Multiple student technician positions for aquatic and fisheries ecology research projects (described below) are available in the Roy, Jordaan, and McCormick labs in the Department of Environmental Conservation at the University of Massachusetts Amherst. All positions include on-the-job training and require participation in May for various safety trainings (e.g., CPR/AED & First Aid, Over the Water, Field Research Safety, Animal Use & Care). Positions are considered full time for the summer and students will be paid a regular weekly stipend, although hours may vary week to week and will allow for vacation time off (as agreed upon with supervisors). Preference for most positions will be given to rising juniors and rising seniors from UMass Amherst. To apply, email cover letter (with name, email address, and phone number for two references, including at least one academic reference), resume (with your local contact information, pertinent experiences, relevant coursework, etc.), and unofficial transcript to Allison Roy aroy@eco.umass.edu. If you are interested in more than one project, please indicate your preferred order of consideration in your cover letter. Also indicate if you have had work study during the school year or have any restrictions on summer availability. Review of applications will begin on Tuesday, March 19th and interviews will take place the week of March 25th.

1) River Herring Productivity (2 positions)
The technicians will assist on a project investigating river herring productivity in estuaries and coastal freshwater lakes and ponds in New England. The positions are split between field work and lab work. For field work (15–20 days/month), juvenile fishes will be sampled at night in lakes from a boat using purse seines and during the day in estuaries using beach seines. Additional sampling will take place for water quality, habitat quality, zooplankton, etc. When not in the field, technicians will be ageing fish otoliths, identifying zooplankton, entering data, and organizing samples. Additional opportunities with this position include developing a database and performing statistical and/or spatial analyses. The position is based at UMass Amherst but will require extensive overnight travel (> 2 weeks at a time) to field sites throughout New England. Lodging accommodations (paid separately by the grant) will vary and include hotels, university dorms, field stations, and camping. Applicants with a strong background and interest in fishes and aquatic systems, and have experience in field and laboratory settings are preferred. Must be able to swim, comfortable on boats, and willing to work at night over the water. Teamwork and communication skills are essential. MOCC boat safety training will be provided.

Supervisors: Matt Devine (PhD student), Adrian Jordaan (PI), and Allison Roy (PI)
Employment Period: May through August 2019 (16 weeks) for 32 hours/week (on average)
Salary: $12/hour ($6144 for summer)

2) River Herring Ecophysiology (1 position)
The technician will assist on a project investigating the effects of temperature on juvenile river herring physiology in laboratory and field experiments, as well as perform field collections. Beginning in late-May to June, we will collect juvenile river herring to run ecophysiology experiments in the laboratory and maintain mesocosms in the field. Daily tasks include caring for fish tanks, checking experimental systems, and measuring physiological traits/sampling fish. Students may also be asked to assist in juvenile river herring sampling (project 12 above) and collecting a subsample for later analyses. This position is primarily in the wet lab,
although there are several field work opportunities. The position is based at the US Fish & Wildlife Service’s (USFWS) Richard Cronin Aquatic Resource Center in Sunderland, MA, where the technician will have opportunities to interact with other UMass students and USFWS biologists. Candidates who have attention to detail, can perform mundane tasks with accuracy, and are interested in learning about fish ecophysiology or fisheries/aquaculture are preferred. Student must have a driver’s license; access to a personal vehicle is preferred but not necessary.

**Supervisors:** Lian Guo (PhD Student), Adrian Jordaan (PI), and Steve McCormick (PI)

**Employment Period:** May through August 2019 (14 weeks) for 32 hours/week (on average)

**Salary:** $12/hour ($5280 for summer)

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3) **Freshwater Mussel Conservation and Propagation (2 positions)**

The aquatic technicians will work with a team of graduate students at the USFWS Richard Cronin Aquatic Resource Center in Sunderland, MA (5 min from UMass-Amherst and on the bus line). Tasks include culturing freshwater mussels, counting and measuring mussels using a microscope, recording data, cleaning and sterilizing equipment, and manual labor around the facility and outside in the raceways. The position also involves collecting water quality samples and taking measurements of mussels in experimental chambers within wadable streams in Massachusetts. Technicians must be able to lift heavy objects (experimental chambers are concrete) and be able to work longer hours on field days. Three days per month the technicians will conduct mussel surveys with the MassWildlife Natural Heritage and Endangered Species Program’s Chief of Conservation, Dr. Peter Hazelton. Technicians are also likely to assist with fish electroshocking at mussel sites in conjunction with state biologists from the northeast. Students must have a driver’s license and insurance to drive federal vehicles to field sites. Applicants must be able to travel to and from Cronin, comfortable in the water, and willing to snorkel. Candidates who have high attention to detail, can perform mundane tasks with accuracy, and are excited about working with freshwater mussels are preferred.

**Supervisors:** Ayla Skorupa (PhD student), Jennifer Ryan (MS student), Timothy Warren (USFWS), Dave Perkins (USFWS), Pete Hazelton (MDFW), and Allison Roy (UMass)

**Employment Period:** May through August 2019 (16 weeks) for 32 hours/week (on average)

**Salary:** $12/hour ($6144 for summer)

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4) **Dam Removal (1–2 positions)**

The technician(s) will assist a graduate student in a project examining the response of stream ecosystems to small dam removals across Massachusetts. This work involves downloading and deploying temperature loggers, deploying dissolved oxygen loggers, sampling stream macroinvertebrates, and potentially assisting with stream electrofishing in collaboration with biologists from MassWildlife. Additional lab work will include calibrating and maintaining equipment, sorting macroinvertebrate specimens from debris using a dissecting scope and identifying to order, and data entry. This position is based in Amherst but will require driving to field sites throughout Massachusetts with USGS vehicles. Applicants must have a driver’s license and insurance to drive USGS vehicles, as well as the ability to swim and lift/portage a canoe. Preferred applicants will have a strong background and interest in water quality and stream monitoring, as well as dependability, attention to detail, and independence.

**Supervisors:** Kate Abbott (PhD Student) and Allison Roy (PI)

**Employment Period:** May through August 2019 (16 weeks) for 32 hours/week (on average)

**Salary:** $12/hour ($6144 for summer)