

HABITAT MODELING FOR FISHERIES INDEPENDENT TRAP SURVEYS

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The objective of this IOOS – SECOORA research is to integrate oceanographic information into regional stock assessments and habitat characterizations by developing improved fisheries management tools for fisheries managers and policy makers that incorporate real-time oceanographic observations. Species specific habitat models were derived to determine if they would enhance the fish stock assessments for South Atlantic Fishery Management Council (SAFMC). Artificial neural networks were used to develop predictive habitat models for four economically and ecologically important species in the snapper-grouper complex managed by the SAFMC: black sea bass (*Centropristis striata*), gray triggerfish (*Balistes capriscus*), red pogy (*Pagrus pagrus*), and vermilion snapper (*Rhomboplites aurorubens*) derived from the Marine Resources Monitoring, Assessment, and Prediction Program (MARMAP, NOAA_NMFS, South Carolina Department of Natural Resources) fishery independent Chevron trap surveys from 1990-2008 . The relative importance of six variables (longitude, latitude, temperature, date, sample depth and salinity) related to the catch for each species and how they were used to develop probabilities of occurrence and how this information may be incorporated in to the regional SouthEast Data, Assessment, and Review (SEDAR) process will be presented.