

SUMMARY

06/11/2025 – Distributional Effects of Catch-Quota Management Regimes in a Heterogeneous and Uncertain Environment: An Experimental Investigation.

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Policies in fishery management determine accesses by different groups to fishery resources.

Such policies include quota, licensing, and marine protected area demarcations. In this study we focus on quota allocation systems and introduce the heterogeneity of harvesting capacity and uncertain recruitment stocks into a novel, quasi-continuous time experimental environment with a contemporaneous price externality.

The allocation and coordination of harvesting efforts under both common pool (CP) management and individual quotas (IQ) management are investigated.

We show that the CP-induced race-to-fish pushes subjects with a low capacity to reduce their harvesting efforts, sacrificing landings to maintain a profitable fish price, which leads to an extreme income gap compared to subjects with a high capacity.

IQ management, however, narrows the income gap by keeping a high market price and protecting low-capacity subjects with secured individual quotas. Uncertainty recruitment stocks result in more volatile prices and annual income levels, but IQ can stabilize prices and income levels more than CP.