

Dolphin Wahoo Advisory Panel
Wahoo Fishery Performance Report
Discussion Questions
November 2023

The Dolphin Wahoo Advisory Panel (AP) is being asked to provide information to update fishery performance report (FPR) for Wahoo. The purpose of the FPR is to assemble information from AP members' experience and observations on the water and in the marketplace to complement scientific and landings data. The FPRs for wahoo and dolphin will be provided to the Council to help inform future management.

Summary information on the wahoo and dolphin fishery will be presented in a fishery information application (<https://safmc-shinyapps.shinyapps.io/FPRAll/>) intended to provide an overview of several aspects of the fishery including life history of the species, trends in landings and fishery economics for both the commercial and recreational (for-hire and private) sectors. The information was provided as background to elicit the discussion presented in these FPR updates. Summary feedback from the most recent FPR is provided for each species and the AP will be asked if the information needs to be changed or if there is any additional information that should be added.

Questions for the Advisory Panel

The AP is asked to provide and update the following information about *wahoo* based on your expertise and experience:

1) Catch levels and effort over the past 10 years:

- a) When/where are wahoo available, and has this changed in recent years? Specifically, has the seasonality, timing, or geographic range of wahoo catches changed?
- b) Has the average size of the fish changed? If so, how has it changed?
- c) Do you perceive that abundance of wahoo has changed over the past ten years? If so, how has it changed?
- d) Have there been effort shifts to or from wahoo?
- e) Has there been a considerable change in fishing techniques or gear used to target wahoo?

Previous AP input:

Size

- The average size of wahoo landed has been steady or has increased in recent years.
- No AP members felt that the average fish size was decreasing over time.

Timing and Abundance

- Timing of runs and general location of wahoo has not notably changed beyond typical season variations.
- There seems to be a general increase in wahoo abundance and availability to the fishery across the **South Atlantic Region**.

Effort shifts

- Some shift in effort to wahoo as shown in increased presence of the species on social media and sharing of methods to target wahoo.
- In **Mid and Southeast coastal NC**, there has been a shift to wahoo with the decline of the yellowfin tuna fishery in the area.
- In **South FL** there is concern over increased fishing pressure, particularly from divers using spearfishing gear. It was noted that some divers seem to be targeting spawning aggregations and that divers were accounting for a notable number of wahoo harvested directly and through delayed mortality due to wahoo being speared but escaping.

2) Social and economic influences:

a) Demand

- i. For the commercial sector, how has the dockside and retail/restaurant price and demand for wahoo changed?
- ii. For the recreational sector, how has demand for trips targeting wahoo changed?
 1. Charter vessels?
 2. Private vessels?
- iii. Among the species you target, how important are wahoo to your overall business (charter, commercial, or retail)?
- iv. How important are wahoo to trip satisfaction on recreational trips?

b) Importance to community

- i. What communities are dependent on the wahoo fishery?
- ii. Have changes in infrastructure (docks, marinas, fish houses) affected fishing opportunities for wahoo?
- iii. How have fishermen and communities adapted to changes in the wahoo fishery?

Previous AP input:

Recreational

- There is demand from customers on charter trips that want to target wahoo. There appears to be increased general recreational demand for wahoo.
- It was noted that in **SC**, trips targeting wahoo help fill in during times that are typically the “slow season” such as late winter or early spring, and in particular the month of March. Four years ago, the selection of wahoo tackle and lures was fairly sparse in tackle shops but now shops have entire sections dedicated to wahoo.

Commercial

- Wahoo tend to have a relatively short “shelf life” and thus commercial prices are greatly affected if demand from restaurants and retail outlets that utilize the fish drops.

3) Environmental/ecological/habitat influences:

- a) Have you noticed any unique effects of environmental conditions on wahoo? If so, please describe.
- b) Do you perceive that abundance of wahoo has changed over the past ten years? If so, how has it changed?

- c) What do you see now in terms of recruitment? Where are the small fish? Are large and small fish found in the same locations?
- d) Have you noticed any change in the species caught with wahoo over the years or seasonally?

Previous AP input:

- Wahoo tend to prefer specific habitats based on their size. Larger specimens are often found closer to shore around the shelf break and over structure.
- Smaller specimens are typically found further offshore and in deeper water. These smaller fish often orient themselves around floating structure such as Sargassum mats and marine debris.
- Occasionally catch very small specimens (a.k.a “weehos”) on sabiki rigs around Sargassum mats when targeting baitfish.
- In the **OBX**, it was noted that small specimens sporadically migrate through the area all at once and in large numbers but then may not appear again for a long period of time.

4) Management measures:

- a) Are the general recreational retention limits appropriate (i.e. 2-fish per person, no vessel limit, no size limit)?
- b) Are the general commercial retention limits appropriate (i.e. 500-pound trip limit, no size limit)?
- c) Are the current allocations of the total annual catch limit appropriate for each sector (97.55% recreational: 2.45% commercial)?
- d) Are there new management measures that the Council should consider or are there existing management measures that should be changed for wahoo?

Previous AP input:

- No specific management measures were identified that needed to be changed or examined.
- Some AP members mentioned monitoring spearfishing landings of wahoo and practices targeting the species to mitigate potential outsized future negative impacts to wahoo stocks.

5) Other:

- a) What else is important for the Council to know about wahoo?

Previous AP input:

- It was noted that an increase in the population of many shark species is having an impact on the wahoo fishery as well as many other fisheries in the **South Atlantic**.
- This is causing increased mortality on wahoo and other prized species such as sailfish through changing fishing behavior that concentrates fishermen in certain areas and effort towards species that can be feasibly landed without the likelihood of extreme shark predation.

Dolphin Fishery Performance Report

Discussion Questions

November 2023

Questions for the Advisory Panel

The AP is asked to provide and update the following information about *dolphin* based on your expertise and experience:

1) Catches and fishing behavior over the past 10 years:

- a) When/where are dolphin available, and has this changed in recent years? Specifically, has the seasonality, timing, or geographic range of dolphin catches changed?
- b) Has the average size of the fish changed? If so, how has it changed?
- c) Do you perceive that abundance of dolphin has changed over the past ten years? If so, how has it changed?
- d) Have there been effort shifts to or from dolphin?
- e) Has there been a considerable change in fishing techniques or gear used to target dolphin?

Previous AP input:

Size

- AP members generally agreed that the average size of dolphin landed has decreased in recent years. The notable exception was in **New England** where generally larger fish have been seen in the near-shore fishery.

Effort

- Generally there has been an increase in recreational effort and technology, particularly for the private recreational component of the sector.
 - In **New England**, dolphin typically were not targeted, but there has been a developing fishery nearshore in recent years (15 to 20 miles).
 - It was noted that several private vessels in this region have started particularly targeting dolphin in August and September. Nearshore anglers are sight fishing dolphin under lobster pot buoys, often using lighter gear (typically spinning gear) to cast to fish and employing both natural and artificial bait.
 - In **Southeastern NC and SC**, there has been more effort targeting dolphin inshore of the continental shelf. These “inshore” fish tend to be smaller.
 - In **SC**, there has been increased focus offshore for dolphin fishing with faster boats that have access to improved technology. Vessels can make a trip to the ledge (180 feet) and catch some dolphin but the overall focus is further offshore than it used to be.
- Increased access to information, technology, and improved vessels have increased access to dolphin fishing and made it easier to identify likely fishing spots (especially temperature breaks), leading to increased targeted recreational effort.

Abundance

- In **much of the South Atlantic**, there was general agreement that dolphin abundance is lower than it used to be and the size of schools is smaller. It was also noted that recently fishing was often more “hit or miss” and anglers had to work harder to catch fish than in past years.
- While this viewpoint was somewhat shared by AP members from the **Outer Banks in NC**, it was also noted that the same trend has been exhibited by other species such as yellowfin tuna and white marlin.
 - For the **OBX** specifically, it was noted that May and June are typically the prime months for dolphin but there have been “nice bailers” in recent years with schools in the 6 to 8 pound range present in the late summer and early fall.
- Overall, the number of large “citation” sized fish has decreased.
- In **New England**, the fishery typically starts in July and ends by September. Dolphin, particularly larger specimens, were usually caught near the edge of the continental shelf (“in the Canyons”) and not near shore. In the last few years, larger dolphin have been found closer.
 - Nearshore dolphin are typically 10 pounds or less while canyon fish (often caught incidentally when fishing for tuna) tend to be larger and can be in the 20 to 40 pound range.
- In **South FL (including the FL Keys)**, dolphin could be caught almost year round but this isn’t consistently the case anymore. It was noted that dolphin are being caught in relatively warmer water (83/84 degrees) than they were previously found.

2) Social and economic influences:

a) Demand

- i) For the commercial sector, how has the dockside and retail/restaurant price and demand for dolphin changed?
- ii) For the recreational sector, how has demand for trips targeting dolphin changed?
 - (1) Charter vessels?
 - (2) Private vessels?
- iii) Among the species you target, how important are dolphin to your overall business (charter, commercial, or retail)?
- iv) How important are dolphin to trip satisfaction on recreational trips?

Previous AP input:

- Overall recreational demand has been very strong for dolphin across the board, for both private recreational and charter trips.
 - In the **OBX**, it was noted that demand for dolphin on charter trips has been increasing, with one of the reasons being a lack of yellowfin tuna in May and June.
 - Dolphin is the most important species for trip satisfaction and the number one reason for booking charter trips. The fish are good to eat and customers are willing to spend money on processing and vacuum sealing dolphin caught on charter trips.
 - In **GA**, dolphin have become more popular as a target species, particularly with access to better technology such as temperature charts and mapping. Anglers

enjoy pursuing the species for both harvest and sport. It was also noted that dolphin fishing is highly weather-dependent due very long runs offshore.

- In **South FL** dolphin are very important to the charter fishery and there has been strong demand for the species. The species is integral to tourism and very important to the local economy.
- Overall commercial demand for dolphin has been very strong from fish houses and restaurants and the ex-vessel price has been high.
 - It was noted that recent prices were much higher (\$5 to \$7 per pound) than the price information presented to the AP (approximately \$2.90 to \$3.40 per pound).
 - For longline vessels, prices for other Highly Migratory Species (HMS), such as tunas and swordfish, have also been elevated recently so vessels have often targeted these species instead of dolphin.
 - It was noted that it was important for restaurants to be able to advertise locally caught seafood and restaurants can easily sell out of all locally caught dolphin. In **South FL** restaurants rely on rod and reel caught fish and many restaurants have requested to reinstate for-hire bag limit sales of fish.

b) Importance to community

- i) What communities are dependent on the dolphin fishery?
- ii) Have changes in infrastructure (docks, marinas, fish houses) affected fishing opportunities for dolphin?
- iii) How have fishermen and communities adapted to changes in the dolphin fishery?

Previous AP input:

- Dolphin are among the best species to help introduce children to offshore fishing.
- In **SE NC**, Wilmington had become a “dolphin city” with a notable number of people interested in the sport, beauty, and culinary aspects (recreationally and commercially harvested) of the fish.
- In **South FL** the species is culturally iconic and an important part of the community and economy.
- In the **OBX**, navigation of inlets has impacted access (especially in the past 4 or 5 years). This particularly limits larger vessels (over 45 ft). There are also not as many boat ramps as elsewhere in NC.
- Generally, from the commercial perspective, there is a lack of infrastructure. Waterfront property is at a premium and fish houses are selling property for other uses.
- From the **OBX** to **SC** it is becoming tough to find a place to tie up a larger fishing vessel to stock up on supplies, fuel, and ice.
- Overall, infrastructure is generally better for recreational fishing than for commercial fishing.
- In **South FL**, there has been increased access for private and charter vessels with more marinas and private residences on the water. Overall, the price of access has increased notably as well and many fishermen are getting priced out of dock space.
- Recreational fishermen have adapted to using technology to target dolphin (temperature charts, satellite phones, etc.). It was also expressed that boats have gotten more reliable and faster, making it easier to cover large expanses of water.

- In **Southeastern NC** and **SC**, a lot of people have relocated from the New England area and many of these people like to go fishing. This has led to additional anglers jumping into the recreational dolphin fishery.
- For **South FL**, it was noted that anglers needed to travel further offshore and get away from the crowds to find better fishing.

3) Environmental/ecological/habitat influences:

- a) Have you noticed any unique effects of environmental conditions on dolphin? If so, please describe.
- b) What do you see now in terms of recruitment? Where are the small fish? Are large and small fish found in the same locations?
- c) Have you noticed any change in the species caught with dolphin over the years or seasonally?
- d) Have you noticed a change in typical location where dolphin are found (depth, distance from shore, water feature such a temperature break, current edge, bottom structure, etc.)?

Previous AP input:

Recruitment, seasonality, and other species

- Some AP members felt that harvest notably impacts future recruitment. It was noted that the number of smaller dolphin showing up in recent years along the **OBX** in the late summer and fall provides hope for the future of the fishery.
- While there was not a major change in the species caught with dolphin, the lack of yellowfin tuna in the **OBX** has led to increased targeting of dolphin.
- In **South FL** there has been a large amount of *Sargassum* in recent years that holds fish that may prey on small dolphin and dolphin eggs (almaco jacks, triggerfish, filefish, etc.). There has also been an abundance of other debris floating up the Gulf Stream in the fall.

Temperatures

- In **South FL** it was noted that water temperatures did not get below 77-78 degrees in the Gulf Stream in recent years, whereas temperatures used to drop lower during the winter in years past.
- Recent changes expressed for the fishery in **New England** were centered around changing environmental conditions. There has been a fair amount of *Sargassum* in the canyons but not much further inshore. Overall, fishermen are happy to see water temperatures at or above 70 degrees. The highest water temperature observed recently was 74 degrees, which is unusual.
- In the **OBX**, winter water temperatures have been significantly higher than in the past 10 years. Overall fishermen are seeing 75 degree or warmer water closer to shore for a longer period of time.
 - Summer temperatures are about the same, but winters are not getting as cold so there is a longer period of warmer water. Summer water temperature have been the same or only slightly higher than average.

Location and habitat

- In **SC**, a lot more *Sargassum* has been seen in recent years although it tends to be scattered.

- In the **OBX**, the *Sargassum* has tended to be scattered recently. In recent years, there have been big schools of dolphin in the “nice bailer” range but these fish have been well offshore (in over 100 fathoms). Overall, there have been more dolphin in deeper water than in shallower water on or near the shelf.
- In **GA**, fishermen used to go to the ledge (30 fathoms) first thing in the morning for wahoo and some dolphin, but dolphin have not been prevalent as on the shelf edge (the “ledge”). Now anglers typically stop at the ledge for wahoo and then head east to find dolphin.
- In **South FL**, larger specimens were typically found in deeper water further offshore and smaller fish in shallower water. There were also several fish aggregating devices (FADs) seen in recent years in 400-700 feet of water that held some fish, including wahoo. It was thought that these FADs floated in from the EEZs of other countries and were not from domestic fisheries.

4) Other:

- a) What else is important for the Council to know about dolphin?

Previous AP input:

- Overall, it was noted that an increase in the population of many shark species is having an impact on the dolphin fishery as well as many other fisheries in the South Atlantic.
- This is causing increased mortality on dolphin and other prized species. Sharks are preying upon fish that are hooked and anglers are at times needing to change tactics to avoid losing fish and gear to sharks.