

2026 Field Crew Member / Chemistry Lab Internship

Organization description:

Sierra Streams Institute (SSI) is a watershed monitoring, research, education, and restoration group based in Nevada City, California, dedicated to linking water, science, and people for the benefit of human and environmental health. We work with local, state, and federal agencies as well as universities and community groups to find solutions to the problems that afflict Deer Creek and Bear River, which share historical challenges resulting from gold mining and development, and more recent challenges resulting from wildfire. SSI's emphasis on community involvement and accessible science provides many opportunities for community members to get involved in our work, including ongoing water quality monitoring and seasonal creek surveys.

As part of our summer field crews, you will have the opportunity to get hands-on field experience in a variety of stream and river systems, as well as learn scientific methods for monitoring different aspects of creeks, and gain valuable chemistry lab experience.

Position Description:

Crew members interns will conduct creek surveys in watersheds throughout the Northern and Central Sierra Nevada. Members will be responsible for following scientific protocol and collecting data under the direction of the Field Technician and the BMI Lab Manager.

Surveys will be conducted from the headwaters to the lower watershed in 9 major watersheds, along a gradient of stream communities, collecting a variety of data as listed below. This work will be part of a program to document the biodiversity of Sierran stream invertebrates, which has to this point been under-studied.

P-Hab measures in-stream habitat (wood, rocks, flow), riparian habitat (lower and upper plant canopy), and human impacts (channelization, concrete etc.).

BMI diversity and species composition are indicative of overall stream health. Samples are collected in accordance with regional protocols, and macroinvertebrates are identified in our in-house lab.

Organic matter collections measure the amount of coarse and fine particulate matter on the stream bed. Half of this data collection is completed in the field and the other half is completed in our in-house lab.

Algae and chlorophyll samples are collected and processed in our lab, where they are analyzed for biomass and amount of chlorophyll respectfully.

eDNA is studying DNA that can be found in the environment. It is complementary to our BMI and algae work.

Chemistry lab interns will help run samples in our inhouse chemistry lab. The main analyses performed will be on bacteria and chlorophyll, and interns will gain valuable lab experience and skills. The nature of chemistry work is little and often, so the intern should be available to do 1-3 hours of work for 3-4 days of the week.

Hours/Week: 15-30

Field Season: June through mid September

Qualifications:

Strong interest in biology, hydrology, ecology, environmental science or related field.

Ability to follow scientific protocols.

Strong written and oral communication skills.

Strong organizational skills.

Attention to detail.

Ability to hike up to 7 miles through uneven terrain, creeks and vegetation (occasionally poison oak or Himalayan blackberry) and be on your feet for up to 10 hours a day.

Ability to carry monitoring equipment that weighs up to 50 lbs.

Must be willing to do overnight stays, including camping.

Should be able to commit to full field season.

Ability to work with a diverse group of staff/volunteers.

Positive attitude and willingness to learn.

Benefits: *This is an unpaid, volunteer position.*

Work with and learn from scientists in a friendly and supportive environment.

Opportunities for school-based credit (varies by institution).

Gain field and technical experience, as well as professional networking opportunities.

Get involved in your local watershed and wider Sierra watersheds.

Participate in a citizen science program.

Contribute to a robust water quality monitoring dataset.

Potential for Lassen National Park trip.

Apply: Applications accepted through May 1st. Please send resume and cover letter to Mali Valerio at bugs@sierrastreamsinstitute.org.