

Progress towards evaluating fisheries management strategies with ecosystem modelling tools

Perryman, Holly; Hansen, Cecilie; Howell, Daniel; Goto, Daisuke; Olsen, Erik

Management strategy evaluation (also called management procedures) is a framework for using simulation models to explore trade-offs amongst harvest strategies and assess the consequences for achieving management goals provided sources of uncertainty. Management strategy evaluation is common within single-species stock assessment but tools for conducting ecosystem based management, such as integrated ecosystem assessments, comprise executing management strategy evaluation with more advanced simulation models (i.e., ecosystem models). Although the support for implementing ecosystem based management is increasing, the amount of advice provided by management strategy evaluations using ecosystem models appears to be limited. In this work, we review management strategy evaluations conducted with models that support ecosystem based management. We discuss the challenges encountered and insights gained, and offer suggestions to facilitate future undertakings of management strategy evaluation for ecosystem based management.

Keywords: management strategy evaluation, management procedure, ecosystem models, ecosystem based management

Contact author: Holly Perryman, Institute of Marine Research, Bergen, Norway, +47 474 64 356

Twitter username of contact author: [@perryman_holly](https://twitter.com/perryman_holly)