

Report on the Virginia Marine Resources Commission's Mandatory Recreational Reporting Program for Cobia, *Rachycentron canadum*

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Abstract

This report is intended to inform Virginia's recreational anglers of the basic results of the VMRC's mandatory recreational reporting program for cobia in 2017. These numbers do not represent any final, statewide estimate of total landings, but rather a rough sketch of the raw data reported by anglers. Through September 30th, the private recreational fleet had 6,588 permittees who were responsible for reporting 2,296 cobia kept and 7,345 cobia released over the course of 4,969 trips. The charter fleet had 193 permittees who were responsible for reporting 591 cobia kept and 1,193 cobia released over the course of 466 trips. The percentage of private recreational permit-holders who fulfilled their reporting obligations by September 30th was 53.96%, while this percentage was 38.34% for the charter fleet. The VMRC has continued to accept reports after this deadline, acknowledging this is the first year of the program. Staff at the VMRC will continue to analyze these data in an attempt to inform cobia management as much as possible.

Introduction

Cobia are managed by the South Atlantic Fishery Management Council, and Virginia's landings count toward its annual catch limit (ACL), along with the other states from Georgia through New York. The recreational portion of the ACL (which is 92% of the total ACL) is 620,000 pounds. However, in recent years, the National Oceanographic and Atmospheric Administration's (NOAA) Marine Recreational Information Program (MRIP) has estimated extremely high recreational landings for cobia, especially in North Carolina and Virginia. In 2016, a group of anglers expressed interest in a mandatory reporting program, if it meant there was a possibility of it leading to more informed cobia management. As a result, the Virginia Marine Resources Commission (VMRC) voted to implement a mandatory reporting program for all recreational anglers fishing for cobia. This was piloted as a voluntary program in 2016 and became mandatory in 2017. Anglers had the option of reporting electronically, using a computer, tablet, smartphone, or using paper forms created by the VMRC. Regardless of the method for reporting, all cobia anglers were required to be correctly permitted under the VMRC's free recreational cobia permit and report all cobia trips taken, whether a cobia was caught or not. Any person who obtained one of these free permits but did not fish for cobia needed to submit a report of "no activity."

Reporting Rules and Regulations for 2017

The permitting and reporting requirements are described in the VMRC's cobia regulation, which is Chapter 4 VAC 20-510-10 et seq., "Pertaining to Amberjack and Cobia." For all private and for-hire vessels, only the captain was required to obtain the permit which would cover all anglers fishing on the boat. The captain was also responsible for reporting for all anglers on board. Anyone fishing individually, such as from a pier, shore, or kayak, needed a permit and was required to report individually. Required pieces of information were:

- Date of trip
- Permittee's VMRC ID
- Mode of fishing (for example, private boat, charter, pier, shore)
- Number of anglers
- Number of cobia kept
- Number of cobia released

Permittees also had the option of reporting additional detailed information if they wished, such as the location, length, and weight of any individual cobia caught. However, these pieces of information were not required.

VMRC regulations also state that any trip resulting in the catching of cobia, whether caught or released, needed to be reported within 7 days. Any trips targeting cobia that did not result in the catching of any cobia needed to be reported by 15 days after the conclusion of the recreational season, which in 2017 was September 15th. The same deadline applied for "no activity" reports for permit-holders who did not take any cobia trips. Thus, all reports needed to be submitted to the VMRC by September 30th. However, because this was the first year of the mandatory recreational reporting program for cobia in Virginia, the VMRC is accepting reports after this date in order to familiarize all anglers with this program and encourage the main goal of this program: obtaining recreational landings data for cobia.

Summary of Data Reported by Recreational Cobia Anglers

For the purposes of this report, the data included are only up through September 30th, as this was the original deadline for receiving reports.

Private Recreational Fleet

As of September 30th, there were 6,588 permittees, 1,882 of which had reported at least one cobia fishing trip. Of the 6,588 permittees, 1,673 reported not having taken a trip; this was either because they did not fish, or they took trips on someone else's boat and therefore did not need to report any activity. By combining the number of permit-holders with at least one trip report and the number of permit-holders who reported "no activity," the private recreational sector had a reporting rate of 53.96%. Those 1,882 permittees reported a total of 4,969 total cobia trips. Of those trips, 1,724 did not result in any being caught—kept or released. It is important to track the number of these trips over time, as any changes could be indicators of changes in the cobia population. There were 4,690 trips reported from a private boat, 231 from a pier, 31 from a kayak, and 7 from some other "mode" of fishing. Overall, permit-holders registered 2,296 cobia

kept and 7,345 cobia released. By using a discard mortality estimate of 5%, taken from the most recent stock assessment (SEDAR 28), there were an estimated 367 cobia that died after being released. This means the value for total removals resulting from permittees' reports is 2,663 cobia. The mean catch per trip (kept + released) for the private recreational fleet was 1.94 cobia per trip, although the median was 1 fish per trip (Figure 1). In this case, the median is more representative of what an "average" trip might look like, as there were outliers in the trip reports.

Despite it being optional to report biological data, the VMRC received 982 individual cobia lengths (Figure 2), averaging 38.21 inches in total length. Of these 982 fish, 275 were kept, while 707 were released. The VMRC also received 124 individual weights (Figure 3), averaging 37.05 pounds. Of these 124 fish, 105 were kept, while 19 were released. According to VMRC biological sampling of cobia from 1989 through 2015, a 38.21-inch cobia should be expected to be around 15 pounds, meaning the 124 reported cobia weights are from a skewed percentage of those that were measured for length. This is not surprising, as 573 of the 982 (or 58.35%) cobia measured for length were under 40 inches in total length, the legal harvest limit in Virginia. Meanwhile, only 17 of the 124 (or 13.71%) cobia weighed were under 40 inches in total length.

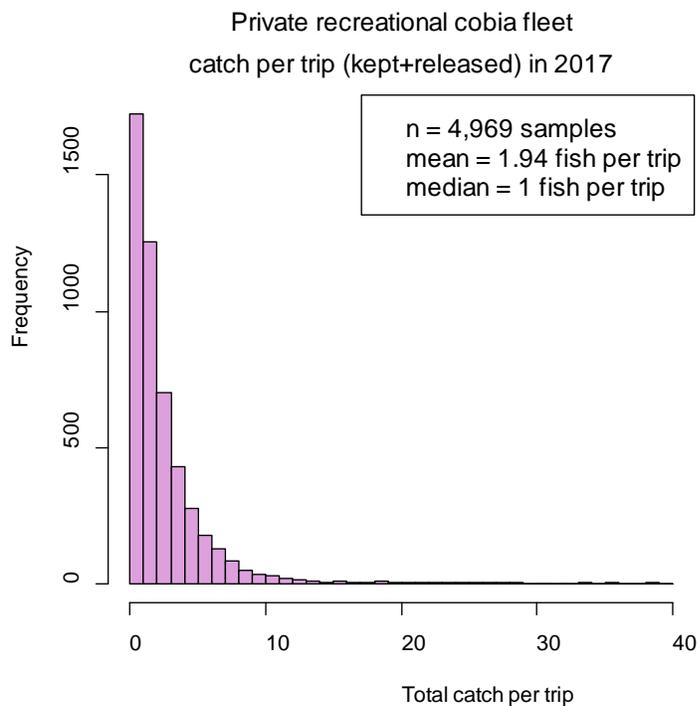


Figure 1: Distribution of total catch per trip of cobia (kept and released) for the private recreational fleet and how many times each catch per trip was reported.

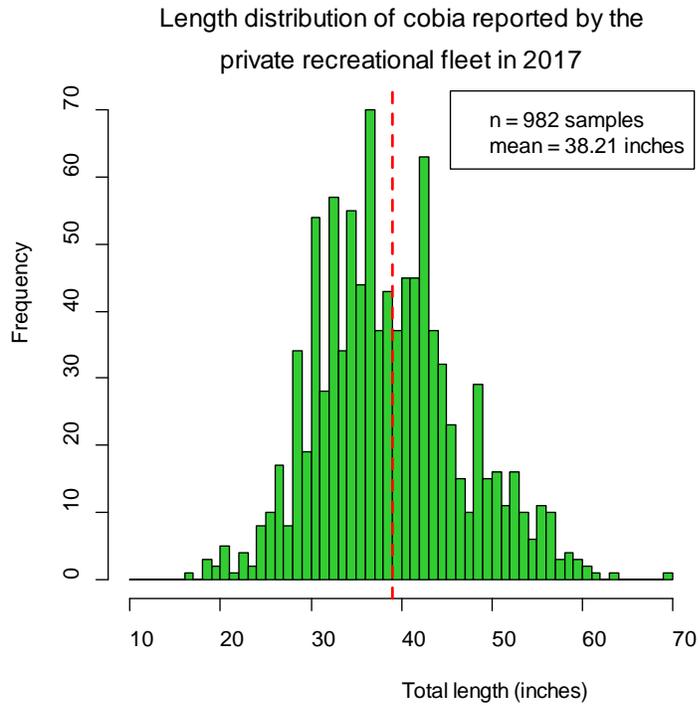


Figure 2: Distribution of cobia lengths reported by the private recreational fleet; the dotted red line shows the recreational minimum size limit for cobia.

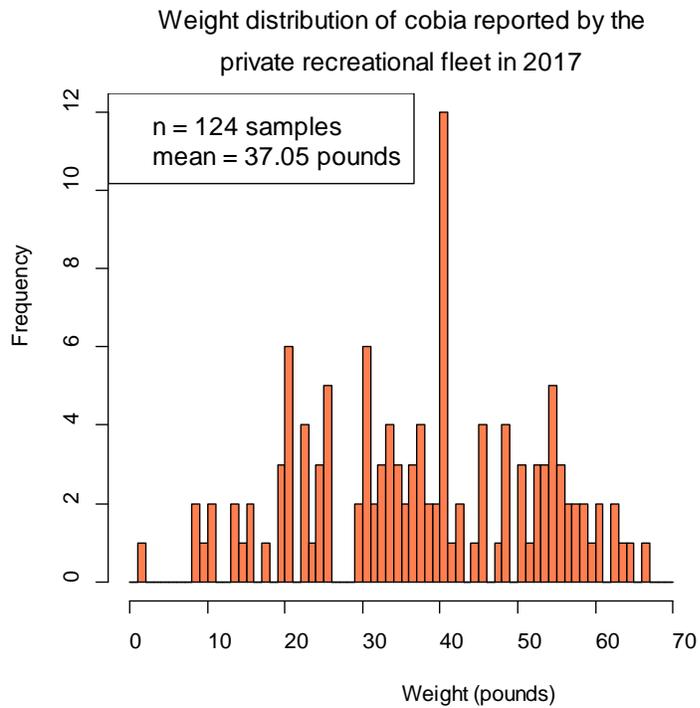


Figure 3: Distribution of cobia weights, as reported by the private recreational fleet.

Charter Fleet

As of September 30th, there were 193 charter permittees, and 47 had reported at least one cobia trip. Of the 193 permittees, 27 reported not having taken any cobia trips. This means the charter fleet had a reporting rate of 38.34%. Those 47 captains accounted for 466 cobia trips; of those trips, 6 did not result in any being caught—kept or released. On the remaining trips, permit-holders registered 591 cobia kept and 1,123 released. Once again, using the 5% discard mortality, that leads to 56 dead discards and a total removals value of 647 cobia by the charter fleet. The mean catch per trip (kept + released) for the charter fleet was 3.68 cobia per trip, with a median of 3 per trip (Figure 4). Because there are no extremely high values in the charter catch per trip, the mean and median are closer together.

The VMRC received 940 individual cobia lengths from the charter fleet (Figure 5), averaging 40.14 inches in total length. Of these 940 fish, 416 were kept, while 516 were released. The VMRC also received 180 individual weights (Figure 6), averaging 30.02 pounds. Of these 180 fish, 114 were kept and 63 were released. Similar to the private recreational fleet, the average weight of reported cobia from the charter fleet was heavier than the expected weight, given the average length of sampled fish. According to the VMRC's biological sampling, a cobia approximately 40 inches in total length weighs an average of 19.5 pounds. Once again, there was a mismatch between percentage of cobia under 40 inches reported when comparing lengths and weights. For lengths, 463 of the 940 fish (49.26%) were under 40 inches in total length, yet only 57 of the 180 fish (31.67%) of the weighed fish were under 40 inches in total length.

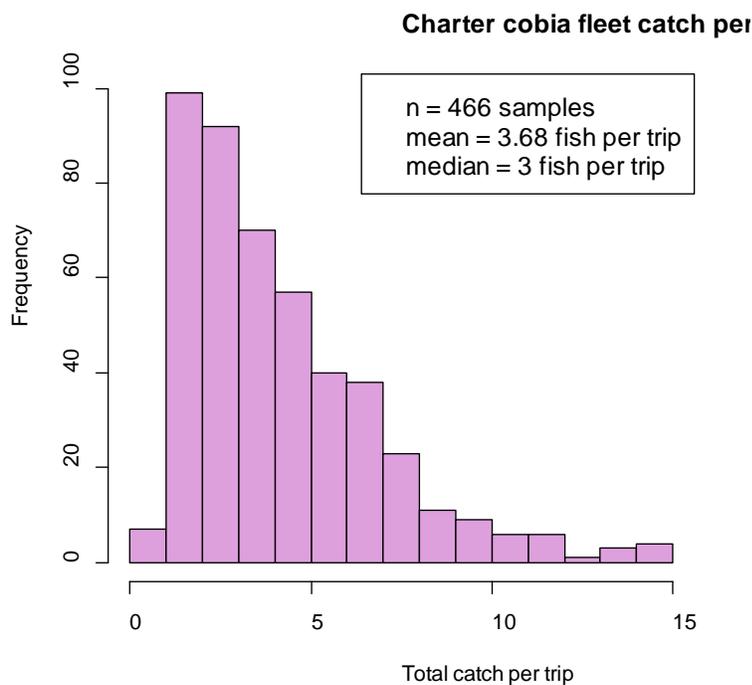


Figure 4: Distribution of total catch per trip of cobia (kept and released) for the charter fleet and how many times each catch per trip was reported.

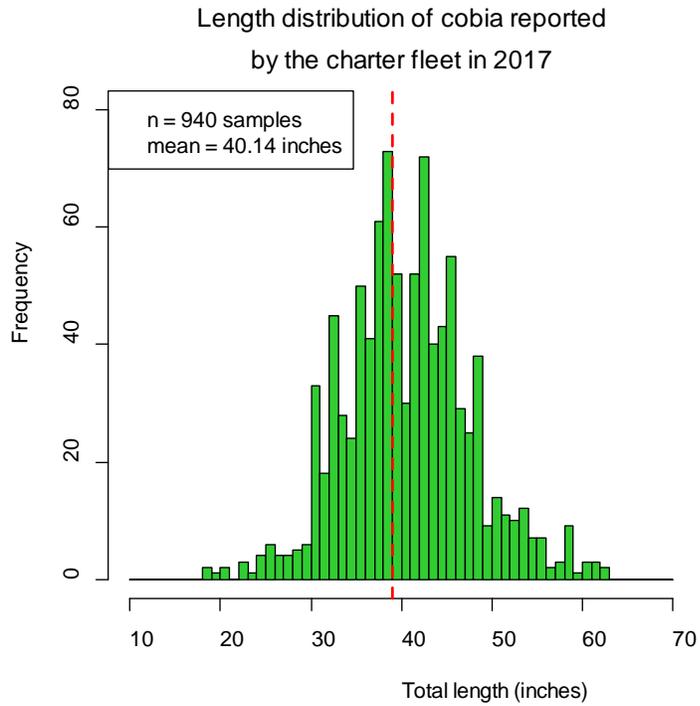


Figure 5: Distribution of cobia lengths reported by the charter fleet; the dotted red line shows the recreational minimum size limit for cobia.

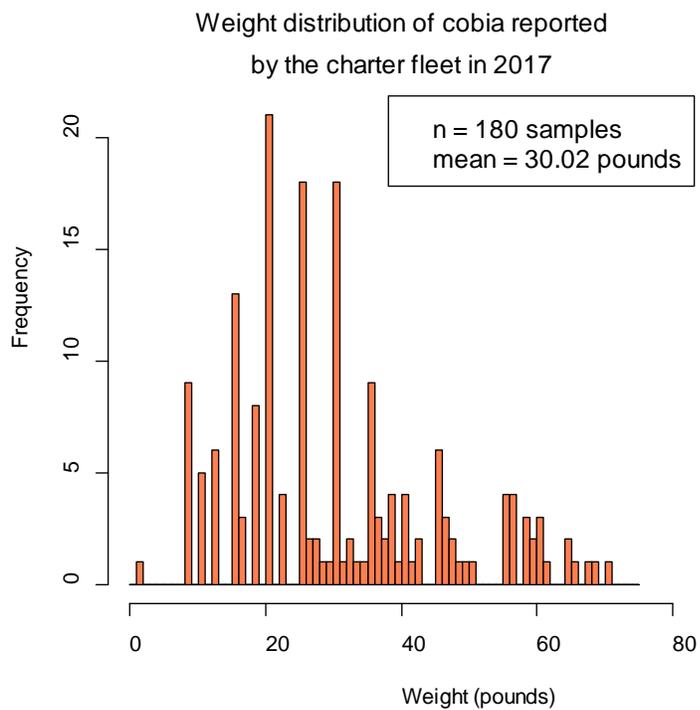


Figure 6: Distribution of cobia weights reported by the charter fleet

Next Steps

These numbers represent the raw data reported by Virginia's recreational angling community. However, it is incomplete and does not represent an estimate of total landings. Nearly half of the permittees did not file either a trip report or a report of "no activity," and it cannot be assumed that the numbers presented here are indicative of all of the cobia fishing that occurred in 2017. In order to estimate the statewide landings, VMRC staff must take into account the number of permit-holders who did not report anything as well as other factors. First, there are undoubtedly anglers or captains who fished for cobia without obtaining a no-cost permit from the VMRC. Second, it is also likely some permit-holders who reported at least one trip—or a trip of no activity—did not report the entirety of their cobia fishing activity. Much in the same way that other fisheries data analysts must extrapolate samples up to a population-level estimate, so too will the VMRC need to figure out the most representative way to expand the trip reports from this mandatory recreational reporting program into an annual, statewide estimate of total landings. This season was an important first step for providing extra recreational fisheries data for cobia, and VMRC staff will continue to analyze these data points and use them to further inform cobia management.