## North Carolina Division of Marine Fisheries Red Snapper Carcass Collections, 2012-2013

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### SEDAR41-DW21

Submitted: 19 July 2014 Revised: 26 August 2014



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Please cite this document as:

NCDMF. 2014. North Carolina Division of Marine Fisheries Red Snapper Carcass Collections 2012-2013. SEDAR41-DW21. SEDAR, North Charleston, SC. 10 pp.

# N.C. Division of Marine Fisheries Red Snapper Carcass Collections 2012-2013



July 2014

#### Abstract

The N.C. Division of Marine Fisheries (NDCMF) implemented a pilot red snapper carcass collection program in 2012 and 2013 to coincide with the limited re-opening of the fishery in each of these years. The goal of the program was to obtain additional biological data from recreationally-harvested fish for use in next scheduled red snapper stock assessment. Freezers were placed at eight locations throughout the state and publicized through press releases and outreach materials posted on the NCDMF website. A total of 82 carcasses were collected in 2012, and a total of 34 were collected in 2013. The challenges of managing a carcass program include the failure of some anglers to follow/understand posted instructions and the non-random nature of donated carcasses. Despite these challenges, NCDMF plans to continue and improve upon the program for the 2014 red snapper limited opening.

#### **Introduction**

In September 2012, the N.C. Division of Marine Fisheries (NCDMF) began a pilot carcass collection program in conjunction with the limited re-opening of the South Atlantic red snapper fishery. The goal of the pilot program was to collect biological information needed for the SEDAR 41 stock assessment. A secondary goal was to incentivize angler participation in data collection efforts. The pilot program focused solely on obtaining data from the recreational fishery, as federal port samplers and state biologists collect biological information from commercial trips. Data collection efforts from the pilot program continued during the 2013 limited re-opening and are planned for the 2014 re-opening as well.

NCDMF recently received grant funding to expand the pilot program statewide during the 2014/2015 fiscal year. The primary focus will be enhanced data collection for state-managed recreational species of importance, but NCDMF will continue to use the carcass program for red snapper data collection so long as the existing harvest management approach is employed.

#### **Methods**

NCDMF staff placed eight carcass freezers at locations throughout the coastal region based on focal points of recreational fishing effort (Table 1). The northernmost freezer location was Hatteras, NC while the southernmost was Calabash, NC (Figure 1). Freezer locations were identical for 2012 and 2013. Each location was stocked with a supply of heavy duty plastic bags, bag ties, catch cards (Figures 2 and 3) and informational pamphlets (explaining program purpose, fish identification, etc.). Catch cards included information on fishing mode, water depth and water body and were modified slightly from 2012 to 2013 in anticipation of using the cards for a variety of species and water bodies. Instructional posters were placed on top of or near freezers to guide anglers regarding the appropriate protocol for bagging a carcass and filling out catch cards (completed cards were to be included in the bag with the fish).

As an incentive to participate in the program, anglers who donated carcasses and provided a name and address on the catch card were issued a citation certificate, as well as limited edition gear (e.g., a fish towel or drink coozie). NCDMF recreational port samplers maintained freezer supplies and transported fish from freezers to regional offices for processing by biologists. Otoliths were removed, carcass lengths measured, and information from catch cards were transferred to data sheets for entry into the NCDMF Biological Database. All otoliths and an electronic file with associated database entries for the carcasses were sent to staff at the NOAA Fisheries Beaufort Laboratory for aging.

An online survey available through the NC RecFish website (<u>www.NCRecFish.com</u>) was provided for anglers who were unable or unwilling to donate a carcass to report their catch. Very few surveys were received and none of this information was incorporated into reports of harvest.

#### **Results**

The results from the 2012 and 2013 carcass programs are shown in Table 2. In 2012, a total of 82 carcasses were collected: 40 from charterboats, 39 from headboats and three (3) from private vessels. In 2013, a total of 34 carcasses were collected: two (2) from charter boats, 29 from headboats and three (3) from private vessels. Eleven catch cards were submitted by anglers without an associated carcass (not included in the totals above and in Table 2).

NCDMF recreational samplers also tracked fish that were observed, but no carcass was donated. In 2012, these fish were tracked by mode: three (3) from charter boats; six (6) to ten (10) from headboats. In 2013, the fish were tracked by region: two (2) from the northern region; 15 from the central region.

Based on 2013 data in the biological database and on catch cards, it is likely that the two fish from the northern region were from charter boats, and the 15 fish from the central region were from headboats.

#### **Discussion**

NCDMF recreational port samplers made concerted efforts to promote the carcass program and encourage anglers to participate. Consequently, carcasses donated by private anglers and charter vessels cannot be considered random with regard to being representative of the catch. The majority of carcasses were donated by anglers fishing from headboats who were sampled by NOAA recreational port agents according to standard protocol, and can therefore be considered random. Efforts were made to coordinate between NOAA Fisheries headboat samplers and NCDMF recreational port samplers assigned to headboats. Anglers whose fish were sampled by NOAA Fisheries headboat staff were directed to NCDMF staff to fill out catch cards and donate carcasses if they so desired. In those instances, the remaining otolith from donated carcass which was later extracted by NCDMF biologists, as NOAA Fisheries samplers typically remove only one otolith from sampled fish. These duplicates were noted in the NCDMF Biological Database during entry and can therefore be excluded from the total number of samples used in age and growth analyses.

Based on submission of catch cards without carcasses, it is evident that there was still some confusion regarding the process and the requirement to donate a carcass in conjunction with a catch card in order to receive an award citation. NCDMF recreational samplers reported being contacted by anglers inquiring about citations that they had not received, and confirmed that several of these individuals had turned in catch cards without carcasses.

It also appears that many anglers are either unwilling or too impatient to fill out a card and donate a carcass, despite the incentive of an award citation. As this program continues, NCDMF will seek feedback from anglers, charter and headboat captains, and other staff regarding improvements that will maximize the number of carcasses collected.

**Table 1**. Name and address of freezer locations for NC carcass collection pilot program, 2012 and 2013.

Facility	Address
Oden's Dock	57878 NC Hwy 12, Hatteras, NC 27943
Carolina Princess	604 Evans St. Morehead City, NC 28557
Capt. Stacy Fishing Center	416 Atlantic Beach Cswy, Atlantic Beach, NC 28512
Dudley's Marina	106 Cedar Point Blvd, Cedar Point, NC 28584
Tex's Tackle and Bait	215 Old Eastwood Rd, Wilmington, NC 28403
Ocean Isle Fishing Center	65 Causeway Drive, Ocean Isle Beach, NC 28469
Hurricane Fleet	9975 Nance Street, Calabash, NC 28467
Carolina Beach Fishing Center	313 Canal Drive, Carolina Beach, NC 28428

YEAR	MODE	TOTALS
2012	Charter	40
	Headboat	39
	Private	3
	GRAND TOTAL	82
2013	Charter	2
	Headboat	29
	Private	3
	GRAND TOTAL	34

 Table 2. Total carcass numbers by fishing mode (2012 and 2013).

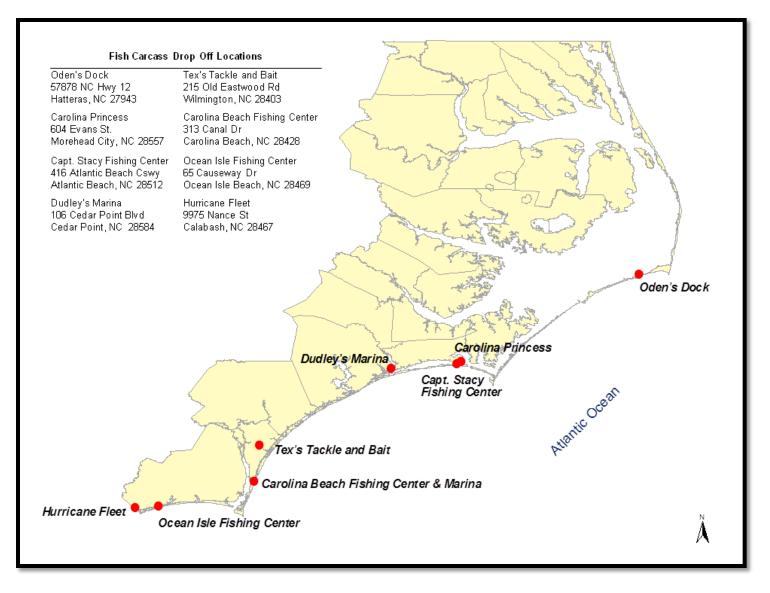


Figure 1. Map showing NC carcass collection pilot program freezer locations, 2012 and 2013.

Red Snapper Carcass Col Trip Information		Catch Information			
Date of Trip Month Day Year	Trip Type (check one)	Species	Number Harvested	Numbe Discard	
Depth (in feet) of water where most fishing took place (ask Mate) ft. Number of Anglers In Party (Charter and Private Boat Only)	Headboat	Red Snapper			
	Private Boat	Grouper			
	Time Gear in Water (to nearest 1/2	Sea Bass			
	hour, for example, 4:30)	Porgies			
	Hours Minutes	Other Snapper			
		Write in any species missing below			
	Vessel	1)	2		
	Name	3)	4		
Angler Address		Target Species (write in all that apply )			
Name Street		1)	2		
City/Zip		3)			

Figure 2. NCDMF Red snapper catch card (2012).

Trip Information	Catch/Carcass Information					
Date of Trip         Month       Day       Year         Fishing Depth       ft.         (avg. in feet)       ft.         Waterbody       (see back of card)         Trip Type (check one)       Pier         Headboat       Pier         Headboat       Bank/Surf         Private Boat       Bridge	Coastal Species Species Black Drum Bluefish Flounder Gray Trout Mullet Red Drum Sheepshead Spanish Mackerel Spotted Seatrout Striped Bass	es <u>Number</u>  	<u>Species</u> Almaco Jack Black Sea Bass Blackfin Snapper Blueline Tilefish Cubera Snapper Gag Golden Tilefish Gray Snapper Gray Triggerfish Grouper Misc. Hog Snapper	<u>Number</u>	Queen Triggerfish Red Grouper Red Porgy Red Snapper Scamp	umbe
Angler Address (OPTI Name Street City/Zip		esired)	Jolthead Porgy Knobbed Porgy Mutton Snapper Queen Snapper		Yellowtail Snapper	

Figure 3. NCDMF Red snapper catch card (2013).

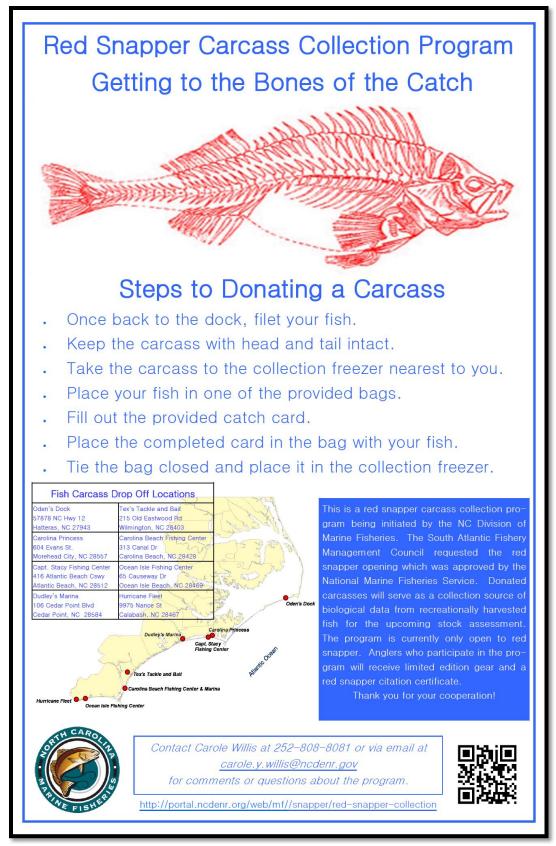


Figure 5. NCDMF Red snapper carcass collection program instructional posters, 2012 and 2013.