A Case for the Commons: The Snow Crab in the Barents

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Abstract

The open access harvesting of a valuable crustacean species, C. Opilio (Snow Crab) in the Barents Sea in international waters is generating a positive externality by slowing the westward spread of the species to sensitive benthic ecosystems. Reclassification of the species to a 'sedentary species'¹ shifts the regulatory environment for the crab in such a way that the crab is no longer in international waters. Rather it becomes part of the extended Russian and Norwegian Continental Shelves in the International Loophole or the Norwegian Continental Shelf in the Svalbard Fisheries Protection Zone, each area facing different management challenges. The economic incentives of the Russians and Norwegians regarding the Snow Crab have thus shifted in ways that exacerbate the invasion aspects of the Snow Crab rather than alleviate them. The asymmetric incentives between the two countries lead to differences for each as a potential source of the crab spreading to new areas. The spread of the crab has both known ecosystem and commercial fishery risks and unknown risks, particularly to uncertain ecosystem values. Therefore, not only will knowable damages accrue more rapidly, there is less time for research and evaluation of ecosystem risks and damages about which we currently have poor understanding. We argue that optimal decision-making regarding profitable invasive species must include analysis that extends beyond standard fisheries economics. Furthermore, this extension must include not only the consideration of ecosystem risks and damages but also the institutional shifts that may occur in response to the economic incentives presented by the invasion.

Keywords: Invasive species; Property rights regimes; Strategic resource use; Snow Crab; fisheries economics

JEL Codes: Q22, Q28

¹ Sedentary species are defined as "organisms which, at the harvestable stage, either are immobile on or under the seabed or are unable to move except in constant physical contact with the seabed or the subsoil." (UNCLOS, 1982, article 77, part VI)