Trade-off: catch/biomass

Six management procedures (MP1-MP6). Median in final year of 2020-2040 projection.



SUMMARY OF RESULTS

Management procedure 2 (MP2) and MP3 perform best, maintaining the stock around B_{MSY} while fishing around the target reference point. While MP4 and MP6 also project a sustainable stock, fishing effort is lower than necessary. The failure of MP5 stems from severe overfishing, resulting in an overfished stock.

READING THIS CHART

The chart **compares trade-offs** in six management procedures (MPs) for X operating models by measuring two co-dependent performance metrics: **fishing mortality** (vertical axis) and **biomass** (horizontal axis).

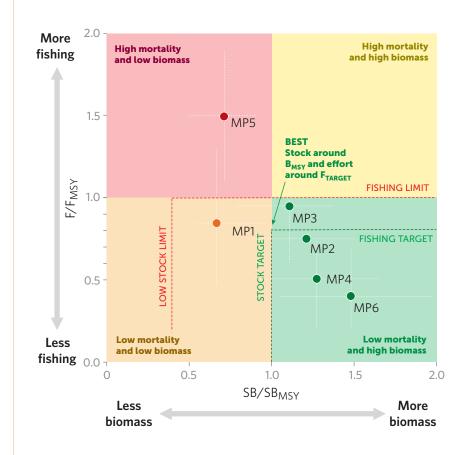
Index (1 = target)

The **dots** represent the median value for the final year of the projected period 2020-2040. **Dotted lines** around dots are error bars representing 90th percentiles.

Performance metrics measured

F/F_{MSY} Fishing mortality relative to fishing at maximum sustainable yield.

SB/SBMSY Spawning biomass relative to the spawning biomass that enables a fish stock to deliver the maximum sustainable yield



RESULTS RANKING

HIGHEST SCORE

- MP3 Stock around B_{MSY} and effort
- MP2 around F_{TARGET}
- MP4 Sustainable stock
- MP6 but low fishing
- MP1 Effort around F_{MSY} but low stock
- MP5 Overfishing, jeopardizing stock sustainability