

**Request for an Exempted Fishing Permit for Management of the Private
Recreational and For-Hire Components of the Red Snapper Recreational Fishery
Off Florida's Atlantic Coast for 2026-2028**



i. Application date: November 10, 2025

ii. EFP duration: May 1, 2026 – December 31, 2028

iii. Applicant's name, mailing address, and telephone number

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v. Background

Atlantic red snapper is an economically-important and iconic fishery in Florida's waters. However, the fishery has also been plagued by management challenges due to a lack of precise and reliable recreational landings, effort, and discard data. Past stock assessments have indicated that the stock is overfished and undergoing overfishing; however, these assessments also highlighted that abundance and biomass had increased and reached an all-time high in the most recent years of the assessment (SEDAR41, 2017; SEDAR73, 2021). Anglers have seen this record abundance on the water and have been frustrated by the lack of access and the management process. As frustration mounted, NOAA Fisheries conducted a stock assessment update (SEDAR73 Update, 2024), which highlighted that the stock is no longer overfished, and following implementation of NOAA's Secretarial Amendment 59 is no longer undergoing overfishing, and is rebuilding 20 years ahead of schedule. Despite this positive news, extremely low quotas, driven by highly uncertain dead discard estimates, have resulted in short 1-2-day recreational fishing seasons. The data being used to manage and monitor Atlantic red snapper (i.e., MRIP-FES) represents the crux of the issue. NOAA Fisheries admits that MRIP-FES may overestimate recreational fishing effort and harvest by up to 40% and that dead discards, which NOAA previously stated should not be used for management purposes due to high levels of error, represent the main reason for a small quota and short fishing season.

Beyond the foundational shortcomings of MRIP-FES, the data being used for management are heavily influenced by the extremely short season structure determined by NOAA Fisheries. Research has shown that effort estimates, and therefore estimates of harvest and discards, were artificially inflated across short fishing seasons for Gulf red snapper (Powers and Anson, 2018; Topping et al., 2019). As Gulf states were allowed to test state management for the private recreational anglers across longer fishing seasons, the data collected by the states became more precise than MRIP-FES, and therefore, was considered the 'Best Scientific Information Available' to manage the Gulf red snapper private recreational sector. A similar situation is currently unfolding for Atlantic red snapper, with consistent 1-2-day recreational fishing seasons established by NOAA Fisheries and incredibly high levels of effort estimated by MRIP-FES. MRIP was never meant for in-season fisheries management, and there is a clear need for essential, baseline data on landings, effort, and discards of Atlantic red snapper to better inform the management of this popular fishery. Furthermore, these short open seasons force a derby-style fishery, where anglers rush to fish to maximize catch before the brief window closes. This effort compression creates unsafe conditions at sea, overall encourages overconcentration of effort, and reduces both safety and fishery quality. Collectively, the United States Coast Guard, NOAA Law Enforcement, and individual state-agency law enforcement agencies have cautioned against these "derby" seasons due to the unsafe and unsustainable fishing conditions.

Due to these numerous challenges associated with Atlantic red snapper management, the Florida Fish and Wildlife Conservation Commission (FWC) received funding for three projects to test alternative management strategies aimed at reducing discard mortality while also providing an increased level of access for red snapper to better understand catch and discard rates. FWC's Atlantic Red Snapper research projects have been highly successful at collaborating with anglers, obtaining near real-time catch and discard data, and turning discards into landings through the use of an Exempted Fishing Permit (EFP) that allows for harvest outside of the low quota. Now in year 2 of these research projects, it is clear that anglers understand and care about the resource and value working with FWC to address the challenges associated with red snapper management. An essential component that sets FWC up for success is Florida's State Reef Fish Survey (SRFS). In its five years of operation, SRFS has proven to be one of the most impactful systems in the country for informing management of recreational fisheries. This integrative, cost-effective data collection program has clearly identified a practical application and receives broad public and industry support. In the Gulf of America, implementation of SRFS

led to the delegation of authority from NOAA Fisheries to the State of Florida to manage red snapper in state and federal waters. Ultimately, the use of SRFS has led to expanded fishing seasons and opportunities for Florida stakeholders. The current Gulf red snapper season is expected to last 126 days in Gulf state and federal waters, which is the longest Florida Gulf red snapper season since Florida took over management. It is our goal that SRFS can also be used in the South Atlantic to improve red snapper management along Florida's east coast.

vi. Purposes and goals of the exempted fishery for which an EFP is needed, including justification for issuance of the EFP

The purpose of this EFP is to allow the FWC to conduct a pilot study during 2026-2028 to test two methods for use in recreational data collection and catch, effort, and discard monitoring. These methodologies could then be potentially applied by the State of Florida for management of the private recreational and licensed for-hire components (state and federal) within the red snapper fishery off Florida's Atlantic coast in state and federal waters: (1) Florida's State Reef Fish Survey (SRFS) and (2) a voluntary smartphone web-based application during trips where a red snapper is harvested. Throughout this application, 'for-hire' refers to for-hire trips run from vessels that either hold a state-licensed charter permit or a federal South Atlantic Charter/Headboat for Snapper-Grouper For-Hire Fishing Permit. This EFP is offered in cooperation with the other South Atlantic states of Georgia, South Carolina, and North Carolina.

As noted above, short fishing seasons that drive an artificially compressed level of fishing effort, and therefore a lack of reliable catch and discard information, have compounded management of the Atlantic red snapper fishery into an untenable situation. To gather baseline data that is reflective of catch, effort, and discard rates associated with an expanded fishing season, FWC is proposing to monitor the recreational red snapper fishery through an extended 2026 fishing season that runs continuously from May 22 (the Friday before Memorial Day) to June 20 and reopens in the fall for 3-day fishing weekends (Friday-Sunday) on Oct. 2-4, 9-11, and 16-18. Specific season structures for 2027-2028 would be informed by the data collected from 2026, and FWC would work with NOAA Fisheries regarding any changes.

Anglers and licensed for-hire captains participating in the pilot study will catch and/or harvest red snapper (*Lutjanus campechanus*) off Florida's Atlantic coast and use two methods to report relevant information regarding their fishing trips: (1) the mandatory State Reef Fish Survey (SRFS) and (2) a voluntary smartphone web-based application during trips where a red snapper is harvested. Although anglers fishing for red snapper will be encouraged to report their catch/harvest through the app (to help FWC test its feasibility for use as a future recreational fisheries data collection method), the primary method for monitoring red snapper landings will be the SRFS survey (see Appendix 1 attached to this request for a more detailed description of the procedures, methodologies, and statistical approaches used by SRFS). Under this EFP, the FWC will test the feasibility of the app as a future recreational data collection method and for use in comparisons to SRFS data. Reporting through the app will be voluntary for individual anglers and licensed for-hire captains (state and federal) to report harvest and discards of red snapper within 24 hours of completing their fishing trip. The mandatory SRFS that is currently being used to supplement reef fish recreational fisheries data collected through MRIP will be used to estimate red snapper landings and fishing effort by private anglers, and a new registration requirement to facilitate surveys will be established for state-licensed for-hire captains participating in the pilot study covered by this EFP.

Private anglers with a valid recreational fishing license (or otherwise exempt) and a valid SRFS endorsement would be allowed to fish and harvest red snapper in the South Atlantic off Florida from shore up to 200 nautical miles (i.e., out to the Exclusive Economic Zone (EEZ) boundary) during the specified Florida Special Red Snapper Fishing Season authorized under this EFP. State-licensed for-hire captains would be allowed to participate in the pilot study and

fish for red snapper in state waters only (from shore out to 3 nautical miles), since they are not permitted to fish in federal waters. Federally-licensed for-hire boat captains with a South Atlantic Snapper-Grouper Charter/Headboat permit would be allowed to participate in the pilot study and fish from shore up to 200 nautical miles. All participants would be required to launch and return their vessels from Florida. For the purposes of estimating state-for-hire and federal-for-hire harvest of red snapper through this pilot program, all captains who would like to take customers fishing for red snapper would be required to sign up for the pilot study covered by this EFP. These captains, when surveyed through the For-Hire Survey for MRIP, would report on behalf of their customers. An additional sample of state and federal for-hire captains may be selected during the Florida Special Red Snapper Fishing Season to ensure adequate sample sizes for effort estimates. State-licensed captains who do not run red snapper or snapper grouper trips in the South Atlantic would not be required to sign up for the pilot study and would be prohibited from keeping red snapper under this EFP.

Private anglers and for-hire captains who participate in the Florida Special Red Snapper Season will be required to fish for a 10-fish snapper grouper aggregate bag limit (detailed below). Once each private angler or each customer on a for-hire vessel fills the 10-fish snapper grouper aggregate bag limit, they will be required to stop bottom fishing for reef fish (i.e., 55 species within the South Atlantic snapper-grouper complex). Participants may target other species such as coastal migratory pelagics, dolphinfish, snook, red drum, etc., but they will not be allowed to bottom fish for reef fish for the remainder of the trip; thereby minimizing their interaction with snapper grouper species and reducing discard mortality. Species within the 10-fish snapper grouper aggregate must meet current federal regulations (season and size limits); excluding red snapper. The expected outcome from such a management strategy would be a reduction in discards across many snapper grouper species, including red snapper.

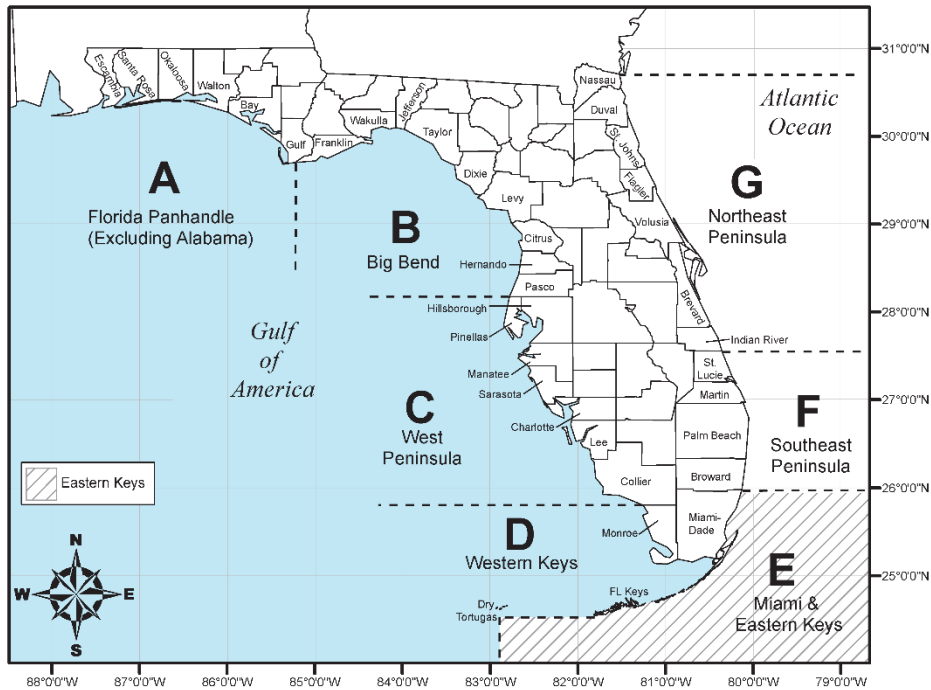
The 10-fish snapper-grouper aggregate proposed by FWC is as follows:

- Only 1 fish can be a red snapper
- Only 1 fish can be a gag, black, or scamp grouper
- Up to 2 fish can be red, yellowfin, yellowmouth, coney, graysby, red hind, or rock hind grouper
- Only 1 fish can be a red porgy, blueline tilefish, or golden tilefish
- Only 1 fish can be greater amberjack
- Up to 2 fish can be black sea bass
- Up to 5 fish can be gray triggerfish
- Up to 7 fish can be schoolmaster, gray, lane, yellowtail, queen, silk, or blackfin snapper
- Up to 5 fish can be vermilion, cubera, or mutton snapper

The reporting app developed by FWC and used during FWC's Atlantic Red Snapper EFP research projects has been an effective means of obtaining large amounts of fishing data (e.g., catch, discards, weather, location and depth fished, etc.). This app will be expanded to be open access, and individual private anglers will be able to use the app to report their personal catch and other relevant information. Individual names and other information needed to identify individual anglers would be collected using the app and could be matched to SRFS data. In contrast, state-licensed and federally-licensed for-hire captains would report on behalf of all customers fishing for red snapper aboard their vessel. Red snapper information collected through the app will include:

- Trip declaration,
- Date of fishing trip,
- Time fished,

- General location of fishing trip using SRFS map,



- What percentage of time was spent fishing in federal waters in the Atlantic (more than 3 miles from shore) for reef fish,
- Number of red snapper harvested,
- Number of red snapper released (and condition upon release), and
- Additional information (e.g., shark depredation, did not fish due to weather)

Prior to fishing, anglers and captains will be asked to declare their intent to go fishing within the FWC. After the conclusion of their fishing trip, anglers will be instructed to report the number of red snapper released and/or harvested as zero if they went on a red snapper trip but failed to catch any red snapper. Anglers and captains could also report if their trip was cancelled and why (e.g., weather). As mentioned, all of this would need to be reported within 24 hours of completing their fishing trip or expected trip. Reminders can be set up through the FWC app to remind anglers and captains to report their data. Although anglers fishing for red snapper will voluntarily report their catch/harvest through the app (to help FWC test its feasibility for use as a future recreational fisheries data collection method), the primary method for monitoring red snapper landings will be the SRFS survey (see Appendix 1 attached to this request for a more detailed description of the procedures, methodologies, and statistical approaches used by SRFS).

SRFS is a specialized survey designed to supplement the MRIP survey to provide more precise catch estimates for the recreational private boat fishery targeting reef fishes off Florida. Anglers fishing from private boats are required to sign up annually for the free SRFS designation to legally retain select reef fish species. Subscribers serve as the sample universe for a monthly mail survey to estimate fishing effort. Catch data is collected through targeted dockside surveys of offshore private recreational fisheries. A comprehensive list of recreational fishing access points is currently maintained by FWC and used for the access point intercept survey portion of the MRIP. This site register is used to identify a subset of sites throughout the east and west coasts of Florida where private recreational boats return from offshore fishing

trips. Offshore private boat fishing sites are selected for supplemental assignments (i.e., additional to MRIP assignments) using valid statistical sampling approaches. SRFS is MRIP certified and is being used for management and stock assessments, rather than MRIP-FES, for numerous reef fish fisheries in the Gulf of America and South Atlantic (e.g., mutton snapper, yellowtail snapper, Gulf gag grouper, Gulf red grouper). Additionally, through the ongoing Atlantic red snapper stock assessment process for SEDAR 90, estimates provided by SRFS on catch, effort, and discards have been shown to be four times smaller, 1.2 times smaller, and 2.1 times smaller than MRIP-FES estimates, respectively (Ramsay, 2025). More importantly, variance estimates for SRFS catch, effort, and discards are 80 times smaller, 10.9 times smaller, and 9.6 times smaller than MRIP-FES, respectively. It is clear that SRFS is well-equipped to monitor the Atlantic red snapper fishery for use in management and further explore how these data change and become more precise with an expanded fishing season, compared to the current framework under MRIP.

As explained above, red snapper landings and discards by Florida state-licensed and federally-licensed for-hire captains who elect to fish for red snapper during 2026-2028 (the period covered by this EFP) will be estimated through the MRIP For-Hire Survey. An additional sample of state and federal for-hire operations may be selected during the Florida Special Red Snapper Season to ensure adequate sample sizes for effort estimates. FWC will work with MRIP to adjust draws and assignments to better account for these seasons, concentrating sampling efforts on red snapper. The duration of the Special Red Snapper Fishing Season is based on several factors, including projected landings for the private recreational and for-hire components of Florida's red snapper fishery (excluding dead discards), results from the South Atlantic Red Snapper Research Project indicating that the population may be 2.7 times higher than previously estimated, and the need to collect baseline recreational data that is better suited for in-season fisheries management than MRIP. Similar to the way FWC manages the Gulf red snapper fishery, Atlantic red snapper will be closely monitored (SRFS, MRIP, and FWC's app). In-season quota monitoring will be based on an in-season projection model like what FWC uses for Gulf red snapper. This model for the Gulf improves each year and has been able to successfully provide accurate estimates of in-season harvest that prevent quota overruns.

Past research, as well as experience in managing red snapper in the Gulf of America, has highlighted that extended fishing seasons result in a reduction of fishing effort (Powers and Anson, 2018; Topping et al., 2019). Conversely, short fishing seasons, such as the current 1–2-day federal Atlantic red snapper fishing season, have been shown to compress effort into a derby-style season. While it is counterintuitive that a shortened season can have more detrimental impacts on a fishery than an extended season, research has demonstrated this to be the case in other fisheries, including Gulf red snapper (Powers and Anson, 2018). By extending the season, the artificially inflated harvest rate, which is due to effort compression, would be reduced, allowing anglers to have additional fishing days. Florida is uniquely set up in the South Atlantic to test whether an extended fishing season, combined with a snapper-grouper aggregate bag limit, would reduce and spread-out recreational fishing effort and landings. As such, Florida is proposing to set a continuous 30-day fishing season in the spring or early summer (outside of peak spawning for Atlantic red snapper) and a separate 9-day season in the fall. Florida's SRFS, MRIP, and the FWC app would be used to track landings, effort, and discards. If this EFP is approved by NOAA Fisheries, FWC would modify dockside sampling efforts to accommodate for an expanded Atlantic red snapper season structure.

vii. List of the specific regulations from which an exemption is being requested and why each exemption is required for the experiment to succeed.

As highlighted above, all private anglers with a SRFS designation and for-hire captains (state and federally-permitted_ who sign up for the EFP with the new state Atlantic red snapper

for-hire permit will be able to participate in the Florida Special Red Snapper Season. During the Florida Special Red Snapper Season, anglers will be able to retain 1 red snapper per person per day and for-hire captains who sign up for an EFP would be allowed to have their customers harvest 1 red snapper per person per trip. Captain and crew on for-hire trips would not be permitted to harvest a red snapper recreational bag limit. Private anglers and for-hire customers will be required to stop bottom fishing for reef fish once they have reached their 10-fish snapper grouper aggregate bag limit. FWC would provide lists of documentation and contact information for these anglers and for-hire captains to NOAA Fisheries (through the mandatory SRFS registry and from the list of licensed for-hire captains who sign up for the pilot study).

For 2026, the Florida Special Red Snapper Season will run from May 22-June 20 and select 3-day weekends in October (Oct. 2-4, 9-11, 16-18). A longer recreational fishing season than the current 1-2-day season is required to evaluate whether catch, effort, and discard rates are reduced as the fishing season expands. Evidence suggests the Atlantic red snapper stock is healthier than it has been in decades, is 20 years ahead of the rebuilding schedule, and potentially 2.7 times more abundant than previously estimated. FWC believes that there is ample biological, ecological, social, and economic justification to allow for the below exemptions to support improved data collection and management of Atlantic red snapper. FWC's past experience in Gulf red snapper state management and research from Powers and Anson (2018) and Topping et al. (2019), highlighting the artificial inflation of fishing effort due to short seasons, further justifies the need to gather data and manage Atlantic red snapper differently than the status quo. Additionally, FWC intends to overlap the start date, continuous season, and fall weekends of the Florida Special Red Snapper Season in the Atlantic with Florida's private recreational red snapper season in the Gulf of America to reduce effort shifting from the Gulf into the Atlantic, reducing overall pressure on the Atlantic fishery.

As a reminder, FWC is currently in Year 2 of three separate Atlantic Red Snapper EFP research projects aimed at reducing discards and is in a unique position to implement management strategies based on the findings from this research. To this point, implementation of a 10-fish snapper grouper aggregate bag limit is expected to further reduce landings, effort, and discards of Atlantic red snapper and other snapper grouper species.

To accomplish the goals of testing Atlantic red snapper data collection across an extended recreational Atlantic red snapper fishing season and a 10-fish snapper grouper aggregate bag limit, the following regulations would need to be exempt, including:

- Recreational season closure for red snapper at 50 CFR §622.183(b)(5)(i)
- Annual catch limits and accountability measures for red snapper at 50 CFR §622.193(y)(2)

viii. Catch information

The target species is Atlantic red snapper. Harvest of red snapper outside of the federal season and annual catch limit would require an EFP (see section above). While red snapper is the target species, other species within the South Atlantic snapper-grouper complex may be incidentally caught and harvested while trying to fill the 10-fish snapper-grouper aggregate bag limit. An EFP is not required for the other 54 species in the snapper-grouper complex as participants are required to follow regulatory closures for these species. Additionally, an EFP is not required for the 10-fish snapper grouper aggregate, as species-specific bag limits are set equal to or less than current federal bag limits (see section above). As such, the South Atlantic snapper-grouper complex includes the following harvestable species: greater amberjack, lesser amberjack, Atlantic spadefish, black grouper, coney grouper, gag grouper, graysby grouper, misty grouper, red grouper, red hind grouper, rock hind grouper, scamp grouper, snowy grouper, wreckfish, yellowedge grouper, yellowfin grouper, yellowmouth grouper, cottonwick

grunt, margate grunt, sailors choice grunt, tomtate grunt, white grunt, hogfish, almaco jack, bar jack, jolthead porgy, knobbed porgy, longspine porgy, red porgy, saucereye porgy, scup porgy, whitebone porgy, banded rudderfish, bank sea bass, black sea bass, rock sea bass, blackfin snapper, cubera snapper, gray snapper, lane snapper, mutton snapper, queen snapper, red snapper, silk snapper, vermillion snapper, yellowtail snapper, blueline tilefish, golden tilefish, sand tilefish, gray triggerfish, and ocean triggerfish. Within the proposed program and in addition to the snapper-grouper species listed above, anglers would also be able to harvest other species (e.g., Coastal Migratory Pelagics, dolphinfish, etc.) within the current South Atlantic regulatory limits. Should a regulatory closure occur for any species (other than red snapper), participants will be prohibited from harvesting those species. Should new regulations for species in the snapper grouper complex be implemented after submission of this proposal (e.g., a bag limit change), FWC will modify the snapper grouper aggregate to reflect new regulations for those species, as has been done for black sea bass (Regulatory Amendment 37 (pending final action)) in the proposed 10-fish aggregate. Recreational catch and discard information will be captured through SRFS, MRIP, and FWC's app. No additional impacts on the environment, including impacts on fisheries, marine mammals, threatened or endangered species, and essential fish habitat are expected. Additionally, the potential risk to the Atlantic red snapper stock is expected to be low.

ix. Effort information

Private anglers with a valid SRFS designation will be allowed to participate in the Florida Special Red Snapper Season. For-hire captains (state-licensed and federally-licensed) would be required to sign up for the EFP to enable their customers to participate in Florida's Special Red Snapper Season. Additionally, the trip declaration requirement within the voluntary FWC app will provide additional insight into intended and actual fishing effort during the Florida Special Red Snapper Season. All anglers would be required to stop bottom fishing for snapper grouper species once their 10-fish snapper grouper aggregate bag limit is reached. Harvest of red snapper is allowed by spearfishing or hook-and-line. If using hook-and-line, anglers are required to fish with a single-hook rig. Anglers would be required to have a descending device or venting tool rigged and ready and must use the descending device or venting tool if a fish is experiencing barotrauma. Harvest of Atlantic red snapper off Florida's east coast will only be allowed to occur during Florida's Special Red Snapper Season, May 22-June 20 and select 3-day weekends in October, and eligible anglers would be allowed to harvest 1 red snapper per day with no minimum size limit.

x. Information for vessels to be used for the EFP as soon as the information is available and before operations begin under the EFP

FWC will require all private recreational anglers participating in the Florida Special Red Snapper Season to hold a valid saltwater recreational fishing license issued by the State of Florida (or are exempt) and have declared themselves a SRFS angler (no-cost, annual designation). FWC will also require state-licensed for-hire and federally-licensed for-hire captains participating in the season to sign up for the State Atlantic Red Snapper For-Hire permit. All federally-licensed for-hire operations participating in the season will need to have the appropriate federal permits. Therefore, FWC will be able to account for and provide NOAA Fisheries and Law Enforcement with a list of participants (e.g., state license, registration of each vessel and vessel name during designated fishing trips, name of participants and contact information, etc.) to be covered under the EFP as soon as the information is available and before operations begin under the EFP.

xi. References

Powers, S.P. and Anson, K., 2018. Compression and relaxation of fishing effort in response to changes in the length of fishing season for red snapper (*Lutjanus campechanus*) in the northern Gulf of Mexico. *Fishery Bulletin* 117: 1-7.

Ramsay, C., 2025. A ratio-based method for calibrating estimates of total landings (numbers and pounds of fish), releases (numbers of fish) and total trips from MRIP-FCAL to SRFS for Red Snapper (*Lutjanus campechanus*) in the South Atlantic. SEDAR90-DW-19.

SEDAR41. 2017. SEDAR 41 South Atlantic Red Snapper Assessment Report – Revision 1. SEDAR, North Charleston, SC. 805 pp.

SEDAR73, 2021. SEDAR 73 South Atlantic Red Snapper Stock Assessment Report. SEDAR, North Charleston, SC. 194 pp.

SEDAR73 Update, 2024. SEDAR 73 Update Stock Assessment of Red Snapper off the Southeastern United States. National Marine Fisheries Service. 131 pp.

Topping, T.S., Streich, M.K., Fisher, M.R., and Stunz, G.W., 2019. A comparison of private recreational fishing harvest and effort for Gulf of Mexico red Snapper during derby and extended federal Seasons and implications for future management. *North American Journal of Fisheries Management* 39: 1311-1320.

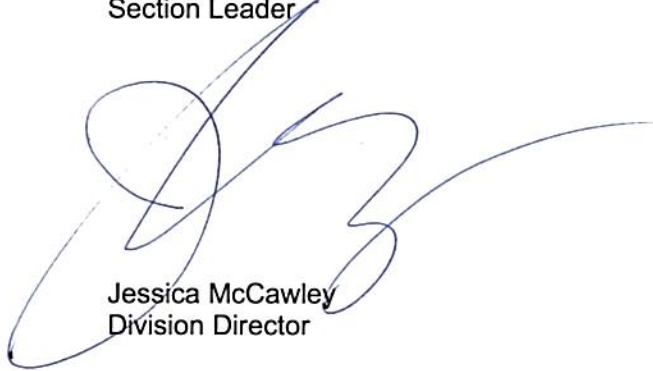
xii. Signature of applicants

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xiii. Appendices

Appendix 1: Florida’s State Reef Fish Survey (SRFS): A Brief Summary

Background

In response to the need for more precise estimates of recreational catch for reef fishes, particularly from private boats, the Florida Fish and Wildlife Conservation Commission developed and implemented a new survey in 2020 that runs side-by-side with the historic Marine Recreational Information Program (MRIP). The MRIP is a general survey of all saltwater recreational fishing in both state and federal waters, whereas the State Reef Fish Survey

(SRFS) is a supplemental, more specialized survey that directly targets participants in the reef fish fishery to collect information on effort and catch. The SRFS is the result of a decade of development and testing in Florida, in collaboration with independent statistical consultants and NOAA Fisheries scientists. The survey provides year-round, monthly estimates of fishing effort, landings, and discards for a suite of reef fish species commonly targeted by recreational anglers fishing from private boats in Florida. That species suite includes Gag (*Mycteroperca microlepis*), Black Grouper (*M. bonaci*), Red Grouper (*Epinephelus morio*), Gray Triggerfish (*Balistes capriscus*), Red Snapper (*Lutjanus campechanus*), Mutton Snapper (*L. analis*), Vermilion Snapper (*Rhomboplites aurorubens*), Yellowtail Snapper (*Ocyurus chrysurus*), Amberjacks (*Seriola* spp.; Greater/Lesser, Almaco Jacks, Banded Rudderfish), and Hogfish (*Lachnolaimus maximus*). These species were selected based on their management priority due to high recreational interest and economic importance or the need for improved, species-specific data to support more accurate stock assessments and harvest opportunities. These species are commonly targeted by anglers and contribute significantly to Florida's coastal economy.

Initially named the Gulf Reef Fish Survey (GRFS), the methodology was implemented in May 2015 and was only conducted on the west coast of Florida, north of Monroe County (Fig. 1) for 10 species. In 2018, the survey design and estimation methods were peer-reviewed and subsequently certified by NOAA Fisheries as statistically valid and suitable for use (SRFS Certification Memo and design documentation, available online: <https://www.fisheries.noaa.gov/recreational-fishing-data/transitioning-new-recreational-fishing-survey-designs>). In July 2020, the survey was expanded to include Monroe County and the east coast of Florida. Yellowtail Snapper, Mutton Snapper, and Hogfish were added to the species suite at this time as these species have a higher catch frequency in Monroe County and southeast Florida than in the original GRFS regional distribution.

The SRFS runs concurrently with the MRIP survey in Florida, which has provided vital statistics on recreational fishing effort and catch in the Gulf of America and Atlantic Ocean off the coast of Florida since 1981. The SRFS and MRIP surveys use independent methods to estimate fishing effort (angler trips). However, catch estimates derived from each method are not completely independent. To estimate catch-per-unit-effort (CPUE), MRIP uses data collected in the Access Point Angler Intercept Survey (APAIS), and SRFS uses a combination of data from the APAIS and supplemental reef fish angler intercepts. Assignments for both intercept surveys are drawn together so that sample weights are compatible (Foster, 2018). Effort and CPUE estimates are combined to generate catch estimates.

SRFS Effort Survey

Overview:

The SRFS effort survey is a mail survey designed to estimate the total number of private boat fishing trips targeting reef fish within Florida state and federal waters. Sampling occurs monthly and only individuals who hold a State Reef Fish Angler designation are eligible to receive the mail survey. This designation is free and required for all anglers 16 and older (including anglers over 65 that are not required to purchase a Florida Saltwater Fishing License) who target or catch any of the thirteen reef fish species that are part of the SRFS species suite. These data provide the sampling frame for selecting households likely to have engaged in private boat fishing for reef fish. The survey includes questions about the number of trips, trip location, and catch or target species to derive estimates of total effort specific to reef fish trips.

Sampling Design:

A stratified random sampling design is used to ensure representative coverage of anglers across coastal regions and increase estimate precision. The population of individuals with the state reef fish angler designation are stratified by region, separating Florida into coastal and

non-coastal counties and three regions by latitude. Out of state anglers are stratified into two regions, geographically close states (Georgia and Alabama) and the rest of the U.S. The Florida regions are further stratified to separate boat-owning households from those who do not. Each month, a sample of 10,000 licensed anglers is drawn from the registry. Sample sizes for each stratification are selected by a Neyman allocation that is rerun every six months to maintain relevancy and selected license holders are mailed a survey questionnaire.

Survey Design and Processing:

Respondents report the number of private boat trips taken within one month, specifying whether those trips targeted reef fish species. The recall period is short to reduce memory bias and improve accuracy. Completed surveys are returned to FWC, and data are processed to remove incomplete or duplicate responses and ensure accuracy. Since the survey uses a design-based method, expansion factors are applied to weight each response according to the inverse probability of selection within its stratum. These weights allow for unbiased expansion of survey responses to total, monthly effort estimates for the population of anglers with the state reef fish survey designation.

SRFS Dockside Survey

Overview:

The SRFS dockside survey supplements MRIP's Access Point Angler Intercept Survey (APAIS) by increasing sampling coverage at offshore sites to intercept more reef fish trips and collect detailed biological data from catch landed by private boat anglers. Sampling occurs at public boat ramps, marinas, and other access points throughout Florida's Gulf and Atlantic coasts.

Interviews are conducted to collect catch information for an entire boat (i.e., inclusive of all the anglers that participated in that trip), rather than for individual anglers, as is done with the APAIS survey. Biologists record trip information, catch composition, and biological samples are taken. These data provide the catch-rate component of total catch estimation and supply biological information essential for stock assessments.

Sampling Design:

Survey sample selection for SRFS is performed by MRIP staff as a supplement to their sample selection for APAIS sites. APAIS sampling occurs at publicly accessible recreational fishing access sites and follows a stratified design. Strata in Florida include coast (Gulf or Atlantic), year, month, day type (weekend/weekday), time of day (3 daytime intervals), and fishing mode (private boat, charter, shore, or offshore). Sampling assignments (site-day-time selections) are generated through probability-based selection proportional to expected angler activity at each site-day-time interval. The expected angler activity and available fishing sites are based on historical data and is frequently updated to reflect changes in fishing pressure.

The SRFS supplemental dockside sampling frame is modified from the APAIS to include only offshore sampling sites, each with an associated measure of expected fishing activity. Assignments are distributed to ensure spatial and temporal coverage across strata, prioritizing locations and times with higher reef fish trip activity. Biologists complete all assigned shifts regardless of expected catch conditions to maintain unbiased representation.

Interview Protocol:

At each assigned site, biologists approach all returning vessels to determine if they were fishing, fishing mode (private or charter), and whether the trip targeted, harvested, or discarded any of the suite of 13 SRFS species. If the boat is private and targeted or caught a SRFS fish, the survey continues to collect detailed trip information. The SRFS does not interview boats from the charter fleet. Biologists record the total number of anglers, trip duration, approximate trip

location (state or federal waters), depth fished, and gear type. Biologists also ask and visually verify if anglers fishing for SRFS species have the state reef fish angler designation.

If anglers caught fish, information about the number of released fish of each species and whether the fish were released dead, used as bait, or released alive are also recorded. Biologists also ask if any descending devices or venting tools were used to mitigate barotrauma.

If fish were harvested, biologists examine the landed fish to confirm species identification and number of fish. Fork and maximum total lengths, weight, and gonad identification is collected for every harvested fish that anglers permit. Biological samples, such as otoliths, may be taken according to FWC and NOAA protocols.

Data Processing and Quality Assurance:

All field data are entered into an electronic data management system and undergo rigorous quality control. Automated range and logic checks identify potential data entry errors or inconsistencies. Records are verified by two levels of supervisory staff and any corrections are documented in an audit trail. To ensure consistency with MRIP APAIS data, species codes, measurement units, and disposition categories align with MRIP data standards.

Estimation

Effort estimates:

Monthly effort estimates of the SRFS species suite are produced using weighted expansion of reported trips. The reported trips are first weighted according to the inverse proportion of the number of individuals who responded and the number of individuals who have the state reef fish designation in each sampling strata. A correction is then made for the number of individuals fishing for reef fish who do not have the designation for each coast based on proportions calculated from the dockside interview data. Separate estimates are calculated for the Gulf and Atlantic coasts, which differ in seasonality and species composition. Each monthly estimate represents the total number of private boat reef fish trips within a coast and area fished (state or federal waters). Effort estimates are generated separately for the original GRFS species suite than the three species added with the SRFS expansion (Mutton Snapper, Yellowtail Snapper, and Hogfish) due to differences in spatial distribution in where these two fish groups are caught. Annual totals are produced by summing monthly estimates.

Catch per unit effort (CPUE) estimates:

Data from the SRFS dockside survey are combined with APAIS dockside data to generate larger sample sizes of intercepted reef fish. Only APAIS data where an angler caught or targeted a SRFS species are used for SRFS estimates. Dockside data from both surveys have complementary weighting schemes due to the same methods being used for both APAIS and SRFS sample selection. Catch per unit effort (angler trips) estimates are generated for each reef fish species for the Gulf and Atlantic coasts for each month, year, and area fished.

Catch estimates:

Effort and CPUE estimates are combined to produce catch estimates by species, coast, area fished and month. Landings and release estimates include total numbers of trips, landings in numbers of fish, landings in pounds of fish (whole weight), releases in numbers of fish, and associated measures of uncertainty. Estimates are generated at a monthly scale, however as SRFS estimates incorporate APAIS sampling and sample weights from MRIP staff, SRFS estimates are available every two months (wave), approximately two weeks after MRIP estimates are released.

SRFS Data Use (historically to 2025)

Biological data collected from the SRFS survey both for SRFS species and other species intercepted by SRFS biologists have been used since the inception of the survey in stock assessments to help inform length and age compositions.

SRFS estimates have also been used as private recreational catch estimates for stock assessments of Florida-centric species such as Gulf Gag (SEDAR 72), Gulf Red Grouper (SEDAR 88), Southeast Mutton Snapper (SEDAR 79), and Southeast Yellowtail Snapper (SEDAR 96). SRFS data is currently in consideration for use for Atlantic Red Snapper (SEDAR 90) and statewide for Hogfish (SEDAR 94).

Since 2018 SRFS estimates have been used in state management of Gulf Red Snapper. Species and regions where SRFS estimates have been used for stock assessments are also managed using SRFS estimates. This means that Gulf Gag and Red Grouper used SRFS data for private recreational management starting in 2024 and Yellowtail and Mutton Snapper in Florida will be using SRFS data for private recreational management starting in 2026.

As a longer time-series of SRFS data is available, it is anticipated that SRFS estimates will be used for assessment and management of more of Florida's reef fish species covered by the SRFS survey. The SRFS represents an ongoing collaboration between FWC and NOAA to enhance data quality, improve precision, and strengthen the scientific foundation for sustainable reef fish management.

Saltwater Recreational Fishing Survey Map

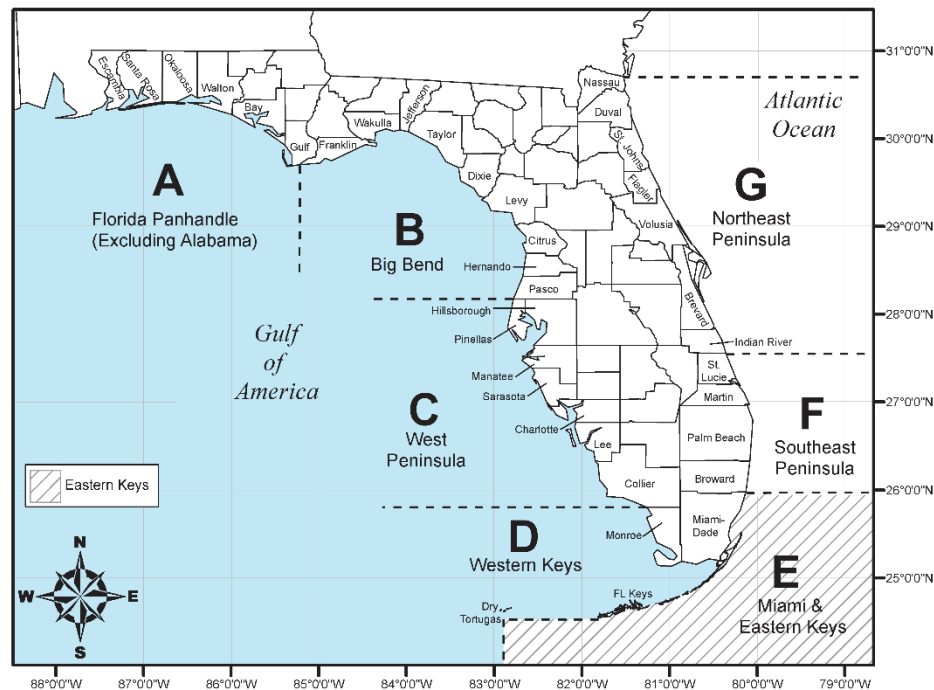


Figure 1. Regions of the state of Florida as designated by the State Reef Fish Survey (SRFS). The Gulf Reef Fish Survey (GRFS) which ran from May 2015-June 2020 covered regions A-C. Expansion to include regions D-G occurred in July 2020 and the species suite was also expanded at this time to include Yellowtail Snapper, Mutton Snapper, and Hogfish.