

The Application of Precautionary Principles to the Northwestern Hawaiian Island Lobster Fishery: Life in the Trenches

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The Northwestern Hawaiian Island (NWHI) lobster fishery is managed based on a constant harvest rate strategy that allows only a 10% risk of overfishing in a given year and the retention of all lobsters caught. Implementation of the constant harvest rate strategy results from a 1994 Expert Review Panel recommendation to investigate alternative harvesting strategies and develop a revised quota setting procedure that explicitly allows for uncertainty in stock assessments, while assuring minimal risk of overfishing. Monte Carlo projections of an age-based simulation model which allows for systematic, process, and measurement error, as well as autocorrelation in recruitment innovations, was used to compare harvesting strategies and assess their effects relative to the risk of overfishing over a range of discard mortality and retention scenarios. The expected effects of alternative strategies and consequences of uncertainty were presented to the Western Pacific Region Fishery Management Council for evaluation and a 10% risk of overfishing in a given year was accepted. Because of a high perceived rate of discard mortality, which has been verified, a retain-all catch policy was also adopted. In this talk I will elaborate on the process to incorporate precautionary principles in the management of NWHI lobsters and recent developments in their assessment and management.