Structure and purpose of the Alaskan *Ecosystem Considerations* appendix

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As fishery management organizations move toward ecosystem-oriented management, there is a need to more clearly define the ecosystem management goals of the organization and the tools available to managers to attain those goals. Parallel to this must be an expansion of the scientific advice provided to management beyond traditional single-species stock assessment advice. Although there have been advances in multi-species and ecosystem modeling approaches, these approaches have not yet been embraced completely by the fishery management community. In some cases, this situation arises from the difficulties in validating these models and in other cases, because of the lack of sufficient data and knowledge of the critical processes to develop an appropriate model. Progress can be made, however, in providing ecosystem advice to managers while waiting for these approaches to mature. GLOBEC and GLOBEC-like research efforts are going on throughout the world, with increasing emphasis on habitat research, trophic interactions, and long-term monitoring of non-commercial species to provide useful information on ecosystem status and trends. Some of this ecological information can be used to gauge the success of various management schemes that have been put in place to meet ecosystem management goals.

The *Ecosystem Considerations* appendix is a compilation and synthesis of ecosystem status and trend information for the eastern Bering Sea, Aleutian Islands, and Gulf of Alaska shelf/slope ecosystems. The most recent version of this report and associated data can be found on the web at: http://access.afsc.noaa.gov/reem/EcoWeb/index.cfm. It includes information on climate forcing and fishing, along with information on individual ecosystem components from nutrients to marine mammals and aggregate indicators of changes in ecosystem production and composition. The status and trend information is organized taxonomically by region. The assessment section of the appendix links the status and trend information to objectives for an ecosystem approach to management. As multi-species and ecosystem models are validated, they will be used to assess the possible future ecosystem status under varying scenarios of climate and human interactions. Details of the genesis of the report and the framework for the indicator report are included in Livingston *et al.* (2005).

Reference

Livingston, P.A., Aydin, K., Boldt, J., Ianelli, J. and Jurado-Molina, J. 2005. A framework for ecosystem impacts assessment using an indicator approach. *ICES J. Mar. Sci.* **62**: 592–597.