

Appendix 1: Recreational Harvest

ISSUE

The number of recreational shellfish harvesters in North Carolina is currently unknown which makes it extremely difficult to estimate the total recreational harvest of shellfish.

ORIGINATION

DMF

BACKGROUND

Despite the importance of the commercial shellfish fisheries (molluscan and crustacean) to the state, very limited data exist on recreational shellfish harvest. Currently, the NCDMF has limited data on recreational shellfish harvesting, including the number of participants and the extent of their economic activity. The collection of recreational shellfish harvest data, in addition to existing commercial landings data available through the North Carolina Trip Ticket Program would provide a better estimate of total fishing mortality and relative abundance. It would improve our knowledge of the variation in abundance caused by a combination of fishing effort and environmental changes. A more accurate account of landings would allow managers to examine the proportional harvest of recreational and commercial fisheries to make better decisions on management strategies for both harvest sectors. It is imperative to collect high quality recreational harvest data to address potential management issues such as harvest limits, size limits, and gear restrictions. To better manage shellfish fisheries, information on recreational harvest such as effort and size distribution for each species by area are needed.

Efforts to accurately quantify the impact of recreational fishing on shellfish (mollusks and crustaceans) have been met with limited success in North Carolina. The NCDMF collects data on recreational fishing in conjunction with the federal government's Marine Recreational Information Program (MRIP). However, MRIP collects information on finfish only.

Participation in recreational shellfishing in North Carolina has not been assessed for over 30 years. In 1991, a phone survey was conducted by the Marine Recreational Fisheries Statistics Survey (MRFSS), precursor to the MRIP, and it indicated that 3% of households in coastal North Carolina participated in recreational shellfishing, compared to an average of approximately 7% for finfish at that time (D. Mumford, NCDMF, personal communication). In 1991, MRFSS reported that in the state more than one million recreational fishing trips targeted shellfish. However, data on actual shellfish harvest estimates were not reported. The current extent of coastal households in North Carolina which recreationally harvest shellfish is unknown at this time.

The Hard Clam Fisheries Management Plan (FMP; DMF 2001a) and Oyster FMP (DMF 2001b) supported the adoption of a mechanism that would provide data on recreational shellfish harvest. As a result of the recommendation by the Oyster and Hard Clam FMPs

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in 2001, House Bill 1427 was introduced before the general assembly in 2003 to establish a recreational shellfish license. This license would have been for shellfish only and would have been instituted on a trial basis for three years. However, the bill was never passed. In 2004, House Bill 831 did pass a saltwater fishing license that mandated those individuals recreationally fishing for both finfish and shellfish to obtain a license. However, the state legislature revisited the issue in 2005 and replaced the saltwater fishing license with the Coastal Recreational Fishing License (CRFL). The Marine Fisheries Commission in the Bay Scallop FMP, Hard Clam FMP, and Oyster FMP recommended developing a mechanism to obtain data on the recreational harvest of shellfish (DMF 2007). The need for a mechanism to be able to accurately quantify recreational effort and harvest has been a consistent area of concern in all North Carolina Division of Marine Fisheries (NDCMF) shellfish and crustacean FMPs.

The CRFL, which was implemented January 1, 2007, is only required when targeting finfish. When the CRFL was initially drafted back in 2007, it originally had shellfish included. However, that language was pulled out before it was finally legislated. To fill this data gap, a survey on shellfish harvesting was added to the CRFL in November 2010 to collect monthly data on the harvest of crabs, oysters, clams, and scallops from the CRFL pool. The survey sample is made up of approximately 650 randomly selected CRFL holders that held a valid license for at least one day during the survey period and answered “yes” to the harvest of at least one of the following species: crabs, oysters, clams, or scallops. In September 2014, the sample size was doubled to approximately 1,300 CRFL holders to increase the number of responses and precision of estimates. The selected CRFL holders are sent a letter explaining the survey along with the survey itself. Those that have not responded by the end of the month are sent a second copy of the survey. This survey obtains information on the number of trips taken during the survey period, average length of the trip, average party size, number of species kept and discarded, gear used, location information (water access), waterbody, and county of harvest. The mail survey estimates are useful to represent CRFL holders but limited in that they do not cover the entire population of potential recreational shellfish harvesters and probably represent a minimum measure of effort and harvest. Despite good response rates, few responses contain oyster and clam activity.

The Fisheries Reform Act of 1997 (FRA) created a Recreational Commercial Gear License (RCGL) to allow recreational fisherman to use limited amounts of commercial gear to harvest recreational limits of seafood for personal consumption; however, shellfish gear (including hand, rakes, and tongs) was not authorized under this license. Since these gears are not covered by RCGL, recreational shellfishers can use these gears to harvest recreational bag limits of oysters and clams without a license. Therefore, recreational harvest data are not captured by past RCGL surveys.

Some recreational fishermen may purchase a commercial shellfish license rather than a CRFL because the license is easy to obtain (available to any NC resident), is relatively inexpensive (\$50.00), and allows fishermen to harvest more shellfish than the recreational limits allow. The Trip Ticket Program only captures landings of fishermen who sell their catch to certified seafood dealers. Therefore, identifying individuals who purchase a commercial shellfish license but do not have any record of landings within the North

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Carolina Trip Ticket Program could potentially be surveyed to determine if the license is indeed being used for recreational purposes only. This is also true for fishermen who buy a Standard Commercial Fishing License (SCFL) with a shellfish endorsement but do not have any reported landings of shellfish. Even though this approach limits the sampling universe to only recreational fishermen who bought a commercial license, it would provide some information on the recreational harvest of shellfish that can occur without being constrained to recreational harvest limits. The shellfish harvest survey provides the ability to characterize recreational shellfish harvest, but still has limitations for estimating the total recreational harvest of shellfish.

With the limited data collected from the optional CRFL survey, some pieces of information about recreational efforts have been captured. For instance, recreational oyster harvest was reported from 92 waterbodies throughout coastal North Carolina, with Topsail Sound, Pamlico Sound, Bogue Sound, and Masonboro Sound all boasting more than 100 reported trips. The same survey revealed that 70% of reported oyster harvesting effort originated from private residence, private boat ramp, or shore. Given that only 28% of reported effort originated at public access locations, intercept-oriented surveys are less than ideal. Recreational oyster harvesting effort and catch were both concentrated between October and March, accounting for over 84% of reported trips. Conversely, some individuals reported recreational harvest of oysters during the summer months despite state-imposed restrictions on harvest during this time. This suggests unfamiliarity with state regulations such as season and area closures.

Another concern of not having a license requirement for shellfish harvest is the inability to easily communicate health concerns associated with harvest from temporary or permanently closed polluted areas. Molluscan shellfish harvest areas are highly regulated by the NCDMF Shellfish Sanitation Section for human health and safety. The NCDMF Shellfish Sanitation Section is responsible for classifying all coastal waters as to their suitability for shellfish harvesting for human consumption. Within coastal waters, areas are classified as “Approved”, “Conditionally Approved”, “Restricted”, or “Prohibited”. These classifications are used to keep consumers safe and healthy. As no license is required for harvest, participants are often unaware of stipulations and/or closures and are unable to be targeted with educational material. Having a separate license for shellfish harvest could automatically link to essential information updates on safe shellfish harvest areas.

AUTHORITY

N.C. General Statute

- 113-134 Rules.
- 113-169.2 Shellfish license for NC residents without a SCFL,
- 113-174.2 Coastal Recreational Fishing License.
- 113-182 Regulation of fishing and fisheries.
- 113-182.1 Fishery Management Plans.
- 113-201 Legislative findings and declaration of policy; authority of Marine Fisheries Commission.

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113-221.1 Proclamation; emergency review.
143B-289.52 Marine Fisheries Commission – powers and duties.

Session Law 2023-137

N.C. Marine Fisheries Commission Rule (15A NCAC)

03O. 0501 PROCEDURES AND REQUIREMENTS TO OBTAIN PERMITS
03O .0502 PERMIT CONDITIONS; GENERAL
03O .0506 SPECIAL PERMIT REQUIRED FOR SPECIFIC MANAGEMENT PURPOSES

DISCUSSION

Given that North Carolina’s shellfish fisheries are exclusively under state jurisdiction, a lack of recreational shellfish harvest data makes it extremely difficult to address potential management issues such as harvest limits, size limits, and gear restrictions for this fishery. There are currently no data on demographics, perceptions, or expenditures of recreational shellfish harvesters in the state. Consequently, there is no data available to conduct an economic impact assessment of recreational oyster harvesting. Due to the widespread accessibility of intertidal oysters and clams along North Carolina’s coast, the potential impact of recreational harvest could be significant.

The license requirements for recreational shellfish harvesting varies from state to state along the United States east coast. Some states require a license (New Hampshire, New Jersey, Rhode Island (non-residents only), Delaware, South Carolina, Georgia, and Florida). In other states, individual towns and cities require a license to recreationally harvest shellfish (Maine, Massachusetts, New York, and Connecticut). North Carolina and Virginia are the only two states without some form of license, local permitting, or residency requirements.

Table 1. Recreational shellfish harvest license requirements for east coast states.

State	License Requirements
Maine	No state license, towns have local restrictions and permits
New Hampshire	Need a state license
Massachusetts	No state license, towns have local restrictions and permits
Rhode Island	Required only for non-residents
Connecticut	No state license, towns have local restrictions and permits
New York	No state license, towns have local restrictions and permits, and also residency requirements
New Jersey	Need a state license
Delaware	Need a state license
Maryland	None, must be state resident
Virginia	None
North Carolina	None

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South Carolina	Need a state license
Georgia	Need a state license and free permit
Florida	Need a state license

There are multiple solutions which the NCDMF and MFC could pursue to help determine the total population of recreational shellfish harvesters.

One potential solution is to include shellfish as part of the CRFL. This can be accomplished by three different methods. The first is to require the existing CRFL to recreationally harvest both finfish and shellfish. The second would be to create a separate shellfish only CRFL. This license would only give a recreational angler access to the allowed shellfish species and would exclude finfish harvest. This would allow fishery access to recreational anglers who are only interested in harvesting shellfish, and the cost could be set at a lower price than a traditional CRFL. The third option would be to require the existing CRFL and create an additional recreational shellfish endorsement. The endorsement would be applied to the CRFL and would indicate that the angler is licensed to recreationally harvest both finfish and shellfish. One drawback to these three options is that it would require legislation change to the CRFL.

Another potential solution is to develop a recreational shellfish permit. The MFC has the authority to implement a permit to help manage estuarine and coastal resources and can set a maximum fee of up to \$100 (although most permits are free of charge). A permit could function very similarly to a license. Recreational anglers would be required to have the permit to participate in the recreational shellfish fishery. A nominal fee for the permit would discourage participants from just obtaining the permit because it was free and would help narrow down the sampling universe.

Creating a specific CRFL, as outlined above, or a recreational shellfish permit would provide NCDMF with a complete pool of recreational shellfish harvesters. That list could then be used as a survey frame to help determine the effort in the fishery as well as the total harvest that occurs. Having a list of the population of recreational shellfish harvesters would also be useful to help distribute shellfish area closure proclamations and maps. If shellfish species get added to the already existing CRFL, then the activity survey during the sale of the CRFL would still need to be conducted to identify those fishers that participate in recreational shellfishing and then those participants could be sent additional surveys to determine effort and harvest estimates for the recreational shellfish fishery.

Although creating a specific type of CRFL, adding shellfish under the existing CRFL, or developing a recreational shellfish permit would be the most efficient ways to determine effort in the fishery, another way to obtain these data would be to capture this activity in MRIP. MRIP does capture non-finfish activity, but those data are not separated out by species. However, MRIP agents rarely encounter those types of recreational fishing trips. Most of the activity not encountered is conducted by coastal residents who are using their private docks and access points as opposed to public access points. However, MRIP is a nation-wide program, and changing the methodology to intercept these types of

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recreational activities would need to be reviewed and approved by the federal government and initiated at the interstate level.

Personal consumption by participants holding commercial fishing licenses (either a SCFL with a shellfish endorsement or a shellfish license without a SCFL) would not be covered under any type of recreational shellfish license or permit. In the fall of 2023, the North Carolina General Assembly passed Session Law 2023-137. Section 6 of this legislation requires anyone holding a commercial fishing license who is engaged in a commercial fishing operation to report all fish (including shellfish) harvested to NCDMF, regardless of if the fish are sold or kept for personal consumption. Currently, this legislation is effective December 1, 2024. NCDMF is working on draft rules to implement this law and to develop the reporting mechanism for these participants. The implementation of this law should fill this specific data gap.

In order pursue any one of these potential solutions, a significant amount of time and effort will need to be expended by the NCDMF to assess internal program and resource capabilities as well as limitations. Any potential desired legislative changes require a specific process and are ultimately out of NCDMF or MFC control. To best solve this issue, NCDMF proposes that the division explore potential options and solutions outside of the Fishery Management Plan process.

Management Options

- Status Quo
 - Does not provide reliable estimates of recreational shellfish harvest or effort.
- Support the NCDMF to further explore all potential options and develop a solution to quantify recreational shellfish harvest participation and landings outside of the FMP process.

Recommendations

REFERENCES