Research Priorities and Recommendations to Support Interjurisdictional Fisheries Management

SCUP

Fishery-Dependent Priorities
- Continue current level of sea and port sampling of the various fisheries in which scup are landed and discarded to adequately characterize the length composition of both landings and discards. Expanded age sampling of scup from commercial and recreational catches would be beneficial , with special emphasis on the acquisition of large specimens.[1]
- Commercial discard mortality had previously been assumed to be 100% for all gear types. Studies need to be conducted to better characterize the mortality of scup in different gear types to more accurately assess discard mortality.
- Additional information on compliance with regulations (e.g., length limits) and hooking mortality is needed to interpret recreational discard data and confirm weightings used in stock assessment model.

Fishery-Independent Priorities
- Fund, support, and expand the spatial coverage of the ventless trap-based Scup and Black Sea Bass Survey of Hard Bottom Areas.
- Collect total and fork lengths from individual scup in a standardized manner throughout their size and geographic range and across gear types to improve upon the length conversion equation currently cited in the FMP (Hamer, 1979).

Modeling / Quantitative Priorities
- Continue exploration of relative biomass and relative exploitation calculations based on CPUE data from fishery-dependent data (e.g., observer, commercial, P/C VTR, MRIP, etc).
- Evaluate the current biomass reference point and consider alternative proxy reference points such as B_{MAX} (the relative biomass associated with F_{MAX}).
- Explore other approaches for analyzing survey data, including bootstrap resampling methods to generate approximate confidence intervals around the survey index point estimates.[2]
- Evaluate indicators of potential changes in stock status that could provide signs to management of potential reductions of stock productivity in the future.

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[1] Improved sampling intensity of landings and increased funding for the observer program since 2004 have improved discard sampling in the directed and bycatch fisheries for scup.

[2] Completed for the NEFSC surveys, could be applied to state survey data.

Life History, Biological, and Habitat Priorities
- Conduct an ageing comparison workshop to (1) compare otoliths and scales and (2) compare state age-length keys.[3]
- Conduct biological studies to investigate factors affecting annual availability of scup to research surveys and maturity schedules.

Management, Law Enforcement, and Socioeconomic Priorities
- A Management Strategy Evaluation of alternative approaches to setting quotas, with attention paid to compliance related to minimum size, would be helpful.

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[3] Contact and inform Eric Robillard of NEFSC Population Biology Branch.