

those sites and assess their utilization by aggregating species are needed. We are using acoustic technologies at reported FSA sites in the Florida Keys to accomplish two objectives: 1) assess whether reported FSA sites are characterized by similar habitat characteristics, with a focus on geomorphological features; and 2) determine whether sites reported to have been 'fished out' in previous decades are currently utilized by remnant or recovering aggregations. For the habitat component, preliminary results from the upper Florida Keys indicate that drowned, margin-parallel, rocky ridges, known locally as outlier reefs, are features found in proximity to all FSA sites studied. In particular, three geomorphic characteristics were consistently observed: a steep slope of the landward boundary of the upper-slope terrace; an exposed outlier reef forming the seaward boundary of the upper-slope terrace; and at least one other exposed outlier reef on the upper-slope terrace. For the fish utilization component, initial surveys indicate positive signs of aggregating fish during predicted aggregation periods, but true spawning aggregations have not been observed. From a management perspective, the results suggest the benefit of using acoustic and habitat approaches to identify critical sites for fisheries monitoring and management focus.

Multivariate models to predict distribution of structure-forming benthic invertebrates

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The California Seafloor Mapping Project (CSMP) is a collaborative venture designed to create comprehensive maps of the seafloor, which are derived from high resolution multibeam echo sounder data collected within state waters (shoreline to three nautical miles). CSMP will result in a suite of maps detailing seafloor morphology and geology, and characterizing potential benthic habitats. Groundtruthing these seafloor data and surveying biological components of benthic habitats are a major part of CSMP. We are using a towed camera sled to collect presence/absence data of macro-invertebrates associated with specific sediment types, depth, and latitude. We have developed multivariate models using logistic regression to predict the distribution of key species (including some deep sea coral species), and couple these results with spatial information on sediments and depth to map the probability of occurrence of these important components of seafloor communities on a coast-wide scale. These maps will provide managers, policy makers, and the public with information that can be used in the conservation and management of sustainable marine resources. We will demonstrate this approach using data from southern California.

Successes and challenges in displaying essential fish habitat spatial data through the EFH Mapper

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The Essential Fish Habitat (EFH) Mapper is a web-based tool that is the first of its kind to display essential fish habitat data and maps nationally. The interactive Mapper enables users to query information from multiple Fishery Management Plans at once to view habitat maps and species lists for a specific location. The Mapper uses a customized ArcIMS HTML viewer to create a platform for distributing spatial habitat data, providing a user-friendly and highly interactive upgrade to the static maps of the past. The Mapper provides a coordinated interactive map service that houses EFH data for regions that do not have geographic information system (GIS) applications on the internet while connecting users to those existing systems operated by Regional Offices and regional Fishery Management Councils. Key challenges include the limited ability of the Mapper to accurately host and display EFH designations for each life stage of each managed species. The spatial data necessary to depict individual designations in a GIS format varies in quality and availability by region. Improving the spatial description of EFH designations and the resolution of regional EFH data will allow users to perform more accurate location-specific queries, thereby improving the functionality of the Mapper for the public and resource managers. The mapper may be found at: http://www.nmfs.noaa.gov/habitat/habitatprotection/efh/index_GIS.htm.

PROCEEDINGS

11TH NATIONAL STOCK ASSESSMENT WORKSHOP

Characterization of Scientific Uncertainty in Assessments to Improve Determination of Acceptable Biological Catches (ABCs)

JOINT SESSION OF THE NATIONAL STOCK AND HABITAT ASSESSMENT WORKSHOPS

Incorporating Habitat Information in Stock Assessments

1ST NATIONAL HABITAT ASSESSMENT WORKSHOP

Moving Towards a National Habitat Science Program

Hosted by the Southeast Fisheries Science Center, Southeast Regional Office, and Office of Science and Technology
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