



U.S. Fish & Wildlife Service

Alaska Fisheries Program



Conserving America's Fisheries in Alaska

Fish: Lifeblood of Alaska

Linking marine, freshwater, and terrestrial food webs in Alaska and beyond, Alaska's fish form the foundation of subsistence lifestyles and support commercial and recreational fisheries that benefit people around the world and are worth billions of dollars annually to the State's economy.

Threats to Alaska's Fisheries

Despite its reputation as a pristine wilderness, and the fact that none of its fish species are currently considered threatened or endangered, Alaska is still subject to global drivers (e.g., commerce and climate change) that can degrade habitat and lead to the establishment of invasive species. Up-to-date and accurate information about Alaska's fish populations, and their habitat needs, is needed to make informed management decisions and ensure they stay resilient and continue to benefit the American public.

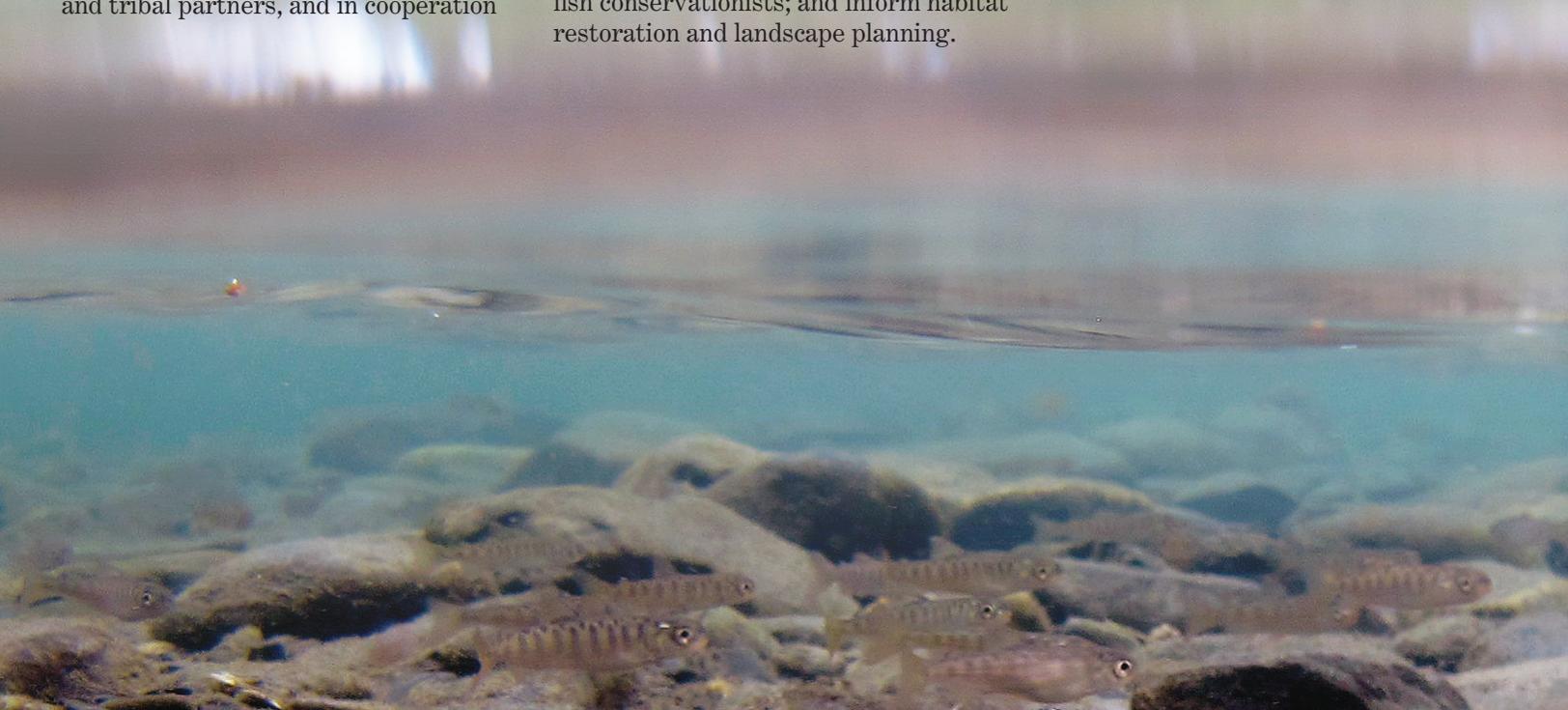
The Service's Fisheries Program

In Alaska, we have local staff based out Fish and Wildlife Field Offices in Kenai, Anchorage, and Fairbanks. We work closely with local, state, federal and tribal partners, and in cooperation

with other Service programs (e.g., our Fish Passage Program), to assess and monitor Alaska fish populations and their habitats; conduct public outreach; provide summer work and education opportunities for the next generation of fish conservationists; and inform habitat restoration and landscape planning.

Whitefish species (including sheefish, left) provide a dependable subsistence food base for remote communities. Some species also support small commercial fisheries on the Yukon and Kuskokwim rivers. Reliable estimates of subsistence harvests, spawning population abundances, and habitat usage are currently lacking.

The 2009 Census estimates that 80% of Alaska's human population lives on less than 10% of its land area. Most of Alaska's river systems are only accessible to fish biologists by boat, bush plane or helicopter. This makes safety, ingenuity and good science key to the Service's Alaska Fisheries Program's success!



Alaska's vastness poses unique logistical challenges for assessing and monitoring fish and the habitat they use: there is currently no status and trends information for over 70% of the fish species of management concern to the Service in Alaska. Effective fisheries management and habitat conservation actions rely on adequate baseline data and long-term habitat and population monitoring conducted in strategic locations.



By monitoring migrating fish passing through weirs (top) with video technology, we reduce costs, minimize disturbance to fish, and increase the accuracy of counts.

Fisheries Management

Baseline data needs: estimates of fishing effort and harvest ♦ stock of origin determination for fish harvested in mixed-stock fisheries ♦ number, composition, distribution, and condition of adult spawners ♦ assessment of non-native invasive species that may affect fish production.

Data uses: fulfilling treaty obligations ♦ protecting population diversity ♦ informing harvest allocations ♦ responding to invasive species introductions and disease outbreaks.

Techniques we use: harvest surveys ♦ tissue sampling for genetic assessments ♦ obtaining otoliths for age determination ♦ tracking fish with weirs, video monitoring, hydroacoustics, and tagging studies ♦ monitoring potential vectors (e.g., float planes) for invasive species introductions and spread.



Habitat assessments, coupled with juvenile fish sampling (above), help our biologists understand what habitats are important for different life stages of salmon, whitefish, and other native fishes.

Habitat Conservation

Baseline data needs: distribution and habitat use by adult and juvenile fish.

Data uses: increasing statutory protection by adding to the State of Alaska Anadromous Waters Catalog ♦ prioritizing and evaluating habitat restoration activities ♦ predicting the spread of invasive species ♦ informing the development and issuing of permits ♦ monitoring biological response to climate change.

Techniques we use: juvenile fish surveys via electrofishing and trapping ♦ assessment of fish movement and distribution with tagging studies ♦ assessment of physical habitat features ♦ habitat modeling.



Juvenile coho outfitted with Passive Integrated Transponder (PIT) tags are being tracked in areas with increasing human development to determine movement patterns. Antennas spanning the stream channel detect tagged fish as they swim by (above). The study results will inform prioritization of habitat restoration projects.



Want to learn more? Contact us!

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