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Little data, big impact: using simple data protocols to achieve real-time management goals

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We developed a simple data protocol to support near real-time by catch avoidance in the U.S. sea scallop (Placopecten magellanicus) fishery. Yellowtail flounder (Limanda ferruginea) is a by catch species in several New England fisheries, including the Atlantic sea scallop fishery. The Georges Bank yellowtail flounder assessment has been plagued with a high degree of uncertainty. In the face of the uncertain status, the stock has been managed cautiously. The low quotas are a constraint to the sea scallop fishery because exceeding bycatch quotas results in closures of lucrative fishing grounds. A bycatch avoidance program was implemented in 2010 to aid the scallop industry in harvesting their full scallop allocation without exceeding the yellowtail flounder quota. Simple data are gathered from the fleet to understand spatial patterns of bycatch, which are analyzed and returned to the fleet as a map and list of bycatch hotspots. Preliminary results of an ongoing program review suggest that in the initial years, the program was influential on fishing behavior and ultimately an important component of the fleet's ability to achieve its scallop quota. Both the program and its evaluation use coarse, simple datasets to achieve bycatch reduction and program effectiveness. In later years the program's effectiveness decreased due to a changing incentive structure for the fleet. Depending on management goals and industry incentives, cooperative efforts for the collection and dissemination of relatively simple data appear to be both a useful supplement to formal management measures and tool for evaluating their effectiveness.

keywords: bycatch, cooperative management

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