

WEB-LIST OF AFS EARLY CAREER PROFESSIONAL OPPORTUNITIES (By State or Province)

Several opportunities exist for early career professionals to become involved with fisheries management. Resources vary across states, though all provide training and experience to recent graduates developing their careers. Below you will find quality programs aiming to develop the future generations of fishery scientists.

ALASKA

- The Alaska Pacific University offers a scuba program for students and young professionals interested in recreational, entertainment, or scientific diving (<https://www.alaskapacific.edu/panels/diving-overview/>). Participants will learn about scuba diving theory, physics, physiology, and emergency procedures. Also, participants will perform numerous dives to develop advanced data collection skills. Contact the university to learn about course availability and the cost of attendance.
- Alaska Sea Grant offers courses to educate professionals about basic seafood safety (<https://alaskaseagrant.org/events/>). Alaska seafood processors are required to have approved hazard analysis critical control plans, and the workshop offers experience and exercises to create plans for businesses. Upon completing the course, attendees receive a certificate from the Association of Food and Drugs. Cost of attendance is \$200.
- WDAFS Alaska Chapter provides continuing education courses with reduced or free enrollment. These courses range widely in topics, but aspire to help attendees gain or improve fishery skills not offered through academic programs. Visit the Alaska chapter website for the latest announcement for continuing education courses or meeting information (<https://www.afs-alaska.org>).
- The nearby Yukon Fisheries Field Assistant Program is an intensive curriculum that provides attendees training applicable to fisheries related work (<https://www.yukoncollege.yk.ca/programs/yukon-fisheries-field-assistant>). The program is delivered in two components: 10 weeks of online learning followed by an applied portion via fieldwork. Those enrolled will receive Yukon Fisheries Fishing Assistant and electrofishing certifications. The program cost amounts to \$2,400, which includes all materials and fieldwork expenses. Program length is approximately 12 weeks starting in March.

ARIZONA

- Arizona Game and Fish Department offers internships to college students to develop their knowledge about desert wildlife and fisheries management (<https://www.azgfd.com/agency/internships/>). Interns learn an array of skills applicable for most jobs overseeing natural resources management. These skills may include radio telemetry, habitat assessments; fishery sampling, and geospatial software use. These

are great opportunities for AFS student members about to become early career professionals.

- Arizona-Sonora Desert Museum offers internships for college students to develop their knowledge about desert wildlife and fisheries management (https://www.desertmuseum.org/center/current_projects.php). Museum interns can assist staff with implementing conservation actions for endangered desert fishes, including the Quitobaquito pupfish. Alternatively, interns can facilitate sustainable seafood agendas by educating public audiences about the Sea of Cortez. These opportunities allow interns to network with the National Park Service, University of Arizona, and other agencies that oversee natural resource management. Check the museum website for internship availability.
- WDAFS Arizona-New Mexico Chapter offers continuing education workshops at its annual meetings (<http://arizona-newmexico.fisheries.org/meetings/>). Past workshop topics included drone technology operation; piscicide use and safety; public outreach and communication; and developing interview etiquette. Annual meetings typically occur in February and cost \$150 (early registration) for early career professionals. Workshop attendance warrants an additional fee.

BRITISH COLUMBIA

- The Center for Aquatic Health Sciences offers an array of applied workshops to educate professionals about proper aquaculture operation (<http://www.cahs-bc.ca/hands>). Workshop attendees will learn how to diagnose diseases for salmon, and describe relationships between environmental changes and zoonotic illnesses. Also, attendees acquire a greater understanding of salmon biology and how the lifecycle affects parasites. Contact the center directly to attend, reserve, or setup a workshop.
- The Natural Resources Extension Program at Vancouver Island University offers applied, natural resources related training (<https://scitech.viu.ca/natural-resource-extension/about-nrep>). These include short courses on fisheries and riparian management, such as snorkel survey methods; electrofishing certification and recertification; water quality sampling and design; environmental monitoring for construction; and wilderness first aide. Courses occur throughout the year, and cost of attendance ranges based on curriculum.

CALIFORNIA

- California State University in Long Beach offers an AAUS scuba course for students and young professionals interested in scientific scuba diving (http://www.scmi.net/osi_aaus/). Course participants will learn about scuba diving theory, physics, physiology, and emergency procedures. Also, participants will perform numerous dives to develop advanced data collection skills. Cost of attendance for Ocean Studies Institute affiliates is \$500.

- California State University partners with government agencies, non-profits entities, and professional businesses to provide summer internships for continuing students (<https://www2.calstate.edu/impact-of-the-csu/research/coast/funding/Pages/student-funding.aspx#student-internships>). Interns receive direct mentorship from professionals working on key projects throughout California. Also, interns have opportunities to learn technical skills and networking with potential future employers. Note, internships are available to California State University students only.
- California State University in Long Beach offers a Motorboat Operating Training course for students and early career professionals engaged with marine fishery research (<http://www.scmi.net/motc/>). The entry-level course teaches participants how to operate small watercraft (< 15') or crew for larger boats (>15'). Although not a certification course, participants receive fundamental seamanship skills that will allow them to efficiently perform fishery research. Cost of attendance for Ocean Studies Institute affiliates is free.
- California Fish and Wildlife Department, or CDFW, launched its Outreach Volunteer Program to enhance conservation awareness in communities (<https://www.wildlife.ca.gov/Explore/Volunteering/NRVP>). Volunteers perform public outreach at events and parks. Furthermore, volunteers are trained to observe and report incidences to wardens that can sequentially launch official investigations.
- California Conservation Corps offers guided mentorship to fishery professionals through its Watershed Stewards Program, or WSP (<https://ccc.ca.gov/what-we-do/conservation-programs/watershed-stewards-program/>). The program's primary objective is to promote the conservation and restoration of coastal watersheds. WSP members are placed with scientists from government agencies or environmental non-profits, where they facilitate data collection and public outreach agendas of placement sites. WSP members who complete their 11-month service period receive the AmeriCorps Segal Education Award.
- WDAFS Cal-Neva Chapter offers travel awards for early career professionals wanting to attend regional and local AFS conferences (<https://afs-calneva.org/students/scholarships-and-grants/>). These awards allow young professionals to take advantage of continuing education workshops at events, as well as present projects to scientific audiences. Travel support of up to \$500 and \$750 are made available for the AFS Cal-Neva and national conferences respectfully. To qualify, the applicant must have their current supervisor or professor complete a recommendation letter (provided on application).

COLORADO

- Southwest Conservation Corps offers guided mentorship to early career professionals through its Conservation Intern Program (<https://sccorps.org/individual-placements>). Interns serve at locations throughout Colorado and experience immersive training,

career development, and community service. Work duties can include biological monitoring, watershed restoration, forestry management, archeology excursions, and more. Interns who complete their service period receive an education award.

- WDAFS Colorado-Wyoming Chapter offers a mentoring program to assist early career professionals with their professional growth (<http://www.cowyafs.org/mentoring-program/>). Successful applicants to the program receive mentoring that supplements prior school work or experience. Also, mentors will advise participants on how to expand their professional network. Generally, mentoring lasts at least one field season though it may extend if necessary. These mentorships are valid for people residing in Colorado or Wyoming, and AFS members have priority over non-members.

COUNTRY/REGIONAL

- The American Institute of Fishery Research Biologists seeks annual applications for the Thompson Award, which recognizes outstanding student papers in fisheries science. The award consists of a check for up to \$1,000, a special award certificate, and one year membership to the society. The award can go towards funding subsequent research or conference attendance. Learn more about requirements for the award on the American Institute of Fishery Research Biologists website (<https://www.aifrb.org/>).
- US Fish and Wildlife Service created the National Conservation Training Center to prepare people for careers in natural resource management. Citizens can apply for continuing education courses that cover an array of wildlife and fisheries topics. These include wildland hydrology, stream bioassessment, freshwater aquaculture, and habitat conservation planning. Visit the National Conservation Training Center for an overview of fees and courses (<https://training.fws.gov/>). Note, course attendees must meet prequalification standards (and have sufficient funds) for each course.
- Northwest Environmental Training Center (NWETC) offers professional development and certification programs in topics of interest to environmental professionals (<https://www.nwetc.org/>). These workshops are taught by experts in an array of professional fields, providing attendees comprehensive knowledge of skills important for natural resource management. These skills include habitat site restoration; invasive species management; boat-backpack electrofishing protocols; and environmental forensics in water resources. Fee discounts are available for American Fisheries Society members.

IDAHO

- Idaho Department of Fish and Game has a repository of GIS trainings tailored for early career professionals interested in natural resource management (<https://idfg.idaho.gov/blog/2015/02/gis-training-free-courses-blogs-and-other-resources>). Listed entry-level courses are free and provide an excellent introduction to spatial analysis methodology. Users will find blogs and tutorials for GIS operations on the website as well.

- Idaho Department of Fish and Game initiated River Menders (<http://rivermenders.net/index.html>) to organize community based, native riparian habitat restoration in Idaho. Volunteers learn about restoration work to protect endangered species found throughout state watersheds. Furthermore, the program allows young professionals to expand their career networks while collaborating with public and private agencies.
- WDAFS Idaho Chapter has a mentoring plan that encourages chapter members to mentor students and young professionals. The Mentoring Committee matches those pursuing fisheries careers with established fisheries professionals. These mentors then provide perennial resume reviews for students and early career professionals. Mentors may assume more involved roles as well, meeting with students and early career professionals about networking, publishing, or training. For more information about the program contact Jessica Buelow (Jessica.buelow@idfg.idaho.gov). These mentorships are valid for people residing in Idaho, and AFS members have priority over non-members.

MONTANA

- Montana Conservation Corps offers guided mentorship to early career professionals through its Conservation Intern Program (<http://mtcorps.org/join/big-sky-watershed-corps-conservation-internships/conservation-intern-program/>). The program's primary objective is to offer recent graduates to gain professional experience in conservation projects, including watershed management. Interns are placed with scientists from government agencies or environmental non-profits, where they facilitate data collection and public outreach agendas of placement sites.
- Each year, Montana Department of Fish and Wildlife offers AmeriCorps positions at state parks (<http://stateparks.mt.gov/ameriCorps/>). These positions aim to promote environmentalism in communities by enhancing park lands and enriching educational programs. Moreover, it allows young professionals to network with agency biologists and managers who oversee natural resources. Building a professional network results in better job placement for any AmeriCorps member.

NEVADA

- Great Basin Institute offers an array of training experiences for early career professionals (<https://www.thegreatbasininstitute.org/programs/research-associates/ra-program-services/aim/>). Research Associates collaborate with the Bureau of Land Management to monitor riparian ecosystems that support cutthroat trout. Similarly, Research Associates measure water quality and flow from springs in the protected areas. Great Basin Institute also offers AmeriCorps positions that support Bureau of Land Management with wildlife and fishery projects.

- Nevada Wildlife Department offers a volunteer program to teach early career professionals about natural resource management (<http://www.ndow.org/Education/Volunteer/Wildlife/>). Volunteers become involved with fishing stocking, fish sampling, angler education, data analysis, and document interpretation. Volunteers must participate once per year, as well as submit reports, to remain eligible in the program.
- WDAFS Cal-Neva Chapter offers travel awards for early career professionals wanting to attend regional and local AFS conferences (<https://afs-calneva.org/students/scholarships-and-grants/>). These awards allow early career professionals to take advantage of continuing education workshops at events, as well as present projects to scientific audiences. Travel support of up to \$500 and \$750 are made available for the AFS Cal-Neva and national conferences respectfully. Any AFS member active in fisheries or environmental service is eligible to apply.

OREGON

- WDAFS Oregon Chapter has built a cadre of career counselors – all fishery scientists or managers – that provide support to early career professionals. The Career Counselors Program offers candid answers to questions relevant for education and career goals. Early career professionals are encouraged to identify mentors whose interests correlate with their own, and contact those mentors with an introduction and questions. Interactions with career counselors are limited in duration, though counselors may consider eventually hiring early career professionals that contact them. A list of career counselors is available by sending an email request to the chapter (careercounselorlist@orafs.org). These mentorships are valid for people residing in Oregon, and AFS members have priority over non-members.
- WDAFS Oregon Chapter offers a Conference Mentor Program to match early career professionals with established scientists at AFS conferences. Prior to the event, early career professionals discuss with mentors about conference itineraries that benefit the former. As the conference continues, mentors introduce students to other professionals and students, thereby expanding their professional network. For more information about the program please contact Shannon Richardson (Shannon.Richardson@oregonstate.edu).
- Oregon Youth Conservation Corps offers early career professionals training and resources to develop new generations of natural resource managers (<https://www.oysccweb.com/>). Corps crews perform an array of natural resource projects such as habitat surveying, water monitoring, and wetland restoration. Short term opportunities in the Corps exist for new graduates interested in performing fieldwork with Bureau of Land Management.
- WDAFS Oregon Chapter hosts WDAFS Workshops with reduced or free enrollment. These workshops range widely in topics, but aspire to help attendees gain or improve

fishery skills not offered through academic programs. Past workshop topics included nongame native fishes; hatchery impacts on fisheries; and forecasting anadromous runs. Early career professionals can easily attend these workshops with special “Fish Out of Water” waivers. Visit the Oregon chapter website for the latest announcement for workshops or meeting information (<http://orafs.org/past-meetings-and-workshops/>).

WASHINGTON

- Washington state provides opportunities for early career professionals interested in fisheries through the Puget Sound Corps (<https://ecology.wa.gov/About-us/Our-role-in-the-community/Washington-Conservation-Corps/Puget-Sound-Corps>). Puget Sound Corps crews complete an array of fishery restoration projects, such as fish migration monitoring and barrier removal. Participating agency placement sites include the state departments for natural resources, veteran affairs, fish and wildlife, and ecology. Similar opportunities qualify as AmeriCorps service and are eligible for awards.
- Washington Department of Fish and Wildlife created the Regional Fisheries Enhancement Group Program to encourage citizens to facilitate salmon recovery efforts (<https://wdfw.wa.gov/about/volunteer/rfeg/>). Volunteers at the program learn how to perform watershed assessments, monitor water quality, and count returning fishes. Opportunities to perform public outreach, particularly teaching public audiences about salmon, exist as well.
- Smith Root offers three electrofishing courses annually for early career and experienced professionals (<https://www.smith-root.com/services/training>). Course attendees receive instruction on how to use electrofishing equipment; perform fish removal procedures; and perform stream bioassessment. Courses typically last a few days and are hosted around Portland, Oregon. Cost of attendance is \$350.
- Washington Sea Grant provides opportunities for early career professionals to get involved with monitoring commercial shellfish populations (<https://wsg.washington.edu/community-outreach/volunteer-programs/>). For example, its *Bivalves for Clean Water* program recruits and trains volunteers to identify and eliminate pollution sources to enhance shellfish populations. Also, Washington Sea Grant welcomes volunteers interested in performing public outreach on fisheries conservation.

WYOMING

- WDAFS Colorado-Wyoming Chapter offers a mentoring program to assist early career professionals with their professional growth (<http://www.cowyafs.org/mentoring-program/>). Successful applicants to the program receive mentoring that supplements prior school work or experience. Also, mentors will advise participants on how to expand their professional network. Generally, mentoring lasts at least one field season though it may extend if necessary. These mentorships are valid for people residing in Colorado or Wyoming, and AFS members have priority over non-members.

- The Fisheries and Aquatic Science Program at Yellowstone National Park (<https://www.nps.gov/yell/learn/fisheriesscience.htm>) hires seasonal technicians to perform assessments of fish biodiversity within the park interior. Work typically occurs from May through September, and involves a high degree of remote fieldwork. Nevertheless, incumbents learn skills directly related to fishery careers and biological research. Contact the program to learn more about seasonal employment opportunities (307-344-2874).