

## 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

**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*

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**Resumen:** La pesca no sustentable simplifica las cadenas alimenticias y, como la acuicultura, puede resultar en una dependencia en unas cuantas especies valiosas económicamente. Esta falta de biodiversidad puede incrementar los riesgos de interrupciones ecológicas y económicas. Siglos de pesca intensiva han extirpado a la mayoría de los depredadores superiores en el Golfo de Maine (E.U.A. y Canadá), creando efectivamente un monocultivo de langosta americana (*Homarus americanus*). Durante los últimos 20 años, la diversidad económica de los recursos marinos cosechados en Maine ha declinado en casi 70%. Ahora, más de 80% del valor de las capturas de peces y mariscos consiste en langostas que son muy abundantes. El ingreso, corregido para la inflación, por langostas ha incrementado consistentemente en casi 400% desde 1985. Manejadores de pesquerías, políticos y pescadores ven esto como un éxito. Sin embargo, tales monocultivos lucrativos incrementan las consecuencias sociales y ecológicas de declinaciones de langostas en el futuro. En el sur de Nueva Inglaterra, las enfermedades y los estreses relacionados con incrementos en la temperatura del océano resultaron en una declinación de más de 70% en la abundancia de langostas, lo que obligó a la propuesta del cierre de esa pesquería. Un colapso similar en Maine podría desestabilizar la base social y económica de su costa. Sugerimos que el éxito actual de la pesquería de langosta en Maine es una trampa dorada. Las trampas doradas son un tipo de trampa social en el que las acciones colectivas derivadas de oportunidades atractivas económicamente sobrepasan a las preocupaciones por los riesgos o consecuencias ecológicas y sociales asociadas. El gran ingreso financiero crea una fuerte retroalimentación reforzante que profundiza la trampa. Escapar de o evitar las trampas doradas requiere de manejo para el incremento de la diversidad biológica y ecológica. Esto es difícil de hacer antes de una crisis mientras los incentivos financieros para mantener el status quo son grandes. El reto a largo plazo es cambiar el manejo de pesquerías de una sola especie hacia enfoques sociales-ecológicos integrados que diversifiquen los ecosistemas, las sociedades y las economías locales.

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