HUMANS :: Protecting Marine Mammals and Managing Ecosystems

Ecosystem Management in Alaska Waters

Project 530

A BROAD STUDY NOW UNDERWAY EXAMINES THE ENTIRE ARRAY OF MANAGEMENT ENTITIES RESPONSIBLE FOR ecosystem-based management in the waters off Alaska. Project 530 is evaluating the past and present use of ecosystem-based management by major federal and state management institutions. Researchers are developing profiles that will let them explore how various alternative arrangements, such as cooperative or collaborative management, or lead entity management, can result in better-informed management. The study relies on six factors to examine agencies: jurisdiction, structure, function, decision processes, trends in issues and decisions over time, as well as interagency linkages with respect to ecosystem-scale decision-making. This evaluation should provide a composite understanding of the current status and trends of institutional arrangements in Alaska in terms of implementing ecosystem-based management.

Crab Fisheries and Social Issues

WHENEVER MANAGERS PROPOSE TO IMPOSE NEW RESTRICTIONS ON MANAGING A FISHERY, THEY NEED TO CONSIDER THE ECONOMIC AND SOCIAL IMPLICATIONS OF THOSE DECISIONS

To assess those potential impacts, they need to know how the current fisheries operate and the major forces that shape their profitability. The Board has supported a major study of the economics of the Bering Sea crab fishery and a study of impacts of crab rationalizations.

HUMANS :: Crab Fisheries and Social Issues

Market Models for Crab

Project 423

PROJECT 423 DEVELOPED AN INTERNATIONAL MARKET model for king and Tanner crab to allow us to compare the fishery before and after the implementation of rights-based management in 2005. This equilibrium supply and demand model established a baseline for future evaluations of the economic impacts of fishery rationalization to fishery participants. It was the first study of its kind to simultaneously model the international allocation and demand for king and Tanner crab in a partial equilibrium framework, and learn how crab prices and revenues are affected by various market determinants.

The model demonstrated that the Alaska crab industry faces major competition from Canadian, Russian and Greenland snow crab, and Russian king crab fisheries. Alaska crab revenues have been severely impacted by dramatic increases in snow crab from Canada and the recent emergence of Greenland and Russia as major crab producers has further dragged down Alaska crab prices and revenues.

Celeste Leroux

Pribilof blue king crab, caught by F/V *Aleutian Beauty* for Alaska King Crab Research and Rehabilitation Program, St. Paul Island.

Unless there is a significant boost from crab rationalization or declines in foreign harvests, the model does not foresee substantial economic improvement in Alaska crab prices in the near future. This project is important to managers and participants in the crab rationalization process at the North Pacific Fishery Management Council level because it identifies market factors which affect price determination.