

MARICULTURE RESEARCH AND RESTORATION CONSORTIUM

SUSTAINABLE MARICULTURE DEVELOPMENT FOR RESTORATION AND ECONOMIC BENEFIT IN THE EVOS SPILL AREA



WHO ARE WE

Mariculture Research and Restoration Consortium (Mar. ReCon) is a research and monitoring program designed to address the needs of the mariculture industry in the Exxon Valdez oil spill (EVOS) affected area including Prince William Sound, Kachemak Bay, and Kodiak Island.

Proposed Program Duration: 2022-2032

Funder: Exxon Valdez Oil Spill Trustee Council (EVOSTC)

Current Status: Data collection begins in 2023.

OBJECTIVE

To support restoration, habitat enhancement, and economic development through research and partnerships between scientists and seaweed and shellfish farmers.

PROJECT COMPONENTS

Restoration

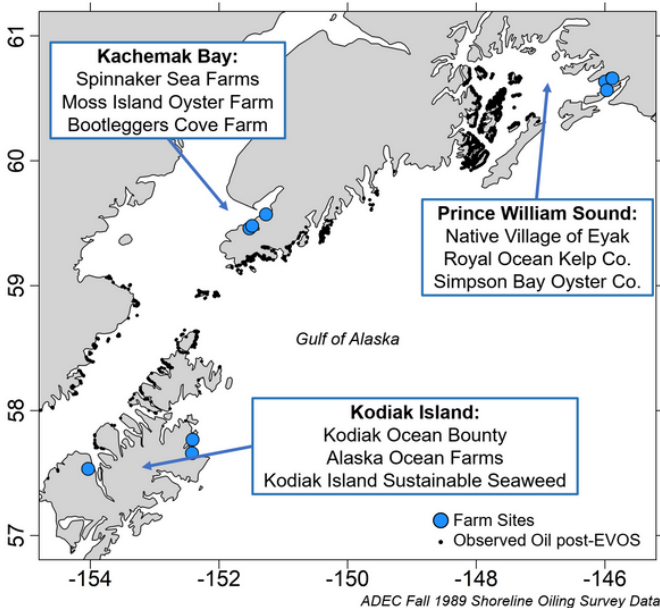
Address the ecological effects of the mariculture industry in the spill area.

Farm and Business Development

Enhance the success of the mariculture industry in the spill area.

Outreach

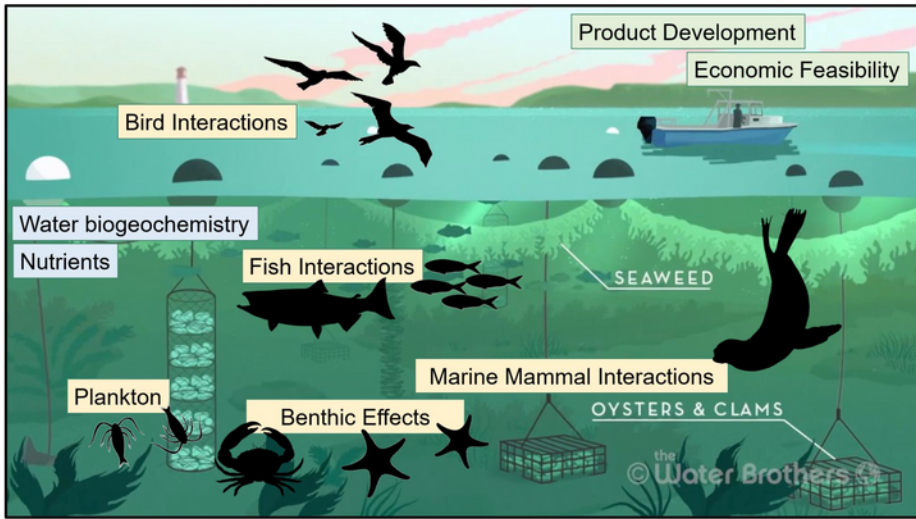
Coordinated outreach and education activities to make current scientific information and activities publicly accessible and serve ongoing, community identified needs.



NOAA FISHERIES



DATA COLLECTION



METHOD SUMMARY

Restoration

- Within-farm and adjacent environmental sensors
- Plankton net tows and eDNA sampling
- SCUBA-based benthic dive surveys
- Imaging sonar/ROV mounted cameras for fish abundance
- Marine bird surveys
- Marine mammal surveys

Farm and Business Development

- Variable array design and stocking density in kelp farms
- Early season trimming effects on harvest biomass
- Data mining from hatchery operators and literature
- Surveying consumers about oyster preferences
- Focus groups for mariculture product preferences

Outreach

Collaborate with the Community Organized Restoration and Learning (CORaL) Network:

- Hold listening sessions in coastal communities
- Create an Information Clearing House
- Provide mariculture training opportunities
- Provide mariculture education programs
- Hold Regulatory and Management Workshops
- Provide Webinars

DATA USES

MONITOR	Oceanographic conditions and biological communities as mariculture expands
EVALUATE	Restorative and/or adverse effects of mariculture in the spill area
IDENTIFY	Best practices for optimizing productivity
ESTABLISH	Methodology and cost of generating AK-based oyster seed
ADDRESS	Missing supply chain links
DISSEMINATE	Information to stakeholders.



PROGRAM LEADS

Alaska Department of Fish and Game (M. Rehburg)
 Alaska Fisheries Development Foundation (J. Decker*)
 Alaska Sea Grant (G. Eckert*; Q. Fong; M. Good)
 Axiom Data Science (R. Bochenek)
 Native Village of Eyak (J. Whissel*)
 NOAA Alaska Fishery Science Center (J. Hollarsmith; C. Long)
 Prince William Sound Science Center (R. Campbell; A. Cypher; K. Hoffman*; A. Schaefer)
 Shellfish and Seaweed Farmers (numerous; may change over time)
 University of Alaska Fairbanks (A. Kelley; B. Konar; A. Pinchuk; S. Umanzor)

FOR MORE INFORMATION

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