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TITLE: Fishing for ecosystem services

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ABSTRACT:

Ecosystems are commonly exploited and manipulated to maximize certain human benefits. Such changes can degrade systems, leading to cascading negative effects that may be initially undetected, yet ultimately result in a reduction, or complete loss, of certain valuable ecosystem services. Ecosystem-based management is intended to maintain ecosystem quality and minimize the risk of irreversible change to natural assemblages of species and to ecosystem processes while obtaining and maintaining long-term socioeconomic benefits. We discuss policy decisions in fishery management related to commonly manipulated environments with a focus on influences to ecosystem services. By focusing on broader scales, managing for ecosystem services, and taking a more proactive approach, we expect sustainable, quality fisheries that are resilient to future disturbances. To that end, we contend that: (1) management always involves tradeoffs; (2) explicit management of fisheries for ecosystem services could facilitate a transition from reactive to proactive management; and (3) adaptive co-management is a process that could enhance management for ecosystem services. We propose adaptive co-management with an ecosystem service framework where actions are implemented within ecosystem boundaries, rather than political boundaries, through strong interjurisdictional relationships.

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