2020 IN REVIEW

Kodiak Laboratory

NOAA FISHERIES

Alaska Fisheries Science Center

Kodiak Laboratory

Approximately 12,000 to 15,000 people visit the Alaska Fisheries Science Center's Kodiak Laboratory each year. The Laboratory is located in the Kodiak Fisheries Research Center owned by the Kodiak Island Borough. Scientists for both Shellfish and Groundfish Assessment Programs conduct field and laboratory research on the abundance and distribution of marine invertebrate and fish populations, their life history, population dynamics, habitats, ecological interactions, and impacts of human activities such as bycatch, discard mortality, and habitat alteration. In addition, scientists at the Kodiak Lab provide information necessary to conserve, protect, and manage economically important Alaskan shellfish resources, including king, Tanner, and snow crabs, for the benefit of the nation. The laboratory also serves as a field office for the Center's Fisheries Monitoring and Analysis Program (FMA), the Alaska Regional Office of the Sustainable Fisheries Division and port samplers from the Pacific Halibut Commission (IPHC) occupy space within Kodiak Lab.

NOAA respectfully acknowledges that Kodiak Island is The Alutiiq/ Sugpiat Homeland. We thank and acknowledge the tribes of the Kodiak Alutiiq Region. The heritage and culture of the Alutiiq people continue to enrich the community.

2020 Highlights

Shellfish Assessment Program Projects

Shellfish researchers at the Kodiak Lab have worked hard to make the best use of their restructured work situations. For many, this year has been a great opportunity to finalize publications and prepare for upcoming projects. In the lab, paired projects looking at effects of ocean acidification (OA) on juvenile red king crab growth and behavior have been at the forefront of our effort. Researchers also completed another season of tagging Bristol Bay red king crab for tracking movement with saildrones. We also developed and presented an Ecosystem and Socioeconomic Profile for Bristol Bay red king crab to the North Pacific Fisheries Management Council in September.

Cooperative Research

In 2020, the Kodiak Lab continued our cooperative research with long-standing partners. In collaboration with the Alutiiq Pride Shellfish Hatchery (Seward, Alaska), we were able to release another round of juvenile Red King Crab as part of a pilot study to evaluate the feasibility of enhancing crab stocks with hatchery-produced juveniles. The lab also hosted projects by The Alaska Bering Sea Crabbers, Bering Sea Fisheries Research Foundation, and Natural Resources Consultants focused on minimizing crab bycatch through gear modifications in groundfish pot fisheries. We've also continued to support Alaska's growing mariculture industry through our cooperative efforts with Blue Evolution. We also assisted our Newport Lab in conducting inshore juvenile Pacific cod studies off of Kodiak.

Groundfish Assessment Program Projects

We have been working diligently to process stomach samples to learn more about juvenile cod diets. We also have been studying male Gulf of Alaska rockfish reproductive organs (gonads) to better understand changes in reproductive success and failure over time. As a member of the steering committee of the MARVLS (Maturity Assessment and Reproductive Variability of Life Stages) group, we co-organized a NOAA-wide effort to promote greater efficiency and consistency across science centers in our approach, methods and protocols for studying reproductive cells and tissues (histology). To support this we are developing an online histology resource. We also successfully completed an informative pilot study to test equipment for planned 2021 research looking at juvenile cod abundance and habitat use in Anton Larsen Bay.

Fisheries Monitoring and Analysis Division Kodiak Field Operations

We provided critical data collections to sustainable harvest by commercial fisheries despite challenges posed by the COVID-19 pandemic. By redesigning observer coverage models and establishing new ways to interact with observers remotely, we helped to ensure that fisheries were able to continue to operate this year. We also compiled and analyzed collected data to help inform fish stock assessments. This provided a basis for sustainable fisheries management decisions for the 2021 fishing year. Despite a challenging year, we also continued working cooperatively with participants experimenting with electronic monitoring and shoreside observers in the pelagic trawl pollock fishery.

Maintaining Daily Operations, Health & Safety

We developed and implemented new COVID-19 safety protocols to protect staff working in the Kodiak Lab. This has allowed us to continue caring for hundreds of live animals in the lab throughout the year. We also have been able to maintain community support by continuing to provide local dissections and host webinars for school-aged children through NOAA Live Alaska and other virtual efforts.

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