MES Elective, 4 credits

Freshwater Ecology

Professor: Carri LeRoy

In terms of providing habitat for threatened and endangered species, freshwater habitats rank as the most imperiled ecosystems on Earth. Historically and currently used for transportation, irrigation, energy production, waste disposal and recreation, it is important to understand how freshwater systems funtion and how we can work toward ecological restoration of freshwater habitat. This program will focus on the foundations of and research methods in freshwater ecology. Topics covered will include basic water chemistry, stream flow dynamics, primary productivity, aquatic insect ID, trophic dynamics, ecological restoration. The course will focus on current dynamics, current threats to freshwater ecosystems and ecological genetics in riparian zones, streams, rivers and lakes. Seminar readings will focus on human-freshwater interactions and regionally important freshwater topics in the Pacific Northwest. Field trips will be undertaken regardless of weather conditions to local freshwater environments and the course will include several hands-on lab activities.