# Alaska Fisheries Science Center

## Science Program Reviews:

## 2014 – Stock Assessment Process

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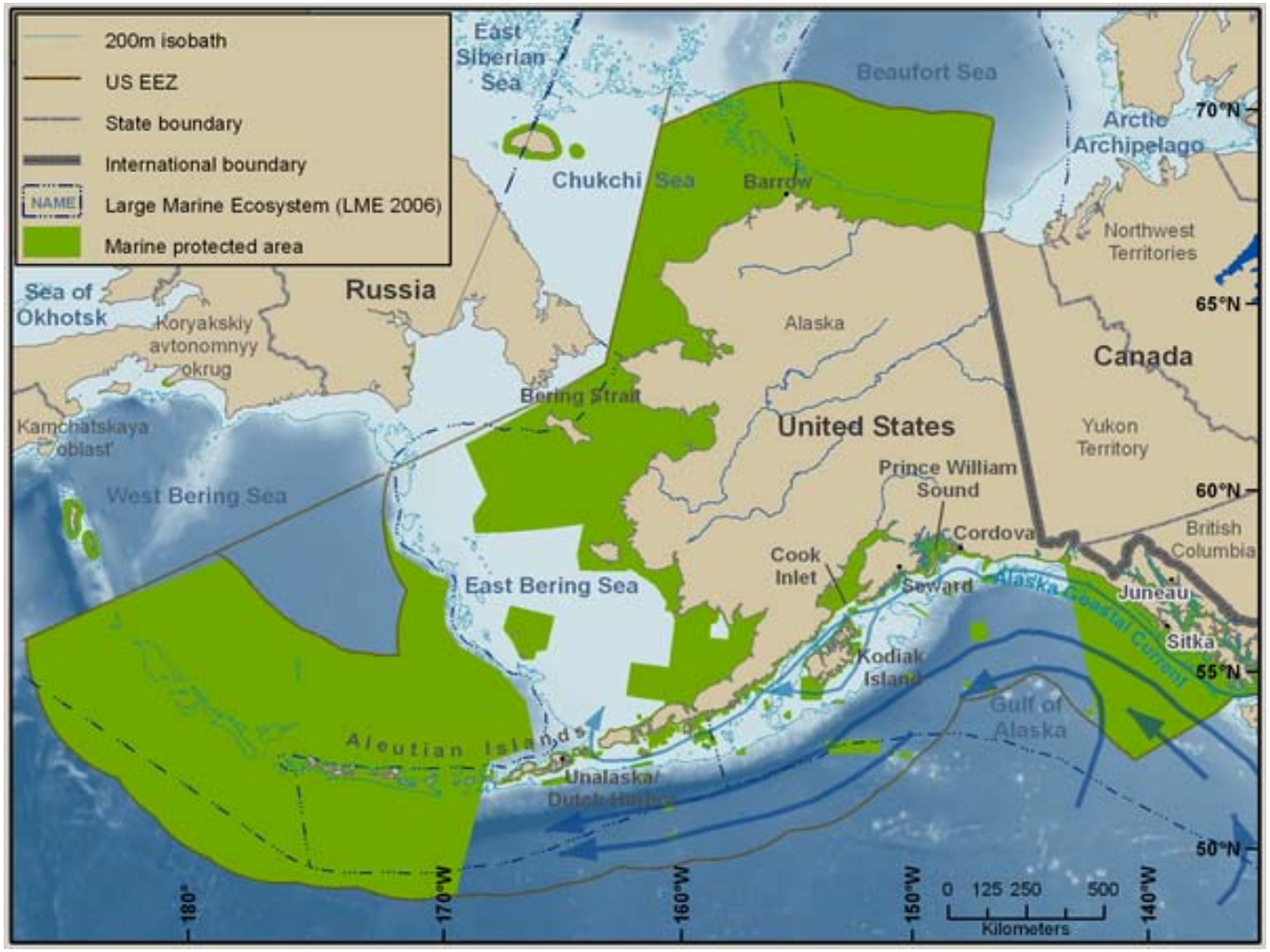
# Alaska Fisheries Science Center

- Employment: ~ 450 people (Federal and Contract)
- Locations:
  - Seattle, WA
  - Juneau, Kodiak, Dutch Harbor, Anchorage, Little Port Walter, and the Pribilof Islands, AK
  - Newport, OR
- 2014 Funding: ~ $59.5M initial federal allocation and $15M reimbursable; additional federal funds provided for project-specific purposes

# AFSC Studies 5 Large Marine Ecosystems




- Gulf of Alaska
- Bering Sea
- Aleutian Islands
- Northern Bering & Chukchi Seas
- Beaufort Sea

http://www.plosone.org/article/info:doi/10.1371/journal.pone.0011914

# Fisheries Management Plans

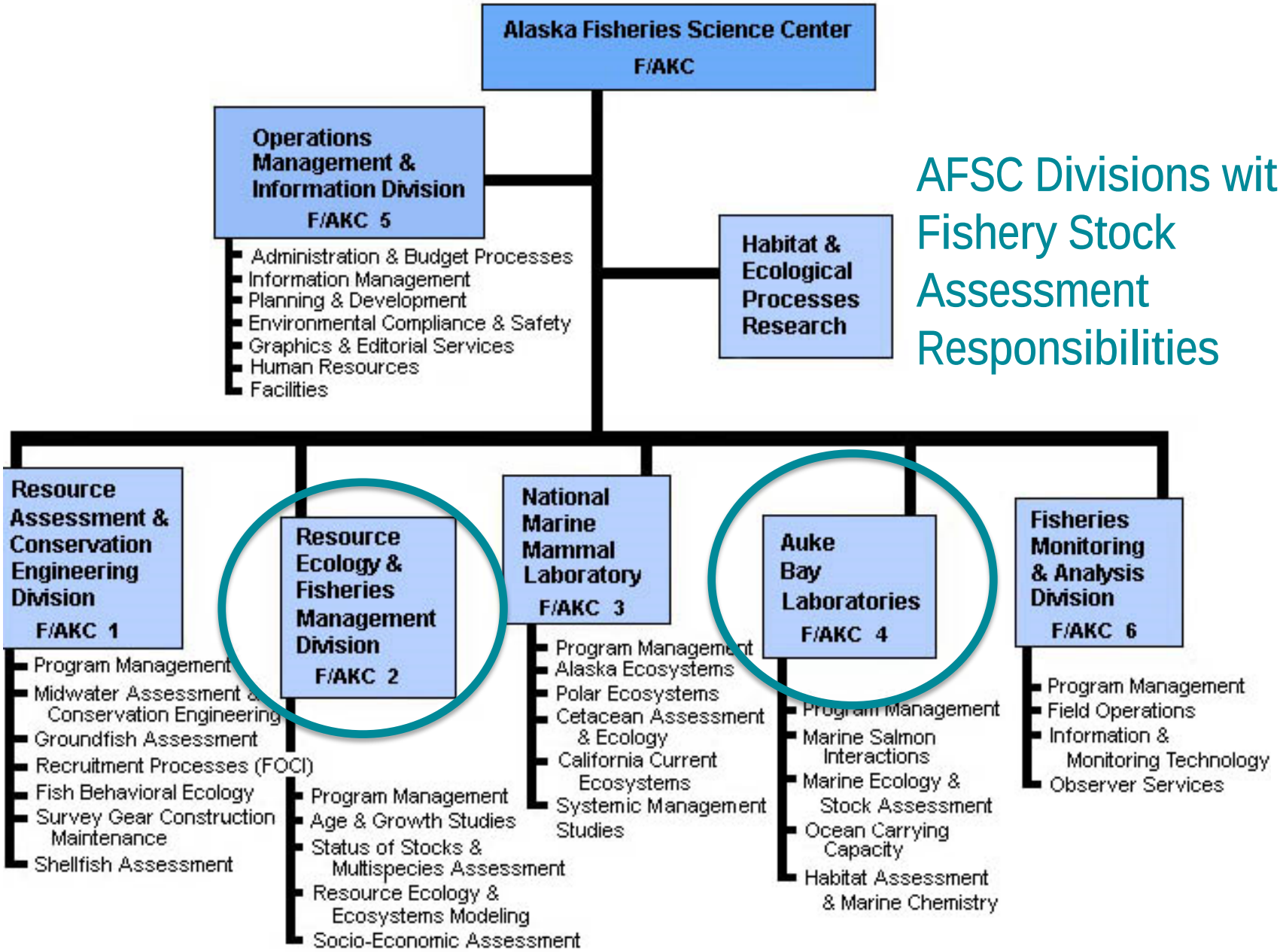
- Groundfish of the Bering Sea and Aleutian Islands Management Area
- Groundfish of the Gulf of Alaska
- Bering Sea/Aleutian Islands King and Tanner Crabs
- Fish Resources of the Arctic Management Area

Other FMPs:

Scallop Fishery Off Alaska

Salmon Fisheries in the EEZ Off Alaska

# AFSC Divisions with Fishery Stock Assessment Responsibilities

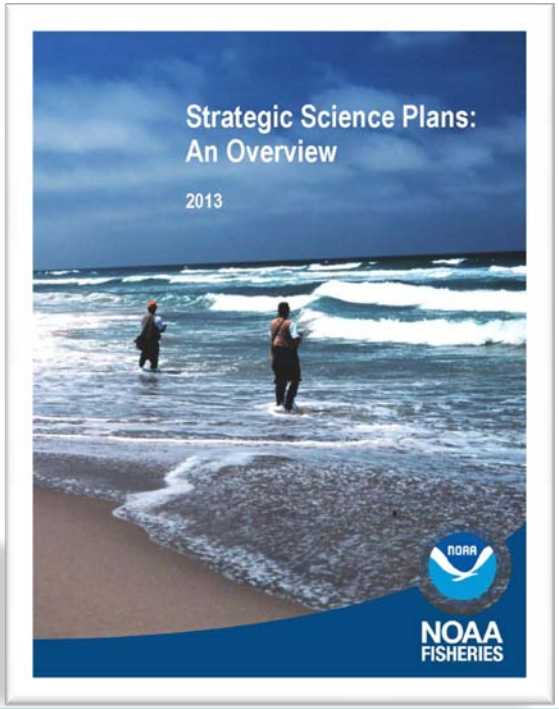


# Benefits of Two Assessment Groups

- Responsive to both Alaska's and Washington's constituent groups (commercial fishers, NGOs)
- Fosters academic partnerships at the University of Alaska and the University of Washington

# Setting Priorities – AFSC's Strategic Science Plan: A Model for the Nation

- The "science side" of NOAA Fisheries has adopted the AFSC's model of the Science Plan and Implementation Process to set research and funding priorities annually
- Each Science Center and the Office of Science and Technology now have Strategic Science Plans
- An Annual Guidance Memorandum starts the process each year



# AFSC Director's Guidance for FY14

- Emphasized two core research foci:
  - Support assessments required for the current NPFMC tiers for fish, crab, and marine mammal stocks
  - Provide information to the NPFMC and AKR for management decisions, to support quota monitoring, and for legal and regulatory analyses

# AFSC Director's Guidance for FY14

Identified seven funding priorities:

1. Continued success with implementing full-coverage and partial – coverage observer programs
2. Funding for use of NOAA ship time and of pre-paid charter time
3. Sustained stock assessments of groundfish, shellfish, and protected species
4. Research on Cook Inlet beluga whales
5. Research on the western population of Steller sea lions
6. Arctic research on marine mammals, fish, and habitat including the Bering-Aleutian Salmon International Survey (BASIS) and AFSC commitments to the Arctic Ecosystem Integrated Survey (Arctic Eis)
7. Fulfilling commitments to the Bureau of Ocean Energy Management and the Gulf of Alaska Project research program funded by the North Pacific Research Board

# Previous Relevant Reviews

- 2013 NOAA Fisheries Science Program Review: Stock Assessment Data
- 2012 Center for Independent Experts Review of the Gulf of Alaska Walleye Pollock Assessment

- Reports and responses are available on the Program Review web page as background material.

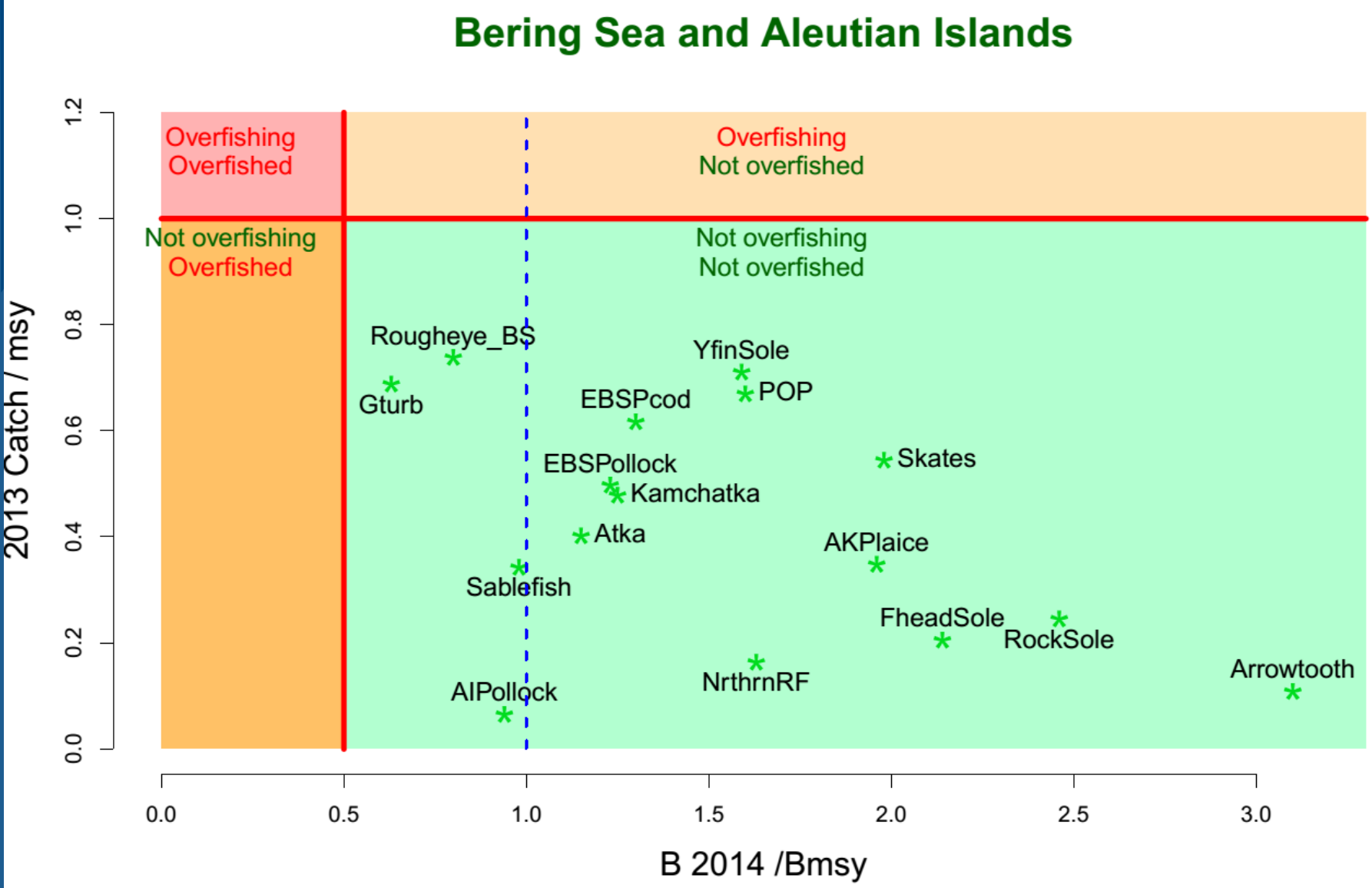
# Terms of Reference: Themes for Reviewers to Address

1. Does the AFSC apply a suitable scientific/technical approach to fishery stock assessment modeling?
2. Is the assessment process efficient, effective and clearly described, including terms of reference for assessment reports?
3. Does the AFSC, in conjunction with other entities such as the Council's Scientific and Statistical Committee (SSC), have an adequate peer review process?

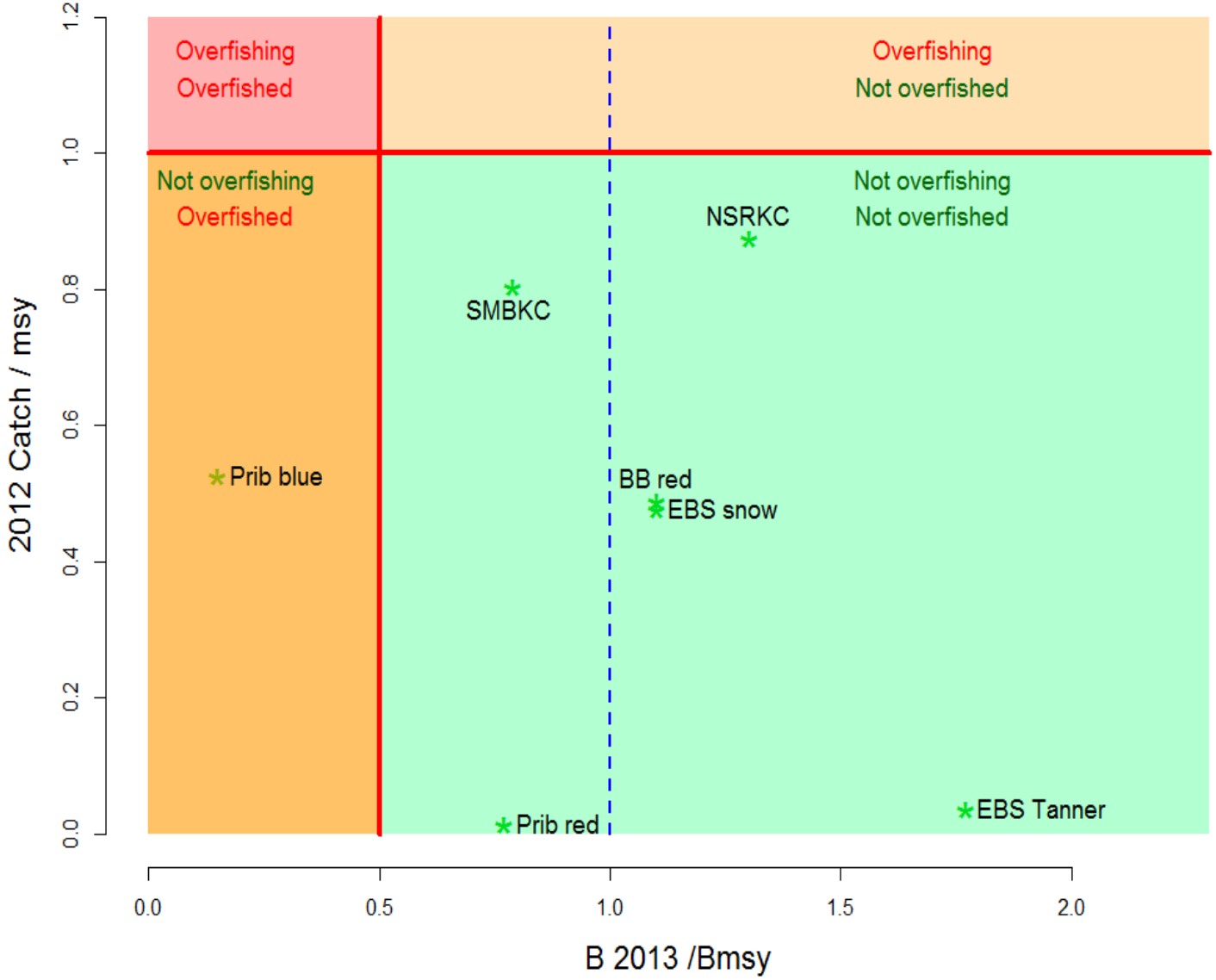
# Terms of Reference Continued

4. Is the AFSC's program organization effective at accomplishing needed assessments according to a set of assessment priorities?
5. Does the AFSC achieve adequate assessment accomplishments relative to mandates particularly with respect to the number of Fishery Management Plan (FMP) species assessed?
6. Does the assessment program adequately communicate their results, needs, and research?
7. Are there opportunities for improving stock assessments and the stock assessment process?

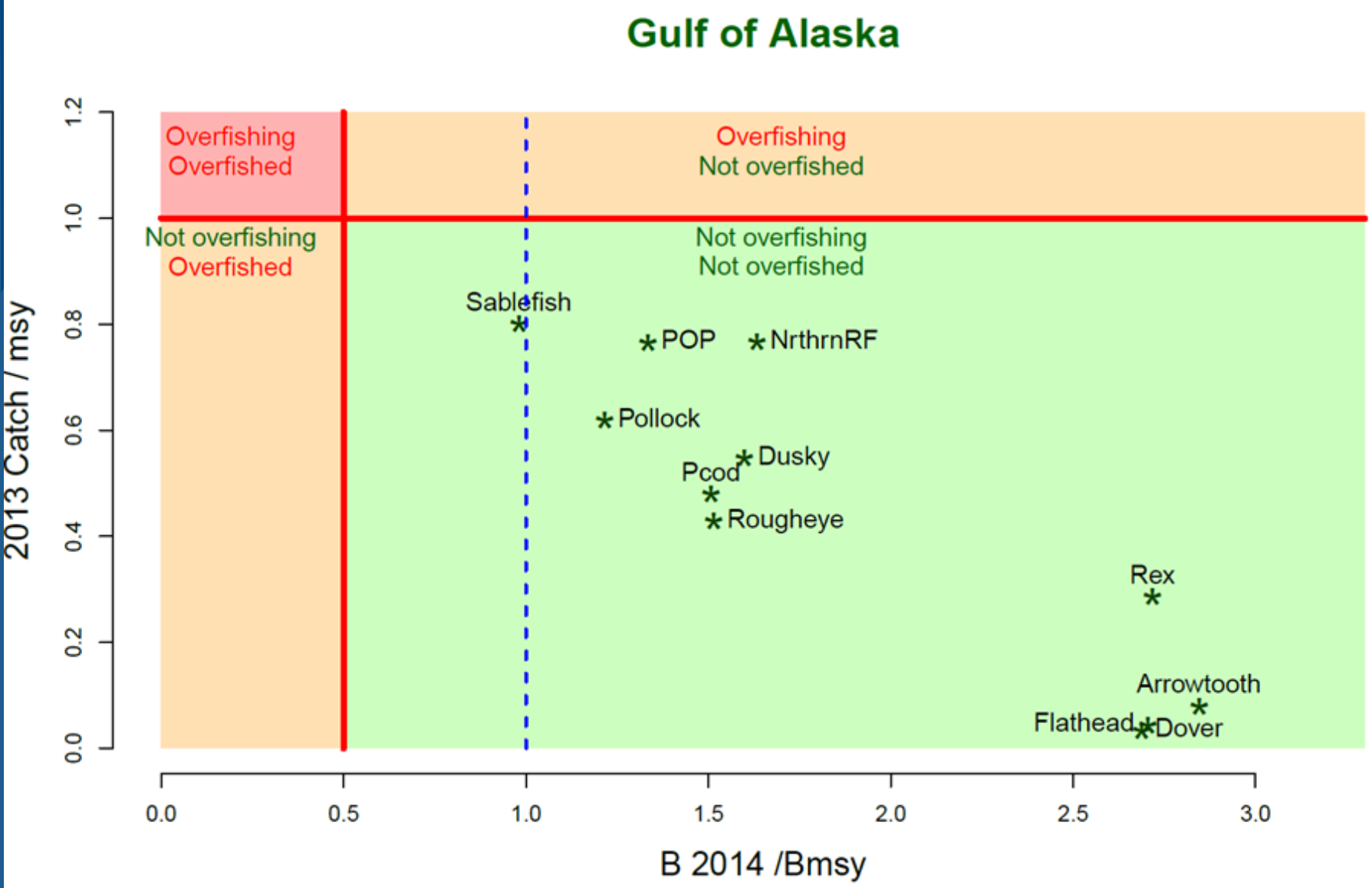
# Bering Sea and Aleutian Islands Groundfish



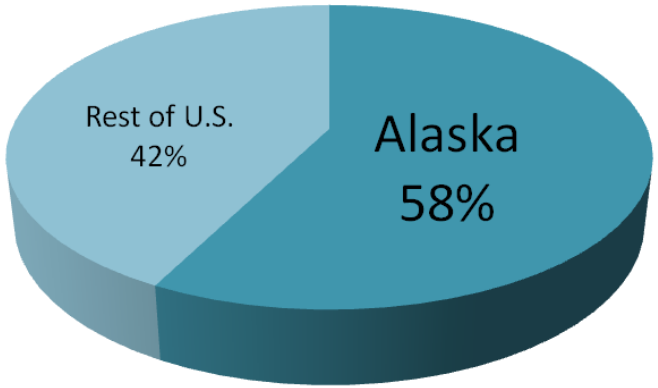
# Bering Sea Crab

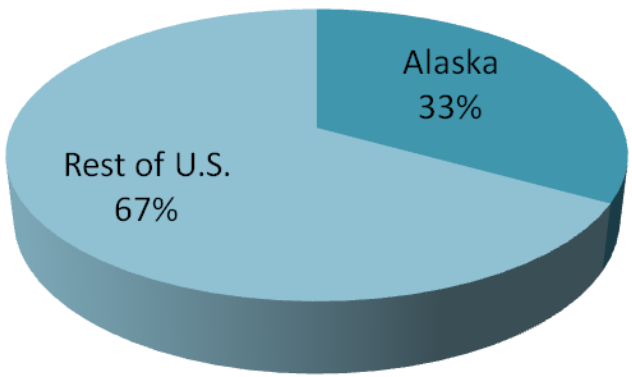


# Gulf of Alaska Groundfish



# AFSC Science Supports Commerce




- More than half of the over 9 billion pounds of fishery landings in 2012 were from Alaska
- More than a third of the over 5 billion dollars of fishery landings in 2012 were from Alaska

# Investing in Stock Assessments: Data

- AFSC invests heavily in assessment data through fishery-independent surveys
- A retrospective analysis shows the economic impacts of eliminating the 2010 EBS shelf trawl survey on the estimated ABCs in 2011

| Effect of Eliminating the 2010 EBS Shelf Trawl Survey | Percent Change in ABC | Potential Lost Revenue (M) |
|---|---|---|
| EBS pollock | - 8.0% | $117.0 |
| BSAI yellowfin sole | - 2.7% | $8.0 |
| Snow crab | - 12.3% | $22.8 |
| TOTAL | | $147.8 |

# Investing in Stock Assessments: People

- Provide adequate resources to support assessments
- Encourage collaboration among the two assessment Divisions and with academic partners
- Invest in education and training for the next generation of stock assessment scientists
  - Partner with the NWFSC, JISAO (Coop Inst) and the UW School of Aquatic and Fishery Sciences
  - Partner with the UofAlaska School of Fisheries and Ocean Sciences and CIFAR (Coop Inst)
  - Support NOAA Fisheries new QUEST Virtual Institute (Quantitative Ecology and Socioeconomics Training)

NOAA FISHERIES

# Questions?