

YRDFA Workshop Helps Train Yukon River Residents

Protecting Yukon River salmon starts by
empowering those who know its waters best

All pictures taken by Alexis Isherwood

Involvement

YRDLA -

Brian McKenna taught electrofishing, drone technologies, fisheries gear types, and provided a fisheries overview.

Nicole Farnham taught CPR/First Aid, resume building, and water quality and gear use.

Rachael Kangas managed the workshop and supported participants throughout their stay in Eagle.

USFWS -

Holly Carroll provided an overview of fishery management and led a sonar training.

TCC -

Kim Nicholas brought an electrofisher to Eagle allowing participants to learn about and practice using the equipment.

AK DNR -

Annie Grenier and Iris Nawiesniak provided boat safety training and certification through AK DNR's Alaska Boating Safety Program.

About the Workshop

In July 2025, the Yukon River Drainage Fisheries Association (YRDLA) hosted a Biological Fisheries Technician Training Camp to promote educational and employment opportunities for Yukon River residents. Seven participants from across Alaska traveled to Eagle, Alaska where they spent ten days immersed in the Yukon River basin and nearby creeks including Mission and American creeks.

The camp offered a well-rounded curriculum covering essential topics such as résumé building, CPR and first aid, boat safety, water quality monitoring, gear deployment and data collection, environmental DNA (eDNA), electrofishing, drone operation, and sonar technology. Through both classroom lessons and hands-on field-work, participants developed technical skills that are valuable for future roles in fisheries science, environmental monitoring, and local stewardship.

This unique training opportunity was made possible through the collaboration of many organizations including YRDLA, University of Alaska Fairbanks, U.S. Fish and Wildlife Service, Alaska Department of Natural Resources, Tanana Chiefs Conference, and Alaska Department of Fish & Game.



Above: Brian guides participants through the electrofishing process as they actively use the equipment in American Creek.

On the right: Maya assists with setting the beach seine net during trial runs.



YRDLA has offered similar training in the past, but it has been several years since the last session. To revive the program, Executive Director Serena Alstrom wrote a grant and secured funding to relaunch the training starting in 2025. The opportunity was advertised throughout Yukon River communities, with many participants saying they heard about it through Facebook. Initially, YRDLA planned to hold two training camps—one in St. Mary's (lower river) and one in Eagle (upper river)—but the St. Mary's camp was postponed to June 2026.

Opportunities like this are vital for preserving the Yukon River's ecosystem and fish populations. By equipping local residents with scientific tools and real-world experience, the training helps empower community-driven stewardship. Participants leave not only with new certifications and skills, but also with the confidence to take active roles in protecting the river, supporting their communities, and advocating for the future of Alaska's fisheries. Brian McKenna, YRDLA's Fisheries Biologist and workshop instructor, puts it well "while we are there to provide training, it's also a great learning opportunity for us as well, and it's always great to have two-way learning opportunities."



Involvement

ADF&G -

ADF&G provided an Aquatic Resources Permit allowing participants to get hands-on learning with various gear types.

Eagle Sonar Project -

The Eagle Sonar Project is jointly operated with staff from ADF&G and Department of Fisheries and Oceans Canada (DFO). Sonar crew members explained the sonar operations to participants.

UAF -

Kristen Reece led a class on environmental DNA.

Andy Bassich -

He shared his experiences with the Yukon River Panel and Federal Subsistence Regional Advisory Council and provided hands-on training in boat operations and set net handling.

Village of Eagle -

They hosted participants to meet with Chief Karma Ulvi and Elders and discuss their experiences with salmon and the Yukon River fishery.

Instruction Highlight: eDNA

Kristen Reece, an Alaska CASC Fellow, Caleb Scholars Intern, and workshop instructor, taught participants about the value of using environmental DNA (eDNA) to study salmon populations in the Yukon River. She demonstrated how to collect eDNA using a battery-powered vacuum pump to filter river water. In the field, participants practiced the technique—putting on gloves, wading into the river, turning on the pump, and carefully collecting water samples.

“Samples are being collected from the environment in numerous ways around Alaska,” Kristen said. “So having a baseline understanding of how, why, and when we take eDNA samples can be useful.” She also emphasized the importance of sterilizing equipment, collecting the correct volume of water, and avoiding contamination. “Learning how to be careful during sampling is a universal skill that applies to other forms of research.”

Afterward, Kristen explained the lab-based steps she would take to extract DNA from the samples.

“[Environmental] DNA can be a complementary tool used to assist in validating other fisheries techniques,” she said. Though DNA extraction is complex, it’s useful for measuring salmon species’ relative abundance.



Currently, salmon are counted using sonar at a pilot station in Eagle, Alaska—a method with its own limitations, just like eDNA. Still, both tools are valuable, especially as Chinook and Chum salmon populations continue to decline. As commercial fisherwomen, the participants noticed a recent decline in Chum salmon and shared their firsthand observations contributing valuable insights rooted in local knowledge and citizen science.

Through these conversations, Kristen found herself not just teaching, but also learning: “I learned from participants’ observations and perspectives from the Lower Yukon River compared to those from the Upper Yukon. Listening to how they historically fished and how that has changed over the years was very interesting.”



Above: Bernadette shows Kristen how to repair the seining net.

On the left: Everyone works together to reload the beach seine net and continue practicing the netting technique.



Instruction Highlight: CPR & First Aid

Nicole Farnham, a contracted instructor through YRDLFA, led a class on CPR, first aid, and AED training. While she contributed to the overall planning of the course—helping to develop lesson plans and structure the curriculum—her hands-on CPR and first aid instruction stood out as a highlight for both her and the participants.

After laying a foundation of background knowledge, she transitioned into hands-on training. Participants practiced CPR on mannequins, learned how to apply bandages and slings using first aid kits, and received AED instruction with a training defibrillator.

Although several participants had previous CPR experience, Nicole's class was interactive and informative. Her energetic and engaging teaching style resonated with the group, making the session both enjoyable and educational. "Something that stood out to me was people's enthusiasm during the course," she shared. "I think when they see an instructor enthusiastic about what they are teaching, they feed off that energy and have fun with it."

This course was a vital component of the workshop—not just because of its relevance to fieldwork, but because CPR and first aid are essential life skills. Nicole emphasized the importance of being prepared: "You are the first line of response, and having the confidence and skills in your back pocket to handle emergencies is incredibly important."



Above: Nicole teaching Mary how to set up a minnow trap before placing it in American Creek.

Importance of Fisheries Training

Nicole Farnham explained the broader impact of the workshop: "This is allowing people in communities to actually help work with their fish—whether it be salmon or whitefish—they can now be researchers. They can take the skills they've learned and work with their tribes to apply for small grants to do fish research. It also gives them the opportunity to apply for fisheries jobs and bring money and opportunities into their communities, especially because jobs are so limited in rural areas."

This training was especially meaningful for many of the incredible women who participated—some of whom had previously stepped away from fisheries work. With updated training, new gear, and hands-on experience, they are now better prepared to enter the field and support their communities through the work they love.



Above: Mary and Shirley preparing to use bandages to practice first aid techniques during the CPR and first aid training session.



All content, including writing and photography, by Alexis Isherwood.

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