



Striped Mullet Data Analysis Update

Presented to: Marine Fisheries Commission

Department of Environmental Quality

Marine Fisheries

| Daniel Zapf | Nov. 15-16, 2017



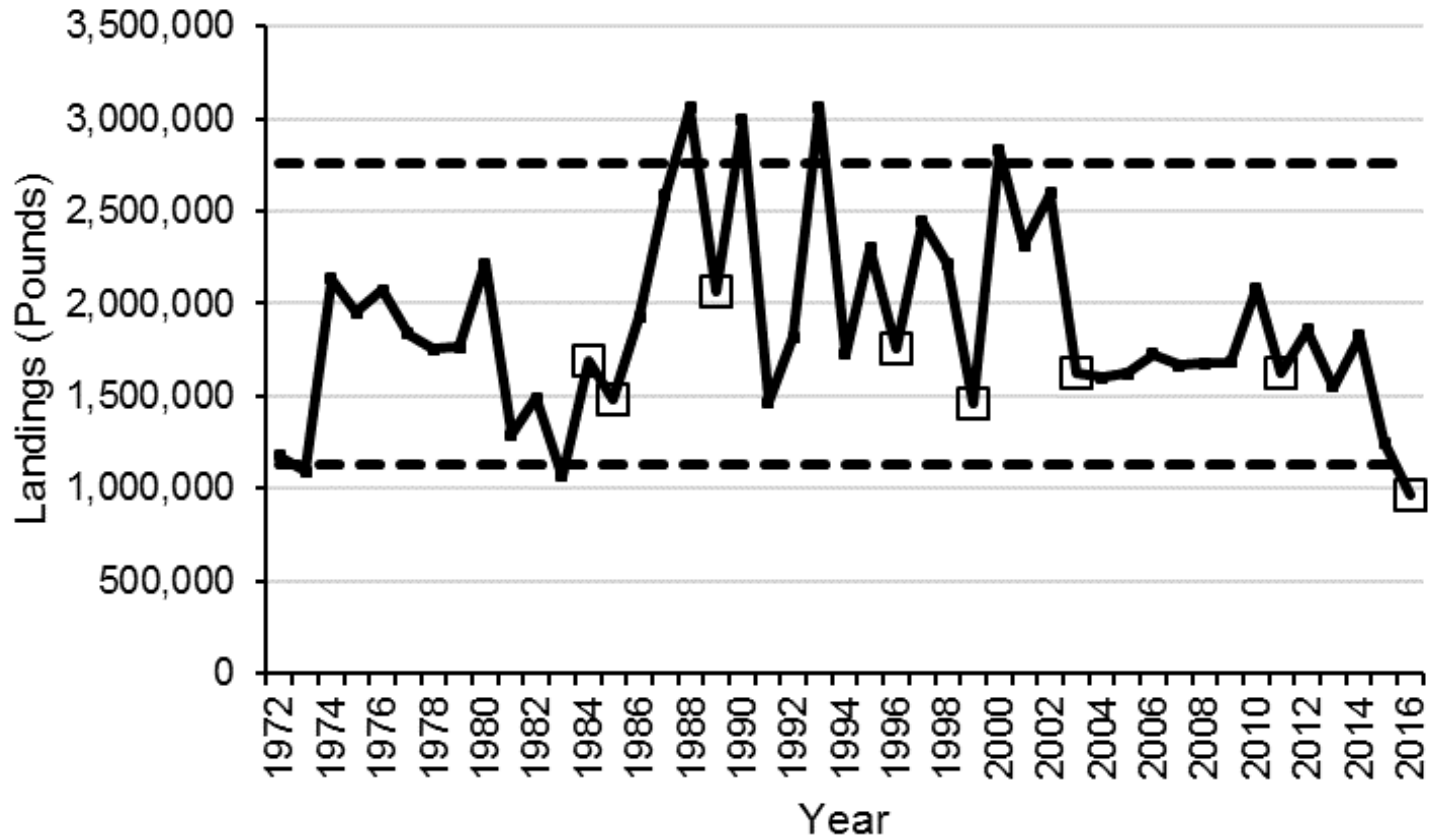
Timeline

- July 2017: Stock Status Overview Report
- August 2017: Presented Stock Status Overview
- November 2017: Preliminary data
- No action is required at this time

Amendment 1

- Striped Mullet stock assessment (2013)
 - Overfishing not occurring
 - Overfished status could not be determined
 - Fishing mortality increasing (2007-2011)
 - Recruitment decreasing (2007-2010)
 - Viable
- Minimum (1.13 million) and maximum (2.76 million) commercial landings thresholds
 - Trigger activated, further analysis of data
 - Adaptive management if needed

Commercial Landings Trigger

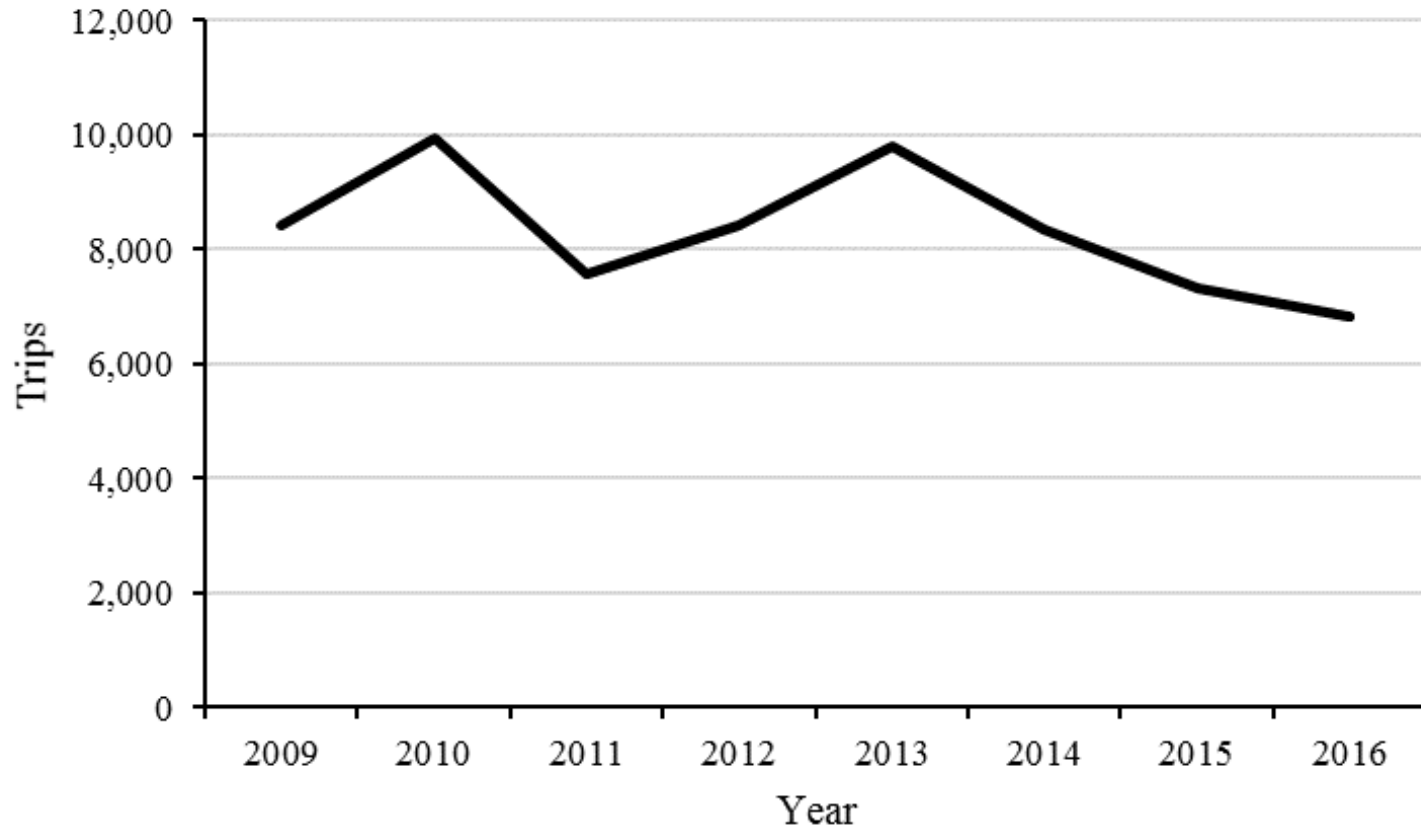


Open boxes indicate years with major hurricanes

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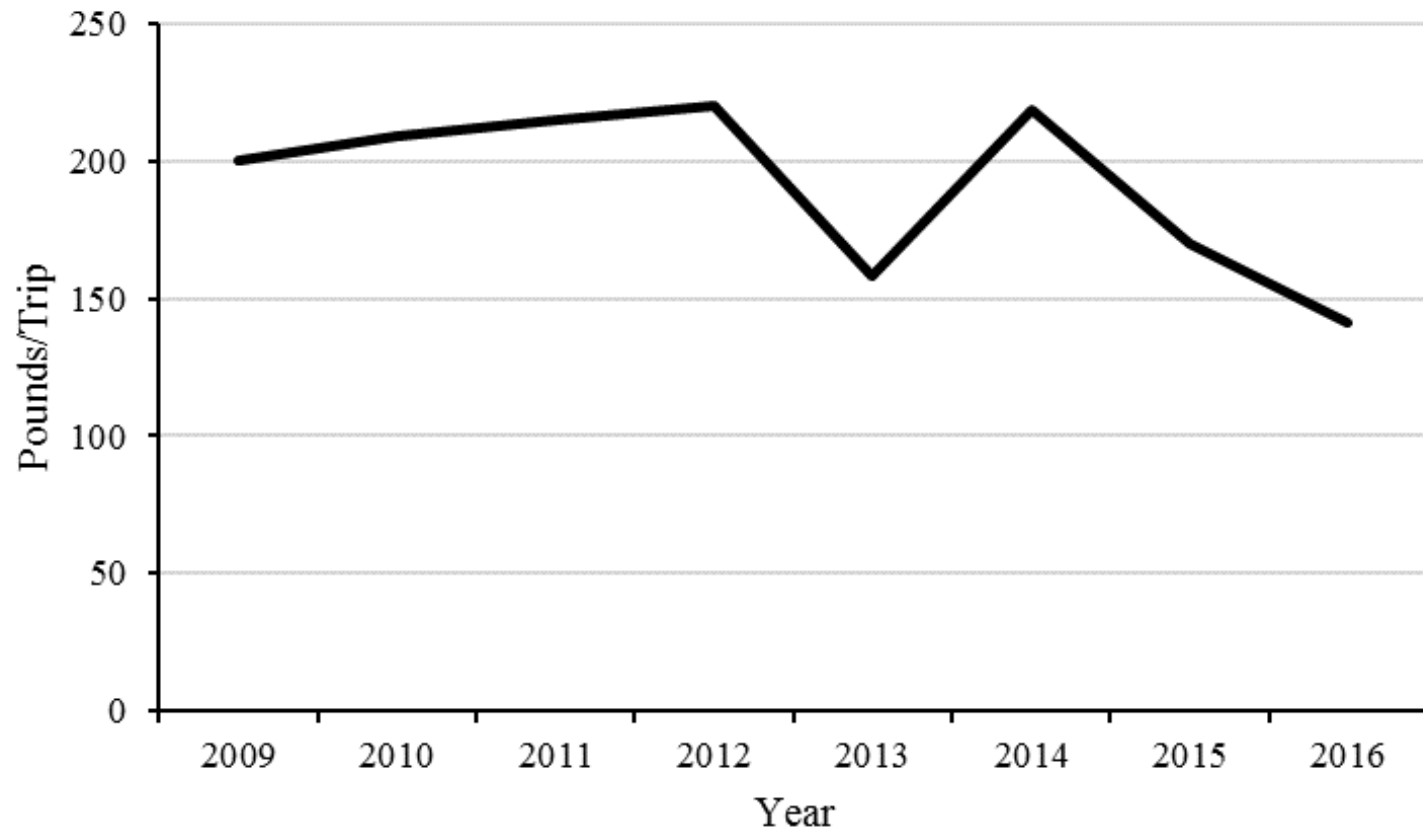


Annual Commercial Landings – Effort Trips

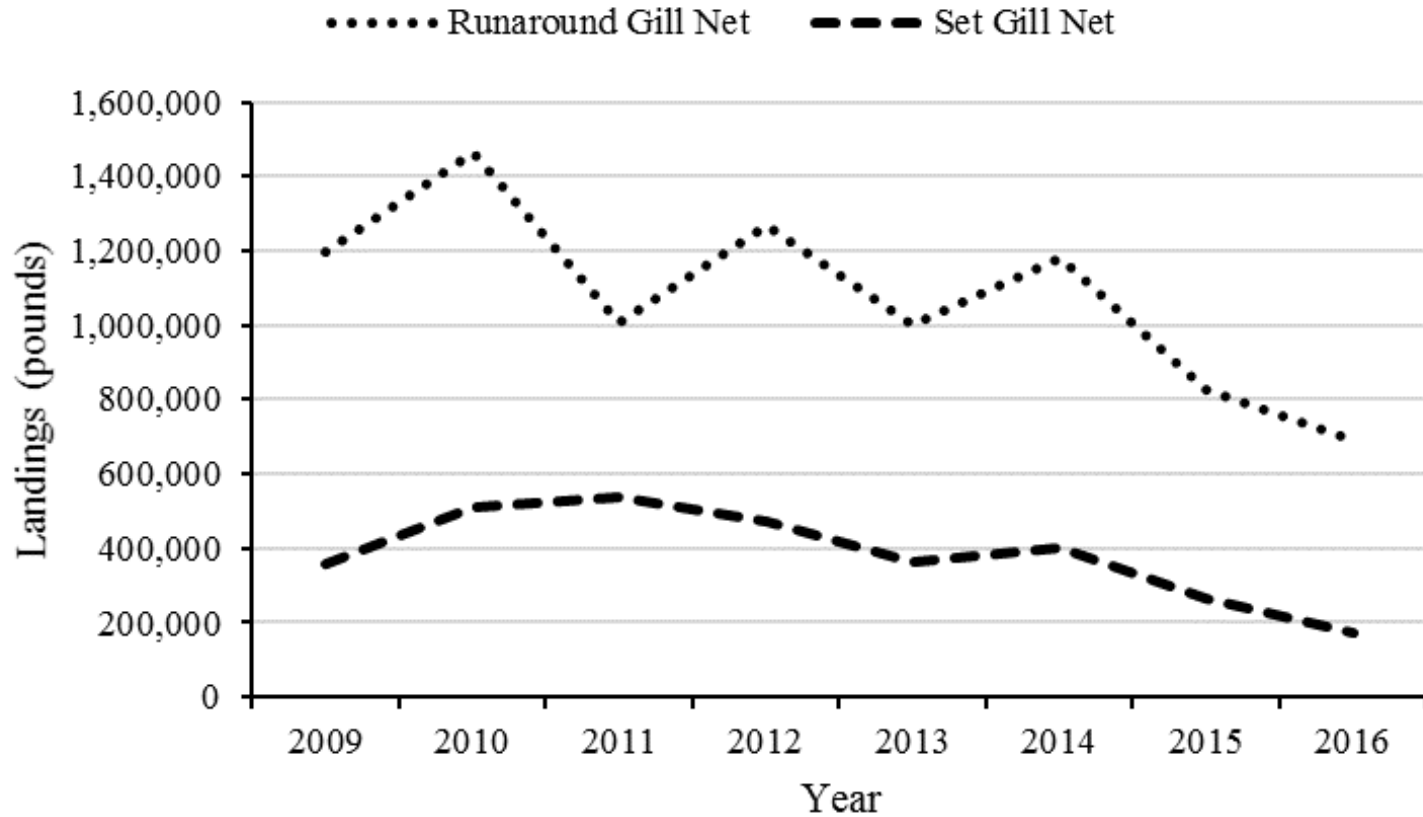


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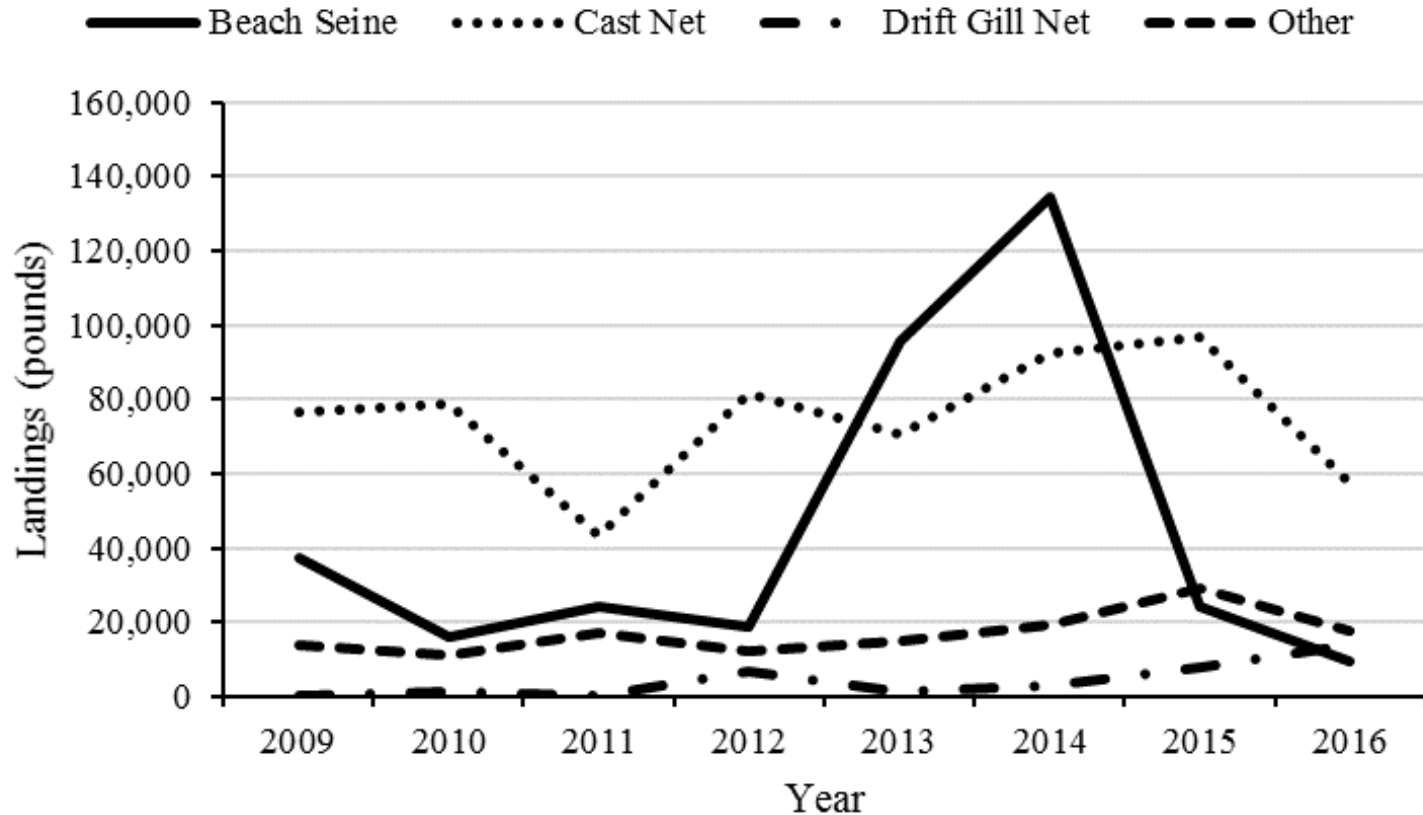
Annual Commercial Landings – Effort Pounds Per Trip



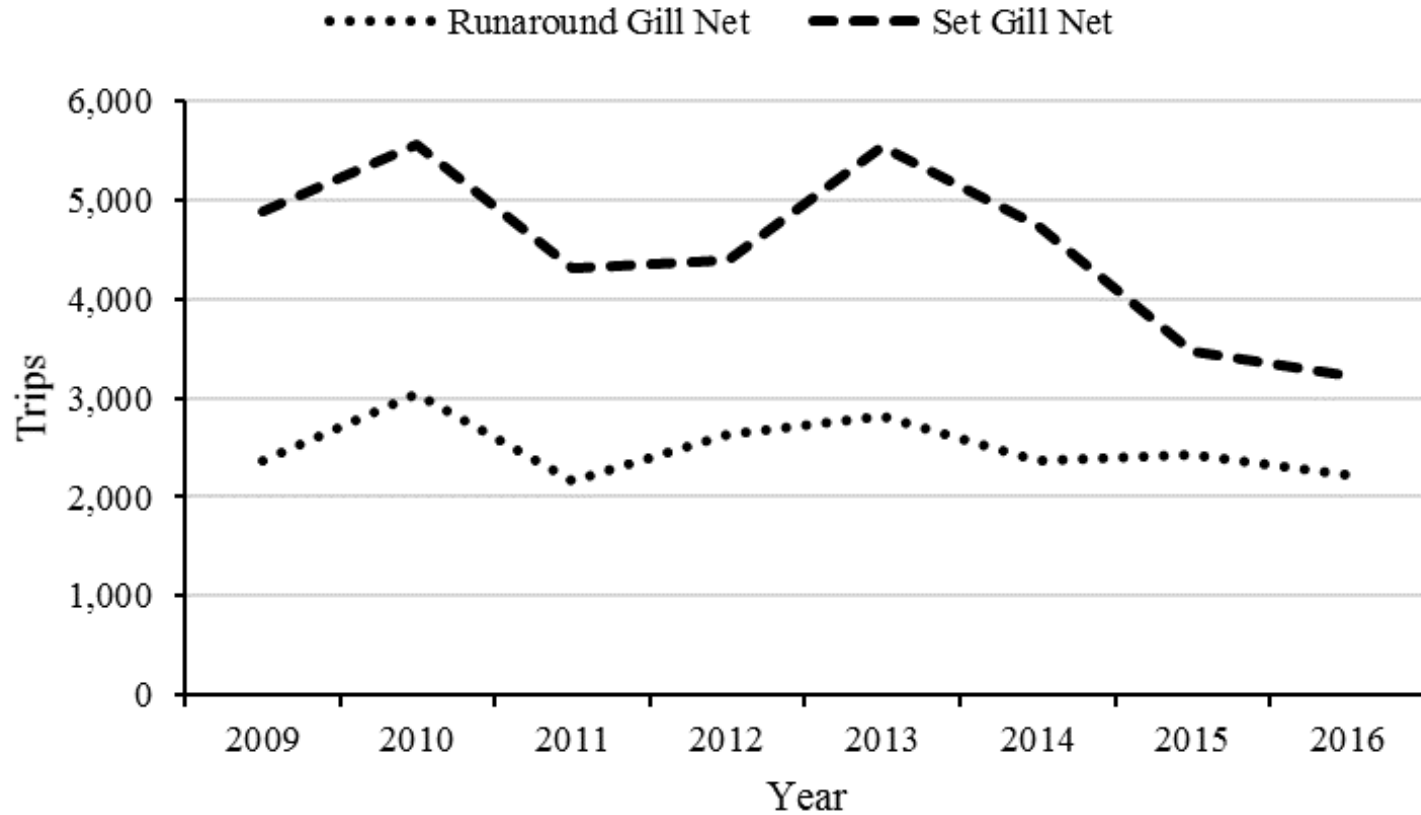
Annual Commercial Landings - Gear



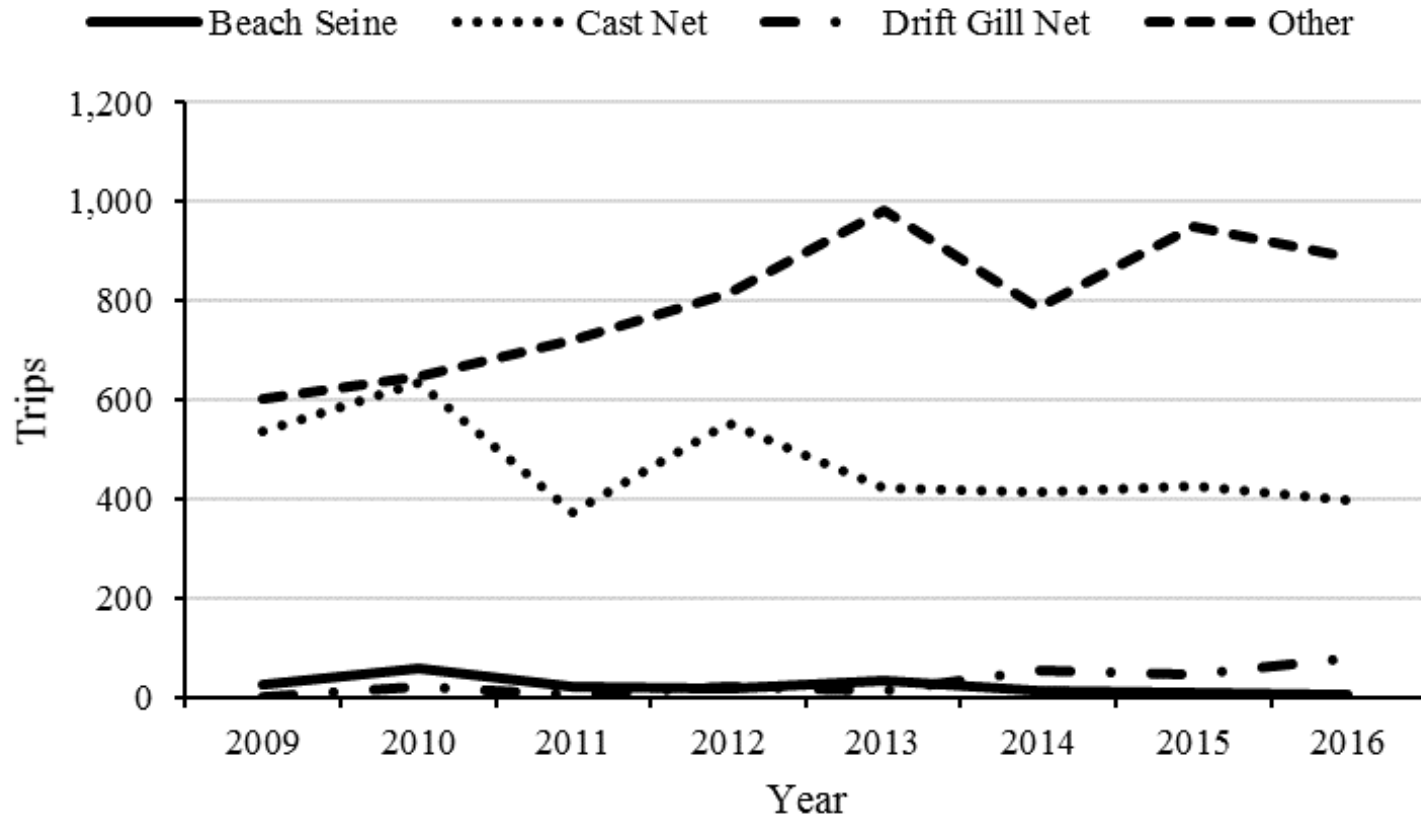
Annual Commercial Landings - Gear



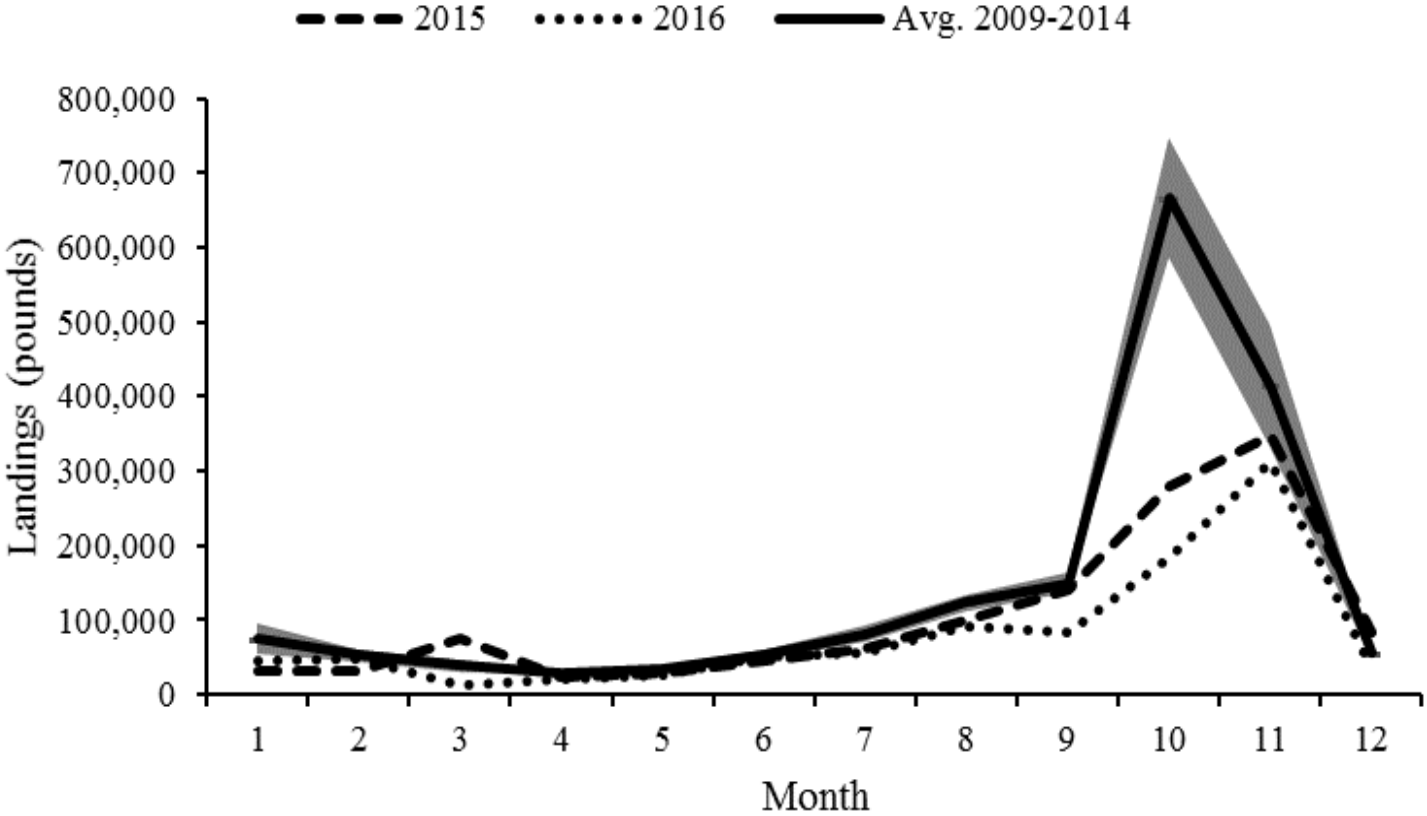
Commercial Gears – Effort Trips



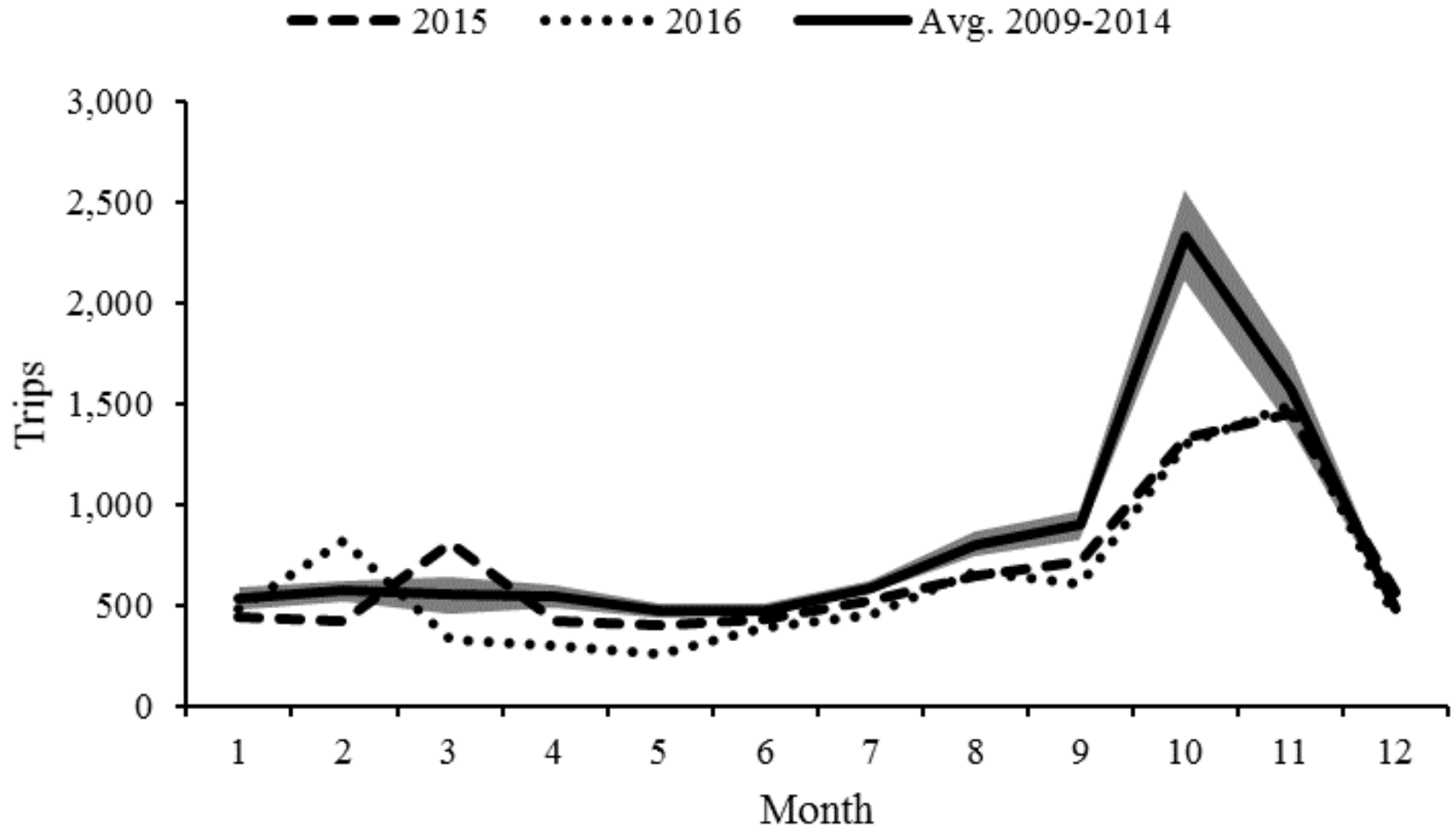
Commercial Gears – Effort Trips



Monthly Striped Mullet Commercial Landings

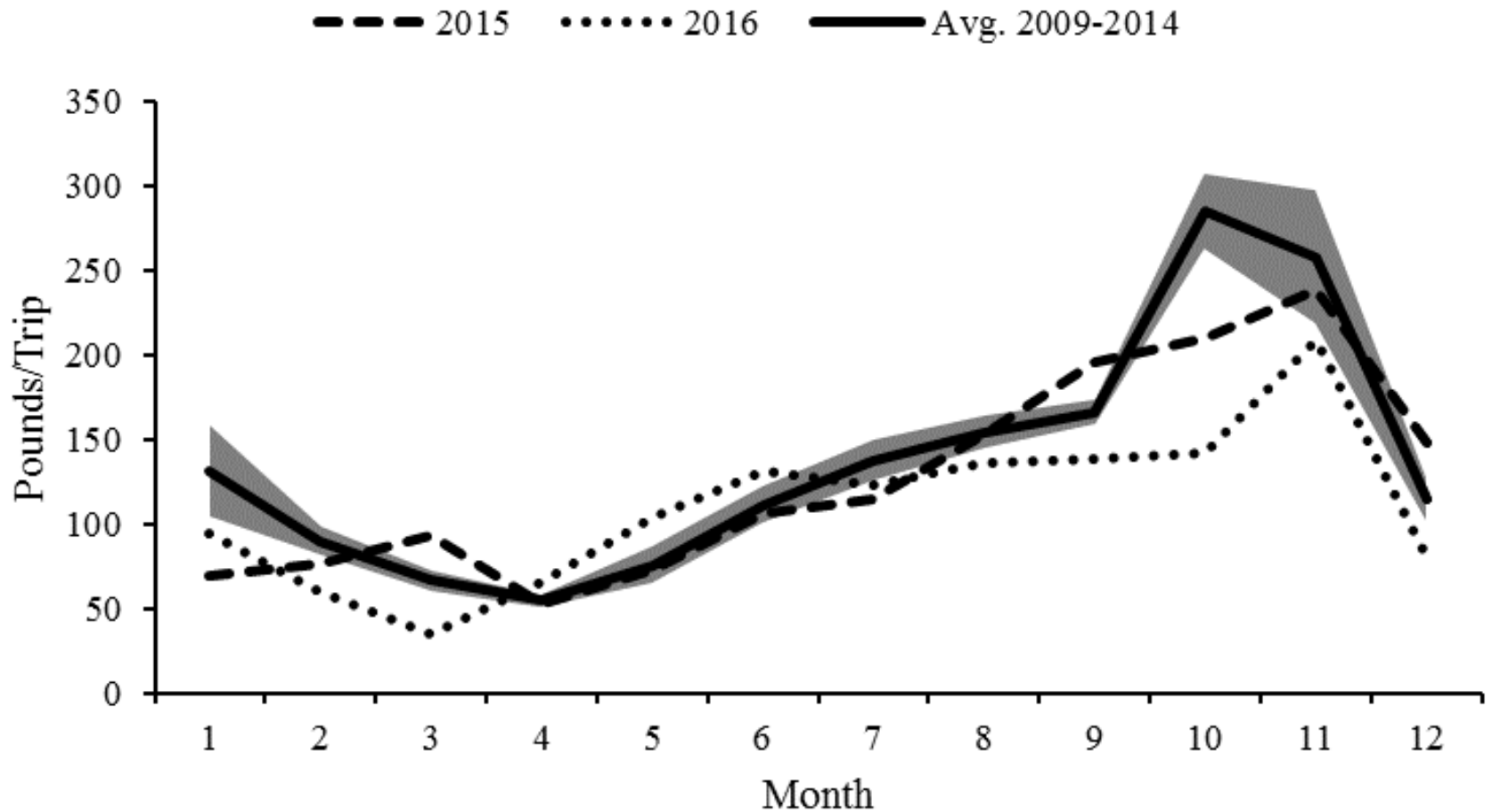


Monthly Commercial Landings – Effort Trips

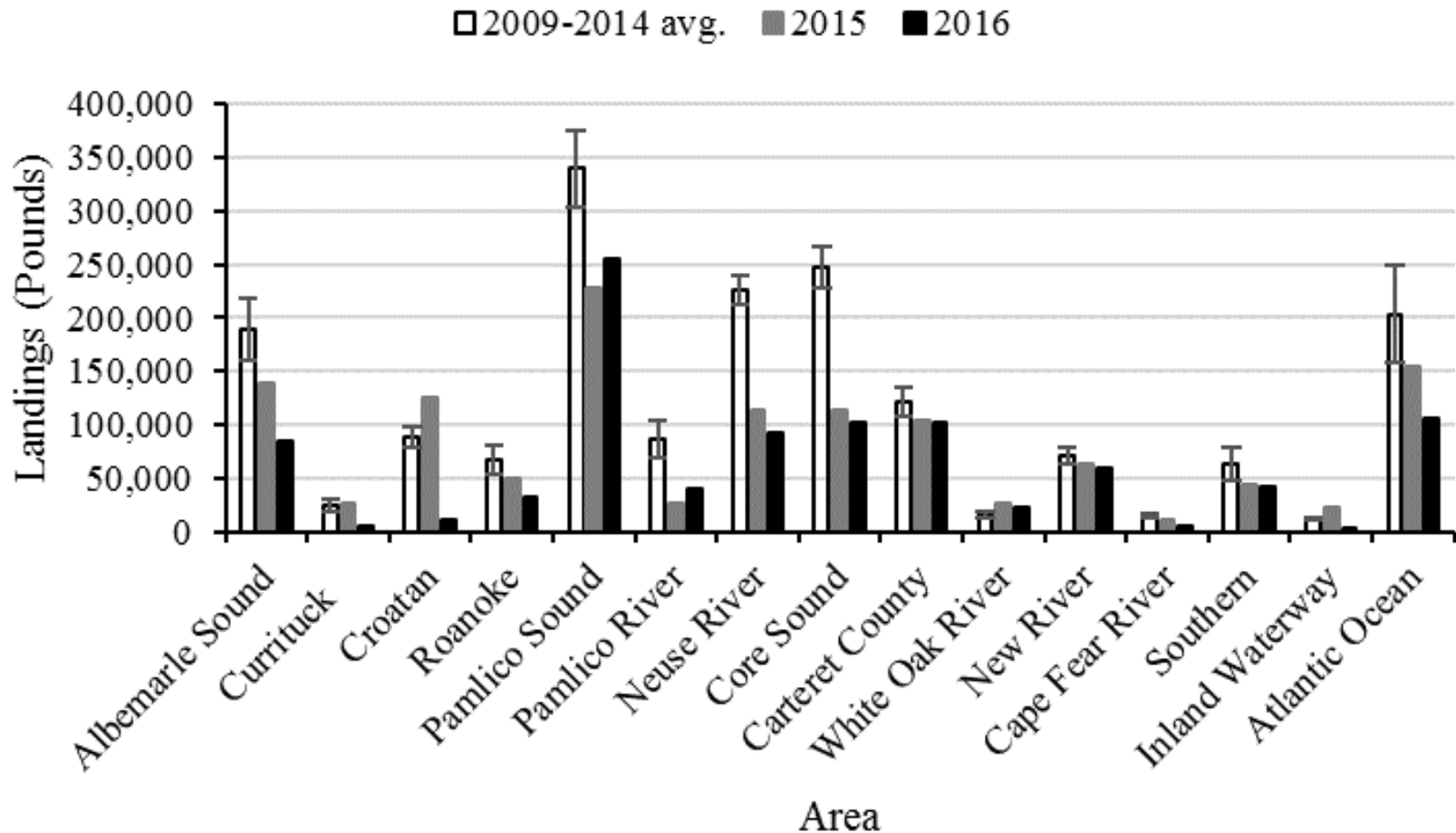


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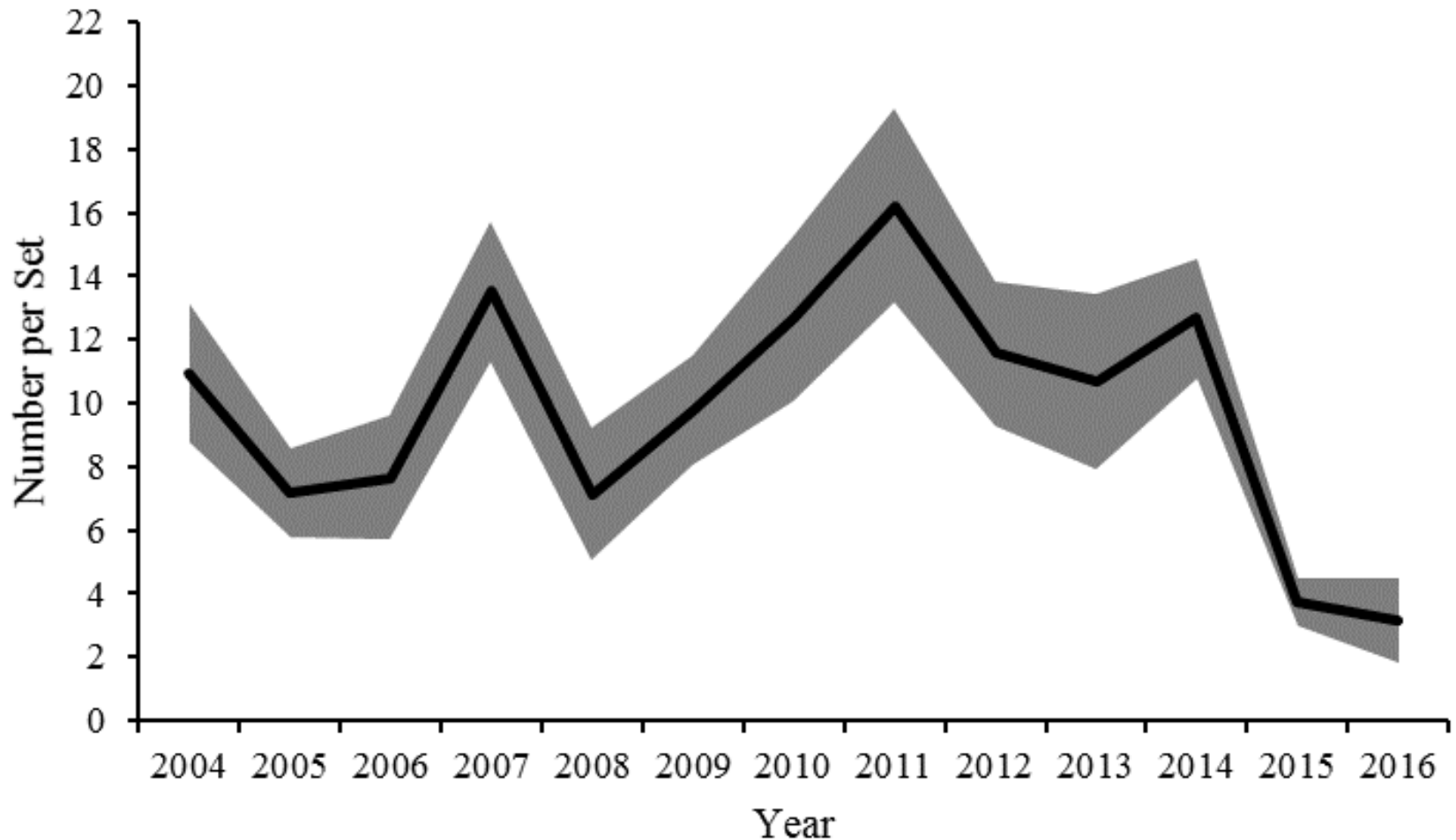
Monthly Commercial Landings – Effort Pounds Per Trip



Annual Commercial Landings - Area

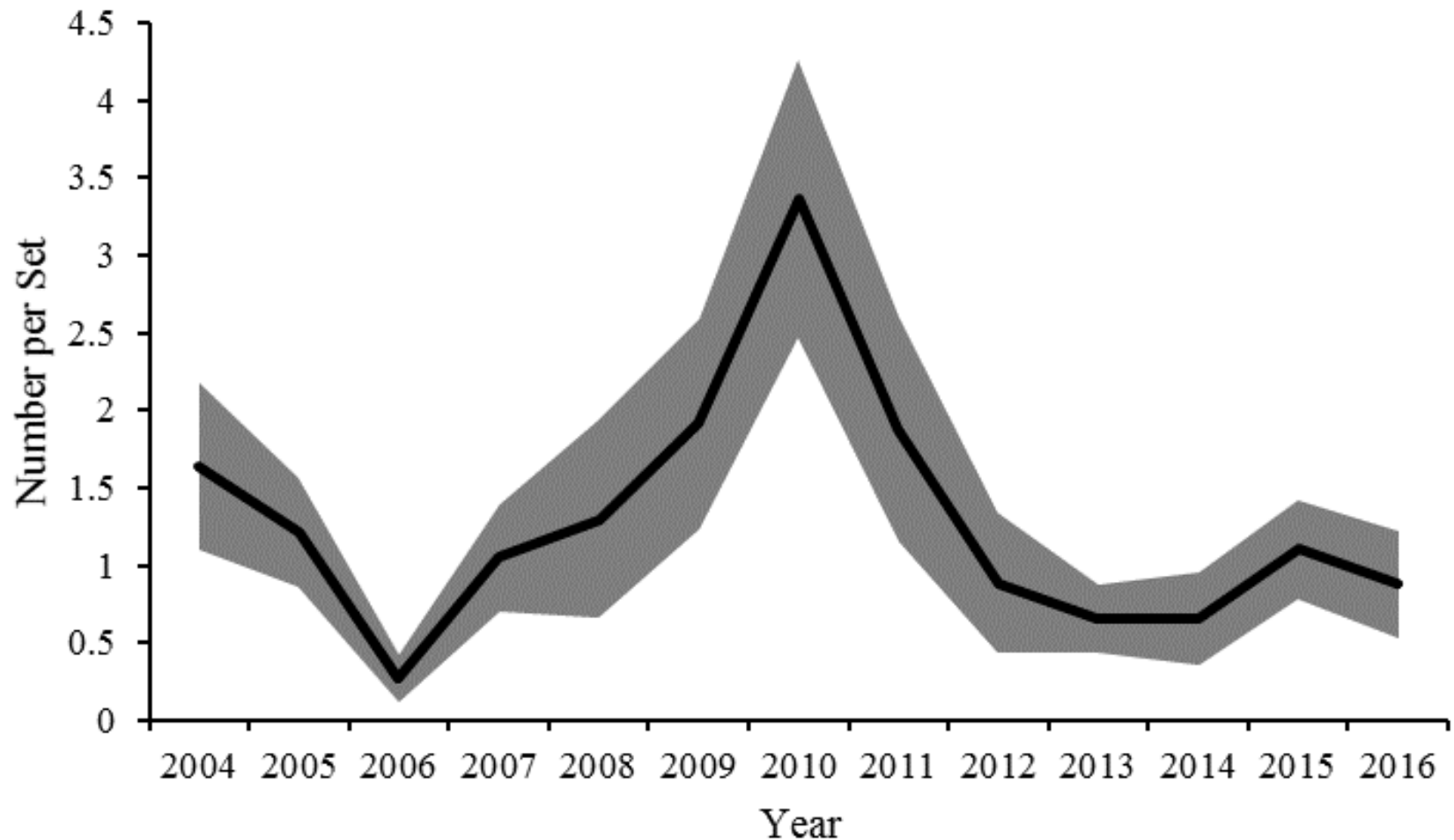


Independent Gill Net Survey – Neuse and Pamlico Rivers



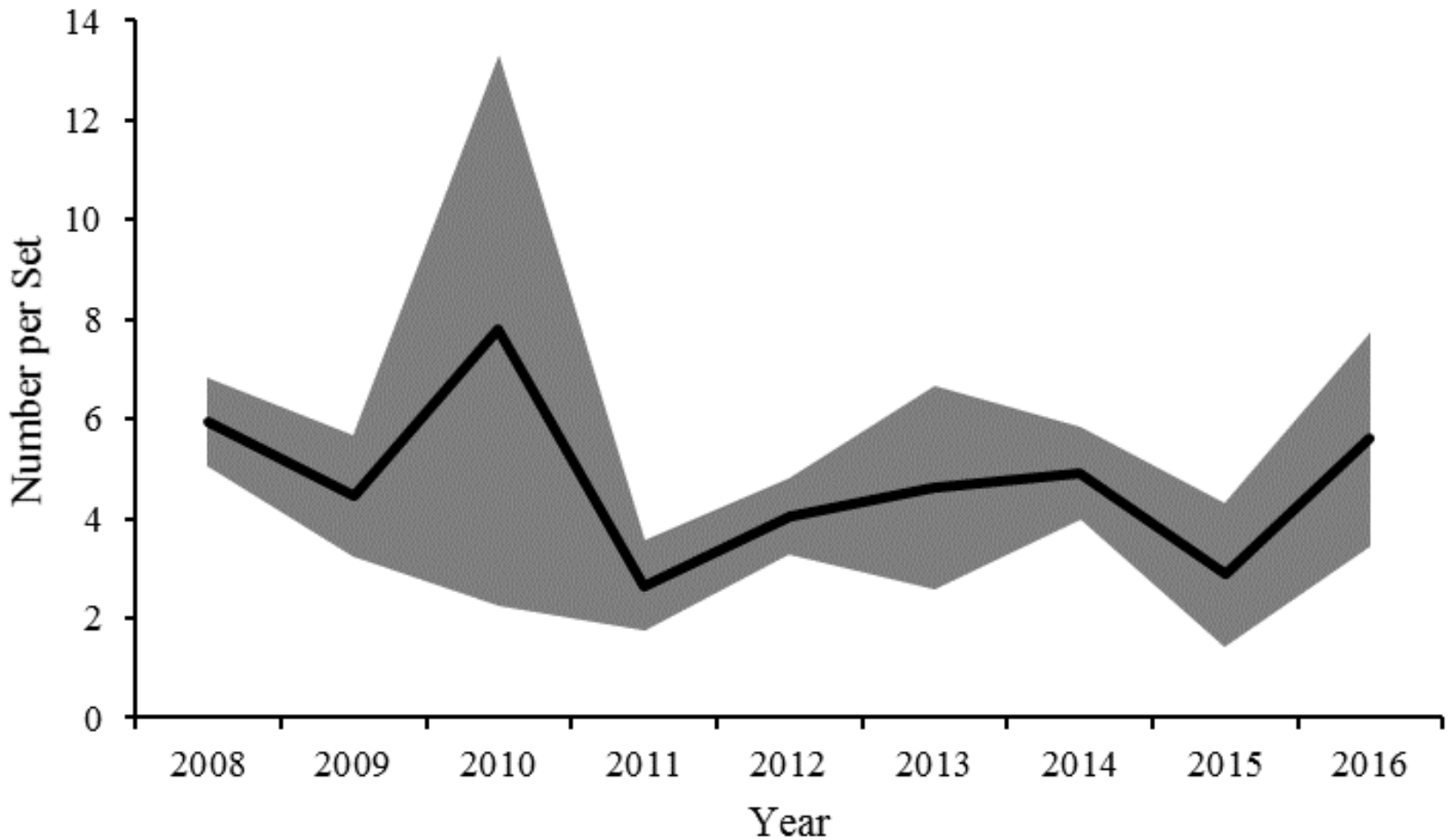
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Independent Gill Net Survey – Pamlico Sound



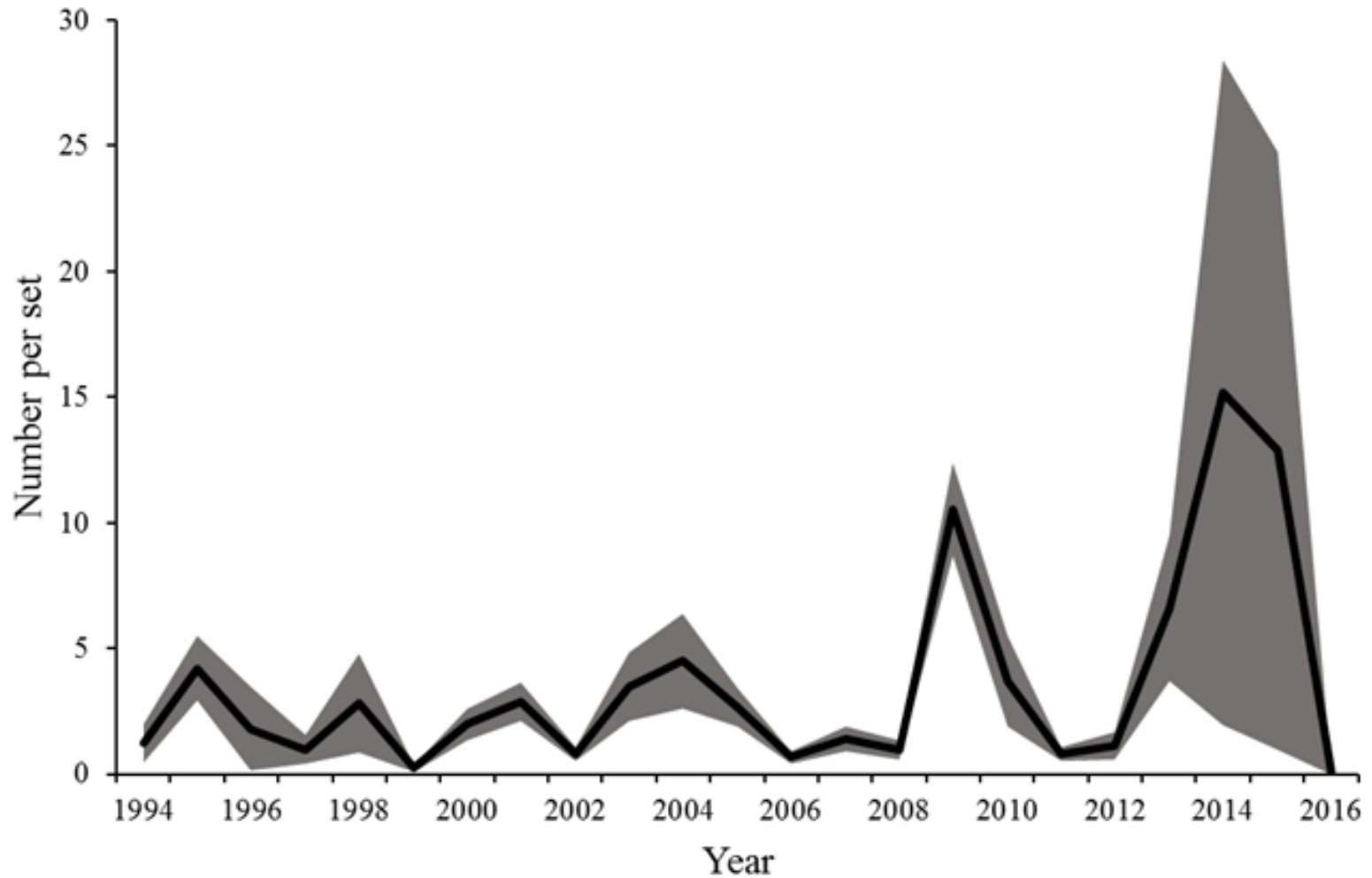
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Independent Gill Net Survey – Cape Fear and New Rivers



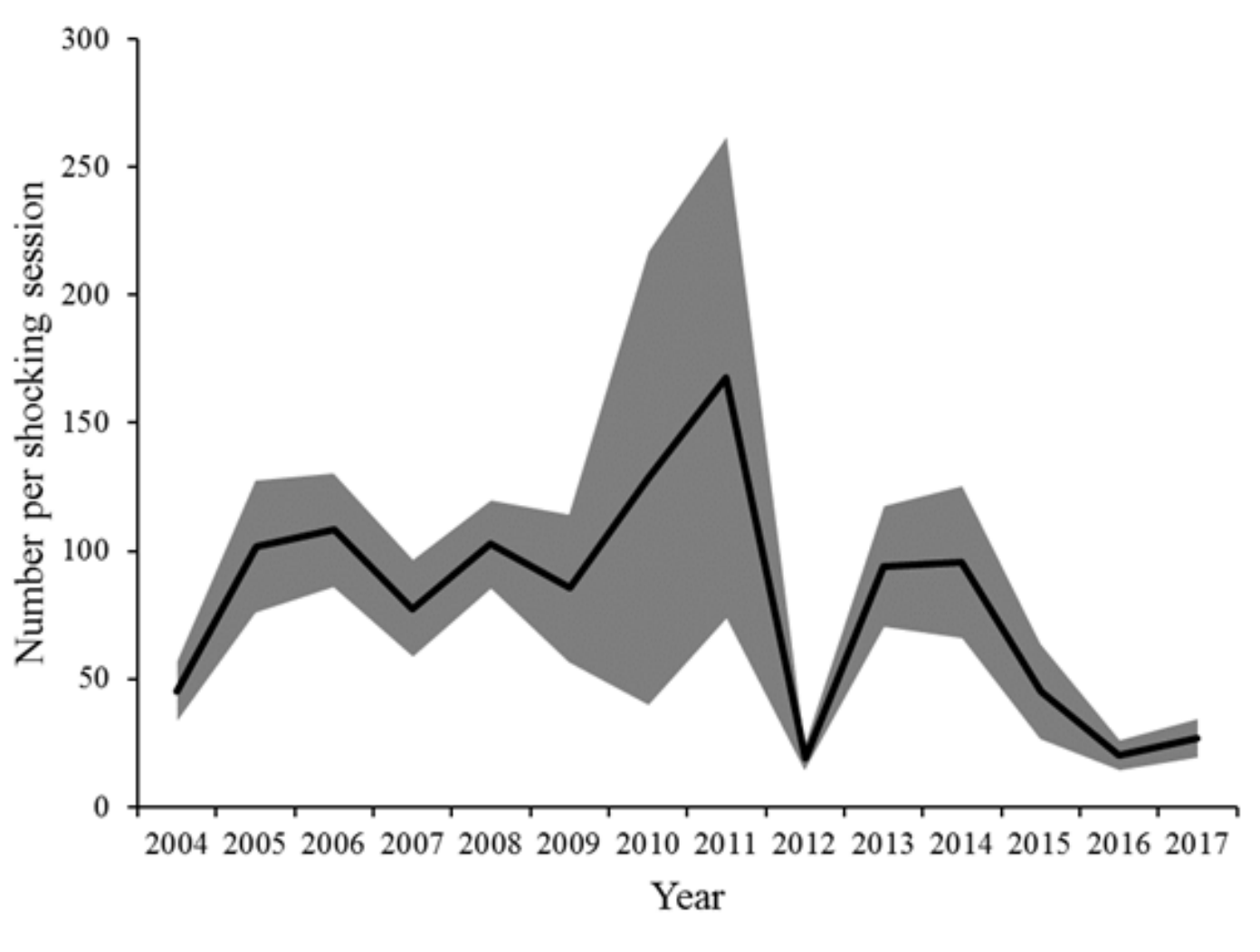
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Striped Bass Independent Gill Net Survey – Albemarle Sound



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Striped Mullet Electrofishing Survey – Neuse River

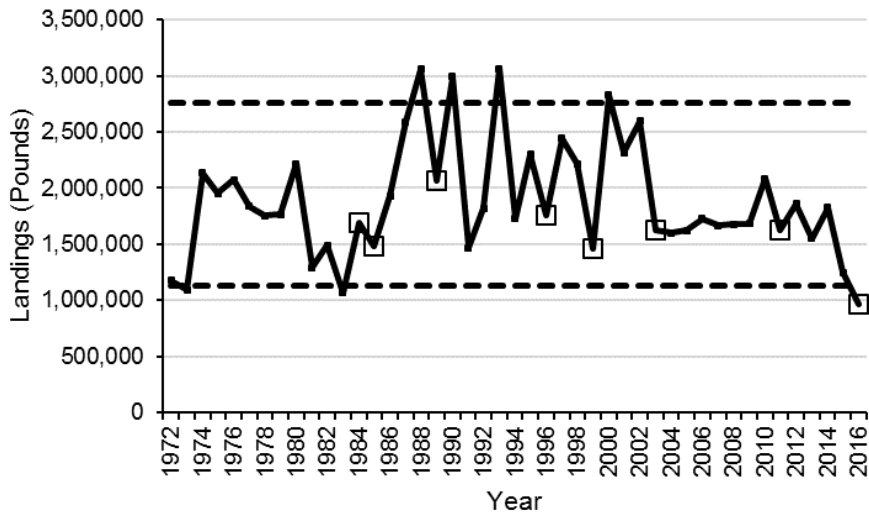


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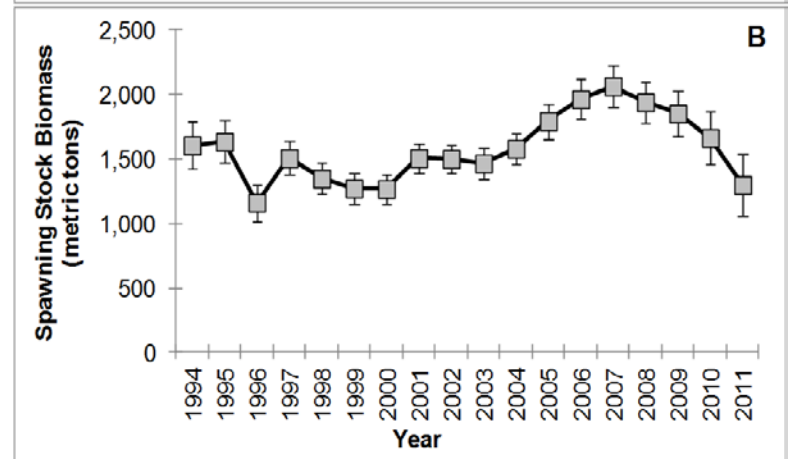
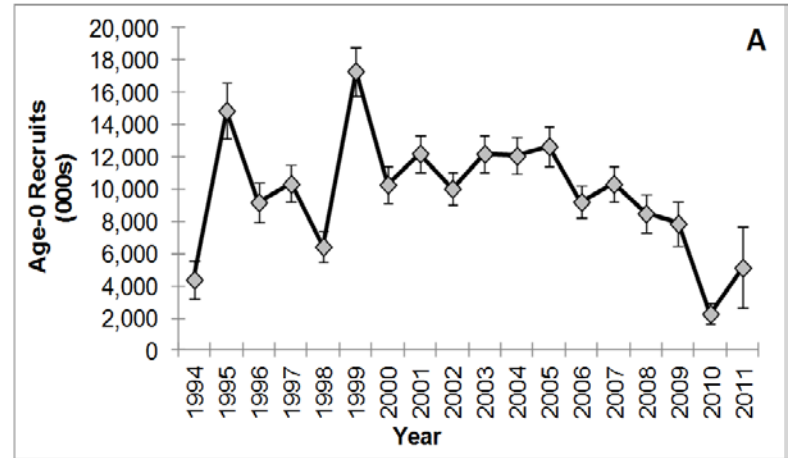
Observations

- Commercial landings declined in recent years
 - Possible shifts in effort
 - Hurricanes
- Single year trigger
 - Uncertainty in stock status
 - Declines in commercial landings and independent indices differed by area
- Key Concerns
 - Fishery primarily targets spawning females
 - No juvenile abundance index
 - 2013 stock assessment indicated declines in recruitment and spawning stock biomass

Recruitment and Spawning Stock Biomass



Open boxes indicate years with major hurricanes



Next Steps

Further updates will be provided in February 2018

- Analysis of trips that targeted striped mullet
- Standardize fishery independent indices
- Include preliminary data from 2017

Questions?



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