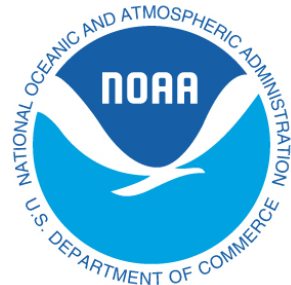




Mariculture in Alaska: the Long View

Bobbi Hudson, *PSI Exec. Director*
Alaska Shellfish Growers Association Annual Conf.
December 9-10, 2016 in Anchorage, Alaska

Partner Organizations



Alaska Mariculture Initiative



AFDF

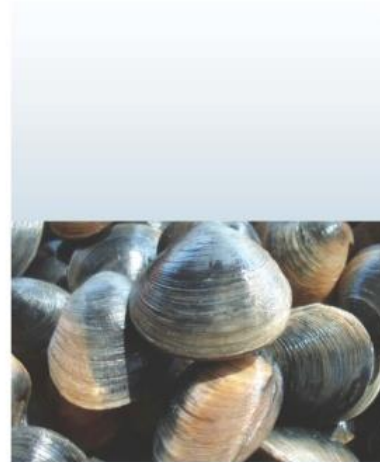
Alaska Fisheries Development Foundation, Inc.

MADE IN ALASKA
MARICULTURE

ALASKA DIVISION of
ECONOMIC DEVELOPMENT

ALASKA
ECONOMIC DEVELOPMENT

ALASKA
ECONOMIC DEVELOPMENT
AND ECONOMIC DEVELOPMENT



Economic Analysis to Inform the Alaska Mariculture Initiative: Phase 1 Case Studies

Prepared for
Alaska Fisheries
Development
Foundation

March 2015



In association with
Pacific Shellfish Institute
Maine Shellfish Research and Development

This publication was prepared with funds from Award #NA14NMF4270058 from the National Oceanic and Atmospheric Administration, U.S. Department of Commerce. The statements, findings, conclusions and recommendations are those of the authors and do not necessarily reflect the views of NOAA or the Department of Commerce.

Seaweed in the news...

undercurrentnews
seafood business news from beneath the surface

US seaweed farmer Premium Oceanic eyes snack market, Alaska expansion



May 20, 2016, 4:18 pm

[Ola Wietecha](#)

Seaweed is often sold of US grocers or as a founder of California-b hoping his company c traditionally Western d

The US imports roughl according to Perry, the when it comes to seaw



Stories In The News
Ketchikan, Alaska www.sitnews.us

Alaska Shellfish Growers Learn about Seaweed Farming

December 18, 2015
Friday PM

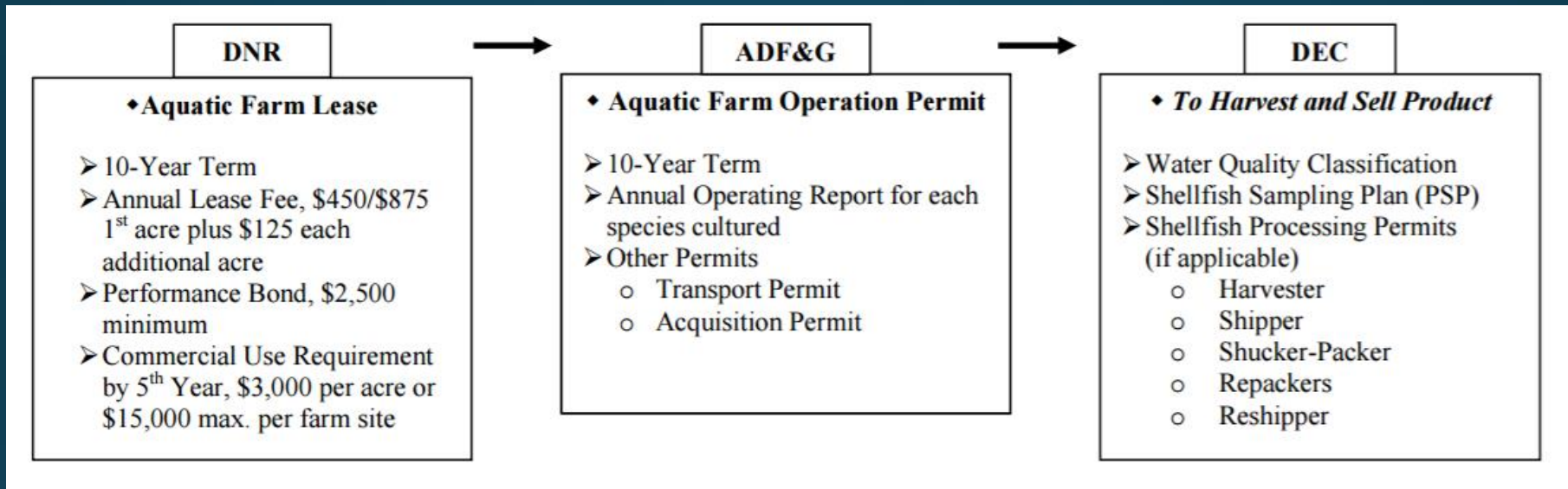
(SitNews) Ketchikan, Alaska - With edible kelp driving a \$5 billion industry worldwide, Alaska shellfish farmers are exploring seaweed as the next step in their small industry. About 40 farmers learned about kelp growing methods, markets, biology, and state programs to expand mariculture during a workshop at the Alaska Shellfish Growers Association meeting in Ketchikan. The workshop was supported by a NOAA-National Sea Grant aquaculture grant to Alaska Sea Grant, for mariculture diversification training and demonstration projects.

ALASKA

CANADA



Alaska Aquatic Farm Permits



- **DNR** makes preliminary decisions, and provides public review/comment period.
- **ADF&G** can issue an aquatic farm Operation Permit if the proposal is approved.
- After all State authorizations, a person can request **U.S. Army Corps of Engineers** authorization under Regional General Permit.
- **DEC** must do a sanitation survey of aquatic farm site and an onshore survey.
- *Permits can be transferred to another person at any time.*

Sugar kelp

Saccharina latissima

- Kombu
- Sugar wrack
 1. Large holdfast
 2. Short stipe
 3. Large, thick blade w/ bumps

Photograph by: Jenn Burt
www.centralcoastbiodiversity.org



Rock Scallop

Crassadoma gigantea

- PSP
- PSI, WA DOH, NOAA & STEARL currently addressing some aspects
- Seed source still an issue
- Markets still an issue



Geoduck

Panopea generosa

- PSP
- Predators
- Growth rate challenging
- Seed supply



Photograph: Taylor Shellfish

Cockles

latin name(s)

- Nursery culture dialed in via UBC Center for Shellfish Research, others
- Shelf life still a problem

Giant red sea cucumber

Parastichopus californicus

Successful spawns at Alutiiq Pride Shellfish Hatchery (Seward)

- 6 years experience
- 10,000 produced (2013-2014)

Charlotte Regula-Whitefield (UAF)

- Grow-out trials of juveniles
- Mexican trays w/ screen
- SARDFA supported



Current Research

Quantify sedimentation and water chemistry characteristics (WA)

- Carbon chemistry - OSU
- Nutrient analysis – UW
- Sediment traps under and inside raft
- Food availability, Total Organic Matter

Integrated Multi-Tropic Aquaculture (IMTA) with two farmed species (WA)

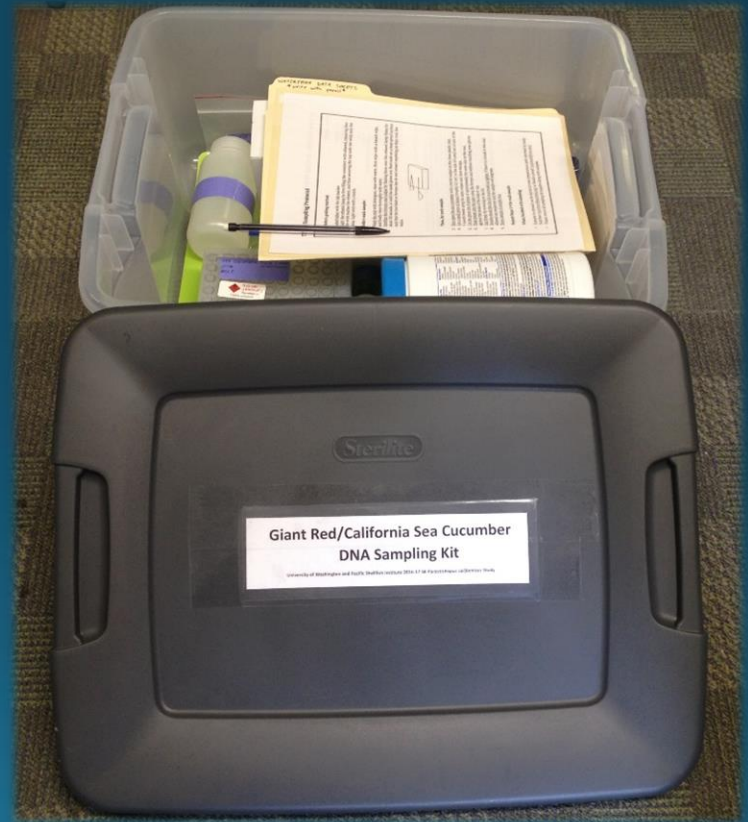
- Blackcod
- Mussels



Sea cucumber

Examination of the genetic population structure (ongoing

- AK: Stewart Grant of ADF&G
- WA: PSI w/ Vassili and WDFW
- CA: PSI w/ trawl harvester

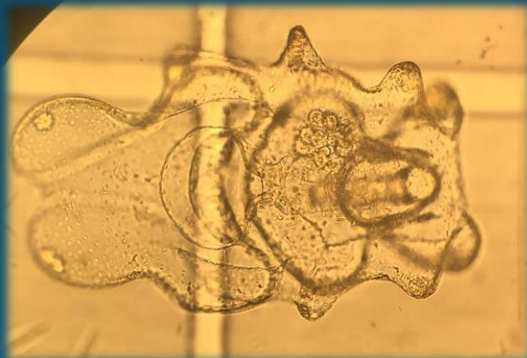


Giant red sea cucumber

Develop hatchery and nursery technology in WA and AK

Puget Sound Restoration Fund
Hatchery Manchester, WA

- Native oysters and macroalgae
- Successful spawn 2016



*Kenneth K. Chew Center for
Shellfish Research & Restoration*



Thank you



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