

Fisheries Modeling: Age, Fishing Effort, and Prices



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Abstract

Mathematical modeling of fisheries systems provides a framework for studying fish population dynamics and the effects of harvesting. This presentation explores different modeling approaches based on ordinary differential equations and partial differential equations, including age-structured models and reaction-diffusion models. The aim is to analyze population dynamics, changes in fishing effort, and biological and economic interactions in order to better understand the challenges of sustainable fisheries resource management.

Mathematics Subject Classification : 34A34, 35K57, 92D25, 92D40.

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