

# Huynh 2020 Interim Analysis Code

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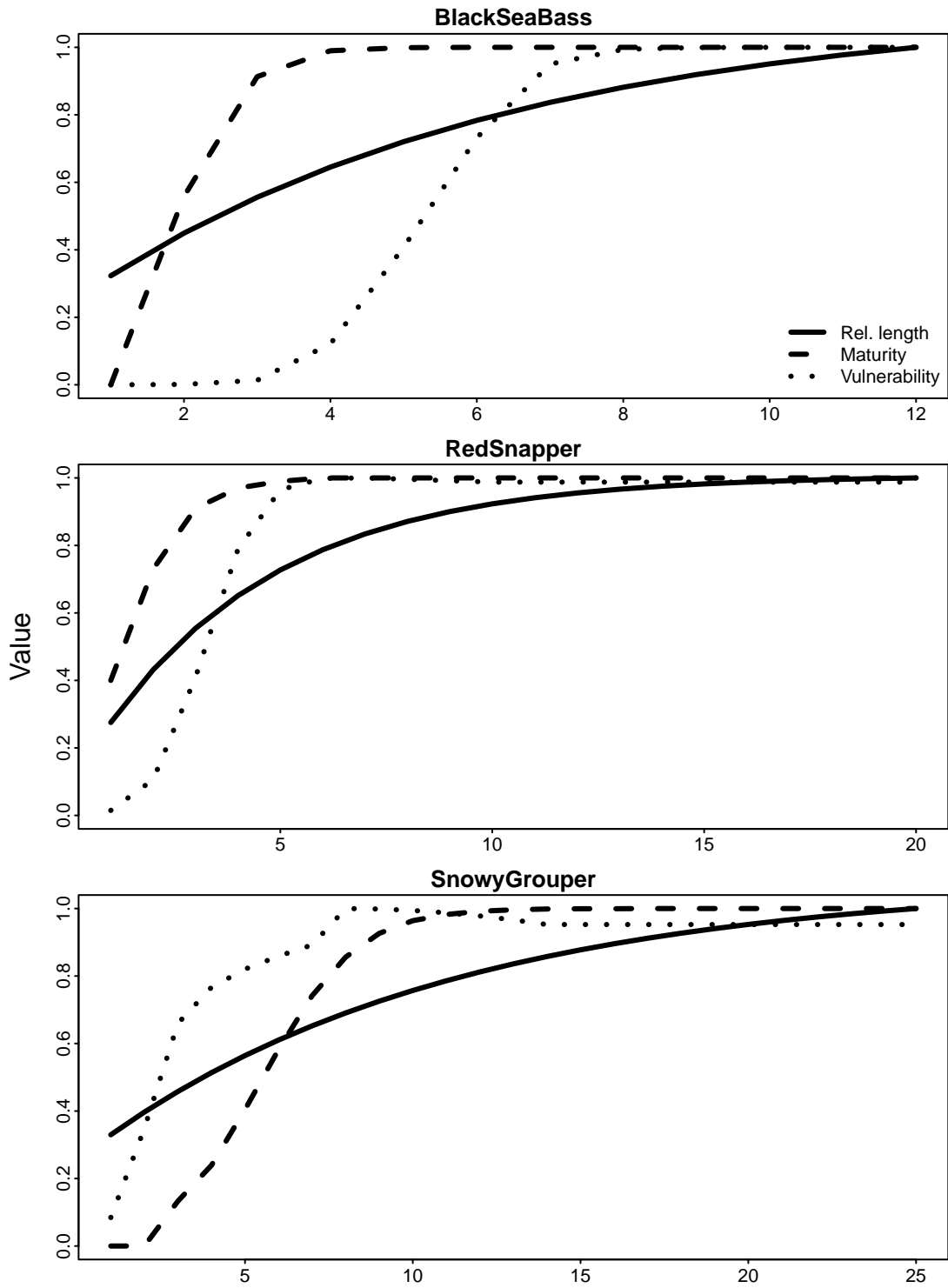


Figure 1: Life history (growth and maturity) and vulnerability schedules at age used in the operating models for BlackSeaBass, RedSnapper, and SnowyGrouper. Growth is expressed as mean length-at-age relative to that at the maximum age. Compare with Huynh et al (2020) Figure 1.

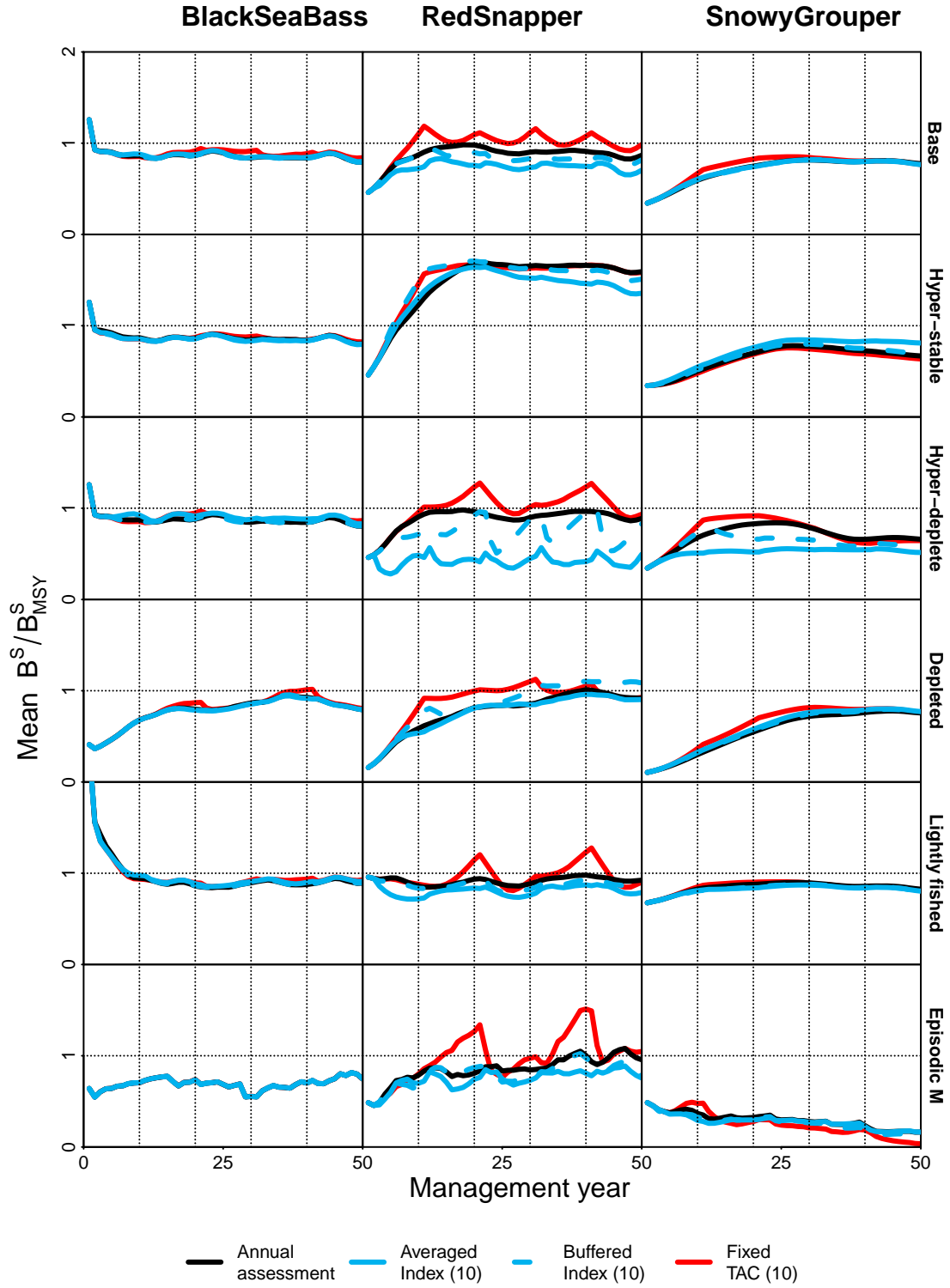


Figure 2: Annual mean  $B^S/B_{MSY}^S$  from 48 simulations for each species (columns) and scenario (rows). Coloured lines correspond to the four MPs. Note that  $B^S = \text{SSB}$ . Compare with Huynh et al (2020) Figure 2.

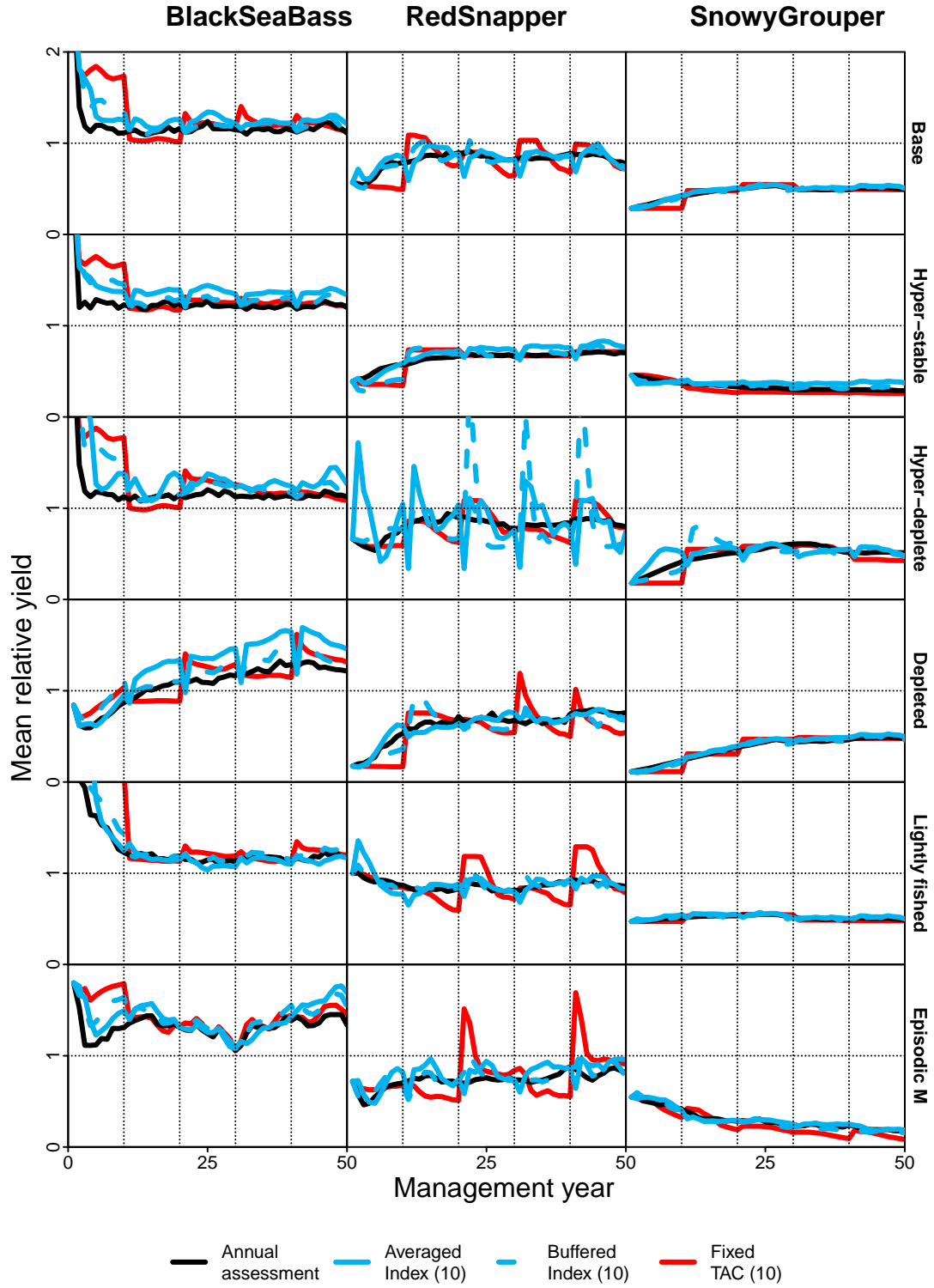


Figure 3: Annual mean relative yield from 48 simulations for each species (columns) and scenario (rows). Coloured lines correspond to the four MPs. Compare with Huynh et al (2020) Figure 3.

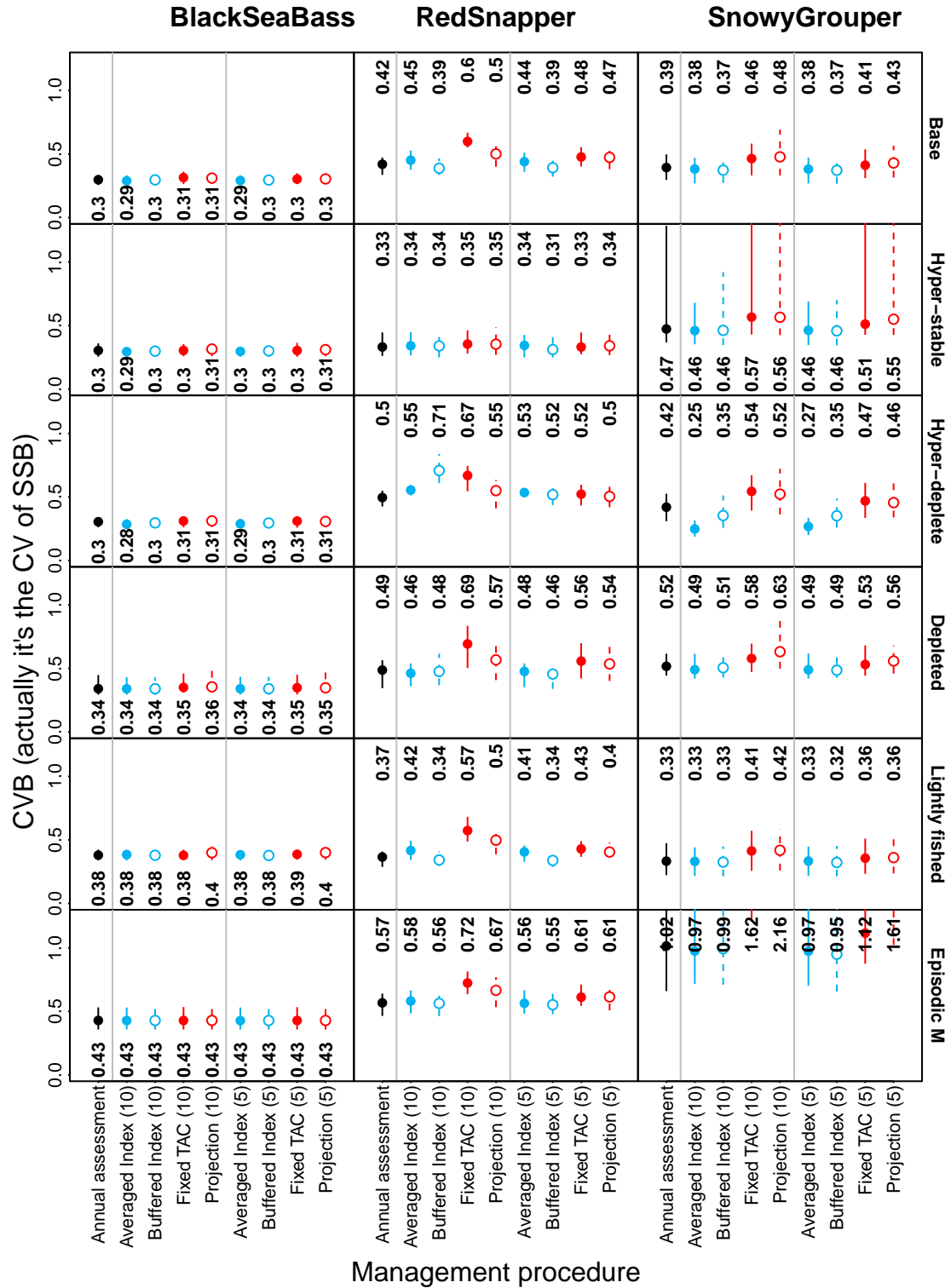


Figure 4: Dot-and-whisker plots of CVB (coefficient of variation in spawning stock biomass) for each species (columns) and scenario (rows). For each MP, dots and numbers indicate the median from 48 simulations, and whiskers span the interquartile range. Compare with Huynh et al (2020) Figure 4.

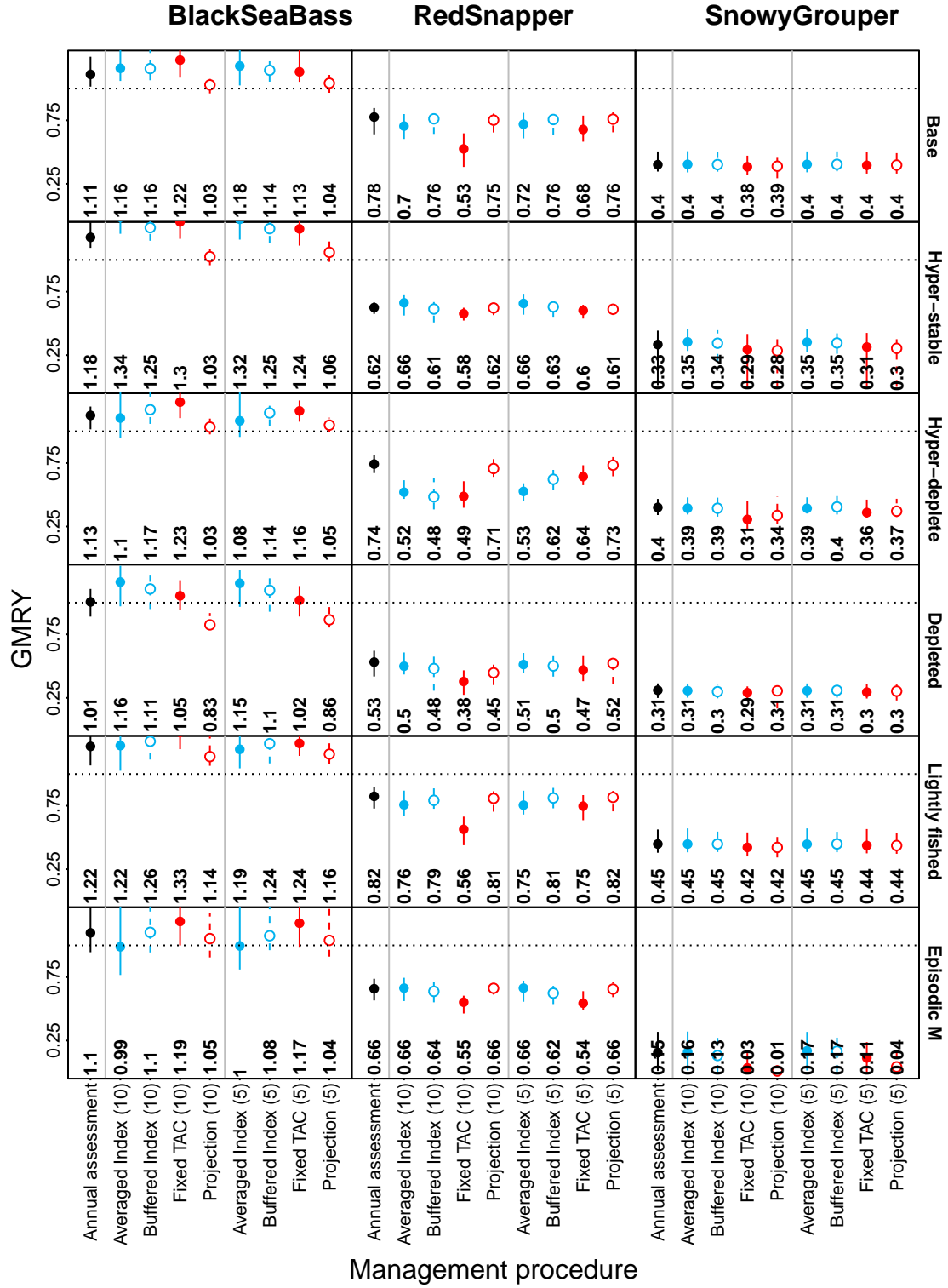


Figure 5: Dot-and-whisker plots of GMRY (geometric mean of relative yield) for each species (columns) and scenario (rows). For each MP, dots and numbers indicate the median from 48 simulations, and whiskers span the interquartile range. Dotted, horizontal lines indicate a value of 1. Compare with Huynh et al (2020) Figure 4.

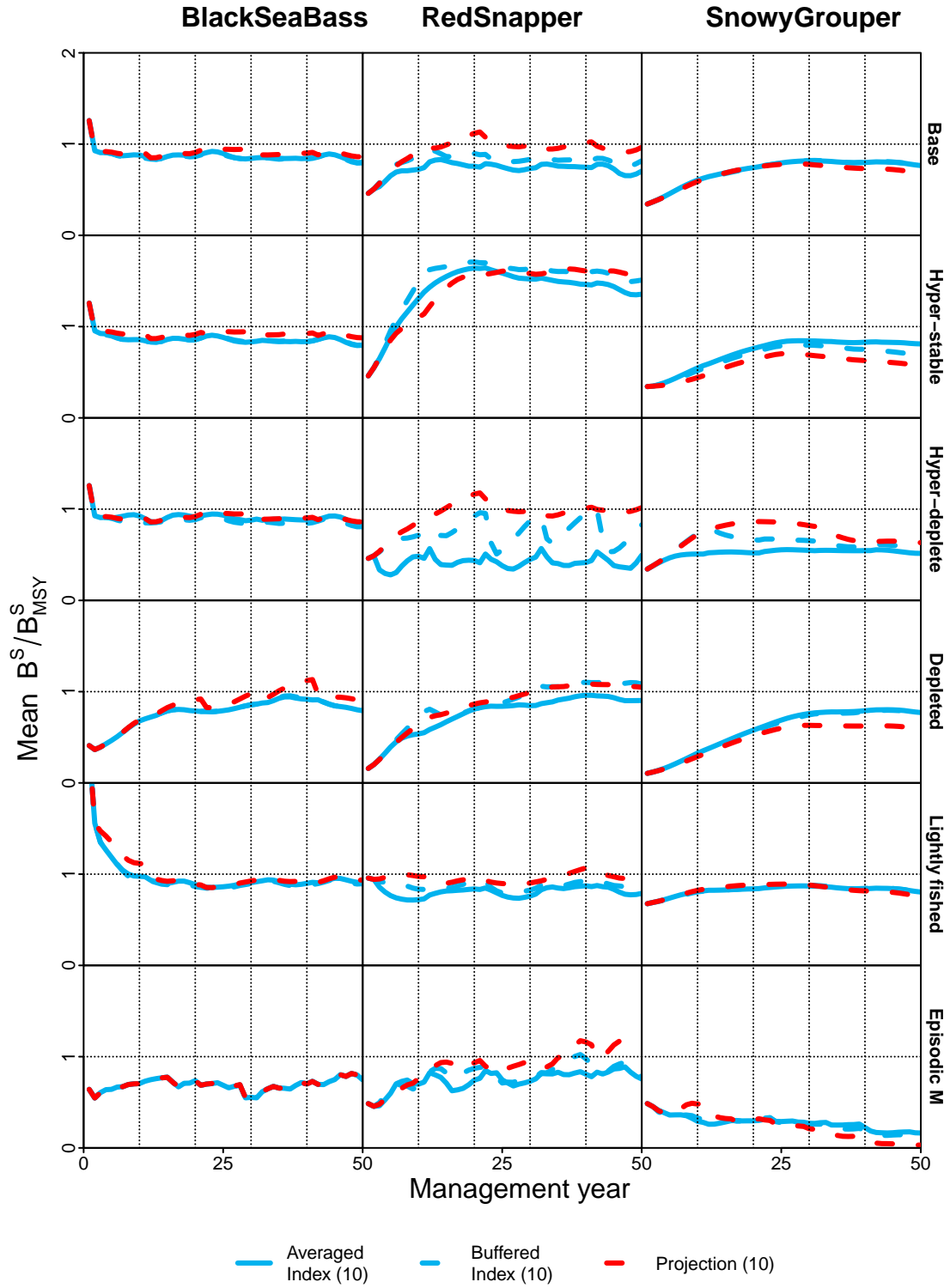


Figure 6: Annual mean  $B^S/B_{MSY}^S$  from 48 simulations for each species (columns) and scenario (rows) comparing the Averaged Index, Buffered Index and Projection MPs. Coloured lines correspond to the three MPs. Compare with Huynh et al (2020) Figure 6.

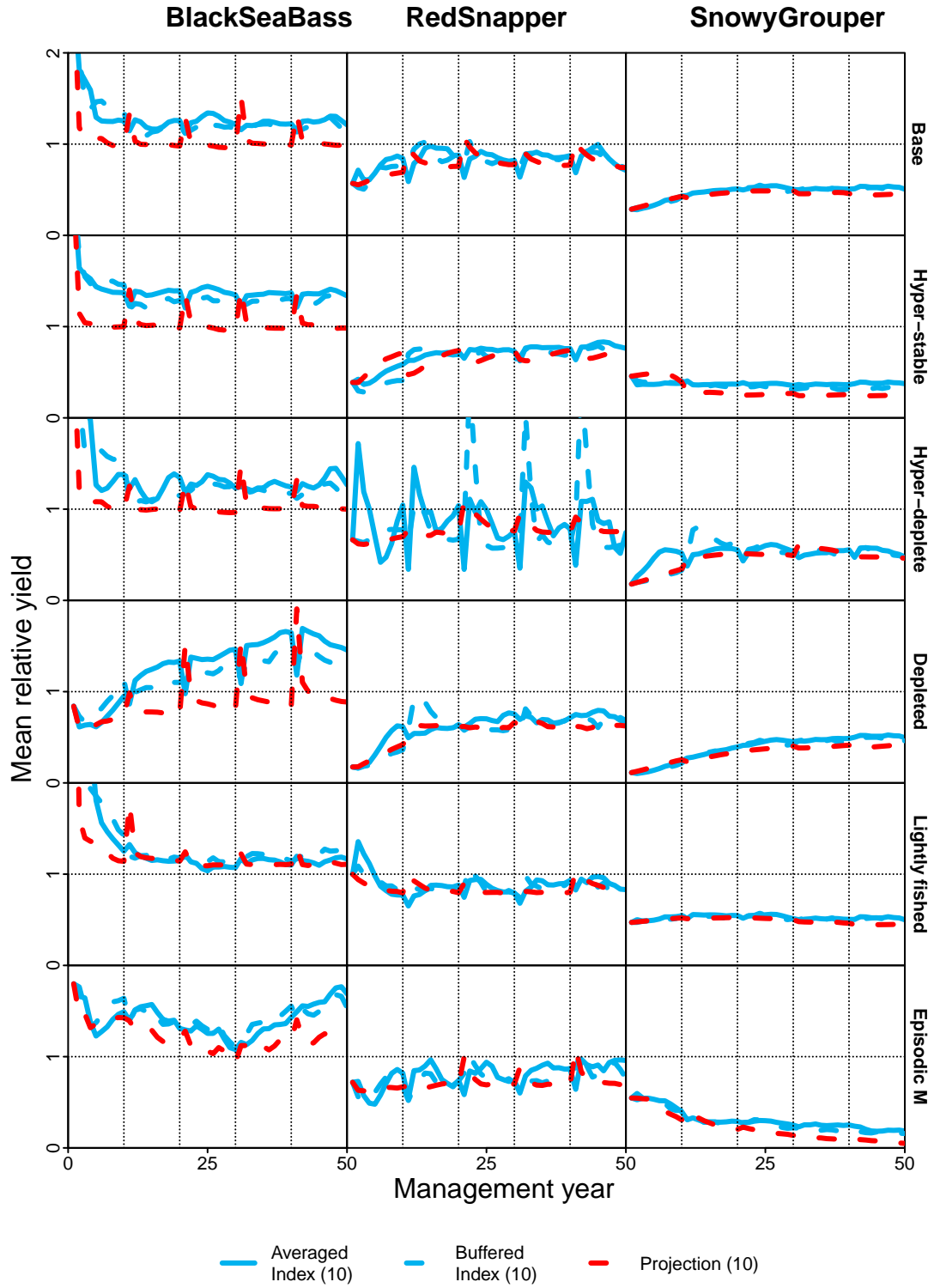


Figure 7: Annual mean relative yield from 48 simulations for each species (columns) and scenario (rows) comparing the Averaged Index, Buffered Index and Projection MPs. Coloured lines correspond to the three MPs. Compare with Huynh et al (2020) Figure 7.