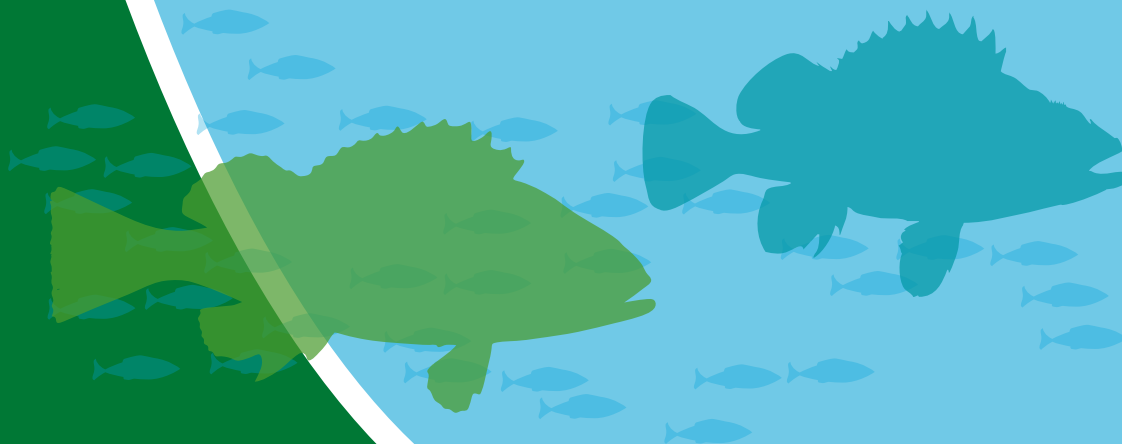


Scientists at the [Alaska Fisheries Science Center's Auke Bay Laboratories](#) study commercially important fish species such as rockfish, sablefish, and [salmon](#). They conduct research to better understand where fish live during each stage of life and pinpoint what makes them unique, down to their DNA. They also examine [marine ecosystems](#) that are essential fish habitats, focusing on ocean processes and chemistry, and food web interactions that impact fish survival.



# 2020 Highlights



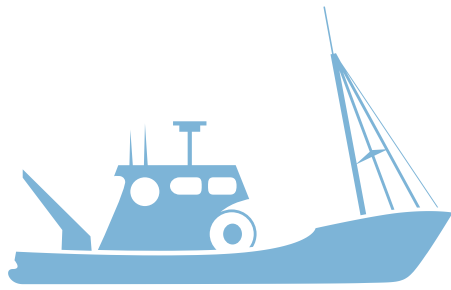
## Adopting New Genetic Techniques and Technologies, Including eDNA Analysis

Our [Genetics Program](#) is in the midst of a genomics revolution. One of our major accomplishments was completing an eDNA proof of concept with samples collected in nearshore habitats around Juneau. Preliminary results indicate we have identified dozens of species including starry flounder, herring, capelin, and sculpin.

## Safely Accomplishing All Auke Creek Research Station Field Objectives Successfully Despite the Ongoing Pandemic

[We](#) collected baseline Pacific salmon productivity and timing data. Staff continued collaborative projects focusing on genetic impacts of sockeye enhancement, an integrated population model for coho, and coho jack productivity and contributions as they relate to Alaska hatchery mating design policy. These projects support Pacific Salmon Treaty, State of Alaska, North Pacific Research Board, and Alaska Private Non-Profit hatchery objectives.





Jacek Maselko, Matt Rogers, and John Moran successfully collected whale blow samples using a drone. The samples will be analyzed at University of Alaska Fairbanks for stress hormones.

Chief scientist Jason Wright and Biologists Sara Bunker and Daisy Perez carried out successful longline survey in 2020.



Humpback whales surface near Auke Bay Laboratories' R/V Sashin.



## Successfully Executing a 3-Month Longline Survey of Groundfish in the Aleutian Islands and Gulf of Alaska

Against all odds in 2020, the [Marine Ecology and Stock Assessment program](#) collected environmental and biological data crucial for use in numerous full and partial stock assessments. The survey counted the catch of over 600,000 hooks; deployed over 800 miles of longline; and caught a record-breaking 154,839 sablefish.

## Establishing Baseline Measures of Humpback Whales During a Year Without Cruise Ships

The pandemic provided a unique opportunity to study whales during a year without cruise ships or large numbers of whale watching vessels. [The Recruitment, Energetics, and Coastal Assessment Program](#) collaborated with the University of Alaska Southeast, the University of Alaska Fairbanks, and the Alaska Regional Office Protected Resources Division on this research. The team collected data on whale presence and residency via photo-identification. They sampled stress hormone levels via biopsy and respiratory blow sampling using drones.



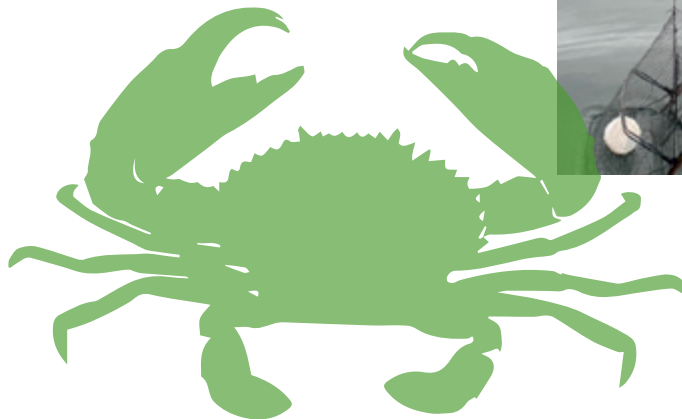
Juvenile cod and pollock collected at the Little Port Walter long-term rearing facility.



## Completing Little Port Walter Research Station Operations Successfully.

Despite numerous challenges caused by the pandemic, we initiated several new projects in collaboration with the Alaska Fisheries Science Center [Recruitment Energetics and Coastal Assessment](#) and [Age and Growth Programs](#); the NOAA Fisheries [Alaska Regional Office](#); Alaska Department of Fish and Game; and University of Alaska Fairbanks. Highlights include collecting over 2500 juvenile cod and pollock; and collecting the first eDNA samples at Little Port Walter.

Dave Nicolls setting a crab trap to help monitor for the invasive European green crab.



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Secretary of  
Commerce

**Benjamin Friedman**  
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performing the duties of Under Secretary of  
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