

FISHFRIFS

SEFSC

Data for Assessment & Overview of 2013 MSRA Data Review at SEFSC

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NOAA FISHERIES SEFSC

Results of MSRA Data Review

- Fisheries-Dependent Data Collection Programs
- Fisheries-Independent Data Collection Programs
- Observer Programs
- Biological Sampling
- Caribbean Data Collection Programs
- Information and Data Management
- Cross-Cutting Issues

Fisheries-Dependent Data Program Recommendations

- Evaluate electronic data technology
 - E-reporting by dealers, headboats and shrimp boats
 - E-monitoring of shrimp bycatch of smalltooth sawfish
 - Evaluating possible designs and use of electronic logbooks by HMS and SE vessels
 - Working with councils on possibility of a charter boat electronic logbook
- Streamline biological data flow
 - Creating additional links to biological data systems to further automate data flow
 - Initiating (TIP) / enhancing (SHRS) automation of data collection
- Web access to fisheries-dependent data
 - Developing portal to access landings data with additional datasets planned for future development



Fisheries-Dependent Data Program Recommendations

- Evaluate changes in catchability over time
- Characterize bias in logbook discard information
 - Comparisons during SEDARs for 4 primary Gulf stocks
 - SEFSC will participate in the upcoming SAFMC shrimp bycatch estimation workshop
- Standardize TIP methodologies
 - TIP methods have been standardized between samplers and data collection partners





Fisheries-Dependent Data Program Recommendations

- Increase recreational catch sampling
 - MRIP increased dockside sampling in 2014
- Improve MRIP and Texas recreational information
- Develop reliable estimates of recreational discards
 - Increased at-sea sampling in GOM for discards by Southeast Region Headboat Survey staff
 - Existing levels of at-sea sampling on for-hire vessels by FLFWC







Fisheries-Independent Data Program Recommendations

- Evaluate allocation of resources
 - A comparison of plankton grid versus random sampling is being evaluated
- Evaluate contribution of each survey for providing abundance indices
- Simulate sampling intensity to improve CVs





Fisheries-Independent Data Program Recommendations

- Evaluate the use of acoustics and enhance habitat mapping
 - Acoustic data are collected using ME70 and EK60 on NOAA ships
 - Several projects are underway to archive, process and develop habitat mapping products
- Integrate multiple technologies
 - Testing of gliders and AUVs are being conducted for augmentation of current sampling methods





Observer Program Recommendations

- Expand observer coverage
 - Maintained existing observer coverage in all programs
- Evaluate observer program coverage
- Evaluate impact of uncertainty in estimated bycatch on stock assessments
 - SEFSC will participate in the upcoming SAFMC shrimp bycatch estimation workshop





Biological Information Recommendations

- Coordinate biological data collection with partners
 - Ongoing through participation with ACCSP and GSMFC
 - Workshop to be conducted on South Atlantic data collection 2015/2016
- Increase sampling and analysis for food, habitat, growth, and reproduction information
 - Stomach content information is being collected and processed on SEAMAP groundfish trawl surveys
 - Reproduction information is collected on resource surveys
- Increase frequency and spatial range for age information
 - Increased age sampling of discards in the GOM by observer programs as funding permits





Biological Information Recommendations

- Emphasize age validation and aging workshops
 - Routinely carried out in the Gulf of Mexico and recently expanded in the South Atlantic
 - Age validation study conducted on gray triggerfish
- Encourage micro-constituent analysis
 - Panama City carried out micro-constituent analysis for red snapper and bluefin tuna





Caribbean Data Collection Recommendations

- Develop strategic data sampling plan
 - Funding pilot catch monitoring program
 - The FY15 President's Budget initiative includes an initiative to improve data collection in insular areas
- Assess current fishery-independent sampling programs
- Evaluate the feasibility of a SEFSC Caribbean laboratory
- Evaluate increasing long-term staffing to support Caribbean data collection
 - Invested in short term increases in resources/equipment needed to build the capacity in the region
- Improve collection of biological information
 - Funding sampling design pilot studies
 - Funding equipment needed to expand biological sampling processing





Caribbean Data Collection Recommendations

- Improve Caribbean dockside monitoring and catch composition information
 - Territorial initiative enhanced sampling in PR 2013/14
 - Will develop effort and catch sampling methodology and support dockside data collection
- Evaluate augmenting stock assessments with reef-visual, remote sensing, and trap captures
 - 2012-2013 reef-visual survey in USVI
 - 2014 reef-visual survey in PR
- Increase recreational data collection
 - Pilot studies underway in USVI
 - New MRIP methods to be applied in PR in 2015





Information Management Recommendations

- Enhance data storage and backup capabilities
 - Improvements to IT infrastructure are being made to enhance data storage and backup capabilities
- Improve cooperation in information technology with state partners
 - Improvements in IT for fisheries-independent data management are being shared with state and university partners
 - Worked with ACCSP and GSMFC to improve cooperation and data sharing
- Improve information technology infrastructure and personnel
 - Analysis of infrastructure carried out in 2013 by outside company
- Establish Oracle as the SEFSC-wide database standard





Cross-Cutting Recommendations

- Conduct sensitivity analyses of stock assessments to data streams
 - Study to examine sensitivity of stock assessment outcomes to data inputs has been funded
- Improve regional e-data systems and information technology
 - Electronic effort recorders have been developed and implemented
 - Electronic reports are required for federal dealers and headboats
 - Electronic logbooks are under development for reef fish and HMS vessels
 - Electronic data collection implemented on fishery independent surveys, being enhanced / developed for fishery dependent sampling
- Increase resources and the number of permanent staff







Cross-Cutting Recommendations

- Evaluate spatial aspects
- Evaluate information flow and identify information bottlenecks
 - Data management systems being modernized, integrated, and streamlined
 - Developing portals to deliver data to assessors and other users
 - Data flow and quality improvement meetings with SERO, ACCSP and GulfFIN





Questions????



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Commercial Electronic Logbook Pilot Project

Brett Pierce and Dave Gloeckner Fishery Monitoring Branch Southeast Fisheries Science Center

September 16, 2014

Goals and Objectives

Goal:

 Create on-board electronic logbook program that can accommodate vessels participating in multiple federal fisheries and across regional boundaries

Objectives:

- Set up volunteer fishers to test electronic logbooks utilizing existing software from various vendors (we supply the tablets or laptops)
- Optimize existing logbook software for use in SE and HMS fisheries utilizing feedback from fishermen participating in the pilot study
- Develop IT infrastructure at SEFSC necessary to accept electronic logbook submissions



Photo Bubba Cochrane



Background

- Demand for high quality data to ensure sustainable harvest of marine resources is increasing
 - SEFSC vessel logbook programs
 - HMS-Pelagic Longline, 1986
 - Gulf of Mexico reef fish, 1990
 - South Atlantic snapper/grouper, 1992



- Federally managed shark, 1993
- King and Spanish mackerel, 1998



Photo: SAFMC

Need

Data collected at finer spatial-temporal resolution will increase understanding

- Improve Single species stock assessment
 - Estimates of discard mortality (depth of discards)
 - Indices of abundance
 - Hot spot and recent fishing effects
 - Environmental effects assign to each catch-effort observations
 - Age composition in + away from hot spots
- Improve social + economic assessment
 - Impacts of management on
 - Profitability of the fishery
 - Impacts on fishers and their options
- Support Management
 - Greater variety of management approaches



Photo: NOAA/Collier County Sea Grant Extension



Need

- Current logbooks are limited in their ability to provide spatially explicit data or reduce errors in variables recorded by fishermen
 - Coastal fisheries logbooks only collect at trip level and require additional forms for discard reporting
 - Pelagic logbooks need multiple sheets to collect set level data
- Use of electronic logbook (e-log) reporting would be timelier with fewer errors in machine generated variables (date, time, location)



Project Tasks

First Stage

- Develop data standards
 - Define formats, fields and definitions of each field to be submitted
 - HMS logbook program, SE logbook program and NE VTR program coordinating on standards
- Recruit software vendors
 - Contact vendors to develop interest in project
 - Deliver standards to vendors
 - Currently communicating about software changes with 3 vendors





An @ecotrust company





FLDRS Fisheries Logbook Data Recording Software





Project Tasks



Photo: Derke Snodgrass

Second Stage

- Recruit volunteer fishers to pilot project
 - Utilize council meetings and contacts through each logbook program
 - 5 vessels from Gulf SE fisheries
 - 5 vessels from SA SE fisheries
 - 3 vessels from HMS pelagic fishery
 - Stratify by gear
- Develop infrastructure to receive reports
- Laptops (10) and tablets (3) randomly assigned along with software
 - Vessels record trips and send data for one month
 - Feedback gathered and returned to vendors
 - Updated software tested for one additional month
 - Any additional feedback gathered and sent to vendor for final modifications
 - Total data collection time estimated at 6 months

Final Stage

• Finalize software changes and modifications to IT infrastructure



Progress and Timeline

- Standards developed and sent to vendors
 - Working with potential vendors to increase participation
- Recruiting volunteer fishers
- January 1, 2015 tentative start date for commercial e-log reporting by pilot participants
- Finalizing infrastructure and software changes **should** be complete by August 1, 2015



ACCSP eTRIPS

- eTrips complements SEFSC commercial logbook pilot
 - Provides additional software option for fishermen
 - Mobile version will permit entry at sea and transmission when in cell range
 - Entry on Apple, Android or Windows Tablet
 - Vessels that can't report from sea, can report online once returning to port
 - Lower cost solution than some private sector vendors' software
 - ACCSP could house data and SEFSC would pick up data from ACCSP-simplifies infrastructure for collecting e-reports
 - SEFSC will require data on a finer spatial and temporal scale, which will require modifications to current eTrips software.



Post-Pilot Implementation

- Work with Councils to determine implementation strategies
 - Voluntary / mandatory
 - Scope for mandatory
 - Kinds of vessels excluded from on-board data recording;
 - Reporting by such vessels
 - Electronically from shore / paper
 - Geographic resolution
 - Timelines for implementation
- Work with partners (ACCSP, GulfFIN, private vendors,...) to deploy software solutions for electronic logbook reporting



Questions?

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NOAA FISHERIES Update on Headboat Data Entry

Kenn Brennan





- The SRHS eLog was updated on Aug 17, 2014. Updates to the eLog includes clickable maps (latitude, longitude, degrees and minutes) and socio-economic questions (# of paying passengers, # crew, gallons of fuel used, price per gallon). These additions will improve the quality and type of data collected by the SRHS.
- The SRHS is in the process of modifying the existing Oracle data base to:
 - 1) store dockside and at-sea validation data,
 - 2) develop data processing capabilities to validate, link, and merge submitted data,
 - 3) load existing data into SEFSC data warehouse, and4) provide web-based data access for reporting and extraction.