

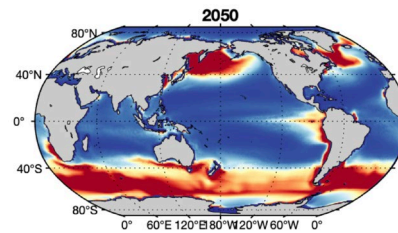
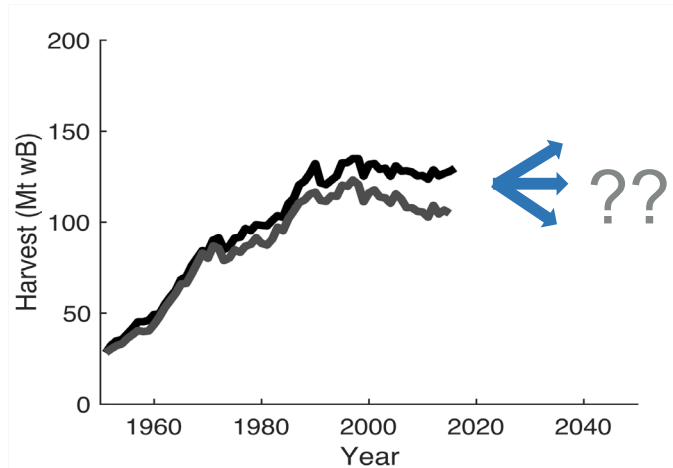
# A GLOBAL FISHERIES MODEL WITH DYNAMIC REGULATION

## IMPLICATIONS FOR FUTURE MARINE CATCHES

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Investigates how fisheries regulation interacts with other key drivers of change in shaping potential future fisheries



Uses a spatially resolved, mechanistic size-spectrum model (BOATS), constructed to be able to hindcast the historical development of the global fishery

**BIGSEA**



European Research Council  
Established by the European Commission



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**UAB**  
Universitat Autònoma de Barcelona

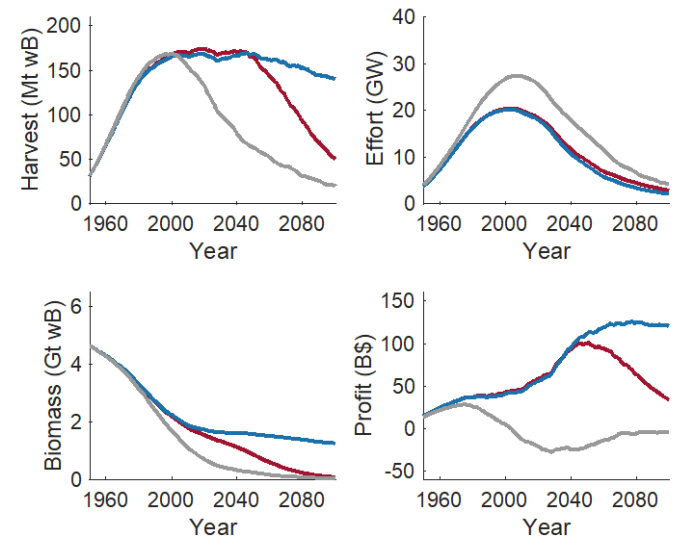


Regulation in a global model??

Open access fishing

VS

Regulated common target fishing



Results give insight on:

- scope for continually growing global catches
- importance of fishing technology over long time-scales
- profit-biomass tradeoffs under increasing catchability
- the potential for a race between technology and regulation

## KEY FINDINGS

Technological progress determines the need for strong management

Regulation must keep up with catchability to ensure sustainability; a “Red Queen” race

Climate change effects initially small, but grow over longer time-scales

Technology boosts fisheries profits, but risks to mask biomass decline if regulation is weaker



Results underline the long-term importance of strengthened, robust management measures under continued technological progress

POSTER #150

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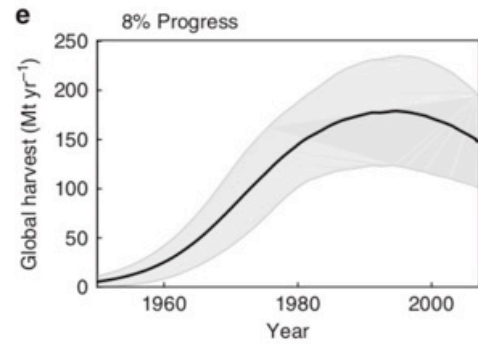
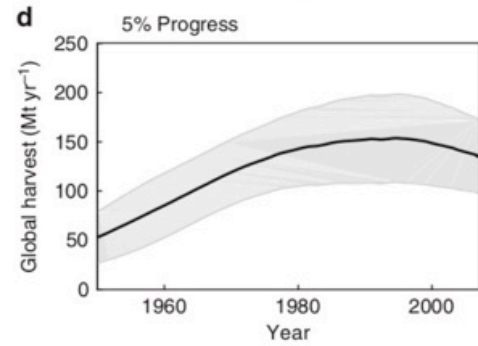
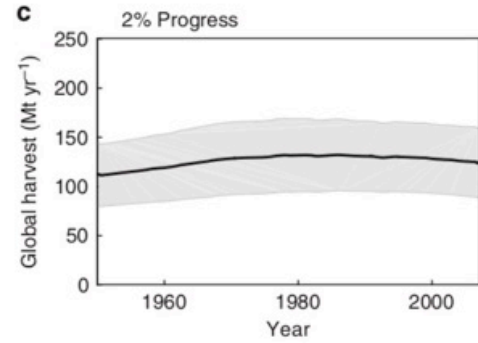
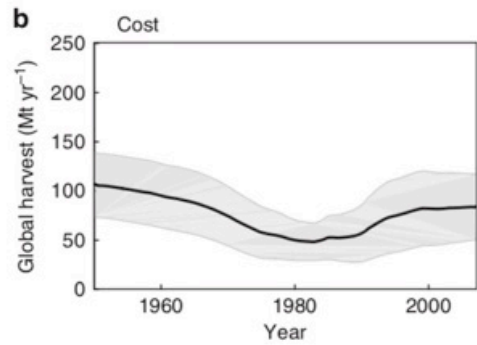
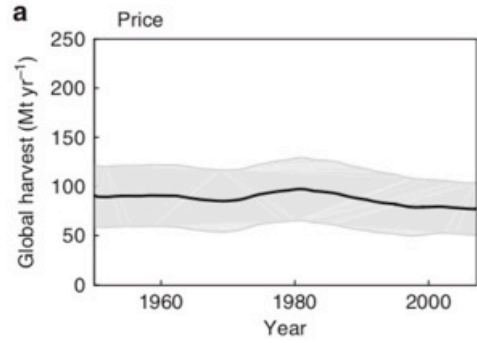
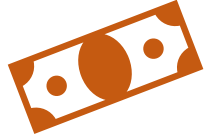
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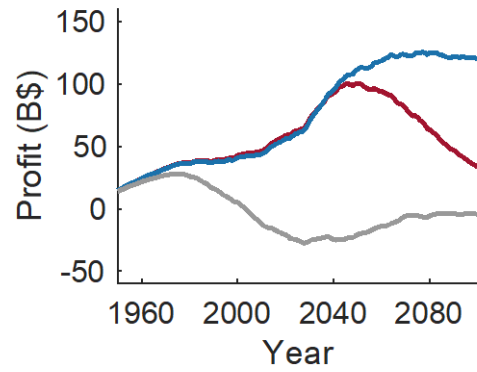
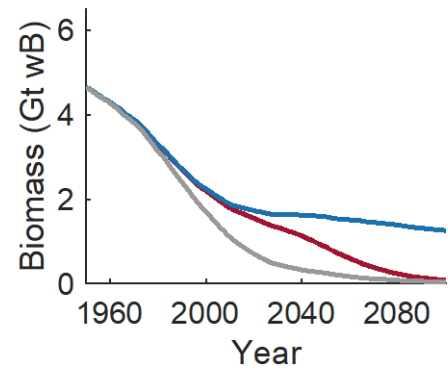
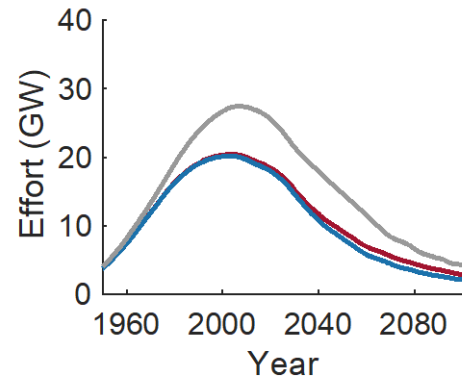
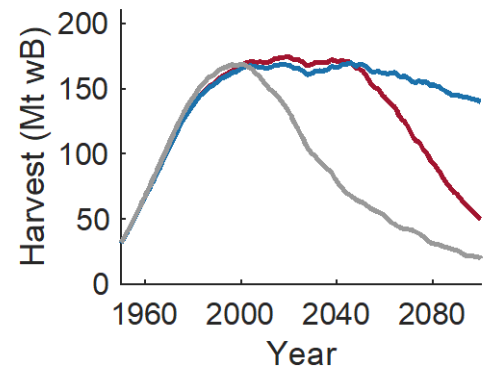
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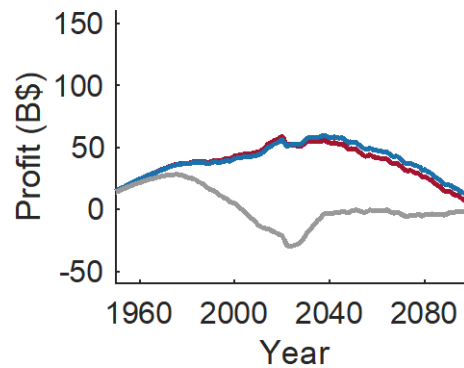
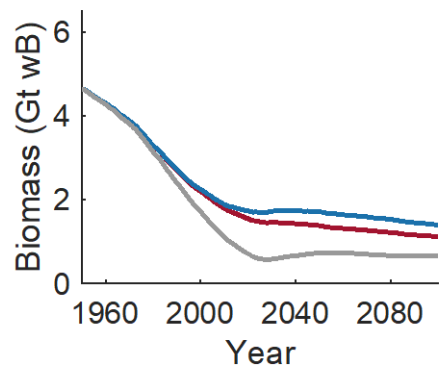
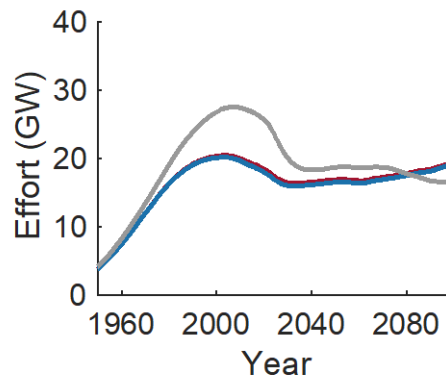
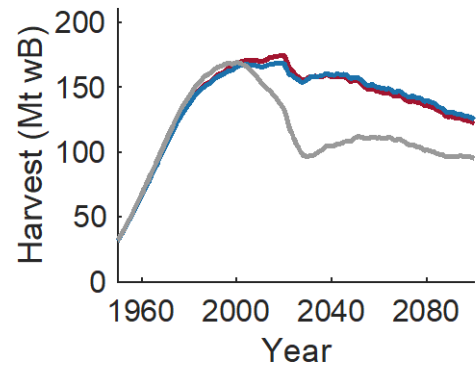
Results underline the long-term importance of strengthened, robust management measures under continued technological progress





With increasing





With stagnating

