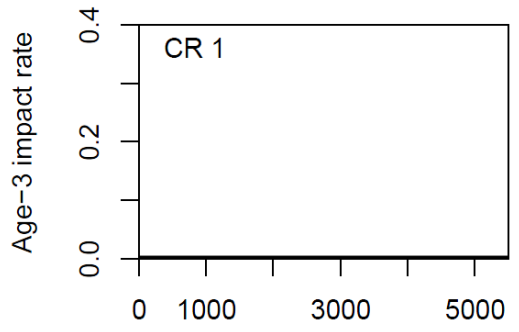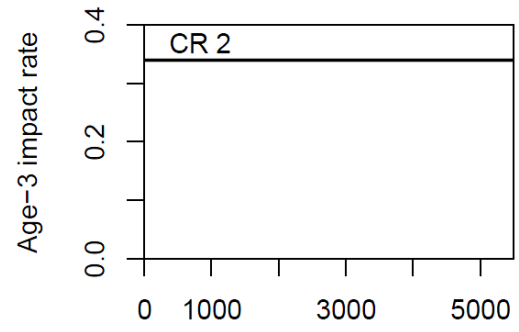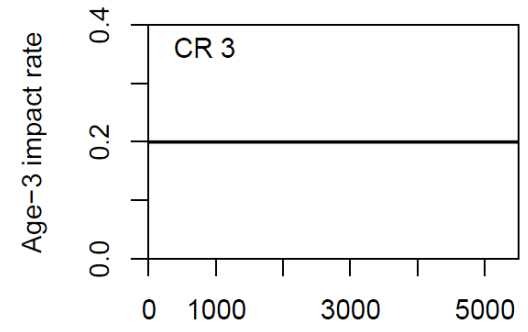# Ad hoc SRWC Workgroup analysis of control rules

- Evaluated 9 control rules
  - Population effects
  - Fishery effects

- New and updated MSE results
  - Additional simulations under a variable environment
  - Evaluation of median vs. mode of forecast distribution
  - Minimum spawner abundance
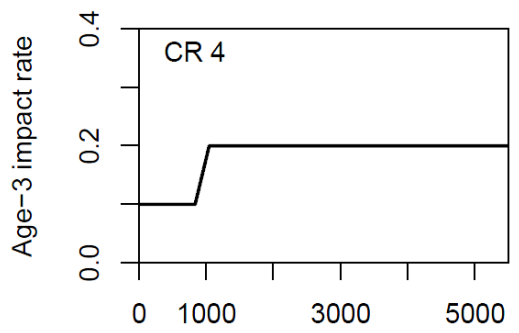 - Population response following low abundance
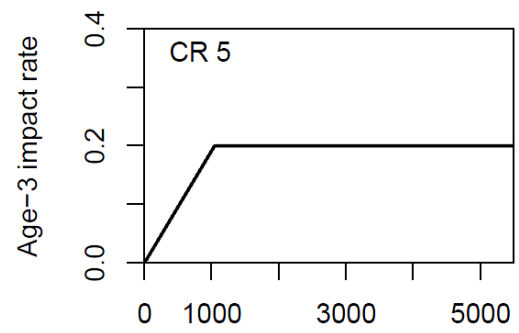
CR 1

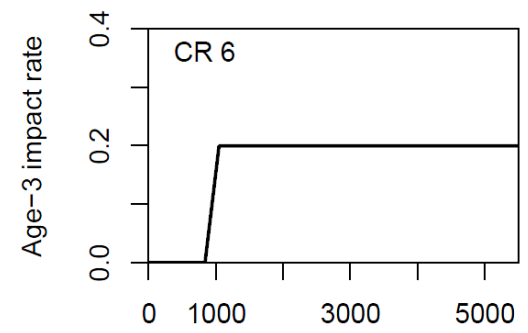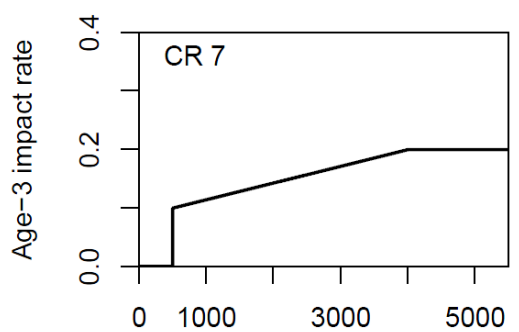Age-3 escapement absent fishing

CR 2

Age-3 escapement absent fishing

CR 3

Age-3 escapement absent fishing

CR 4

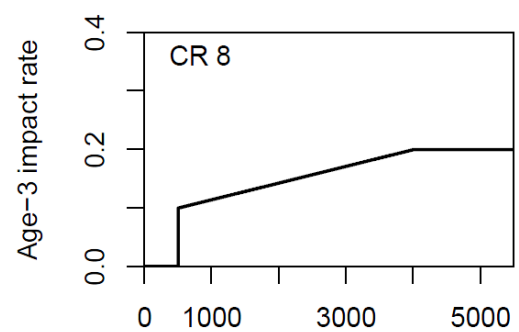Age-3 escapement absent fishing

CR 5

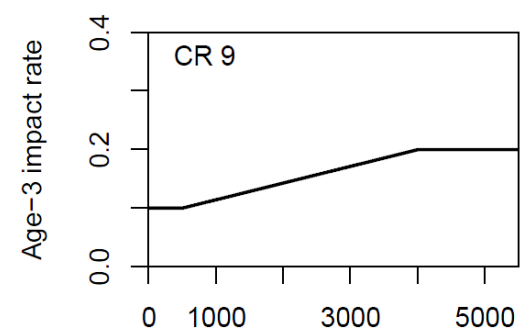Age-3 escapement absent fishing

CR 6

Age-3 escapement absent fishing
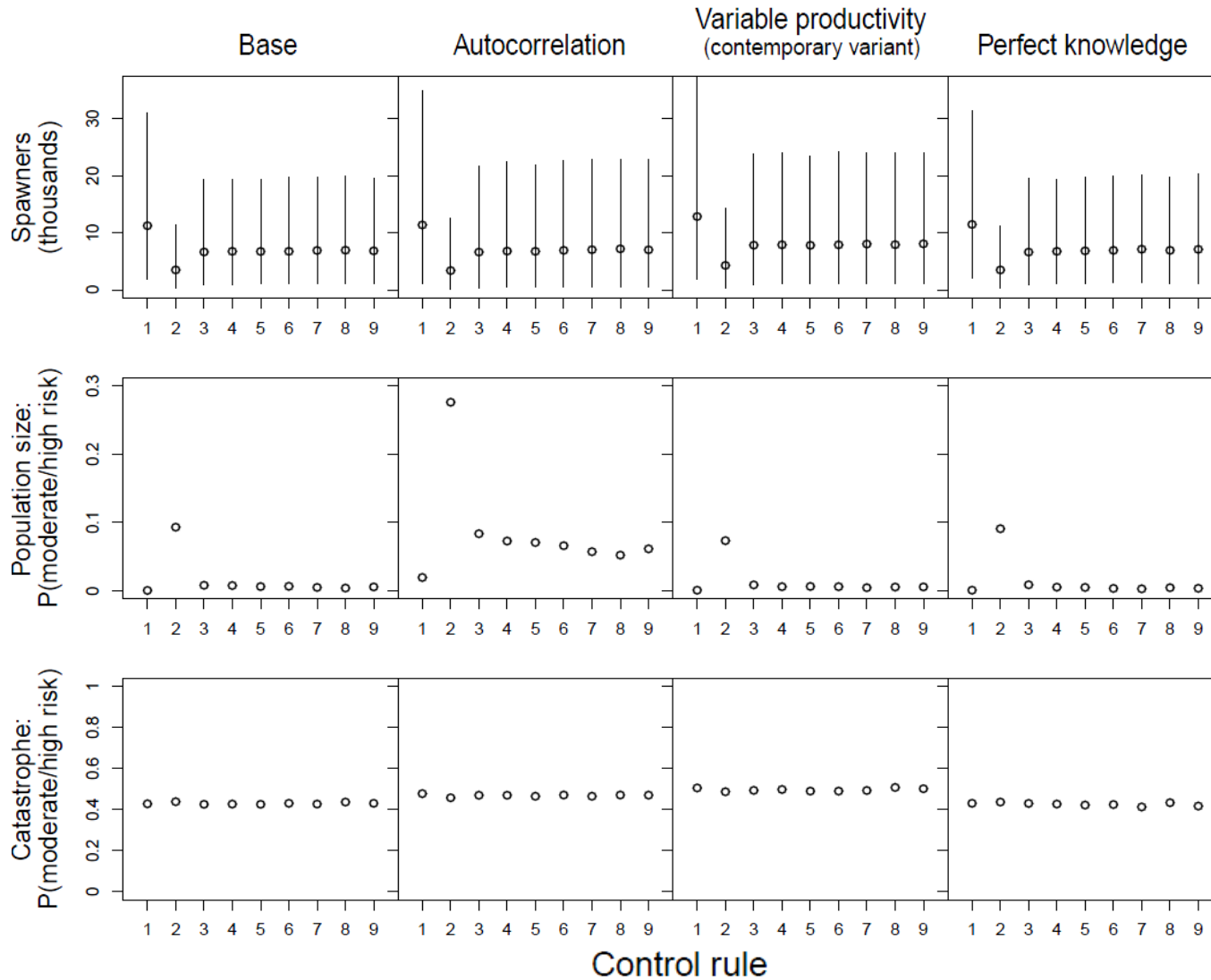
CR 7

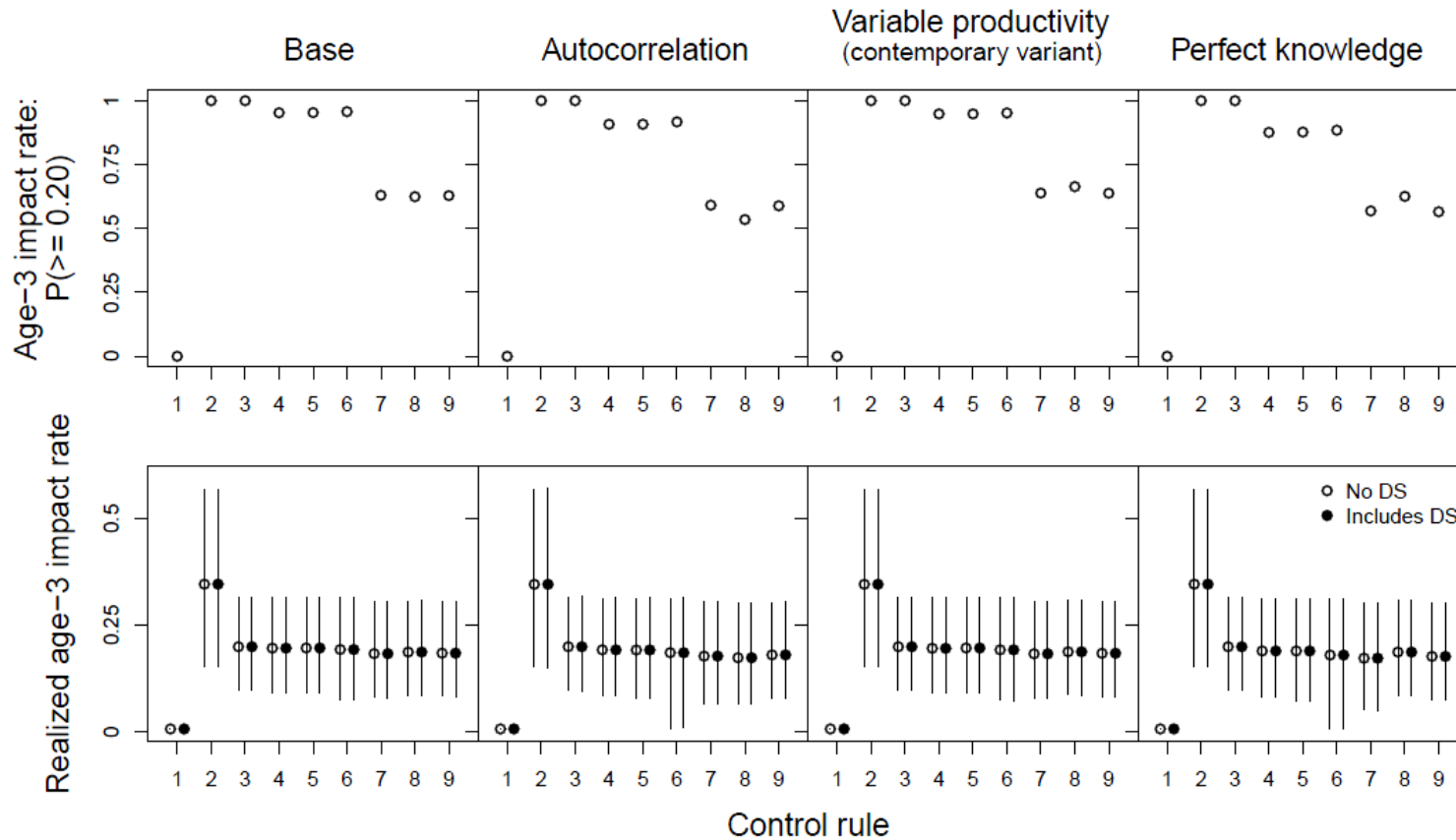Age-3 escapement absent fishing

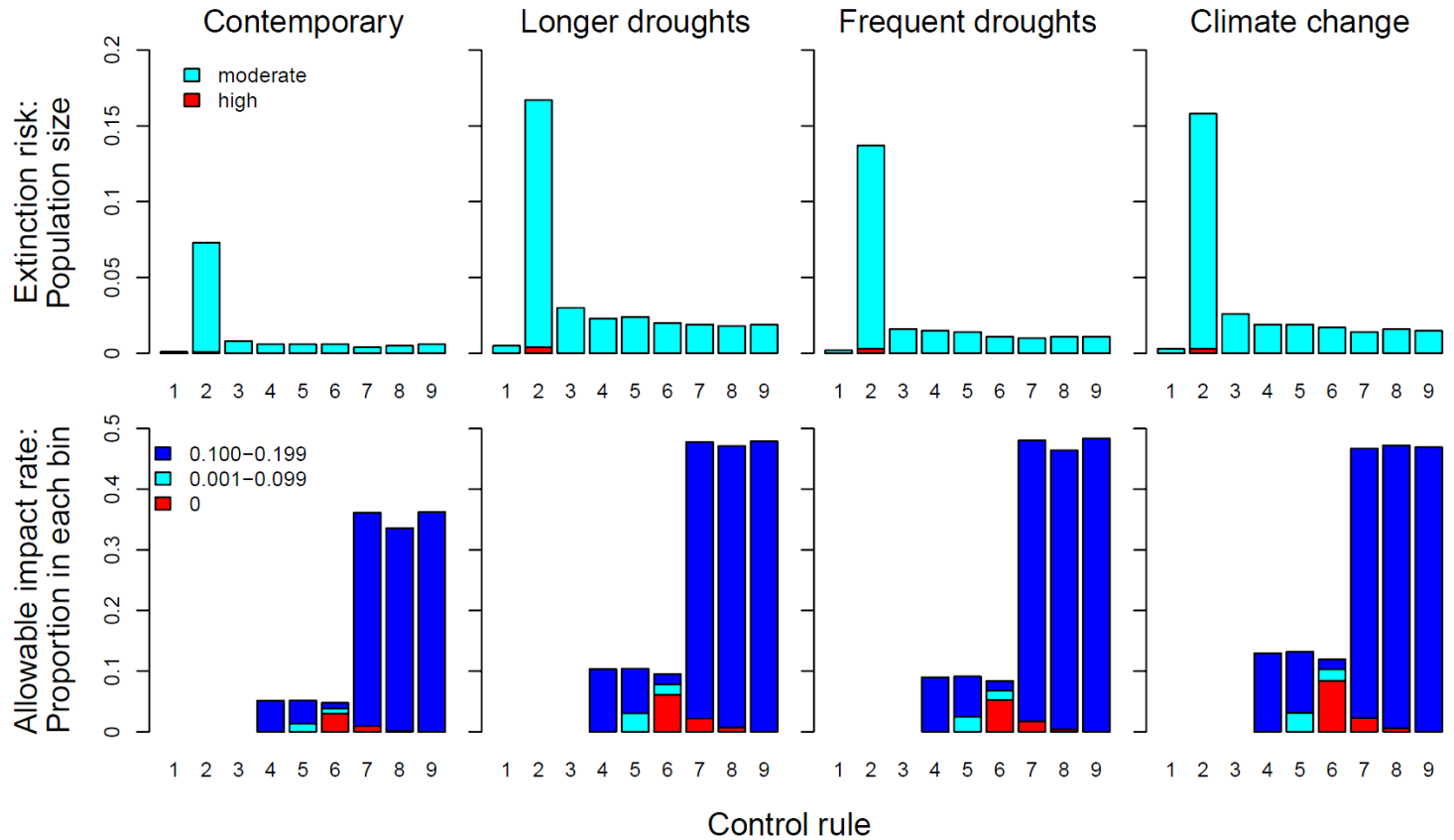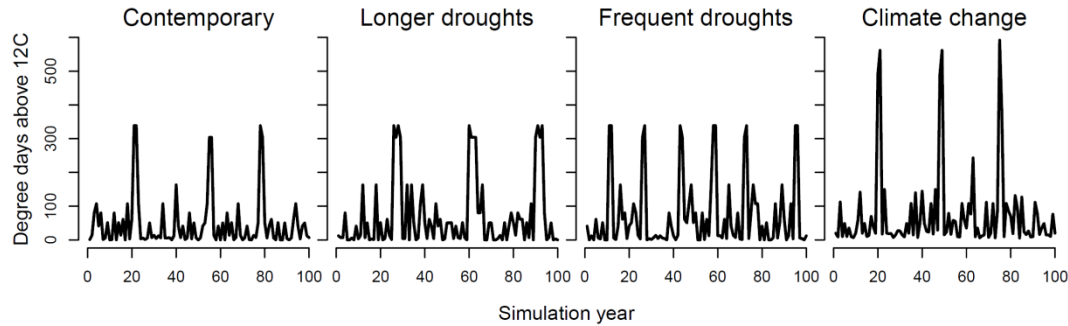CR 8

3-year geometric mean escapement
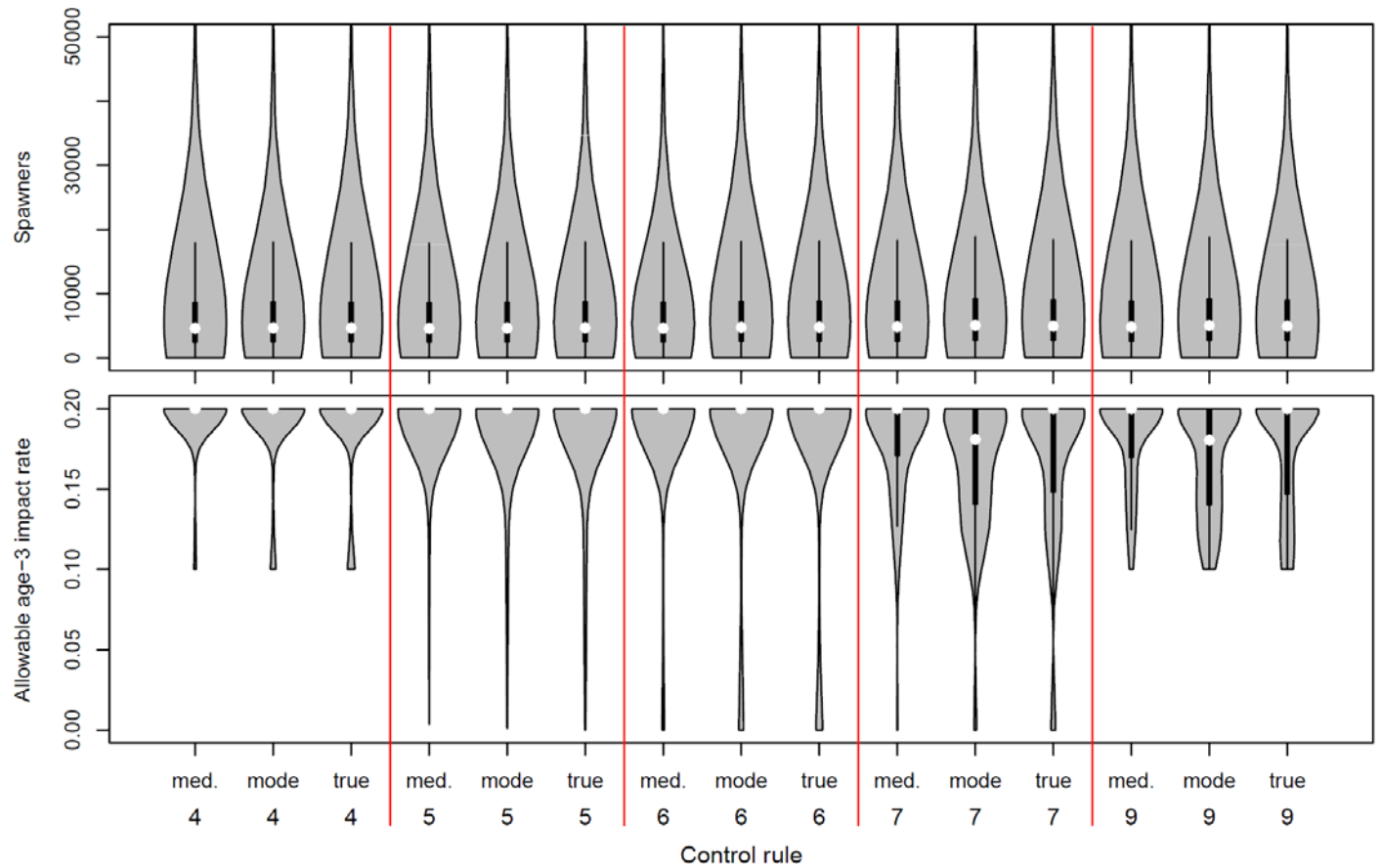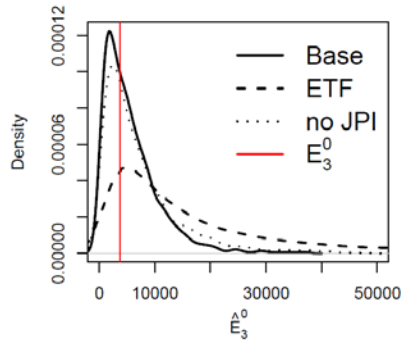
CR 9

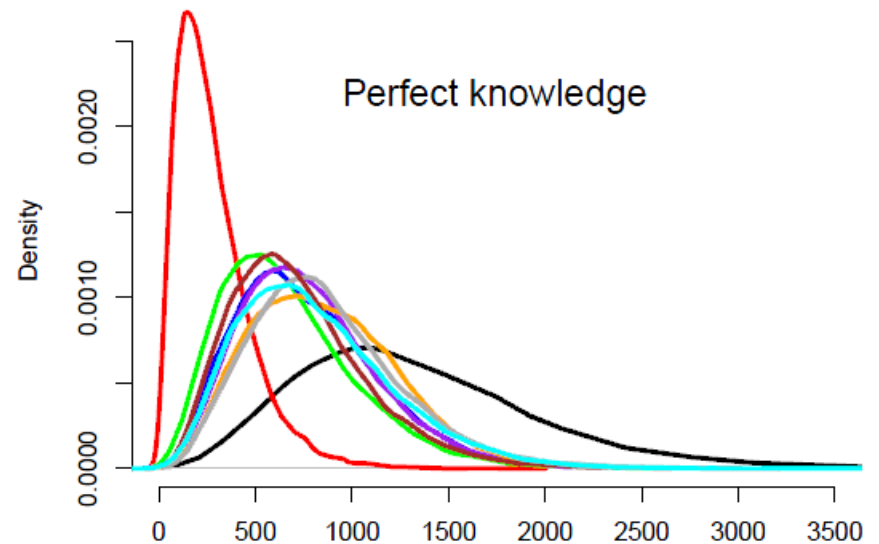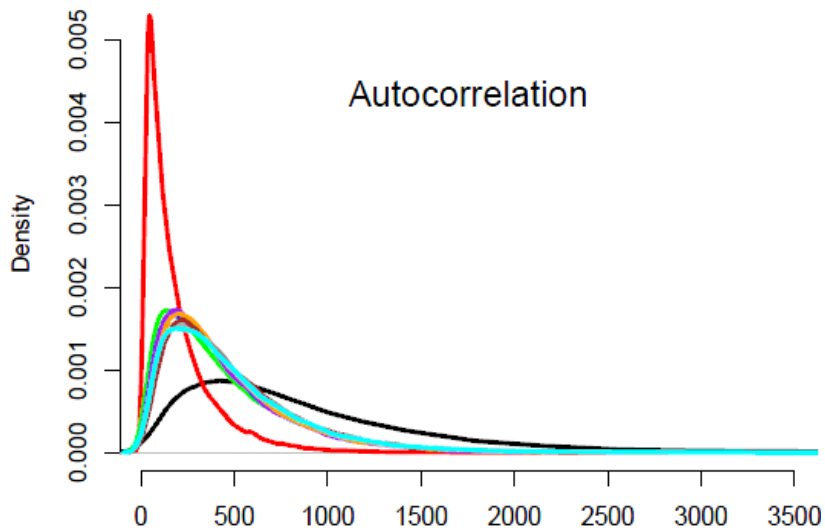Age-3 escapement absent fishing

Population results

Fishery results

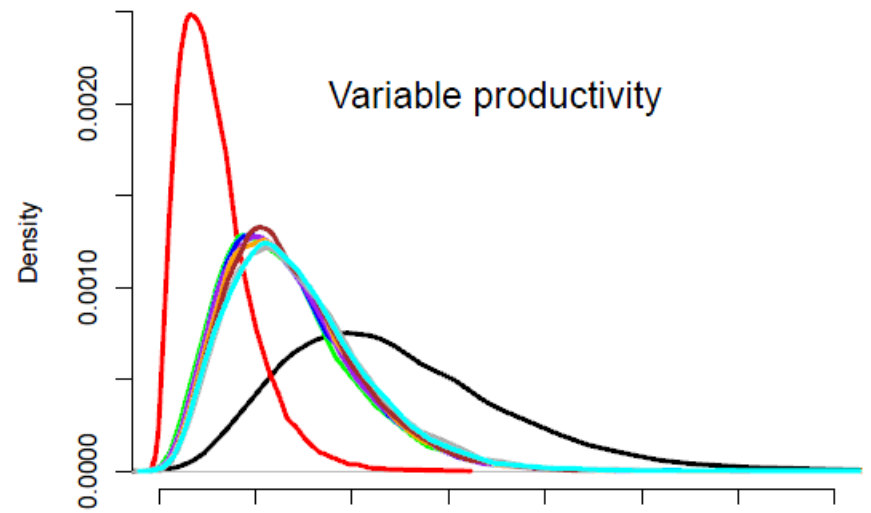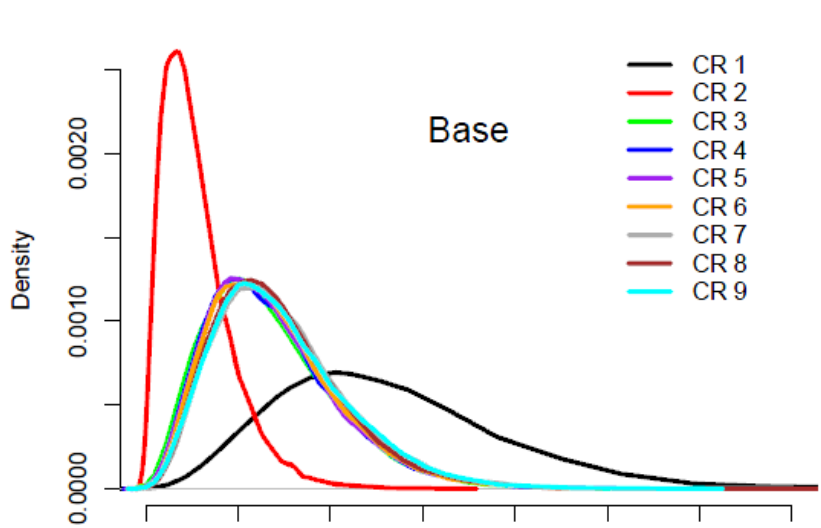# Variable productivity

Control rule input: median vs. mode

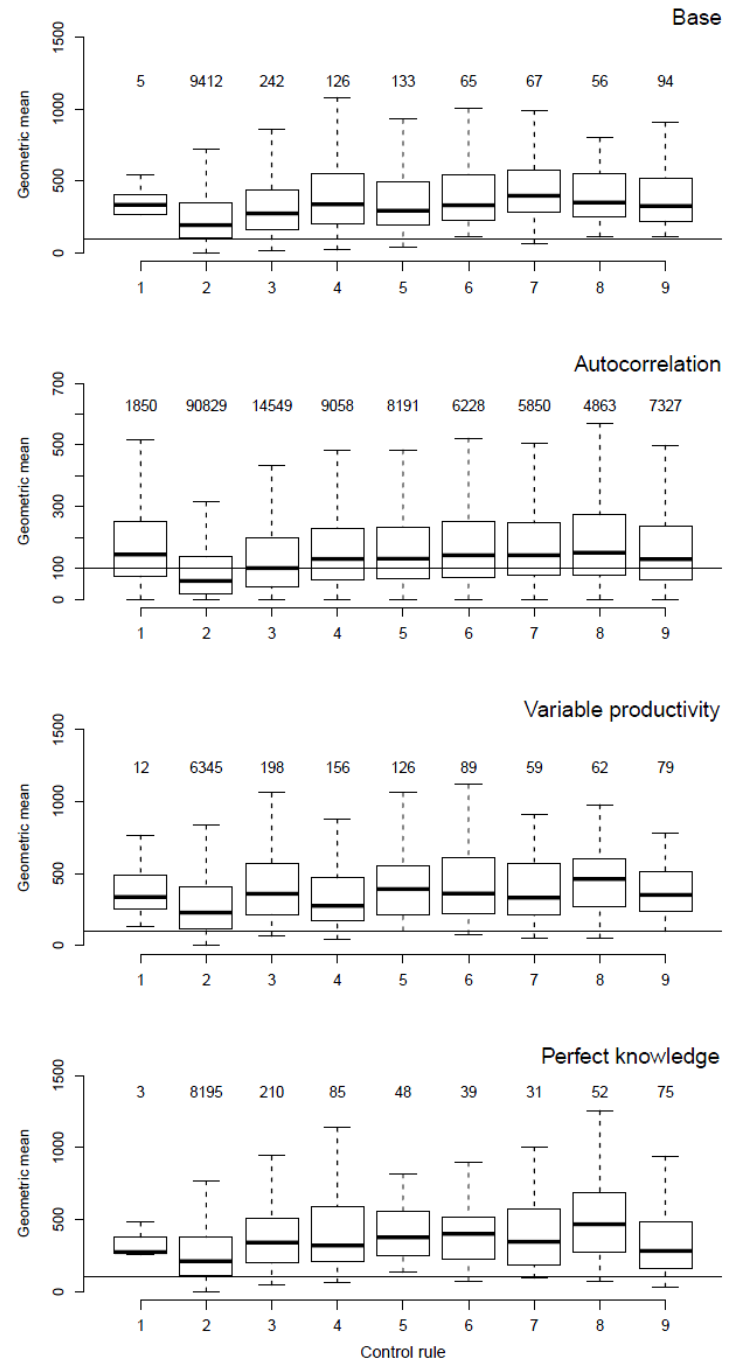# Minimum number of spawners

Population response to crossing a low abundance threshold

Core results:

- Modest population differences between CR 4-9
  - Mean spawners
  - Extinction risk

- Notable fishery differences between CR 4-9
  - More frequent constraints for CR 7-9 than CR 4-6
  - Differences in the degree of constraint

- Lower and more variable productivity
  - Higher extinction risks
  - Some extinction risk contrast between control rules
    - Lower risk for CR 7-9 vs. CR 4-5 (and sometimes 6)
  - Pattern of fishery effects similar to Base simulations