



## Mid-Atlantic Research Set-Aside (RSA) Program 2006 Fishing Year

**05-RSA-003** – Borden, “2006 Fishery Independent Survey of Selected Hard Bottom Areas in Southern New England.” Principal Investigator – Laura Skrobe

**Project Description:** This project continues efforts to develop a fishery independent scup survey that utilizes un-vented fish traps fished on hard bottom areas in southern New England waters to characterize the size composition of the population. Survey activities will be conducted at eight hard bottom study sites that are located offshore, which are un-sampled by current state and federal finfish trawl surveys. Study results will expand the current understanding of the scup resource.

**RSA Amount:** 2,000 lbs of summer flounder  
40,940 lbs of scup  
29,000 lbs of black sea bass

**Project Period:** May 1 – December 31, 2006

**Award Status:** **Active:** Reporting is delinquent as of 3/31/07

**05-RSA-005** – Fisheries Conservation Trust, “Evaluating Size and Bag Limits in the Summer Flounder Recreational Fishery.” Principal Investigator – Eleanor Ann Bochenek

**Project Description:** To determine, through a combination of field experiments, angler surveys, and numerical modeling, if changes in size and bag limits can reduce discard mortality and increase angler satisfaction while reaching management goals of meeting recreational harvest limits, ensuring sustainability of populations, and sustaining a robust age/size structure. The project will be conducted with parallel, integrated modeling and field components over the course of one year (the 2006 fishing year). Investigators seek to develop from this integrated research program, a verifiable numerical model that will provide managers with a tool to evaluate the efficacy of bag and size limit options in managing recreational fisheries.

**RSA Amount:** 129,622 lbs of summer flounder  
20,000 lbs of scup  
50,000 lbs of black sea bass

**Project Period:** January 1 – December 31, 2006

**Award Status:** **Active:** The second semi annual performance report has been received and is

under review. The field effort was completed during the summer of 2006 involving 2 party boats from New York and 3 vessels from New Jersey. A total of 57.5 trips (1 am and 1 pm trip is considered a single trip and 1 full day trip is considered a single trip) were sampled. Approximately, 2,200 party boat anglers participated in the study. All of the kept and released summer flounder were measured to 1/8". The researchers tracked the number and length of kept and released summer flounder by individual angler onboard the party boat for all trips.

The modeling component of this research program has taken two complimentary approaches. They have chosen to look at both the fishing process and the population level impacts of set catch and bag limits in these models. In the first case, an individual-based model that simulates the decision making process at the individual angler level was constructed. The second simulation model focuses on the long-term impact of a quota and size limit scenario on a population with growth, mortality and recruitment schedules like those of summer flounder. Currently, the two models are completely deterministic and are not yet being used together. There are plans to include the fine resolution model (the first case) in the population level model by explicitly incorporating it, or by using it to derive catch and discard generalizations.

**05-RSA-007** – NFI, “*Development of a Supplemental Finfish Survey Targeting Mid-Atlantic Migratory Species.*” Principal Investigator – Eric N. Powell.

**Project Description:** To obtain forth year support for the development/refinement of a commercial-vessel based survey program in the Mid-Atlantic region that tracks the migratory behavior of selected recreationally and commercially important species. Information gathered would supplement the NMFS finfish survey databases and will include development of ways to better evaluate how seasonal migration of fish in the Mid-Atlantic influences stock abundance estimates.

**RSA Amount:**           223,140 lbs of summer flounder  
                                  123,750 lbs of scup  
                                  61,500 lbs of black sea bass  
                                  218,089 lbs of *Loligo*  
                                  363,677 lbs of bluefish

**Project Period:** January 1 – December 31, 2006

**Award Status:** **Active:** The second semi annual performance report has been received and is under review. The supplemental finfish survey (SSF) sampling program is conducted four times each year: January, March, May, and November. Four cruises have been completed. A total of 41 cruises were completed on the Baltimore and Hudson and Poor Man’s Canyons transects during the January and March surveys, respectively and 28 tows were completed on the Hudson and Baltimore transects in May. During the time period, July-December 2006, one Supplemental Finfish Survey took place. Sampling efforts occurred during the week of November 5-11, 2006. 28 tows were completed on Hudson and Baltimore Canyon transects.

In addition to field sampling, data from the January, March and May 2006 surveys were entered, audited and summarized in cruise reports. These reports were submitted as separate attachments. The data files and cruise reports were sent to NMFS-NEFSC during the time period July-December, 2006 (Table 2). Also, the November 2006 Supplemental Survey data were entered and proofed. A meeting with the Supplemental Survey planning group was held in Secaucus, NJ

on December 11, 2006 at the Crowne Plaza Hotel. Participants included Russel Brown (NEFSC), Hank Lackner (F/V Jason & Danielle), Phil Ruhle (F/V Seabreeze & NEFMC), Jimmy Ruhle (F/V Darana R & MAFMC), Rodney Avila (NEFMC), Ron Smith (MAFMC), Chris Bonzek (VIMS), Eric Powell (Rutgers), and Sarah King (Rutgers).

**05-RSA-008** – VIMS, “*An Evaluation of Size Selectivity and Relative Efficiency of Black Sea Bass, Centropristis strata, Habitat Pots Equipped with Large Mesh Panels.*” Co-Principal Investigator – David Rudders and Robert Fishers

**Project Description:** Project activities will serve 1) to estimate the selectivity of an experimental design of black sea bass habitat pot. The experimental pot will be comprised of large mesh panels on the top, bottom and posterior end of the pot (opposite the bridal). Three different sizes of large mesh panel will be tested (2”, 2.5” and 3”). These three variations will be compared to a pot conforming to current regulations at the time of study; and 2) to compare the catch-per-unit-effort of the three experimental pot variations and legal pot.

**RSA Amount:** 37,891 lbs of black sea bass

**Project Period:** January 1 – December 31, 2006

**Award Status:** **Active:** As of December 31, 2006, the grant has been extended until December 31, 2007. The second semi annual performance report has been received and is under review. At the end of the prior reporting period, the experimental gear was set in a traditional summer fishing ground utilized by Black Sea Bass pot fishermen operating out of southeastern Virginia. Sampling trips commenced and it quickly became apparent that the abundance of sea bass was very low off Virginia in general and the project’s fishing ground in particular. While the experimental gear did show promise in facilitating the release of juvenile sea bass, the overall quantity of fish was less than ideal both from a data standpoint and the perspective of being able to harvest the allotted RSA quota. The decision was made to extend the soak time from the proposed 7-14 days to up to 21 days. The extension of soak time is a common industry practice both seasonally (i.e. summer months) and times of low abundance. Unfortunately, even with the extended soak times, catch rates remained low. Additionally, the extension of soak times resulted in a difficulty of completing the proposed number of trips before the end of the project. By the end of the reporting period we were able to complete 7 out of the 12 proposed sampling trips.

During this reporting period efforts continued to harvest the allotted RSA quota. The contracted vessels in Massachusetts were able to harvest some of the RSA set-aside. Those vessels were authorized to harvest Black Sea Bass in Massachusetts during a closed season, and were able to make numerous trips before both the fishing slowed with the coming of the summer season and the Massachusetts fishery reopened. As a result, there was little incentive for those vessels to harvest any of the project’s RSA set-aside. In total the Massachusetts vessels were able to harvest 10,933 lbs. of fish for this project. Overall, 12,677 lbs were harvested out of the 37,891 lbs that were requested for this project.

As the at-sea sampling portion of the project progressed, additional steps were taken to streamline data entry, quality assurance/quality control, and analysis. The relational database in Microsoft Access, designed for this project was refined and all collected data has been entered. The data has been audited via the data auditing program and preliminary selectivity analyses have been conducted.