

Market Institutions and Fishing Communities: Trust Agreements and their Implications for the Robustness of Lobster Fisheries in Atlantic Canada

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Changes in policy, technology, and international economics threaten the persistence of even long-enduring SESs by exposing them to disturbances they have not had the opportunity to adapt to. Therefore, as both the ecological and social aspects of variability and connectivity change, adaptations that were once robust may become increasingly vulnerable. Atlantic Canadian fisheries have experienced a significant amount of shock in the past 20 years that have had effects on the relationship between fishers, private agencies, and governance structure. This study focuses on the impact of market institutions, particularly trust agreements, on the lobster fisheries of Atlantic Canada. These trust agreements, formed between private agencies and fishers allow extralocal individuals or agencies to gain control of multiple licenses. As a part of an ongoing project integrating ethnographic research, Institutional Analysis, and modeling, I developed a bioeconomic model to understand the implications of trust agreements on fishing effort and costs, social equity, and the robustness of lobster fisheries. I use robust control techniques to identify a family of policies to make decisions under conditions of uncertainty, and to evaluate the revised fleet-separation policies recently passed by the Canadian government. These results are discussed within the context of debates and discussions occurring within the Nova Scotian legislature and in fishing communities. Finally, I outline my future research agenda, which will include ethnographic research in Port Latour, Nova Scotia, a fishery previously discussed in Elinor Ostrom's *Governing the Commons*. This research agenda will further our understanding of cross-scale dynamics, and the social and biophysical factors contributing to long-term social-ecological resilience.