

Other Potential uses of MSE

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Outline

1. MSE applications to PBR regime to address other issues- Transboundary stocks, Incomplete surveys, overlap of stocks in a single Region, and others
2. Using MSE to address trade-offs between CV(Nmin) and CV(bycatch)
3. Using MSE to address when a threshold to trigger obs coverage from trend data are better than PBR protocol
4. Using MSE to address research priorities in terms of cost-benefits of research vs obs coverage

MSE applications to PBR regime to address other

- How should transboundary stocks best be addressed with PBR protocol?
- How should Regions where there is stock overlap be addressed with PBR protocol?
- Other applications?

Using MSE to address trade-offs between CV(Nmin) and CV(bycatch)

- When are survey costs too much relative to costs of obs programs?
- When are obs program costs too much relative to costs of survey program?
- How old can survey estimates of abundance be and still provide for reasonable performance in managing marine mammal – fishery interactions?
- Other applications?

Using MSE to address when a threshold to trigger obs coverage from trend data are better than PBR protocol

- Obs data are expensive. Can MSE be used to provide guidelines for setting priorities on obs programs in a given Region?
- For some species, N_{min} is relatively expensive (eg., pelagic species); whereas for other species, estimating N_{min} is relatively inexpensive (eg., coastal species). Could trend data provide a more efficient approach to trigger obs placement on a given fleet or fleets compared to PBR based threshold?

Using MSE to address research priorities in terms of cost-benefits of research vs obs coverage

- NMFS research budgets at Science Centers have generally declined since 2011.
- Research budgets (e.g., discretionary funding) are getting tighter as facility costs, ship time and salaries increase.
- NMFS needs to figure out a way to set priorities nationally regarding research needed to implement PBR based management.
- Could MSE be used to address relative cost-benefits of area or species specific surveys across NMFS?

Take home points:

- NMFS funding is very, very tight
- Research surveys are expensive; as are obs programs
- NMFS needs to ensure that funding for surveys is optimal relative to management needs
- NMFS needs to develop tools to be able to better prioritize research within a region and between regions
- NMFS needs to develop tools to be able to optimize funding spent on surveys to estimate N_{min} relative to cost of obs programs
- MSE approaches appear to be able to provide useful information in addressing these concerns



Thank you