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Cooperation can ease scallop/yellowtail crisis

Fishery management looked easy when Congress passed the Fishery Conservation and Management Act in 1976. The goal was to eliminate the foreign vessels that had been taking huge catches and institute instead careful management to restore overfished stocks and produce large sustainable catches by US fishermen.

But it wasn't that easy. Steep increases in landings during the late 1970s contributed to depleted stocks and subsequent drops in catch per unit of effort in the early 1980s. Regulations stiffened but political pressure and lack of adequate scientific information led to major revisions of the act that advanced conservation requirements but restricted management options.

The recent focus on annual catch limits aimed at sustaining all stocks at or near

maximum sustainable yield (MSY) – an ecological fantasy – combined with technical difficulties in excluding weak stocks from strong stocks in the catch, led to high discard rates and low percentages of allowable catches actually landed. The current problem looks more like a shortage of landings rather than a shortage of fish for many stocks.

In theory, fishery management looks for a balance between conservation of stocks for the future and harming fishermen and consumers in the present. This balance is not limited to fishing. The most responsible among us make trade-offs every day to find this balance. Even the most ardent conservationist will drive 50 miles to a meeting.

Competition for profits and the interactions of species encourage fishermen to catch target species and discard bycatch rather than conserving these stocks for the future. Recent studies on a wide array of common resources,

however, have shown that cooperation can offset incentives for private gains that reduce social benefits.

Cooperation works

Cooperation to attain group goals is not as difficult as it seems. Fishing is a cooperative enterprise. Cooperation on the boat is necessary for a successful trip. That's why crews are paid shares of the catch rather than

Cooperation on shore is necessary to

deliver supplies to the boat and fish to consumers. Cooperation between managers, scientists, and fishermen is

by Dan Georgianna

GUEST COLUMN

necessary for successful management.

Recent scallop management has been more successful than most other fisheries.

Landings have been high, prices good, and scallop stocks have been sustained near MSY.

Much of this success is a result of rotational management and access to the closed areas. Trips in the closed area access programs catch large scallops, which fetch a higher price and cost less time to shuck per pound. Higher catch rates in the access areas also translate to less dredging time relative to fishing in open areas, which reduces negative effects on habitat.

Yellowtail monkey wrench

All is not well in the scallop access-area fisheries, however. Those on Georges Bank and in the Nantucket Lightship area turned into derbies due to the threat of closure when yellowtail flounder total allowable catch (TAC) limits were reached.

The result was a loss in economic yield

Last summer's Closed Area II fishery closed 15 days after opening due to the fleet reaching the yellowtail TAC. As a result, 40% of the total scallop target was left unharvested.

from leaving scallops on the seafloor and lower prices for landed scallops due to market gluts. Furthermore, large, old scallops that could have been harvested remained on the bottom, susceptible to natural mortality, while yellowtail flounder were discarded and assumed dead.

Last summer's Closed Area II fishery closed 15 days after opening due to the fleet reaching the yellowtail TAC. As a result, 40% of the total scallop target was left unharvested. These scallops were worth \$15 million at the dock and two or three times that in economic benefits to the region.

This tale of gloom and doom is common in fishery management, but these problems can be solved through cooperation. Fishermen can avoid yellowtail flounder if they know where they are. Modifications to fishing gear may also help, and incentives can be structured to reward fishermen for reducing their yellowtail flounder bycatch.

Better science is the first step. The University of Massachusetts Dartmouth School for Marine Science and Technology (SMAST) and the Virginia Institute of Marine Science (VIMS) are working together to provide information on the distribution of scallops and yellowtail flounder through studies

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Guest Column-

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Information on bycatch hotspots reported in real time by skippers on the water, analyzed by scientists in the lab, and sent back to skippers would help to avoid yellowtail flounder.

Real-time or daily reporting from observers to the National Marine Fisheries Service (NMFS) and faster NMFS reporting back to skippers and owners on the amount of yellowtail caught would further reduce the uncertainty about early closures that encourage derby fishing.

Over the long term, a better understanding of ecosystem effects, seasonal growth variation, spatial and temporal movement patterns of yellowtail, and ocean climate effects would improve management for multispecies interactions such as scallops and yellowtail flounder.

This probably sounds too good to be true, and in a sense it is. None of the steps listed above are easy. Each faces significant obstacles. The ocean is not a simple place to fish or understand. Cooperation among fishermen for their common good and cooperation between fishermen, scientists, and managers are difficult to attain and easily lost.

But I think that it is worth a shot.

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years. His fields of concentration include marine resource economics, history of economic thought, and labor history.

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