

Shrimp Bycatch Methodology for Finfish Workgroup Update



April 2026 Council Meeting

Background & Scope of Work



- Workgroup motion from Council Nov 2025 and working group formed Dec 2025 to:
 - Evaluate new shrimp trawl bycatch estimation methods
 - Evaluate suitability for upcoming stock assessments (red snapper, gray triggerfish, king mackerel)
 - Provide recommendations on use or limitations affecting bycatch estimates for finfish

Workgroup Members



Gregg Bray, GSMFC – *Chair*

John Froeschke – Gulf Council Staff

Jim Nance – SSC

Steve Saul – SSC

Don Behringer – Special Shrimp SSC

Jason Saucier – Special Shrimp SSC

Konner Lockfield – Special Shrimp SSC

Gary Decossas – SEFSC

Kyle Dettloff – SEFSC

Adam Pollack – SEFSC

Steve Smith – SEFSC Contractor

Cheston Peterson – SEFSC Contractor

Nick Farmer – SERO

Leann Bosarge – Shrimp AP

Gary Graham – Shrimp AP

Justin Versaggi – Shrimp AP

Work completed to date:



- Met March 30, 2026, via webinar
- SEFSC Contractor provided a comprehensive summary presentation of work completed to date
- Workgroup provided some initial feedback and requested additional information to be considered at its next meeting

Purpose & Key Takeaways



- Finfish bycatch monitoring is an important component of monitoring the shrimp fishery
- Bycatch estimates inform finfish stock assessments and ensure continued compliance of bycatch limits (e.g., juvenile red snapper)
- Changes to shrimp data collection methods and an identified bias (underestimate of catch relative to trip tickets) prompted a review and refinement by SEFSC and contracted staff
- Previous method considered unreliable and could not be verified
- Presented approach has integrated several improvements over previous methods and data processing procedures

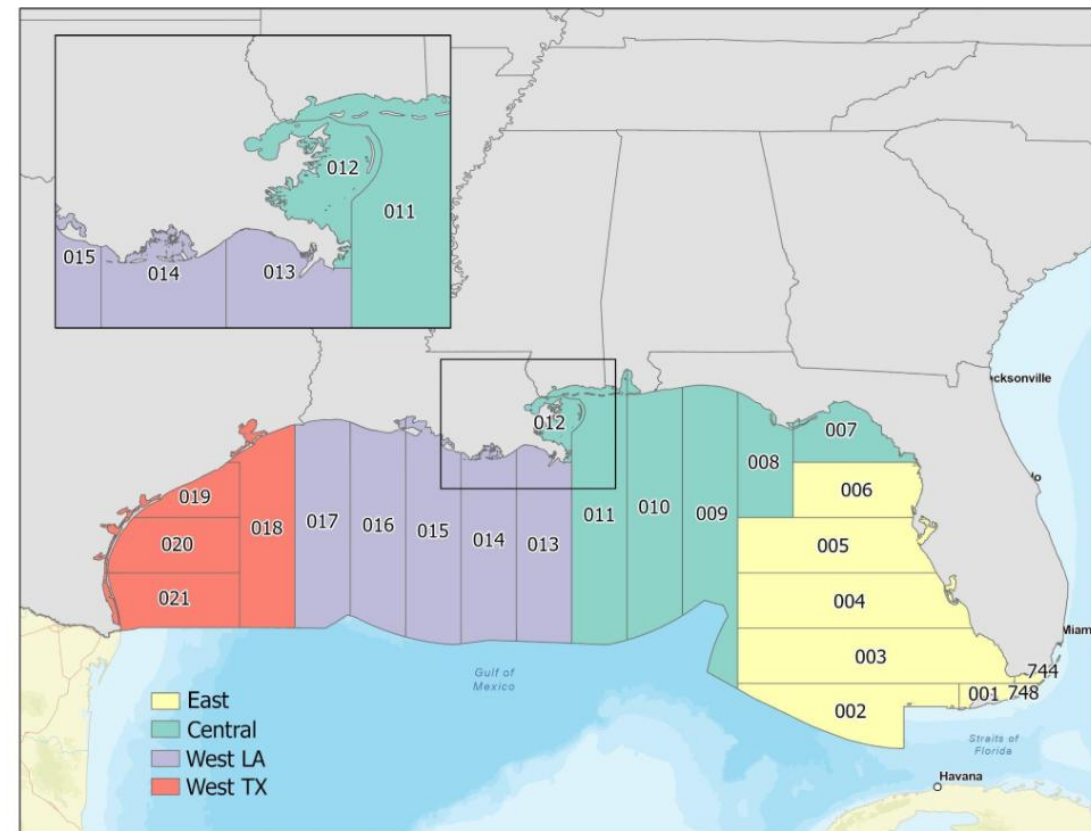
Overview of Bycatch Estimation

Gulf Shrimp Fleet Bycatch Annual Estimates using data from the observer program carried out separately for space-time strata h :

$$\text{Bycatch}_h = \text{Bycatch per unit Effort}_h \times \text{Effort}_h$$

Observer data used to estimate finfish bycatch per strata $_h$

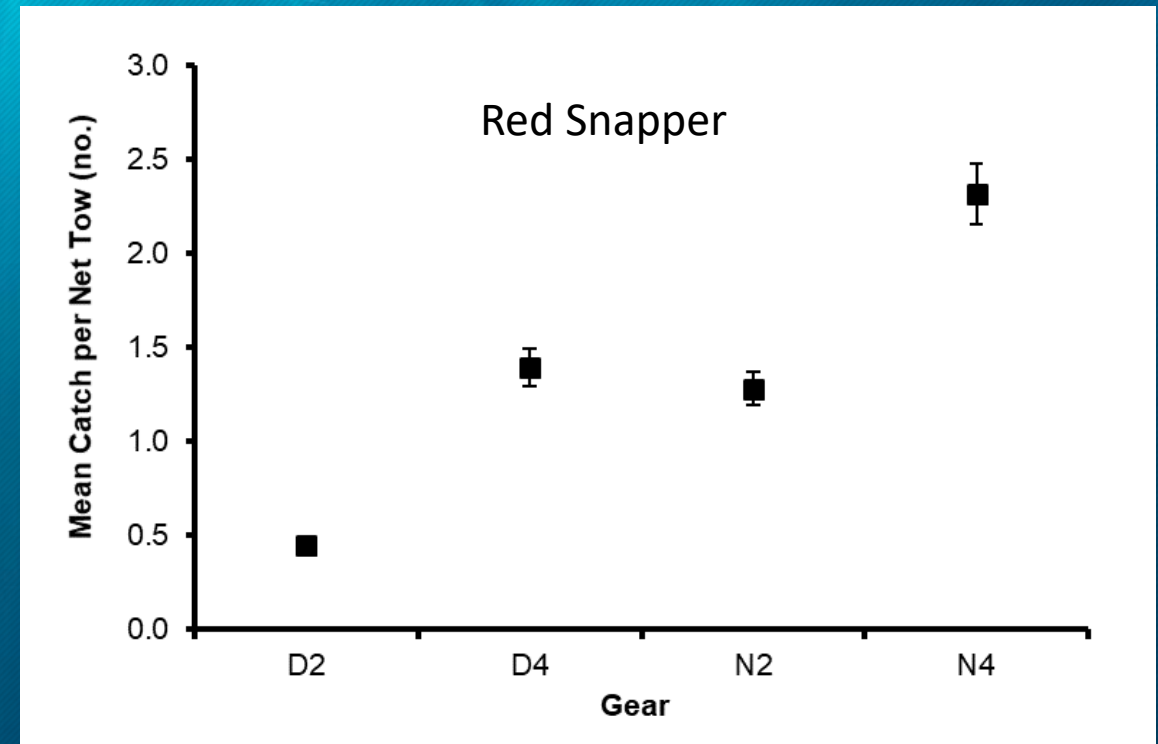
Shrimp ELB data used to estimate effort per strata $_h$



Additional Factors Considered for Bycatch Per Unit Effort (~ CPUE)



- Day-night and 2-net/4-net differences in catch reflect different species' behaviors.
- Catch: Night > Day, 4 net vessels > 2 net vessels
- Max Diff: Night 4-net > Day 2-net by 515%
- This additional stratification was not previously considered, and its use now could eliminate a large potential bias in the estimates
- This additional stratification is included in the SEFSC work completed to date



Future Topics & Recommendations



The Workgroup requests the following be discussed at a future meeting:

- Presentation on species-specific shrimp effort estimates to better inform bycatch
- Presentation on how the history of species characterization in the observer program has changed over time
- Presentation on gear selectivity and efficiency including a comparison of 2 vs 4 nets and day vs. night, along with variables that were examined but excluded from the analyses presented (e.g., head rope length, net size). Include some information on where the 2 vs 4 net effort is coming from (spatially)
- Presentation demonstrating the protocols to expand bycatch estimates from initial sample to population level
- Review gray triggerfish bycatch methodology that uses lane snapper as a proxy species
 - Request a summary of the new 2025 observer data that now includes gray triggerfish

Next Steps



- The Workgroup will require additional meeting(s) to complete its work and provide any recommendations to the SSC at its May 2026 meeting
- This timeline is necessary to accommodate ongoing SEDAR stock assessments
- Workgroup and SSC recommendations will be provided to the Council at its June 2026 meeting
- Upon completion of this Workgroup, work can begin on improving estimates of protected resource interactions with the shrimp fishery

Hurdles in progress so far



- The workgroup is large and it has been very difficult to convene ~ 3 months
- Contractors that conducted the original work have moved on new projects – hard to bring them back to address this work
- Little time to review materials: For example – presentation materials were provided Friday night before Monday meeting
- Working group meeting time was constrained - so working group members could only ask technical questions – we did not get through entire background presentation in the initial meeting

Questions?



Thank
You!