

2025 Population Assessment of Alosine in the Upper Chesapeake Bay

Maryland DNR



2025 SRAFRC Annual Meeting
9 December 2025

Outline



- Hook & line tagging survey
 - Conowingo Dam tailrace
 - 1984 – present
 - Mid-April – May
 - American Shad
- Striped bass spawning stock survey (gillnet)
 - Upper Chesapeake Bay
 - 1991 – present
 - Early April – mid-May
 - American, hickory & giz shad
- Creel and logbook surveys
 - Conowingo Fisherman's Park / Susquehanna River
 - 2000 – present
 - American & hickory shad
- Estuarine juvenile finfish survey (seine)
 - Upper Chesapeake Bay
 - 1959 – present
 - July, August, & September
 - River herring, Am & giz shad

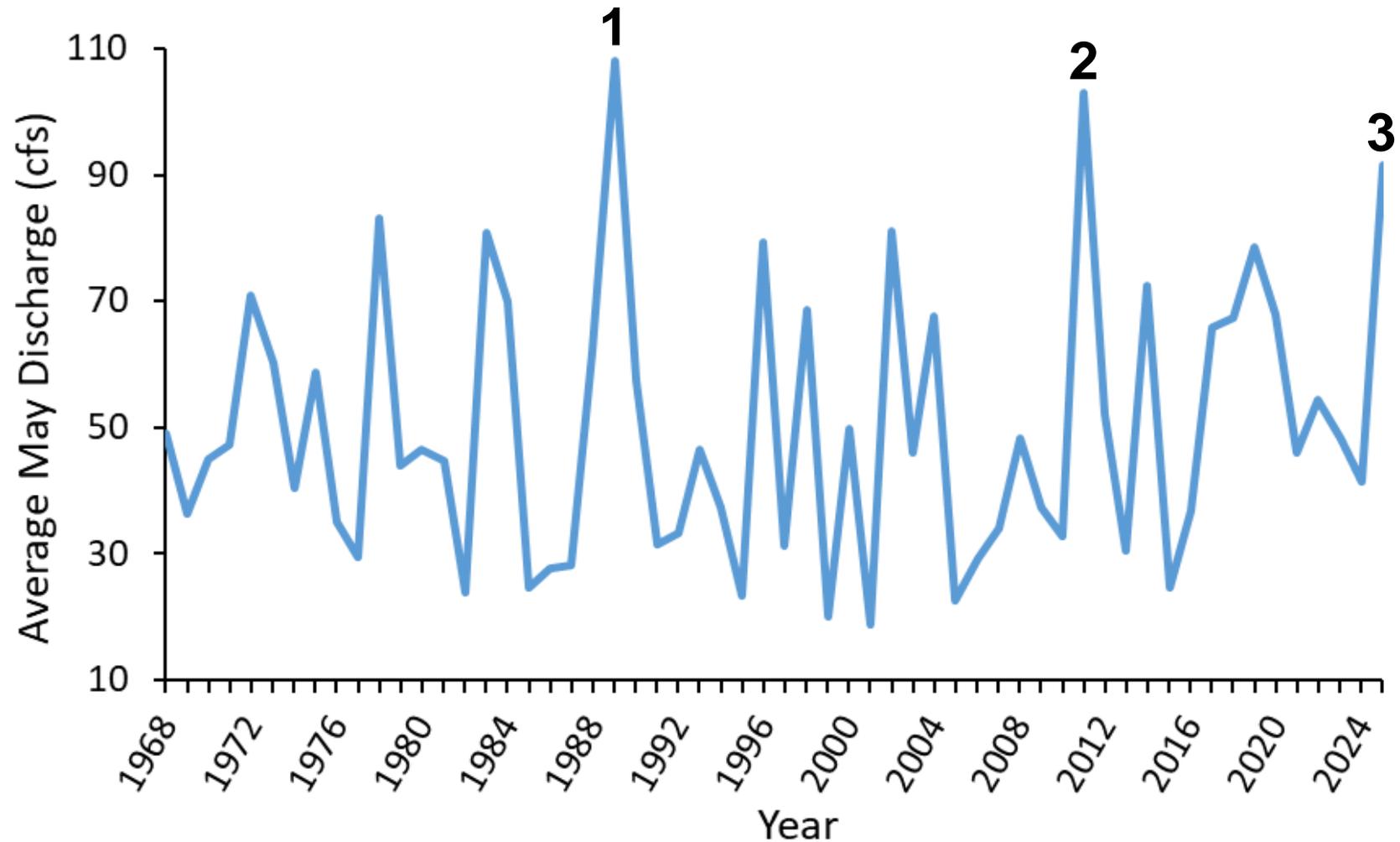
H&L Tagging Survey



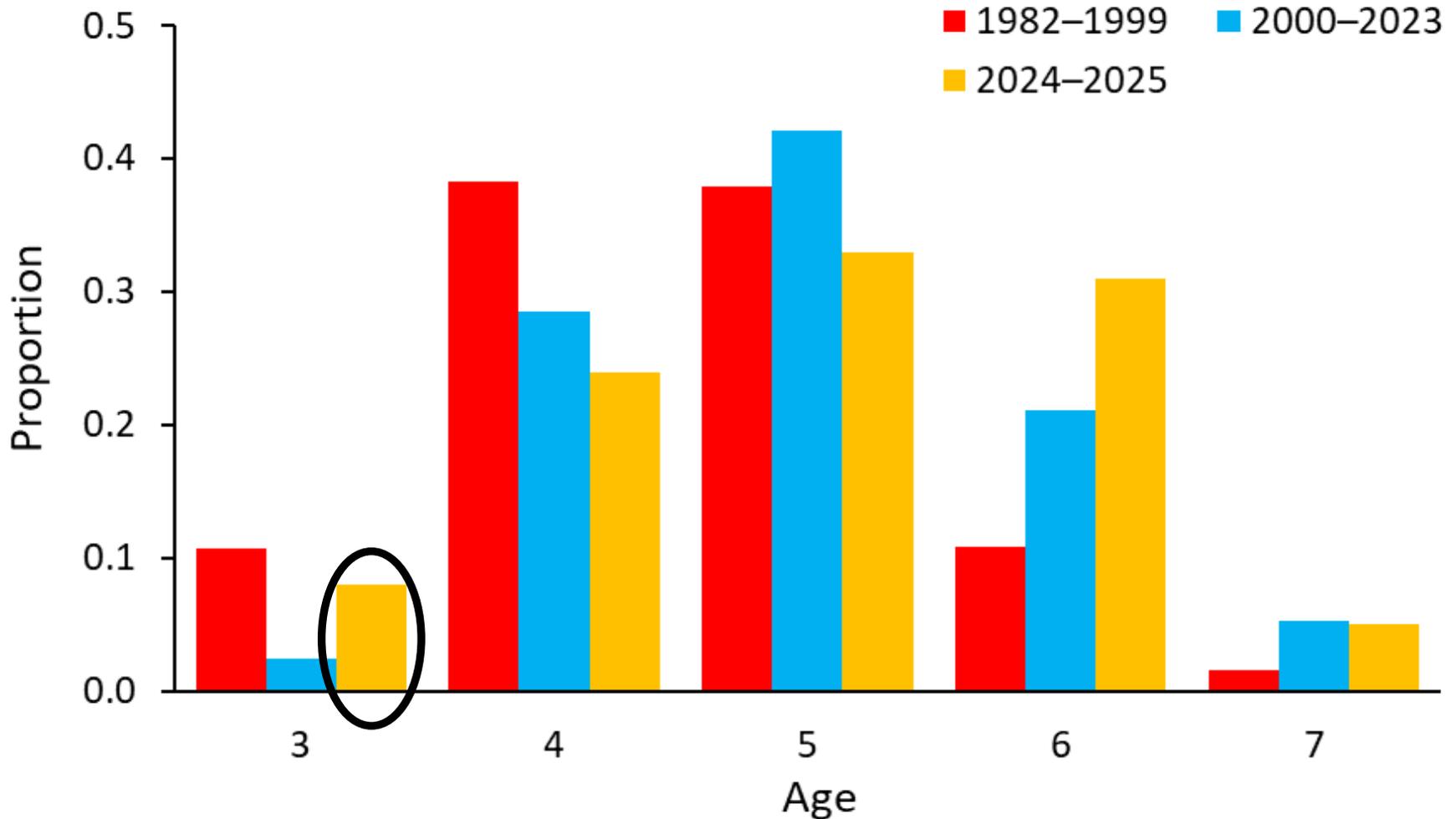
- 1984 – 2025
- Measure, sex, scale, and tag all healthy/non-spent American shad
- 2025
 - 136 caught
 - 124 successfully aged
 - 121 tagged
 - Did not fish after 5/2
 - 1 recaptured in fish lifts



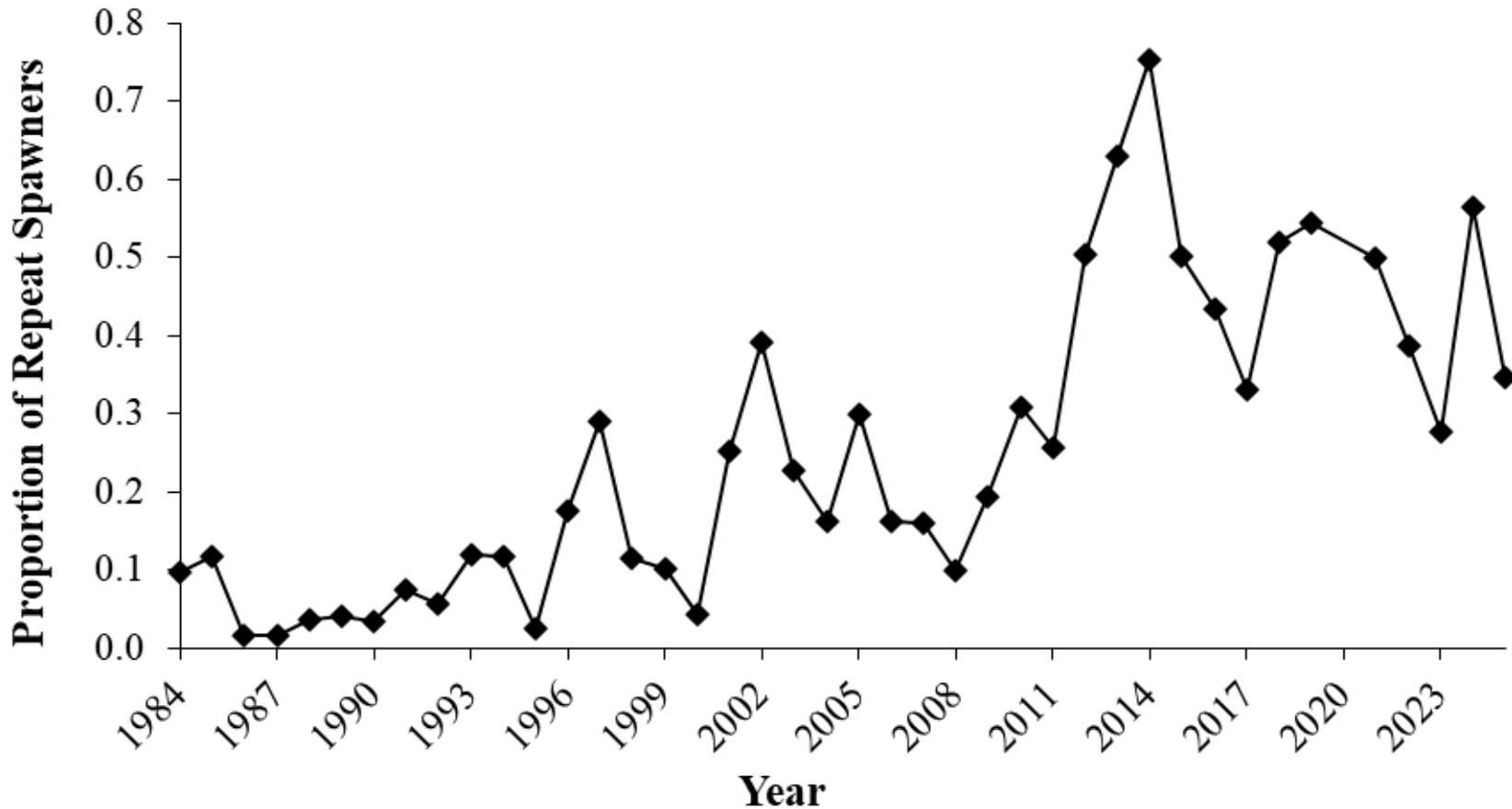
Average Conowingo Discharge Rate in May



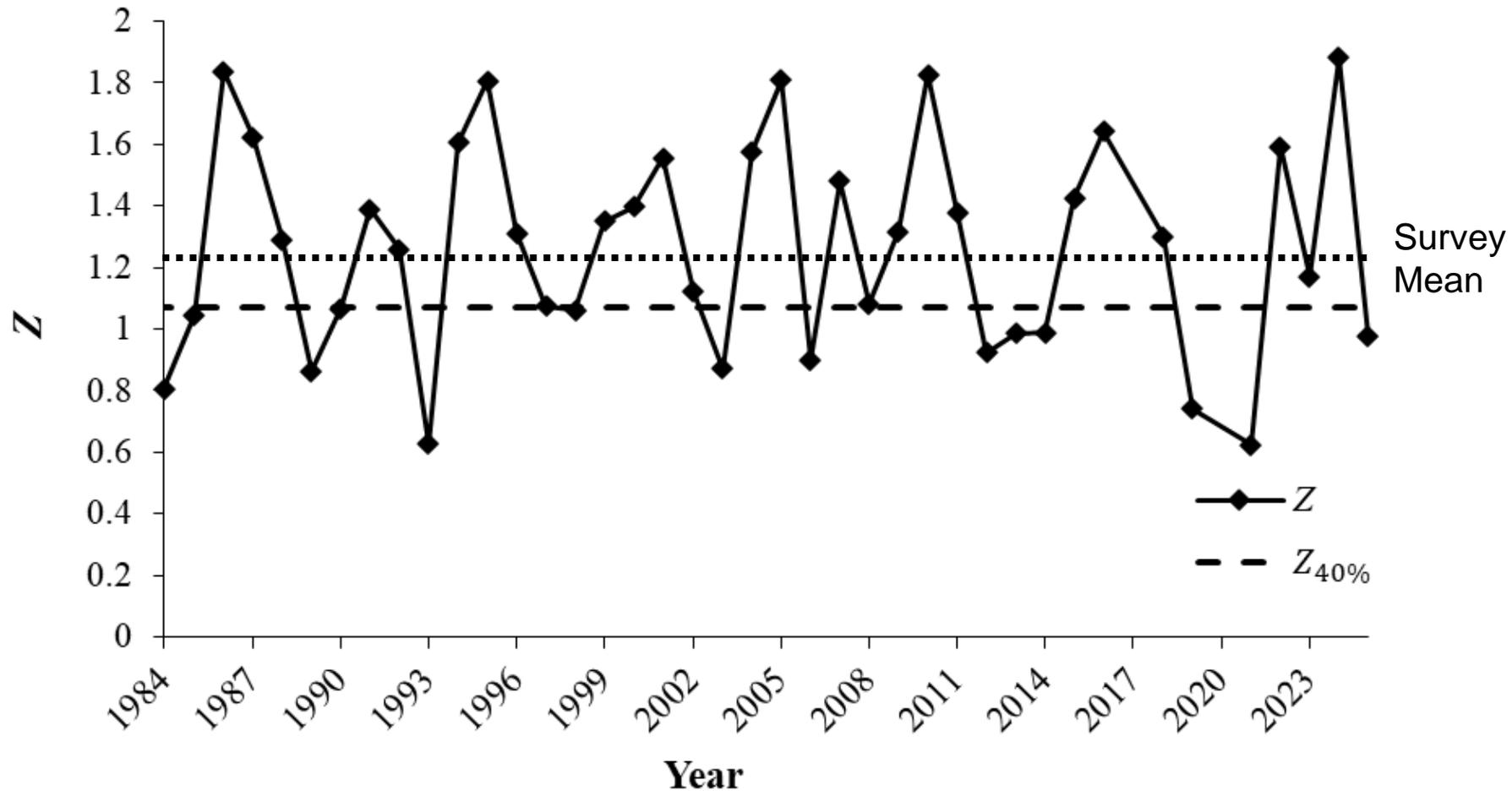
Age Distribution



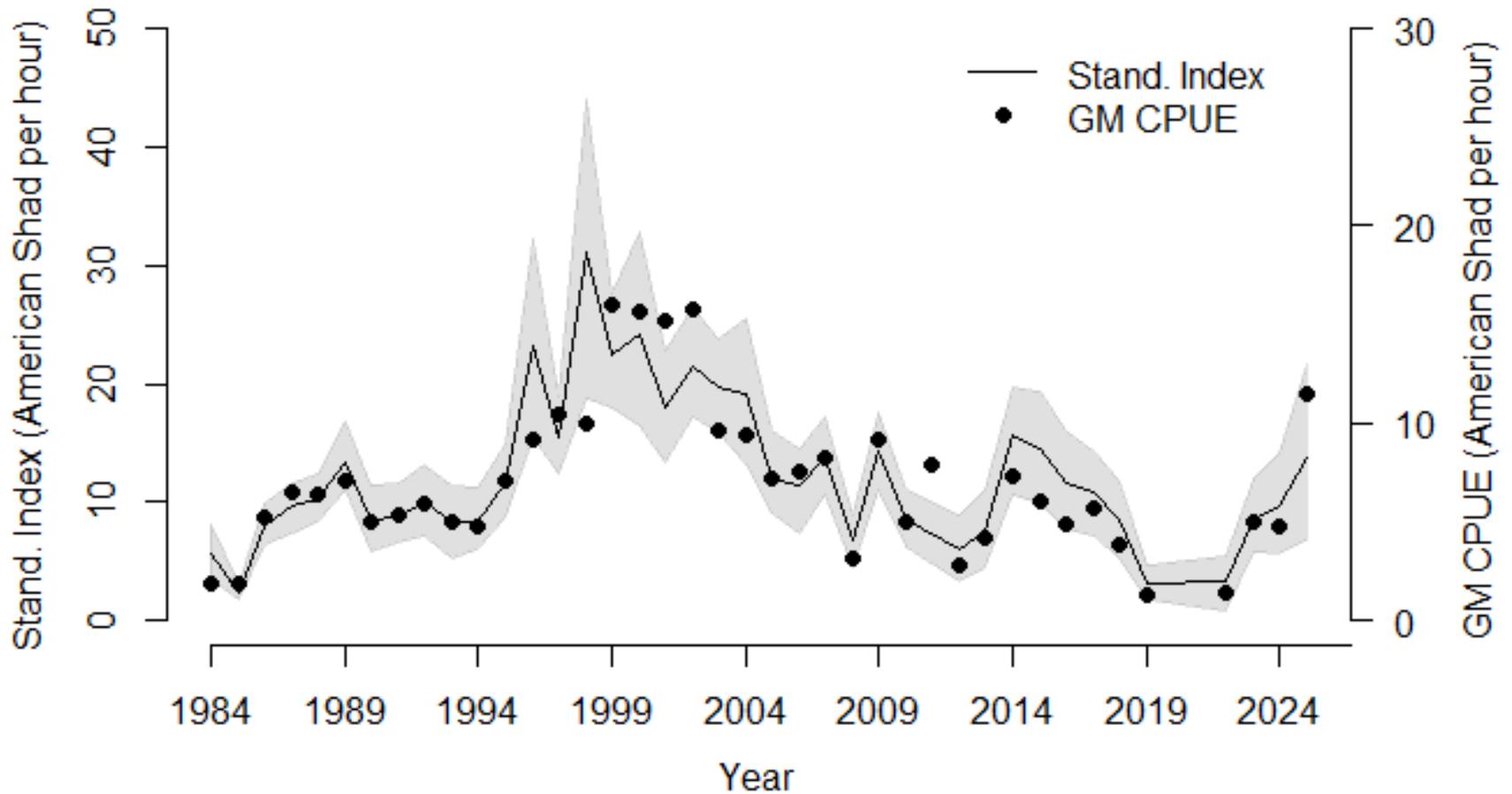
Repeat Spawning



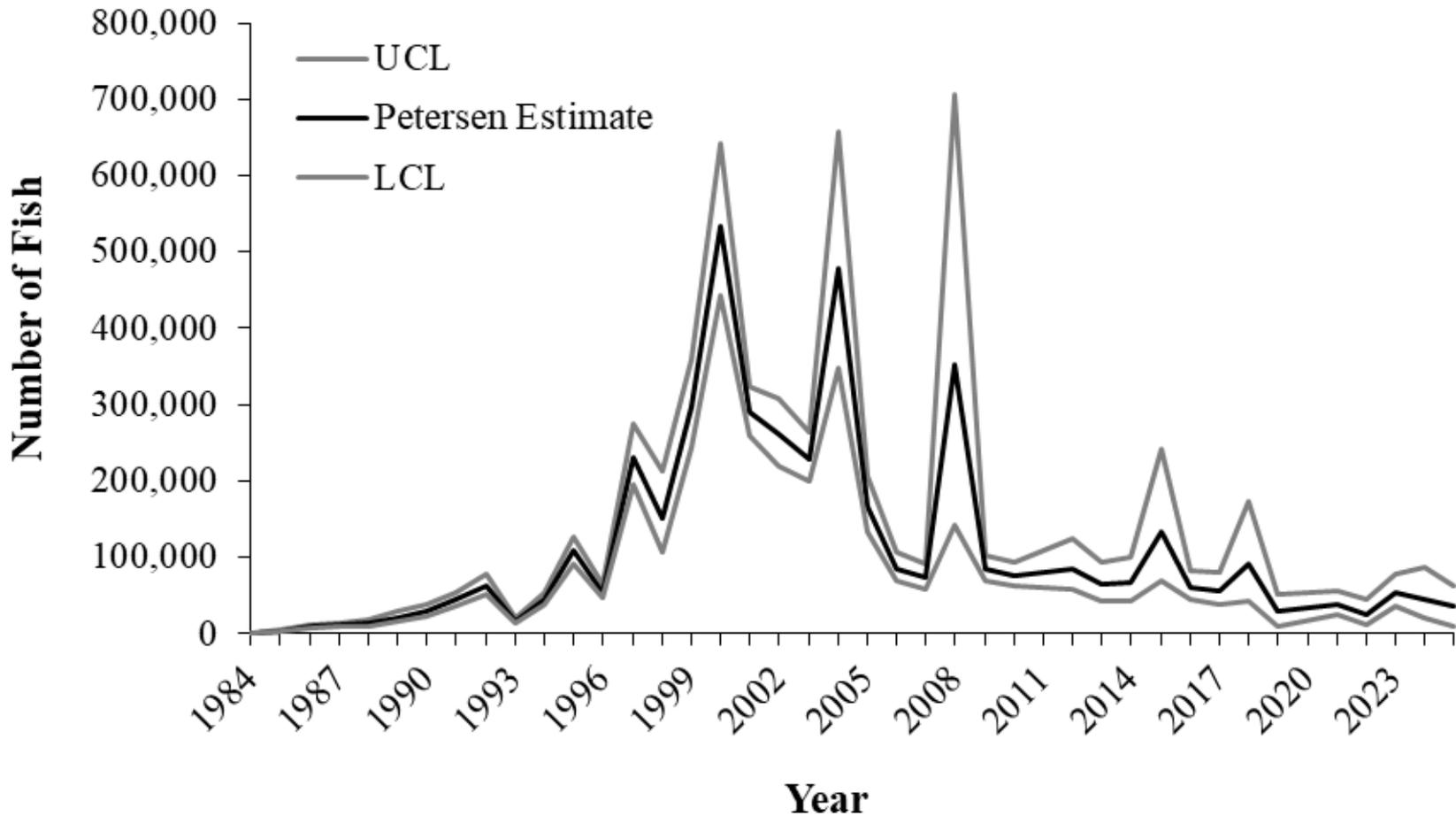
Total Instantaneous Mortality (Z)



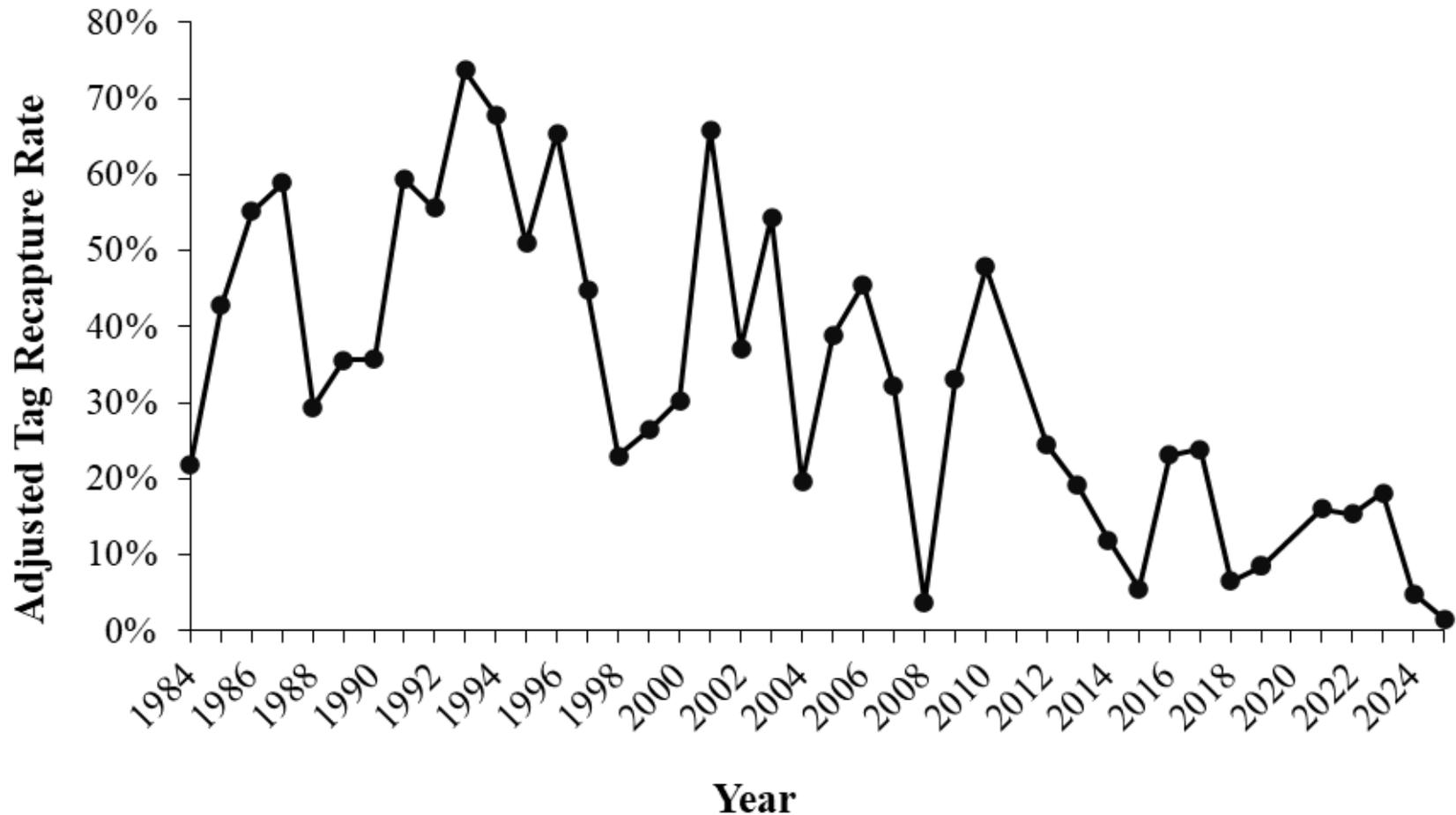
H&L CPUE



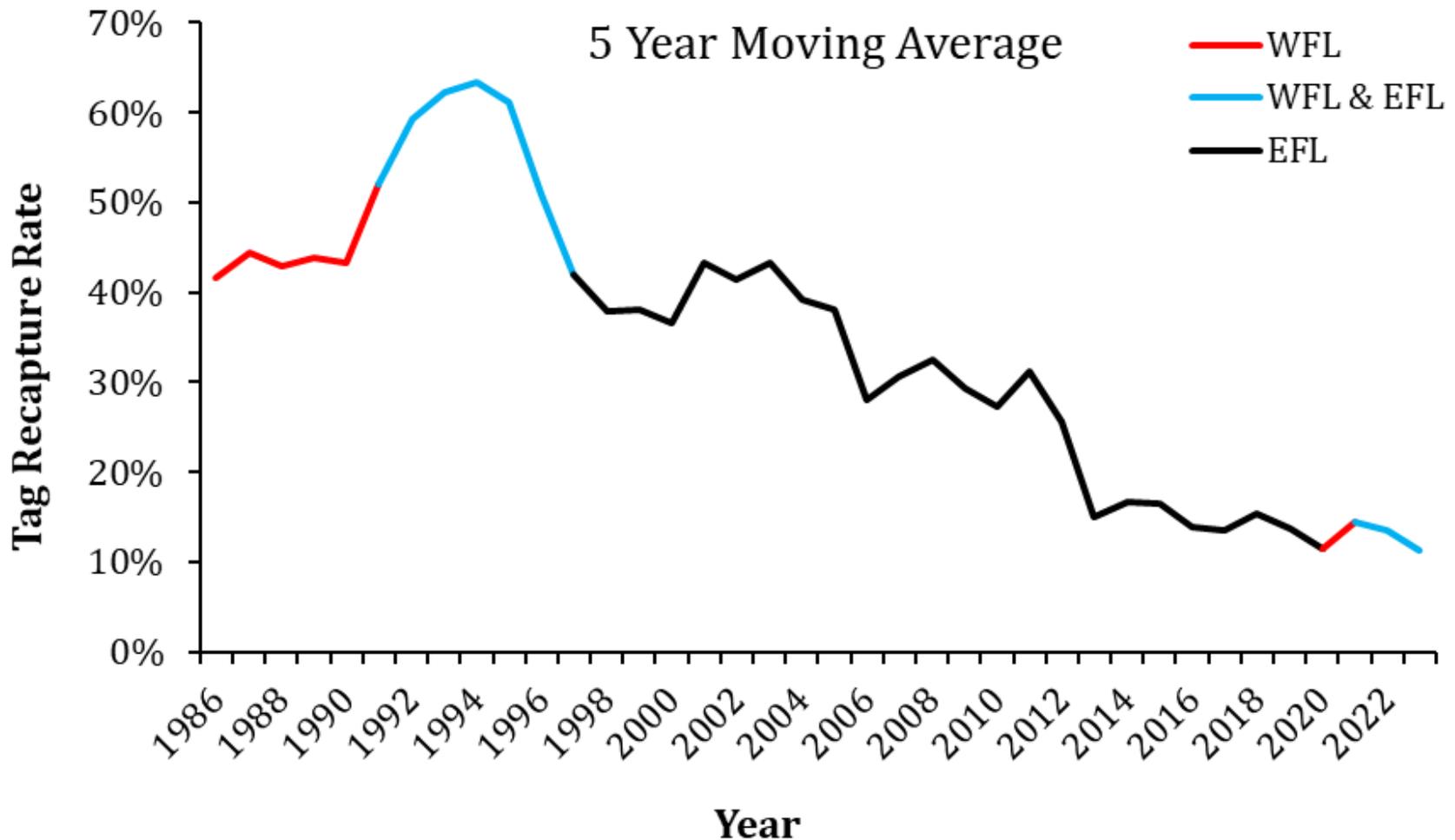
Population Size



Fish Lift Tag Recap Rate



Fish Lift Tag Recap Rate

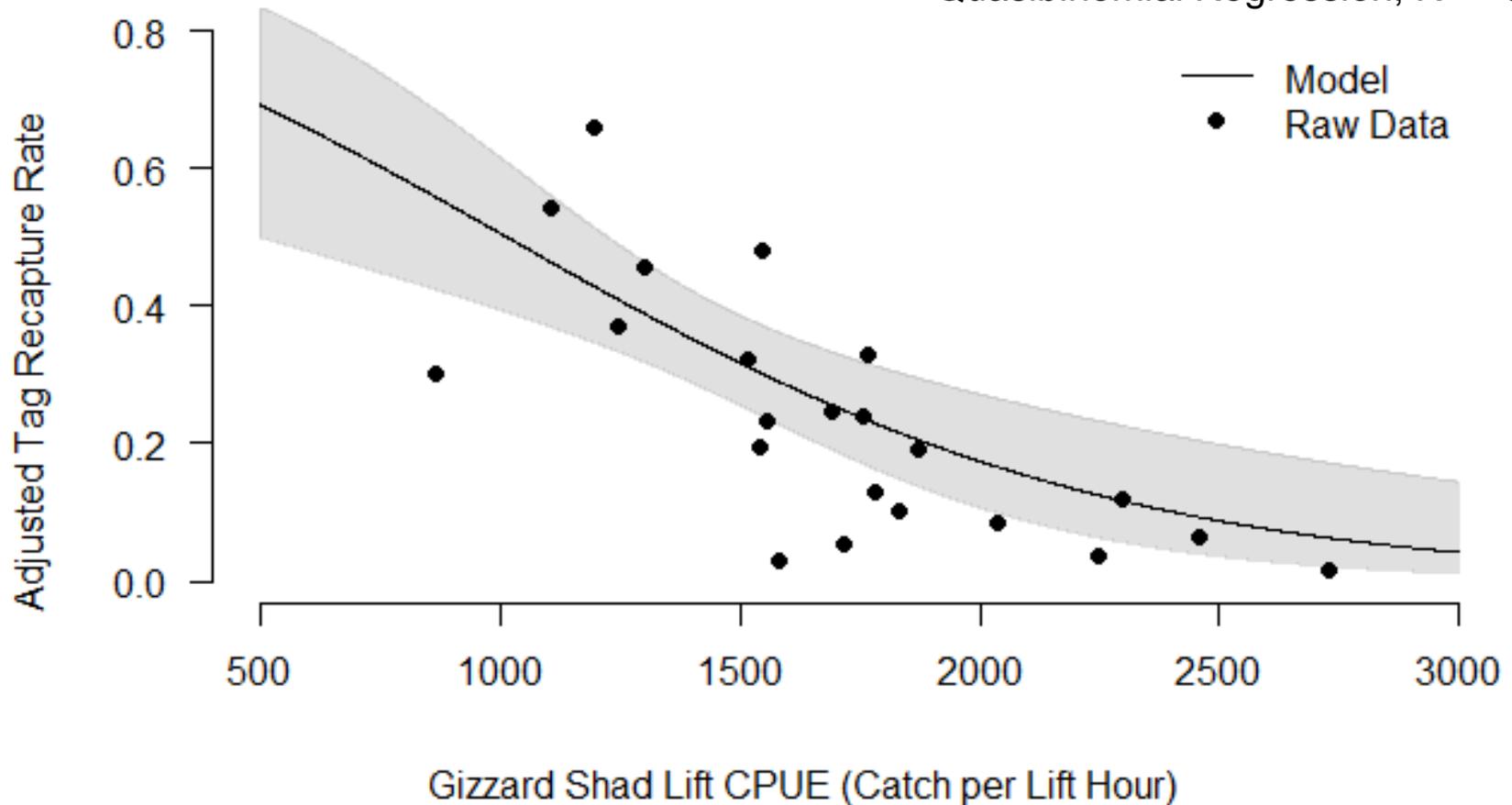


Tag Recaps Vs Gizzard Shad Abundance

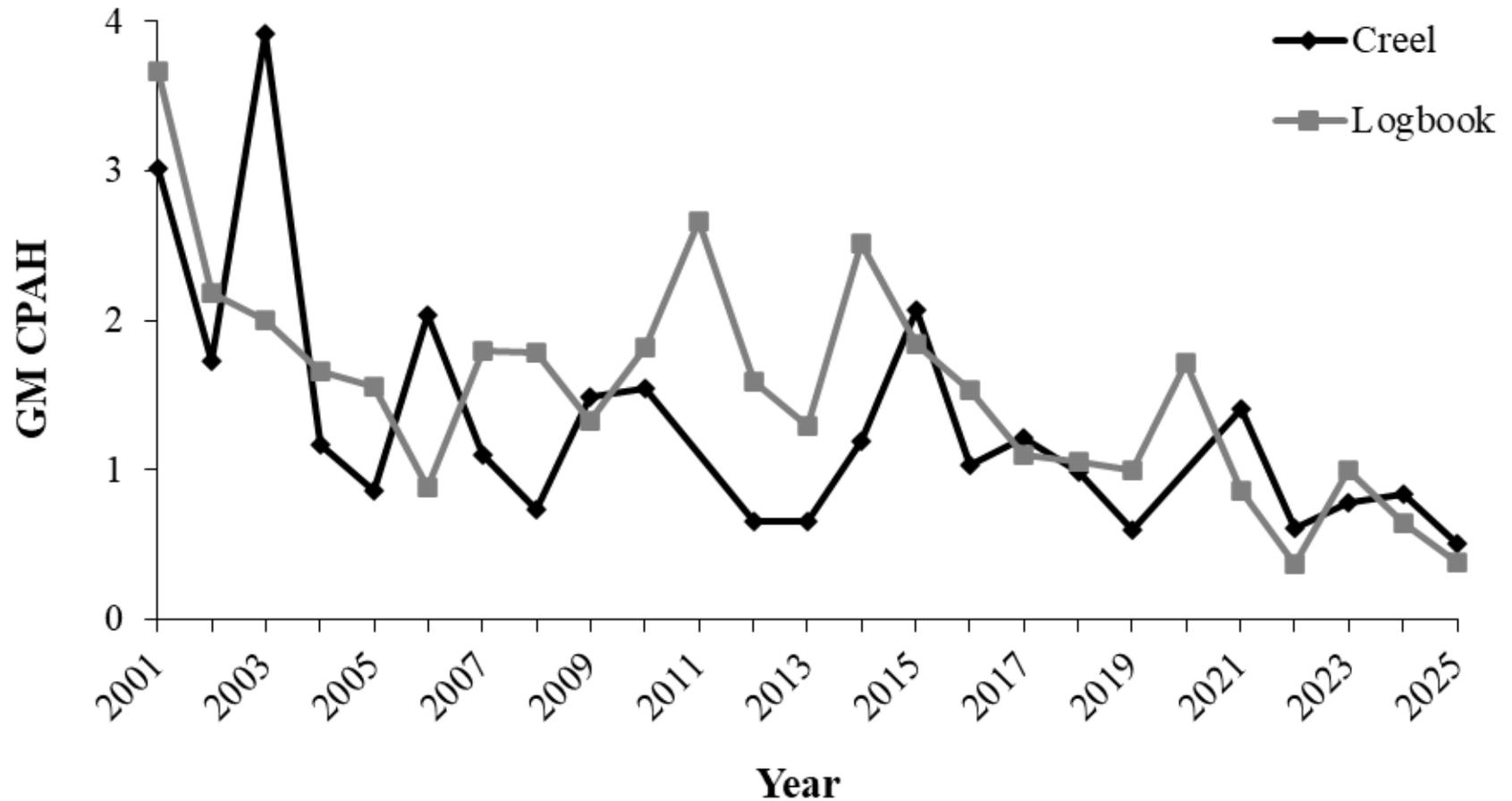


2000–2025

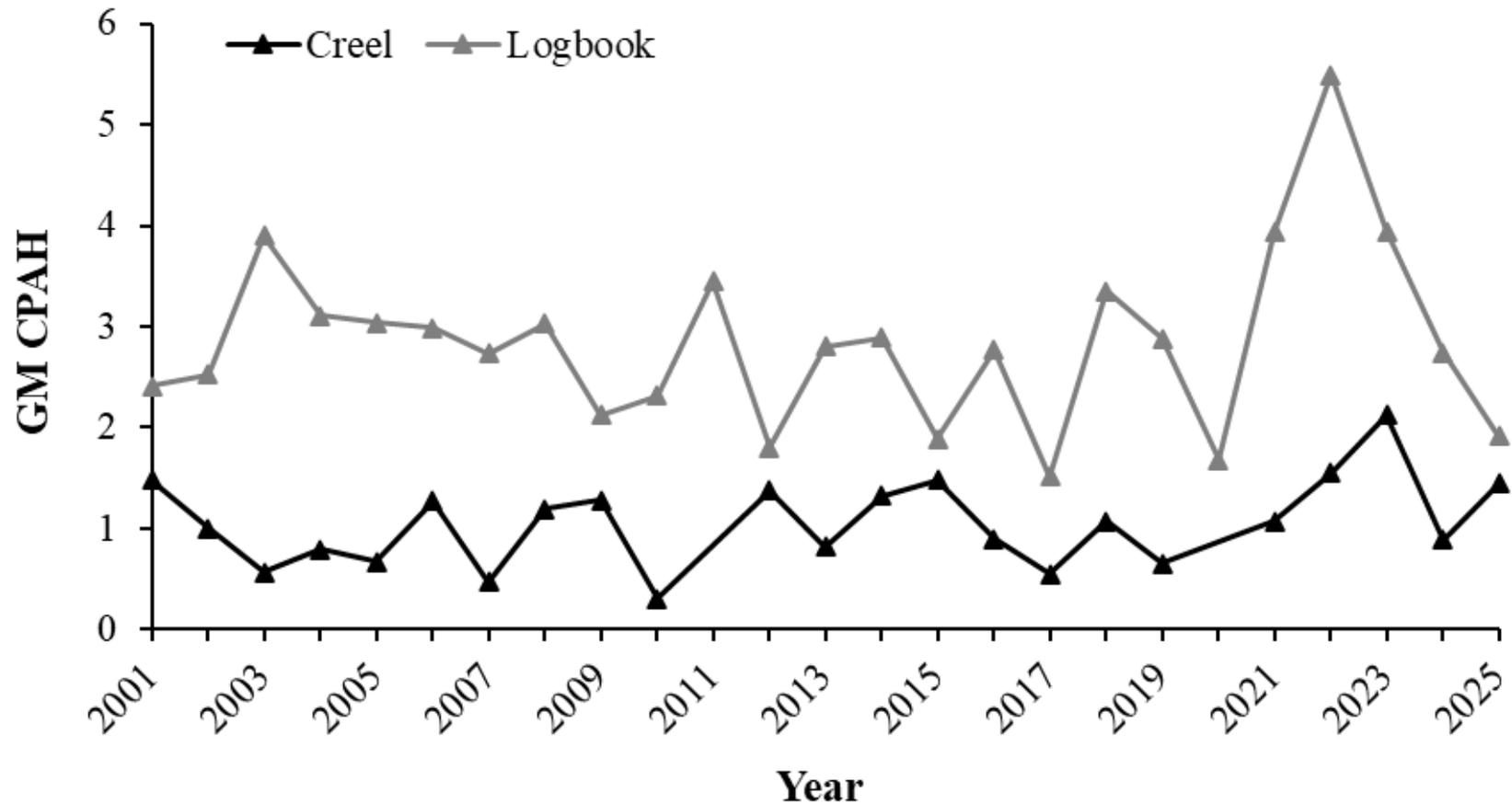
Quasibinomial Regression; $R^2 = 0.44$



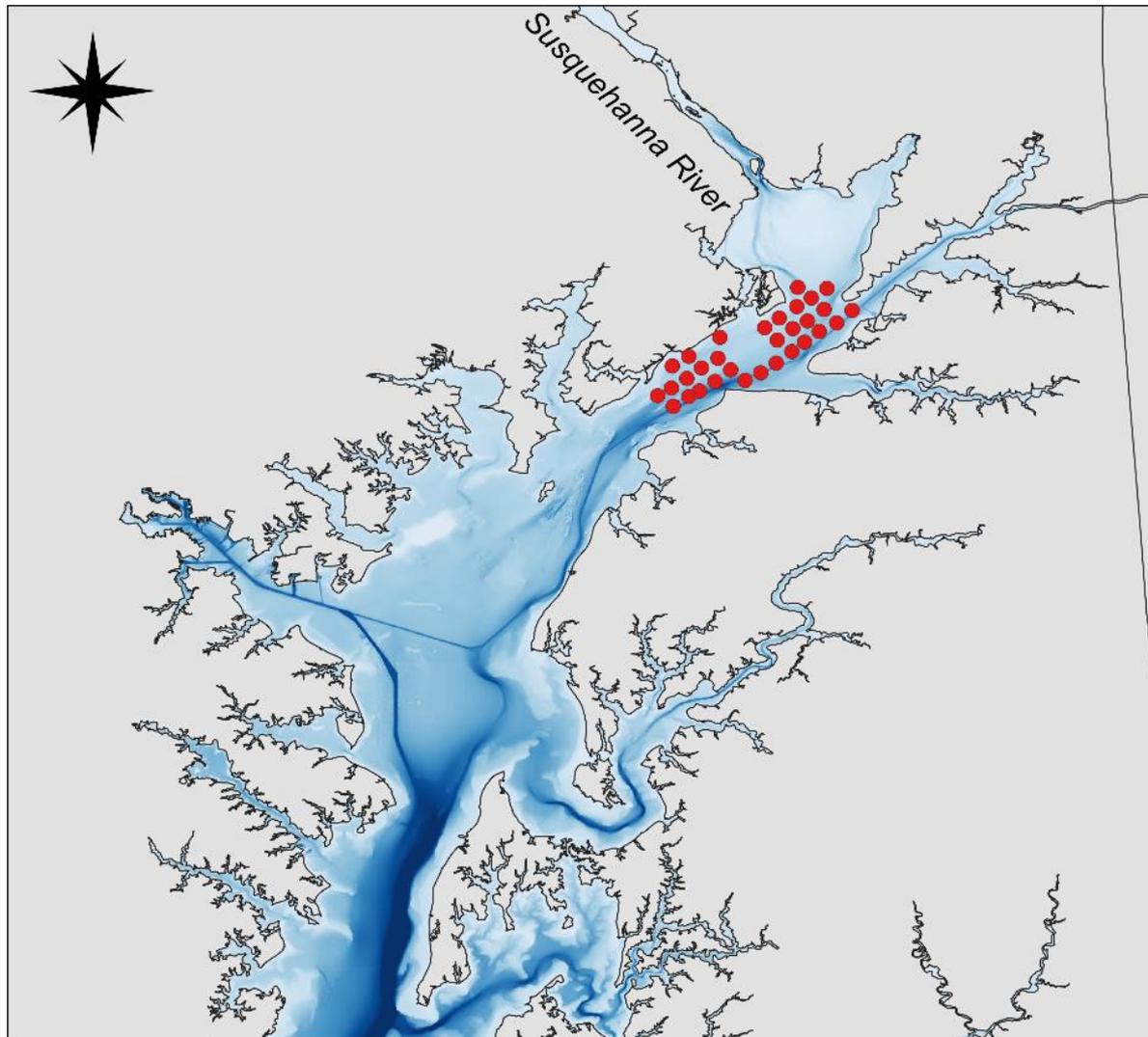
Creel and Logbook American Shad



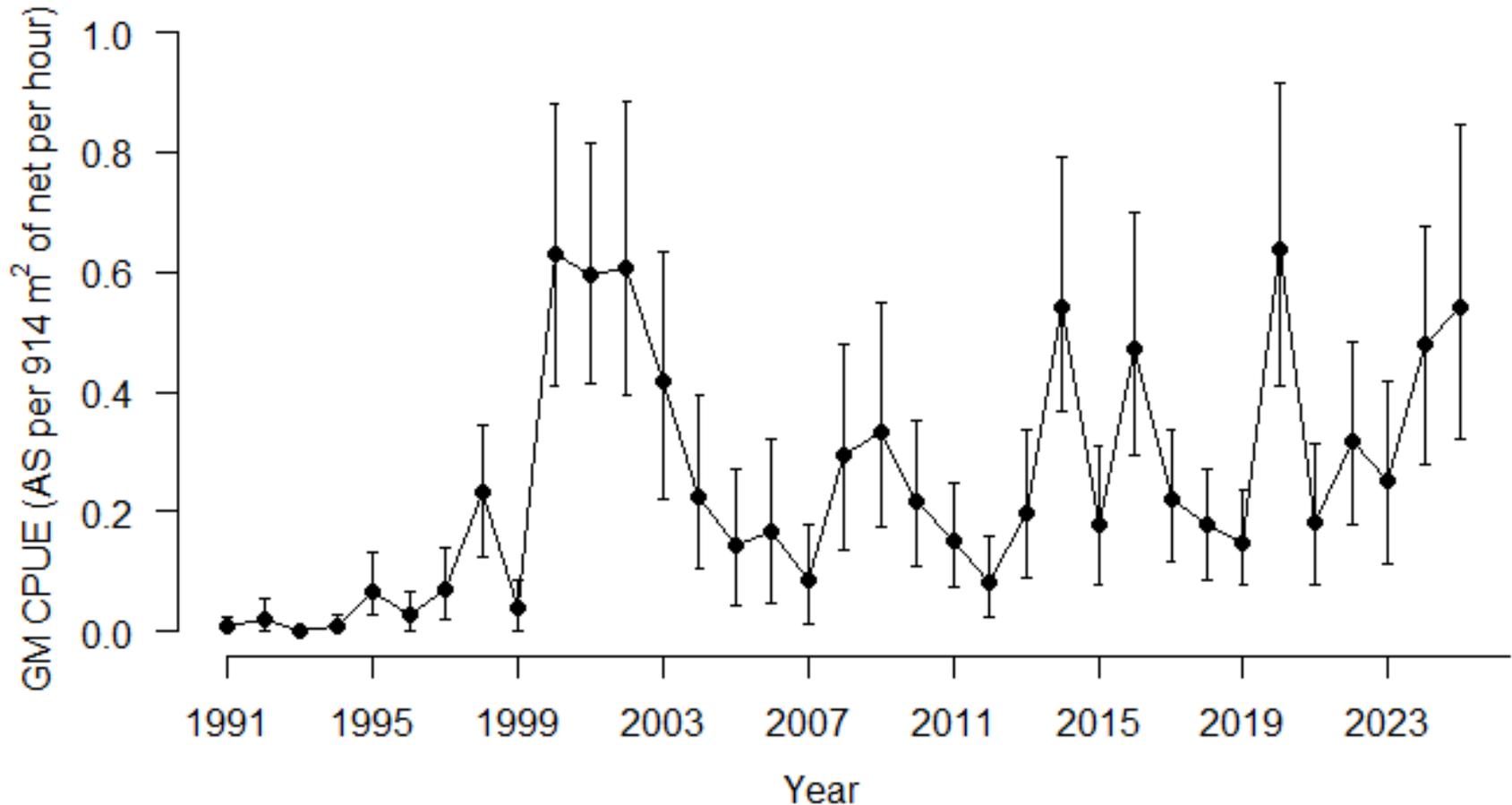
Creel and Logbook Hickory Shad



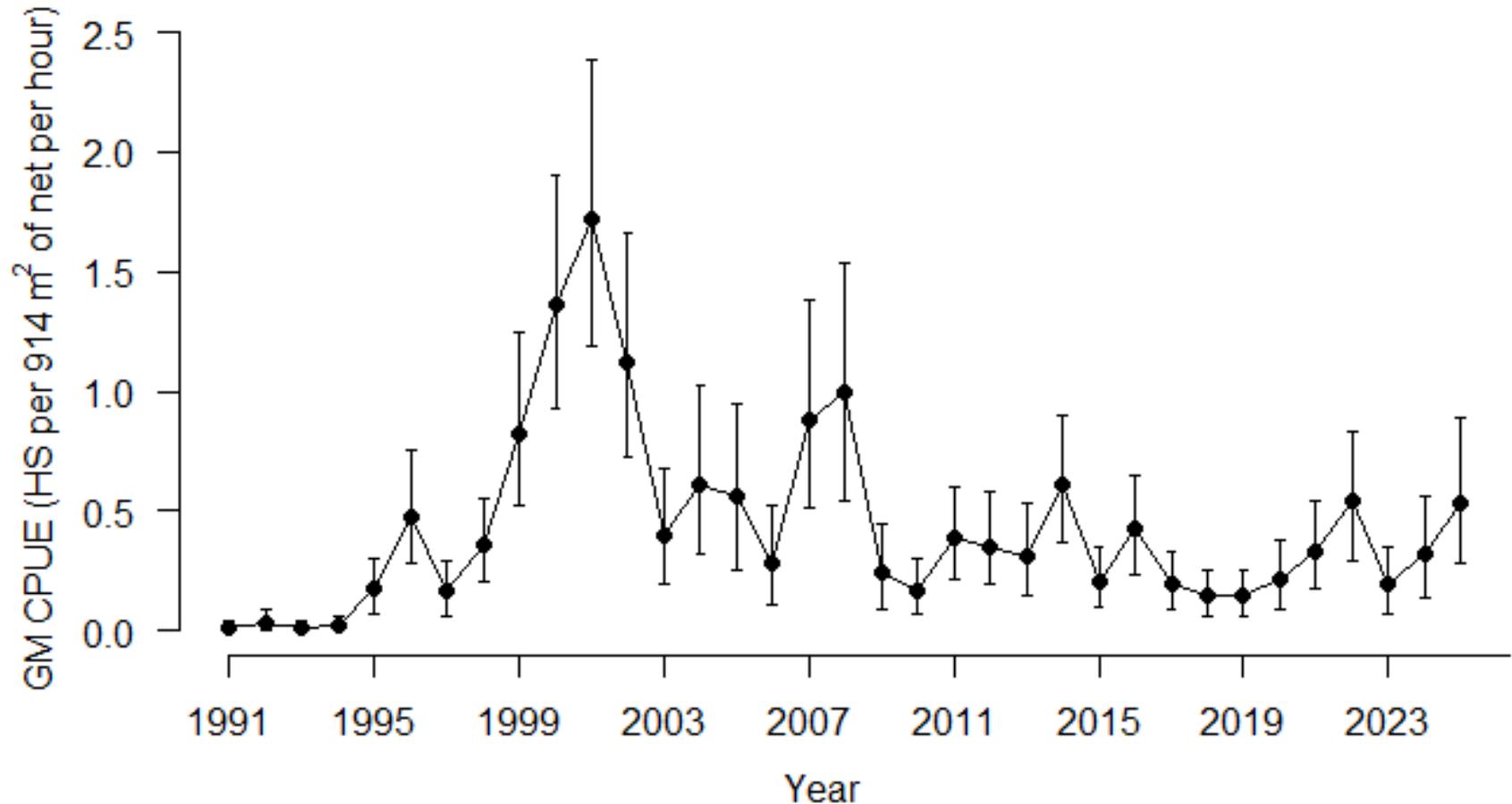
SBSSS (Upper Bay)



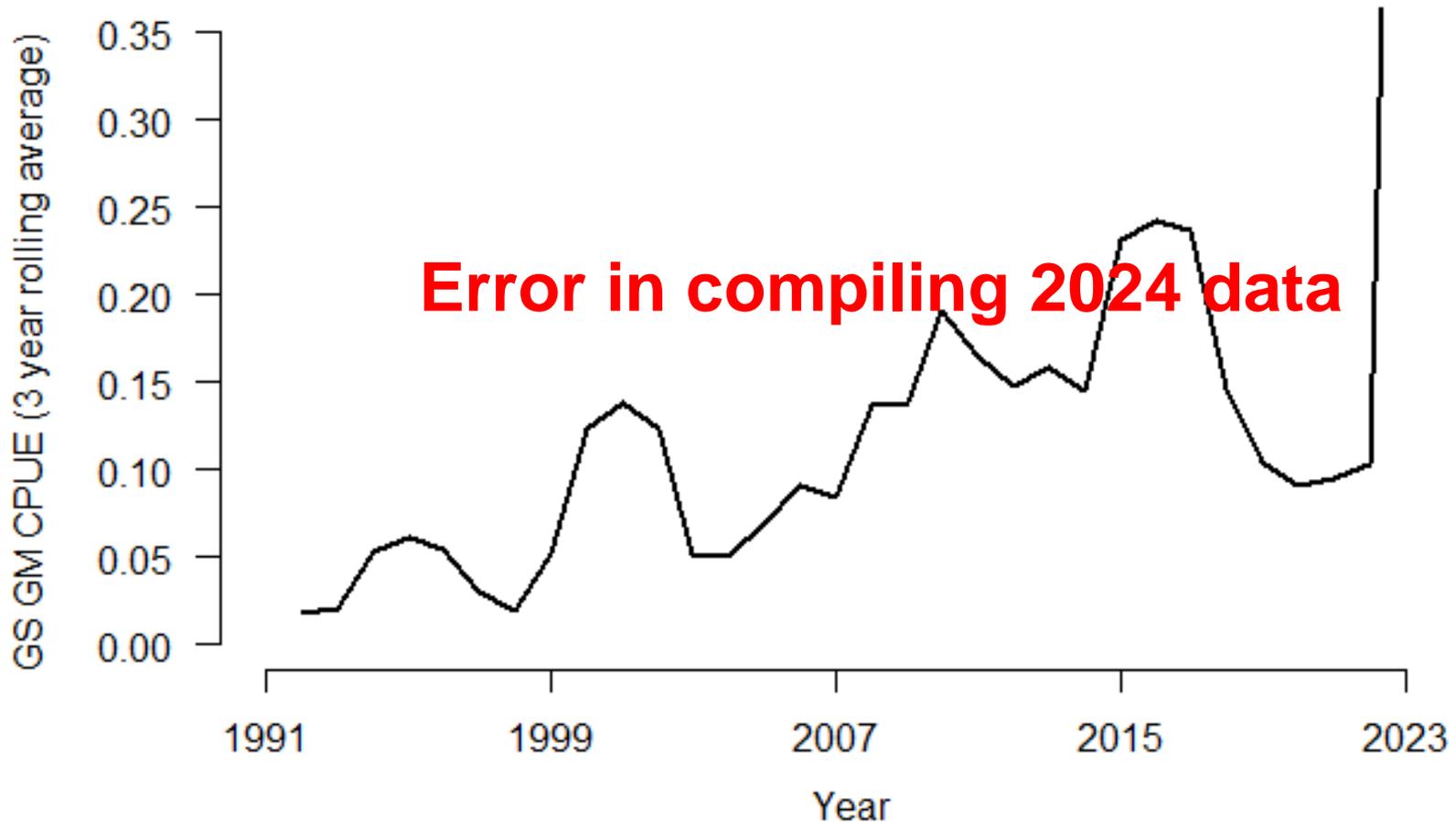
SBSSS (Upper Bay) American Shad



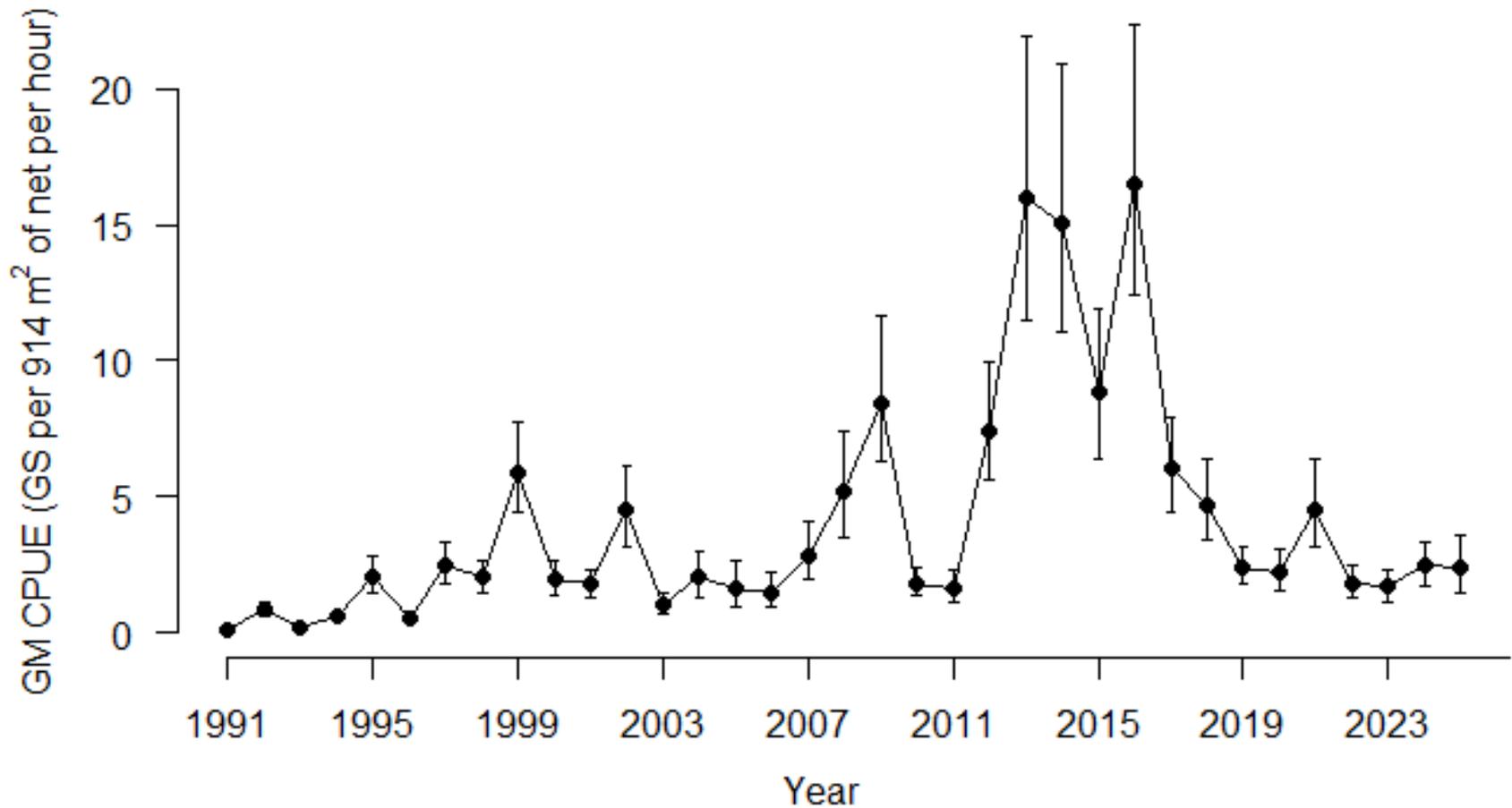
SBSSS (Upper Bay) Hickory Shad



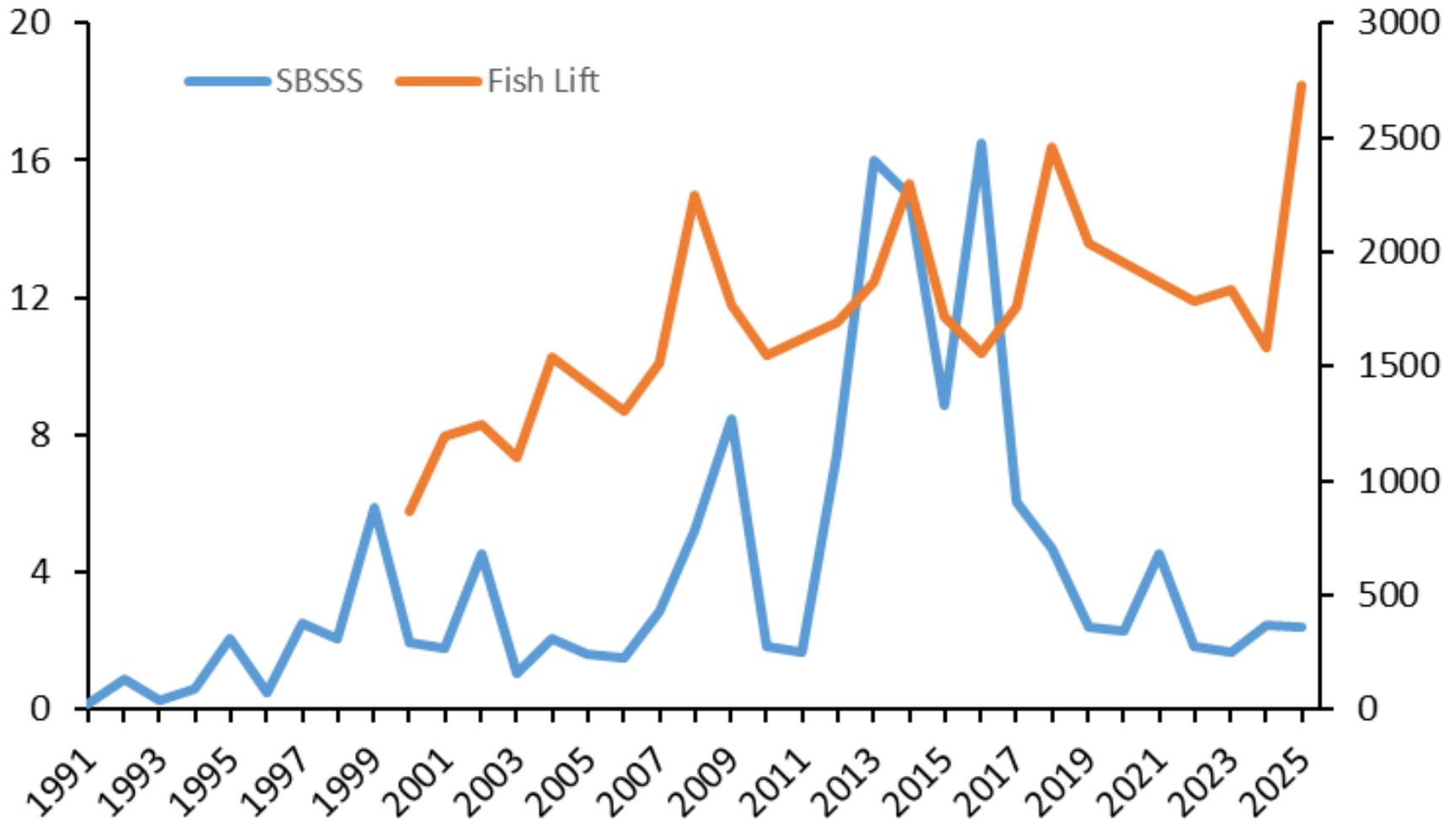
Adult GS Abundance



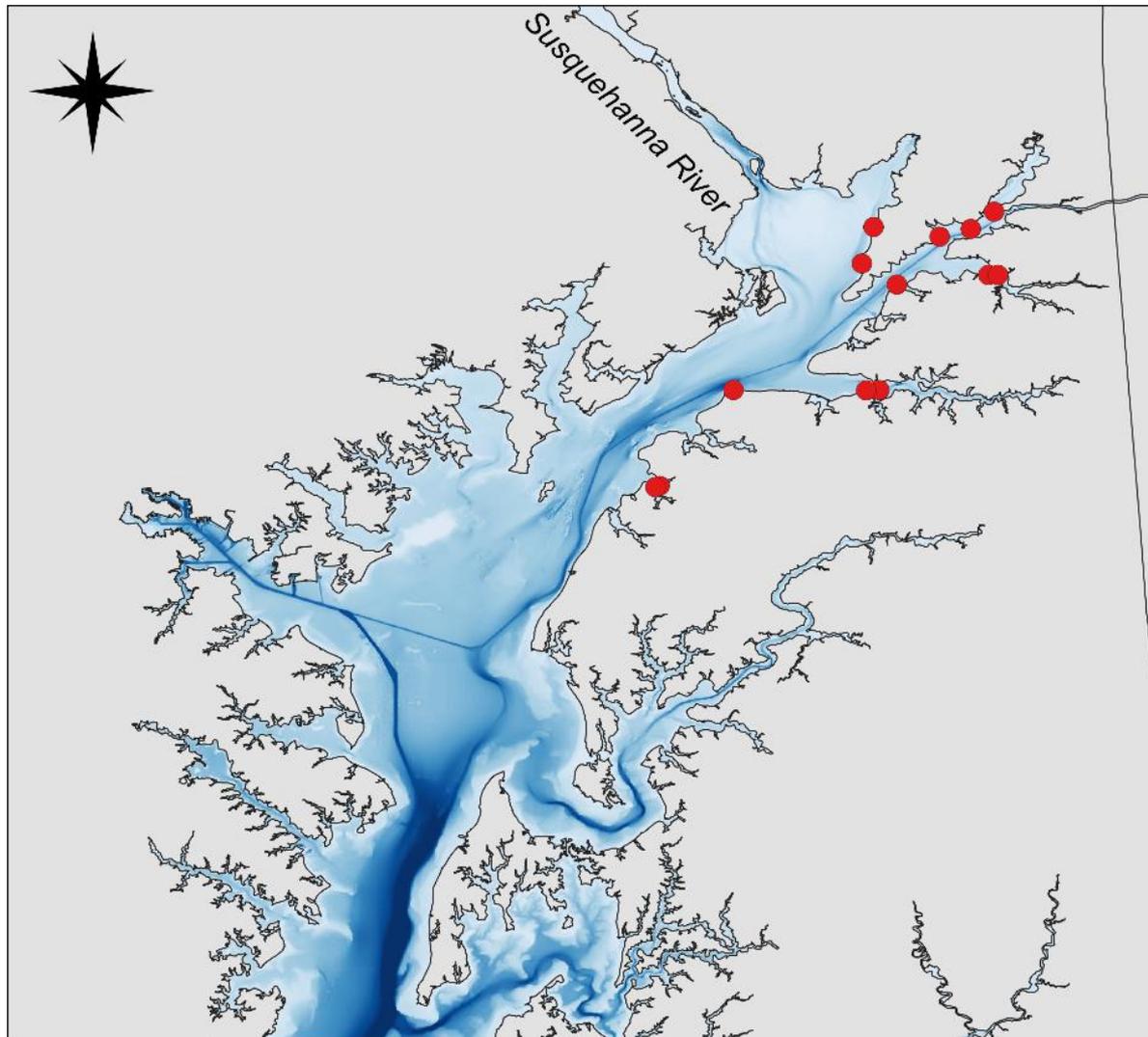
Adult GS Abundance



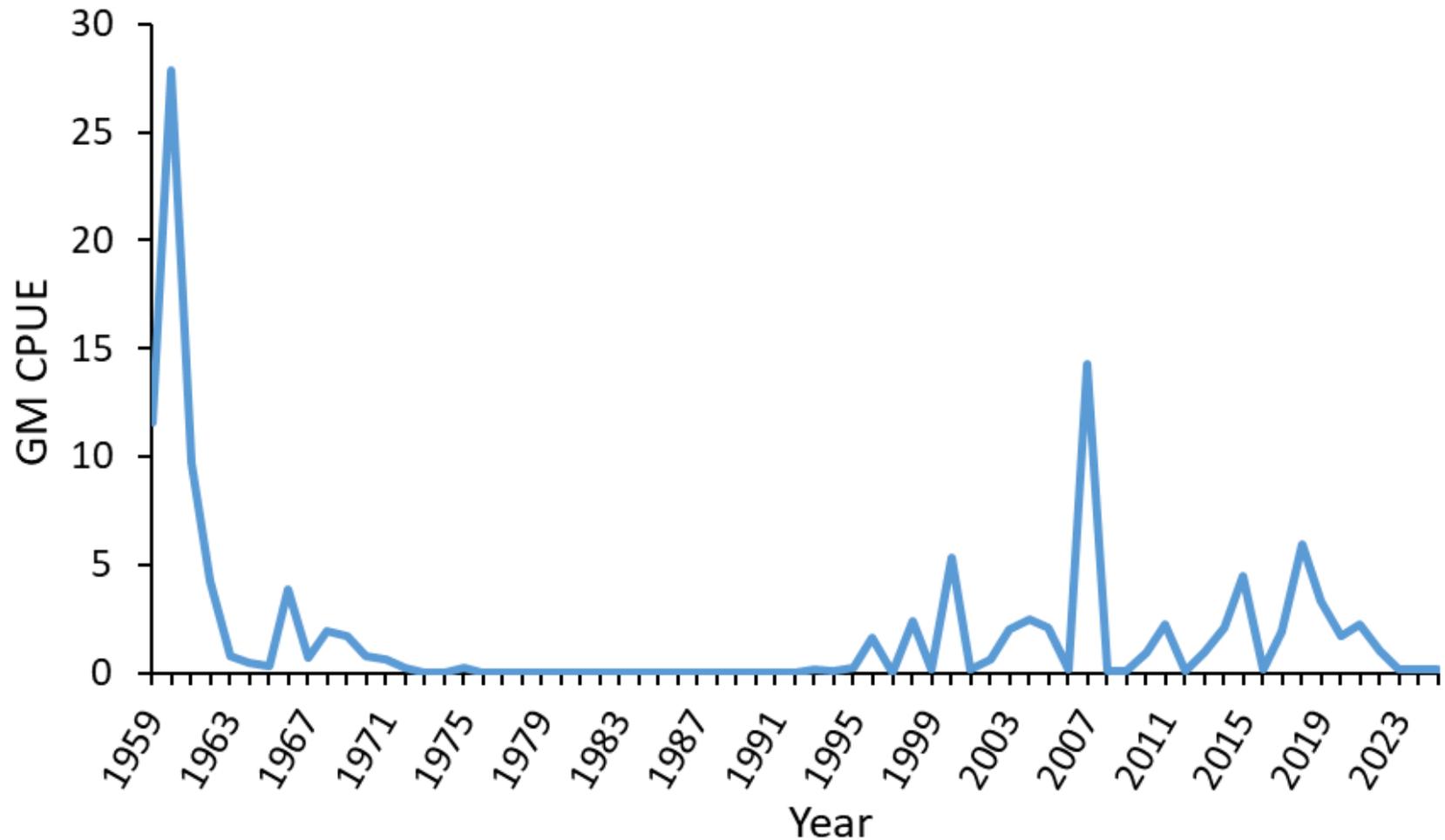
Adult GS Abundance



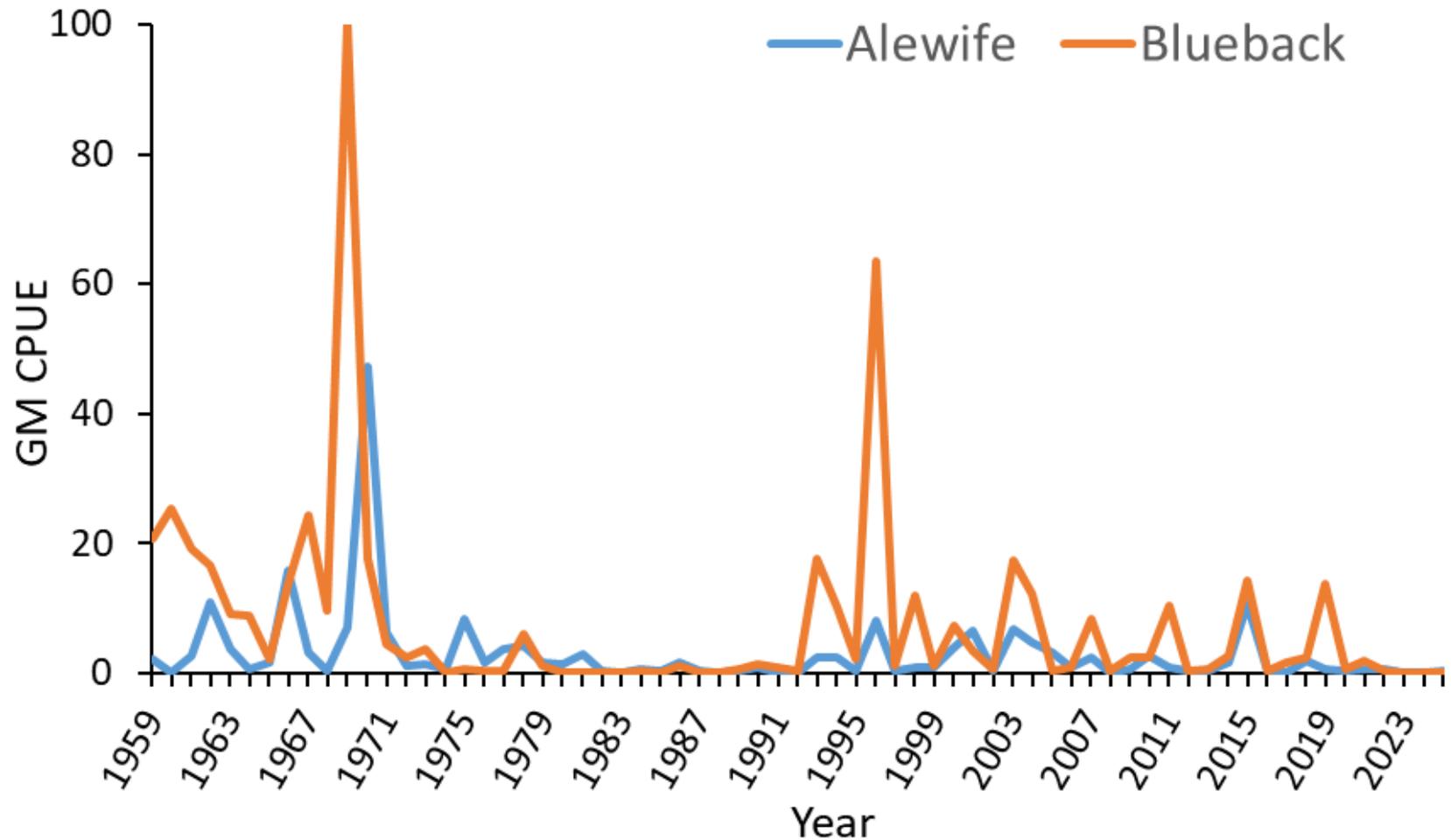
Juvenile Seine Survey



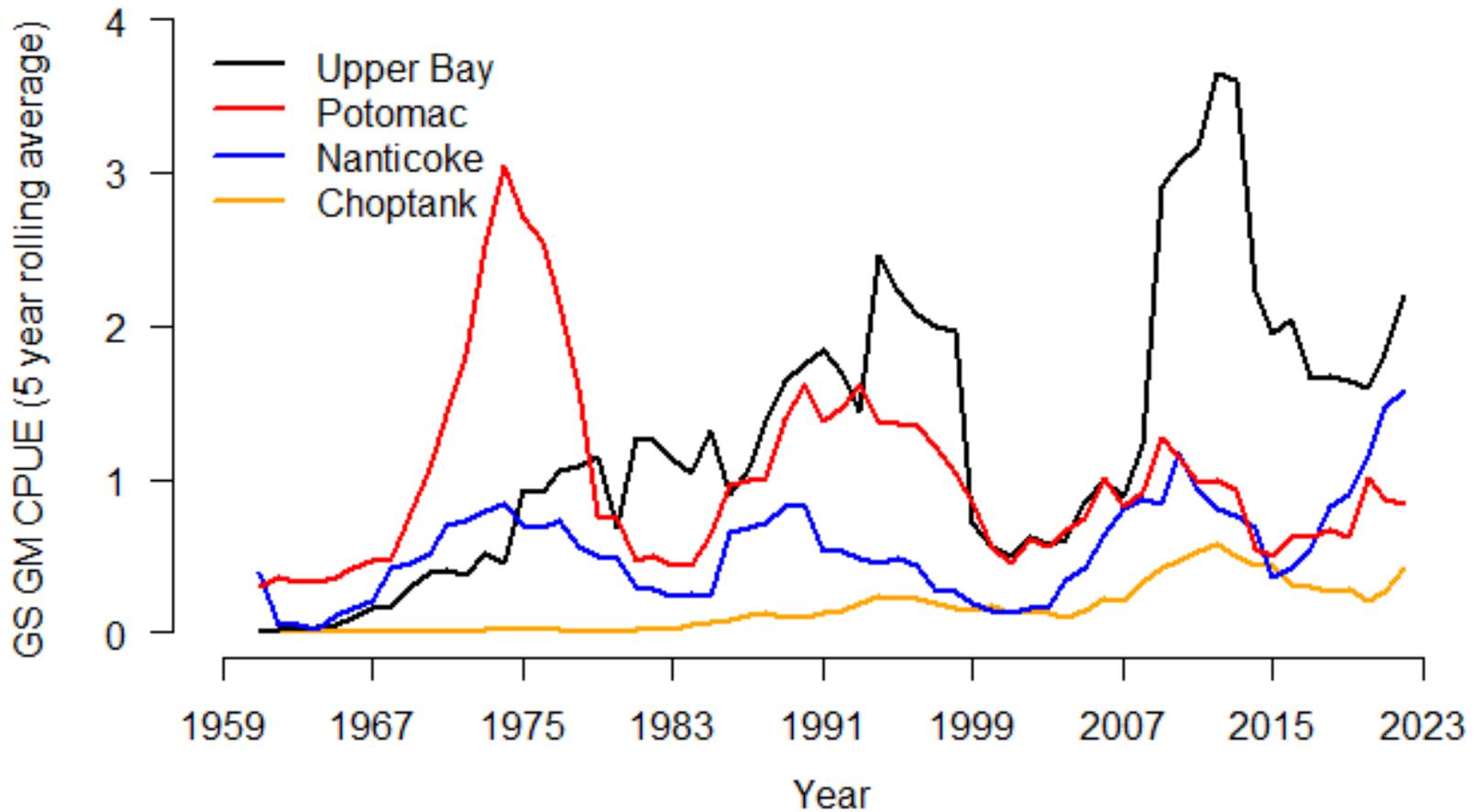
Juvenile American Shad



Juvenile River Herring



Juvenile GS Abundance



Questions?

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