

AQUATIC MONITORING TECHNICIAN, CREW LEAD & RIPARIAN BOTANIST

Seasonal Fieldwork 2020

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 in the Eagle Lake and Applegate districts of Northern California. 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 a field crew consisting of the following positions:

1. Aquatic Monitoring Field Technician (1)
2. Aquatic Monitoring Field Crew Lead (1)
3. Riparian Botanist (1)

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 sketchy roads before lugging awkward and heavy equipment across uneven terrain to access a site. 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 you may be submerged, and will generally need to self-rescue.

Mandatory trainings will occur in April or May. Regular field sampling will begin in early June and continue into September, and will consist of six 80-hour work hitches. Each hitch will begin and end in Portland, OR, and will run from Wednesday through Wednesday. 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., a tent, sleeping pads, stove, and kitchen supplies). Crew members are expected to provide personal items, including closed toe hiking boots, sleeping bags, and personal tent if they do not wish to share. Crew members are also responsible for arranging their own housing in between hitches.

QUALIFICATIONS

ALL POSITIONS REQUIRE THE FOLLOWING:

- Experience following established field protocols to conduct sampling and field data collection on new and existing monitoring sites, including
 - 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 and other vehicles, especially in off-road situations. 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, 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:

1. Aquatic Monitoring Field Technician

- A Bachelor's Degree in Aquatic Ecology, Fisheries, Hydrology, Water Resources or related subject. Experience may be substituted for up to two years of education on a one-to-one basis.
- A minimum of one season of field data collection. Several lab courses with extensive field work can satisfy this requirement. However, preference will be given to people who have collected aquatic or hydrologic data in a work setting.

2. Aquatic Monitoring Field Crew Lead

- A Bachelor's Degree or higher in Aquatic Ecology, Fisheries, Hydrology, Water Resources or related subject.
- A minimum of one full year or two full seasons of fish, macroinvertebrate, hydrology or water quality field data collection. A completed Master's or Ph.D degree with field work can satisfy this requirement.

- Experience characterizing aquatic habitats in the field using standardized protocols, including establishing transects and thalweg profiles, determinations of bankfull width, stream classification (Rosgen or other), habitat complexity, and riparian vegetation.
- Experience with macroinvertebrate collection and water quality sampling.
- Experience supervising technicians, volunteers or undergraduate students. Leadership in a volunteer or community organization, or in the military, can satisfy this requirement.
- Experience managing gear and equipment for a crew, lab class, team, or other organizational unit.

3. Riparian Botanist

- A Bachelor's Degree or higher in Botany, Ecology, Wetland Ecology or closely related subject. 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 Northeastern California.
- 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 trainings will occur in April or May (prior to the start of the regular field season). These will vary by position: 8-day (including travel) AIM training for the Aquatic Monitoring Technician and Aquatic Monitoring Crew Lead, 6-day (including travel) MIM training for the Riparian Botanist.

COMPENSATION

Salary is based on qualifications and experience, with the Aquatic Monitoring Technician starting at \$15 an hour, the Aquatic Monitoring Crew Lead starting at \$16 an hour, and the Riparian Botanist starting at \$18 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 and shared hotel lodging costs at training.

HOW TO APPLY

Please submit the following as a single email attachment to Kyla Zaret (Project Manager at INR, kzaret@pdx.edu). Email-based inquiries will be entertained, but please make sure that you have done your homework first (e.g., you've carefully re-read the entire position announcement, and looked over the INR and BLM websites and related links, see below).

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 of 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 begin January 20, 2020, and will continue until all positions are filled. We will conduct phone interview starting in February; and we expect to complete hiring 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/>.