

# **The merging of mathematical ecology and statistics: A retrospective look from the 1970s to present**

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**Abstract:** In this talk I will review my personal experiences in the unification of mathematical ecology and statistics in natural resource management. In the 1970s mathematical ecology emerged as a significant force in the fields of fisheries, forestry, pest control and disease. But at that time there was little if any connection between the models used and data. It was not until the 1990s that there was a melding of statistical tools and the models used in these fields. With the declaration of the 200 mile exclusive economic zones in the late 1970s scientists in fisheries needed to provide management advice, and were generally at the forefront of using statistical tools to estimate the parameters of their models. During the 1990s advances in computation enabled Bayesian statistics to emerge as a major force in such analysis.

## **References**

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