



## The ecosystem service approach to marine mammal management - benefits and limitations

Riisager-Pedersen, Christian; Galatius, Anders; Tange Olsen, Morten

*Publication date:*  
2018

*Document Version*  
Publisher's PDF, also known as Version of record

[Link back to DTU Orbit](#)

*Citation (APA):*  
Riisager-Pedersen, C., Galatius, A., & Tange Olsen, M. (2018). The ecosystem service approach to marine mammal management - benefits and limitations. Abstract from 14th Danish Marine Mammal Symposium, Hillerød, Denmark.

---

### General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

# The ecosystem service approach to marine mammal management - benefits and limitations

Christian Riisager-Pedersen<sup>1,2,3</sup>, Anders Galatius<sup>1</sup>, Morten Tange Olsen<sup>2</sup>

<sup>1</sup>Section for Marine Mammal Research, Department of Bioscience – Aarhus University, Frederiksborgvej 399, 4000 Roskilde, Denmark.

<sup>2</sup>Section for Evolutionary Genomics, Natural History Museum Denmark – University of Copenhagen, Universitetsparken 15, 2200 København Ø, Denmark

<sup>3</sup>Section for Maritime Service, DTU Aqua – Technical University of Denmark. Kemitorvet Bygning 202, 2800 Kgs. Lyngby, Denmark

The ecosystem service approach has been suggested as a new paradigm in nature management and has found its way into the academic literature as well as global and regional policy frameworks. By integrating methodologies from humanities, social and natural sciences it attempts to provide decision makers with a holistic perspective on the complex nature of the direct and indirect ways that well-functioning ecosystems benefit our wellbeing. This talk will demonstrate what an ecosystem service approach to marine mammal management could look like and discuss its challenges by emphasizing its demand for data, methods and potential outputs. In general, the approach appears to have a high demand for precise but complex models capable of integrating data on many scales and from many different academic disciplines. In conclusion the ecosystem service approach can be a beneficial science-policy tool for mapping when and where specific simple ecosystem services are provided. However, our theoretical and empirical uncertainties make the framework incapable of providing us with accurate predictive models, which can be used to predict the economic consequences of small-scale regulations of stocks of apex predators such as marine mammals. Questions regarding whether population reductions of marine mammals in an area could increase the overall production of ecosystem services is therefore not possible to answer.