**Research at Kachemak Bay National Estuarine Research Reserve**

**Agenda: 9:00 am Boat Ride from Homer across the Bay**

**SHELLFISH SUSTAINABILITY PROJECTS**

*Building a Foundation of Decision-Support Tools Integrating Existing Mapping and Monitoring Information for the Benefit of Long-Term Shellfish Sustainability and Management in Kachemak Bay and Cook Inlet, Alaska*

**Overview**

The goal of this study is to develop a baseline reference of habitat conditions integrated with environmental variables from which change can be measured. Researchers, decision-makers and stakeholders in Kachemak Bay and Cook Inlet are partnering to establish an information framework upon which ecosystem-based management questions can be explored, and rehabilitation efforts can be built. ­­­

**Project Approach**

* Develop visualization and analysis tools for the Kachemak Bay and Cook Inlet to support regional ecosystem-based understanding of bivalve habitat and anticipated changes to habitat and marine resources.
* Engage stakeholders and public through workshops and trainings for decision makers and education programs for youth and the public.

**Anticipated Benefits**

* Improved understanding of the reproductive biology and life history of bivalves in coastal AK
* Identification of research gaps to guide future work and shellfish conservation strategies
* Enhanced environmental monitoring of oceanographic variables, including acidification
* Involvement of stakeholders in the consideration of future management strategies
* Strengthened network for restoration planning
* Increased community stewardship for native clams and coastal habitats

**About the program:**

To enhance understanding of estuarine systems and support successful coastal management strategies, Kachemak Bay National Estuarine Research Reserve (KBNERR) conducts research in watershed, coastal, and marine environments and shares findings with area planners and resource managers through the Coastal Training Program.

Alaska Center for Conservation Science (ACCS) studies conservation, ecological monitoring, and natural resource planning in Alaska. We rely on data and funding from state and federal agencies and citizens to manage and serve our species data to the public.

**Contact:**

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Marcus Geist at ACCS – mageist@alaska.edu

*Learn more at*: <http://accs.uaa.alaska.edu/kbnerr/bivalve-habitat-focus-area>

*and* <http://www.habitat.noaa.gov/habitatblueprint/KachemakBay.html>

**NOAA Kasitsna Bay Lab**

**Agenda: 10:00 am First Stop Session 1**

**SHELLFISH SUSTAINABILITY PROJECTS**

*Habitat mapping, HABs, oceanography and intertidal monitoring biodiversity projects and sampling techniques/gear*

**Overview**

The goal of this study ­­­

**Project Approach**

* Monitor
* Develop

**Anticipated Benefits**

* Improved

**About the program:**

The NOAA Kasitsna Bay Laboratory conducts a variety of research projects on the topics of ocean acidification, harmful algal blooms, ocean circulation, coastal impacts of climate change, nearshore biodiversity and underwater technology. The laboratory is owned by NOAA’s National Centers for Coastal Ocean Science (NCCOS) and operated in partnership by NCCOS and the College of Fisheries and Ocean Sciences at the University of Alaska Fairbanks.

**Contact:**

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*Learn more at:* <http://www.uaf.edu/cfos/about-us/locations/kasitsna-bay/>

**Alutiiq Pride Shellfish Hatchery**

**Agenda: 11:00 am First Stop Session 2**

**SHELLFISH SUSTAINABILITY PROJECTS**

*Ocean Acidification*

*Restoration*

**Overview**

The goal of this work

APSH has led several shellfish enhancement projects based on the out planting of juveniles. Shellfish enhancement is a tools used to repopulate areas that have suitable habitat for shellfish but do not have viable populations. Shellfish are stocked on beaches, with predator control netting and allowed to grow to a harvestable size.

APSH has and Ocean Acidification lab program including a Burke-o-lator system that helps process water samples from around the region and is the basis for a developing treatment system to test Alaskan organism response to OA.

**Project Approach**

* Monitor
* Develop

**Anticipated Benefits**

* Improved

**About the program:**

**Contact:**

Rodger Painter - rodgerpainter@hotmail.com

Jacqueline Ramsay - jacqueline@alutiiqpridehatchery.com

*Learn more at:* <http://alutiiqpridehatchery.com/>

**Education at Kachemak Bay National Estuarine Research Reserve**

**Agenda: 12:00 pm Boat Ride and Lunch**

**SHELLFISH SUSTAINABILITY PROJECTS**

*Happy as a Clam Discovery Labs and Alaska Sea Week*

**Overview**

The goal of this work

**Project Approach**

* Develop
* Deliver

**Anticipated Benefits**

* Enhanced
* Connections

**About the program:**

**Contact:**

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Dana Nelson – ddnelson4@alaska.edu

*Learn more at:* <http://accs.uaa.alaska.edu/kbnerr/education/>

**Seldovia Village Tribe**

**Agenda: 1:00 pm Second Stop Session 1**

**SHELLFISH SUSTAINABILITY PROJECTS**

*Habitat*

**Overview**

The goal of this study ­­­

Recent environmental projects include working with KBNERR on European Green Crab monitoring, Harmful Algal Bloom outreach, and clam research, and working with Alutiiq Pride Shellfish Hatchery on clam projects and Ocean Acidification.

The SVT Node/Spatial Viewer provides the public with geospatial and water quality monitoring data (physical, chemical, biological and habitat) collected around Kachemak Bay by the Tribe and non-profit environmental organizations.

**Project Approach**

* Monitor
* Develop

**Anticipated Benefits**

* Improved

**About the Organization:**

SVT is a sovereign, self-governing entity that promotes the preservation of Tribal culture, tradition, and community economic development. Their mission is to promote the wellness of our people and communities through health care and social services, economic development, and education.

**Contact:**

Michael Opheim - mopheim@svt.org

*Learn more at:* <http://svt.org/environmental-protection/>

**Monitoring at Kachemak Bay National Estuarine Research Reserve**

**Agenda: 2:00 pm Second Stop Session 2**

**SHELLFISH SUSTAINABILITY PROJECTS**

*Long term monitoring*

**Overview**

**Project Approach**

* NERR System Wide Monitoring….
* Tunicate Plate, European Green Crab and Phytoplankton Monitoring…

**Anticipated Benefits**

* Improved understanding
* Enhanced environmental monitoring
* Strengthened network
* Increased community stewardship

**About the program:**

The System Wide Monitoring Program (SWMP) collects, analyzes, and makes available weather, water quality, and nutrient data from all National Estuarine Research Reserves. Community monitoring programs at KBNERR depend on community volunteers of all ages to assist in the detection of harmful algal blooms and invasive species. Volunteers are trained in identification and sampling techniques, and they provide a valuable service to the community.

**Contact:**

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*Learn more at*: <http://accs.uaa.alaska.edu/kbnerr/coastal-ecology/>

<http://cdmo.baruch.sc.edu/> <http://portal.aoos.org/real-time-sensors>

<http://accs.uaa.alaska.edu/kbnerr/community-monitoring/>

**Community Council**

**of Kachemak Bay National Estuarine Research Reserve**

**Agenda: 3:30 pm Boat Ride back to Homer**

**SHELLFISH SUSTAINABILITY PROJECTS**

*Building a Foundation of Decision-Support Tools Integrating Existing Mapping and Monitoring Information for the Benefit of Long-Term Shellfish Sustainability and Management in Kachemak Bay and Cook Inlet, Alaska*

**Overview**

**Project Approach**

**Anticipated Benefits**

**About the program:**

The Kachemak Bay National Estuarine Research Reserve Community Council consists of volunteers and agency representatives who bring a community voice to discussions in support of research and education programs.

KBNERR is a state-federal-local partnership managed by the Alaska Center for Conservation Science at the University of Alaska, Anchorage, in partnership with the National Oceanic and Atmospheric Administration, with input from the KBNERR community council made up of community members and agency partners.

**Contact:**

George Matz - geomatz@alaska.net

*Learn more at*: <https://kbaycouncil.wordpress.com/>