



SA FISHERY-INDEPENDENT SUPPORT OF ECOSYSTEM MODELLING

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MARMAP/SEAMAP-SA Reef Fish Survey
SEAMAP-SA Coastal Trawl Survey
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Ecosystem Model Data Provided Overview

- Trawl survey data (1990-2016):
 - *Biomass for 3 species of interest and 15 trophic groups*
 - (~100 species included in the 15 trophic groups)
 - *Diet information for 6 species*
- Reef Fish Survey data (1990-2016):
 - *Biomass for 21 species*
 - *Diet information for 15 species*

Coastal Trawl Survey Biomass

- Species of Interest: Atlantic Menhaden, Bluefish, Weakfish
- Benthic Groups: Coastal Invertivores (15) & Piscivores (6), Oceanic Invertivores (5) & Piscivores (1)
- Demersal Groups: Coastal Invertivores (5) & Omnivores (8)
- Pelagic Groups: Coastal Piscivores (7), Oceanic Piscivores (2) & Planktivores (9)
- Mackerels: Atlantic, King & Spanish
- Mulletts: White & Striped
- Penaeids: Brown, Pink & White
- Sciaenids: drums, kingfishes, seatrouts, etc. (13)
- Sharks: 13 species
- Skate and Rays: 13 species

Coastal Trawl Survey Diets

- Atlantic Croaker 90-300 mm TL
- Bluefish 50-500 mm TL (juvenile)
- King Mackerel 85-540 mm TL (juvenile)
- Southern Kingfish 70-380 mm TL
- Spanish Mackerel 250-480 mm TL (juvenile)
- Weakfish 100-450 mm TL

Reef Fish Survey Biomass

- Most Species of Interest
- Gray Triggerfish
- Grunts: Tomtate & White
- Jacks: Almaco & Greater Amberjack
- Porgies: Knobbed & Red Porgy, Pinfish & Spottail Pinfish, *Stenotomus* sp.
- Serranids: Bank & Black Sea Bass, Sand Perch, Speckled Hind, Red, Snowy, Gag & Scamp Grouper
- Snappers: Red & Vermilion
- Tilefishes: Blueline & Golden

Reef Fish Survey Diets

- All adult life stages (or mix of adult and sub-adult)
- Gray Triggerfish
- Grunts: Tomtate & White
- Porgies: Red Porgy, Pinfish & Spottail Pinfish, *Stenotomus* sp.
- Serranids: Black Sea Bass, Sand Perch, Gag & Scamp Grouper
- Snappers: Red & Vermilion
- Other: Lionfishes & Squirrelfish

Potential Continuing Support

- Both Surveys continue to monitor for annual biomass
- Coastal Trawl Survey diet studies suspended
- Reef Fish Survey diet studies limited
 - *Kevin Spanik, MS candidate at College of Charleston*
 - Genetic tools for diet characterization of Red Snapper, Gag, Scamp, Red & Snowy Groupers

Questions?

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