COMMUNICATING THE SCIENCE OF FISHERIES CONSERVATION TO DIVERSE AUDIENCES

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Fisheries independent surveys: lessons learned and paths forward

Atlantic City Conference Symposia

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Abstract

Fishery independent surveys can provide a wealth of information critical for use in stock assessment and fishery management. Innovations in sampling technology and survey designs have led to an abundance of information available to complement traditional fishery independent data collection techniques. However, surveys are predicated on assumptions regarding survey protocols, spatial and temporal survey domain coverage, sampling design, survey gear performance, and efficiency. In addition, individual surveys may not encompass the entire range of a species as a result of limited spatial coverage or shifting species distributions in response to a warming climate. Surveys covering a similar area may also produce varying estimates of stock size, and it can be difficult to reconcile these disparate estimates. Understanding the resulting uncertainty and bias for these and other assumptions is essential for interpreting indices of abundance in stock assessments and informing management. Therefore, methods that can combine survey indices, while accounting for variability inherent to disparate survey designs or estimates are needed. The scope of this symposium will focus on talks with an emphasis on quantifying bias and uncertainty in fishery-independent surveys, methods for combining survey estimates, QA/QC procedures for large survey datasets, and alternative uses for survey data products.