

# Oregon Ocean Science Trust

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# Competitive Research Process

## ➤ SEED-LEAF

- ❖ SEED projects - provide approximately \$50,000 for an initial 9 months of support
  - ❖ LEAF projects supported for 3.5 years at approximately \$250,000 per year
  - ❖ LEAF proposals due in February
- Biennial research competition – 2 year projects, up to \$115K annually

# SEED Competition



- *Gooseneck barnacles (Pollicipes polymerus) on the Oregon Coast; Population description, feasibility of a fishery, fishery enhancement, and aquaculture, Alan Shanks, OIMB*
- *Envisioning a Resilient Oregon Coast: Co-developing alternative futures for adaptation planning and decision-making, Peter Ruggiero, OSU*
- *Retrodicting earthquake source characteristics from tsunami inundation along the Oregon coast, Andrew Meigs, OSU*
- *The value of Oregon's deep-sea habitat to Oregonians, Andrew Thurber, OSU*

# Biennial Research

- *Changes in Oregon's nearshore fish assemblages through the eyes of scientists and fishermen, Lorenzo Ciannelli, OSU*
- *Effects of ocean acidification on behavior, development, and nutritional value of newly recruited coastal Dungeness crab, Aaron Galloway, OIMB*
- *Linkages between forestry practices and Oregon's estuarine shellfish, Elise Granek, PSU*
- *Oregon's Seafood Processing Workforce: the connection between demographic change, opportunities and challenges, and community resilience, Marta Maldonado, OSU*
- *Determining the response of Oregon pink shrimp larvae to ocean acidification and warming, George Waldbusser, OSU*

# Fishermen-Scientist Roundtable - V2

- 7 Commercial Fishing; 8 Science/Management; 6 observers
- Fishermen observations
- Scientist research sharing
- Discussions on potential projects
  - ❖ Forage fish
  - ❖ Crab
- Both groups expressed a commitment to generate and submit a series of proposals that address the science questions

# Fishermen-Scientist Roundtable - V2

Spatial and temporal distribution, composition, and abundance of “forage” fish

- Methods: Joint observations, gut content analysis, log book analysis
- Products: ID guide, web portal for observations, information for the fleet



# Fishermen-Scientist Roundtable - V2

Responses of adult Dungeness crab to hypoxia and OA

- Observations: Crab pot sensors, living history, water samples
  - ❖ Sensor needs
- Studies: Tracking to characterize crab movement, physiological studies
- Benefits:
  - ❖ Improved understanding of crab history
  - ❖ Characterizing water conditions
  - ❖ Implications for fishery management

# State of the Coast 2017

- Record numbers-closed registration ahead of meeting
- Keynote-focused on innovation
- Continued emphasis on art and science integration
- Breakout sessions
  - ❖ Coastal governance, ocean forecasting, seafood, art, estuary management, marine mammal observations, gear and technology



# State of the Coast 2017

- Continue pattern of moving locations
- Considerations for the future
  - ❖ Expanding numbers
  - ❖ Increased interest

# Marine Reserves Assessment

## STAC Meeting – October 2017

- Need to develop assessment criteria
  - ❖ Consensus to start with OPAC Implementation Principles and Guidelines
  - ❖ Impact and process
- Process of STAC engagement with chosen university assessment process – “external review” model
- Timeline for assessment – 10 months

# OPAC Recommendations-Marine Reserves Objectives

1. **Protect areas** within Oregon's Territorial Sea that are ***important to the natural diversity and abundance of marine organisms***, including areas of high biodiversity and special natural features.
2. **Protect key types of marine habitat** in multiple locations along the coast to enhance resilience of nearshore ecosystems to natural and human-caused effects.
3. Site fewer than ten marine reserves and design the system in ways that are compatible with the needs of ocean users and coastal communities. These marine reserves, individually or collectively, are to be ***large enough to allow scientific evaluation of ecological effects***, but ***small enough to avoid significant adverse social and economic impacts on ocean users and coastal communities***.
4. **Use the marine reserves as reference areas for conducting ongoing research and monitoring** of reserve condition, effectiveness, and the effects of natural and human-induced stressors. Use the research and monitoring information in support of nearshore resource management and adaptive management of marine reserves.
5. Although marine reserves are intended to provide lasting protection, individual sites may, through adaptive management and public process, later be altered, moved, or removed from the system, based on monitoring and reevaluation at least every five years.

# OPAC Recommendations - Marine Reserves Implementation

## Principles and Guidelines

1. **Marine reserves as a system and each individual marine reserve** will have a plan that includes **clearly defined objectives, monitoring protocols, compliance and enforcement provisions, effective management measures, and a commitment of long-term funding necessary to achieve its goals.**
2. Marine reserves will be **adequately enforced.**
3. Marine reserves will be **adequately monitored and evaluated** in support of adaptive management. **Cooperative and collaborative research** will be encouraged as well as utilization of fishing vessels as research platforms. These activities will be compatible with the goal of conserving marine habitats and biodiversity.
4. **Education and economic development opportunities** that are compatible with the goal of conserving marine habitats and biodiversity will be **encouraged.**
5. Marine reserves are **not intended to prevent marine transit, safe harbor, and beach access.**
6. **Significant adverse social and economic impacts of marine reserves** on ocean users and coastal communities **will be avoided** and **positive social and economic effects will be sought.**
7. **Adequate baseline data** will be collected at each site **prior to excluding extractive activities.**  
The types and adequacy of baseline data, and the timing and methods of data collection will be driven by the research and monitoring objectives and sampling designs employed at each site.

# Marine Reserves Assessment - Challenges

- Unclear mandate
  - ❖ Report on “the establishment, study, monitoring, evaluation and enforcement of the pilot marine reserves, marine reserves, marine protected areas and seabird protection area”
  - ❖ “An assessment of social, economic and environmental factors related to the reserves and protected areas”
  - ❖ “Recommendations for administrative actions and legislative proposals related to the reserves and protected areas”
- Lack of process guidance
- \$\$\$ (or lack thereof)



# Thank you!

