

Creation of a Gilded Trap by the High Economic Value of the Maine Lobster Fishery

Creación de una Trampa Dorada Debido al Alto Valor Económico de la Pesquería de Langosta en Maine

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Abstract

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Abstract: *Unsustainable fishing simplifies food chains and, as with aquaculture, can result in reliance on a few economically valuable species. This lack of diversity may increase risks of ecological and economic disruptions. Centuries of intense fishing have extirpated most apex predators in the Gulf of Maine (United States and Canada), effectively creating an American lobster (*Homarus americanus*) monoculture. Over the past 20 years, the economic diversity of marine resources harvested in Maine has declined by almost 70%. Today, over 80% of the value of Maine's fish and seafood landings is from highly abundant lobsters. Inflation-corrected income from lobsters in Maine has steadily increased by nearly 400% since 1985. Fisheries managers, policy makers, and fishers view this as a success. However, such lucrative monocultures increase the social and ecological consequences of future declines in lobsters. In southern New England, disease and stresses related to increases in ocean temperature resulted in more than a 70% decline in lobster abundance, prompting managers to propose closing that fishery. A similar collapse in Maine could fundamentally disrupt the social and economic foundation of its coast. We suggest the current success of Maine's lobster fishery is a gilded trap. Gilded traps are a type of social trap in which collective actions resulting from economically attractive opportunities outweigh concerns over associated social and ecological risks or consequences. Large financial gain creates a strong reinforcing feedback that deepens the trap. Avoiding or escaping gilded traps requires managing for increased biological and economic diversity. This is difficult to do prior to a crisis while financial incentives for maintaining the status quo are large. The long-term challenge is to shift fisheries management away from single species toward integrated social-ecological approaches that diversify local ecosystems, societies, and economies.*

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