

Coastal Fisheries Long-Term Monitoring Programs

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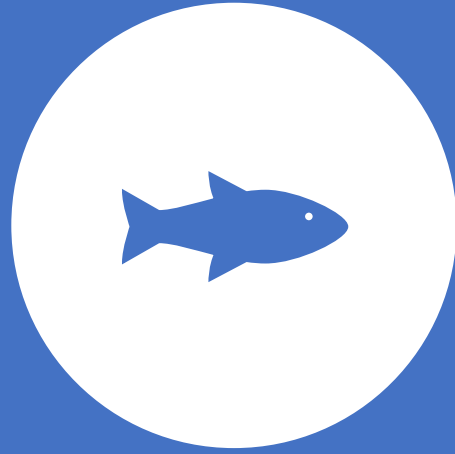
Texas Parks and Wildlife Department
Dickinson Marine Lab

TEXAS
PARKS &
WILDLIFE

Scope

- 4 million acres in Texas
 - Bays
 - Gulf of Mexico to 9 nm
- Joint Gulf management to 200 nm
- ~900,000 recreational anglers
- ~1,700 commercial fishers





Fishery-Independent Monitoring



Bag Seine

- Monitors juvenile finfish and invertebrates
- Since 1977
- 2,160 samples per year



Oyster Dredge

- Monitors spat, oysters, and other invertebrates
- Since 1984
- 1,200 samples per year



Gill Net

- Monitors sub-adult and adult finfish
- Since 1975
- 780 samples per year
- Spring and fall





Bay Trawl

- Monitors juvenile and sub-adult finfish and invertebrates
- Since 1982
- 1,680 samples per year





Gulf Trawl

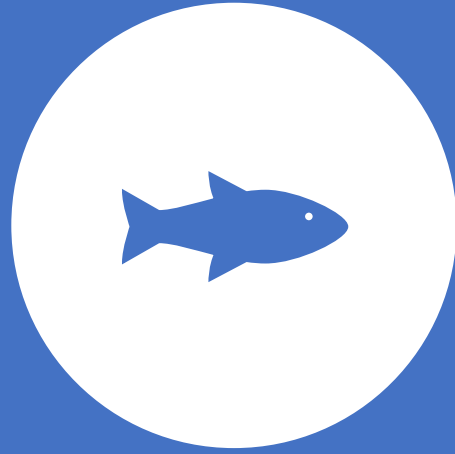
- Monitors juvenile and sub-adult finfish and invertebrates out to 9 nmi
- Since 1985
- 960 samples per year



Bottom Longline

- Monitors larger fish in Gulf of Mexico in waters 3-10 m such as:
 - Sharks
 - Red drum
 - Gafftopsail catfish
- Part of a larger Gulf-wide survey (SEAMAP)
- Since 2008
- 22-28 per year (April-September)





Fishery-Dependent Monitoring

Creel Survey

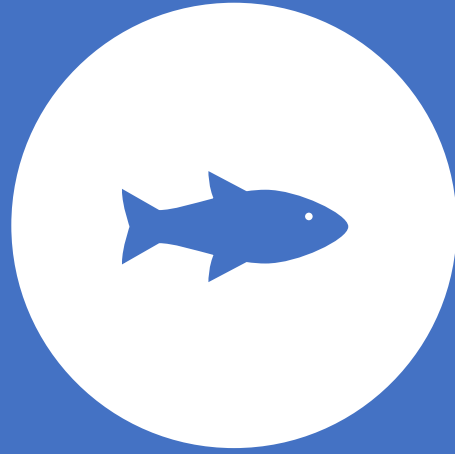
- Monitor recreational angler catches
- Since 1974
- Each year about 1,010 harvest surveys are conducted
- More than 10,000 individual interviews per year
- Anglers spend 6.3 million hours fishing to land 2 million fish (1/2 spotted seatrout)



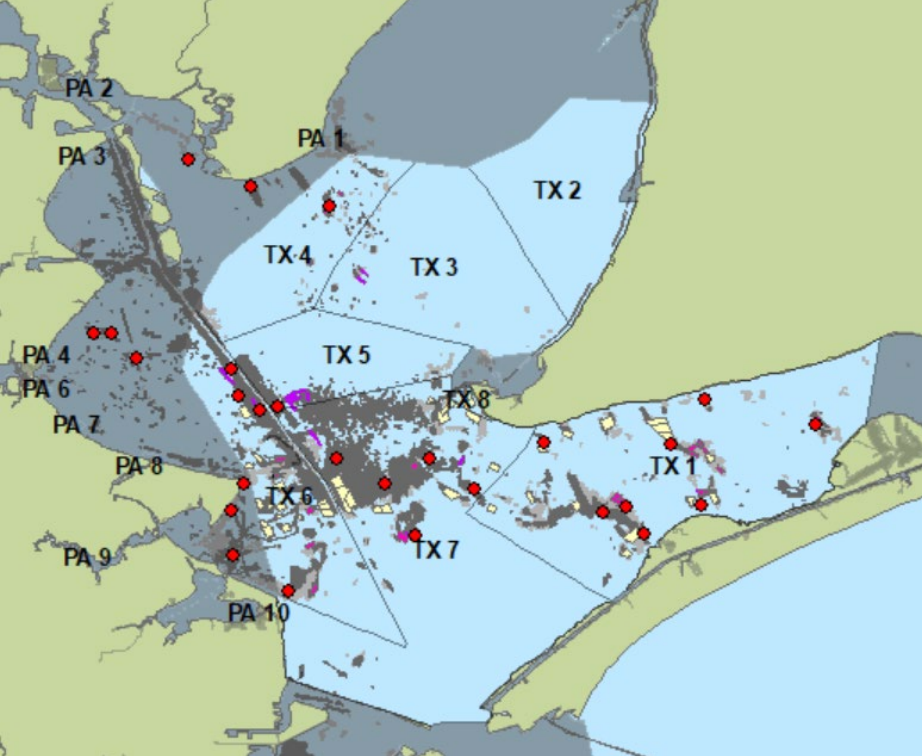
Commercial Landings

- Trip ticket program
 - Census of landings, effort per trip, gear used, location fished
 - Since 2007
- Fish house surveys
 - Individual lengths

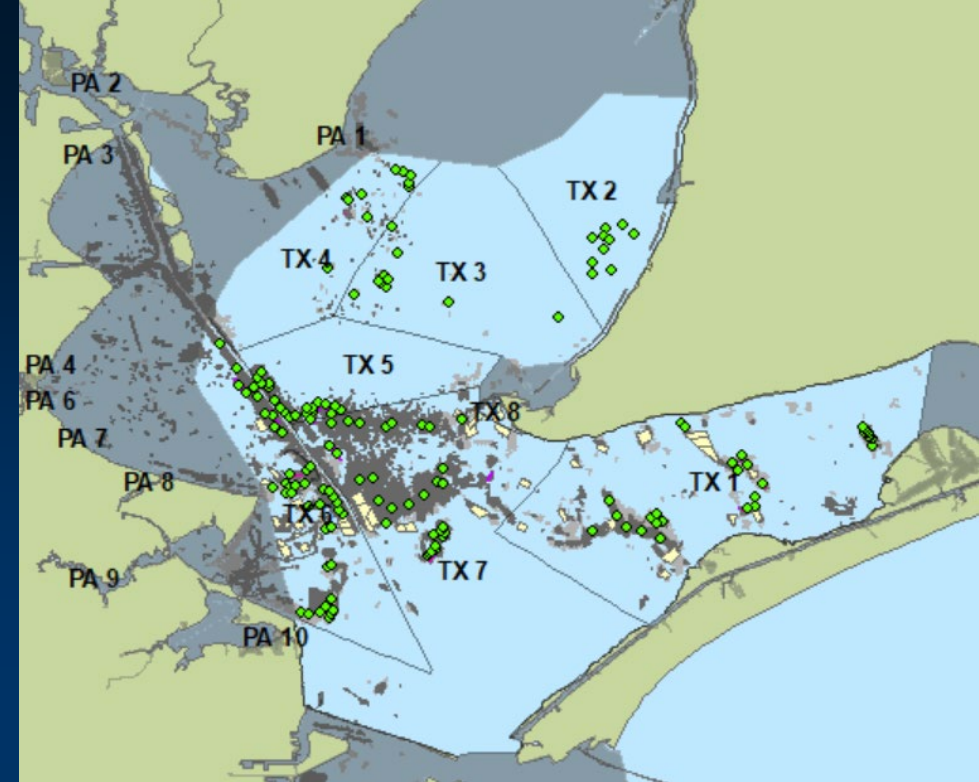




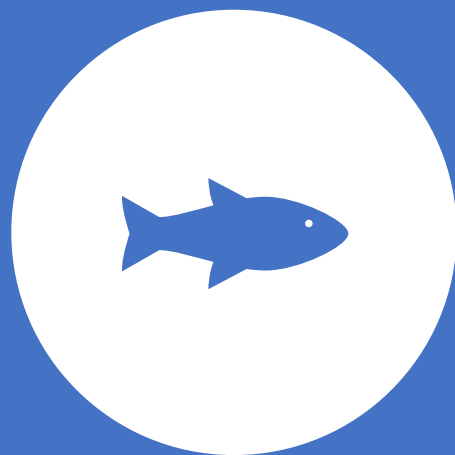
Other Programs



Targeted Oyster Sampling



- Targets more productive areas that could be fished
- More intensive sampling per harvest area
- Up to ~160 per bay system
- Pre-season and during season as needed



Data to Policy

Winter Storm Uri, February 2021



- Lower lethal temperature for seatrout is around 5°C (41°F)
- Water temperature was at or below that for at least 4 days
- Estimated 3.8 million fish killed
 - 160,476 seatrout coastwide
 - Majority on lower coast

Post-Winter Storm Uri Regulations

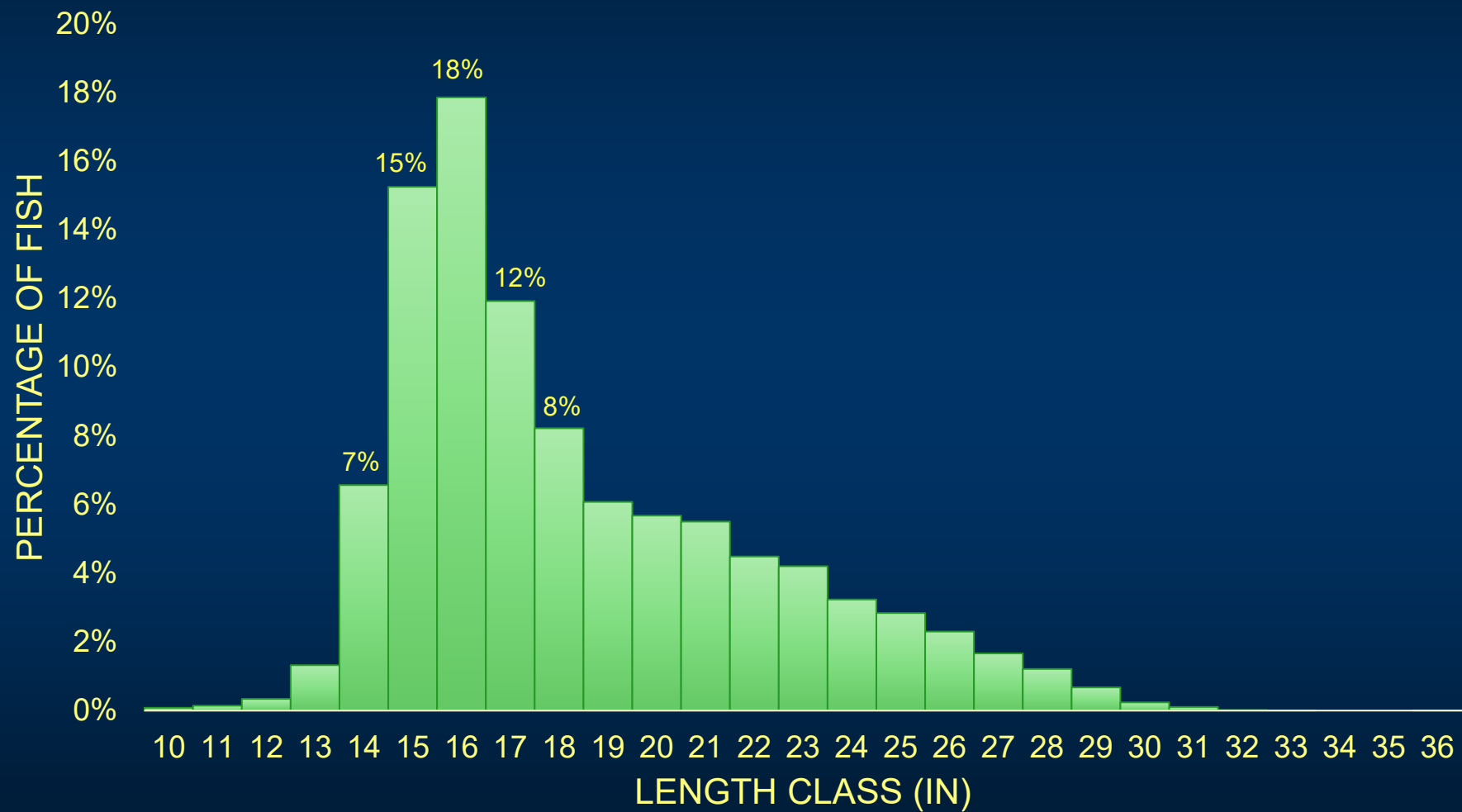
- 3 fish/bag, 17" – 23"
- April '21- Laguna Madre only
- March '22- Matagorda thru Lower Laguna
 - Sunset Aug 2023



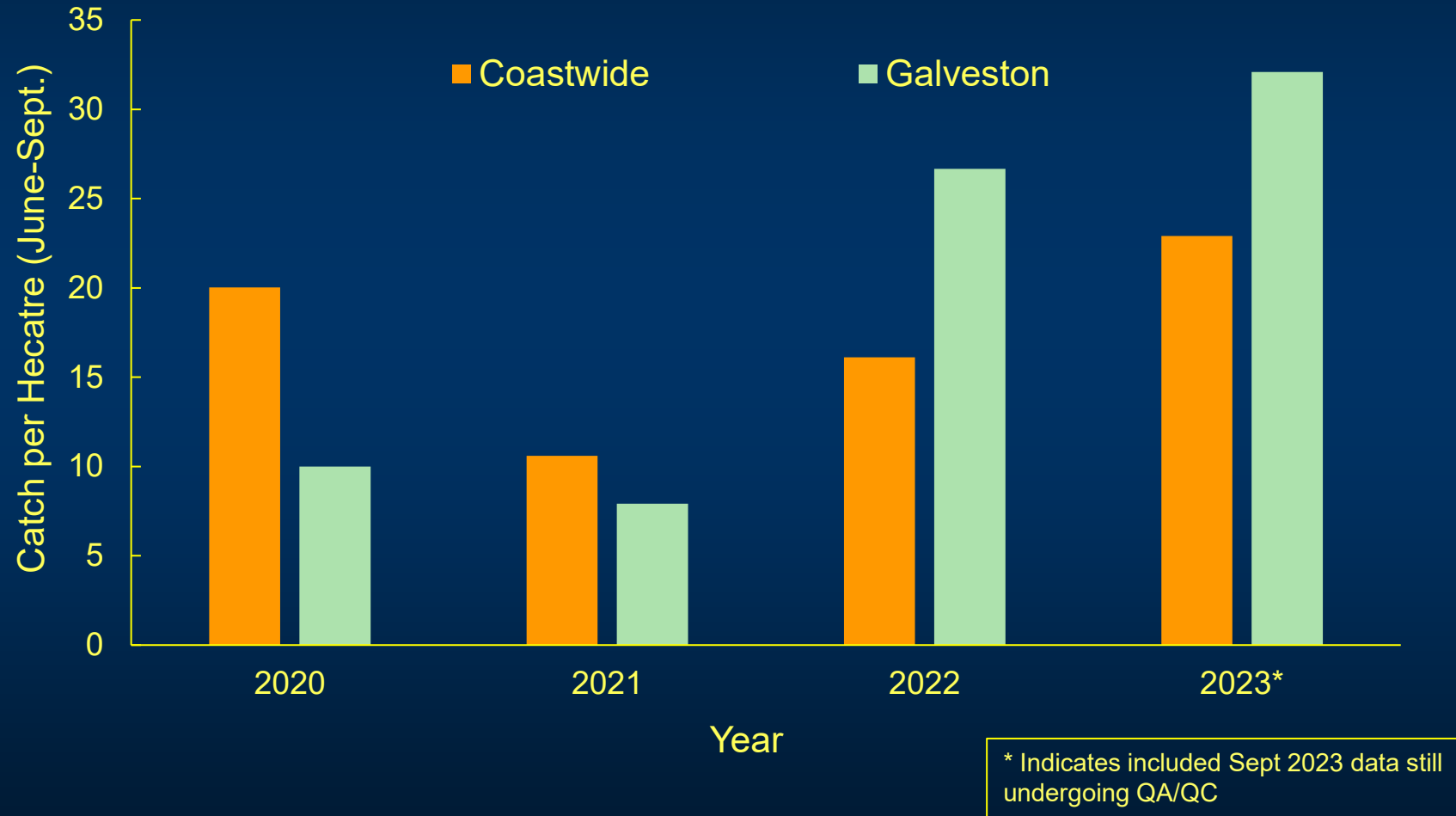
Coastwide Spring Gillnet Mean CPUE



Coastwide Gillnet Spotted Seatrout Size Distribution (2013-2023)



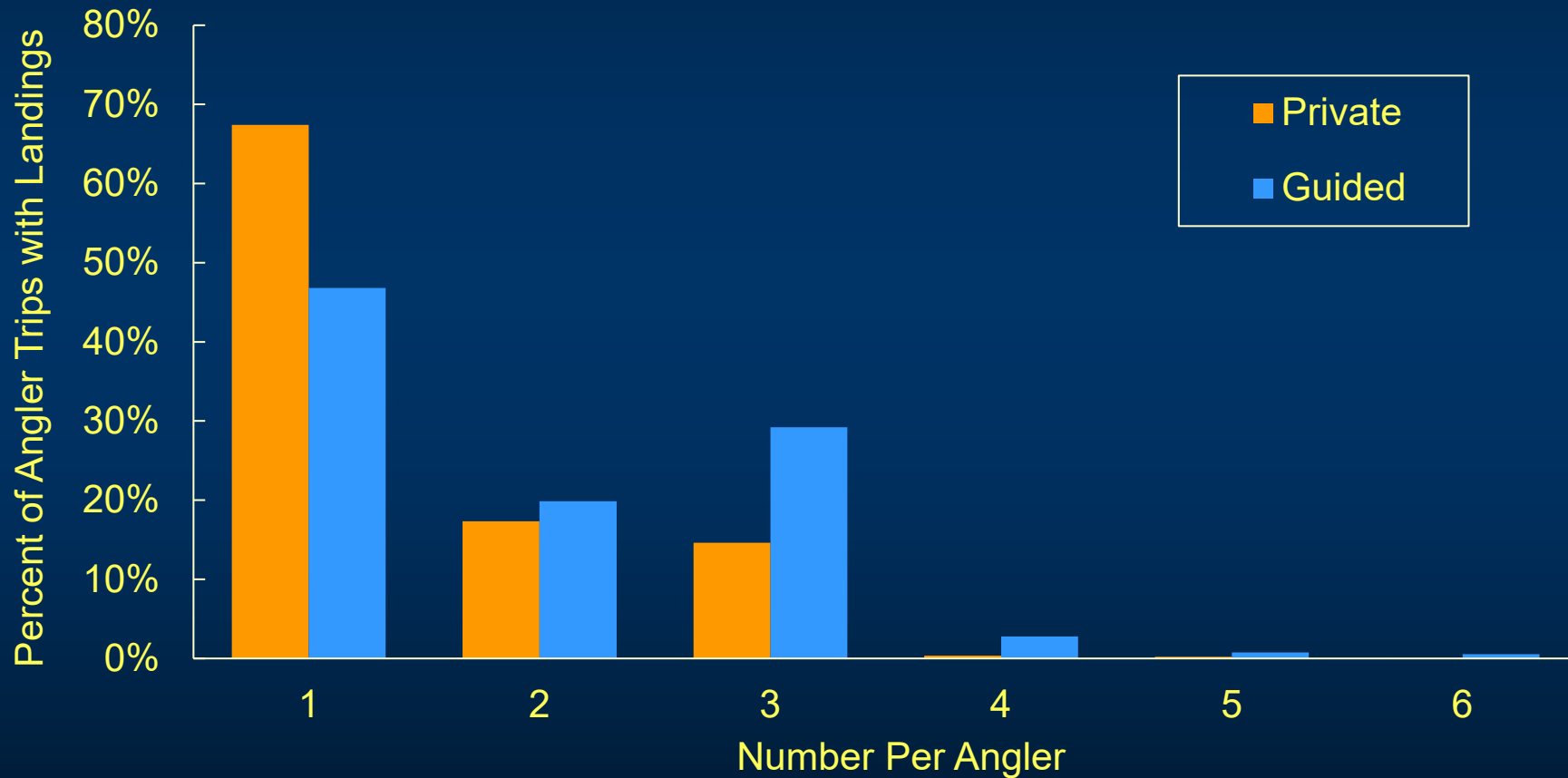
June – September Bag seines



Coastwide Spotted Seatrout Landings

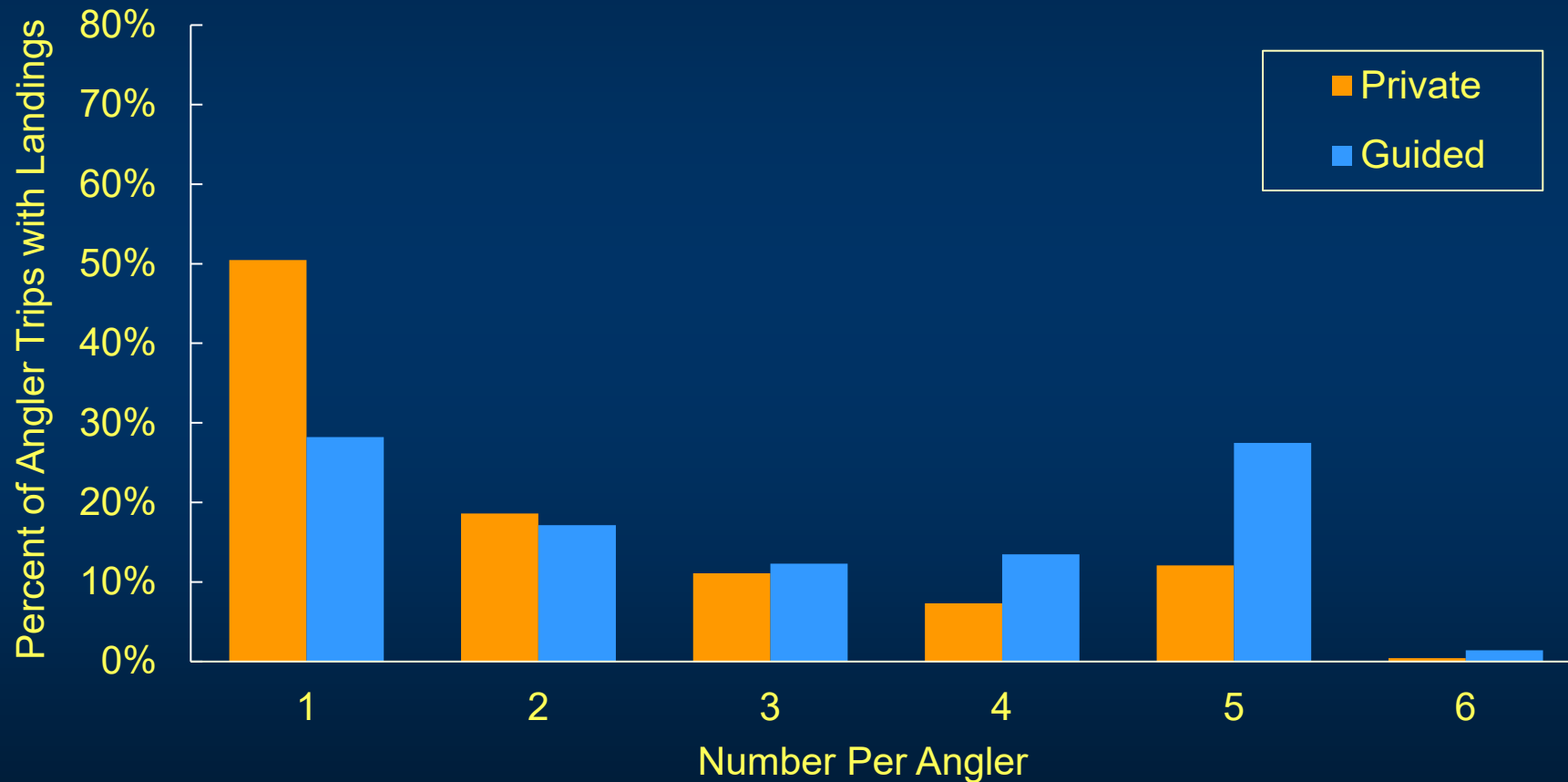


Spotted Seatrout Bag Distribution: Mar '22 – Aug '23



Excluding Sabine and Galveston

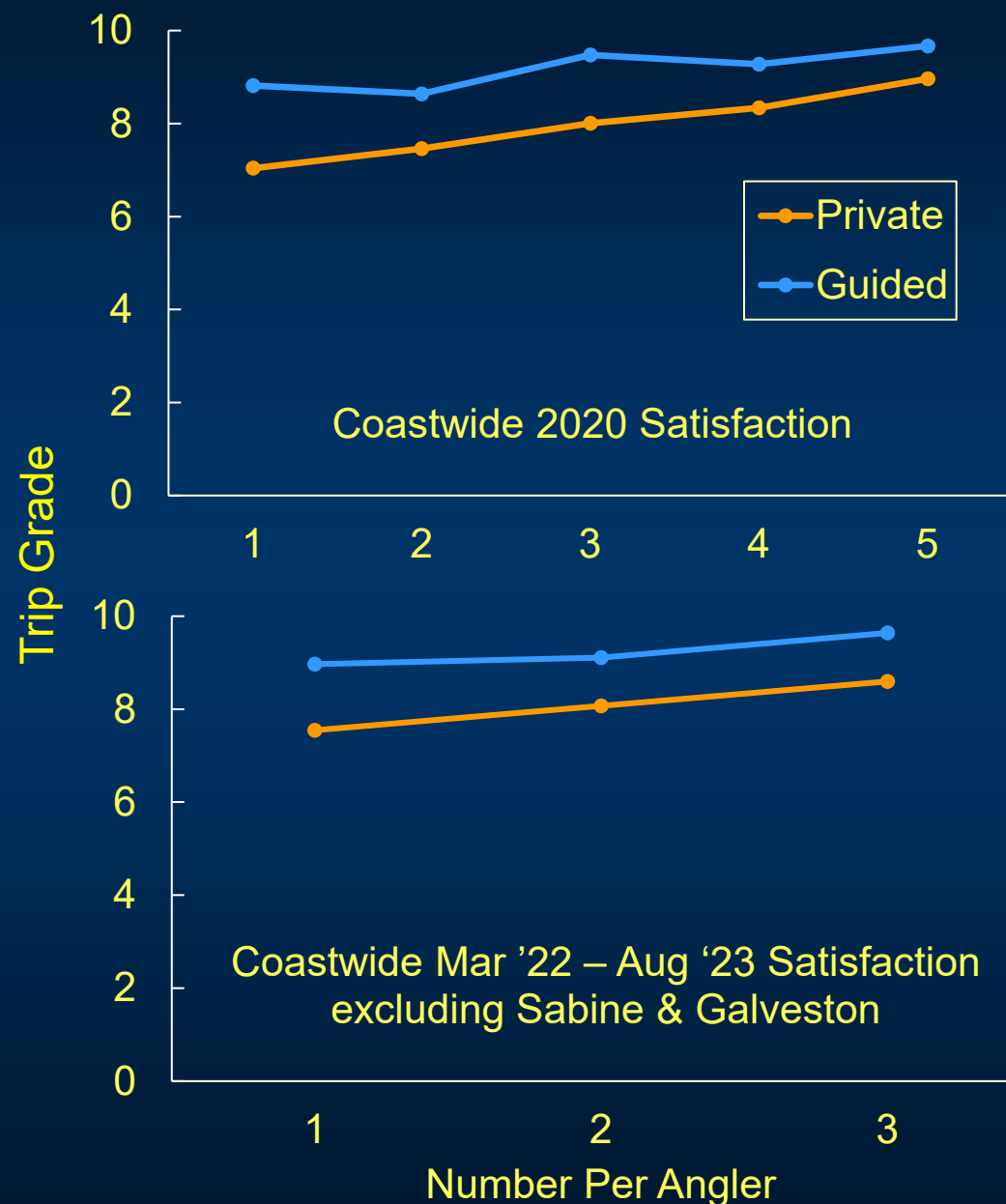
Coastwide Spotted Seatrout Bag Distribution 2020



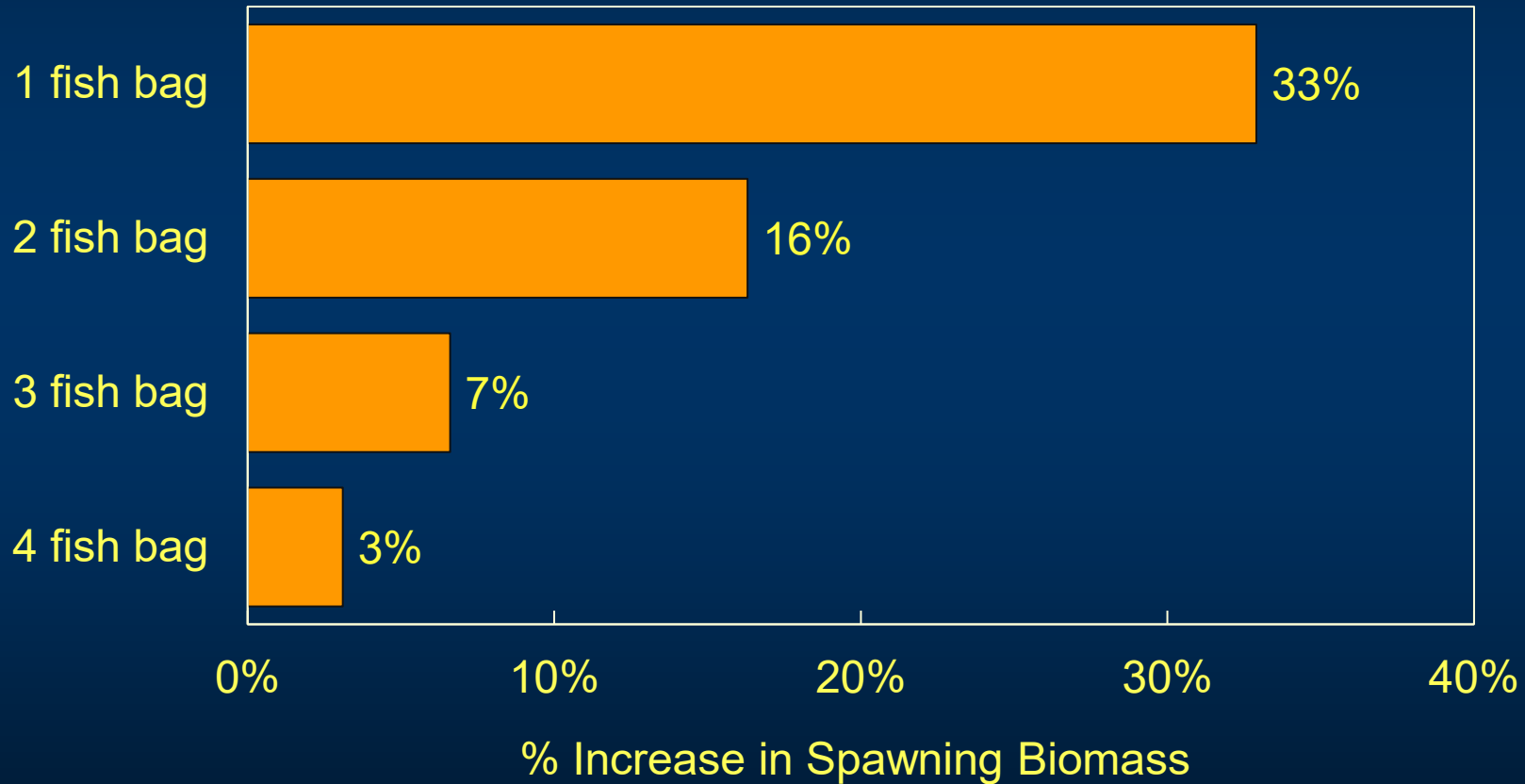
Coastwide Data

Trip Satisfaction

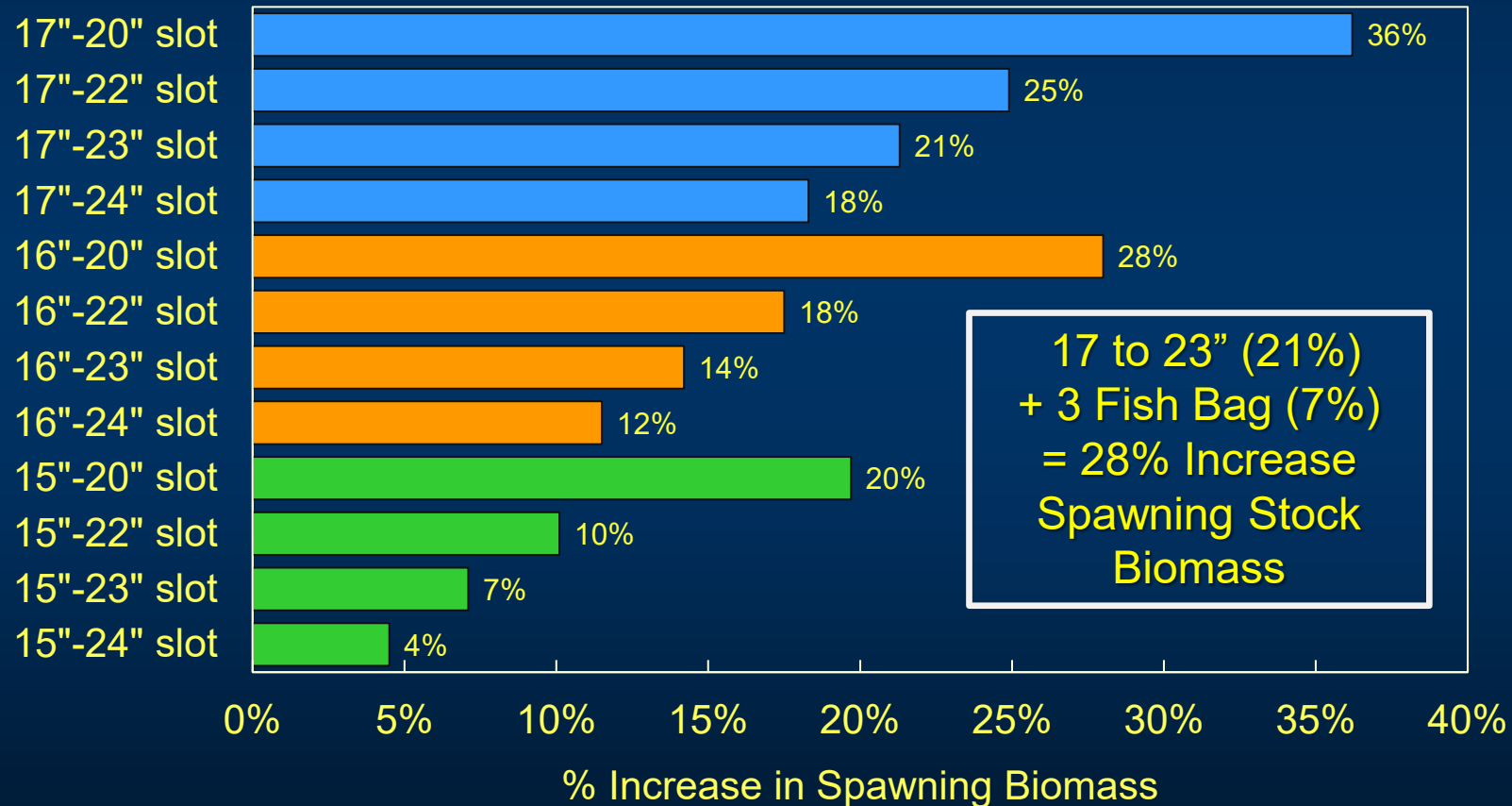
- Essentially pre- and post- freeze
- Positively correlated with number of fish landed
- Satisfaction for met bag limit similar regardless of bag limit size



Effects of Changing Bag Limits



Effects of Changing Size Slots



Questions & Comments



Raise Hand for Questions



Comment Cards Available



Address Topic at Hand



Be Mindful of Time



Questions?

