrier (Verizon is usually the best) is poor to non-existent in many areas. Applicants should also understand that this is physically demanding work. The crew will work eight consecutive 10-hour days, followed by a 6-day break, in all kinds of weather, and frequently have to navigate rough gravel roads and 4x4 trails before lugging awkward and heavy equipment across uneven and oftentimes very steep terrain to access a site. Crews must be prepared for the environment that they will be working in. This will include extreme heat, sun exposure, long hours in the vehicle, and may include venomous snakes, wildlife, night driving, wildfires and smoke. The “wadeable streams” we sample range from a few inches deep to fast-flowing small rivers that require good balance, a stout stadia rod, and a willingness to be waist or chest deep in water. A loss of footing means that you may be submerged and will need to self-rescue.

All positions will have the opportunity to conduct sampling in vast and unique habitats with history of wildfires, settlers, and indigenous people. Crews will also gain experience learning a protocol implemented across the Western U.S., identifying plant and animal species native and invasive to the location, and conducting relatively remote field work.

Mandatory training will occur from March 13th-20th for the California crews (WA/OR crews TBD). Regular field sampling will begin in March and continue into August, for Cal Statewide, and May/June to

September for all other crews. The season will consist of six 80-hour work hitches running from Wednesday to Wednesday. Base of operations for the start and finish of each hitch will be dependent on hiring, but will most likely be based in central California for statewide crews and Portland, OR for NorCal and WA/OR crews. INR will supply all of the equipment necessary to carry out the work, including vehicle, sampling equipment, waders and boots, and shared camping equipment (i.e., stove, table, and kitchen supplies). Crew members are expected to provide personal items, including closed toe hiking boots, sleeping bags, and personal tent. Crew members are also responsible for arranging their own housing in between hitches.

QUALIFICATIONS

ALL POSITIONS REQUIRE THE FOLLOWING:

- Full vaccination status with proof of vaccination (<https://www.pdx.edu/covid-19-response/vaccinations> for more information);
- Experience following established field protocols to conduct sampling and field data collection on new and existing monitoring sites;
 - Experience with data entry and management using electronic devices;
 - Experience navigating and collecting coordinates with hand-held GPS units and other electronic devices;
 - Experience with Microsoft Office (Word, Excel, Access);
- Experience driving and maintaining 4WD trucks especially in off-road situations. Experience driving 4x4/side-by-side/UTV vehicles is preferred. Valid driver's license and clean driving record (DUI or other serious convictions need not apply);
- Demonstrated ability to work productively as part of a team to accomplish mutual goals, and to work independently as required;
- Experience in and willingness to spend multiple days camping in the field where hazards (snakes, bears, deadfall, lightning, poison oak, flash floods, fires, smoke, etc.) may be encountered;
- Willingness to work irregular hours in harsh environments and challenging weather, and carry 40-50 pounds in a backpack over uneven terrain;
- Wilderness First Aid a plus; CPR and First Aid Certification expected.

Additional qualifications are specific to each position, and include:

Riparian Botanist

- A Bachelor's Degree or higher in Botany, Ecology, Wetland Ecology or closely related subjects. Coursework in Plant Taxonomy and/or Systematics with additional training in wetland/riparian plant identification. Herbarium experience may substitute for coursework;

- A minimum of one full year or two full seasons of botany field work in wetland or riparian habitats;
- Ability to identify riparian graminoids, forbs, shrubs and trees to species using dichotomous keys;
- Good familiarity with commonly accepted plant nomenclature;
- Familiarity with wetland and riparian plants of California or Oregon/Washington;
- Experience preparing voucher and herbarium specimens.

EXPECTATIONS

In addition to the above qualifications, we expect crew members to commit to the entire field season, to practice safety awareness, including vehicle safety procedures, to communicate regularly with INR support staff and BLM agency staff, to participate in INR and BLM trainings, and to contribute to building a healthy and fun work team environment.

TRAINING

These positions are ideal for people who are committed to ongoing learning and development. You will receive extensive, paid training on the AIM protocols and associated methodology. You will also have the opportunity to interact with seasoned staff scientists from both the BLM and INR throughout training and fieldwork.

Mandatory training will occur in March or May (prior to the start of the regular field season). These will vary by position: 1-week AIM training for the Aquatic Monitoring Technician and Aquatic Monitoring Crew Lead, 2-day MIM training for the Riparian Botanist.

COMPENSATION

Salary is based on qualifications and experience, with the Riparian Botanist starting at approximately \$19 an hour. All positions will receive a total of \$225 per diem for food costs per hitch, and lodging reimbursement of up to \$284 per hitch (e.g., for camping and one night in a hotel per hitch). We will also cover per diem, shared hotel lodging costs, and transportation at training.

HOW TO APPLY

Please submit the following in a single pdf to Matthew Foli (Project Manager at INR): foli@pdx.edu. For position information not found in the listing or additional links below, you may contact the email listed above.

1. Letter of interest. In this letter, please describe your background, including any military and volunteer service; professional experience, recreational interests or hobbies that help demonstrate your suitability for work in harsh and challenging conditions; and your reasons for pursuing this opportunity.
2. Curriculum vitae, including all degrees and related coursework.
3. Names and contact information for three (3) references. While we prefer professional references who can attest to your work ethic and technical abilities, we will accept academic references or references from organizations.

Application review will be on a rolling basis, and will continue until all positions are filled. Hiring will be complete no later than March 1, 2020.

ADDITIONAL INFORMATION

Additional information about the Institute for Natural Resources can be found on our website at <https://www.pdx.edu/inr/institute-natural-resources>. Additional information on the AIM strategy, including the protocols, can be found at <https://aim.landscapetoolbox.org/>.