



---

## MSE BEST PRACTICES PAPER

PREPARED BY: IPHC STAFF (S. KEITH; 28 MARCH 2017)

---

### PURPOSE

To provide the MSAB with a new MSE reference.

### BACKGROUND

Several useful MSE reference papers have been provided to the MSAB to assist the members in understanding the MSE process and their part in it. A recent addition to this list is a paper by several noted scientists on best practices in MSE.

This paper may be cited as:

Punt, A. E., Butterworth, D. S., de Moor, C. L., De Oliveira, J. A. A. and Haddon, M. (2016), Management strategy evaluation: best practices. *Fish Fish*, 17: 303–334. doi:10.1111/faf.12104

Here is the paper's abstract:

*Management strategy evaluation (MSE) involves using simulation to compare the relative effectiveness for achieving management objectives of different combinations of data collection schemes, methods of analysis and subsequent processes leading to management actions. MSE can be used to identify a 'best' management strategy among a set of candidate strategies, or to determine how well an existing strategy performs. The ability of MSE to facilitate fisheries management achieving its aims depends on how well uncertainty is represented, and how effectively the results of simulations are summarized and presented to the decision-makers. Key challenges for effective use of MSE therefore include characterizing objectives and uncertainty, assigning plausibility ranks to the trials considered, and working with decision-makers to interpret and implement the results of the MSE. This paper explores how MSEs are conducted and characterizes current 'best practice' guidelines, while also indicating whether and how these best practices were applied to two case-studies: the Bering–Chukchi–Beaufort Seas bowhead whales (*Balaena mysticetus*; *Balaenidae*) and the northern subpopulation of Pacific sardine (*Sardinops sagax caerulea*; *Clupeidae*).*

Due to copyright restrictions, the paper cannot be posted on the public IPHC website. The complete text is available to MSAB members in the MSAB Office 365 SharePoint on-line working space, however.

### DISCUSSION

Board members are encouraged to read the complete paper at the MSAB SharePoint site.