Public Testimony Sign-Up Sheet

Agenda Item D-4 Alnt. Is. FEP

	NAME (PLEASE PRINT)	AFFILIATION
1	Chris Krenz	Oceana
2	dave fraser	Adak fisheries
3	IAIN STENHOUSE	AUDUBON ALASKA
4	Roland maw	private citizen
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NOTE to persons providing oral or written testimony to the Council: Section 307(1)(I) of the Magnuson-Stevens Fishery Conservation and Management Act prohibits any person " to knowingly and willfully submit to a Council, the Secretary, or the Governor of a State false information (including, but not limited to, false information regarding the capacity and extent to which a United State fish processor, on an annual basis, will process a portion of the optimum yield of a fishery that will be harvested by fishing vessels of the United States) regarding any matter that the Council, Secretary, or Governor is considering in the course of carrying out this Act.

AGENDA D-4
MARCH/APRIL 2007

MEMORANDUM

TO: Council, SSC and AP Members

FROM: Chris Oliver for
Executive Director

ESTIMATED TIME:
2 HOURS

DATE: March 20, 2007

SUBJECT: Aleutian Islands Fishery Ecosystem Plan

ACTION REQUIRED

Initial review of the AI Fishery Ecosystem Plan.

BACKGROUND

The AI Fishery Ecosystem Plan (FEP) was initiated by the Council to meet the following purposes:

1. Integrate AI information across FMPs
2. Identify ecosystem indicators for the AI
3. Develop and refine tools, i.e. models
4. Identify uncertainty / research needs
5. Assist Council with management objectives and understanding cumulative effects

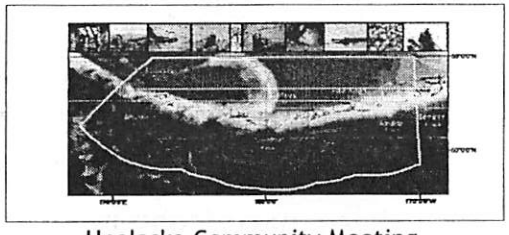
The AI FEP is intended as a guidance document for the Council, to better understand the ecosystem implications of management actions affecting the Aleutian Islands.

A draft of the FEP has been developed by the AI Ecosystem Team. This draft was mailed to the Council and posted on the website on March 8, 2007. The draft describes the physical, biological, and socioeconomic ecosystem processes of the Aleutian Islands, and identifies key ecosystem interactions. Many data gaps about the AI ecosystem are highlighted in the draft. The AI Ecosystem Team will meet in early April to develop the remaining FEP sections, so that the Council may receive a final draft for the June meeting.

The Council also requested that communities in and around the ecosystem area be given the opportunity to participate in the developing of the FEP, by providing input. Public meetings will take place in Unalaska and Adak during the week before the Council meeting, and in Atka in late April. A copy of the powerpoint presentation for these meetings is attached as Item D-4(a).

The Ecosystem Committee is meeting on March 27, 2007, and will provide recommendations to the Council for consideration during this agenda item.

Aleutian Islands Fishery Ecosystem Plan



Unalaska Community Meeting

March 21, 2007

Purpose of meeting

1. Let communities know the FEP is being developed
2. Ask for feedback on the FEP document
   - Have we identified the important ecosystem interactions?
   - What have we got wrong?
   - What have we missed?

Item D-4(a)

Goal of FEP

- Provide better scientific information and measurable indicators to evaluate and promote ecosystem health, sustainable fisheries, and vibrant communities in the Aleutian Islands region

FEP concept for Alaska*

- Policy and planning document
- Applies to all fisheries in the Aleutian Islands ecosystem
- Specific management changes still occur through existing processes

* (other regions may do things differently)

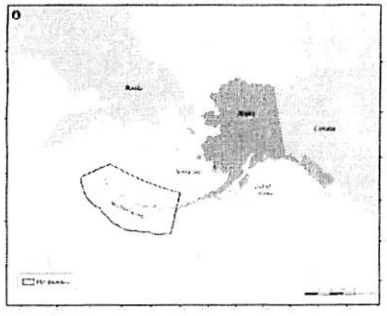
FEP Purposes

1. Integrate AI information across FMPs
2. Identify ecosystem indicators for the AI
3. Develop and refine tools, i.e. models
4. Identify uncertainty / research needs
5. Assist Council with management objectives and understanding cumulative effects

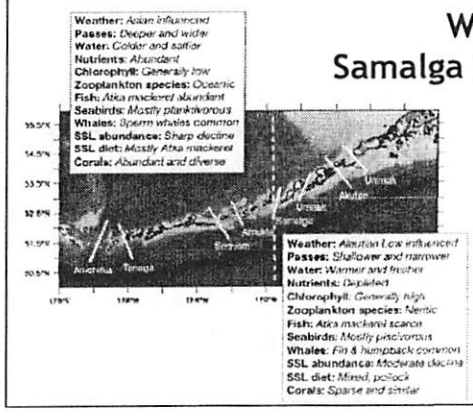
AI Ecosystem Team

- Writing team
- Scientists and managers from:
  - North Pacific Council
  - NMFS Alaska Fisheries Science Center
  - NMFS Alaska Region
  - US Fish and Wildlife Service
  - Alaska Department of Fish and Game
  - North Pacific Research Board

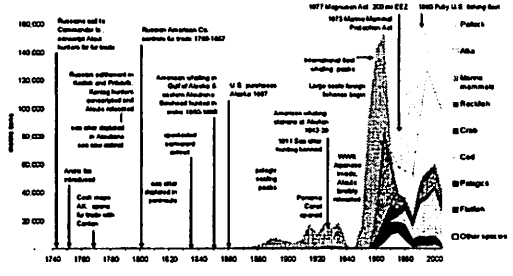
AI Ecosystem Boundary for FEP



Why at Samalga Pass?



Historical Perspectives - Commercial Exploitation



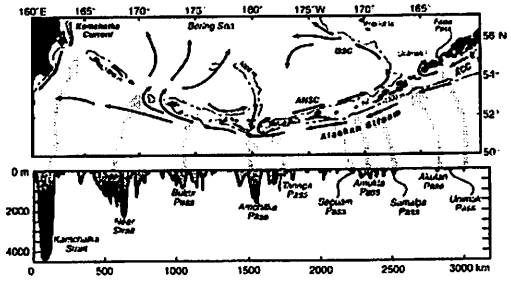
Historical Perspectives - Relationships

- Grasslands → maritime tundra
  - Introduced foxes eat seabirds/eggs, causing seabird population declines
  - Less seabird guano to fertilize grasses and sedges, which give way to less productive shrubs
  - Effects reach to terrestrial animals feeding on plants

Historical Perspectives - Relationships

- Sea otters → kelp forests → marine communities
  - Kelp forests support a diverse marine community, which supports nearshore seabirds
  - Sea otters eat sea urchins, which eat kelp and prevent forests from growing
  - As sea otter populations increase, so do kelp forests

AI Physical Relationships



AI Physical Relationships

- Temperature is especially important in the Aleutians
  - Boundary is oriented north/south (unusual in world)
  - That means as temperature changes, species may not be able to adapt easily by moving north or south to stay in their preferred temperature range

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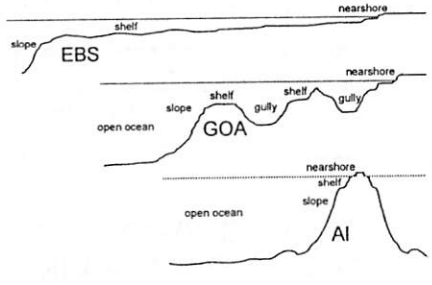
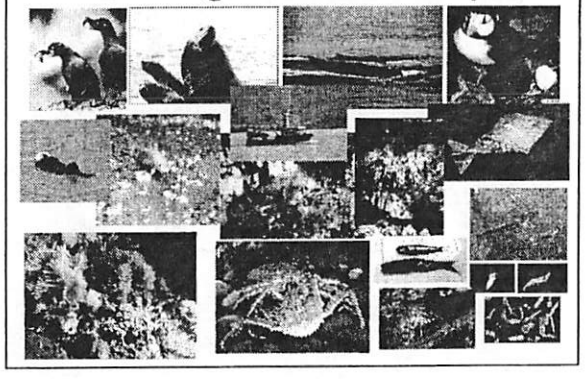
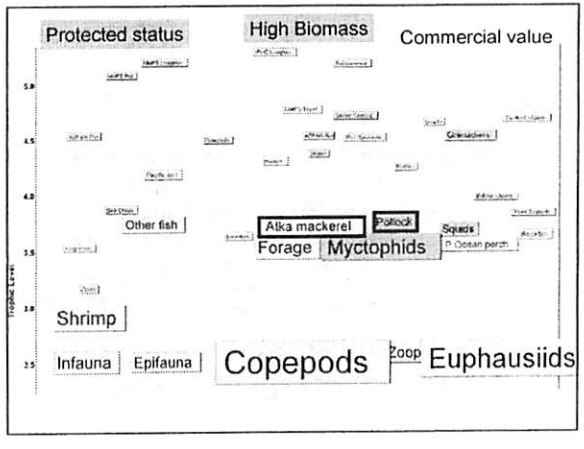
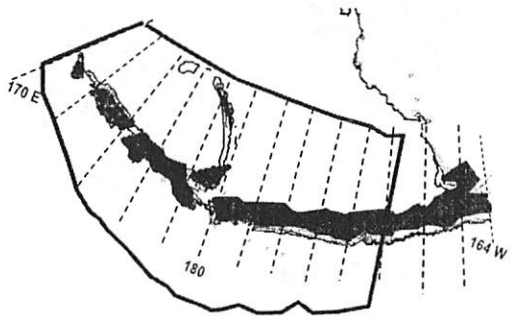


AI Biological relationships

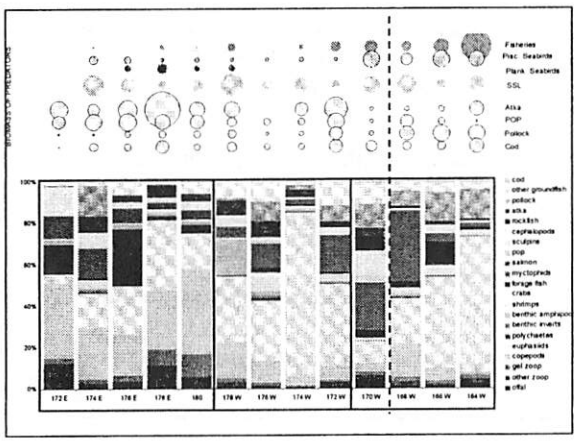




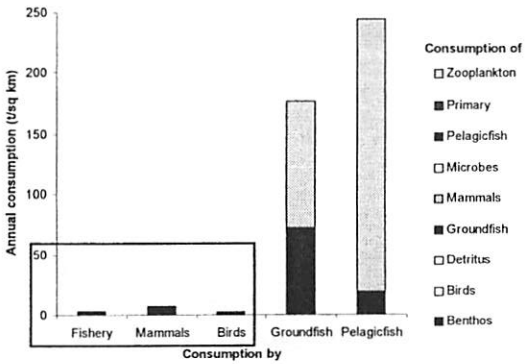
AI Biological Relationships - Food webs*



* Based on doctoral research of Dr Ivonne Ortiz, University of Washington



Consumption in the AI



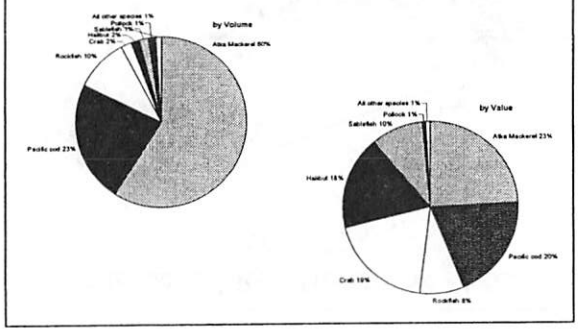
AI Biological Relationships

- Groundfish relationships differ greatly between the AI and the eastern Bering Sea, although the 2 ecosystems are combined for management purposes
  - Pacific cod interact strongly with Atka mackerel and sablefish in the Aleutians, and not elsewhere
  - Myctophids, squid, and grenadiers are important to energy flow in the AI, but minor components of the EBS and GOA food webs

AI Socioeconomic Relationships

- Communities in ecosystem:
  - Shemya and Attu
  - Atka
  - Adak
- Resident population dramatically lower than elsewhere
- Historical influence of struggles over natural resources and territorial control continue to shape communities today

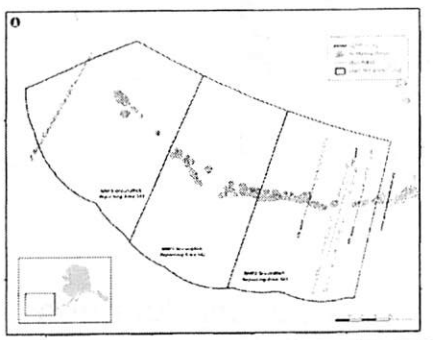
Commercial Fisheries



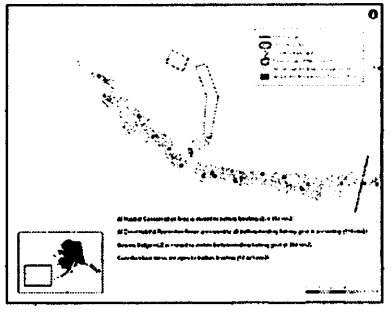
Other Activities in Ecosystem

- Tourism
- Military
- Shipping
- Oil and Gas Development
- Research

Overlapping Management Processes



Complex fishery closures



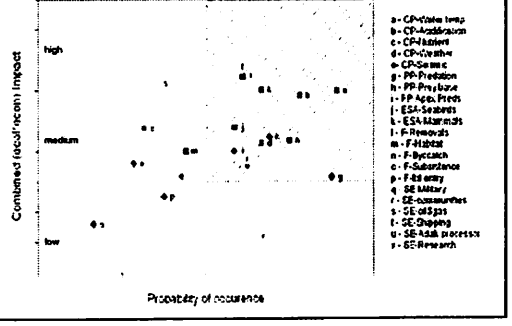
Summary of Interactions

- Climate/Physical Interactions
- Predator/Prey Interactions
- Endangered Species Interactions
- Fishery Interactions
- Socioeconomic Activity Interactions

Risk Assessment

- Which interactions are most likely to occur, and if they occur, are most likely to have an adverse impact?
- Guide for Council: where might we make sure we have a) safeguards, or b) early warning, about potential adverse impacts?

Risk Assessment



Indicators

- FEP identifies ways to monitor these interactions
- Builds on annual Ecosystem Considerations chapter, looks at ways to use data to target key AI processes

Work in Progress

- Looking for feedback from communities, stakeholders, Council
- Team will then amalgamate information to describe implications and suggested priorities for the Council
- AI FEP was pilot project; Team will reflect on whether this is a useful exercise for other Alaska ecosystems

Unalaska Community Meeting – AI Fishery Ecosystem Plan

March 21, 2007 7-9pm
Unalaska City Chambers

AI Ecosystem Team members giving presentation: Diana Evans (NPFMC), Forrest Bowers (ADFG)

Meeting Comments

Overall comments on project

- FEP seems like potential as good tool for fishery management. Positive impact because it provides more information that can inform better decisionmaking.

Clarifications

- Risk assessment looks at interactions cumulatively (e.g., if looked at sea otter predation alone, might have a different ranking than looking at predation effects as a whole)
- How does this document affect actions in the future? For example, is the FEP going to impact future Council consideration of habitat issues?
    - Response: The 'next steps' from this analysis would look at specific issues (e.g., the effectiveness of SSL closures at an ecosystem level)
    - Further discussion: one of the benefits of this type of information is that it allows the Council to be less conservative in future. The more we know about what the impacts of fisheries are in an ecosystem context, the less the Council needs to 'buffer' the potential for impacts by being ultra-conservative.
- Useful to Council to understand the importance of ecosystem processes when addressing specific issues, e.g. Pacific cod split between AI and BS – makes more sense when understand that Pacific cod have different ecosystem functions in the AI versus the BS (adds clarity to the discussion of whether they are a different stock; whether they are or not, they still have a different role in the ecosystem in different geographic locales)
- Is the North Pacific pioneering FEPs?
    - Response: other regions are looking at FEPs, but in different ways that we are considering them in Alaska. We are trying to develop a guidance document that will provide an ecosystem context for management decisions affecting the Aleutian Islands. Other regions are still struggling with arriving at a basic understanding of predator prey issues, which we already have a start with.
- Is much of the document and the risk assessment based on model output?
    - Response: the food web model does inform much of the risk assessment that looks at predator prey issues. However, one of the findings of the FEP is that we don't have a lot of AI-specific data in other areas, and our food web data also has constraints. So much of the risk assessment relies on data from other neighboring areas, which we must then (qualitatively) apply to the AI ecosystem situation. But to the extent possible, we rely on the models to inform the risk assessment and the document.
- Seems like the AI is an easy place to start with this analysis because AI has simple processes, fewer species, so easier to understand.
    - Response: actually Council picked AI because we know least about AI. BS much easier to predict, and understanding our commercial species there gives us a good understanding about what goes on the ecosystem. In AI, no such clear link between commercial species and state of ecosystem – more complex processes at work.
- Seems like AI is generally a resilient system. Lots of changes, seismic activity, weather, species extinctions, but ecosystem still stable.
    - Anecdotal evidence: cod disappear when there is seismic activity.

- Surprised to see that myctophids are such a large biomass/ important species in the ecosystem. Hardly see them in the fisheries, and seems like you would see them more if they were such a large biomass. They're a deep water fish – how are they interacting with fishery species?

Missing elements/ make sure things are discussed

- Differing impacts by fishing gear type are an important element of the ecosystem. Are they discussed in the document?
    - Response: the food web model does consider the fisheries differently by gear type. Also, the document relies on the extensive habitat analysis that was recently undertaken by the Council, which looks in detail at differing gear impacts. But yes, this is an important consideration which should be carried forward as appropriate in the document.
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    - Follow-on discussion: You don't represent any academic experts on your writing Team. (Nor any commercial fishery interests). They do a lot of research out here too.
- Would like to see some 'good' impacts discussed as part of the risk assessment. What are the potential positive impacts coming down the line? Not just focus on likely adverse consequences.
    - Response/discussion: purpose of FEP is to alert Council to change, which although it may be positive or negative, generally requires a Council reaction. Also, definitely want to know and avert/react to coming disaster.

Overall comments on methodology

- Is there inherent bias built in through the document being written by a Team of expert opinions, e.g., the physical oceanography person who specializes in ocean acidification may be more likely to push that interaction over other important physical interactions because that is his/her pet topic.
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- Follow-on discussion: much of the north/south differentiation among the islands is current driven. Some islands are likely very different north and south, which others much less so. E.g., Unalaska has big differences north/south because of currents, and because there is less water moving through Unimak Pass than say Amchitka Pass. So currents drive conditions. Anecdotal evidence that halibut now hard to find on south side of Unalaska, while still plentiful on north side.

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Tom Enlow	UniSea	tom.enlow@unisea.com
Sarah Duncan	International Pacific Halibut Commission	sduncan@iphc.washington.edu
Reid Brewer	Alaska Sea Grant Map Unalaska	brewer@ims.uaf.edu
Brian Dixon	NOAA Fisheries	brian@briandixonphotography.com
Peggy Osterback	Aleut Marine Mammal Commission	ammc@arctic.net
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