Case Study 2

Using climate data to improve sablefish assessment model projections
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ABSTRACT

A crux of fishery management is that while recruitment is seldom average, cohort strength is not well estimated until several years of data are available from surveys and fisheries. Thus, scientists and managers are always looking in the rear view mirror. For species with weak stock-recruitment relationships, the inclusion of environmental recruitment indices in stock assessments may improve model precision, and aid in near-term forecasting. I provide an overview of the long-standing relationship between sablefish (*Anoplopoma fimbria*) recruitment and sea level along the US West Coast, and recent use of a sea level index in the stock assessment. Then, retrospective investigations show how using the sea level index in stock projections can improve recruitment estimation in the absence of other data. Finally, I discuss how the Pacific Fishery Management Council allows climate data to be included in near-term forecasts for management advice. This work provides an example of how transitioning research products into operational products can improve stock assessment advice for fishery managers and illustrates the benefits of frequent communication between fisheries scientists and fishery management bodies as we move towards climate-ready fisheries.