

# Management strategy evaluation to assess trade-offs associated with invasive Blue Catfish fisheries and predation impacts

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# Blue Catfish Complexities



Native  
Conservation



Recreational  
Fisheries

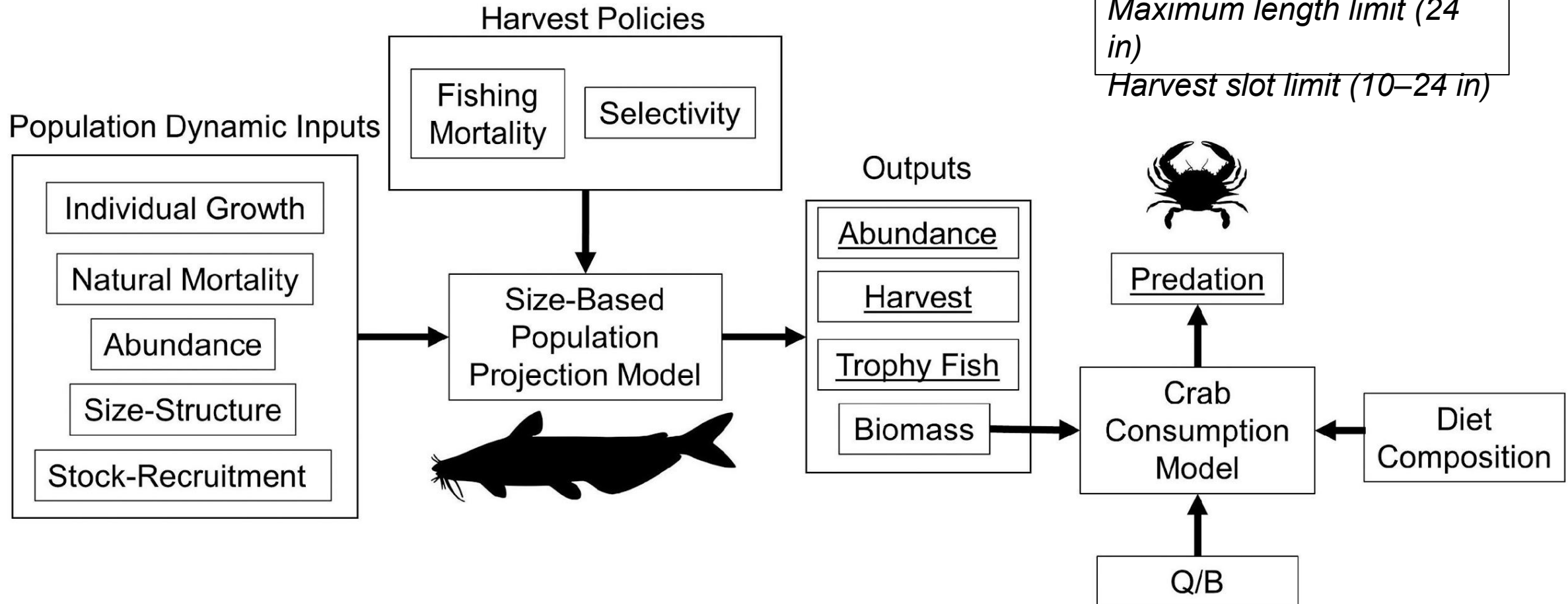


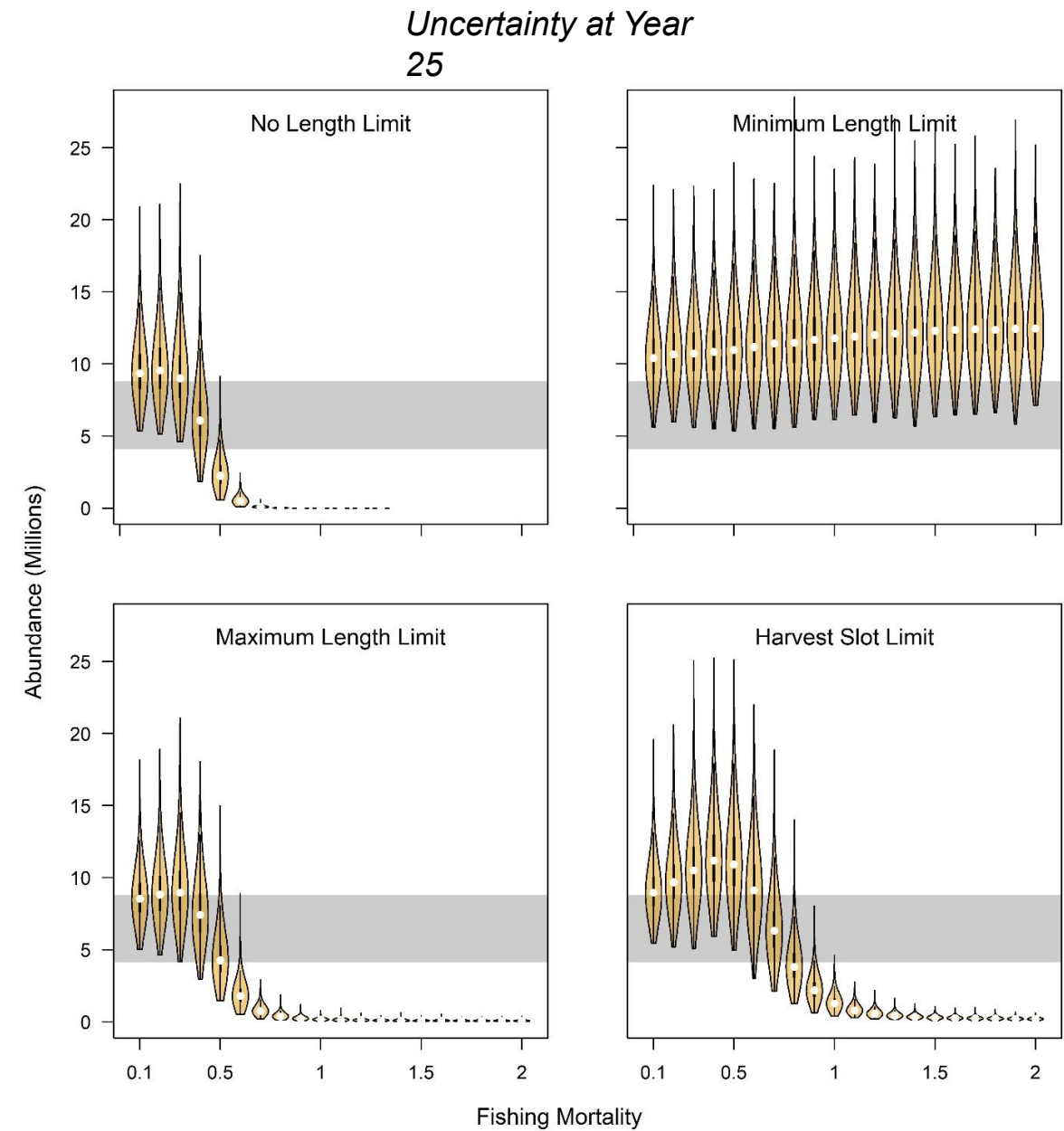
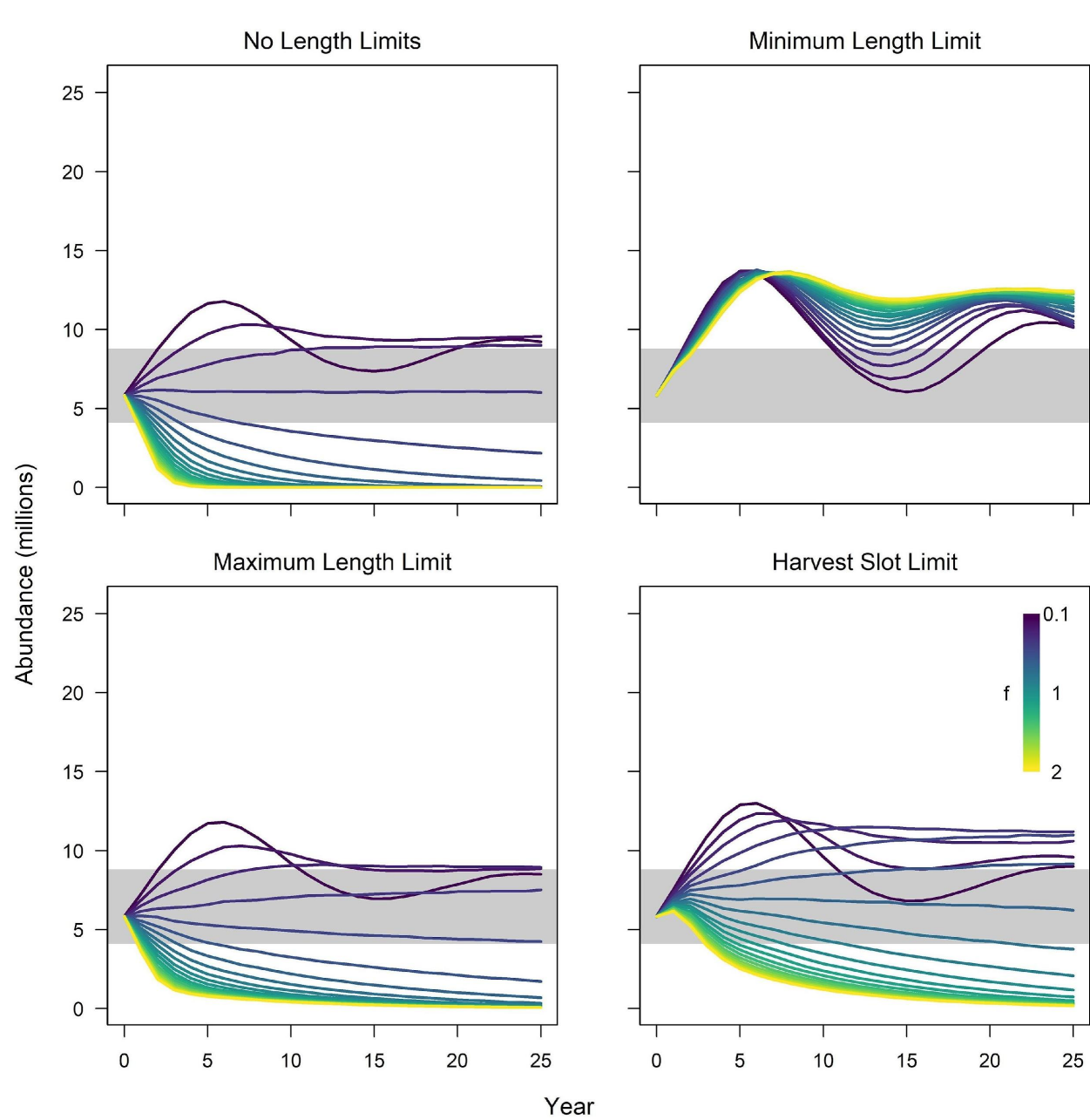
Commercial  
Fisheries

Image Credits: American Eel (USFWS), Trophy Blue Catfish (J. Eddy), Blue Catfish Harvesters (C. Lillian)

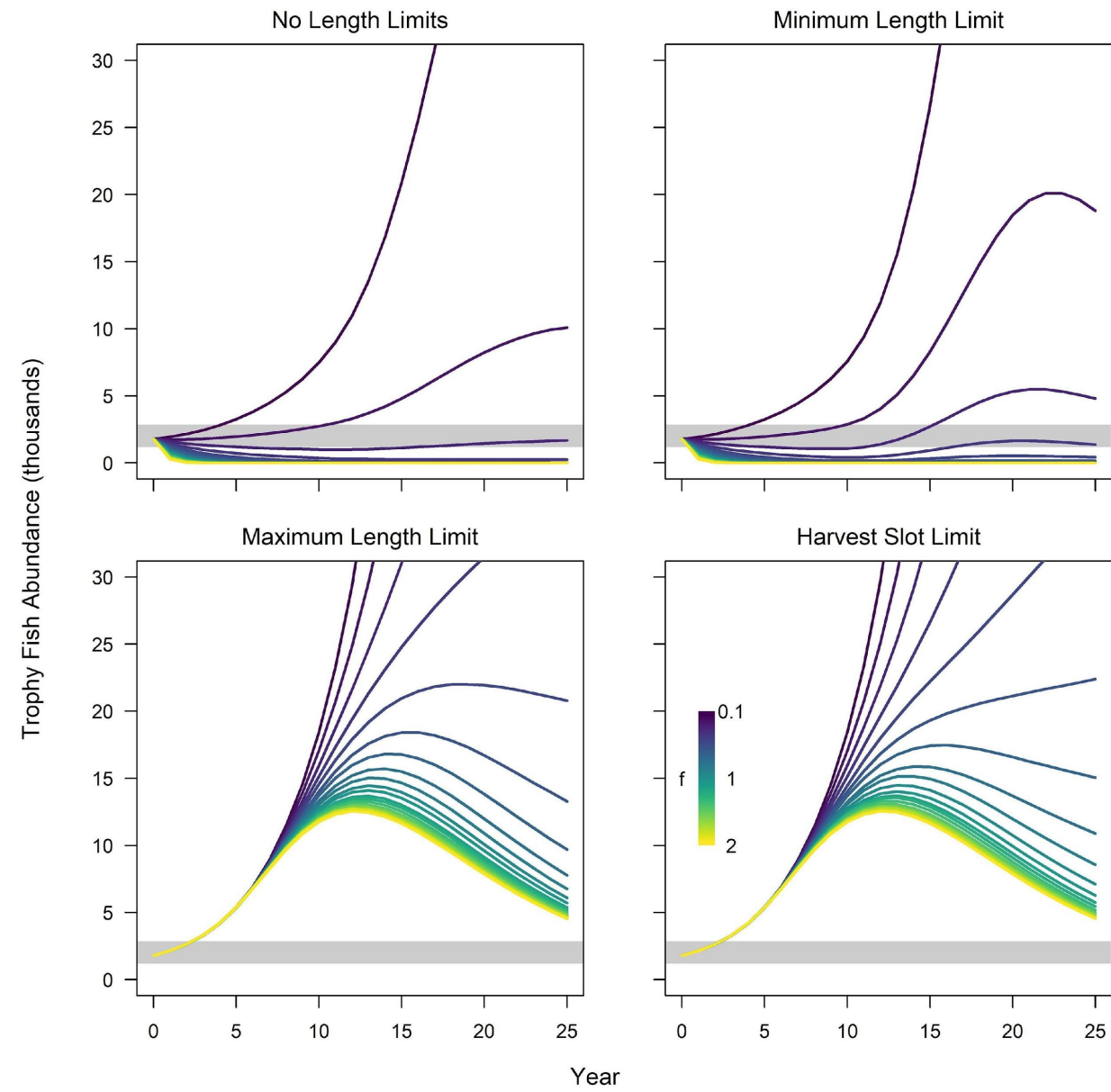
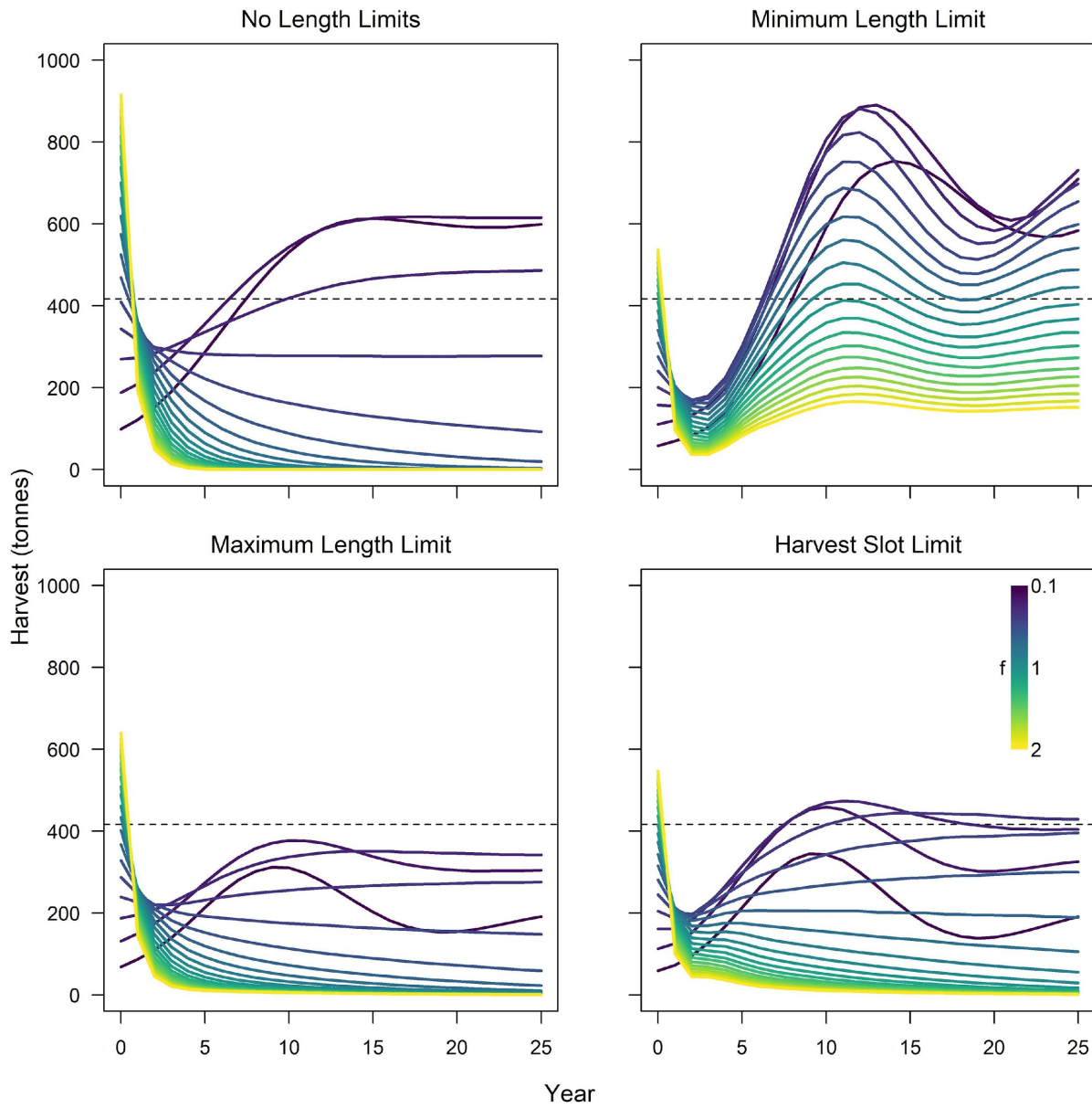
# Simulation Workflow

\*Performance metrics are underlined

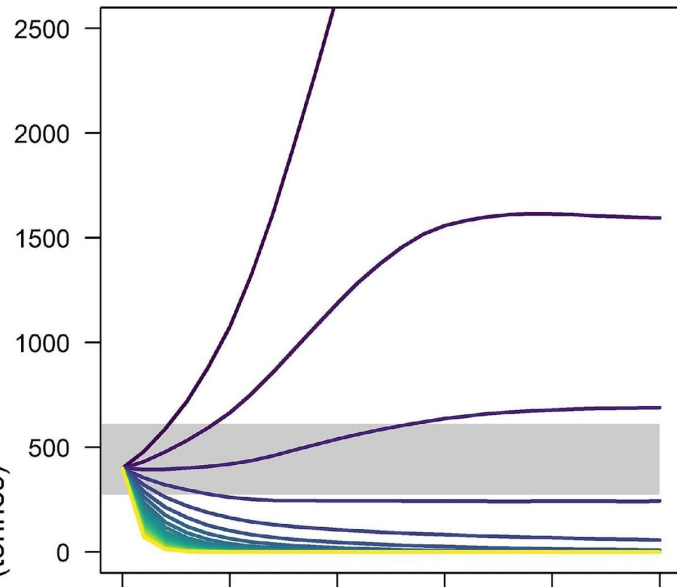




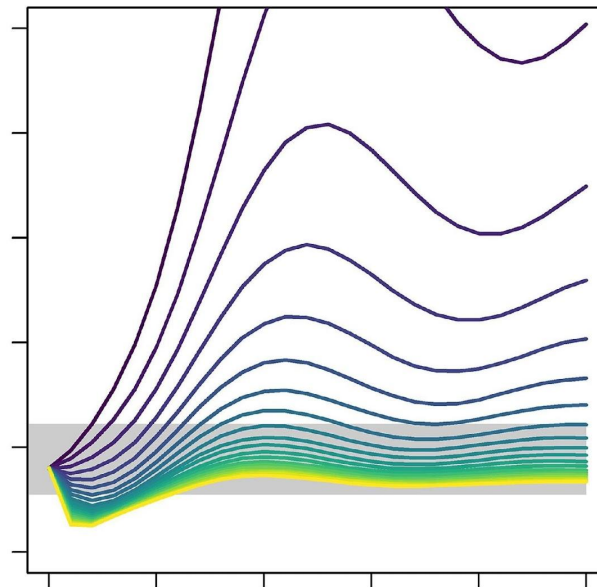




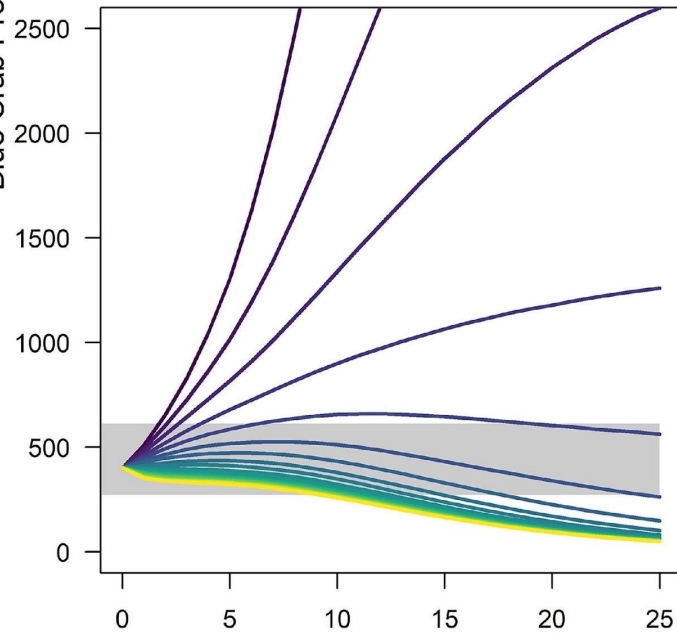
No Length Limits



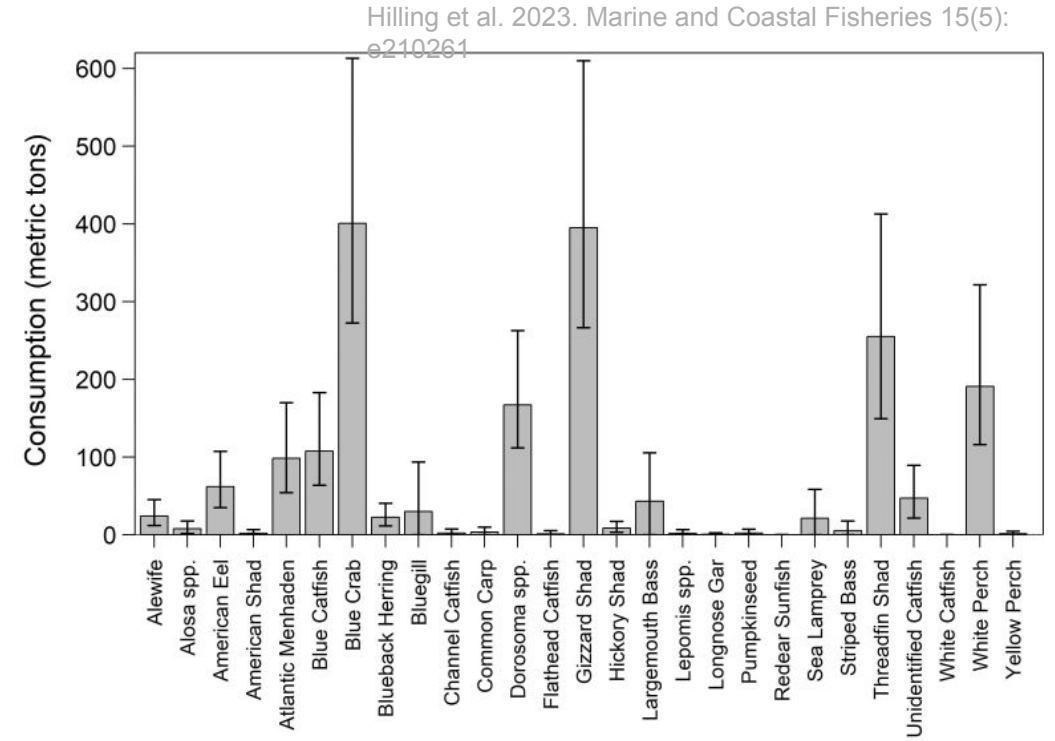
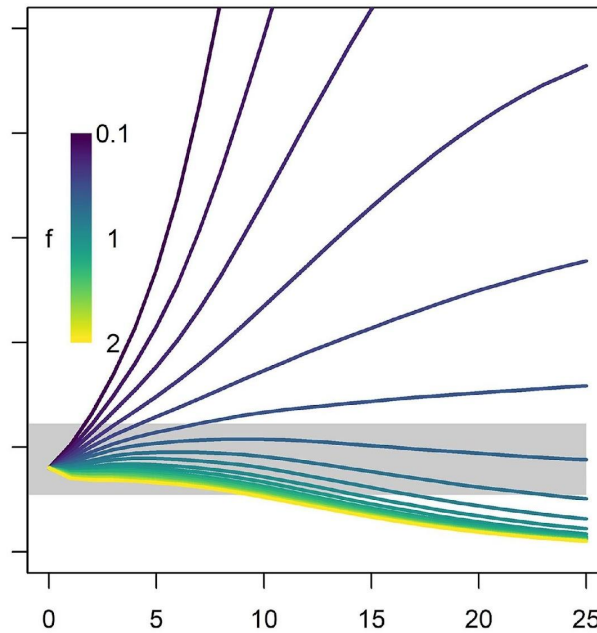
Minimum Length Limit

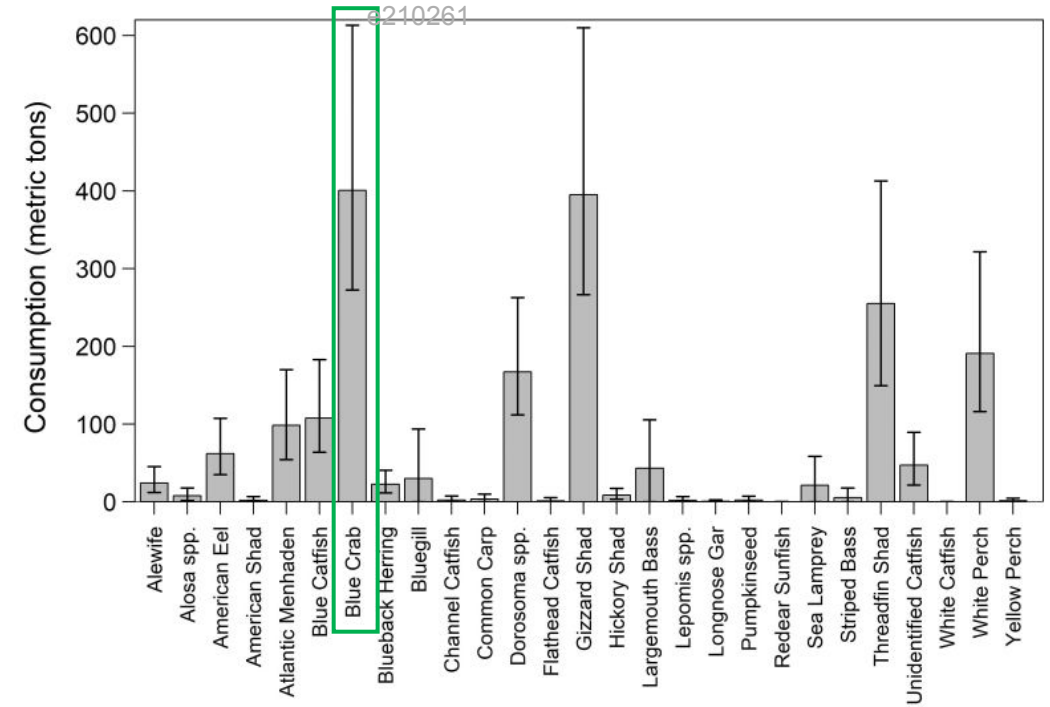
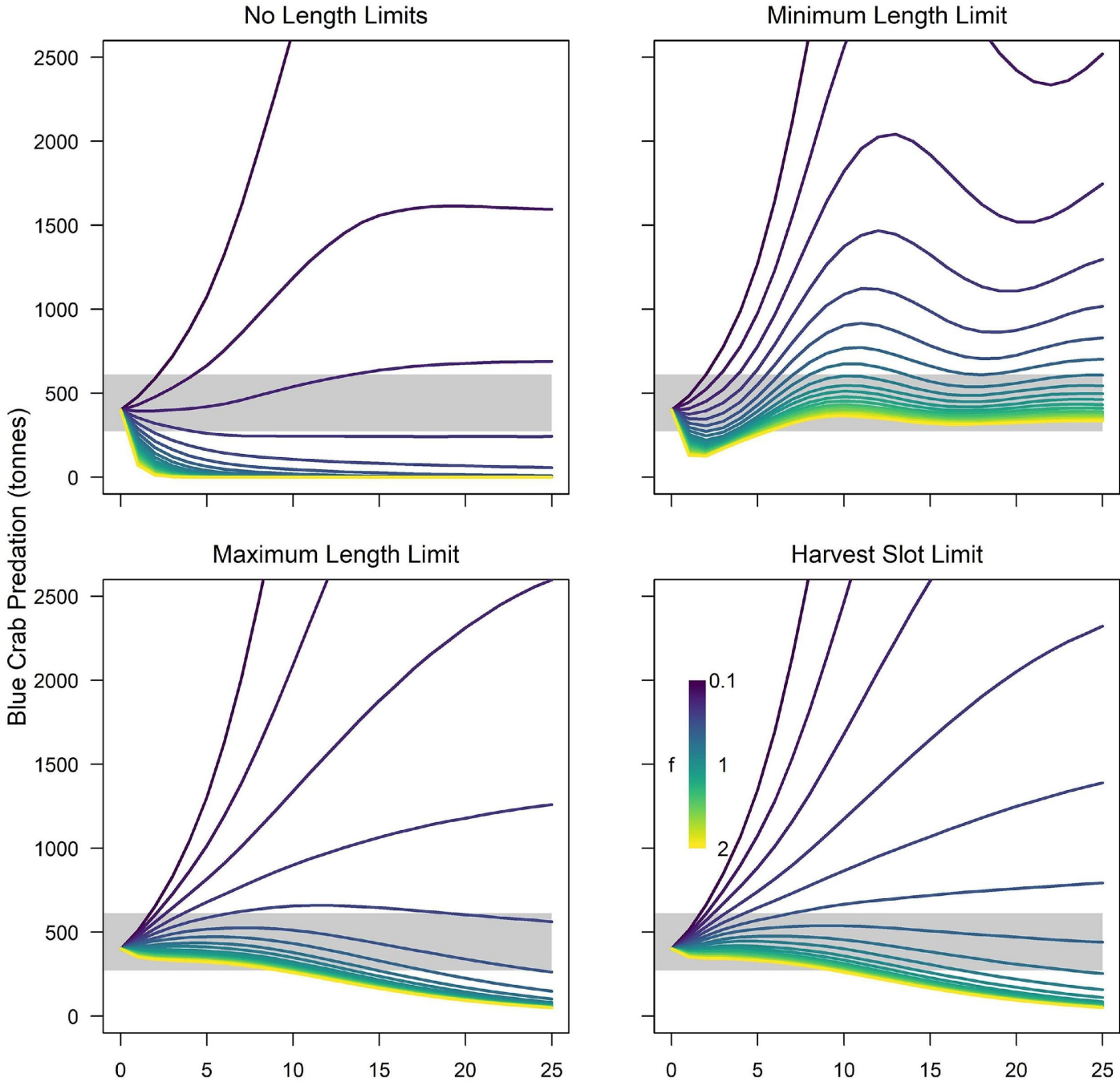


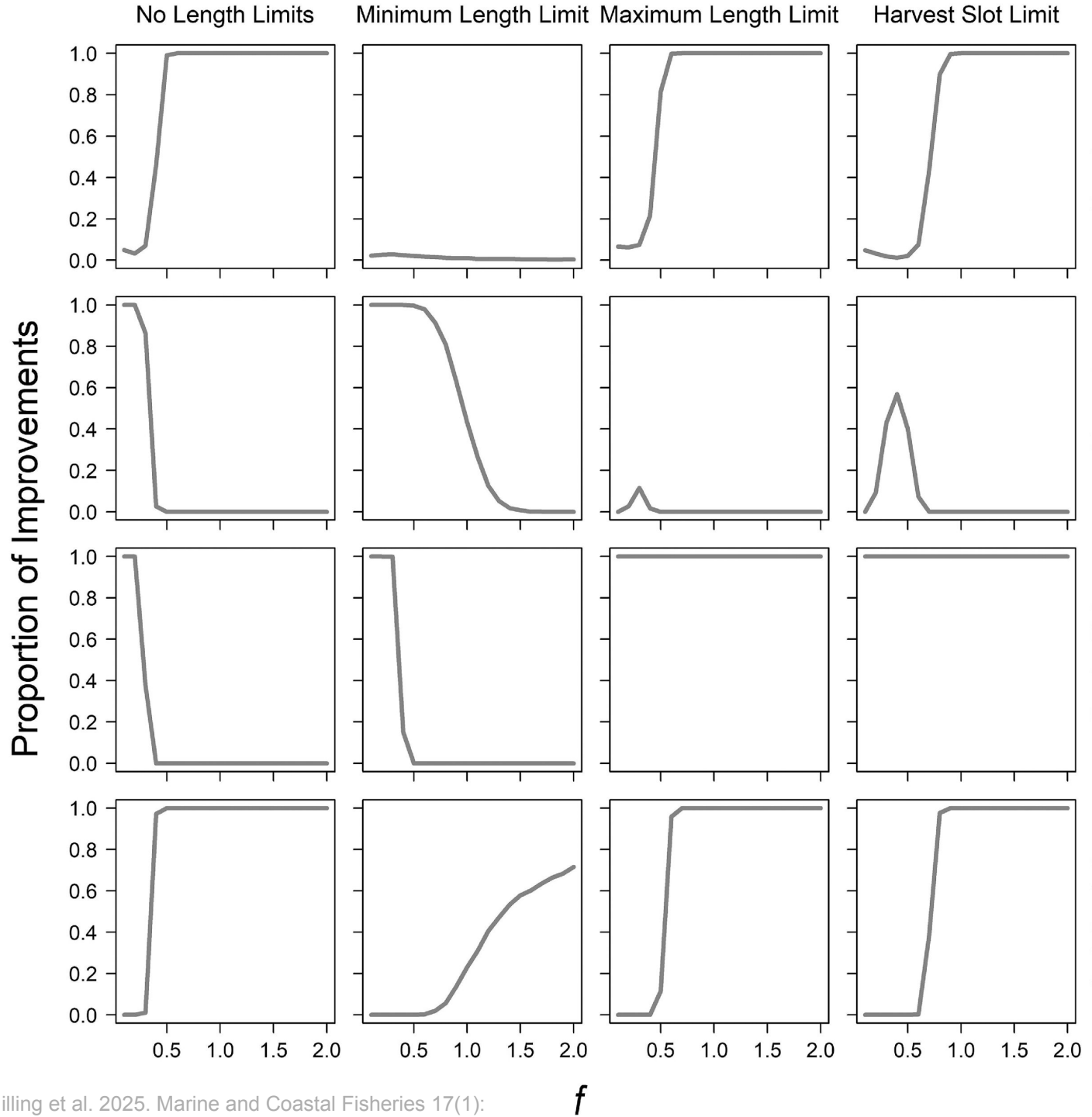
Maximum Length Limit



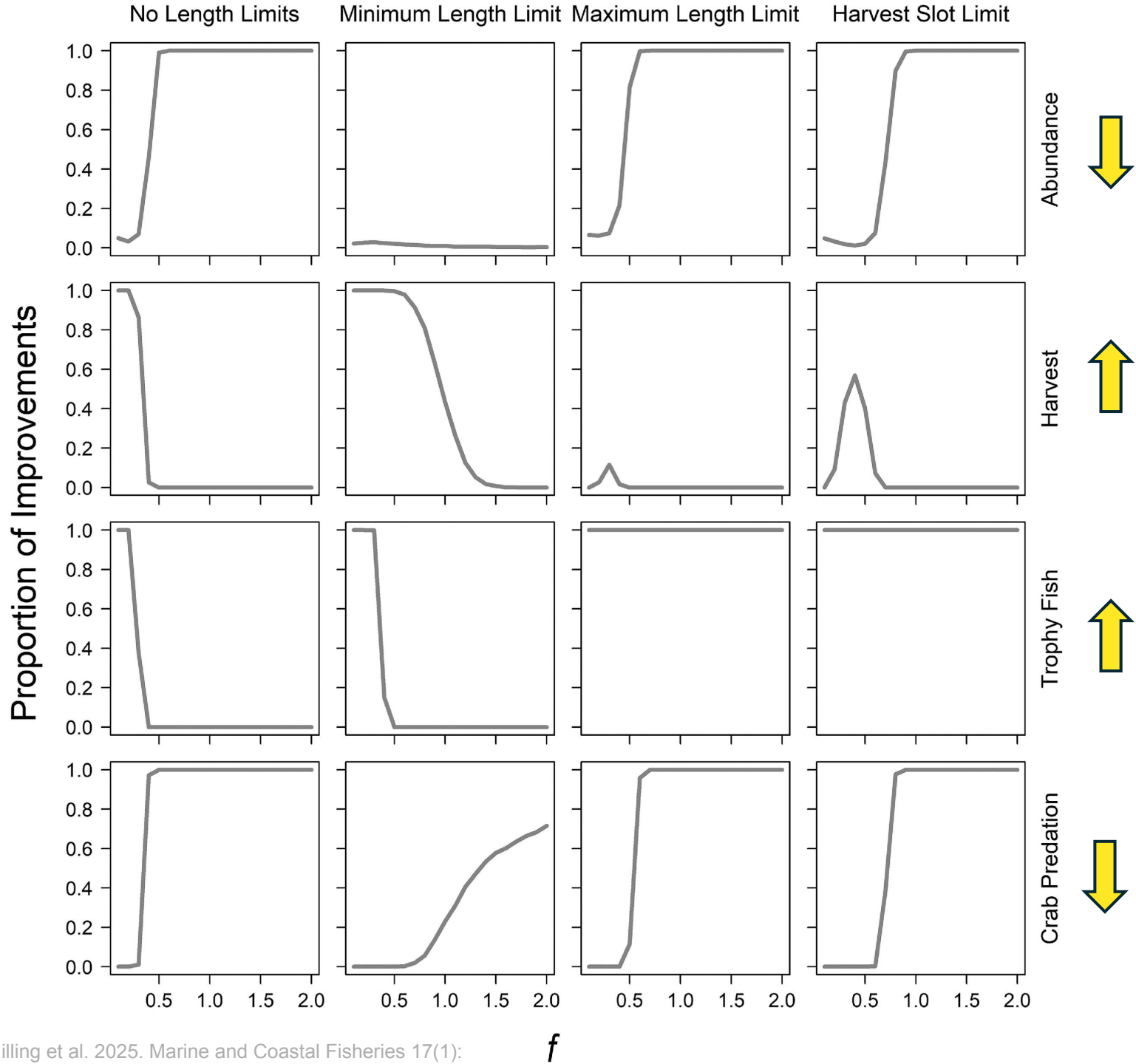
Harvest Slot Limit

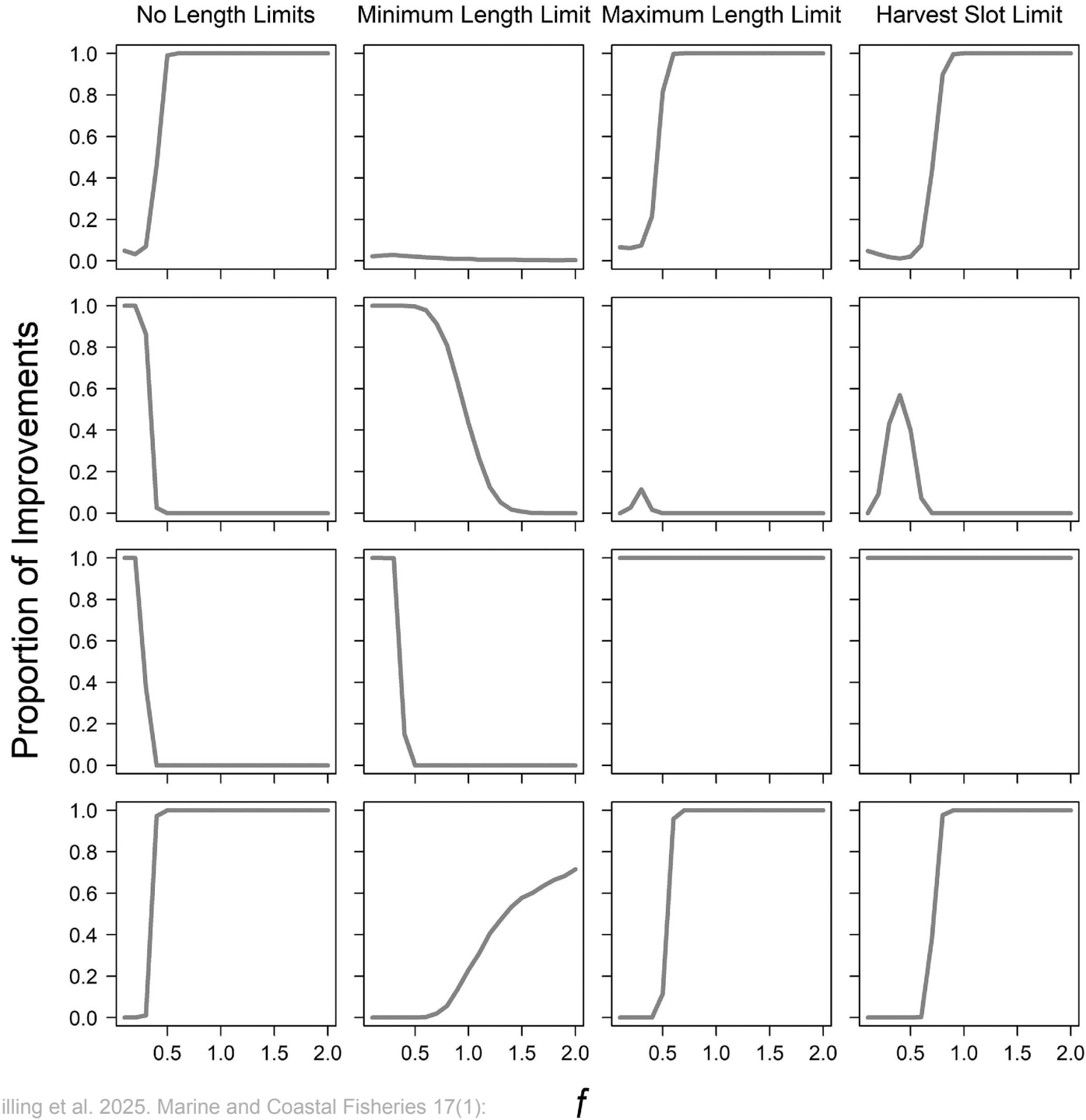












Abundance



Harvest

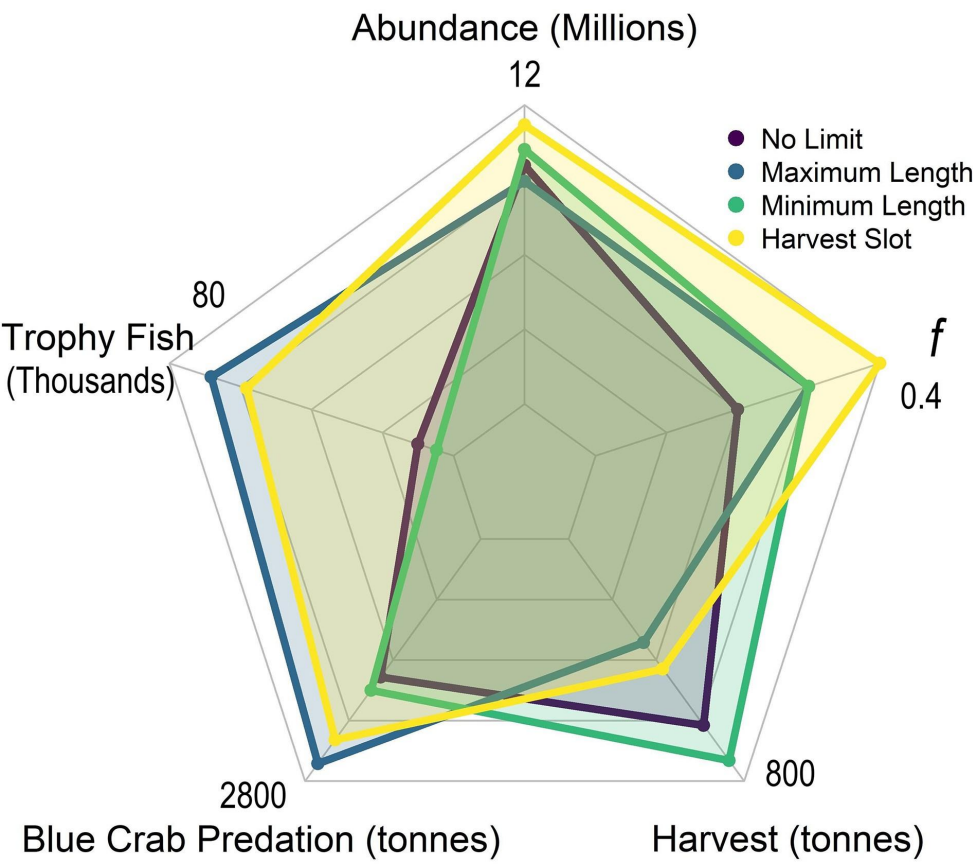


Trophy Fish



Crab Predation

Trophy Fish  
(Thousands)



# Conclusions

- Balancing fisheries and predation may be challenging
- Harvest of small fish may be important to reduce abundance
- Protection of large fish aided trophy fisheries
- Yield-crab tradeoffs evident
- Caveats
  - Could not assess crab responses
  - Density-dependence only modeled through recruitment
    - Density-dependent growth not included
  - Crabs are only one prey species





CONSERVE. CONNECT. PROTECT.



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