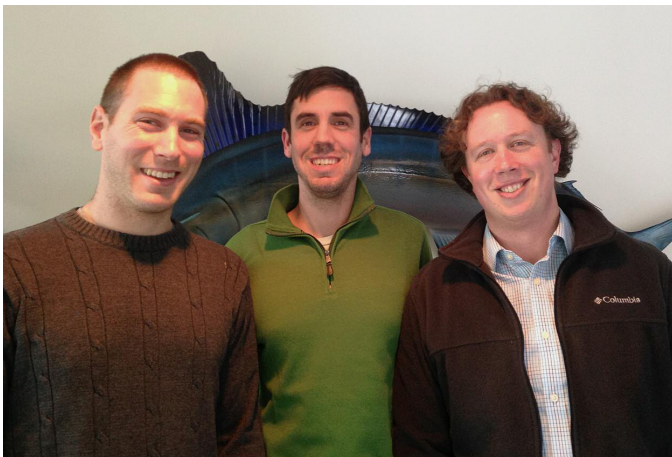


Determining Sustainable Catch Limits for Data-Poor Fisheries in New Jersey: Validation and Refinement of a Data-Poor Harvest Control Rule R/6510-0012

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Research team (left to right): Chris Free, John Wiedenmann and Olaf Jensen.

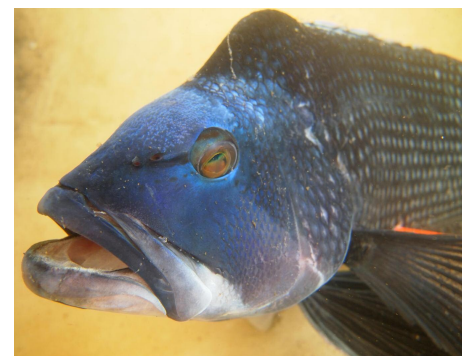
Many fish populations support thriving commercial and recreational fisheries in New Jersey, and the health of these fisheries has broad implications for the economies of many coastal communities. Sustainable fisheries management typically requires large amounts of data to estimate population size and sustainable catch levels using a stock assessment model. However, many species in New Jersey are considered data-poor, where data are limited or of poor quality, preventing the use of traditional stock assessment methods. As a result, sustainable fisheries management is particularly difficult.

Recently, an approach for classifying abundance and setting catch limits for data-poor fish populations has been developed. The Only Reliable Catch Series (ORCS) approach utilizes readily available information on the population and fishery characteristics

of a population to predict abundance and set catch levels. The ORCS approach is being considered for the management of many data-poor fish populations (including black sea bass), despite the fact that it has not been validated. Led by Dr. John Wiedenmann, Assistant Research Professor in the Institute of Marine and Coastal Sciences at Rutgers University, along with Dr. Olaf Jensen and graduate student Chris Free, this research project will evaluate the ability of the ORCS data-poor approach to reliably estimate the abundance and sustainable catch levels for a fish population. To test the ORCS method, a database will be utilized that contains stock assessment estimates for over 300 global fish populations. The reliability of the ORCS method will be determined by applying it to populations in the database, and comparing the predicted estimates of abundance and sustainable catch levels to the stock assessment-estimated values in the database.

The main benefit of this project will be to improve the ability to manage data-poor stocks in the region.

If effective, the ORCS approach represents a potentially powerful tool to help sustainably manage many of the data-poor fish populations found in New Jersey and the greater Mid-Atlantic.



Black sea bass support large commercial and recreational fisheries in New Jersey.