Using Ecosystem Indicators To Inform Fisheries Management

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Practicing sustainable fisheries, including conserving protected species and habitat, is mandated in the US. In most cases this requires including ecosystem information in management decisions. In Alaska, the responsibility of managing groundfish fisheries – including species such as pollock, cod, sablefish, and rockfish – falls to the North Pacific Fishery Management Council. There are many ways ecosystem science is incorporated into the Council's management process. The focus of this presentation will be the contextual inclusion of ecosystem science via ecosystem status reports and demonstrated by presentation of case studies of how this inclusion informs management decisions. Ecosystem status ("Ecosystem Considerations") reports bring together a diverse array of current ecosystem science to set context for annual discussions of harvest specifications. The science spans climate and oceanography to fish, seabirds, and human dimensions. Status and trends of ecosystem indicators for Alaska's large marine ecosystems are compiled and synthesized into narratives about the current ecosystem state and to highlight any red flags of potential concerns for managers. The timing of reporting is matched to the annual cycle of determining the following year's harvest specifications to maximize the uptake and relevance of the ecosystem science. This presentation will review the process of ecosystem reporting to the Council and highlight examples of how ecosystem research has informed this process.