

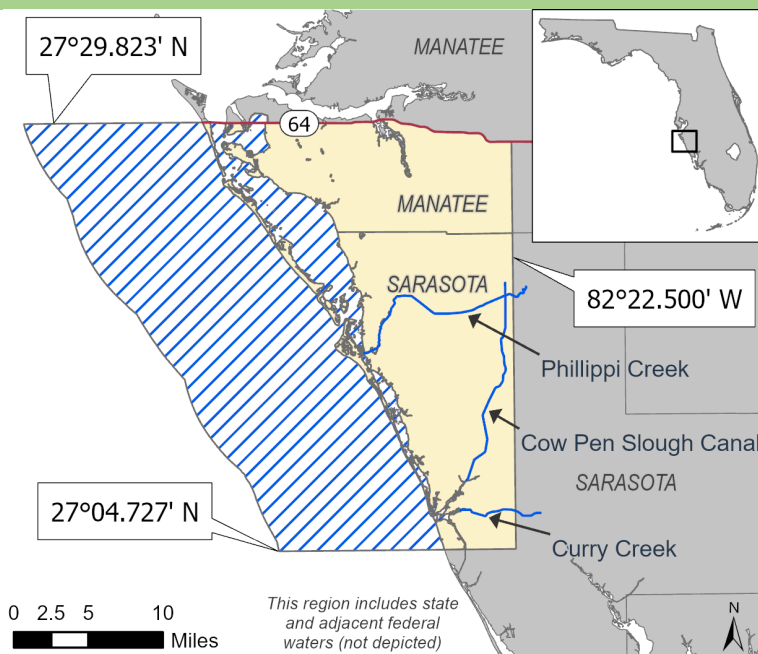


# 2024 Annual Review of Snook Management Metrics



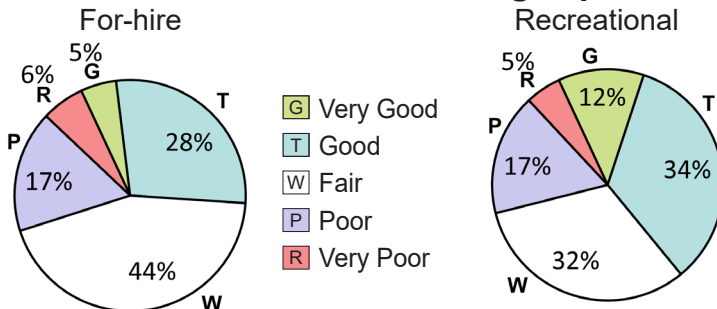
## SARASOTA BAY SNOOK MANAGEMENT REGION

### REGION BOUNDARIES

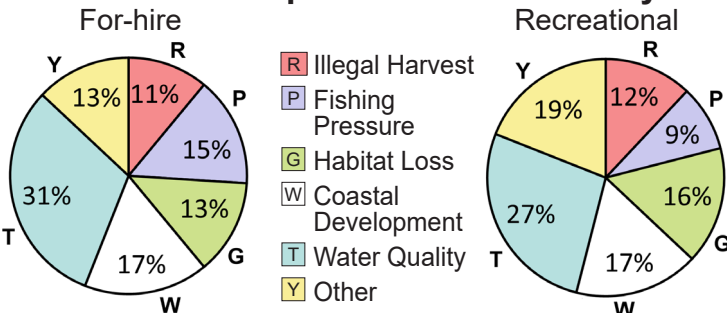


### STAKEHOLDER FEEDBACK

#### Satisfaction with recent fishing experience



#### Perceived top threats to the fishery



Source: FWC 2023 Snook Angler Satisfaction Survey

### HARMFUL ALGAL BLOOMS

| Likelihood of fish kills | Frequency                | Average duration (months) | 2023 duration (months) |
|--------------------------|--------------------------|---------------------------|------------------------|
| Possible                 | 17 out of 20 years (85%) | 5.2                       | 5                      |
| Probable                 | 16 out of 20 years (80%) | 4.1                       | 3                      |

Table 1. Frequency and duration of red tide where fish kills were possible or probable within the region over the previous 20 years.

Source: FWC FWRI, Harmful Algal Bloom Group

### SPAWNING POTENTIAL RATIO

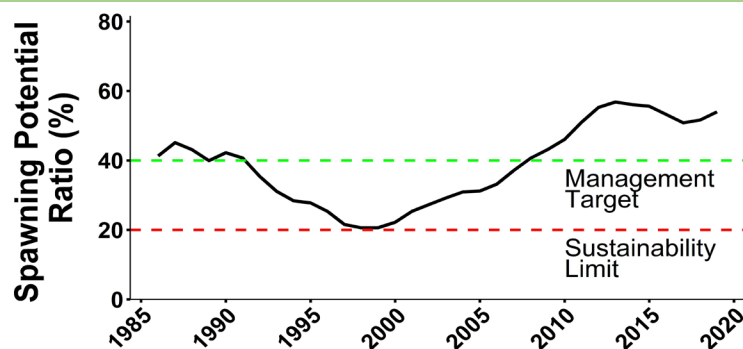


Figure 1. Estimated spawning potential ratio (SPR) for the Gulf of Mexico stock assessment region compared to limit and target.

Source: FWC 2020 Snook Stock Assessment

### ABUNDANCE TRENDS

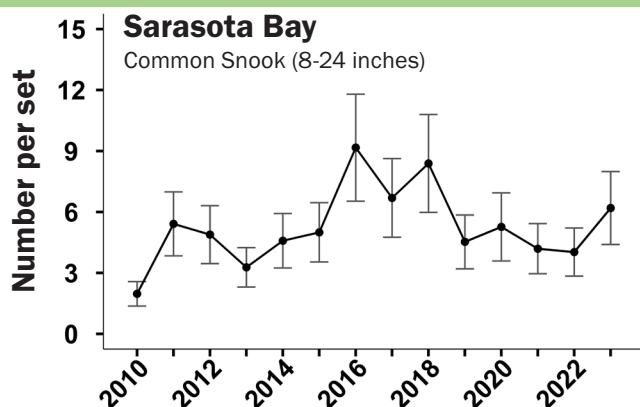


Figure 2. Abundance trend estimates for subadult/adult snook (8-24 inches) in Sarasota Bay through 2023.

Source: FWC FWRI Fishery Independent Monitoring Program

### FISHING EFFORT AND LANDINGS

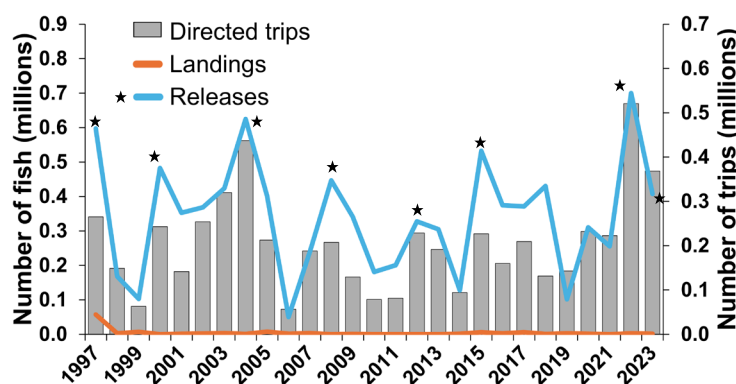


Figure 3. Estimates of annual angler trips targeting snook (gray bars), landings (orange line), and releases (blue line).

Source: NOAA Fisheries Marine Recreational Information Program (MRIP)

# HABITAT TRENDS

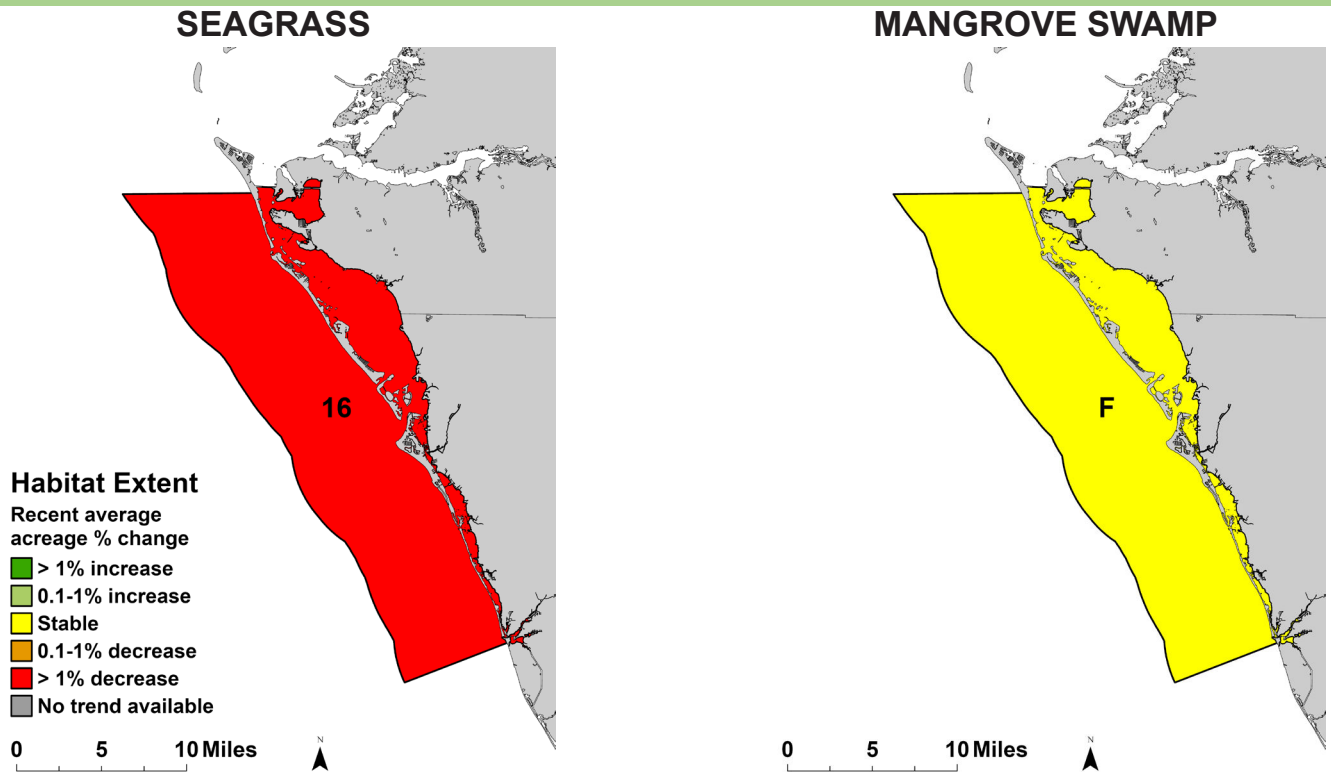


Figure 4. Average yearly percent changes in the extent (i.e., acreage) of seagrass and mangrove swamp for comparable years. Date ranges for the comparisons are provided in Table 2.

| Location           | Monitoring zone | Annual recent change (reference years) | Long-term overall change (reference years) |
|--------------------|-----------------|----------------------------------------|--------------------------------------------|
| Seagrass — 16      | Sarasota Bay    | -2.7% (2020–2022)                      | 14.4% (1988 vs. 2022)                      |
| Mangrove Swamp — F | Sarasota Bay    | -0.04% (2017–2020)                     | 5.6% (1990 vs. 2020)                       |

Table 2. Observed habitat changes in extent (i.e., acreage) for comparable surveys of seagrass and mangrove swamp. Locations correspond to the maps in Figure 4.

Sources: Southwest Florida Water Management District, FWC Fish and Wildlife Research Institute

## TEMPERATURE

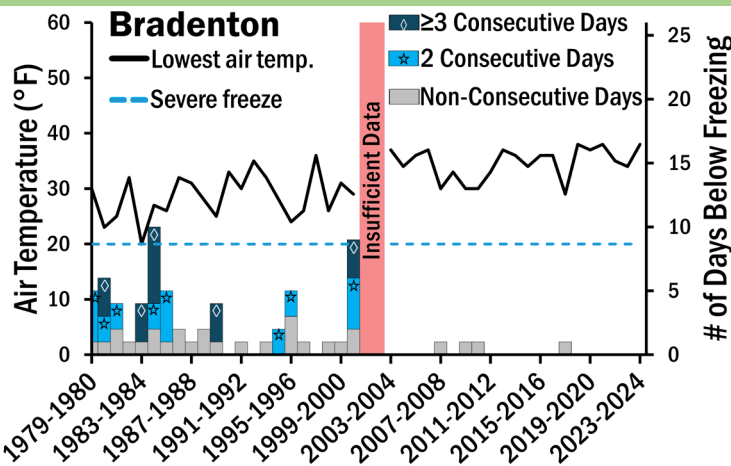


Figure 5. Lowest winter air temperatures in Bradenton compared to the 20°F severe freeze threshold, the lower thermal limit for many tropical species. Bars show total occurrences of below-freezing temperatures, categorized by non-consecutive days, 2 consecutive days, or ≥ 3 consecutive days. Extended periods below freezing air temperature is an indicator of water temperatures dropping below the lethal limit for snook, potentially causing fish kills.

Source: Applied Climate Information System

## SUMMARY

- Air temperatures in this region are warming and are therefore less likely to suppress snook populations in the long term.
- Majority of for-hire guides and recreational angler survey respondents reported their recent snook fishing experience as either "good" or "fair."
- Mangrove acreage has remained stable in recent years and is now higher than levels observed in 1990.
- Spawning potential ratio in the Gulf of Mexico is higher than the management target; however, these estimates are only through 2019. More recent estimates will be available after the next stock assessment is completed.
- Data on sub-adult/adult abundance have only been collected since 2010 for this region. The abundance trend has fluctuated around the long-term average.
- Seagrass acreage has declined in recent years, but current acreage is greater than in the 1980s. The decline in seagrass is not uniform throughout the region.