Agenda Item E.1
Situation Summary
September 2010

CURRENT HABITAT ISSUES

The Habitat Committee (HC) will meet on Saturday and Sunday, September 11-12, 2010. At this meeting, the HC will discuss salmon and groundfish essential fish habitat (EFH), the Bureau of Reclamation response to NMFS on Sacramento River EFH, marine protected areas, and ecosystem-based management. In addition, the Bureau of Reclamation (BOR) responded to the Council's letter of May 19 on the BOR's role in the Central Valley Project Improvement Act. That letter is attached (Attachment 1).

Council Action:

1. **Consider comments and recommendations developed by the HC at its September 2010 meeting.**

Reference Materials:

1. Agenda Item E.1.a, Attachment 1: Bureau of Reclamation Response Letter.
2. Agenda Item E.1.b, Supplemental HC Report.

Agenda Order:

a. Agenda Item Overview **Jennifer Gilden**
b. Report of the Habitat Committee **Fran Recht**
c. Reports and Comments of Agencies and Advisory Bodies
d. Public Comment
e. **Council Action:** Consider Habitat Committee Recommendations

PFMC
08/20/10

United States Department of the Interior

BUREAU OF RECLAMATION
Mid-Pacific Regional Office
2800 Cottage Way
Sacramento, California 95825-1898

IN REPLY
REFER TO:

JUL 0 2 2010

MP-400
ENV-1.00

Mr. David Ortmann
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

Subject: Status of Essential Fish Habitat (Your Letter Dated May 19, 2010)

Dear Mr. Ortmann:

This letter is in response to your letter of May 19, 2010, in which you express concerns about the status of fish habitat, particularly as it impacts salmon populations dependent upon the San Francisco Bay and Sacramento-San Joaquin Delta (Bay-Delta) ecosystem. In your letter you indicate that your Habitat Committee has expressed concerns about whether the Bureau of Reclamation is meeting Congress' intent to restore California's Central Valley salmon stocks under Section 3406(b)(2) of the 1992 Central Valley Project Improvement Act (CVPIA) which requires the annual dedication of up to 800,000 acre-feet of Central Valley Project yield, dependent upon water-year type, for fish and wildlife purposes.

Reclamation appreciates and shares your concerns about the urgent need to deal with the health of the fragile Bay-Delta and associated river systems. We are also sympathetic to the economic hardships faced by the individuals and communities who depend on a healthy and viable commercial and recreational fishery. Given our responsibilities under CVPIA, Reclamation proposed, to the Office of Management and Budget, that an independent scientific panel review be performed of the CVPIA fisheries program. We are committed to addressing the issues raised in the panel's report and are working with our colleagues in the U.S. Fish and Wildlife Service (Service) to that end.

We acknowledge that, despite many well-intentioned efforts over the past 18 years, the restoration objectives of CVPIA have remained elusive; however, many significant accomplishments have been made, with some $650 million of public funds obligated for both structural and habitat actions benefiting anadromous fish. These actions have arguably mitigated at least some of the impacts on the fishery as acknowledged by the independent scientific panel. Reclamation believes we have appropriately managed the 800,000 acre-feet of Central Valley Project water called for in Section 3406(b)(2), and we have worked closely with the Service over the years to manage and account for this water. While we have modified the management of the (b)(2) water since the CVPIA was implemented in order to accommodate decisions of the Federal court, we believe that

we have been true to the agreed-upon principles. We are, however, considering the observations and recommendations of the independent panel relative to the management of (b)(2) water, and we are open to reasonable alternatives.

Reclamation and the Service provide information regarding the annual (b)(2) management and accounting in several forums. Each spring, Reclamation and the Service present proposed (b)(2) actions to the CALFED Operations Group, and at the end of the calendar year, we present the final annual (b)(2) accounting. This annual accounting can be found on Reclamation's Central Valley Operations Office Web site at http://www.usbr.gov/mp/cvo/. Other CVPIA documents and reports are also posted on Reclamation's Web site at http://www.usbr.gov/mp/cvpia/docs_reports/.

The Department of the Interior's continued commitment to finding solutions to the challenges in the Bay-Delta ecosystem is evidenced by the request of the Secretaries of the Interior and Commerce for a scientific review by the National Academy of Sciences (NAS) as announced in November 2009. The NAS panel recently released their initial report, which is located on the NAS Web site at http://www.nap.edu/catalog/12881.html. Furthermore, on December 22, 2009, the Federal community released the coordinated *Interim Federal Action Plan for the California Bay-Delta* to address the water crisis in California, and we are working with the State to meet the objectives within that plan.

Reclamation appreciates and shares your interest in restoring the Central Valley river systems and the Bay-Delta ecosystem to a healthy and sustainable condition. The interest and involvement of various communities and stakeholders, such as you, is imperative to the success of our efforts. Thank you for the invitation to speak at a future Habitat Committee meeting. A representative of our agency will contact Ms. Glidden to determine a mutually acceptable time to get on the Committee's agenda.

Sincerely,

ACTING FOR

Donald R. Glaser
Regional Director

HABITAT COMMITTEE REPORT

OCNMS Management Plan Review

The Habitat Committee (HC) heard an update on the Olympic Coast National Marine Sanctuary (OCNMS) draft Management Plan and National Environmental Policy Act (NEPA) document, which are scheduled to be available in January, with a 60-day comment period. As earlier updates have indicated, nothing in the management plan affects fishing activities. The HC discussed ways to ensure that any Council comments on the draft Management Plan and NEPA document be provided by the OCNMS deadline. An update on the status of the draft Management Plan and NEPA document will be provided to the HC in November, and the HC will develop a draft comment letter for the March 2011 Council briefing book. OCNMS has indicated that if necessary, their comment deadline may be extended by 30 days.

Central Valley Issues

In response to NMFS' letter of July 28, 2010 to the Bureau of Reclamation (BOR), NMFS has received an informal response from the BOR indicating its willingness to provide a more adequate response to NMFS' essential fish habitat conservation recommendations regarding the long-term operations of the Central Valley Project and State Water Project.

PFMC
09/12/10

Agenda Item E.2
Situation Summary
September 2010

NATIONAL MARINE FISHERIES SERVICE NATIONAL HABITAT ASSESSMENT PLAN BRIEFING

Ms. Mary Yoklavich of National Oceanic and Atmospheric AdministrationNOAA Southwest Fisheries Science Center will present a summary of NOAA's Marine Fisheries Habitat Assessment Improvement Plan (HAIP). This planning document will help NOAA meet its responsibilities in sustaining marine fisheries and habitats. The document, published in May 2010, is the first nationally coordinated plan to focus on the marine fisheries aspects of habitat science. It outlines current gaps in NOAA Fisheries' habitat science, steps to improve habitat assessments, and the need for an integrated, national habitat science program.

Council Task: Discussion.

Reference Materials:

1. Agenda Item E.2.a, Attachment 1: Summary of HAIP report

Agenda Order:

a. Agenda Item Overview **Jennifer Gilden**
b. Fisheries Science Center Report **Mary Yoklavich**
c. Reports and Comments of Advisory Bodies and Management Entities
d. Public Comment
e. Council Discussion

PFMC
08/25/10

2010

Agenda Item E.2.a
Attachment 1
September 2010

NOAA FISHERIES SERVICE

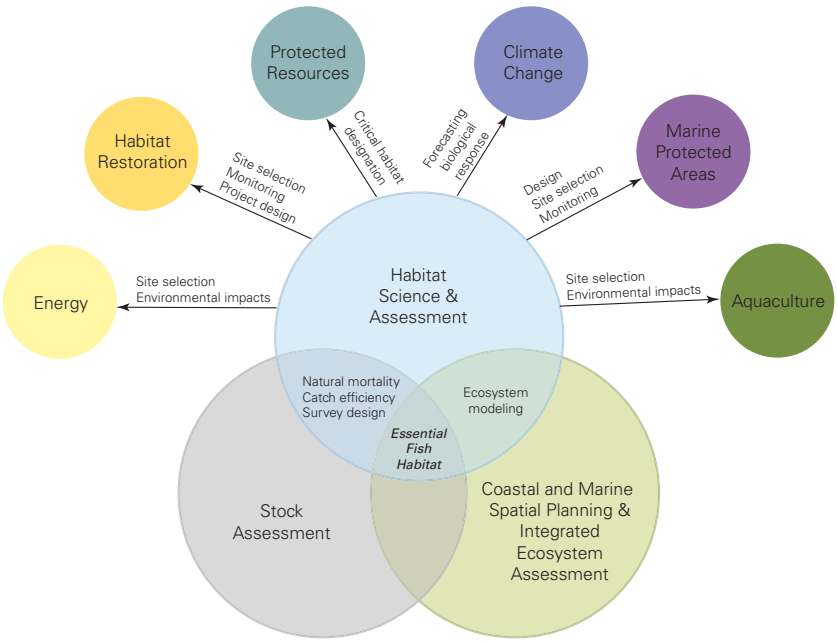
Habitat Assessment Improvement Plan

NOAA Fisheries announces the availability of a new planning document that will help meet mandated responsibilities to sustain marine fisheries and their associated habitats. The *Marine Fisheries Habitat Assessment Improvement Plan* (HAIP), published May 2010, is the first nationally coordinated plan to focus on the marine fisheries aspects of habitat science. The HAIP outlines current gaps in NOAA Fisheries' habitat science, steps to improve habitat assessments, and the need for an integrated, national habitat science program.

There are ever-increasing demands being placed on marine habitats across many sectors of the U.S. economy, but the role of marine habitats in supporting fishery production and in providing other critical ecosystem services is poorly understood. Despite the critical need for habitat information in most NOAA Fisheries programs, support for habitat science is lacking. A comprehensive habitat science program will enable NOAA Fisheries to more effectively manage resources and meet expanding needs.

"One of the greatest long-term threats to the viability of commercial and recreational fisheries is the continuing loss of marine, estuarine, and other aquatic habitats. Habitat considerations should receive increased attention for the conservation and management of fishery resources of the United States."

–Magnuson-Stevens Act

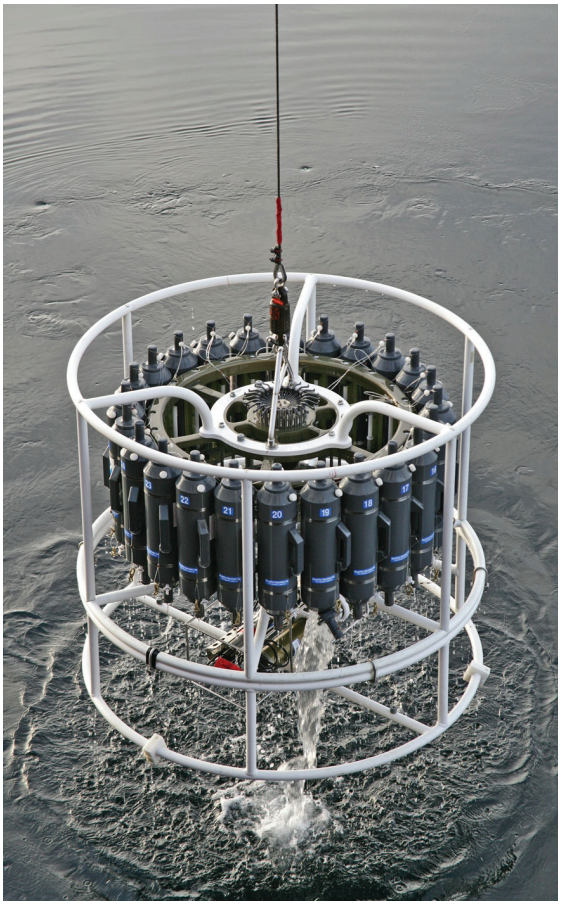


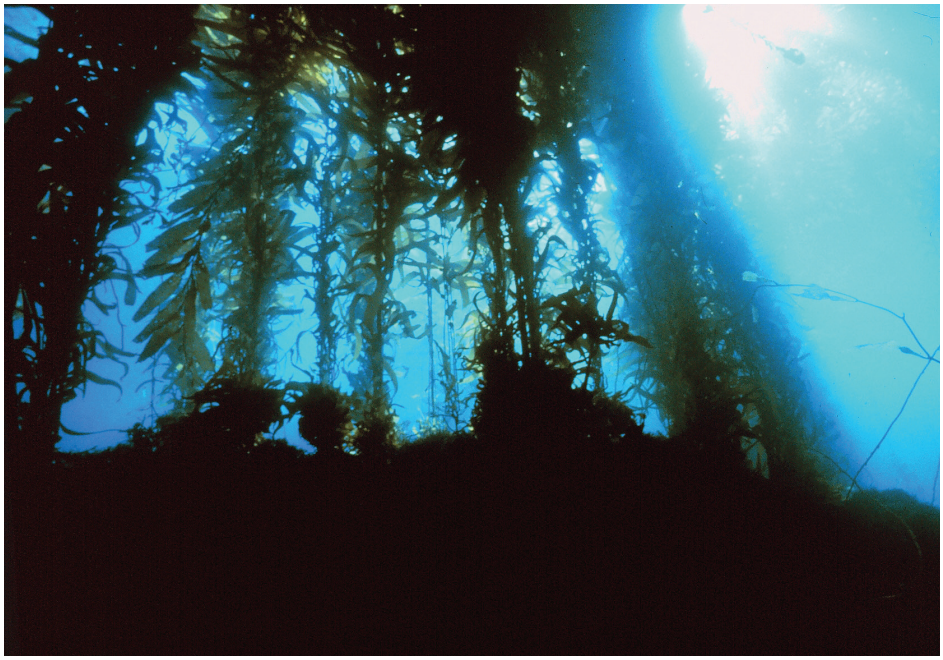
Linkages among habitat science and assessments and other components of ecosystem-based fishery management within NOAA and uses for that information.

Goals of the HAIP

The *Habitat Assessment Improvement Plan* (HAIP) is intended to serve as a blueprint to:

- Develop the habitat science necessary to meet the mandates of the Magnuson-Stevens Act and the economic, social, and environmental needs of the nation.
- Improve NOAA Fisheries' ability to identify essential fish habitat (EFH) and habitat areas of particular concern and assess impacts to these areas.
- Reduce habitat-related uncertainty in stock assessments and facilitate a greater number of advanced stock assessments, including those that explicitly incorporate ecosystem considerations and spatial analyses.
- Contribute to assessments of ecosystem services.
- Enable NOAA Fisheries to be prepared for management challenges associated with climate change.
- Contribute to ecosystem-based fishery management, integrated ecosystem assessments, and coastal and marine spatial planning.

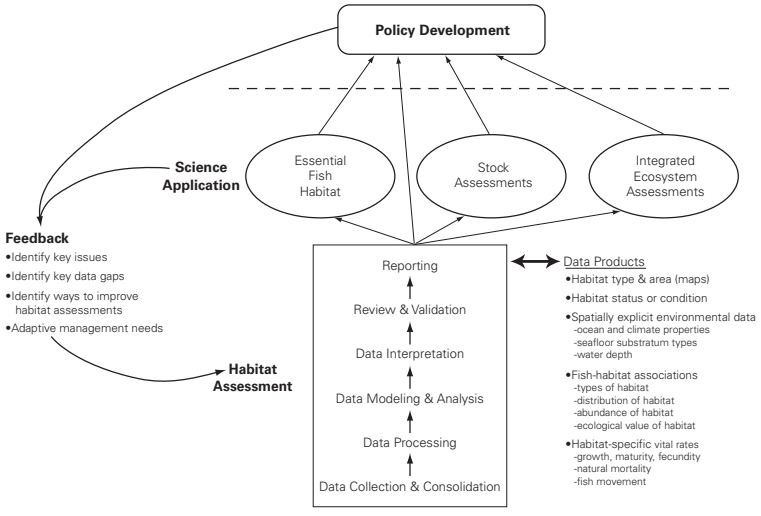




What is a Habitat Assessment?

Habitat is the place where species live, characterized by the physical, chemical, biological, and geological components of the ocean environment. Measuring the associations between species and their habitats across space and time is essential to determine the relative importance of various habitats in structuring marine ecosystems.

A habitat assessment is both the process and products associated with consolidating, analyzing, and reporting the best available information on habitat characteristics relative to the population dynamics of fishery species and other living marine resources. Indicators of the value and condition of marine habitats can be developed through a habitat assessment by investigating the relationships between habitat characteristics, the productivity of fishery species, and the type and magnitude of various impacts. The ultimate goal of a habitat assessment is to support management decisions by providing information on how habitats contribute to species' productivity.



Flow diagram of a habitat assessment, including development, application, and improvement of assessments through feedback.

How Can NOAA Fisheries Use Habitat Assessments?

- Inform habitat management, conservation, and restoration activities.
- Support consultations and evaluate environmental impacts for proposed activities, including aquaculture and energy projects.
- Help to assess risk and injury to living marine resources after environmental disasters.
- Support the design of fishery-independent surveys and improve the interpretation of survey data.
- Inform stock assessments.
- Act as a bridge between single species stock assessments and integrated ecosystem assessments.
- Understand and predict the effects of climate change and other anthropogenic impacts on ocean resources.

Tiers of Assessment Excellence

The HAIP defines three Tiers of Excellence for Habitat Assessments, which require increasing levels of resolution in assessment data and an increased understanding of habitat functions for fishery species.

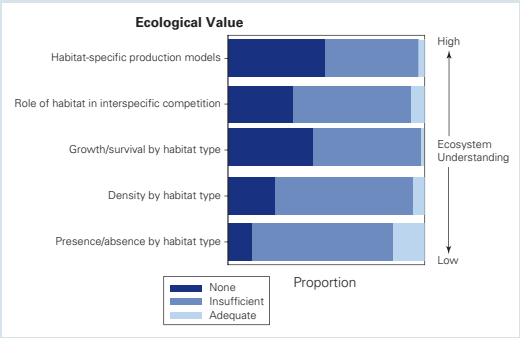
Tier 1: Assess habitats using existing data

Tier 2: Upgrade assessments to a minimally acceptable level

Tier 3: Determine habitat-specific vital rates by life stage

Data Gaps and Resource Requirements

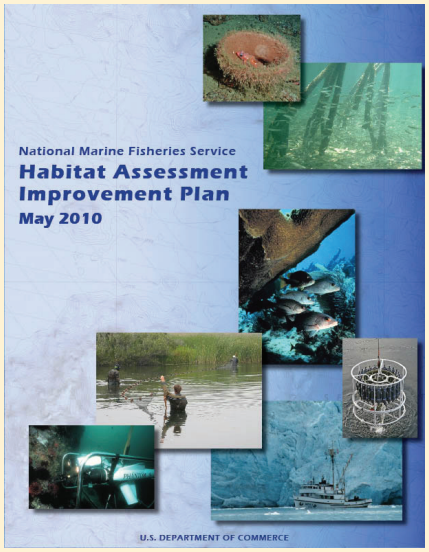
Habitat assessments require both collection and synthesis of multiple data types at a variety of temporal and spatial resolutions. To date, research efforts to collect habitat data have been fragmented and limited, with our greatest success demonstrated by the physical characterization of habitats. A survey of NMFS scientists indicated that most habitat data presently are inadequate or completely lacking and occur at low spatial and temporal resolutions.



The availability of information on the ecological value of habitats from a recent survey of NOAA Fisheries scientists.

A number of factors are identified in the HAIP as being major obstacles to producing and using credible habitat assessments:

- Lack of habitat-specific biological information and population abundance;
- Inadequate numbers of technical and scientific staff;
- Insufficient research on environmental effects and multispecies effects; and
- Ineffective management of habitat data.



Learn More

Questions? Contact your regional representative:

PIFSC: Michael Parke, Frank Parrish

AFSC: Bob McConnaughey

NWFSC: Correigh Greene, W. Waldo Wakefield

SWFSC: Mary Yoklavich (Chair)

SEFSC: Thomas Minello

NEFSC: Thomas Noji

OST: Kristan Blackhart, Stephen K. Brown

OHC: Susan-Marie Stedman

To download an electronic copy of the HAIP, visit the OST website: http://www.st.nmfs.noaa.gov/st4/HabitatScience.html

Request a printed copy of the HAIP: (301) 713-2363.

HAIP Recommendations

1. Develop new budget and staffing initiatives to fund habitat science that is directly linked to NOAA Fisheries mandates.

2. Develop criteria to prioritize stocks and geographic locations that would benefit from habitat assessments.

3. Initiate demonstration projects that incorporate habitat data into stock assessment models.

4. Identify and prioritize data inadequacies for stocks and their habitats, to bridge information gaps identified in the HAIP.

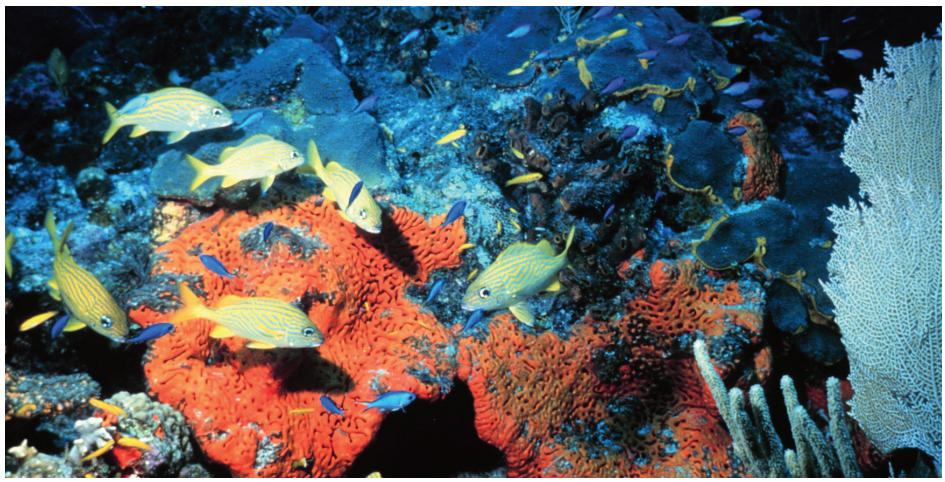
5. Increase collection of habitat data on fishery-independent surveys and develop a plan for better utilizing new technologies aboard the NOAA fleet of Fishery Survey Vessels.

6. Engage partners within and outside of NOAA to exchange information about programs and capabilities. Coordinate habitat data collection and upgrade and expand data management systems.

7. Develop strategies to integrate habitat science and assessments, stock assessments, and integrated ecosystem assessments.

8. Establish a habitat assessment fellowship program and provide funds to graduate students and post-doctoral associates to advance habitat modeling, evaluation, and assessment efforts.

9. Unite with other NOAA line offices to develop a NOAA-wide strategic plan for habitat science and assessments in support of the nation's ocean policy priorities.



Agenda Item E.2.b
Supplemental SWFSC PowerPoint
September 2010

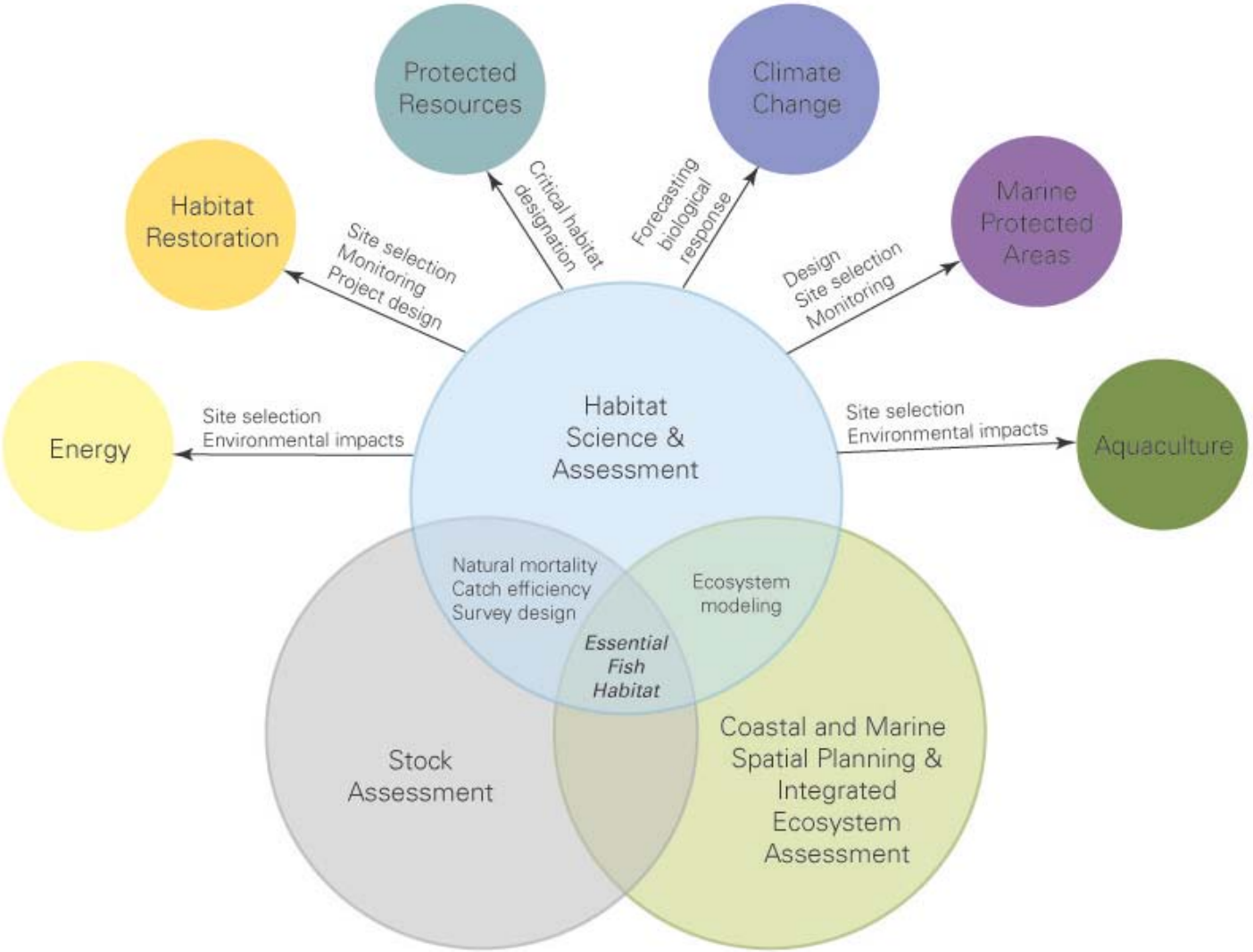



NOAA Fisheries

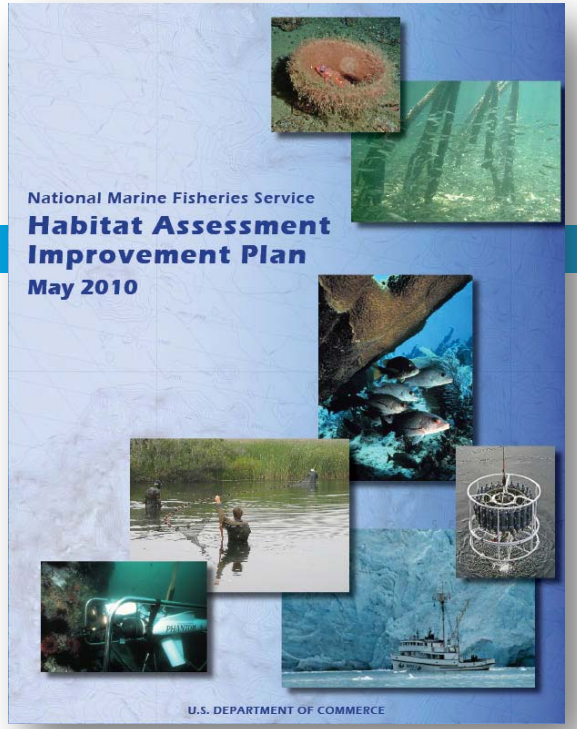
HABITAT ASSESSMENT IMPROVEMENT PLAN

Mary Yoklavich, chair
NOAA Southwest Fisheries Science Center

Why Habitat?

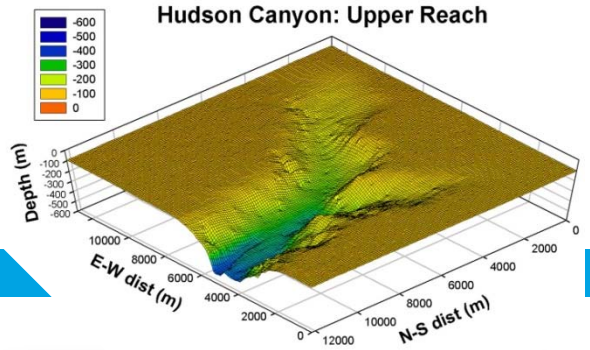

Protected Resources
Climate Change
Habitat Restoration
Marine Protected Areas
Critical habitat designation
Forecasting biological response
Site selection
Monitoring
Project design
Design
Site selection
Monitoring
Energy
Site selection
Environmental impacts
Habitat Science & Assessment
Site selection
Environmental impacts
Aquaculture
Natural mortality
Catch efficiency
Survey design
Ecosystem modeling
Essential Fish Habitat
Stock Assessment
Coastal and Marine Spatial Planning & Integrated Ecosystem Assessment

Goals of the HAIP



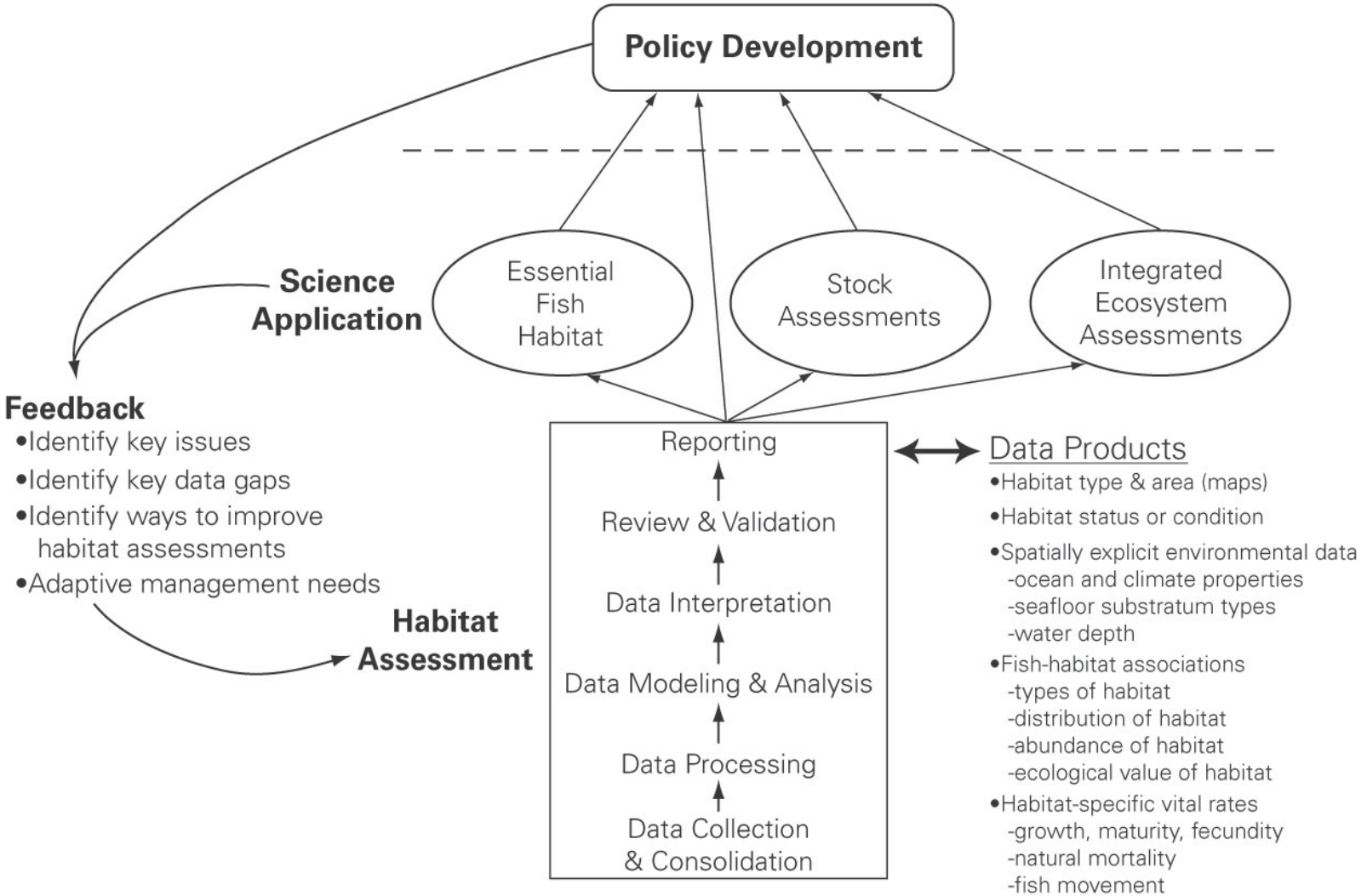
- Meet Magnuson-Stevens Act mandates
- Improve identification and impact assessments of essential fish habitat
- Reduce habitat-related uncertainty in stock assessments and facilitate a greater number of advanced stock assessments
- Contribute to assessments of ecosystem services
- Help prepare NOAA Fisheries for management challenges associated with climate change
- Support ecosystem-based management, integrated ecosystem assessments, and coastal and marine spatial planning

Scope of the Plan

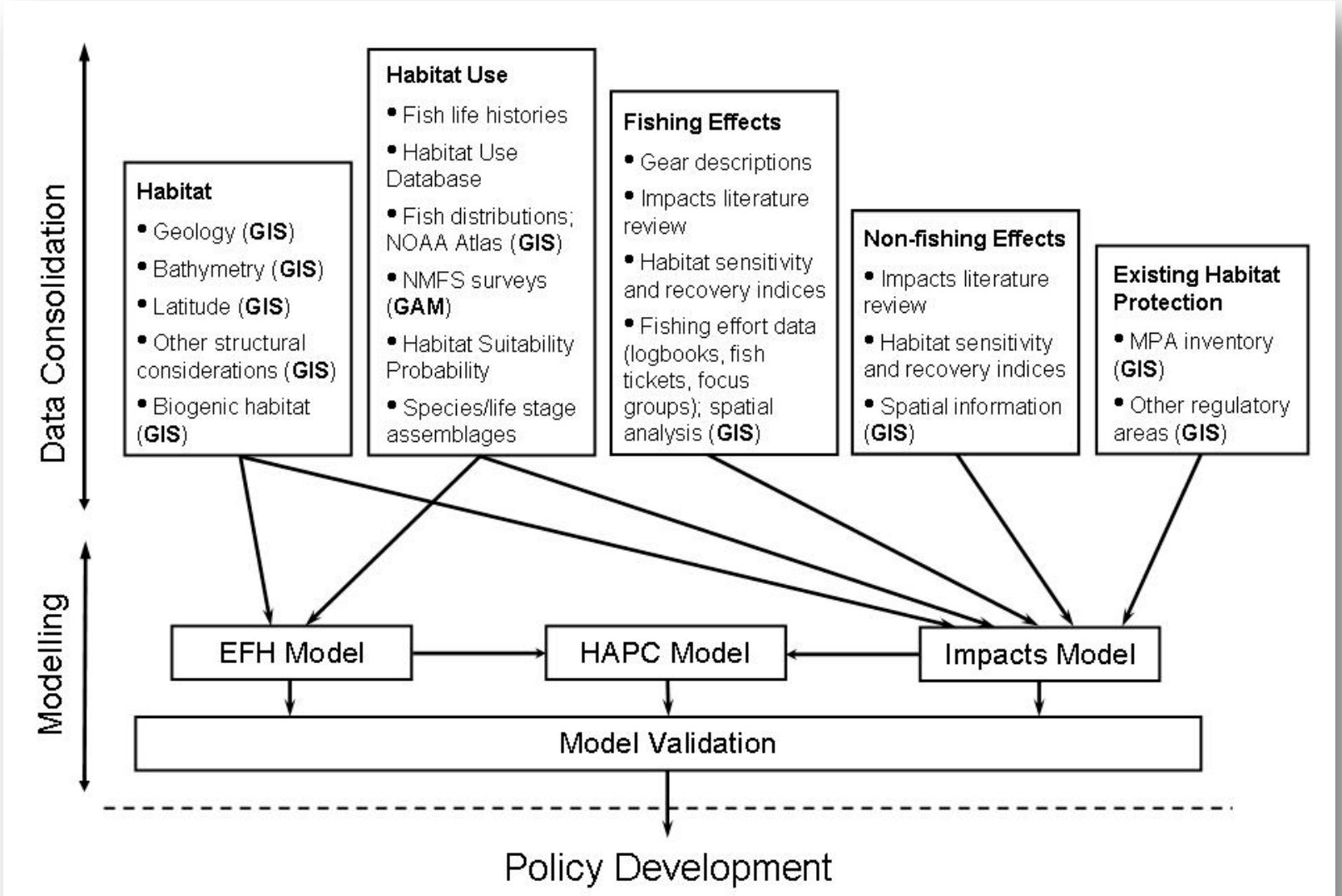


- Habitat science for managed fisheries stocks
- Includes all aspects of marine habitats (demersal and pelagic)
- Considers temporal and spatial scales
- Considers ecological linkages
- Takes into account current data availability and state of NOAA Fisheries habitat assessments

What is a Habitat Assessment?



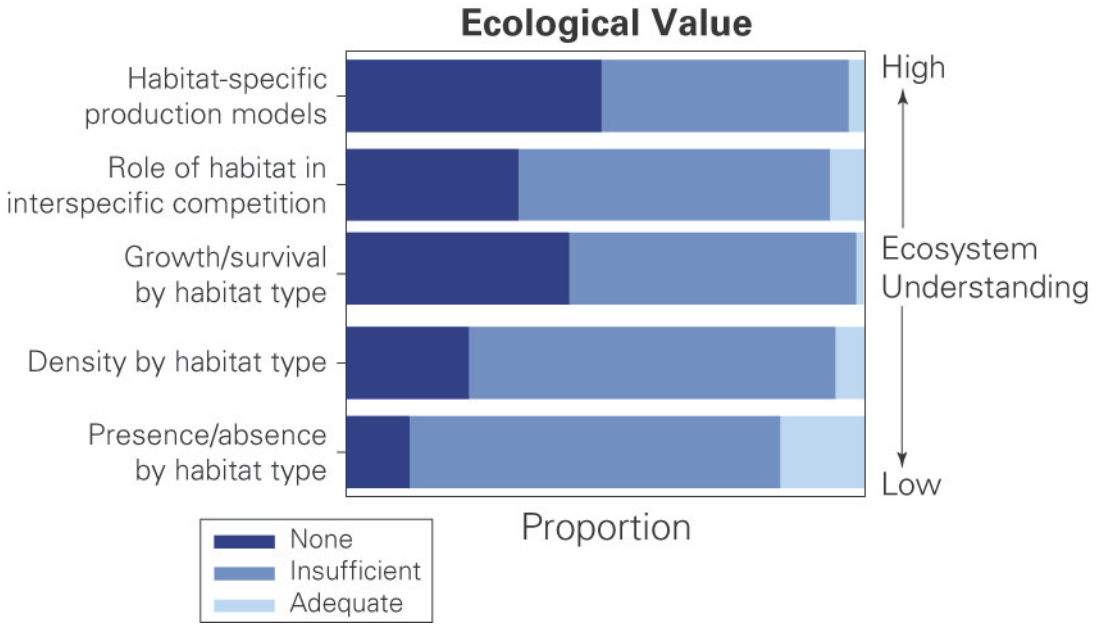
Example of Framework for the Habitat Assessment and Policy Development for West Coast Groundfish EFH



HAIP Questionnaire

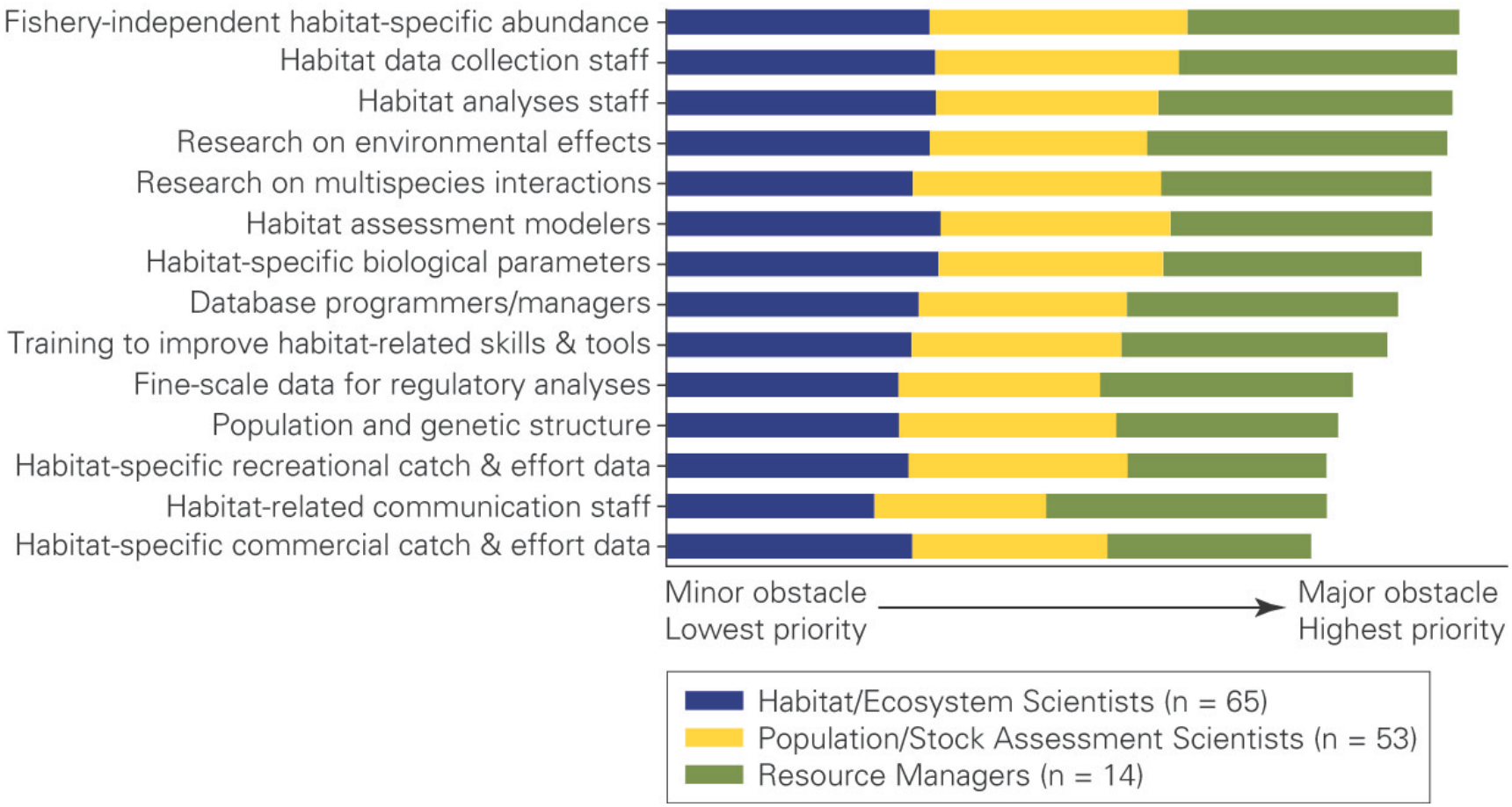
- HAIP Team sent questionnaires out to assess the current state of habitat assessments
- Two separate questionnaires: one for NMFS habitat/ecosystem and stock assessment scientists and resource managers, one for NMFS program managers
- Questionnaire objectives:
  - Identify most important factors hampering ability to provide accurate, precise, valid, and defensible habitat assessments
  - Determine needed resources to meet Three Tiers of Habitat Assessments
  - Determine how needs vary by region

Data Adequacy



- Efforts to collect habitat data have been fragmented and limited
- Most habitat data occur at low resolution based on insufficient or no information

Obstacles and Needs



Staffing Issues

- Only ~5% of NOAA Fisheries staff are currently working on habitat science activities
- Many habitat-related staff are contractors supported with transient, non-NOAA funds
- Habitat staff time is fully committed (in many cases overcommitted)
- Additional staff will be necessary to achieve improvements to habitat assessments

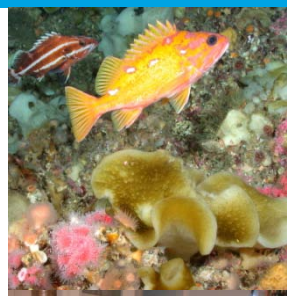
Benefits of Implementing the HAIP

Full support and implementation of the HAIP will:

- Improve NOAA's ability to identify and conserve critical habitats
- Improve abundance surveys and stock assessments
- Deliver high-quality science in support of management decision-making
- Help NOAA to better understand and predict the effects of climate change and other anthropogenic impacts
- Allow NOAA to better address conflicting demands on limited marine resources
- Build partnerships and streamline habitat science efforts

Recommendations of the HAIP

- Develop new budget and staffing initiatives to fund habitat science that is directly linked to NOAA Fisheries mandates
- Develop criteria to prioritize stocks and geographic locations that would benefit from habitat assessments
- Habitat and stock assessment scientists should work together to initiate demonstration projects that incorporate habitat data into stock assessment models

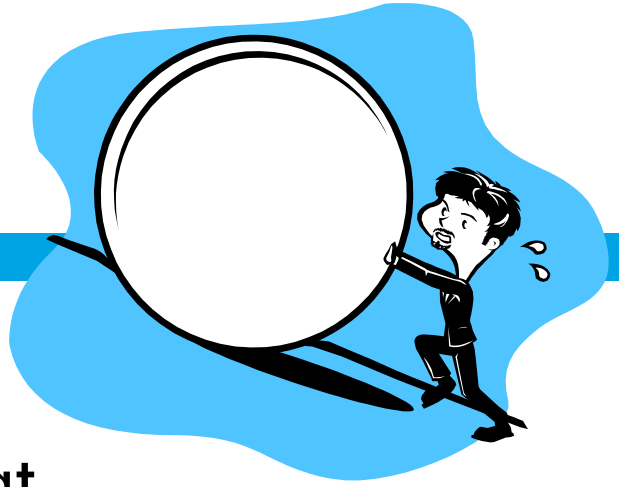

Recommendations of the HAIP

- Identify and prioritize data inadequacies for stocks and their respective habitats
- Increase collection of habitat data during fishery-independent surveys and develop a plan for better utilizing advanced sampling technologies
- Engage partners within and outside of NOAA to coordinate habitat data collection efforts and data management initiatives. Data management systems and integration applications should be upgraded to improve accessibility.

Recommendations of the HAIP

- Convene regional and national workshops to develop strategies to integrate habitat science and assessments, stock assessments, and integrated ecosystem assessments
- Establish a habitat assessment fellowship program
- Unite with other NOAA line offices to develop a NOAA-wide strategic plan for habitat science and assessments in support of the nation's ocean policy priorities

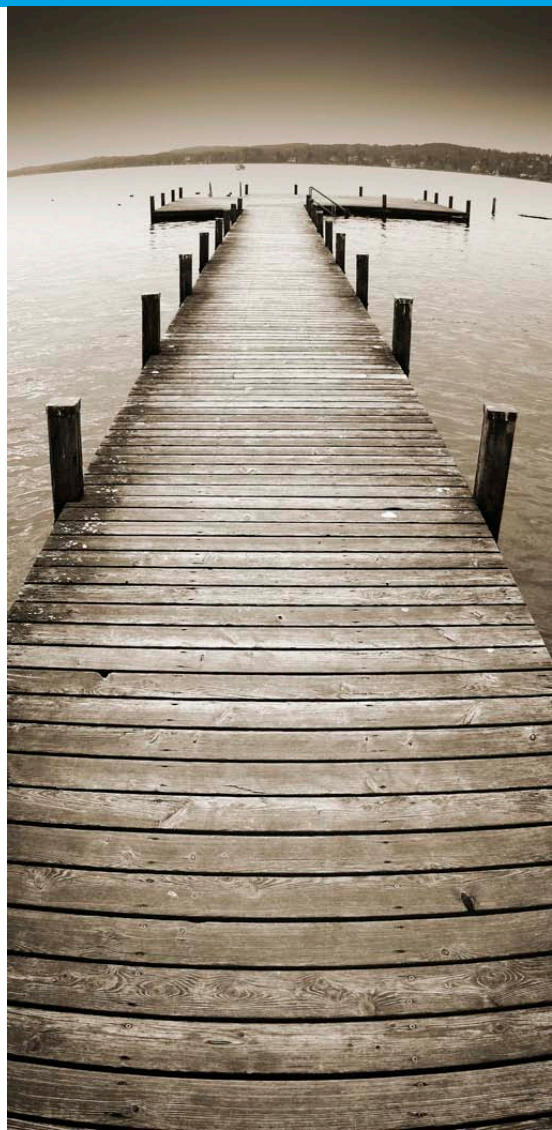
Outcomes to Date



- Development/publication of HAIP has increased awareness of habitat science within NOAA Fisheries
- HAIP is basis for new budget initiatives and the new Habitat Monitoring and Assessment capability
- Three joint habitat/stock assessment pilot projects have been funded and are underway
- 1st National Habitat Assessment Workshop held in May 2010

Council Actions to Consider

- Endorsement of the HAIP
- Integration of Council's research priorities with HAIP: e.g., direct application to Groundfish EFH 5-y review and Ecosystem Plan Development Team
- Leverage available resources and data
- Assist NMFS in garnering necessary funding
- Assist in prioritizing specific stocks, geographic areas, and data needs for the Pacific region



Questions?

Download a copy of the HAIP:

http://www.st.nmfs.noaa.gov/st4/HabitatScience.html

Contact your HAIP representative:

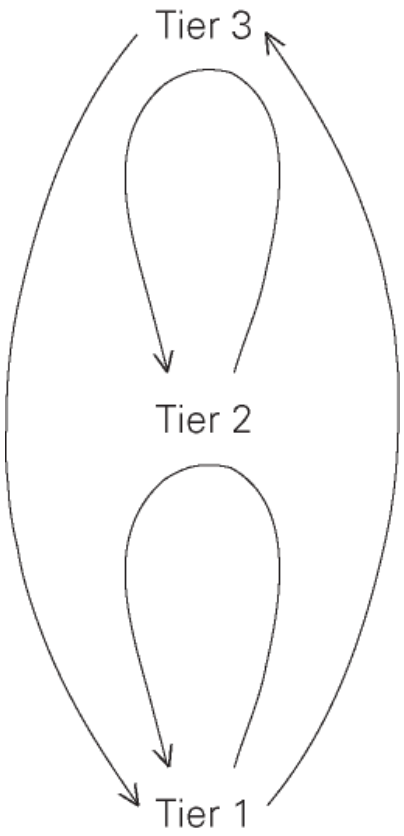
- Mary Yoklavich, SWFSC (Chair)
- Michael Parke, PIFSC
- Frank Parrish, PIFSC
- Correigh Greene, NWFSC
- Waldo Wakefield, NWFSC
- Bob McConnaughey, AFSC
- Tom Minello, SEFSC
- Tom Noji, NEFSC
- Kristan Blackhart, OST
- Steve Brown, OST
- Susan-Marie Stedman, OHC

THANK YOU!

Outline

- Why habitat?
- HAIP goals and scope
- HAIP questionnaire
- Current state of habitat assessments
- Three tiers of habitat assessments
- Recommendations of the HAIP
- Outcomes and Council action

Three Tiers of Habitat Assessments



- Tier 1: Comprehensive evaluation and synthesis of existing habitat information by life stage
- Tier 2: New or expanded data collection and research initiatives result in a higher level of habitat assessments
- Tier 3: Provide quantitative estimates of fish productivity by habitat and ecosystem considerations for incorporation into stock assessments

National Resource Requirements

Activity	Current	Tier 1	Tier 2	Tiers 1+2	Tier 3	All Tiers
Collect habitat-related data	97	30	64	94	72	166
Process and convert raw habitat data into usable products	46	34	32	66	44	110
Produce habitat-specific assessments	22	27	32	59		59
Determine habitat-specific vital rates over time					64	64
Refine existing habitat-related survey methods/tools and develop new ones	23					
Refine existing population models and develop new habitat-related ones	16					
Incorporate habitat and ecosystem information into stock assessments at SAIP Tier 3					41	41
Refine existing habitat and ecosystem models and develop new ones			28	28	28	56
Develop improved habitat risk assessments					22	22
Communicate improved assessment results and conduct other follow-up work	17	9	13	22	17	39
Total	221	100	169	269	288	557