Gulf of Mexico Shrimp Effort Estimation

Presentation to: GMFMC Shrimp AP

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Method

Dettloff, K. 2023. Estimation of Commercial Shrimp Effort in the Gulf of Mexico. SEDAR87DW-01. SEDAR, North Charleston, SC. 23 pp.

total effort = $\sum$ELB effort$_{area/time}$ x (total landings$_{area/time}$ / ELB landings$_{area/time}$)

https://sedarweb.org/documents/sedar-87-dw-01-estimation-of-commercial-shrimp-effort-in-the-gulf-of-mexico/

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Assumptions

1. ELB devices are capturing all fishing activity
2. There is no systematic bias in classification of effort from ELB devices
3. CPUE of vessels with ELBs on board is representative of the total fleet
4. Spatial distribution of ELB vessels is representative of the total fleet within strata
5. Reporting of landings is similar between ELB and non-ELB vessels

2021 SEFSC Offshore Estimates

Region	Depth	Landings (tail lbs.)	Effort (24 hr. days)	Baseline (2001-2003)	Pct. Decrease from Baseline
Western Gulf (Zones 10-21)	10-30 fm	25,062,408	15,836	82,811	80.9%
Total Gulf	All	72,393,074	46,711	–	–

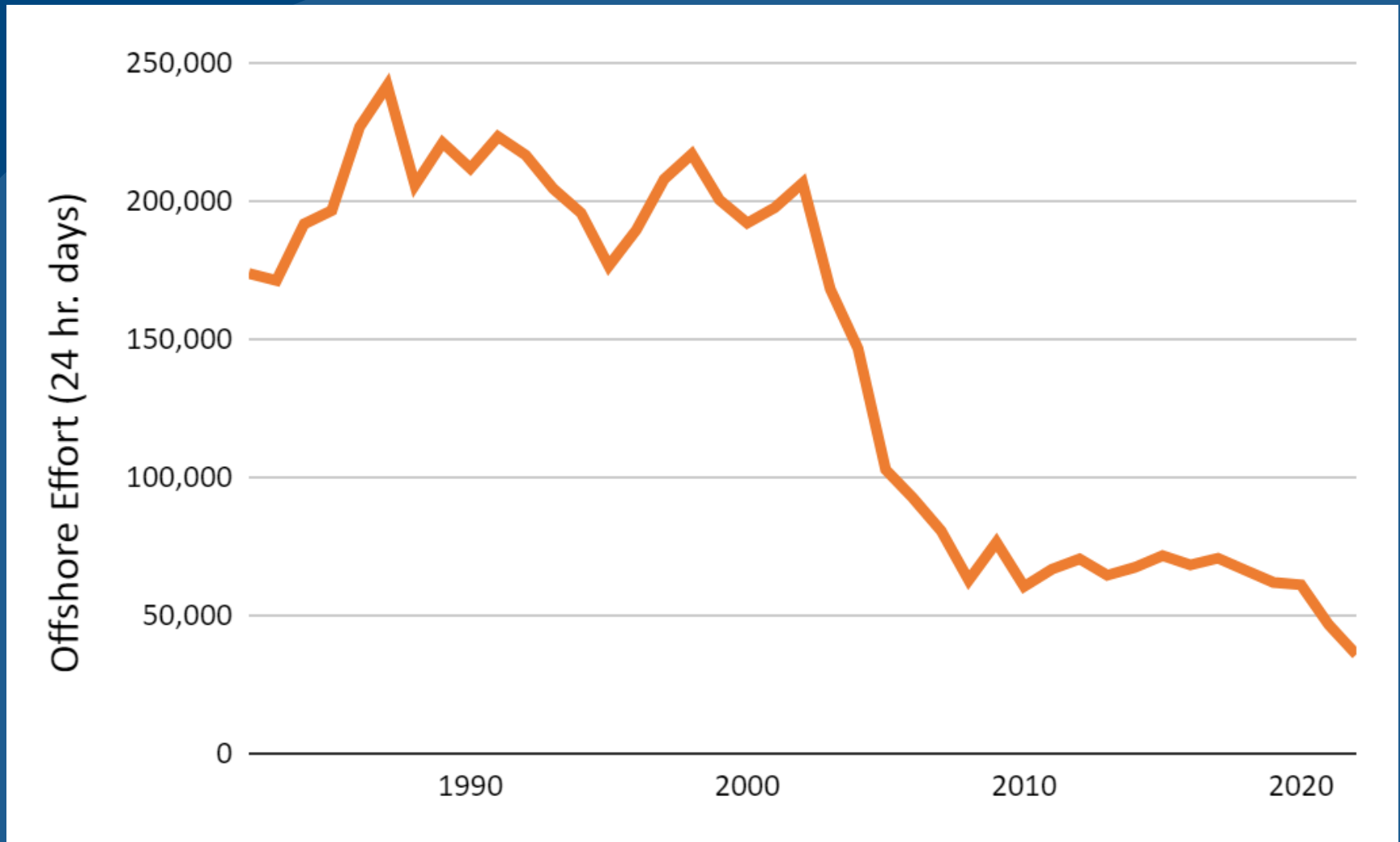estimated tow days (vessels with ELB)

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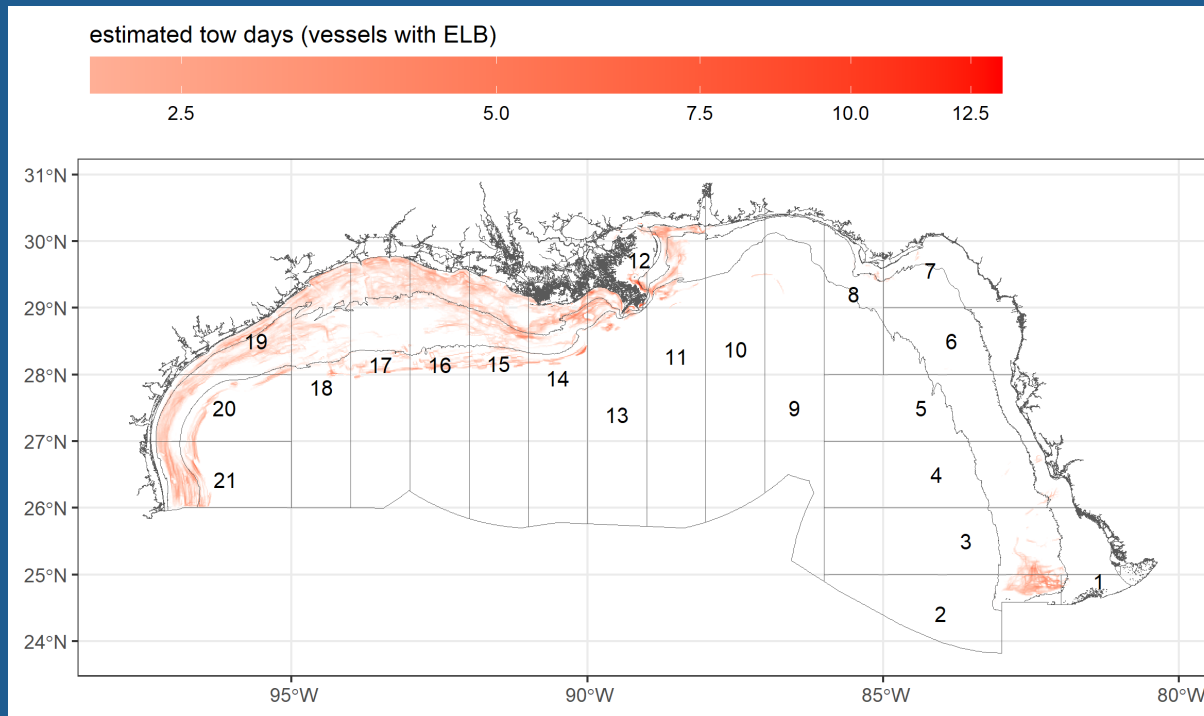
2022 SEFSC Offshore Estimates

Region	Depth	Landings (tail lbs.)	Effort (24 hr. days)	Baseline (2001-2003)	Pct. Decrease from Baseline
Western Gulf (Zones 10-21)	10-30 fm	18,238,872	10,762	82,811	87.0%
Total Gulf	All	60,707,658	35,870	–	–
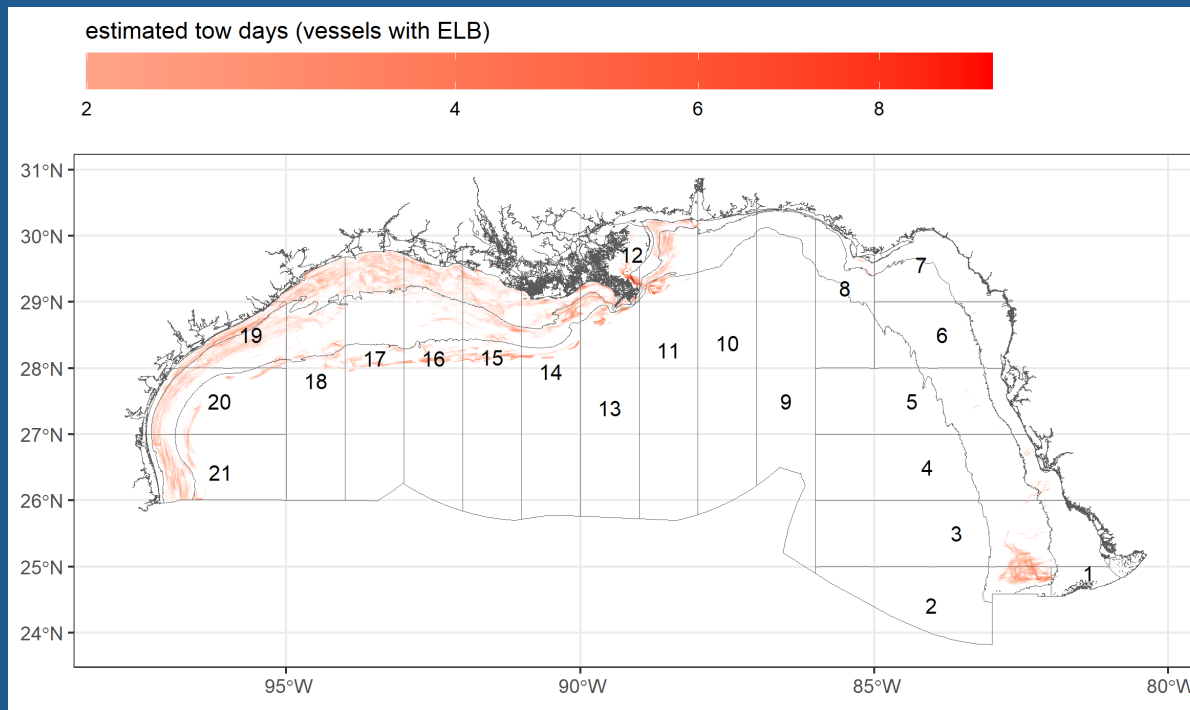
GOM Total Offshore Effort, 1981-2022

Acknowledgements

- Gulf of Mexico Shrimp Fishing Industry
- Gulf of Mexico Fishery Management Council, SSC and Shrimp AP
- Gulf of Mexico Commercial Shrimp Fishermen
- Internal SEFSC Shrimp Bycatch and Effort Workgroup