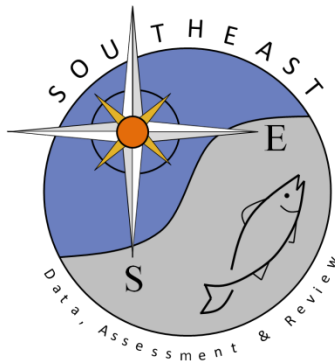


Summary of Length and Weight Data Collected from Harvested Red Snapper in
Florida during S. Atlantic Recreational Seasons, 2012-2019

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SEDAR73-WP11

Received: 11/4/2020



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Please cite this document as:

Sauls, Beverly Sauls and Dominique Lazarre. 2020 Summary of Length and Weight Data Collected from Harvested Red Snapper in Florida during S. Atlantic Recreational Seasons, 2012-2019. SEDAR73-WP11. SEDAR, North Charleston, SC. 3 pp.

Summary of Length and Weight Data Collected from Harvested Red Snapper in Florida during S. Atlantic Recreational Seasons, 2012-2019

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This paper summarizes length and weight data for recreationally landed fish in Florida provided for use in SEDAR73.

Source of Data

Since 2012, the Florida Fish and Wildlife Conservation Commission (FWC) has conducted special surveys to collect biological data from harvested fish during the recreational harvest season for Red Snapper in South Atlantic. Age samples are also collected by FWC, and those data are summarized in a separate working paper for SEDAR 73. Length and weight data described here are in addition to data collected through the Marine Recreational Information Program (MRIP).

Methods

Private boat mode

There are nine inlets where Red Snapper private boat mode trips originate from on the northeast Atlantic coast of Florida (Figure 1). FWC monitors boating activity through each inlet and conducts dockside intercept surveys at nearby sites to monitor recreational fishing effort and CPUE in-season. These data are used together to estimate total landings during the South Atlantic recreational season in Florida (described in reference document 4 for this SEDAR). Detailed methods are provided in reference documents 4, 5, 6 and 7 for SEDAR 73.

Estimated landings from each inlet were used to calculate sample weights for each measured fish using the following calculation:

$$\text{sample weight for inlet } x = (\text{total landings from inlet } x) / (\text{total fish measured from inlet } x)$$

Thus, a sample weight of 10 would mean that every fish sampled and measured from inlet x represents 10 more that were landed but not sampled by an FWC biologist.

Charter mode

In 2012, 2013, and 2014, FWC biologists visited known charter landing sites during the Red Snapper recreational season and sampled catch from charter mode trips as vessels returned from fishing. Sites throughout northeast Florida were visited each weekend the season was open, but were not randomly selected (i.e. biologists chose sites to conduct scheduled assignments at). Biologists attempted to sample all charter trips and fish landed during their time on site (i.e. fish sampled at each site were not biased with respect to size).

In 2017, 2018, and 2019, a randomized design for selecting charter mode sites was implemented (reference documents 5, 6, 7). One to two sites were selected from each inlet during each weekend of

the Red Snapper season (Figure 1, note: Matanzas Inlet is barely navigable and charter mode is believed to be absent). Sites associated with a given inlet were selected with probability proportional to size, based on the number of charter boats known to use each site. This ensured that more productive sites were visited more frequently, and less productive sites were also represented in the sample. Biologists attempted to sample every charter trip that landed at the site on the day of the assignment.

Since charter landings cannot be estimated separately for each inlet, sample weights could not be calculated for fish sampled from charter boats.

Units of Measure

Fish weights are in kg whole weight. Fish lengths are in mm fork length, and fish were assigned to 1 cm length bins using the following SAS code:

```
length_cat=round(length_mm/10); *e.g. bin 61cm=60.5-61.4cm;
```

Sample Sizes

Since 2012, more than 10,000 Red Snapper landed from private boat and charter mode fishing trips have been sampled by FWC (Table 1). Fish sampled ranged from 228 mm to 983 mm FL.

Table 1. Numbers of landed Red Snapper measured and minimum and maximum size by year and mode.

Year	Mode	Number measured	Minimum length (mm FL)	Maximum length (mm FL)
2012	CH	715	300	870
2012	PR	440	255	890
2013	CH	449	304	891
2013	PR	631	228	863
2014	CH	1,275	265	878
2014	PR	1,718	277	898
2017	CH	220	239	878
2017	PR	491	272	845
2018	CH	522	300	983
2018	PR	1,827	240	885
2019	CH	446	254	889
2019	PR	1,678	244	890

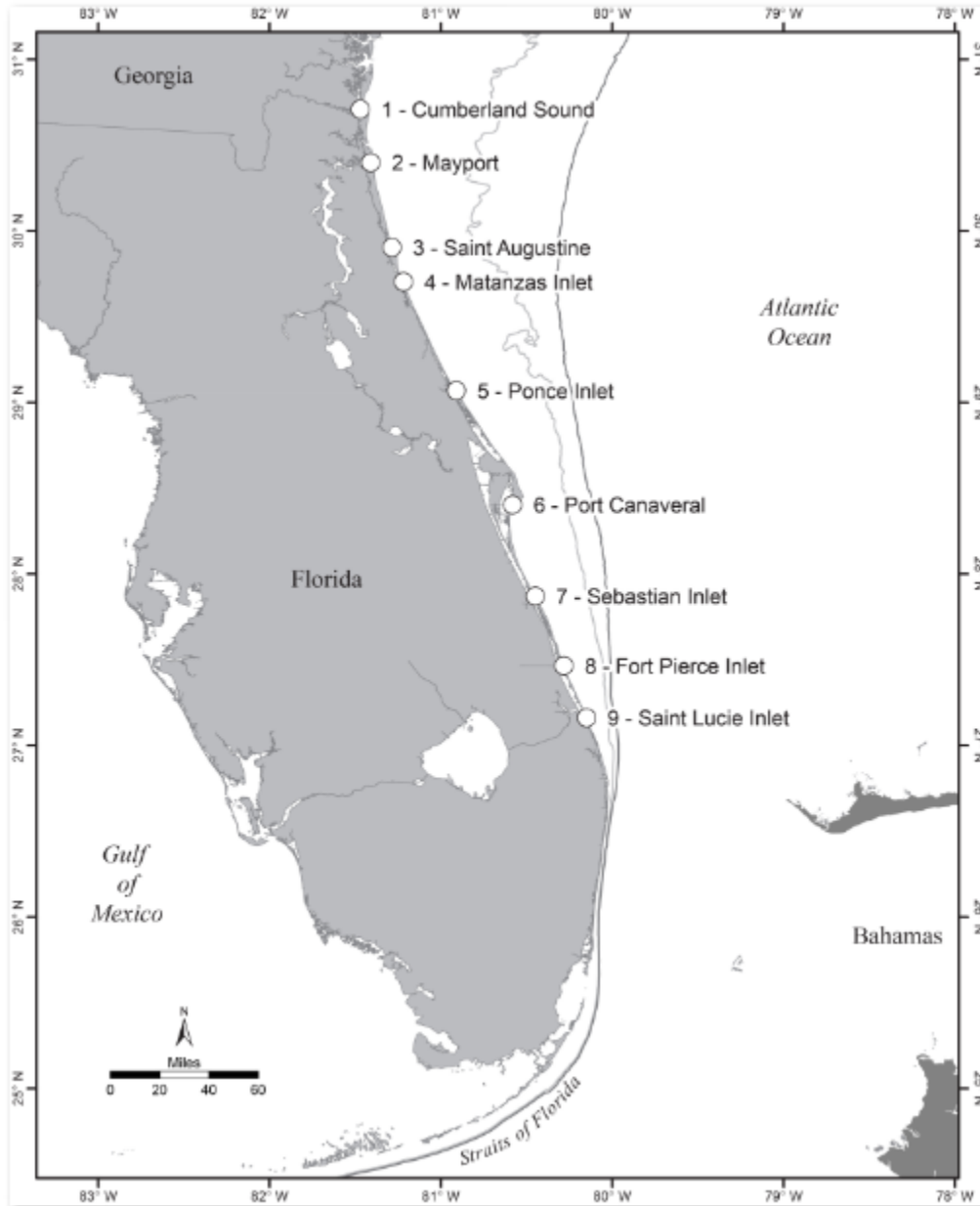


Figure 1. Area where Red Snapper landings were sampled from. Numbered inlets represent egress points along the Atlantic coast of northeast Florida where recreational fishing trips originate. Note, a small number of Red Snapper may be landed legally year round from state waters off the Atlantic coast of the Florida Keys and Miami/Dade County; however, the species is not abundant in this area and is rarely targeted by recreational anglers.