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**FISHERIES**

# Lessons Learned from NMFS Data Review Process

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# Fisheries Dependent Data Collection Systems in the Northeast

- Patchwork of data collection systems
- Poorly linked databases
- Redundant reporting
- Slow to respond to change

# Northeast Federal Fishery Dependent Data Visioning Project

Joint Greater Atlantic Regional Fisheries Office and Northeast Fisheries Science Center project to develop a comprehensive vision for an improved federal fishery dependent data system in the Northeast to meet existing and future data needs.

# Project Scope

## **Comprehensive data needs & requirement analysis**

- Sample all stakeholders affected by NEFSC/GARFO data
- All sources of fishery dependent data

## **All options are being considered**

- Software revisions
- Database changes
- Changes to policy/regulations
- Process refinements
- Staffing/resource adjustments

# Project Team

## Project coordinators

- GARFO – Doug Christel
- NEFSC – Holly McBride
- GMRI – Jonathon Peros

## GMRI Project Team

- Steve Cadrin – SMAST
- Cate O’Keefe – SMAST
- Daniel Salerno – Contractor
- Peter Moore – Contractor
- Rachel Long – GMRI
- Jessica Joyce - GMRI

# Project Participants

## Internal constituents

- GARFO staff
- NEFSC staff
- SERO/SEFSC staff
- HMS
- Office of Science and Technology

## External constituents

- NE/Mid-Atlantic Fishing industry/dealers (various fisheries)
- Sector Managers
- Councils/Commissions
- States
- NGOs
- Third party software developers

# Project Approach

- 1. Identify current data needs/uses**
- 2. Evaluate existing data collections**
  - Redundant, unused, missing elements
  - Collection mechanism
  - Timeliness
  - Data quality
- 3. Consider the existing system strengths and weaknesses**
- 4. Solicit ideas for tools, methods, and approaches to improve:**
  - Collections
  - Organization/storage
  - Data availability
  - Data quality
- 5. List desired characteristics**
- 6. Anticipate future needs**

# Preliminary Feedback

- Integrate existing data systems
- Standardize data formats, codes, and definitions
- Move toward electronic data collection
- Reduce manual data entry
- Automate validation
- Retain *some redundant data for validation*
- Improve documentation of metadata
- Increase awareness & data access
- Collect more precise area data

# Input Regarding EM

NOAA Fisheries Interviews with Internal/external data users:

- EM not identified as a component of a future system

Preliminary feedback from GMRI/SMASST interviews:

- Many interview respondents did not know a lot about EM
- Feeling that purpose and goals have not been clearly defined
- Questions and concern about cost of EM
- Concern about system failure, and impact on a fishing trip
- Could work well in particular scenarios

Whatever tools are used now or in the future will need to ensure that the outputs are consistent with the system characteristics and requirements identified by this project

|                                | Yearly  | 48 hours before sailing   | 24 hours before sailing | Sail Date  | At Sea   | Landing Date   | Dealer Offload  |
|--------------------------------|---|---|-------------------------|--|--|--|---|
| <b>Vessel</b>                  | Vessel permit renewal<br>Operator permit renewal<br>Exempted fishery application                              | Observer PTNS   |                         | VMS/IVR declaration<br>Trip-start hail<br>VTR  | VTR<br>VMS catch reports<br>VMS position   | VTR<br>RSA/EFP IVR<br>Trip-end hail<br>VMS position  | VTR Serial #<br>VTR data to dealers   |
| <b>Observer/At-sea Monitor</b> |   |   | Observer status         | NEFOP data<br>ASM data   | NEFOP data<br>ASM data   | NEFOP data<br>ASM data   | NEFOP data<br>ASM data<br>Observer data to auditors   |
| <b>Dealer</b>                  | Dealer permit renewal   |   |                         |  |  |  | Landed catch  |
| <b>Bio-sampler</b>             |   |   |                         |  |  |  | Length and age samples  |
| <b>Sector Manager</b>          | Sector roster   |   |                         |  |  |  |   |
| <b>Data Outputs</b>            | Fishery permit<br>Operator ID<br>Gear<br>Owner ID<br>Exempted fishery<br>Dealer permit<br>Sector participants | Trip start/end dates<br>Fishery<br>Area<br>Gear<br>Exempted fishery | Observer status         | Vessel Declaration<br>RSA trip<br>Start Date<br>Fishery<br>Program<br>Area<br>Gear<br>Vessel Permit<br>Exemption<br>Trip<br>Vessel Characteristics | Vessel Permit<br>Gear<br>Average Effort<br>Area<br>Kept Catch<br>Discard Catch<br>Depth<br>Detailed Economics<br>Trip Target Species<br>Haul Target Species<br>Detailed Gear<br>Detailed Effort<br>Detailed Haul<br>Species Interactions<br>Kept<br>Discard<br>Lengths<br>Age<br>Surface temperature<br>MM Sightings | Vtr Serial Number - IVR/VMS<br>RSA Landings<br>End Date<br>Total Catch<br>Landing Port<br>Trip Level Effort<br>Operator Permit Number<br>End Date<br>Total Catch<br>Landing Port<br>Vtr Serial Number<br>Trip Level Effort | Dealer Permit Number<br>Offload port<br>Dealer Permit Number<br>Dealer Permit Number<br>Vessel Permit<br>Vessel Registration<br>VTR Serial Number<br>Landed catch<br>Disposition<br>Price per unit<br>Landing Port<br>Surf clam cage tags<br>Vessel Permit<br>Vessel Registration<br>VTR Serial Number<br>Dealer Permit Number<br>Landing Date<br>Landing Port<br>Dealer Port<br>Gear<br>Area<br>Species Sex<br>Species Length<br>Age Sample<br>Species Sample Weight |
| <b>Data Needs</b>              | Vessel Permit<br>Sector Rosters<br>Vessel Characteristics<br>Owner<br>Operator<br>Dealer Permit               | Declaration<br>FMP<br>Exempted Fishery                              | Observer Status         | Trip Start   | Target Species<br>Gear<br>Effort<br>Catch<br>Discard<br>Effort<br>Location<br>Area<br>Vessel position<br>Species interactions<br>Economic data   | Trip End   | Age/length by area<br>Landings<br>Landing port<br>Value   |

# Next Steps

- Continue to summarize survey/interview results and integrate results from industry interviews
- Workshop hosted by GMRI focusing on identified data needs (June 30 – July 1)
- Provide recommendations for an improved comprehensive data collection system

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