Ecosystem Research: Ecopath Workshop

The Ecopath Workshop was based on the use of the ecological software suite Ecopath with Ecosim (EwE) that is finding widespread use throughout the world for ecosystem-based management of fisheries. EwE has the following main components: Ecopath - a static, mass-balanced snapshot of the system; Ecosim - a time dynamic simulation module for policy exploration; Ecospace - a spatial and temporal dynamic module primarily designed for exploring impact and placement of protected areas; and Ecotrace - for tracking accumulation of persistent pollutants through the food web. EwE is being used to address ecological questions; evaluate ecosystem effects of fishing; explore management policy options; evaluate impact and placement of marine protected areas; bio-accumulation through the food web; and to evaluate the relative effect of fisheries and environmental changes to mention some key areas. See www.ecopath.org for information about EwE.

The workshop was the result of NOAA-Galveston (providing facilities), Texas Sea Grant (instructor travel funding), Houston Advanced Research Center (administration of $100.00 registration fee), and GBEP (instructor fee). The goal of the workshop is to generate interest in the creation of a dynamic ecosystem model for Galveston Bay that will help determine important research gaps, provide multi-specie interaction understanding, and solicit greater resource management.

Drs. Villy Christensen and Carl Walters from the University of British Columbia were brought in to provide instruction on the use of EwE. 35 participants/observers attended the Ecopath Workshop on November 30-December 3, 2004 held at NOAA's Ft. Crockett Offices on Galveston Island. 22 attendees came from local, regional or state locations while 13 participants came from as far away as, South Carolina, Maryland, Rhode Island, Mexico, and Australia.

Based on the results of the workshop it was learned that creation of an ecosystem model using Ecopath or another software will be daunting, as important data sets often are in the hands of individual researchers (i.e. energy flow based on stomach contents) who might not wish to participate. Based on the efforts to develop models in other systems, an ecosystem model is often created slowly using what data is available and data and literature values from other ecosystems. This is also a benefit as data gaps become explicit which suggests future monitoring and research needs.