ALASKA SEA GRANT

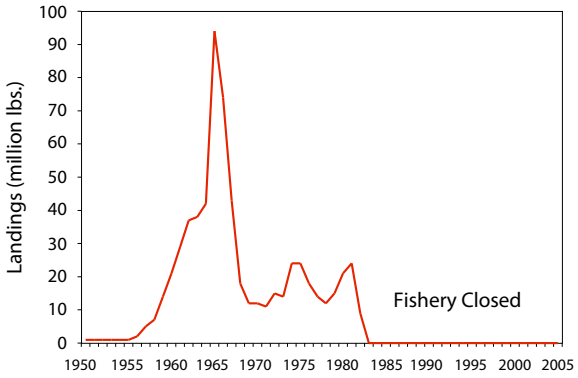
Aquaculture in Alaska

For more than 30 years, Alaska has pursued a strategy of employing aquaculture to rehabilitate wild salmon stocks, and to nurture shellfish mariculture, primarily oyster farming. Alaska Sea Grant's scientific, technical, and training expertise has been key to the advancement of Alaska's salmon and shellfish aquaculture development.

Now, with help from the NOAA Aquaculture Program, working through NOAA Fisheries, Alaska Sea Grant is conducting research aimed at rehabilitating the once-major, multimillion dollar wild king crab fisheries around Kodiak Island and the Pribilofs in the Bering Sea.

The Alaska King Crab Research, Rehabilitation and Biology (AKCRRAB) Program was born out of a grassroots call to reverse decades of low numbers of Kodiak Island red and Pribilof Island blue king crab. It is a partnership that includes Alaska's major commercial fishing organizations, coastal communities, Alaska Native groups, state and federal marine and fisheries resource agencies, and the University of Alaska.

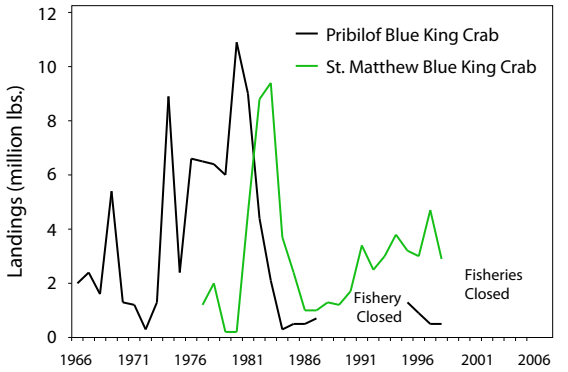
Kodiak Red King Crab Commercial Harvest 1950–2006



During a peak in 1965, Kodiak fishermen harvested 95 million pounds of red king crab with an ex-vessel value of more than $12 million. The fishery collapsed soon after and has been closed since 1982.

Source: William Bechtol, UAF/ SFOS; ADF&G

Pribilof/St. Matthew Blue King Crab Commercial Harvest 1966–2006



After peaking in the late 1970s and early 1980s, Pribilof Island blue king crab stocks have remained low. NOAA Fisheries declared the stocks overfished in 2002.

Source: ADF&G

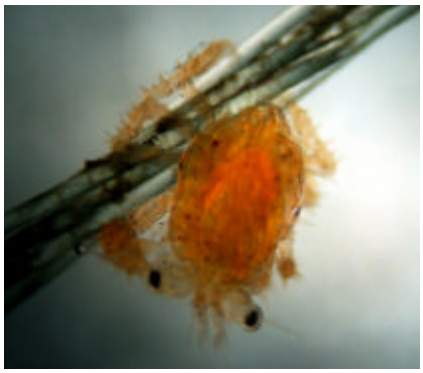
Marine aquaculture has been big business in Alaska—and it's getting bigger.

Salmon hatcheries, called ocean ranching, play a critical role in supplying salmon to the marine environment.

- Alaska boasts the world's largest salmon hatchery, among a network of 34 private nonprofit, state, and federal salmon hatcheries.
- In 2005, hatcheries accounted for 14 percent of the state's overall commercial harvest, valued at $39 million.
- Of all salmon harvested by commercial fishermen in 2005, hatchery-produced salmon accounted for 47 percent of chums, 33 percent of pinks, 19 percent of cohos, 8 percent of chinooks, and 4 percent of sockeyes.

Alaska's growing shellfish farming industry cannot yet keep up with demand.

- There were 52 active farm permits in Alaska in 2006. Pacific oysters were the primary crop.
- In 2005, the value of Alaska shellfish production was $676,000—nearly double the value in 1996.
- Alaska is cultivating new species including geoduck clams, cockles, mussels, and scallops.
- Mariculture contributes to both commercial production and restoration of wild shellfish beds, such as razor clams, important to subsistence and environmental quality.



Red king crab glaucothoe hang onto gillnet.

The AKCRRAB program seeks to better understand the large-scale culturing requirements of Kodiak Island red and Pribilof Island blue king crab. The long-term goal is to enhance wild stocks of these valuable crustaceans.

Thus far, partners have contributed $326,000 to the research effort. In 2007, the NOAA Aquaculture Program provided $175,000 to hire a full-time crab research biologist for the program. The biologist will conduct feeding, growth, and survival studies with both red and blue king crab and initiate environmental studies aimed at better understanding the needs of growing juvenile king crab in the marine environment.

Alaska King Crab Research, Rehabilitation and Biology (AKCRRAB) Partners and Supporters

Alaska Crab Coalition
Alaska Department of Fish and Game
Alaska State Legislature
Aleutian Pribilof Island Community Development Association
Alutiiq Pride Shellfish Hatchery
Central Bering Sea Fishermen's Association
Chugach Regional Resources Commission
City of Kodiak
City of Seward
Gulf of Alaska Coastal Communities Coalition
Kenai Peninsula Borough
Kodiak Island Borough
NOAA Alaska Sea Grant
NOAA Aquaculture Program
NOAA Fisheries
United Fishermen of Alaska
United Fishermen's Marketing Association
University of Alaska Fairbanks, School of Fisheries and Ocean Sciences