



# ATLANTIC COASTAL COOPERATIVE STATISTICS PROGRAM



# 2013

*Fiscal Year in Review*

## VISION

To be the principal source of fishery-dependent information on the Atlantic coast through the cooperation of all program partners in the collection and processing of common fisheries data and dissemination of the information for purposes of fisheries science and management.

## MISSION

Produce dependable and timely marine fishery statistics for Atlantic coast fisheries that are collected, processed, and disseminated according to common standards agreed upon by all program partners.

## VALUES

- Accurate data are required for good fisheries management decisions
- Coordination and collaboration amongst the program partners are essential for success
- The Program must be responsive to the changing needs for fisheries data
- Processes must be open and transparent, but confidential data must be protected
- Data shall be accessible and easy to use
- Responsibilities should be matched with available resources



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# Letter from the Chair

It is my pleasure as the current ACCSP Coordinating Council Chair to introduce the ACCSP's Annual Report, "2013 Fiscal Year in Review." This report provides a summary of the exceptional hard work and dedication that the program partners and staff put forth to make this a successful, unified, and collaborative program.

The Program is in the first year of addressing the 2012 Independent Program Review recommendations. In true ACCSP collaborative fashion, the various committees, subcommittees, and staff have already addressed approximately one-third of the recommendations. One of the major outcomes from this process will be a Standard Operations Procedure document that will address the major themes of the Independent Program Review recommendations: Data Warehouse and SAFIS, Program Management, Funding, and Outreach and Communications. I'm confident that the committees and staff will address all the recommendations within five years which will lead to a stronger, adaptive, and more versatile Program that will meet the needs of the program partners, fishing industry, and those of the scientific community.

In addition to the staff and partners addressing the Independent Program Review recommendations, the Operations Committee drafted the 2014 – 2018 Strategic Plan which was approved by the Coordinating Council in early 2014. The new strategic plan is a guide to direct the activities of staff, committees, and partners. It incorporates many of the recommendations from the Independent Program Review within the goals and strategies and identifies significant accomplishments, program priorities over the next five years and identifies critical success factors.

The Program and partners work to stay current with the changing times and to be innovative and reactive to the fishing industry, management, and science. In 2013, for example a survey was initiated to create recommendations on current electronic reporting programs and approaches, evaluate the costs and benefits of electronic reporting systems, and improve

outreach and public understanding of these reporting systems which drew positive reviews from the industry. The ACCSP supported Connecticut and New York in initiating the electronic logbook program, eLogbooks, for components of their fishing industry. The ACCSP continues to stay in the forefront of technology and infrastructure changes to meet constantly evolving concerns and user needs.

The ACCSP is one year short of a major milestone – its 20th anniversary! The initial program partners hammered out the idea of a collaborative fisheries data management program that all the Atlantic coast states and federal partners signed onto in October 1995. With the dedicated staff and partners it continues to grow, adapt, and transform to meet the needs of the industry and fishery managers.

I sincerely thank everyone involved with the Program for their dedication, foresight, and collaboration in the committee process. I also want to thank the Chairs and Vice Chairs of the various committees for their leadership in driving the Program forward. However, mostly, I would like to thank the staff for their competent hard work, commitment, and dynamic energy in assuring the Program is the success it is. I am humbled to be in the company of such a great group of individuals representing the 23 partner agencies, as well as ACCSP staff that are committed to making this Program a national model for collaborative fisheries data management.

Sincere regards,



Cheri Patterson  
Supervisor of Marine Programs, NH FGD



# Coordinating Council Members

Mark Alexander | CT DEEP  
William Archambault | US FWS  
Robert E. Beal | ASMFC  
Robert H. Boyles, Jr. | SC DNR, Vice Chair  
Alex Chester | NOAA Fisheries  
Louis B. Daniel, III | NC DMF  
Paul Diodati | MA DMF  
Martin L. Gary | PRFC  
Patrick Geer | GA DNR  
Mark Gibson | RI DFW  
James Gilmore | NYS DEC  
Peter Himchak | NJ DFW  
Patrick Keliher | ME DMR  
Bryan King | DC FWD  
Robert Mahood | SAFMC  
Jessica McCawley | FL FWCC  
Stewart Michels | DE DFW  
Christopher Moore | MAFMC  
Thomas Nies | NEFMC  
Thomas O'Connell | MD DNR  
Cheri Patterson | NH FGD, Chair  
Alan Risenhoover | NOAA Fisheries  
Buck Sutter | NOAA Fisheries  
Jack Travelstead | VMRC  
Leroy Young | PFBC

*"It has been my pleasure to witness how ACCSP has evolved from the planning to the operational stages. One aspect that remains constant is the commitment of the 23 partners. Everyone involved is dedicated to decreasing the burdens of reporting on the fishing industry while also meeting the needs of fisheries managers whose job is to protect fisheries for generations to come."*

Jack Travelstead, Founding member of the ACCSP Coordinating Council since 1995 and recently retired VMRC Commissioner





# Program Partners

## FEDERAL

NOAA Fisheries

U.S. Fish & Wildlife Service (US FWS)

## COUNCILS & COMMISSIONS

Atlantic States Marine Fisheries Commission (ASMFC)

New England Fishery Management Council (NEFMC)

Mid-Atlantic Fishery Management Council (MAFMC)

Potomac River Fisheries Commission (PRFC)

South Atlantic Fishery Management Council (SAFMC)

## STATE AGENCIES

Maine Dept. of Marine Resources (ME DMR)

New Hampshire Fish & Game Dept. (NH FGD)

Massachusetts Division of Marine Fisheries (MA DMF)

Rhode Island Division of Fish & Wildlife (RI DFW)

Connecticut Dept. of Energy & Environmental Protection  
(CT DEEP)

New York State Dept. of Environmental Conservation  
(NYS DEC)

New Jersey Division of Fish & Wildlife (NJ DFW)

Delaware Division of Fish & Wildlife (DE DFW)

Pennsylvania Fish & Boat Commission (PFBC)

Maryland Dept. of Natural Resources (MD DNR)

District of Columbia Fisheries & Wildlife Division (DC FWD)

Virginia Marine Resources Commission (VMRC)

North Carolina Division of Marine Fisheries (NC DMF)

South Carolina Dept. of Natural Resources (SC DNR)

Georgia Dept. of Natural Resources (GA DNR)

Florida Fish & Wildlife Conservation Commission (FL FWCC)



Potomac  
River  
Fisheries  
Commission



# Background

The ACCSP was established in 1995 through a Memorandum of Understanding (MOU) to address data deficiencies that constrained the management of fisheries along the Atlantic coast. These deficiencies included incompatibilities between state and federal data systems, a lack of standardized trip-level catch and effort reporting, a lack of universal permit and vessel registration data, and a general need for more and better data to support emerging fisheries management initiatives. The Program established four basic principles to ensure that fishery-dependent statistics are complete, accurate, consistent, and compatible:

1. Cooperative development and implementation across jurisdictional lines
2. Coastwide data collection standards and a single, integrated data management system
3. Data on all fishing activities (e.g., commercial, recreational, and for-hire fisheries)
4. Modular design for data collection and data management projects

The Program's 23 state and federal partner agencies (see page 6 for a list of program partners) had long recognized the need for complete, accurate, and timely fishery data. Partners especially wanted standardized fishery-dependent data, those collected on commercial, for-hire, and recreational fishing activity. When they signed the MOU, it was not yet clear which partner would provide the ACCSP with administrative support. In the mid-to-late 1990s, funds from partner contributions from the Atlantic Coastal Fisheries Cooperative Management Act (ACFCMA) provided for a single employee and some committee work to design the program. The Atlantic States Marine Fisheries Commission (ASMFC) volunteered to host the staff and conduct the required meeting planning. The other partners agreed that ASMFC was the ideal choice since it had the flexible infrastructure to support the Program.

In the mid-to-late 1990s, after the Program officially began, funding from ACFCMA contributions supported the establishment of committees to develop

the first edition of the program design. The committees also created minimum standards and operating procedures. These committees included a variety of technical committees, an advisory committee, a steering committee (named the Operations Committee), and a policy level committee (named the Coordinating Council). The minimum standards that the committees were instructed to develop were based on needs for fisheries stock assessments and management. The committees were also instructed to evaluate current practices, not necessarily preserve the status quo, and were asked to give little weight to possible cost implications (see page 10 for a list of committees). New minimum standards included the type and resolution of data that should be collected, minimum data elements with standard codes, improved timeliness of data submissions, and quality control and assurance practices.

By 1999, data collection standards were nearly complete and partners submitted their first funding proposals for implementing program standards. An increase in funding allowed the Program and partners to begin implementation. ASMFC hired permanent staff to coordinate data collection programs, continue the evolution of standards, and create and operate the Data Warehouse. Projects were also outlined for areas where standards needed additional research. As the ACCSP and its federal appropriations continued to grow and with increased outreach efforts, the public became more aware of it. The Coordinating Council wished to address public concerns regarding the integrity of data collected by the same entities using it for fisheries management. Separation of the ACCSP from regulatory bodies, to the extent practical, was seen to help address those perception problems, thus the governance of the Program is independent of ASMFC.

In 2001, the program partners recognized the need for stronger leadership at the staff level and reorganized the Program under a Director. The Director, with guidance from the Coordinating Council, has executive authority to manage ongoing development and operation of the program and has responsibility



for day-to-day operations and staff oversight. Also in 2002, the ACCSP deployed the online Data Warehouse, which provides users with coastwide, consolidated data contributed by the partners.

The Standard Atlantic Fisheries Information System (SAFIS), a real-time, web-based data entry system for dealer reported landings was deployed first in Rhode Island in 2003 and expanded to cover NOAA Fisheries Northeast dealers in 2004. SAFIS meant program partners could collect data from fishing constituents without the associated printing, mailing, and data entry costs (see page 30 for more on SAFIS). While SAFIS allowed centralized data collection, those data were, and are, still collected under the authority of the associated program partners. Moreover, those partners check and approve their data before they are transferred, ensuring that the information found in the Data Warehouse is the best available data on the Atlantic coast (see page 23 for more on the Data Warehouse).

Beginning in 2007, the Program began working in cooperation with NOAA Fisheries and its state partners to bring together commercial landings data for inclusion in the annual publication Fisheries of the United States (FUS). By working with the partners to develop the FUS data sets, the Program is able to populate the Data Warehouse at a finer resolution to further supports the ACCSP mission (see page 28 for more on the FUS process).

In 2009, SAFIS was expanded to add commercial and recreational vessel trip reports for many state partners. Commercial and for-hire fishermen in states that use the tool were then able to submit their data electronically. More recently, a new SAFIS application has made it possible for recreational anglers to log their fishing data and additional functionality has been added to support the integration of NOAA Fisheries highly migratory species (HMS) data collection.



All data collected that meet ACCSP standards can be integrated into the online Data Warehouse. Partners are responsible for benchmarking both recreational and commercial programs to allow maximum use of historical data while implementing the Program's standards. Benchmarking is necessary to ensure that data will be continuous, compatible, and useful for stock assessment and fisheries management purposes.

In early 2012, the Program released the Atlantic Coast Fisheries Data Collection Standards. This document was the third iteration of the program design and illustrates the collaborative process of the Program. The Standards provides direction on future improvements for Atlantic coast commercial, recreational, and for-hire fisheries statistics, as well as defines policies, data collection, and data management standards for the ACCSP.

Also in 2012, the Program conducted an extensive Independent Program Review. This review resulted in a number of recommendations intended to make the Program more efficient and improve our ability to respond to partners' needs. At present, the Program is working hard to implement these recommendations.

# Committee Overviews

Since its inception, the ACCSP has been a committee-based organization. Committees, composed primarily of representatives from the partners, provide the framework for the collaborative processes that create and manage the standards as well as govern the Program. Technical committees create and manage the program standards with guidance from the Operations and Advisory Committees. The Coordinating Council provides general oversight to the Program and sets overall policies.

## COORDINATING COUNCIL

The Coordinating Council is the governing body of ACCSP, establishing policies to guide the Program and overseeing program standards and implementation. Every fall, the Council approves the Program's budget for the following year. In 2013, the Coordinating Council approved the recommendations from the 2012 Independent Program Review and created a working group to monitor its progress in responding to the Review's recommendations.

## OPERATIONS COMMITTEE

By providing recommendations to the Coordinating Council, the Operations Committee guides the development of program standards and serves as the review body for annual project funding priorities. Highlights for 2013 include work on the 2014-2018 Strategic Plan (See page 12 for more information on the strategic plan), and planning for implementation of many of the recommendations from the 2012 Independent Program Review.

## ADVISORY COMMITTEE

The Advisory Committee was established to ensure, to the greatest extent practicable, that the fishing industry perspective is considered in the development and implementation of the Program. The Advisory Committee includes representatives from the commercial, recreational, for-hire, and academic sectors and serves an important role by providing recommendations to the Program. At least one member

of this Committee also sits on each technical committee to provide industry feedback. The Committee also reviews and prioritizes project proposals with funding recommendations forwarded to the Coordinating Council. In 2013, several advisors worked with ACCSP and partner agency staff on a project to develop and test handheld platforms to enter data using SAFIS (see page 22 for more on the project).

## TECHNICAL COMMITTEES

Behind the scenes of ACCSP are several committees that develop or revise standards which, in turn, are reviewed by the Operations and Advisory Committees and are submitted to the Coordinating Council for final approval. Here is a quick synopsis of each of those committees and highlights of tasks completed in 2013.

### BIOLOGICAL REVIEW PANEL

The Biological Review Panel develops program strategies and standards to collect and manage biological data (e.g., length, weight, ageing). The Panel biennially recommends target species and compiles sampling levels for biological sampling and works with the Bycatch Prioritization Committee to integrate data collection protocols. The Panel has finalized the data elements of the biological module and determined initial data sets for uploading. They are currently working with ACCSP staff on the rollout of this module.

### BYCATCH PRIORITIZATION COMMITTEE

The Bycatch Prioritization Committee develops and updates data collection standards and biennially ranks fleets for data collection priority based on statutory requirements, as well as stock assessments and industry needs. The Committee is currently continuing its work revising the priority matrix. The updated matrix will represent a non-overlapping sampling frame and be as quantitative as possible.



## COMMERCIAL TECHNICAL COMMITTEE

The Commercial Technical Committee develops catch and effort data standards for all species commercially harvested on the Atlantic coast and is responsible for updating and maintaining codes to improve reporting systems. In 2011, the Committee sponsored a project, "Validation of Commercial Finfish and Shellfish Conversion Factors: US East Coast Cooperative Project," and the sampling phase was completed in 2013. The Committee is currently synthesizing project results and will work with the Information Systems Committee to implement new conversion factor standards.



## INFORMATION SYSTEMS COMMITTEE

The Information Systems Committee guides and advises the development of information systems supporting the implementation of program standards. This past year the Committee reviewed the existing SAFIS applications. The review took into consideration new advancements in APEX 4.2, the underlying software of each SAFIS application. In doing so, each application was reviewed to update code and speed up processing. The review led to the elimination of thousands of lines of code no longer utilized.

The Committee has also been instrumental in the planning and review of three new special use applications and several policy improvements. The applications include LobSTAHS, American Lobster Settlement Index(ALSI) web portal, and SAFIS/M (see page 32 for more on the special use applications). The policy improvements include a data security and password hashing, Change Management Policy, Quality Assurance/Quality Control Plan, and enhanced data audits.

## OUTREACH COMMITTEES

As 2012 saw the conclusion of the 2008-2012 Outreach Strategic Plan, ACCSP staff began working with the ASMFC to form the Atlantic Coastal Fisheries Communications Group and also developed two separate outreach groups, one focused on the Data Warehouse and the other on SAFIS. Together these three groups were instrumental in the development of goals and strategies for the 2014 - 2018 Outreach Strategic Plan.

## RECREATIONAL TECHNICAL COMMITTEE

The Recreational Technical Committee develops data collection standards for monitoring catch and effort of recreational and for-hire fisheries. In 2013, the Committee continued to support additional at-sea headboat sampling from New Hampshire to Florida, and sponsored five states (Rhode Island, New York, New Jersey, Virginia, and South Carolina) to participate in two meetings to review the preliminary estimates from Marine Recreational Information Program (MRIP) for March - December. The Committee also began evaluating the steps involved to transition to state conduct of the MRIP access point angler intercept survey (APAIS).



# Strategic Plan

The timing of the 2012 Independent Program Review allowed ACCSP to incorporate many of the recommendations into a new strategic plan which was due to be updated in 2014. Members of the Operations Committee spearheaded the review and writing of this strategic plan for 2014 - 2018 which was approved by the Coordinating Council in January 2014. The purpose of the 2014 - 2018 Strategic Plan is to guide continued implementation and further development of the Program. Also, the plan:

- Reaffirms the Program's vision "To be the principal source of fisheries-dependent information on the Atlantic coast through the cooperation of all program partners"
- Presents the collective partners' initiatives for the next five years
- Sets key program goals and describes strategies to accomplish them

The Plan references several driving factors. The most pressing factors affecting the Program today are as follows:

1. An increased demand to maintain status quo while producing more results with stagnant and/or declining budgets
2. An escalating need for more timely, accurate, and finer resolution data to support fisheries management
3. The challenge to maintain a balance between confidentiality and needs of the fisheries management approaches
4. Creating bridges between various constituencies

Given those four limiting factors, the 2014 - 2018 Strategic Plan outlines seven goals (listed on the opposite column) the ACCSP will pursue to ensure user needs are met.

## 2014 - 2018 GOALS

1. Manage and expand a fully integrated data set that represents the best available fisheries data
2. Continue working with the program partners to improve fisheries data collection and management in accordance with the evolving ACCSP standards within the confines of limited funds
3. Explore the allocation of existing Program funds and work with partners to pursue additional funding
4. Effect stronger executive leadership and collaborative involvement among partners at all committee levels
5. Monitor and improve the usefulness of products and services provided by the ACCSP
6. Collaborate with program partners in their funding processes by providing outreach materials and other support to demonstrate the value of ACCSP products and the importance of maintaining base support for fishery-dependent data collection programs to state partners and their executive and legislative branches as well as to all other partner agencies
7. Support nationwide systems as defined in the Magnuson-Stevens Fishery Conservation and Management Act

# Partner Projects

The ACCSP supports program partners in achieving fisheries data collection goals by awarding grants through a competitive process. The competitive process is linked with the data collection standards for various modules. Catch and effort data, biological data, bycatch/species interaction data, and then social and economic was the order of priorities for data collection projects in 2013.

The objectives of these projects are varied, but may include expanding data collection using SAFIS, obtaining data for fishery management plans (FMP), increasing sampling for MRIP, and promoting compliance of fishermen and dealer reporting. Below is an overview of the data projects funded in 2013. On the following pages, you can find detailed descriptions of the progress of each project.

## 2013 PROGRAM PROJECTS: AT-A-GLANCE

PROGRAM PARTNER	PROJECT TITLE	MODULE(S)	AWARD
ME DMR	Managing Mandatory Dealer Reporting in Maine ( <i>ongoing since 2004</i> )	Catch & Effort, Metadata	\$149,491
	Continue Portside Commercial Catch Sampling and Comparative Bycatch Sampling for Atlantic Herring, Atlantic Mackerel, and Atlantic Menhaden ( <i>ongoing since 2003</i> )	Catch & Effort	\$113,815
MA DMF	Continue Trip-Level Reporting for All Massachusetts Commercial Permit Holders ( <i>ongoing since 2010</i> )	Catch & Effort	\$53,504
RI DFW	Maintenance and Coordination of Fisheries Dependent Data Feeds to ACCSP from the State of Rhode Island ( <i>ongoing since 2000</i> )	Catch & Effort	\$82,272
NJ DFW	Continued Dealer Reporting, Trip-Level Reporting, and Biological Sampling for Commercial Fisheries in New Jersey ( <i>ongoing since 2001</i> )	Catch & Effort, Biological	\$53,504
MD DNR	Improve Timeliness and Reporting Accuracy in Maryland and to Expand Online Reporting for Maryland Commercial Fisheries ( <i>ongoing since 2004</i> )	Catch & Effort	\$81,632
SC DNR	ACCSP Data Reporting from South Carolina's Commercial Fisheries, 100% Trip-Level Catch and Effort Data Collection ( <i>ongoing since 2001</i> ) and Biological Sampling for Hard Part/Ageing of Offshore Species ( <i>ongoing since 2004</i> )	Catch & Effort	\$41,500
ASMFC & MAFMC	Observer Program for Mid-Atlantic and Rhode Island Small Mesh Otter Trawls ( <i>ongoing since 2011</i> )	Biological, Bycatch, Catch & Effort	\$160,784
NOAA – Southeast Fisheries Science Center	Processing and Ageing Biological Samples Collected from U.S. South Atlantic Commercial and Recreational Fisheries in Response to ACCSP Bio-sample Targets ( <i>ongoing since 2012</i> )	Biological	\$236,440
ACCSP	Develop and Test Handheld Platforms to Enter Data using SAFIS	Catch & Effort	\$141,756
	Increase At-Sea Sampling Levels for the FHS Headboat Fishery on the Atlantic Coast ( <i>ongoing since 2003</i> )	Catch & Effort, Biological, Bycatch	\$129,565



## MAINE DEPARTMENT OF MARINE RESOURCES

Beginning in January 2008, ME DMR began collecting mandatory trip-level dealer reporting. For the first time, detailed data were collected on all of Maine's commercial fisheries. The objective of this project in 2013 has been to continue with the implementation of the comprehensive dealer reporting regulation for all 600 plus dealers that buy directly from harvesters. Below is a list of some of the major tasks executed by ME DMR staff to accomplish this objective.

1. *Regulation enforcement:* Since 2009, ME DMR has made referrals to Marine Patrol four times a year. Many recent enforcement calls occurred during the northern shrimp and elver season as ME DMR enforced a weekly reporting regulation for all shrimp and elver dealers beginning in January 2013. Starting in January 2014, the DMR will start suspending licenses if dealers are delinquent with their mandatory reporting requirements.

2. *Data entry:* Staff works to enter positive trip records into SAFIS and MARVIN (the database that houses all catch and sampling data for ME DMR). Also, staff typically uploads data to the Data Warehouse about twice a month in order to facilitate quota monitoring. Staff also works vigorously to maintain the accuracy of the data by checking for unknown harvesters, unknown vessels, weights that exceeded a trip limit, high and low prices, wrong species-gear-disposition combinations, species caught outside of the season, and dealers who reported buying from unlicensed harvesters.

3. *Outreach:* In order to help industry understand the importance of accurate and timely reporting, staff often works with dealers to discuss options and provide training on software. Electronic reporting is encouraged for those still opting to report on paper. These data also are available to scientists, private organizations, industry, aca-



demia, and media that may have a specific question, or custom data request, on fisheries data in Maine.

This project helps ensure that fisheries managers have the most accurate and timely information available when fisheries-related decisions are made. A preliminary report issued by ME DMR in February 2014 showed that:

1. In 2013, Maine's commercially harvested marine resources exhibited a 5% decrease in pounds landed and a 1% increase in value over 2012.
2. There were 7,320 active Maine commercial fishermen in 2013 (of those, 4,239 were active commercial lobster harvesters out of 5,792 lobster license holders).



3. The top five fisheries in terms of active harvesters included lobster with 4,239, soft shell clams with 1,749, elvers with 753, marine worms with 652, and periwinkles with 613.

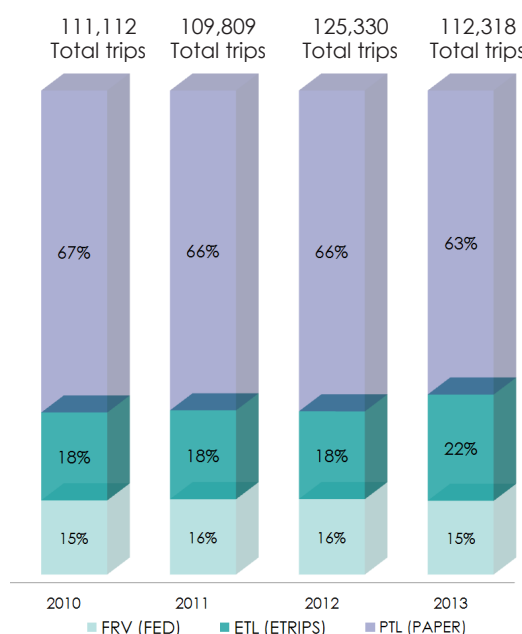
In the past five years the project has shown to be vital for monitoring changes in fisheries, providing knowledge of fleet characteristics, and ensuring accurate communications to NOAA Fisheries and ASMFC about Maine landings. The Department also uses the data submitted for socio-economic reasons. This data collection is one of the best ways to monitor the health of Maine's fisheries.

Evolving since 2003 when it began as a portside Atlantic herring bycatch survey, ACCSP has also provided funds to ME DMR to collect data from three important New England fisheries (Atlantic herring, Atlantic mackerel, and river herring). What makes this project so unique is its true collaborative nature. Not only does ME DMR staff work closely with NOAA Fisheries observers but it also pools resources with staff from MA DMF by identifying co-occurring trips and comparing results between at-sea and portside sampling. This year the partners combined databases with NOAA Fisheries and MA DMF to provide a centralized data stream for better analysis. Recently, results from this project have been used by the NEFMC in the development of Amendment 5 and Framework 4, by the ASMFC in its updated assessment report for river herring, and in bycatch examinations for setting the river herring catch cap for the Atlantic herring fishery. Also, catch-at-age matrices have been developed and used in assessments for Atlantic herring and mackerel, while biological samples of Atlantic herring and river herring bycatch have been used for determining important parameters for the assessment models in use. Further biological samples of herring were and are expected to continue to be important for determining spawning area closures in the directed Atlantic herring fishery.

## MASSACHUSETTS DIVISION OF MARINE FISHERIES

Starting in 2010, MA DMF embarked on a new project, supported through the ACCSP, to achieve a goal common to all ACCSP program partners – to collect comprehensive, standardized trip-level catch and effort data from all commercial permit holders. Prior to that, MA DMF had collected catch and effort data from commercial harvesters using 19 different catch report types directed at specific fisheries. Some of the report types collected data at the trip-level, whereas some were submitted annually and summarized only on a monthly basis. Now the state-reporting harvesters can report one of two ways: 1) electronically through the use of the ACCSP eTrips application or 2) via paper submission, which is delivered by mail, email or fax (see below for the number of commercial permits issued and reporting type by year). Because many commercial permit holders are not capable of reporting electronically, paper submission is their only option, and thus MA DMF must accommodate handling the reports and entering the data submitted in this fashion. All data reported to MA DMF is then

### MA DMF ISSUED COMMERCIAL PERMITS BY REPORTING TYPE & YEAR



entered directly to SAFIS database using the eTRIPS application, as is done by state-reporting harvesters reporting electronically. Thus all state-reported catch and effort data ends up in the SAFIS database, regardless how it is submitted. Catch and effort data reported by federally permitted vessels (i.e., VTR data) is maintained independently by NOAA Fisheries, and those permit holders do not report to MA DMF. In 2013, 15% of commercial permit holders reported this way, whereas the remainder reported to MA DMF, with approximately two thirds of the permit holders submitting paper reports.

During 2013, MA DMF staff continued to use with great success a special module of the eTRIPS application, where a comma separated value (CSV) file, containing multiple trip records, could be uploaded to SAFIS. This meant MA DMF staff could enter all data locally into a customized spreadsheet, taking advantage of copying repeatable trip based attributes across multiple records, which could then be transformed easily into a CSV file for upload. This improved the time to process and enter paper-based reports dramatically compared to entering them one trip at a time through the eTRIPS application.

This project, which collects standardized comprehensive fishery-dependent data from harvesters, together with comprehensive landings data from dealers, creates improvements in data quality, quantity, and timeliness. Although this project only covers the activities of Massachusetts commercial harvesters, it does include the harvest of species which are managed regionally, such as lobster, striped bass, scup, and sea bass. Thus regional management bodies such as

ASMFC benefit from having comprehensive fisheries dependent data from Massachusetts. MA DMF also has been collecting economic data on a year-end report about some of its fisheries, such as value of vessel, fuel used, value of gear. These data can be provided to ACCSP when the socio-economic modules are ready to accept data.

## RHODE ISLAND DIVISION OF FISH & WILDLIFE

With funds from ACCSP, the RI DFW was able to maintain the coordination of fishery-dependent data feeds to ACCSP. RI DFW requires all seafood dealers holding a Rhode Island seafood dealer license to enter complete trip-level data into SAFIS every Monday and Thursday (RIMFC Reg section 19.14). State licensed and federally permitted dealers are given technical support upon request. Most of these requests concern the file upload process, conversion table updating, and general assistance with user applications. All new Rhode Island dealers are trained on SAFIS by RI DFW. They also processed the







submitted logbooks, entered data directly into eTRIPS, and checked quality assurance for the 2012 and 2013 catch and effort harvester logbooks. Monthly compliance tracking for the Harvester Logbook was also carried out to monitor all license holders that are required to fill out the logbook for compliance with Rhode Island Regulations (RIGL 20-2.1-4(d) & 20-4-5) including those fishermen who are authorized to enter their data directly into eTRIPS. RI DFW continues to use SAFIS dealer landings as the primary source for quota monitoring data. Additionally, data requests of SAFIS dealer reports were processed frequently during this period; many requests were processed in support of ASMFC compliance reports and FMPs, shellfish management, enforcement, and commercial fishing license tracking.

During the reporting period, 140 positive commercial trips were entered into the eTRIPS system for 2012 and 11,158 for 2013, which brought the total number of trips entered for Rhode Island to 55,001.

There were 829 dockside sales reports entered into an in-house database for 2013.

Vessel trip reports were monitored for 202 vessels and their associated captains. Additionally, data requests relative to catch and effort of finfish, whelk, and crustaceans were completed for RI DFW staff and were used in progress reports, compliance reports, and in house stock assessment models. Rhode Island utilizes a voluntary online saltwater recreational fishing logbook through the ACCSP application, eLogbook. In 2010, the RI DFW adopted Marine Fisheries Regulation 7.9.1-2 requiring all party and charter vessels that make tautog dedicated trips to fill out reports in the eLogbook application. This requirement allows RI DFW to be able to accurately quantify the landings, as well as the amount of fishing pressure tautog experiences from party and charter vessels. These data are useful in creating and developing updated regulations for the tautog fishing seasons, minimum sizes, and bag limits.

## NEW JERSEY DIVISION OF FISH & WILDLIFE

Since 2001, several projects - which meet ASMFC fisheries management guidelines - have been and continue to be implemented in New Jersey through funds provided by the ACCSP. Below is a list of the projects and tasks that have proved to be invaluable in proactive management of the significant marine resources in New Jersey.

*1. Electronic Vessel Trip Reporting and Electronic Dealer Reporting (eDR):* As of July 2013, the NJ DFW put into effect mandatory online reporting for the Atlantic menhaden fishery through SAFIS. Currently 130 new eTRIPS and eDR accounts have been created for commercial menhaden fishermen and dealers. With the addition of these new accounts, New Jersey has acquired 362 eTRIPS and 144 eDR accounts for individuals actively participating in the commercial blue crab, Atlantic menhaden, and American eel fisheries. Staff also continues to update user accounts, provide logistical support



for fishers entering data, and supply new users with the tools necessary to report commercial landings successfully. A total of 294,588 trips have been recorded for New Jersey fishermen in the eTRIPS application.

There is continued implementation of the SAFIS electronic dealer reporting (eDR) application for state and federally permitted seafood dealers in New Jersey for the quota-based management of key regulated species including summer flounder, black sea bass, Atlantic menhaden, bluefish, and scup.

### *2. Biological Characterization of Commercial Fisheries:*

There New Jersey continues to implement biological sampling for ASMFC regulated species (e.g., weakfish, Atlantic croaker, American shad, Atlantic menhaden, and American eel) through fishery-dependent port sampling. Also, summer flounder, black sea bass, and river herring (alewife and blue back) are sampled through the fishery-independent Ocean Trawl Survey.

### *3. Fishery-Dependent At-Sea Observer Program:*

New Jersey ACCSP staff continue at-sea observer sampling for American lobster, and tautog. Since 2008, ACCSP staff have participated in 78 observer trips for American lobster, characterizing and measuring nearly 61,000 individual lobsters. These data are the only source from waters off the coast of New Jersey (Lobster Conservation Management Areas 4 & 5). For tautog, data is collected from two



primary sources: the commercial fishery, and the recreational party/charter boat sector. These fishery-dependent are critical to identifying trends in commercial landings and accurate management.

*4. Data Feeds:* Staff maintains data feeds to the ACCSP for inclusion into SAFIS and the Data Warehouse.

## MARYLAND DEPARTMENT OF NATURAL RESOURCES

MD DNR was awarded \$81,632 to improve timeliness and reporting accuracy by expanding online reporting for commercial fisheries. This year was focused on recruiting and hiring a new Fisheries Coordinator to continue the extensive outreach effort to promote online reporting for federal and non-federal dealers, charter captains, crabbers, and fishermen. MD DNR will work diligently to mail announcements and outreach materials explaining the benefits of electronic reporting, how to go about obtaining an account, and all reporting related notifications to interested parties. To reach interested parties, remote

meetings are attended to meet watermen and train license holders how to sign-up for and use the online reporting system. Sign up forms are also available on both of the MD DNR and ACCSP websites. As an additional step for training on SAFIS, MD DNR has worked with a contractor to create video tutorials that walk watermen through the online reporting process. The tutorials show watermen how to set up favorites or default settings, add trip reports, add negative reports, and add a charter trip reports.

The continuation of online reporting will allow MD DNR to more accurately and efficiently manage particular fisheries and their respective quotas. Up to the minute data collection will help MD DNR better manage fisheries harvest, provide additional warning to fishermen about fishery closures, and allow monitoring of individual quotas.



## SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES

With funds from ACCSP, the SC DNR is able to make certain that fishery-dependent data collected from the fishing industry are accurate, complete, and consistent with the objectives of 1) the catch and effort data collection and 2) the biological sampling protocols set forth by the ACCSP. In order to ensure this, SC DNR actively collects data from 100% of all marine and diadromous commercial fishermen landing fisheries products in South Carolina. The state's commercial catch and effort data collection occurs through mandatory trip ticket logbook reporting system where trip-level landings data are recorded. This is a cooperative effort made by both the commercial fisherman and the wholesale seafood dealer through the state established one-ticket system.

During the past year, the Fisheries Statistics Section of SC DNR tracked compliance on 236 licensed wholesale dealers, collecting over 35,187 individual trip records from 715 commercial fishermen. Additionally, the biological sampling effort during this same timeframe resulted in samples collected from 93 commercial fishing trips amassing 1,865 length frequencies and 1,782 age structures (otoliths and spines) from 36 individual species from the snapper/grouper complex and coastal pelagic species.

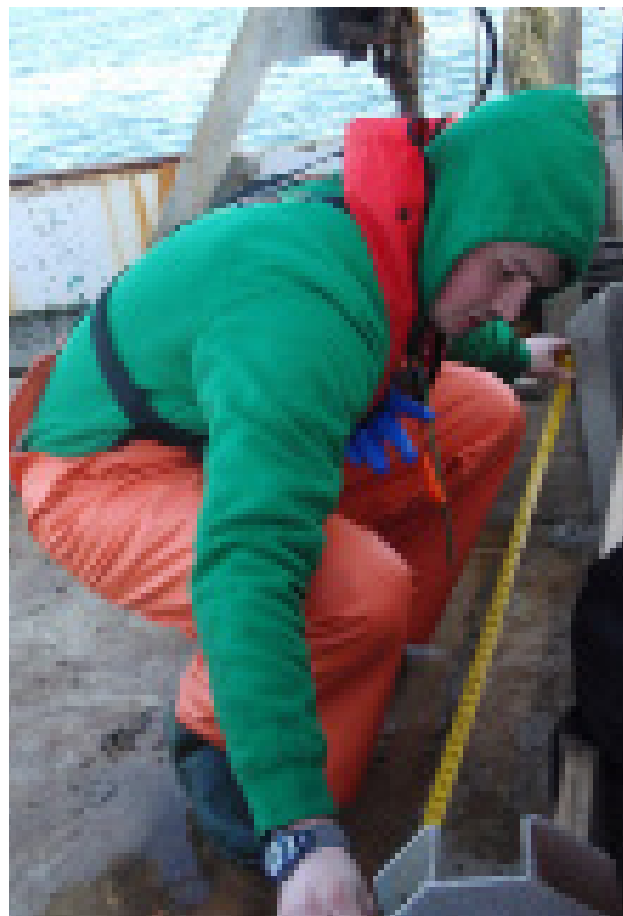
The red snapper mini-fishing season during this same period allowed SC DNR to collect 53 whole fish or fish racks for collection of length frequencies, sex (when available), and otoliths from the recreational and commercial sectors provided an additional 22 gutted fish for the collection of length frequencies and otoliths. These data were used in the August 2014 Southeast Data Assessment and Review (SEDAR) of the red snapper stock assessment. SC DNR Fisheries Statistics Section staff continually provides additional support to other program partners in order to collect and provide a comprehensive representation of commercial fisheries and how best to manage their resources.



## ATLANTIC STATES MARINE FISHERIES COMMISSION & MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

The purpose of this project is to collect biological and discard data for commercially and recreationally important species from the small mesh otter trawl fisheries in the Mid-Atlantic region (New Jersey, Maryland, Virginia) and Rhode Island using at-sea observers. This ongoing project has been supported by ACCSP since 2011 and is a partnership between ASMFC and MAFMC. Obtaining discard and biological information is critical to adequately characterize the quantity, length, and age compositions of fishery catches. Increasing at-sea observer coverage is a recurring high priority issue for several species managed by ASMFC and MAFMC in order to obtain commercial discard and associated biological data for use in stock assessments and FMPs. Also, ASMFC has developed a list of coast wide critical research priorities identifying the need for at-sea observer data of discards, age/length samples, and catch/effort data for multiple species. All of these species are identified in the upper quartile of the ACCSP Biological Matrix. Additionally, the catch and effort data obtained from these trips are supplied to the appropriate partner(s) to be able to validate vessel reported and landings information.

The primary goal of this project is to increase observer coverage on the small mesh bottom trawl fishery. All observers are deployed on commercial vessels that utilize small mesh (<5.5") otter trawls in state and federal waters of the Mid-Atlantic and Rhode Island. The Observer Program for the Mid-Atlantic and Rhode Island contracts sea days from the Northeast Fishery Observer Program (NEFOP) and then takes single or multi-day trips each month throughout the year. The days and time periods are adjusted by region to ensure that observer coverage is effectively applied to species of interest. The observers document the discards and collect biosamples from species of interest, which include river herring, scup, weakfish, croaker, bluefish, black



sea bass, summer flounder, and spiny dogfish. The collected specimens are sexed, enumerated, measured, and weighed in accordance to the NEFOP protocols, and the data are submitted in compliance to ACCSP guidelines. After 90 days, the observer data are uploaded to the NEFOP database and then made available to ACCSP at the end of each year.

In addition to collecting biological data from samples, the observers also extract age structures. Through August 2013, there have been approximately 2,700 scale and 600 otolith samples collected from various species of interest which give insight to the age structure of each population. In summer 2013, a fish ageing specialist was hired at the Virginia Institute of Marine Science to process all of the samples since 2011. This observer program employs a regional approach, which is considered to be the most efficient methodology to address fisheries observer coverage needs, as it more effectively



collects data on multiple species throughout multiple states. This also helps to promote consistency in data collection across state boundaries. The greatest benefit that the observer program provides is the biological information obtained from the bycatch of commercial fisheries. This supplies stock assessment scientists and fisheries managers with more precise data that can be utilized to enhance modeling and decision-making across the Mid-Atlantic region.

## NOAA FISHERIES - SOUTHEAST SCIENCE CENTER

The primary objective of this project, continued from 2012, is to process and age ACCSP-prioritized reef fish species in support of stock assessments for those species through the SEDAR process. The data associated with each sample was verified, standardized to ACCSP protocols, and logged into a bio-sample inventory.

Another objective of this study was to create reference collections to exchange with other laboratories and participate in ageing workshops. The SEDAR species for 2014 include gag grouper, red snapper, and red porgy. The fish ageing laboratory in Beaufort, which includes the three staff contracted through ACCSP funds, two perma-

nent staff, and one other contract staff was able to process and age 7,399 gag grouper samples collected from 2005-2011 and provide data in January 2013. A total of 950 red snapper samples have been received since the last assessment, of which 800 have been processed and aged. Before red porgy was replaced on the SEDAR schedule, the majority of 2,909 samples in the lab's inventory were processed. Other species that the Center has been continuing to process and age include vermilion snapper ( $n = 13,037$ , processing only), tilefish ( $n = 3,107$ , processing only), black sea bass ( $n = 4,303$  processed; 3,500 have been aged), and blueline tilefish ( $n = 1,625$  processed; 1,128 have been aged).

## ACCSP

In partnership with RI DFW, ACCSP began the next phase of a SAFIS expansion to develop, test, and pilot handheld system software and hardware for data entry. Initially deployed in 2004, SAFIS has become a critical component of fisheries data reporting. Originally written in Oracle Forms, the system has undergone numerous revisions over its life to accommodate changes in technology, the needs of the program partners, and the requests of the end-users.



As of late March 2014, Harbor-Light Software had developed an Android version of the SAFIS mobile application (SAFIS/M) and is planning to release the Windows version later in 2014. It is anticipated that the Apple Operating System will follow shortly. Initial user testing by Rhode Island fishermen resulted in quality feedback being provided to Harbor-Light. This exchange process has facilitated a greater understanding of how the application needs to work on everything from the flow of data to the color of the screens.

Also, the ACCSP Recreational Technical Committee of the ACCSP sponsored a proposal to increase headboat at-sea sampling levels for the for-hire component of the MRIP survey on the Atlantic coast. With the reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act, the need for precise regional estimates of the recreational fisheries have become increasingly critical. Increased sampling benefits recreational data users by improving the precision of the catch estimates and emphasizing 'high priority' species for assessment updates. This project funded 302 additional at-sea sampling trips aboard headboats in New Hampshire, Massachusetts, New York, New Jersey, Delaware, Maryland, North Carolina, Virginia, South Carolina, Georgia and the East coast of Florida (see table below).

In 2013, ACCSP increased the sample for headboats by 49% along the Atlantic Coast. The increase in sample size should reduce variances and allow for more precise estimates of recreational fisheries data. Also, improved precision of catch estimates allow for timely 'observed harvest' and 'released alive' information relevant to upcoming and current stock assessments (see table below).

### HEADBOAT SAMPLES

STATE	NOAA FISHERIES	ACCSP
New Hampshire	20	11
Massachusetts	44	21
New York	50	23
New Jersey	56	23
Delaware	34	16
Maryland	42	20
Virginia	34	17
North Carolina	56	26
South Carolina	28	14
Georgia		11
Florida (East Coast)		120



This project increases collection of biological information (e.g., lengths, weights) using discards and harvest landings and preserves the only existing coastwide time series on discard catch from headboats.

### HEADBOAT SPECIES OF CONCERN

STATE	SPECIES OF CONCERN
New Hampshire	<i>Atlantic cod, Atlantic mackerel, haddock</i>
Massachusetts	<i>Scup, winter flounder*</i>
New York	<i>Atlantic cod, black sea bass*, tautog*, scup*</i>
New Jersey	<i>Striped bass</i>
Delaware	<i>Tautog</i>
Maryland	<i>Atlantic croaker</i>
North Carolina	<i>Black sea bass, gray triggerfish, red porgy, vermillion snapper</i>
South Carolina	<i>Black sea bass, vermillion snapper</i>
Georgia	<i>Black sea bass, red snapper, vermillion snapper</i>
Florida (East Coast)	<i>Black sea bass, gag, red grouper, red porgy, red snapper</i>

\* Indicates those species that have upcoming regional stock assessments, updates, or review.



# Data Warehouse

The Data Warehouse is an online database populated with Atlantic coast fishery-dependent data. It is one way the data collected from the projects described in this report are organized and disseminated. The Data Warehouse contains commercial landings from Maine through Florida from 1950 through 2013 and recreational landings from Maine through Florida from 1981 through 2013 (Please see page 25 for more details on these data).

What makes the Data Warehouse unique is that it harmonizes data received from program partners using one integrated set of codes for variables such as species, gear, and fishing area. Also, it gives users flexible and intuitive data queries to retrieve and download the information they need.

## HOW ARE THE DATA ACCESSED?

Users of the data in the Data Warehouse can include anyone interested in Atlantic coast fishery-dependent data, such as fishery managers, stock assessment scientists, writers, historians, commercial and recreational fishermen, students, NGOs, as well as federal, state, or local government employees. Over time, several distinct methods for gaining access to the data have evolved. The data are accessed through the 1) Public Data Warehouse, 2) Login Data Warehouse, 3) partner agencies, or 4) by a custom data request. In June 2013, the ACCSP released the Public Data Warehouse for open, instant access for public users. The Login Data Warehouse is available for those with login credentials (i.e., non-confidential or confidential accounts). Partner agencies can retrieve data from the Data Warehouse through a direct database connection. Any level of user may access the data through a custom data request.

### 1. PUBLIC DATA WAREHOUSE

The Program released the Public Data Warehouse in June 2013 allowing instant access to non-confidential data sets. This new Public Data Warehouse feature increases accessibility for first-time

## DATA WAREHOUSE ACCESS

### 1. Public Data Warehouse:

*An online query system for instant access to non-confidential data*

- Online since June 2013
- 1,000 queries in nine months

### 2. Login Data Warehouse:

*An online query system that allows access to data sets specialized for each non-confidential or confidential account*

- Online since 2002
- Currently, 680 non-confidential & confidential accounts
- 10,000 queries in 2013

### 3. Partner Agencies:

*Links for automated extraction and/or replication of data to their own data systems*

- State agencies, GARFO, GSMFC, NOAA Fisheries, NEFSC, & SEFSC

### 4. Custom Data Requests:

*Specific queries run by the Data Team for individuals from program partners, universities, NGOs, & media*

- Approximately 60 completed in 2013

or less frequent visitors of the Data Warehouse. This improved availability of fishery-dependent catch and effort data was a suggestion from the 2012 Independent Program Review. In the nine months that the public query tool has been available, over 1,000 user queries were completed.

## 2. LOGIN DATA WAREHOUSE

Most users access the Data Warehouse by requesting login credentials for a non-confidential or confidential account. The Login Data Warehouse is equipped with an online query tool that allows users to customize a number of prebuilt queries. The query tool understands the level of access of the account holder and presents only those data that are appropriate. Currently, the Program has approximately 680 non-confidential and confidential accounts for the Data Warehouse. In 2013, account holders completed nearly 10,000 queries. Much of the data extracted from the Data Warehouse from login users are used for reviewing landings history and trends for stock assessments and FMPs.

## 3. PARTNER AGENCIES

The fishery data systems of the Atlantic and Gulf coasts are cooperative and interdependent. The success of the ACCSP data systems is directly related to this ongoing support and use of the data by our partner agencies. Some state agencies, NOAA Fisheries - Headquarters, Greater Atlantic Regional Fisheries Office (GARFO), Northeast Fisheries Science Center (NEFSC), Southeast Fisheries Science Center (SEFSC), and Gulf States Marine Fisheries Commission (GSMFC) have linkages to the Data Warehouse for automated extraction and/or replication of data sets to their own data systems for use by partner agency staff. These data are often used for reporting compliance and reviewing permitting requirements.

## 4. CUSTOM DATA REQUESTS

Custom data requests are another way of accessing the data in the Data Warehouse. Anyone with a unique question or that may not be able to retrieve the data they desire from the Data Warehouse can work with staff to create a custom data request.

Since 2008, almost 300 custom data requests have been completed by the Data Team, approximately one-third of those in 2013. This past year, many of these requests came from the program partners. However, staff also worked with individuals from the U.S. Coast Guard, National Resource Defense Council, Edible Jersey magazine, and many universities to supply relevant data sets.

## DATA WAREHOUSE STATISTICS

- 31 Dispositions
- 55 Grade Categories
- 107 Market Categories
- 143 Gear Codes
- 152 Areas
- 836 Species
- 11,421 Dealers
- 70,572 Vessels
- 76,658 Fishermen
- 56,027,360 Landings Records



## WHAT DATA ARE IN THE DATA WAREHOUSE?

### Commercial Catch & Effort

The goal of program partners is to advance the implementation and maintenance of trip-level reporting for all fisheries. At this time, the catch and effort data module is the most complete.

The chart below reflects the level of detail of the catch and effort data in the Data Warehouse. More importantly, this chart shows how collection methods have evolved. The broadest level of catch and effort data in the Data Warehouse is annual summaries dating back to 1950.

### Recreational Catch & Effort

Data Warehouse users can also query or request recreational catch and effort data. The most recent data includes wave 6 (November - December) for 2013. The 2004 - 2012 data have been updated in conjunction with the new MRIP estimation methodology released in early 2012. This includes both the public estimates and the advanced queries for bag limit analysis and directed trips.

### Biological Data

Additionally, users have access to available biological data. This biological data includes information on American lobster from 1981 - 2012 and Atlantic herring from 2002 - 2011.

## STATUS OF STATE PARTNER COMMERCIAL CATCH & EFFORT DATA

This chart illustrates how commercial catch and effort data are collected at the partner level and the level of detail at which those data are submitted to the Program. For example, 'Trip reports (presented as monthly summaries)' means that data were collected by partners at the trip-level and submitted as monthly summaries to NOAA Fisheries or ACCSP. The Program began receiving all data directly from partners in 2007.

Annual summaries
Monthly summaries
Trip reports (represented as monthly summaries)
Mixed trip reports and monthly summaries
Trip reports (all fisheries)

	1950 - 1977	1978 - 1985	1986 - 1988	1989	1990 - 1993	1994	1995 - 2000	2001 - 2003	2004	2005	2006	2007 - Today
ME DMR												
NH FGD												
MA DMF												
RI DFW												
CT DEEP												
NYS DEC												
NJ DFW												
DE DFW												
MD DNR												
VMRC												
NC DMF												
SC DNR												
GA DNR												
FL FWCC												

## HOW ARE THE DATA LOADED INTO THE DATA WAREHOUSE?

### ANNUAL COMMERCIAL CATCH & EFFORT LOAD PROCESS

Commercial catch and effort data are loaded into the Data Warehouse by the Data Team twice a year. The preliminary load of the previous year's data occurs from February through April. These data are considered preliminary due to known late reporting issues, but are still a good measure of landings. During the final load of the previous year's data, from August through September, updates are made to previously submitted data sets and late reports are added. Once this final load process is complete in September, the previous year's data is a robust and complete measure of landings.

#### *Identify Data Sets & Consolidate Participant Files:*

The data load process begins each year when approximately 30 data sets (See page 28 for data sets collected by staff in the spring of 2013) are identified and individual participant files (e.g., dealers, fishermen, vessels) are submitted to ACCSP staff by the program partners. Staff then load the participant files for each data source and merge those data to remove duplicate entries and maintain a history of the individual permits.

*Load Initial Data:* Next, program partners submit trip-level data sets including dealer landings, as well as harvester and fishermen catch records. Before data submission, program partners are responsible for the first round of quality assurance and control measures. Each partner has its own unique set of measures. These submitted trip-level data sets include references to the previously loaded participant files (see *Identify Data Sets & Consolidate Participant Files*). At this point, the Data Team completes an initial load of the data sets. If the participant information is not linked, the landings are entered as "unknown."

During this step, data sets are considered initial because there may be records that indicate dealer and fishermen information for the same fish being landed. However, this information is merged in the next step.

#### *Merge Dealer and Fishermen Data & Load Secondary Data:*

Due to variations in reporting requirements along the coast, in some cases the most accurate accounting for landings is a combination of dealer and fisherman reports. Therefore, the Data Team has written software (customized to program partner requests) to merge records for five states that have both fishermen and dealer data reporting requirements. During this step, the Data Team completes a secondary load of all of the merged data. Also, there is a second round of quality assurance and control measures, as ACCSP staff validates poundage, price, and conversion factors. If any program partners have resubmitted data, it will be updated at this time.

*Data Warehouse Views are Refreshed:* Once the process is complete, there is a refresh of the Data Warehouse including the preliminary data sets from the previous year conducted in April and then again in September incorporating final data sets from the previous year. At either point in the process, confidential and non-confidential account holders can view the previous year's consolidated data sets in the Data Warehouse. Both the preliminary and final data sets are submitted to NOAA Fisheries for inclusion within the fisheries databases of the Northeast Fisheries Science Center, Southeast Fisheries Science Center, and Headquarters. The data are also incorporated in the annual FUS document (See page 28 for more information). Once preliminary or final data sets are uploaded to the Data Warehouse, quality assurance and control queries can be run by members of the Commercial Technical Committee. If it turns out that partner data sets from any year need to be updated, those new data sets are integrated into the Data Warehouse after merges. If significant changes are incorporated to data sets, a



refresh to the Data Warehouse will occur and partners are notified so that they can update the data in their systems. Please visit <http://www.accsp.org/login.htm> for the most up-to-date commercial catch and effort data.

## ANNUAL RECREATIONAL CATCH & EFFORT LOAD PROCESS

The data set for the recreational catch and effort data is the information gathered from MRIP. Recreational catch and effort data are loaded into the Data Warehouse by the Data Team one week after those are released by MRIP. MRIP releases data 45 days after each collection period, known as a “wave” is complete. Each wave is a two month interval (i.e., January and February = wave 1, March and April = wave 2, May and June = wave 3, July and August = wave 4, September and October = wave 5, November and December = wave 6).

While the Data Warehouse stores the same information as MRIP, ACCSP provides added value to that information with time-saving tools (such as exporting pivot tables and the ability to email workbooks), attractive reports tailored to your needs, and the ability to create a query with a uniquely fine-tuned level of detail for Atlantic coast fisheries. Please visit <http://www.accsp.org/login.htm> for the most up-to-date recreational catch and effort data.

*June:* Load preliminary estimates from Jan. - April

*August:* Load preliminary estimates from May - June and any updates to previous months

*October:* Load preliminary estimates from July - Aug. and any updates to previous months

*December:* Load preliminary estimates for Sept. - Oct. and any updates to previous months

*February:* Load preliminary estimates for Nov.- Dec.

*April:* Load final estimates from previous year

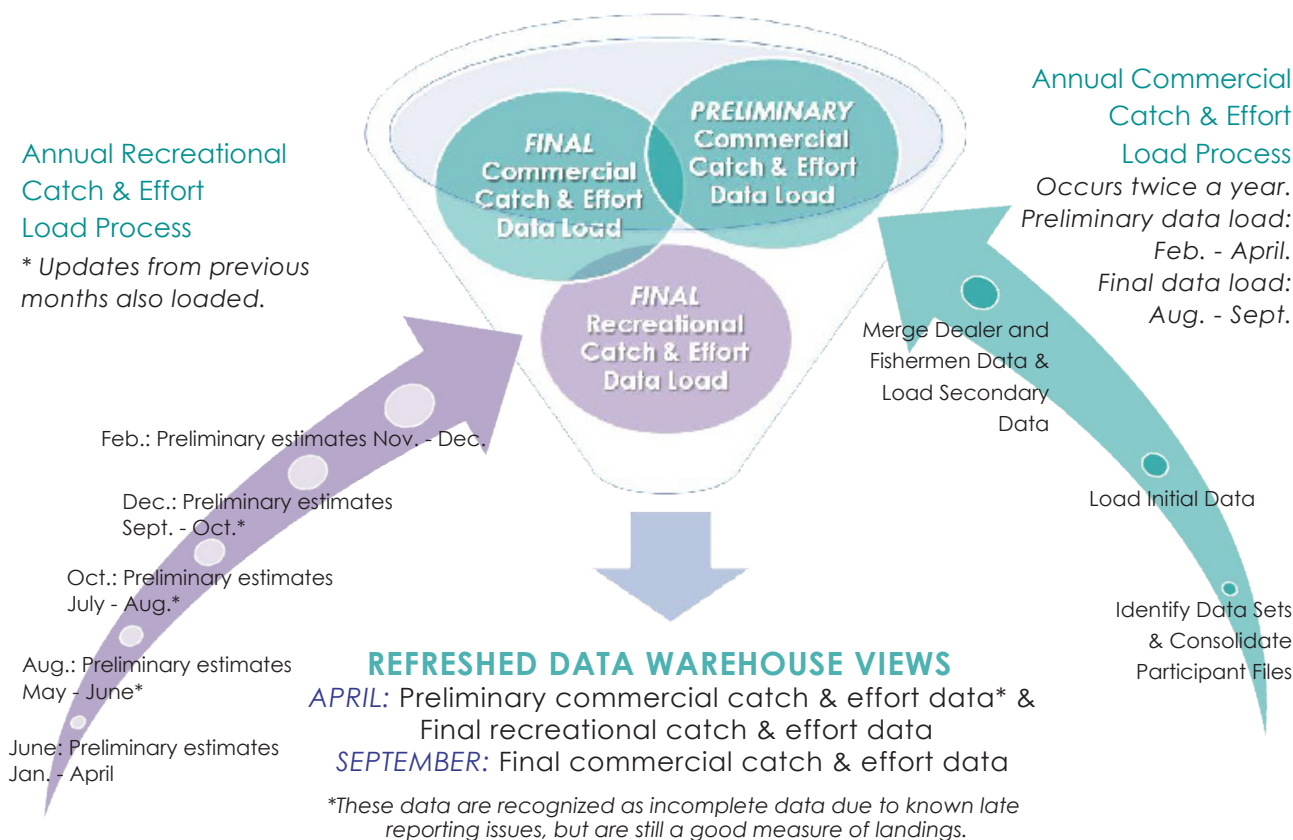
## ANNUAL COMMERCIAL AND RECREATIONAL DATA LOAD PROCESS

### Annual Recreational Catch & Effort Load Process

\* Updates from previous months also loaded.

### Annual Commercial Catch & Effort Load Process

Occurs twice a year.  
Preliminary data load:  
Feb. - April.  
Final data load:  
Aug. - Sept.



## FISHERIES OF THE UNITED STATES

Since 2007, the Program has worked in cooperation with NOAA Fisheries to bring together commercial landings data for the annual publication Fisheries of the United States (FUS). By working with partners to develop the FUS data sets, the Program is able to populate the Data Warehouse at a finer resolution to further support the ACCSP mission.

In the spring of 2013, staff compiled and submitted approximately 30 data sets to NOAA Fisheries, including SAFIS dealer reports through an open and collaborative process led by ACCSP. These data sets were obtained in the spring as preliminary and were updated as final data in Fall 2013.

The process has been expedited because partners have elected to use SAFIS, which compiles many data sets into a single data set. With the implementation of SAFIS, data are more readily available – a benefit to partners when it comes time for review-

ing data during stock assessments and developing fishery management plans.

For the FUS compilation process, the Data Team provides data from Maine to Georgia directly to NOAA Fisheries - Headquarters, while data from Florida are provided directly to NOAA Fisheries. It is important to recognize that ACCSP does receive data sets directly from Florida and incorporates those data into the Data Warehouse during the commercial catch and effort data load process (see pages 26 - 27 for more on the data load process), however, those data sets are not submitted by ACCSP as a part of the FUS process.

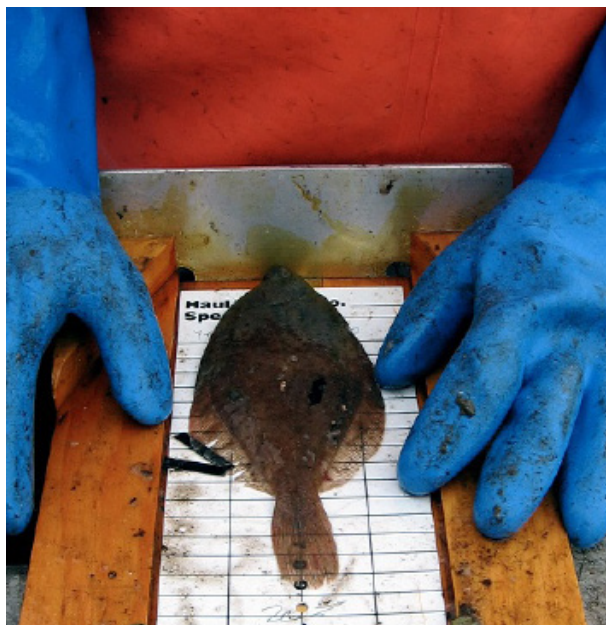
## STOCK ASSESSMENTS

Many custom data requests are used to aid stock assessments. To make sound and informed decisions for fish stocks and populations, there must be a fluid data review and assessment process between all those involved. Consequently, the Program has become

## DATA SETS FOR FUS

SOURCE	DATA SET(S)
SAFIS	Dealer reports: ME DMR (state and federal), NH FGD, MA DMF, RI DFW, NYS DEC, NJ DFW, DE DFW, MD DNR, VMRC; MA DMF swordfish canvas; eTRIPS: MA DMF (American eel), NYS DEC (Atlantic menhaden, horseshoe crab), NJ DFW (Blue crab, tautog)
NOAA Fisheries	Bluefin tuna and ocean quahog/surf clam ITQ (CODES): ME DMR, NH FGD, MA DMF, RI DFW, CT DEEP, NYS DEC, NJ DFW, DE DFW, MD DNR, VMRC; Wreckfish ITQ; Golden Crab
ME DMR	Supplemental & harvester records
NH FGD	Coastal harvester & lobster supplemental
CT DEEP	Dealer reports (SAFIS), VTR, eTRIPS (provide merged data to ACCSP)
RI DFW	Horseshoe crab & lobster supplemental; Aquaculture
NYS DEC	Hudson River shad, shellfish data, striped bass tag reports
NJ DFW	Fishermen & dealer reports for eel and menhaden
DE DFW	Trip-level finfish & state level shellfish
MD DNR	Fishermen & monthly dealer reports; Eel data from crabbers
PRFC	Fishermen reports
VMRC	VA fishermen reports
NC DMF	State trip reports
SC DNR	State trip reports
GA DNR	State trip reports
FL FWCC	State trip reports





an integral partner in the stock assessment process due to its ability to rapidly compile and disseminate fishery-dependent data for various audiences and providing details about particular records that were questionable. This helps the process move forward quickly. Not only does participation in the stock assessment process increase visibility for ACCSP, but the Data Team is able to see firsthand how the information in the Data Warehouse is used.

During 2013, the Data Team provided 1) commercial landings and a recreational index for SEDAR 32 (gray triggerfish and blueline tilefish); 2) commercial landings for SEDAR 36 (snowy grouper); 3) commercial landings for the Atlantic and Florida Gulf and shrimp data for bycatch purposes for SEDAR 38 (king mackerel); 4) commercial landings for ASMFC black drum assessment, and 5) commercial landings and biological data for the ASMFC lobster assessment.

## DATA & CONFIDENTIALITY

Along with data dissemination comes the responsibility of protecting confidentiality. The Program strives to achieve the right balance between confidential and available data. Confidential data are data that can lead to the identification of the contributing individual or

individuals. Federal and state laws prohibit disclosure of confidential data.

The Program uses the “rule of 3” for commercial catch and effort data. The “rule of 3” requires three separate contributors to fisheries data. This precludes the identity of a single contributor to fisheries data. In some cases, annual summary by state and species may still be confidential because only one or two dealers process the catch. Alternatively, if there is only one known harvester in a state, the harvester’s identity is implicit and those data are confidential. Each partner is responsible for maintaining the confidentiality of its data, as well as deciding who has access to its confidential data. Program partners grant individuals access to their data housed in the Data Warehouse.

The ACCSP policy for confidentiality requires that any data summary that is publicly disclosed must include landings from at least three dealers, three harvesters, and three vessels to be considered non-confidential.

## SYSTEMS IMPROVEMENTS & AVAILABILITY

In 2013, the Data Team has made additional efforts toward improving data quality and accuracy. Staff implemented landings checks against historical NOAA Fisheries data sets and worked to update the Data Warehouse with partner data sets where discrepancies were found.

A less visible role of the Data Team is to ensure that all of the computer systems are online and available. These activities consist of regular maintenance focused on network stability, server hardware and software updates, database and file backups to tape. In 2013, ACCSP focused on network security and performance, including purchase of replacement hardware for the SAFIS database host and internal network file, print, and backup servers. Several local power outages occurred in 2013, but due to prior connections to backup generator power, system outages were minimized.

# Standard Atlantic Fisheries Information System

In 2003, the program partners created SAFIS to meet the increasing need for real-time commercial landings data. With this system in place, ACCSP diversified from just a data storage program to include data collection. In the past ten years, SAFIS has grown to include five distinct applications - and not just for commercial landings, but also recreational. While SAFIS enables data to be transferred directly into the Data Warehouse, those data are still collected under the authority of the associated program partners (see pages 26 - 27 for more on the data collection process).

It is important to recognize that while the five SAFIS applications (listed on this page) function independently, all are kept within the same database and share standards and codes that are ACCSP compliant. The Software Team (see page 38 for more information on the Software Team) works to coordinate the development and management of the software supporting SAFIS.

## ELECTRONIC DEALER REPORTING (eDR)

eDR is a web-based application that allows dealers to enter an electronic dealer report. Fields that must be entered for a completed report include fisherman, port, date landed, time landed, date purchased, vessel number, species, disposition, gear, quantity, and price.

eDR has a unique price board feature that allows for the price of a species to be saved for 14 days. It will automatically be adjusted to all reports for that time frame and can be incorporated to any incomplete reports. After 14 days the price must be re-entered. When reports are completed electronically an interactive report can be made to view progress and history of landings.

## ELECTRONIC TRIP REPORTING (eTRIPS)

eTRIPS is a web-based application that compiles catch and effort data from fishermen. Trip



reports, or log books in some fisheries, provide catch and effort data from a permitted fishing entity (fishermen or a vessel) or a single vessel. Trips may be categorized as commercial, party/charter, or recreational.

This application allows fishermen to create trip reports after entering in the required fields in the trip, effort and catch categories. Similar to the eDR application interactive reports can be made to illustrate progress and history of catch and effort.

## VOLUNTARY RECREATIONAL LOGBOOKS (eLogbook)

eLogbook is a web-based application that collects data from private recreational anglers on a voluntary basis. eLogbook formulates summaries of information on all species caught by the angler. This valuable tool is a way to provide narrow strategies for any given set of conditions and is a more efficient way for anglers to take a look at the past and save the daily entries.

## SINGLE TRIP TICKET DEALER REPORTING (e-1Ticket)

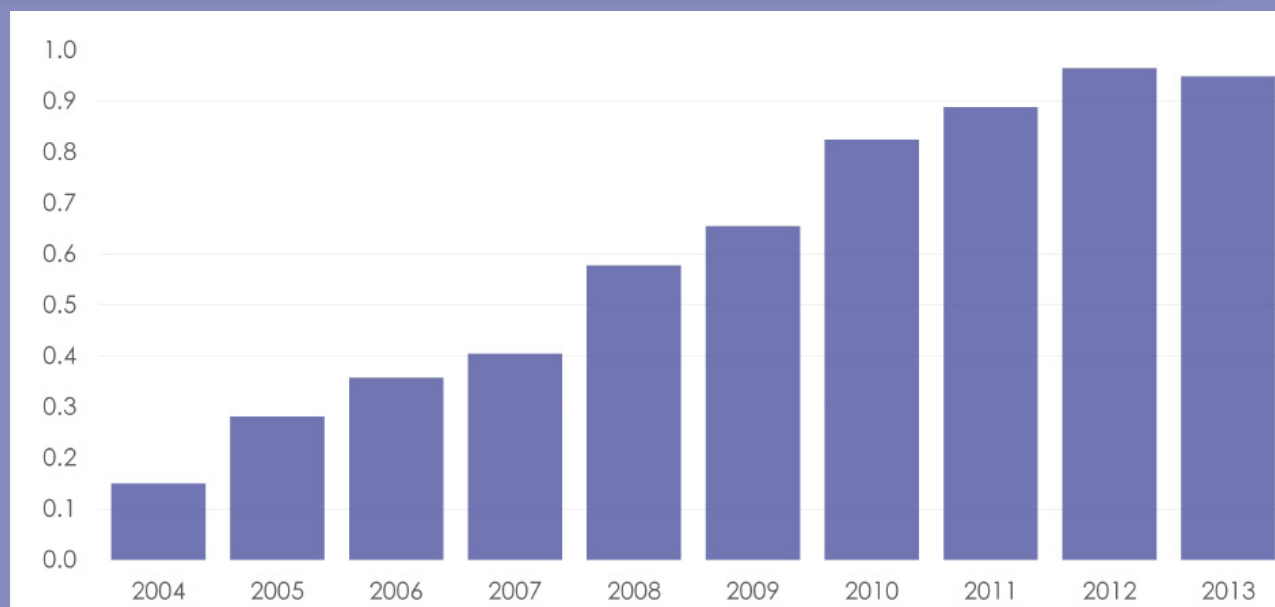
e-1Ticket is a web-based application providing the ability to collect trip/effort/catch data and simultaneously create a dealer report.

## SAFIS MANAGEMENT SYSTEM (SMS)

SMS is a web-based application providing administrative tools to SAFIS administrators for management of information such as user accounts, participants, or permits. It is often used to monitor quotas.



## NUMBER OF NEW RECORDS IN SAFIS (in millions)



## TIMELINE OF SAFIS IMPLEMENTATION

2004	2005	2006	2007	2008	2009	2010	2011	2013
eDR NH FGD MA DMF RI DFW CT DEEP MD DNR NOAA-NE	eDR NJ DFW DE DFW	eDR ME DMR	eDR NYS DEC	eTRIPS MA DMF NJ DFW NYS DEC  eLogbook NJ DFW	eTRIPS CT DEEP  eLogbook MA DMF	eTRIPS RI DFW MD DNR  eLogbook RI DFW MD DNR	eDR NOAA-SE  eLogbook DE DFW  e-1Ticket SC DNR GA DNR NOAA-SE	eLogbook CT DEEP NYS DEC

## BENEFITS OF SAFIS

1. Provides up-to-date information on species caught and its impact on fisheries and quotas across state and federal jurisdictions
2. Allows confidential access to data-of-record by fishermen and dealers
3. Fulfills state and federal reporting requirements through online data entry and eliminates duplicative reporting
4. Has the ability to collect highly migratory species data
5. Has an integrated price board to automatically generate pricing information
6. Allows for flexibility in creating favorites (e.g., species, gears, fishermen, dealers, and disposition) so reporting is quick and easier than ever
7. Management tools facilitate maintenance of partner-specific data such as participants, online permits, and vessels

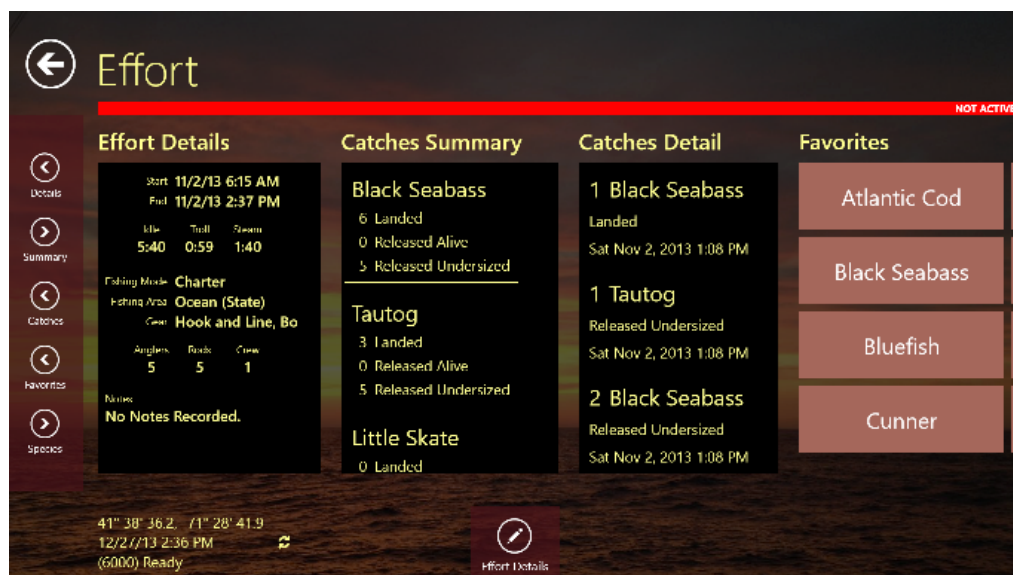
# Special Use Applications

In addition to the existing SAFIS applications, over the past year ACCSP has been working with its committees and program partners to develop several new applications or initiatives. Here is a sneak peek on these new developments that are currently in production or in the testing phases.

## SAFIS FOR HANDHELD DEVICES (SAFIS/M)

SAFIS/M is a mobile application being developed by HarborLight Software, ACCSP, and RI DFW. By offering immediate access to internet resources without a clunky computer or hard-wired connection, handheld devices (e.g., smart phones, tablet computers) have been gaining in both popularity and capability in recent years. These devices are able to offer increased flexibility in reporting, ease of use for the end users, and are also becoming widely accepted.

In particular, trip reporting for small scale operations will be revolutionized with the ability to report quickly and easily. Capturing data in near real time during a fishing trip will increase data accuracy and precision and would allow collection of data not obtained via traditional reporting methodology. A mobile software application which can track the details of a trip and accept real time data removes a degree of uncertainty when completing a log at the end of a fishing trip. Additional data such as vessel position and speed can be logged automatically through such applications while lengths and dispositions of the catch can be key entered by



captains. The data captured on mobile devices will be valuable to fisheries management by minimizing data gaps that limit the current understanding of certain if not most fisheries. Piloting this project in Rhode Island will determine if data collected from SAFIS/M will meet data collection standards and are easy to use by for-hire boat captains.

## LOBSTER TRAP ALLOCATION HISTORY SYSTEM (LobsTAHS)

LobsTAHS will provide a comprehensive depository that will record and track American lobster fishery effort (e.g., traps allocated, purchased, and sold) throughout established Lobster Conservation Management Areas. A more accurate estimate of effort throughout the fishery will provide a more solid basis for future effort control measures. The centralized database will allow the program partners timely access to accurate effort data in both state and federal waters including:

- Number of permitted fishermen
- Number of allocated traps
- Number of trap tags purchased
- Number and magnitude of trap tag transfers
- Areas experiencing highest effort
- Traps removed from the fishery through conservation taxes



The goal of LobsTAHS is a centralized database to examine trap tag transfers and allocations between commercial lobstermen. Also, improvement in effort data is a top priority for ACCSP and is essential for making appropriate management decisions.

## AMERICAN LOBSTER SETTLEMENT INDEX (ALSI)

The ALSI web portal aims to make the region-wide data set more available to participants and stakeholders. ACCSP was ideal for this project due to our experience with the creation of centralized databases and applications for the submission and distribution of data. Prior to the web portal, ALSI participant's submitted data annually via spreadsheets, data were collated, and reports were created manually. The web portal allows for both key entry and file upload submission of data to a centralized location. It includes dynamic reports of both raw data and calculated densities and standard error. Figures include length frequencies with dynamic binning and spatial and temporal density comparisons.



The ALSI is an annual survey of American lobster (*Homarus americanus*) nursery grounds in the coastal northeast US and Atlantic Canada. The survey is supported by University of Maine, ME DMR, MA DMF, RI DFW, NH FGD, and Department of Fisheries & Oceans Canada. It gathers data on newly settled, young-of-year (YoY), lobsters as well as older juveniles and associated fauna such as fishes and crabs.

The time series has been sustained and expanded since 1989 and is the largest-scale assessment of lobster nursery habitat of its kind. It has also been the springboard for a variety of research proj-

ects, contributing to numerous peer-reviewed publications and technical reports. It has been used to forecast local trends in the abundance of adult lobsters in nearshore trawl surveys and provided valuable insights into both pre- and post-settlement processes influencing lobster population dynamics.

## SAFIS FOR HIGHLY MIGRATORY SPECIES (HMS)

In January 2013, the HMS component of several SAFIS applications (i.e., eDR, eTRIPS, e-1Ticket) was implemented. This component was added in tandem with the electronic reporting requirements for dealers to submit HMS data electronically to the HMS Management Division of NOAA Fisheries. The reporting requirements are a result of a final rule published in the Federal Register by the NOAA Fisheries (77 FR 47303) on August 8, 2012, that requires federal dealers (except for dealers reporting Atlantic bluefin tuna) to report receipt of Atlantic sharks, swordfish, and BAYS (bigeye, albacore, yellowfin & skipjack tunas) through existing electronic reporting programs. The shift to electronic reporting for HMS dealers of these quota-managed species provides more timely data for use in monitoring landings.

All federal HMS dealers began reporting electronically on January 1, 2013. In order to minimize the impact to dealers, the HMS Management Division elected to utilize existing systems wherever possible. This means that dealers that were already reporting electronically (from Texas to Maine) continue to use the systems they already utilize with some modifications to cover additional HMS reporting requirements.

# National Networks

The Program takes an active role in collaborating and advising on national fishery-dependent data collection programs. These networks bring together interstate Commissions, state fishery agencies, NOAA Fisheries, and regional councils to improve data collection and dissemination at the national level. Staff members serve on a number of different committees providing input in much the same way that the program partners participate in ACCSP.

## MARINE RECREATIONAL INFORMATION PROGRAM (MRIP)

MRIP is a recreational data collection and analysis program instituted by NOAA Fisheries, participating state agencies, and regional FINs that is designed to collect recreational data used for fisheries management.

The Program has received funding from MRIP to do essential research on the effects of various proportional standard error (PSE) levels (i.e., a measure of the accuracy of the estimates) on stock assessments and management decisions. A simulation model was completed as a baseline for a workshop planned for 2014. The workshop will develop a threshold PSE for use of survey data. This project is moving into its final stages, with the ultimate product being an updated recreational standard. In addition, the Program has worked to secure funding from MRIP for a project that will look at reducing duplicative reporting in the for-hire fisheries.

ACCSP staff plays an integral role in this program, with Mike Cahall, Program Director, serving as a member of the Operations Team which provides overall guidance to the technical efforts of MRIP; Geoff White, Data Team Leader, serving as a member of the Information Management Team; and Ann McElhatton, Program Manager, serving as a member of the Education and Outreach Team.

## FISHERIES INFORMATION SYSTEM (FIS)

FIS is a collaborative project, led by NOAA Fisheries, which works with its partners (NOAA Fisheries Regions and the Fisheries Information Networks) to improve fishery-dependent data collection and dissemination at the national level. The Data Warehouse is the Atlantic coast system for fishery-dependent landings for FIS (see page 23 for more on the Data Warehouse). The following are the current goals of FIS as outlined by NOAA Fisheries:

- Expand and adapt data collection to meet current and future needs
- Build and integrate information management systems within and across region
- Establish regional and national standards (minimum guidelines) for data collection, management and dissemination to ensure, high quality, completeness, timeliness, and accessibility
- Implement and maintain effective partnerships to support collaboration among stakeholders, and to leverage investments across regions and the nation

In the upcoming year, the Program has been awarded funding to upgrade its end user query system and to establish working relationships with other data distribution entities (such as NOAA Fisheries Regions) to better coordinate data distribution. Mike Cahall, Program Director, is a member of the Program Management Team which provides overall guidance to FIS. Karen Holmes, Software Team Leader, is a member of the Electronic Reporting Program Specialty Group and Geoff White, Data Team Leader, is a member of the Fisheries One Stop Shop (FOSS) Program Specialty Group. The FOSS application is produced by FIS. This application is intended to provide public access to U.S. commercial and recreational non-confidential landings (three or more vessels or companies) information for US vessels, as well as US landings in foreign ports.



## INTEGRATED FISHERIES CONNECTIONS

ACCSP data systems are used for many national data systems and also rely on other national data systems for the dependable and timely set of Atlantic coast marine fishery statistics.

This comprehensive and collaborative exchange of information is what permits the ACCSP data systems to be of such great value to the people that have committed to these data sets. Currently, the ACCSP data systems receives

data sets from NOAA Fisheries - Headquarters, NEFSC, SEFSC, and the HMS Management Division of NOAA Fisheries. Conversely, the ACCSP provides data to partner data systems including NOAA Fisheries - Headquarters, GSMFC, NEFSC, and SEFSC. See the below image for more detail on each of the data sets provided. For more information on how partner agencies use the Data Warehouse please see page 23.



### Southeast Fisheries Science Center

- ACCSP receives wreckfish individual fishing quota and golden crab data
- ACCSP supplies state landings for compliance and quota monitoring



### Headquarters

- ACCSP receives commercial catch and effort data from 1950 - 2006 and recreational estimates from 1981 - present
- ACCSP supplies Atlantic coast landings from 2007 for FUS and web queries for FOSS



### Northeast Fisheries Science Center

- ACCSP receives commercial catch and effort data from 1950 - 2006, ocean quahog, and surf clam data
- ACCSP supplies state landings for compliance and quota monitoring



### Highly Migratory Species Division

- ACCSP receives bluefin tuna landings
- ACCSP supplies other tunas and sharks

*The success of ACCSP data systems is directly related to the ongoing support and use of the data by our partner agencies.*

*The fishery data systems of the Atlantic and Gulf coasts are cooperative and interdependent.*



### Gulf States Marine Fisheries Commission

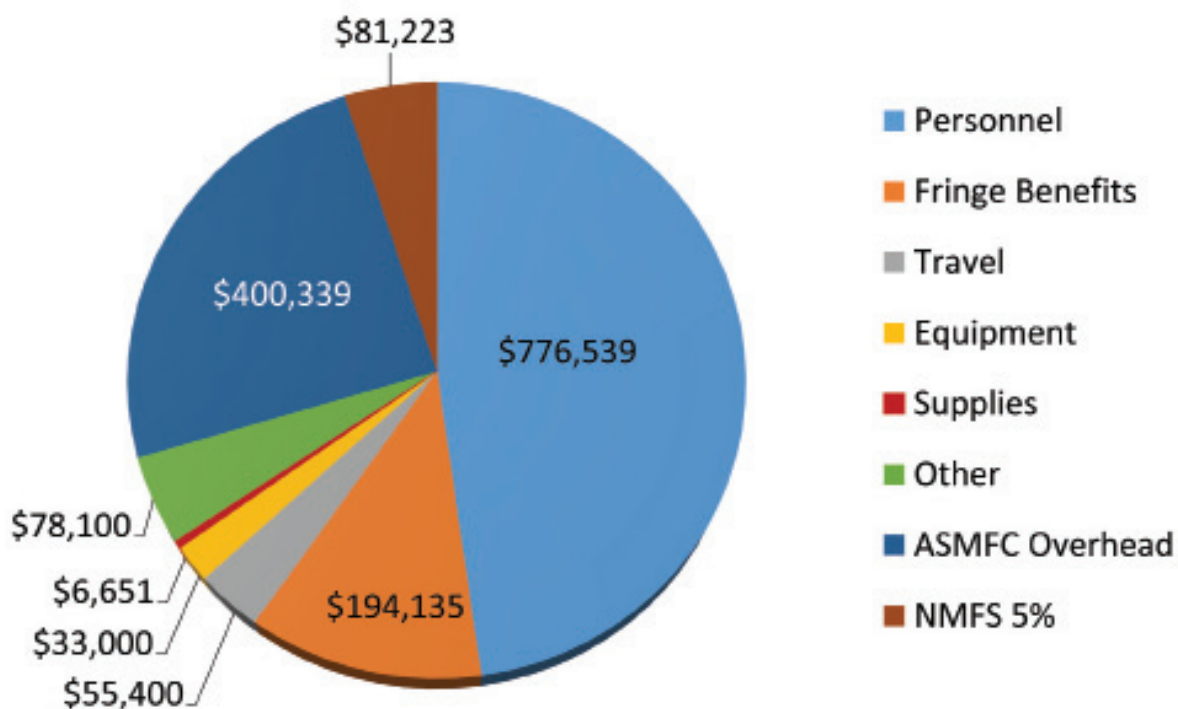
- ACCSP supplies Florida west coast commercial catch and effort data

# Funding

As in previous years, a majority of the funds that are allocated to the Program are distributed to program partners for data collection projects (See page 13 for more details on each project).

The remaining funds, collectively known as the Administrative Grant, account for slightly less than 45% of the overall budget (detailed in the chart below). The administrative grant budget

allocates funds for staff support, information systems resources, committee travel, and various outreach projects. For 2013, personnel were the majority of the administrative budget followed by committee travel, and information systems. Overhead charged to the Program covers office space, utilities, and administrative support provided to the Program by ASMFC.





# Looking Forward

In 2013 we suffered significant budget cuts along with all other federally funded programs. Despite a roughly 10% budget cut, we were able to fund some new initiatives and maintain the data collection programs we've been supporting. In the upcoming year, the funding picture is much better. In addition to funding eight maintenance programs, we're able to fund four new programs. For maintenance these include support to several of our state partners for landings and catch and effort data collection. Funding for new projects includes an innovative swipe card data collection system and projects to better characterize several important fisheries.

In addition to funding the partner projects, we anticipate continuing to implement many of the recommendations from the 2012 Independent Program Review. We have already started mobilizing committees to begin the tasks of creating new program standards for many of the recommended areas of improvement.

Also, we hope to continue to work closely with our MRIP and ASMFC partners in moving forward with state conduct of the intercept surveys. Using funding from the MRIP, we will complete the proportional standard error project started last year, and begin to look at better ways to collect and integrate census data in the for-hire fisheries.

Using funding we received from the NOAA Fisheries FIS program, we will continue to develop the collaboration between the Program and the federal Atlantic regional data centers. We hope end users will get a more consistent picture of the data sets regardless of where they go for data. We will also work with users to learn more on our new public data query interface in an effort to simplify access for those who have simple requests.

Next year, the handheld trip reporting application, which uses cutting edge internet commu-

nications technology, will be completed and made available to any partner who wishes to use it. It is our intent to apply for certification through NOAA Fisheries so that it may also be used to fulfill federal requirements. This system runs on most handheld devices and allows recreational and commercial captains to report electronically before they even land.



After 20 years, I am still excited about the future of fisheries data collection and data management. We have come a long way from our small beginning and succeeded in becoming part of the fabric of fisheries data on the Atlantic coast. Even still, we have many exciting challenges ahead as we look for better ways to collect and use data for existing projects and look for innovative and efficient ways to move forward in areas that require additional attention.

Regards,

A handwritten signature in black ink, appearing to read "Michael S. Cahall". The signature is fluid and cursive, written on a white background.

Michael S. Cahall  
ACCSP Director

# Staff



The ACCSP staff is separated into three teams to effectively advance the goals of the Program.

## PROGRAM STAFF

Program staff is dedicated to maintaining ACCSP standards and handling administrative aspects of the Program, including outreach. This also includes monitoring the program projects that are funded each year.

- Michael S. Cahall, Director
- Ed Martino, ACCSP/ASMFC Information Systems Manager
- Ann McElhatton, Program Manager

## DATA TEAM

The Data Team works with partners to identify, transform, and audit data sets so they can be included in the Data Warehouse. They also provide data services to partners by designing custom data requests and participating in data intensive fisheries activities, such as stock assessments.

- Geoff White, Data Team Leader
- Julie Defilippi, Senior Data Coordinator
- Joseph Myers, Data Coordinator
- Jennifer Ni, Information Systems Specialist

## SOFTWARE TEAM

The Software Team designs and builds SAFIS applications for program partners, as well as internal systems that the Program manages or that support Program activities.

- Karen Holmes, Software Team Leader
- Nico Mwai, Fisheries Programmer

*Pictured (left to right): Nico Mwai, Ed Martino, Joseph Myers, Ann McElhatton, Michael S. Cahall, Julie Defilippi, Geoff White, Jennifer Ni, Karen Holmes*



# Acknowledgements

We would like to thank the following people and agencies for the use of their photographs and images in this document:

Cover (clockwise from far left): NH FGD, SEFSC, NEFOP, Caroline Wicks/Integrated Application Network (IAN), SC DNR, NEFOP  
Page 2 – 3: Jane Hawkey/IAN  
Page 5: ASMFC  
Page 9: MD DNR  
Page 11: NEFOP  
Page 14: NEFOP  
Page 16: NEFOP  
Page 17: David Kimmel/IAN  
Page 18: NJ DFW  
Page 19: SC DNR  
Page 20: NEFOP  
Page 21: SEFSC  
Page 22: Richard Bellavance  
Page 29: NEFOP



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