



# *Stock Assessment of Striped Mullet (*Mugil cephalus*) in North Carolina Waters, 2022*

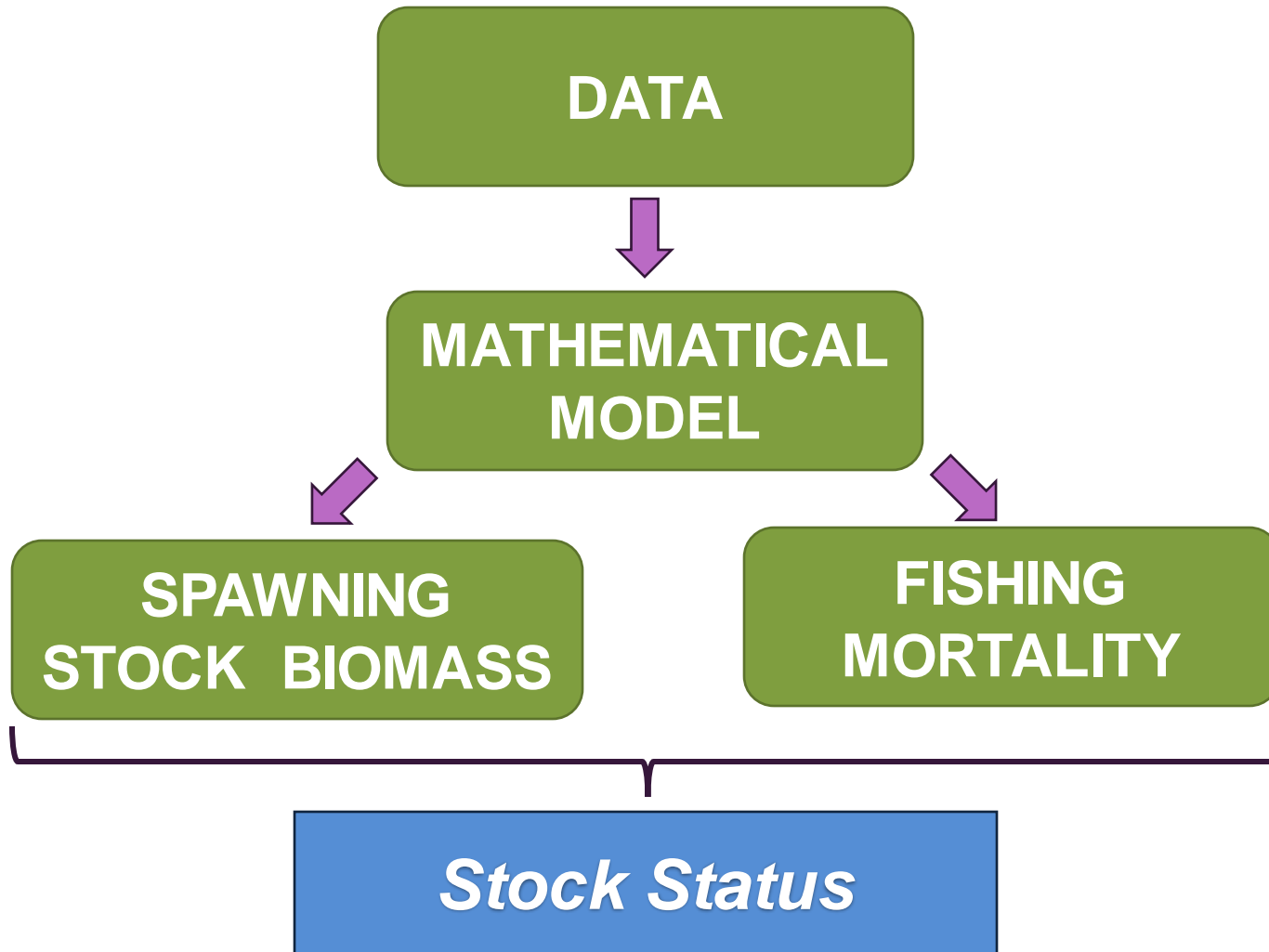
*DEPARTMENT OF ENVIRONMENTAL QUALITY*

Marine Fisheries

N.C. Marine Fisheries Commission Meeting | Laura M. Lee & Dan Zapf | May 26, 2022



# *Stock Assessments*

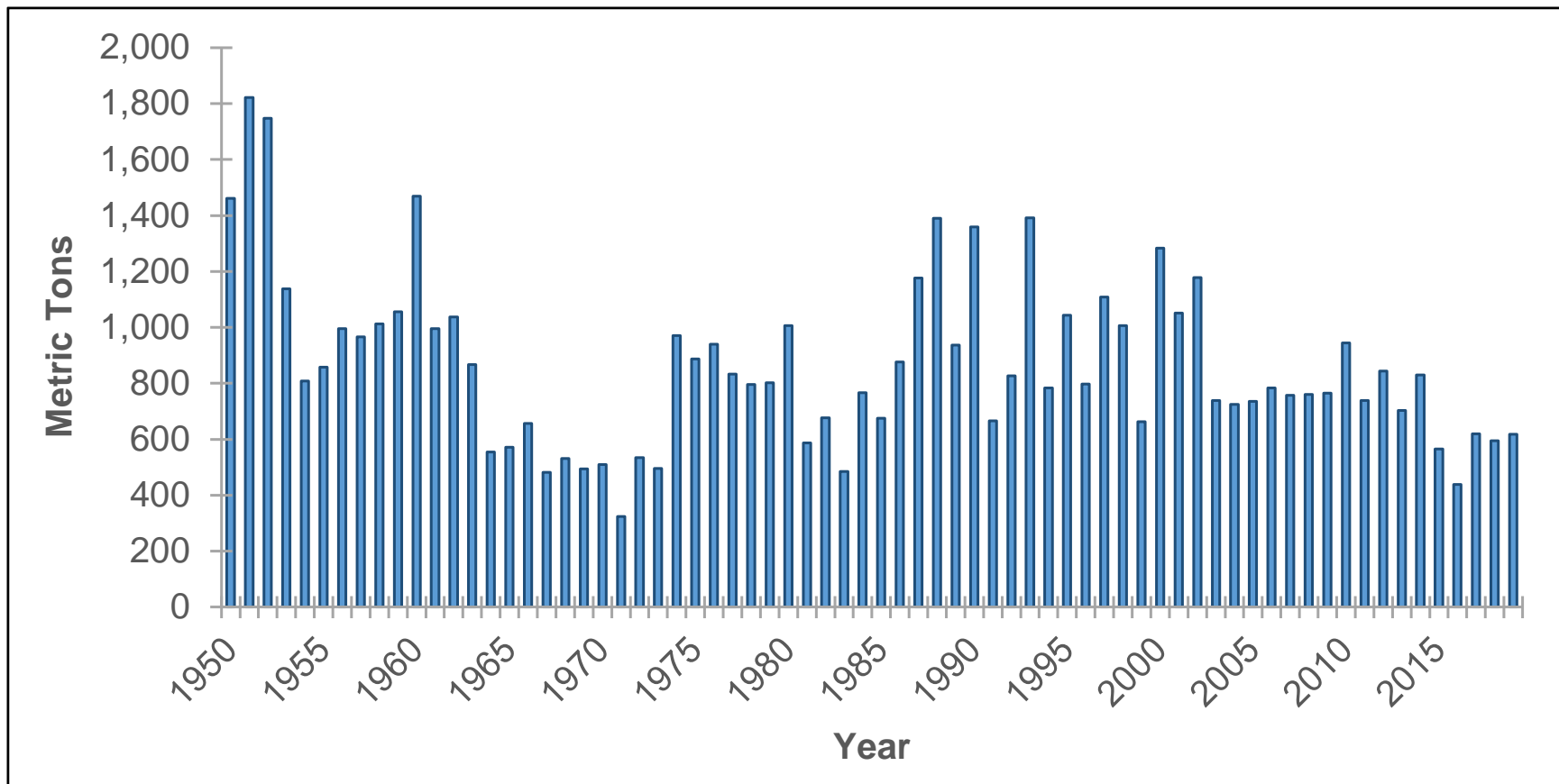


# Data

- Time series: 1950 through 2019
- Fisheries-dependent
  - Commercial landings
  - Recreational harvest
  - Biological data (length, weight, age)
- Fisheries-independent
  - Gill-net survey (Program 915)
  - Biological data (length, weight, age)



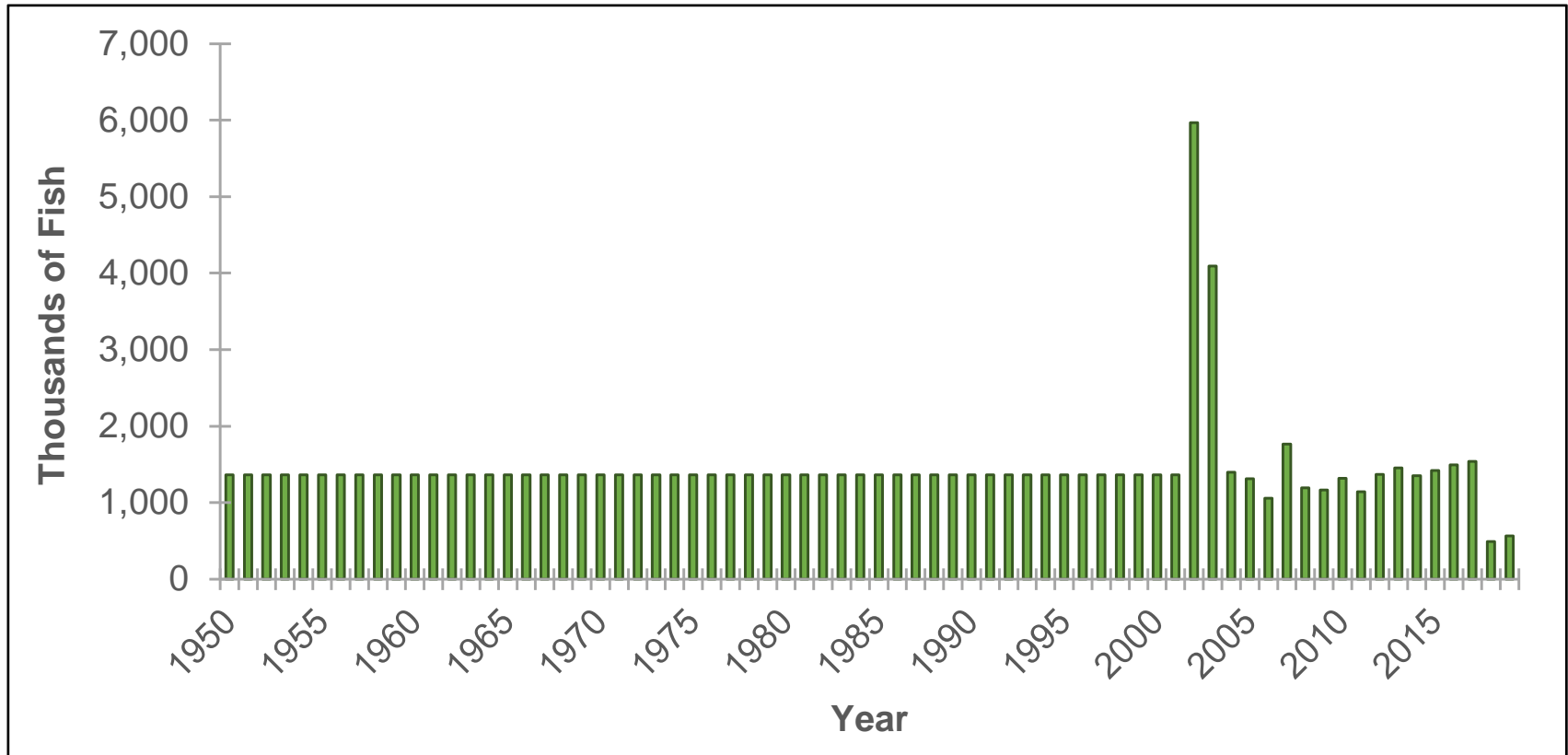
# Commercial Landings



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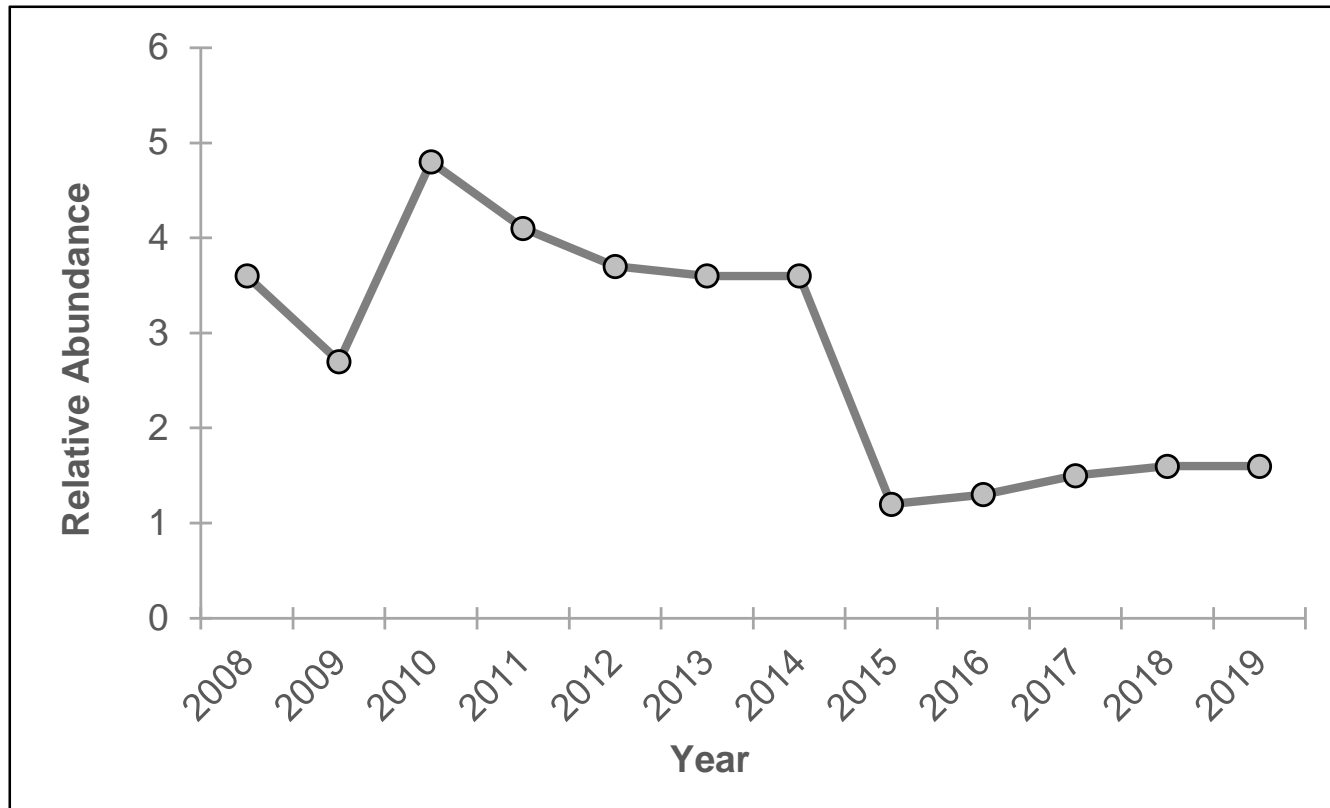
# Recreational Harvest



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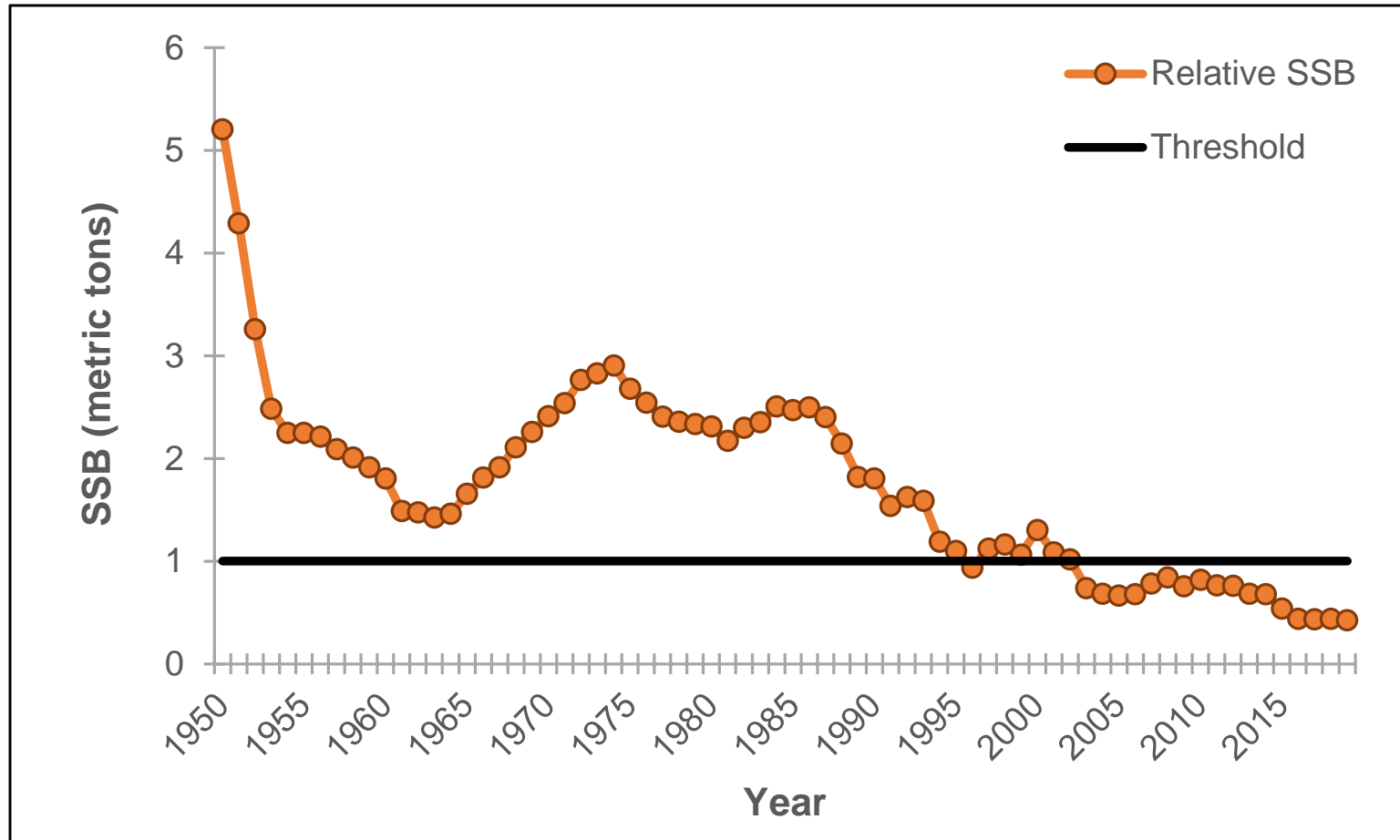
# Gill-Net Survey



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# Stock Status—Spawning Stock Biomass





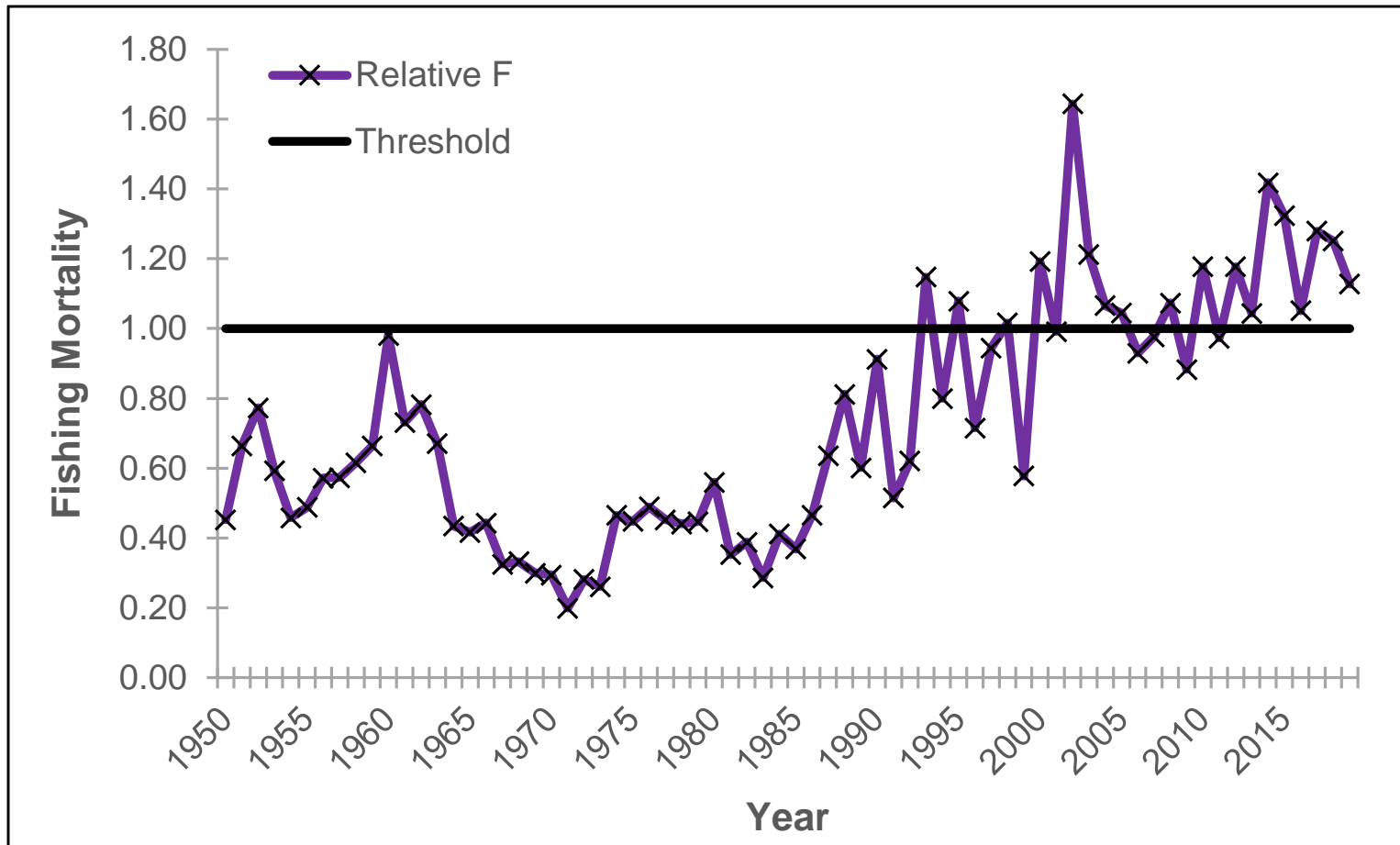
# *Stock Status—Spawning Stock Biomass*

- $SSB_{2019} = 263$  mt
- $SSB_{25\%} = 619$  mt (threshold)
- $SSB_{35\%} = 1,015$  mt (target)
- $SSB_{2019} < SSB_{35\%} \rightarrow$  stock is overfished





# Stock Status—Fishing Mortality



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# *Stock Status—Fishing Mortality*

- $F_{2019} = 0.42$
- $F_{25\%} = 0.37$  (threshold)
- $F_{35\%} = 0.26$  (target)
- $F_{2019} > F_{35\%} \rightarrow$  overfishing is occurring



# *Questions?*

*Department of Environmental Quality*





# Data Summary

