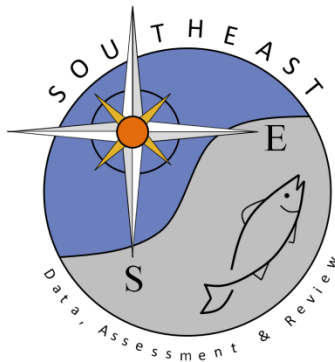


Summary of Red Snapper data collection from 2009 to 2019 in Georgia

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Summary of Red Snapper data collection from 2009 to 2019 in Georgia

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Starting in 2009, Georgia Department of Natural Resources Coastal Resources Division (CRD) staff initiated a special data collection effort to increase Red Snapper length and age data for the recreational fishery. This was a coordinated effort between two charter captains and CRD staff. The fishery was closed from 2010 to 2011, so there was no opportunity to collect samples during that time. The fishery opened for short time periods, referred to as mini-seasons, starting in 2012. Timing of these mini-seasons was sporadic and occurred anywhere from July to November from 2012 to 2014 and 2017 to 2019 (Tab 1). Biological sampling methods from 2009 were continued for the recreational fishery during all mini-seasons and additional sampling of the commercial fleet outside of the Trip Interview Program (TIP) sampling began in 2013.

Methods

Biological samples of Red Snapper were collected from the recreational and commercial fisheries through a combination of dockside and carcass donation programs. Programs were expanded or changed dependent upon staff resources year to year (Tab 2). Effort data was collected for the for-hire charter fleet through a telephone survey. Effort and catch were reported for commercial trips through Standard Atlantic Fisheries Information System (SAFIS) and for headboats through the Southeast Regional Headboat Survey (SRHS) so no additional data collection was necessary.

Commercial –

- Dockside sampling: When possible, CRD staff met commercial vessels at a single location as fish were unloaded to collect samples. Some years it was not possible to coordinate dockside sampling due to either staff constraints or the dealer needing to sell Red Snapper whole and unspoiled. Trip information collected included gear type, fishing location, depth, trip date, vessel name, and captain name. Biological data collected included fork length (mm), total length (mm), sex, gutted weight (kg), and otoliths.

Recreational –

For-hire

- Marine Sportfish Carcass Recovery Project: Letters were sent in advance of the season to notify captains about the request for Red Snapper carcasses and freezer locations. Posters and magnets were also placed on each freezer to draw further attention. Chest freezers were located at public access points in every county along the Georgia coast. Each freezer was clearly marked and contained a supply of plastic bags, pencils, and data cards. Captains placed their filleted fish carcasses in plastic bags along with a completed data card in the freezer. A carcass card with additional questions applicable to Red Snapper was created in 2018 (Fig 1). Gift cards were offered as incentive to participate.
- Dockside sampling: CRD staff coordinated with participating for-hire captains to be on site when

trips returned with Red Snapper to collect biological samples. CRD staff coordinated with port samplers for the SRHS to avoid duplication of effort. Port samplers received priority for sampling the headboat fleet and CRD only collected samples on days the port sampler was not on site. Trip information collected included trip type (CH or HB), gear type, fishing location, depth, trip date, vessel name, and captain name. Biological data collected included fork length (mm), total length (mm), sex, whole weight (kg), and otoliths.

- Telephone catch and effort survey: CRD staff conducted telephone interviews with the for-hire captains who were known to be actively fishing (i.e. licensed for-hire captain) and possessed a South Atlantic Snapper-Grouper CH/HB permit. The purpose of the survey was to collect catch and effort data for all trips targeting Red Snapper during the open season. For most years, calls were placed on Monday following the fishing weekend, and repeated attempts were made throughout the week until the captains were reached. In 2014, calls were initiated the Monday following the last week of fishing. Data elements included whether the trip targeted Red Snapper, number of anglers, number of fish released, and number fish harvested. Participation was voluntary and ranged from 81-100% (Tab 3).

Private Boat

- Marine Sportfish Carcass Recovery Project: Press releases were distributed prior to opening of the season to notify the public about the program and location of freezers. Posters and magnets were also placed on each freezer to draw further attention. Chest freezers were located at public access points in every county along the Georgia coast. Each freezer was clearly marked and contained a supply of plastic bags, pencils, and data cards. Anglers placed their filleted fish carcasses in plastic bags along with a completed data card in the freezer. A carcass card with additional questions applicable to Red Snapper was created in 2018 (Fig 1). Gift cards were offered as incentive to participate.
- Dockside sampling: Private boats were sampled opportunistically if staff were on site to collect for-hire samples. Tournament sites where Red Snapper were targeted were added to the biological sampling plans in 2018 and 2019.
- Voluntary angler electronic catch survey (via Survey Monkey): Anglers were asked to complete a voluntary electronic catch survey for any fishing trips that targeted Red Snapper. Each completion of a survey represented one vessel trip. Data elements included trip date and duration, trip departure location (public or private access point), depth fished, artificial reef if applicable, number of anglers, number and size of harvested fish, number and size category (12-16 in, 16-20 in, >20 in) of released fish, and whether the harvested fish were donated to a CRD carcass freezer. Gift cards were offered as incentive to participate. Survey was discontinued once MyFishCount web portal was created in 2017.

Results

A total of 2,112 biological samples were collected from 2009 to 2019 (Tab 4). A total of 1,997 were successfully aged. Results for charter, headboat and commercial fleet are not shown by category due to confidentiality. Participation in the carcass program steadily increased from 2012 to 2019 as familiarity about data collection programs increased.

The number of eligible captains for the telephone survey ranged from 17 to 42 with an average response rate of 89% (Tab 3). Results are raw data and have not been expanded to include any estimate of non-reporting. Years with full participation by all eligible captains are representative of effort and catch.

Reported numbers for the years in which a census was not achieved may not be representative of catch and effort.

The number of participants in the voluntary angler electronic catch survey was relatively low with only 7 to 13 private boat trips reported each year from 2012 to 2014 (Tab 5). Data is shown as reported without validation and have not been expanded. These numbers are not likely an accurate representation of catch for recreational anglers fishing from private vessels.

Age data

Otoliths were collected by CRD but processed and aged by the Florida Fish and Wildlife Conservation Commission Fish and Wildlife Research Center. A total of 1,997 samples were successfully aged (Tab 4).

Random designation –

Samples were considered random if collected in an unbiased manner. A sample was considered random if:

1. CRD staff were on site and could verify that all fish harvested on the vessel were sampled
2. Evidence presented that all fish harvested during a trip were donated (e.g. total harvested reported on carcass card or through charter telephone survey matched number donated)

Use and Justification

For-hire telephone catch and effort survey – Georgia effort and catch survey data was used in place of MRIP for recreational harvest estimates in SEDAR 41 for 2012 and 2014. This data was considered a suitable substitute for MRIP since it was a census of all active eligible charter vessels during those years. Participation declined from 2017 to 2019 (81-88%) and the recreational workgroup decided it was not appropriate to use these numbers in place of MRIP without an estimate of non-reporting. In the future, estimates will be created from this survey data to account for non-reporting and variance.

Age and length data – Age data from commercial and recreational fisheries through 2014 were used in SEDAR 41. Additional years of data from 2017 to 2019 should be appropriate to add to the data set and use in the current assessment.

Depth and use of descending device – New data available for SEDAR 73. After adding the Red Snapper carcass card in 2018, we were able to collect more trip information from private boat anglers (Fig 1). Overall, the reported average for recreational trips was 100.6 ft and reported average for commercial trips was 130.3 ft. Average depth fished in the for-hire sector (101.3 ft CH, 102.4 ft HB) was greater than for private boats (92.8 ft). Even though use of descending devices was encouraged and not mandated, reports of private boats using these devices increased from 2 trips in 2018 to 23 trips in 2019. This data may be helpful during discussions for discard mortality.

Table 1. Dates and comments for open seasons 2009-2019.

Year	Commercial	Recreational	Comments
2009	Year round	Year round	None
2012	September 17 – 30	September 14 – 16, 21 – 23	Rough offshore 9/14 & 9/15
2013	August 26 – October 8	August 23 – 25	Rough offshore 8/25
2014	July 14 – September 8	July 11 – 13, 18 – 20, 25 – 26	Rough offshore 7/25
2017	November 2 – December 31	November 3 – 5, 10 – 12, Dec 8 – 10	Bad weather, most recreational trips occurred Nov 3 & 4
2018	July 26 – December 31	Aug 10 – 12, 17 – 19	Unfavorable tides Aug 10 – 12
2019	July 8 – August 30	July 12 – 14, 19 – 20	Anglers noted concerns about females full of eggs

Table 2. Sampling methods and data collected in 2009 and during mini-seasons from 2012-2019 in GA. Unless noted, sampling methods were the same as the previous year. Carcass freezers were available in all six coastal counties. A charter captain was considered eligible for the for-hire effort survey if they had an active fishing license in GA and a current South Atlantic Snapper-Grouper CH permit. NA = sampling method did not occur that year.

Year	Commercial dockside	Carcass Program	For-hire dockside	For-hire effort survey	Survey Monkey	Recreational (other)
2009	NA	Carcasses donated opportunistically Data collected: trip date, location, length (mm), sex, and age (limited depth) # Freezers = 11	Collection site: 1 For-hire location Dates: May to November Data collected: length (mm), whole weight (kg), sex, age, depth (ft) and fishing location	NA	NA	NA
2012	NA	Carcasses requested during open season. # Freezers = 15	Dates: open season	Calls began Monday following each weekend Data collected: trip date, # of anglers, # of fish harvested and released	Data collected: date, duration, departure location, depth, # of anglers, # and size of harvested and released fish, and if carcasses were donated	NA
2013	Collection site: 1 Commercial dock Data collected: trip date, length (mm), gutted weight, sex, and age	2 gift cards offered as incentive to donate carcasses # Freezers = 15	Same as previous year	Same as previous year	Same as previous year	NA
2014	No dockside sampling but carcasses were donated from dealer	Decals added to freezer to increase awareness # Freezers = 12	Collection sites increased to 2 For-hire locations	Calls began Monday, July 28 th after season ended	Same as previous year	NA
2017	NA	# Freezers = 8	Collection sites increased to 3 For-hire locations	Calls began Monday following each weekend	Survey Monkey was discontinued once MyFishCount.com was created	NA
2018	No dockside sampling but carcasses were donated from dealer	New carcass cards (see Figure 1b) # Freezers = 14	Same as previous year	Same as previous year	NA	Collection site: 2 Tournaments Data collected: length (mm), whole weight (kg), sex, age, depth (ft) and fishing location
2019	Same as previous year	# Freezers = 15	Same as previous year	Same as previous year	NA	Collection site: 1 Tournament

Table 3. Results of Georgia telephone catch and effort survey of for-hire captains licensed by Georgia and possessing South Atlantic Snapper-Grouper CH/HB permit 2012-2019.

Year	Sample Size	# Captains responded	Response rate	# For-hire trips	# Anglers	# Harvested	# Released
2012	17	17	100%	14	76	52	25
2013	19	18	95%	9	47	28	5
2014	23	23	100%	35	180	150	75
2017	42	37	88%	9	41	41	24
2018	38	32	84%	48	231	253	255
2019	37	30	81%	41	177	205	150
TOTAL	176	157	89%	156	752	729	534

Table 4. Biological data samples from Georgia DNR data collection. Total number collected (aged) are presented by mode. Charter and Headboat columns include samples collected dockside and through carcass program. Private boat includes samples collected dockside, through carcass program or tournaments. Commercial includes samples collected either dockside or carcasses donated from restaurants or dealers. A red dash indicates data was collected from fewer than 3 vessels and is confidential.

Year	Charter	Commercial	Private Boat	Headboat	Total
2009	-	0 (0)	60 (60)	-	679 (679)
2012	-	0 (0)	23 (23)	-	65 (64)
2013	-	-	38 (34)	-	90 (85)
2014	93 (93)	-	97 (97)	-	283 (280)
2017	37 (35)	0 (0)	43 (40)	-	122 (105)
2018	167 (164)	-	156 (149)	-	401 (369)
2019	124 (118)	-	263 (244)	-	471 (415)
TOTAL	678 (666)	-	680 (647)	-	2112 (1997)

Table 5. Voluntary angler electronic catch survey data from 2012 – 2014. Survey was discontinued once MyFishCount web portal was created in 2017. These data are all from private boat trips.

Year	Boat trips	Angler trips	# Harvested	Harvest Avg length (in)	# Released	Avg Depth (ft)
2012	8	31	22	23.4	6	105.0
2013	13	53	41	29.1	13	94.0
2014	7	42	37	27.0	156	91.4
TOTAL	28	126	100	26.5	175	96.8

Figure 1. Carcass cards used for collection of Red Snapper in Georgia. a) Card used from 2009 to 2017. b) New card created in 2018 specifically for donated Red Snapper.

a)

Conservation Today Means Fishing Opportunities Tomorrow

Date (fish were caught)			
Fishing Location (please be specific)			
Angler Name		E-mail address	
Mailing Address	City	State/Zip	
Phone () -	T-shirt size (in case of reward winner) S M L XL 2XL 3XL		
Species in bag (circle each) Spotted Seatrout Weakfish Sheepshead Red Drum Black Drum Whiting Flounder Tripletail		Comments <i>***Fishing location and date must be present in order to process</i>	

b)



Red Snapper Carcass Cards



Use for multiple bags:
Bag ___ of ___

Please place one card in **EACH** bag

Date: _____ Angler Name: _____ Address: _____ City: _____ State: _____ Zip: _____ T-shirt size (if selected): _____ Phone: _____ Email: _____ <p style="text-align: center; font-size: small;">One angler can fill out card for entire vessel</p>	Trip Type: <input type="checkbox"/> Private/Rental <input type="checkbox"/> Charter Charter captain (if applicable): _____ # Anglers: _____ Depth (ft): _____ Area fished: _____ Hours fished (time gear in water to nearest half-hour): _____ <div style="border: 1px solid black; padding: 5px; text-align: center;">Red Snapper Catch (per vessel)</div> # Released: _____ Descending device used: Y N # Harvested: _____ # Carcasses (in bag): _____
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Please check the box if we may contact you for more information about your trip

Did you participate in a dockside interview? Yes No	Will you report your fishing trip through MyFishCount.com ? Yes No
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Thank you for your participation. Your support in evaluating the health of the Red Snapper stock is appreciated!