



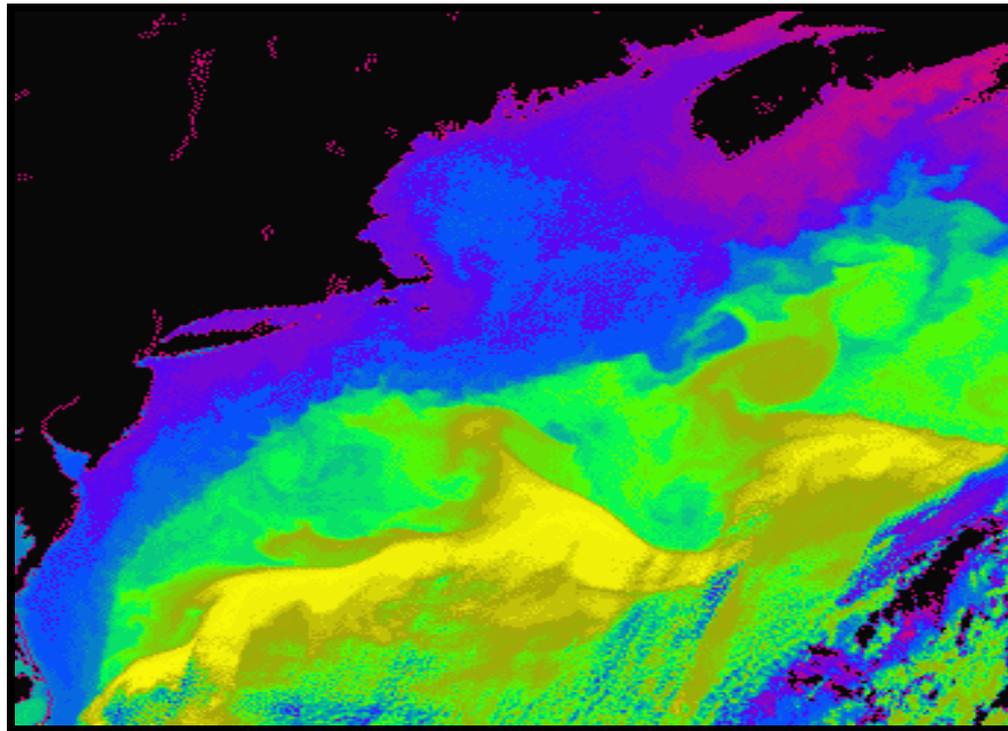
NOAA
FISHERIES

Northeast
Fisheries
Science Center

Overview of NEFSC Science Programs

Dr. Bill Karp

NEFSC Science and Research Director



NEFSC Overview

Employment

~ 500 people (FTEs and Contractors)

Locations

5 states

Funding

~ \$68 million (2016)



NEFSC Overview

- Long history of ecological research in support of management
- Strategic plan centered on ecosystem-based fisheries management
- Data-rich environment : Large-scale ocean observing network
- Extensive field, laboratory and analytical capabilities for ecosystem science



NEFSC Overview

- One of six NOAA Fisheries regional science centers
- Primarily responsive to:
 - Magnuson-Stevens Fishery Conservation and Management Act
 - Endangered Species Act
 - Marine Mammal Protection Act
 - National Environmental Policy Act



NEFSC Overview

Key Partners

- NOAA Fisheries Greater Atlantic Regional Fisheries Office
- Mid-Atlantic Fishery Management Council
- New England Fisheries Management Council
- Atlantic States Marine Fisheries Commission
- NOAA Fisheries Headquarter Offices
- Cooperative Institute for the North Atlantic Region

Strategic Science Plan

Northeast Fisheries Science Center

Strategic Science Plan | 2016-2021



<http://www.nefsc.noaa.gov/rcb/stratplan/>

Input from
100+
Partners &
Stakeholders

Strategic Science Plan

Themes

Sustainable Fisheries

Protected Resources

Science to Support EBFM

Organizational Excellence

Strategic Science Plan

Themes & Foci

Sustainable Fisheries

- Data quality & access
- Science quality & efficiency
- Aquaculture

Protected Resources

- Data quality & access
- Science quality & efficiency

EBFM Support

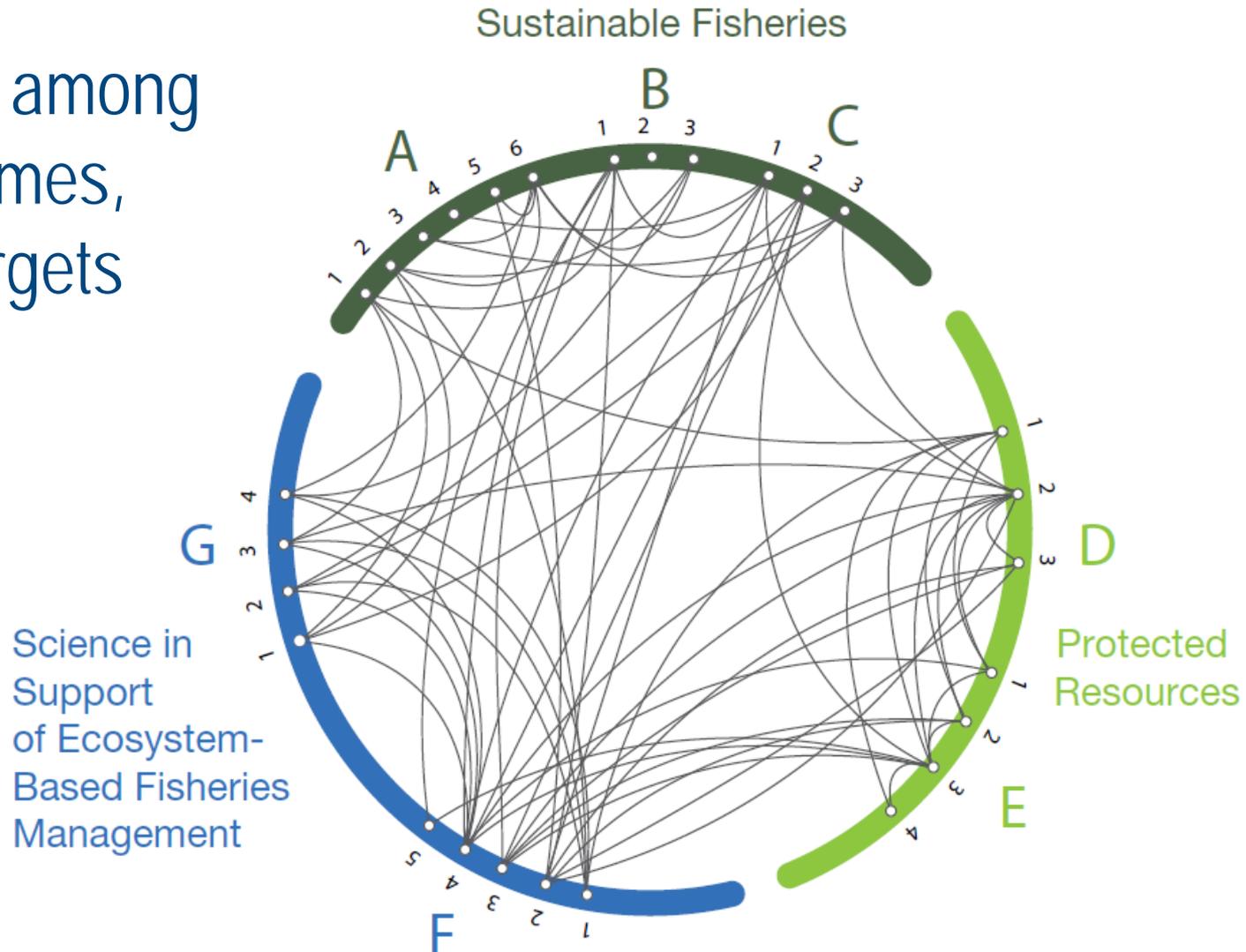
- Integrating, biological, environmental, and human factors into resource management advice

Organizational Excellence

- Workforce
- Outreach
- Communication
- Infrastructure
- Mission Support

Strategic Science Plan

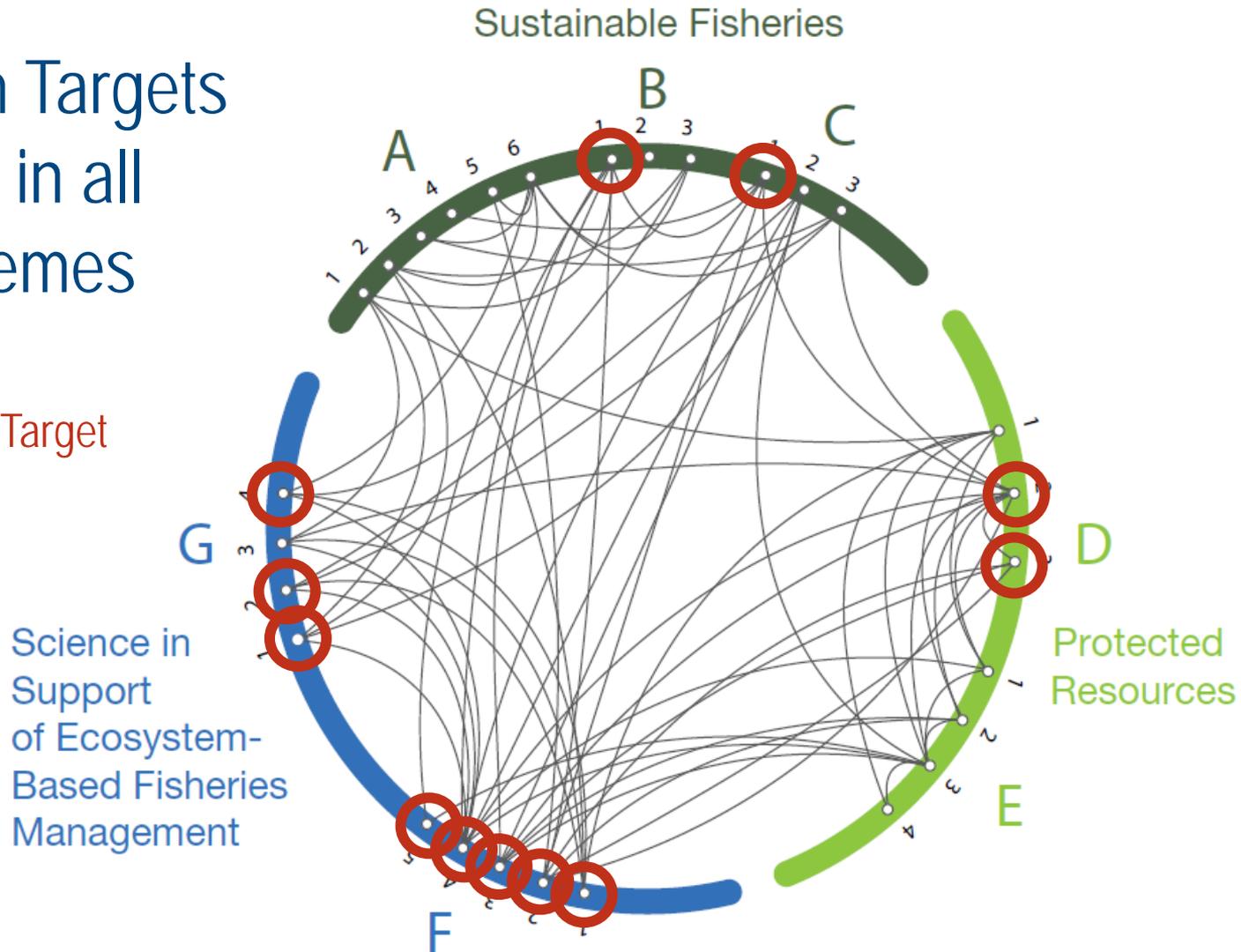
Connections among
Science Themes,
Foci, and Targets



Strategic Science Plan

Ecosystem Targets embedded in all science themes

 Ecosystem Target



Strategic Science Plan

Ecosystem Based Fisheries Management Theme and Foci

Science in Support of Ecosystem-Based Fisheries Management

Foci:

- F. Improve understanding of the influence of climate, ecosystem, habitat factors, and species relationships on living marine resource dynamics in order to provide integrated scientific advice to managers.
- G. Improve understanding of economic and socio-cultural factors in marine resource management and apply this knowledge in the provision of management advice.



Strategic Science Plan

Ecosystem Based Fisheries Management Theme and Foci

F

Improve understanding of the influence of climate, ecosystem, habitat factors, and species relationships on living marine resource dynamics in order to provide integrated scientific advice for managers.

Targets

1

Build information technology systems needed to integrate data sources, perform related modeling, and work collaboratively among different research units and labs.

2

Maintain essential ecosystem and climate observing programs and improve integration with other regional and national programs. Develop and implement an explicit role for cooperative research in support of this target.

3

Conduct research to better understand ecosystem processes, with particular emphasis on the ecology of protected and managed species and related species interactions, and how these might be influenced by climate change.

4

Make substantive progress toward an Integrated Ecosystem Assessment for the Northeast Shelf, and through this process, provide a broader range of ecosystem advice.

5

Advance capacity for bringing ecosystem considerations to bear in stock assessments by developing extended single species assessments that incorporate climate, ecosystem, and habitat considerations.



Strategic Science Plan

Link to other Strategic Initiatives

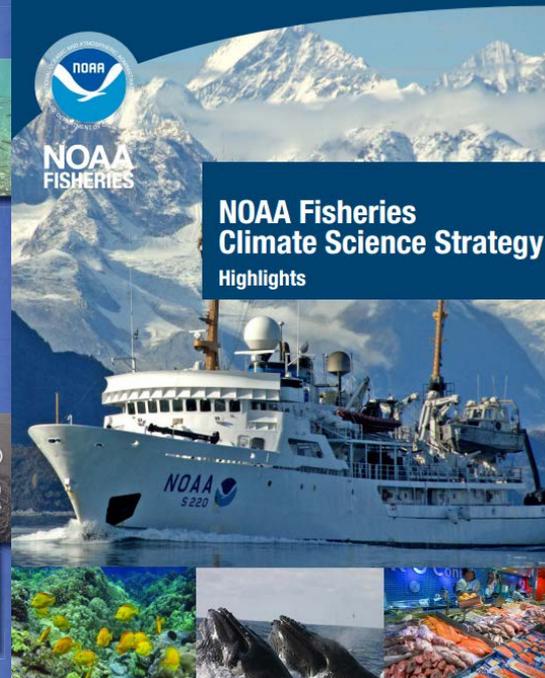
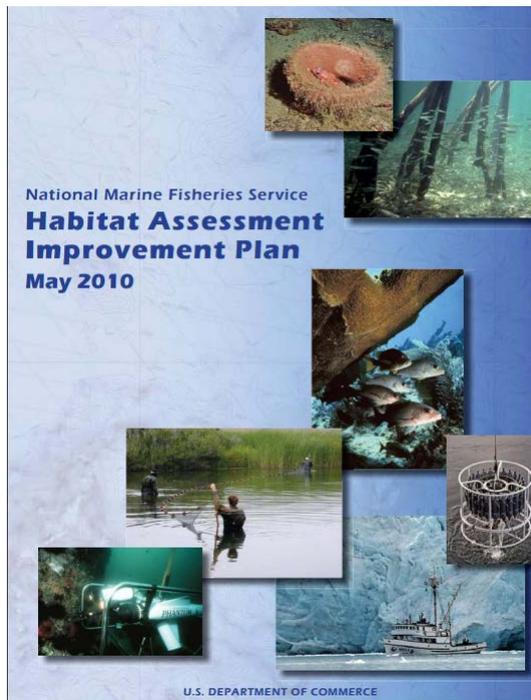
White Paper
On
Ecosystem – Based Fishery Management
For
New England Fishery
Management Council

Mid-Atlantic Fishery Management Council
Ecosystem Approach to Fisheries Management Guidance Document

Advancing Ecosystem- Based Management: Ecosystem-Based Fisheries Management Policy and Roadmap

Dr. Jason Link

EBM Seminar Series: September 2, 2015

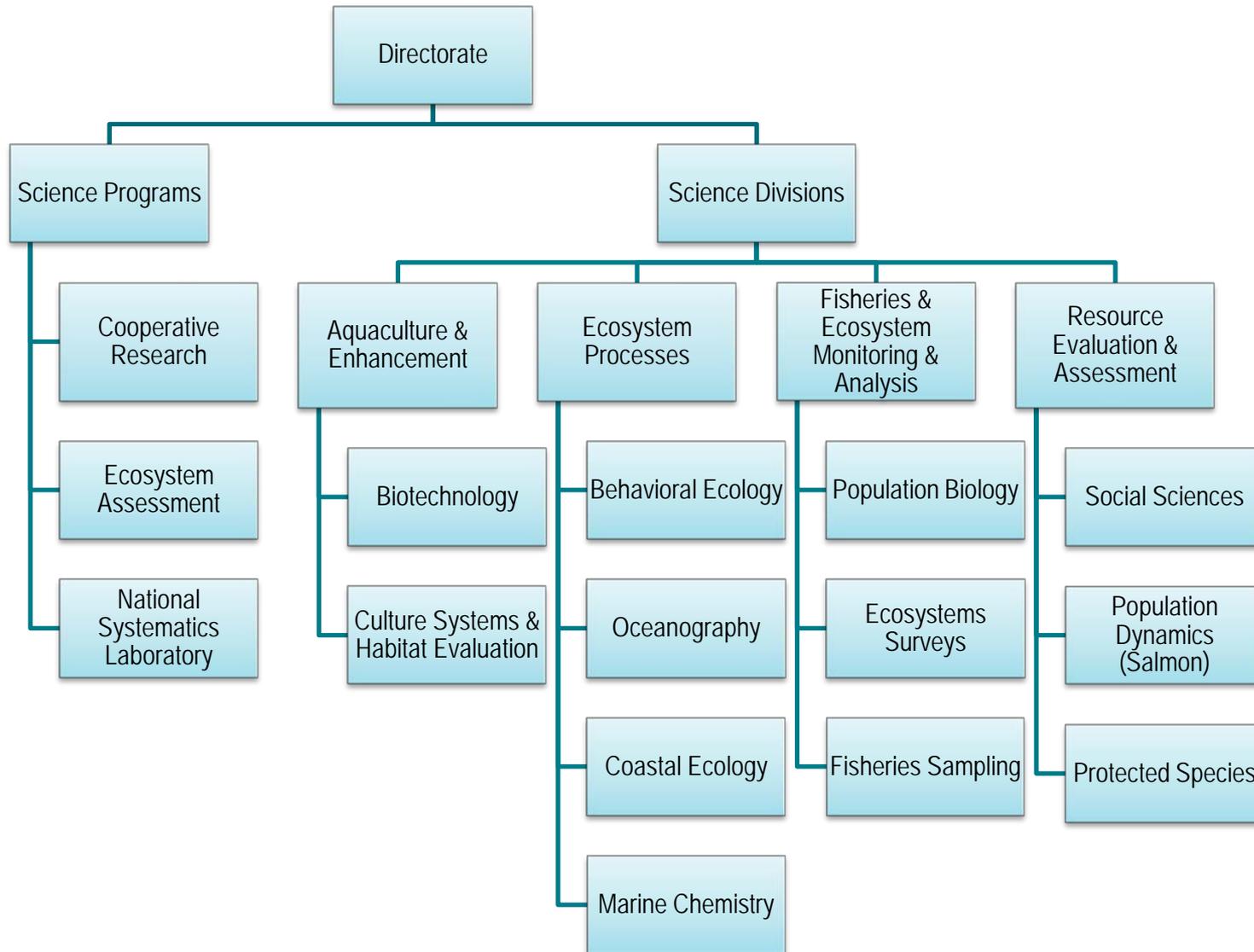


NEFSC Reorganization

Background & Motivation

- Achieve 2015-2020 Strategic Plan vision
- Open lines of communication
- Improve organizational efficiency and effectiveness
- Advance science supporting Ecosystem-Based Fisheries Management
- Strengthen habitat and aquaculture science
- Consolidate protected species science
- Strengthen cooperative research
- Respond to Observer Program reviews

NEFSC Current Organization: Science Programs



NEFSC Reorganization

Resource Evaluation and Assessment Division

- Move Atlantic Salmon task to Protected Species Branch
- Acquire Ecosystem Assessment Program

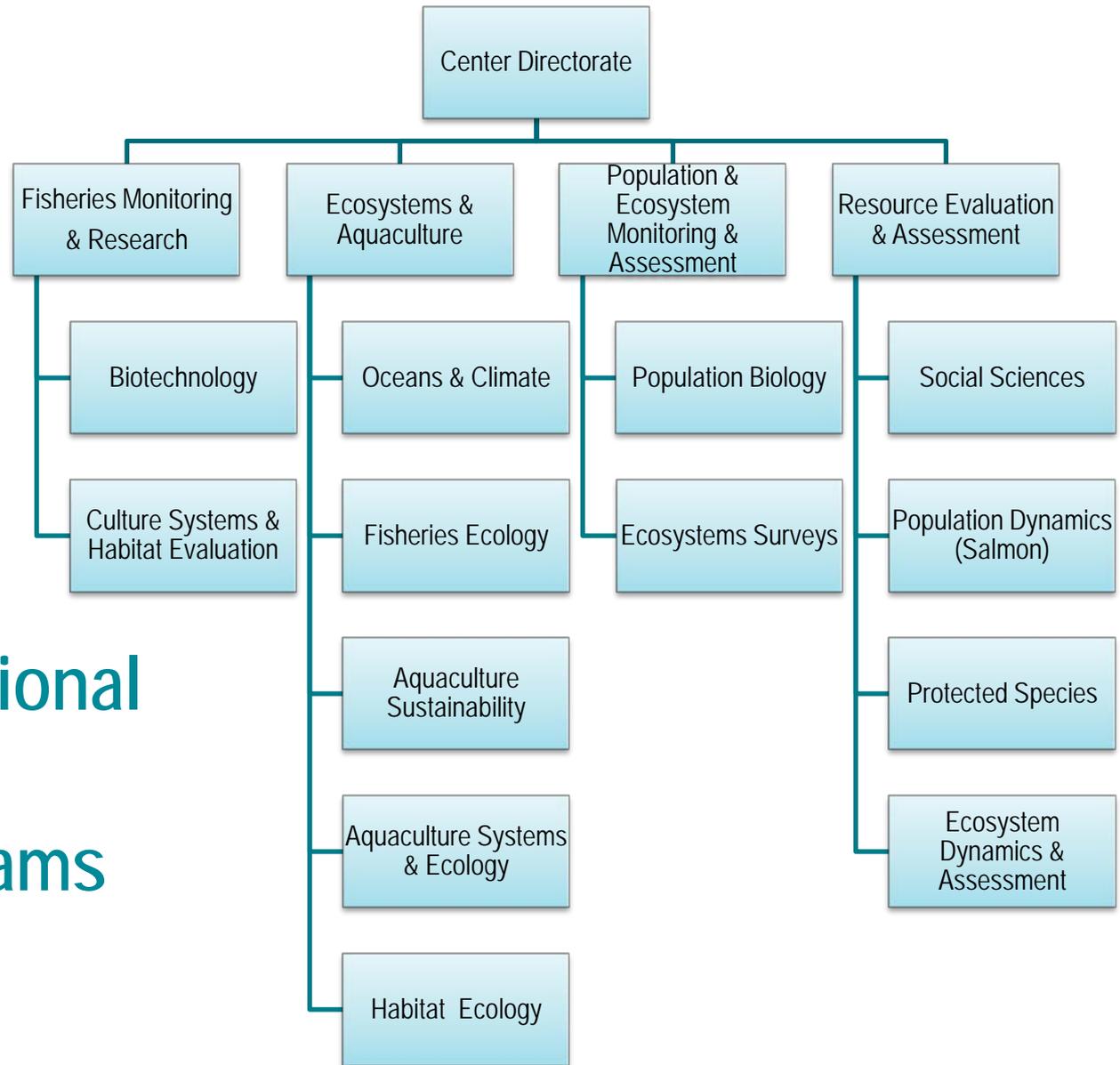
Merge Ecosystems Processes Division and Aquaculture Enhancement Division

Form Fishery Monitoring and Research Division

- Northeast Cooperative Research Branch
- Fisheries Sampling Branch



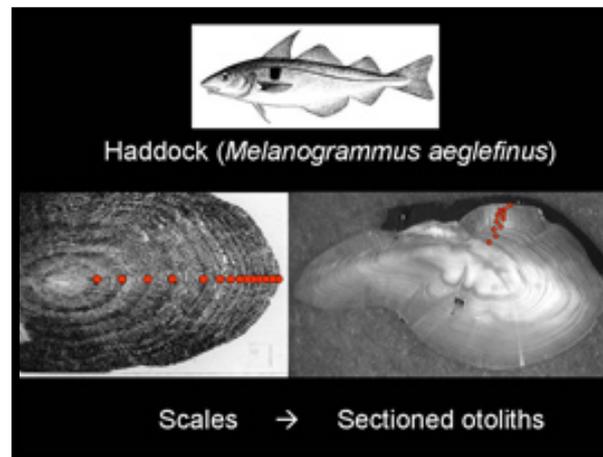
Effective June 26, 2016



New Organizational Structure: Science Programs

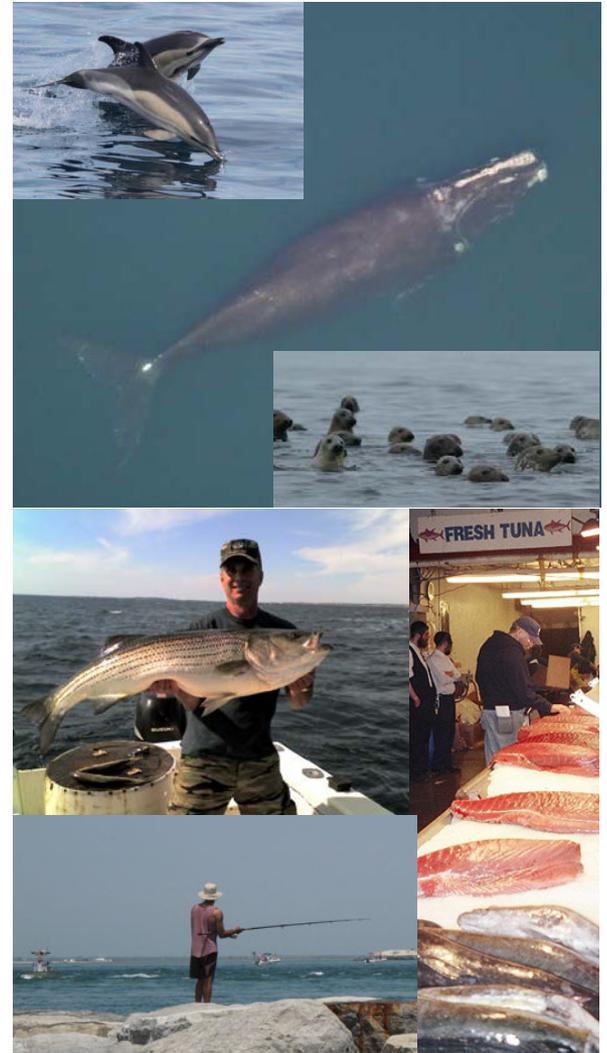
Population and Ecosystems Monitoring and Analysis Division

- Collect and analyze data on fishery resources and the status and dynamics of their habitat
- Study ecological processes which control resource productivity
- Assess performance of the fisheries and other uses of marine resources



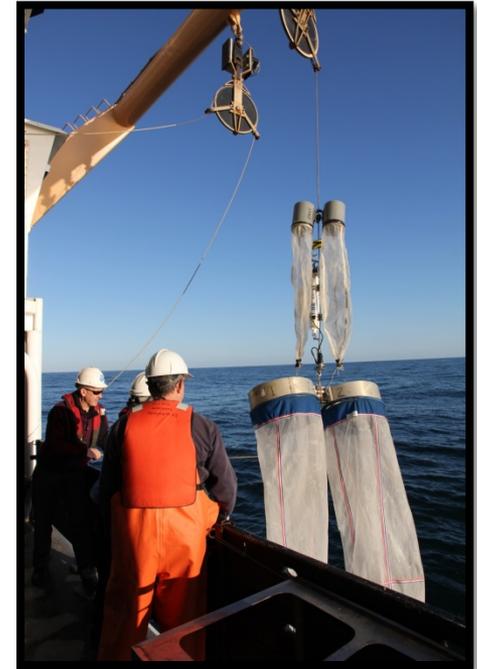
Resource Evaluation and Assessment Division

- Monitoring and assessment of protected, threatened and endangered species
- Stock assessments for commercial and recreational fish and invertebrate species
- Study, measure, and predict impacts of induced or natural changes on people, vessels & communities
- Ecosystem Assessments for Ecological Production Units on the Northeast U.S. Continental Shelf



Ecosystems and Aquaculture Division

- Habitat mapping & ecology
- Ecosystem and oceanographic monitoring programs
- Ecosystem science to support stock assessments
- Climate change and ocean acidification
- Environmental effects on fish and invertebrates
- Sustainable aquaculture practices
- Offshore & integrated multi-trophic aquaculture
- Culture and hatchery techniques
- Genetics and bioengineering techniques



Fisheries Monitoring and Research Division

- Cooperative research conducts gear studies and performs enhanced biological sampling
- Study Fleet to collect detailed fishery dependent and oceanographic data
- Fishery Observer Program gathers at-sea information commercial fishing operations



NEFSC Ecosystem Program Review Schedule

Monday 6 June

- Welcome
- Mandates, science needs, NEC structure & Strategic Planning
- Climate Science
- Public comment
- Data and Model Visualization
- Review panel working session

Tuesday 7 June

- Day 1 follow up
- Climate Science (continued)
- Multidisciplinary Modeling & MSE
- Public comment
- Data and Model Visualization
- Review panel working session

Wednesday 8 June

- Day 2 follow up
- Potential Management Units
- Ecosystem Production
- Ecosystem Reporting
- Climate Action Plan
- Towards EB(F)M
- Managers Roundtable
- Public comment
- Summary & Wrap-up

Thursday & Friday June 9-10

- Review panel working session
- Report writing
- Report out to NEFSC leadership