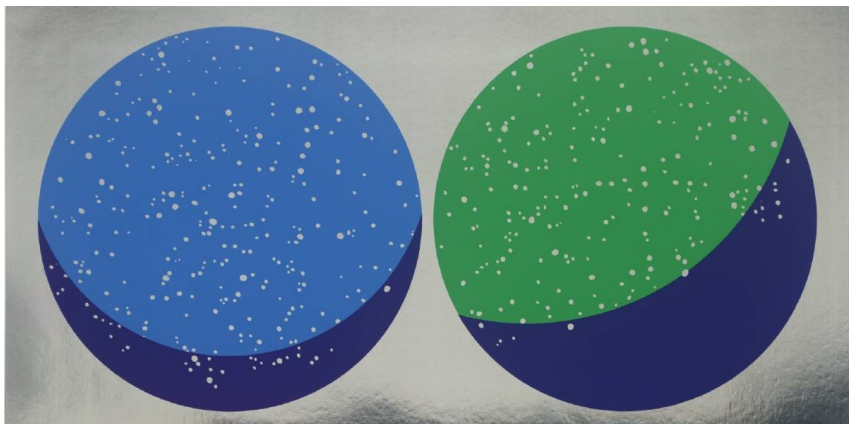
The Costs of Ignoring Stock Structure



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Motivation

- By:
  - Simulating a range of realistic stock dynamics
  - Modelling fisheries management
- We aim to:
  - Investigate managing two stocks as one
  - Identify risks
  - Suggest robust reference points

assessment 4 all - a4a

Some notes on a4a

Simulation Design

Population model

Simulation Design

Observation model

Simulation Design

Management procedure

Simulation Design

Feed back into the population model

Simulation design

The MSE diagram A picture of the set up, with arrows that show the data input, 2 stocks into 1 data set and a MP that goes from TAC to F

Choosing Parameter Values

- the lh() function
- the gislasim function
- recruitment levels - ICES north sea estimates
- shapes designed to be viable under fishing

The Simulated Sub Stock Units

Show some of the stocks explaining the fishing pattern We use take as a start point the 40th year of fishing

Scenarios

Show table of what scenarios

One full result

Results Summary

Final Thoughts

- Improve simulation speed by running hadoop like program structure
- Test other LH parameter sets
- Investigate link between virgin biomass and M etc.
- this is being explored at the ICES WGMG in two weeks