

## **Using ecosystem models for sustainable marine fisheries**

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Ecosystem models have been used to describe ecosystem and food web interactions since the 1940s, and since the 1980s different modelling approaches have been developed including Ecological Network Analysis and Ecopath with Ecosim. In the UK 14 different approaches have been used to address natural variability, environmental change and climate adaptation, management measures, ecosystem goods and services, Good Environmental Status targets and pollution. Of these 14 approaches, Ecopath with Ecosim is the most widely used and easily applied methodology. In this talk I will give an overview of this methodology and give some examples of how Ecopath with Ecosim models have been used to address multiple drivers in the ecosystems such as the Gulf of Alaska, the North Sea and the West Coast of Scotland.