# Awareness, Attitudes, Perceptions, and Use of Best Release Practices by Recreational Reef Anglers in the Gulf of America (formerly the Gulf of Mexico)

**2024 Update**

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# Executive Summary

The primary purpose of this study was to, 1) measure changes in angler prevalence of use and perception of fish descender devices and other tools; and 2) determine effectiveness of the outreach and education programming at different stages (prior, during, and after implementation) of the project. Return 'Em Right is a program that started in Fall of 2021 and provides Gulf reef fish anglers with both the knowledge and gear to release reef fish that suffer from barotrauma. The program promotes best release practice use, including venting and descending, and distributed over 45,000 packages of descending gear to anglers over the last three years. The first survey was conducted in November 2021, and results were delivered to the Gulf States Marine Fisheries Commission in Spring, 2022 (Southwick Associates 2022[1]). The second survey was conducted in November 2024 to measure any changes from the first results, in addition to learning what impact the Return 'Em Right program had on respondents.

The second and final email-based survey was fielded in November 2024 to the recreational and for-hire sectors across all 5 Gulf States. These results include three fishing sectors: NOAA Gulf Charter Headboat for Reef Fish (RCG) permittees[2], state licensed for-hire charters/headboats, and private recreational anglers.

To the greatest extent possible, the methods were replicated from the 2021 project. The differences between 2021 and 2024 were,

- The survey platform changed from Alchemer to Qualtrics
- Questions were added to better understand angler motivations
- In 2024, one state requested the survey get fielded twice, whereas it was fielded 3 times in that state in 2021

In 2024, up to 5 waves were emailed (depending on state) and a 13% response rate was obtained. Overall, 3,819 individuals responded that they fished for reef fish in 2024 and over 400 responses were received for each state (range = 411 to 1,227). In comparison, the 2021 survey yielded a 14% response rate and 4,194 individual responses.

When the first survey was conducted, Return 'Em Right had just launched a few months prior and only 4% of private recreational anglers (the largest sector of anglers in this study) heard of the program. In 2024, 30% of recreational anglers were aware of the program and they consistently reported higher awareness of barotrauma and best release practices (BRPs), including the skills required to safely return fish to depth. This report highlights key findings in 2024, along with changes from 2021.

[1] Awareness, Attitudes, Perceptions, and Use of Best Fishing Practices by Recreational Reef Anglers in the Gulf of Mexico. Publication number 312.

[2] We were unable to obtain a current list of NOAA RCG permittees, so the 2021 list was used as a surrogate.

### Areas of change from 2021

- **More respondents knew about Return 'Em Right in 2024, compared to 2021.** In 2021, Return 'Em Right had just launched and only 4% of private recreational anglers heard of the program. In 2024, this percentage increased to 30% of recreational anglers (Figure 27). A similar increase was observed among the state for-hire sector, 10% to 54% and NOAA RCG respondents 17% to 73%. In addition to hearing about Return 'Em Right, 10% of private recreational anglers from this survey also received a Fish Descending Device through the program.
- **Private recreational anglers' ability to identify barotrauma symptoms improved.** The symptoms with the greatest growth in recognition, among survey respondents, were intestines coming out of anus (17% increase) and stomach coming out of mouth (13% increase). The proportion of respondents who did not know any of the symptoms decreased slightly from 8% in 2021 to 6% in 2024 (Figure 8). A fish's stomach coming out of its mouth or floating and unable to return to depth remained the top recognized symptoms in both years.
- **More respondents were aware of descending devices and venting methods in 2024.** Awareness of descending devices increased from 32% in 2021 to 58% in 2024, while venting awareness increased moderately from 71% to 80% (Figure 13). As awareness of descending devices has grown, the number of survey respondents who reported using descending devices "often to always" increased from 28% in 2021 compared to 47% in 2024.
- **More respondents believed that anglers play an active role in helping fish return to depth.** In 2024, 15% more respondents agreed with the statement that "Anglers like me help fish return to depth when needed," while 19% more agreed that "Other anglers support the use of venting tools" (venting a fish before returning it to depth is one of the recommendations of the Return 'Em Right program) in comparison to 2021 levels (Figure 24).
- **Respondents were confident in their ability to manage barotrauma symptoms.** In 2021, 56% of respondents reported they were confident in their ability to help fish return to depth. This percentage increased to 71% of anglers in 2024 (Figure 25). Additionally, respondents were 17% more likely to indicate there is always a venting tool onboard and 18% more likely to indicate there is always a fish descending device onboard.
- **Venting and descending tools were viewed as much easier to use in 2024.** In contrast to 2021, respondents were 17% more likely to disagree that venting tools were difficult to use and 29% more likely to say descending devices are easy to use (Figure 22). Additionally, respondents were 20% more likely to disagree that venting tools and descending devices take too much time.

### Areas that did not exhibit growth/change

- **Respondents from both surveys agreed they would help fish return to depth when necessary.** In 2021, 87% of private recreational respondents agreed with this statement and in 2024, 89% did (Figure 20). A majority also disagreed with the statement that helping fish return to depth is unnecessary even when it is clear fish cannot swim down on their own.
- **Many social norms about the release of fish stayed the same as 2021.** In 2024 roughly the same percentage of respondents as in 2021 agreed that fisheries managers (76% in 2024 vs 71% in 2021) and other anglers (60% in 2024 vs 55% in 2021) expect them to help fish return to depth when necessary (Figure 24).

### People who knew about Return 'Em Right had more knowledge in all areas

- **Respondents who were aware of Return 'Em Right were more likely to believe in the best release practices.** Respondents who knew about Return 'Em Right were 26% more likely to disagree that current fishing practices and gear to help return fish to depth don't work (Figure 32). They were also 12% more likely to agree that fish need help returning to depth when caught in water deeper than 50 feet.
- **Venting tools and descending devices were viewed more favorably by those who heard about Return 'Em Right.** Respondents who knew about Return 'Em Right more often agreed that fish descending devices are easy to use (60% to 45%) and that descending devices help fish return to depth (88% to 75%) (Figure 33). They also tended to disagree more frequently that venting tools are too expensive (80% to 66%), descending devices are too expensive (50% to 34%), and that helping fish return to depth is unnecessary (86% to 70%).
- **Respondents who knew about Return 'Em Right were also apt to agree with perceived social norms.** Across the social norm questions, the proportion of respondents who agreed with any given item was at least 11% greater than those who had not heard of Return 'Em Right (Figure 34). The three greatest differences were that Return 'Em Right aware anglers were 21% more inclined to agree that other anglers support the use of fish descending devices, and 15% more respondents agreed that fisheries managers expect them to help fish return to dept, and anglers like them help fish return to depth when needed.
- **Respondents who heard about Return 'Em Right were much more confident in their ability to return fish to depth.** Respondents who were aware of Return 'Em Right agreed that they were confident in their ability to return fish to depth (89%); only 18% felt they needed more training (Figure 35). In comparison, unaware respondents were less confident (63%) in their ability, and 41% felt they needed more training. For descending devices 90% of aware anglers agreed they knew how to use a descending device, compared to 65% of unaware respondents.

### Key findings from new 2024 questions

- **Private recreational respondents' top motivations are family-based.** Respondents were most likely to state their top reason for fishing was the ability to catch food for dinner and to spend time with friends and family (Figure 5). In comparison, NOAA RCG respondents were most interested in sharing knowledge and teaching others (Figure 6).
- **Information anglers receive most commonly comes from word of mouth and online searches.** 61% percent of respondents reported receiving information regarding reef fishing from other anglers while 53% reported receiving information from websites (Figure 7).
- **While most respondents have not lost a fish to a predator after venting or during descending, the number who have is still significant.** In 2024, 17% of respondents reported losing fish to predation when descending, while 29% reported losing fish to predation after venting. However, anglers may sometimes misinterpret a successful release for depredation or may not see the depredation event occur (Figure 18).
- **When it came to where respondents got their fish descending device, there was no majority.** However, certain survey options were more popular with 28% of respondents reporting they received it from the Return 'Em Right program, followed closely by a tackle shop (23%), and it belonged to someone else (22%) (Figure 17).

Additional detailed results and methodologies are presented in the full report.

# Introduction

The goal of Return 'Em Right is to reduce catch and release mortality from barotrauma in recreational reef fish in the Gulf of America, formerly known as the Gulf of Mexico, to restore fish injured by the Deepwater Horizon Oil spill. This is done by reducing barriers to the adoption of best practices. Program activities include education, outreach, research, and the distribution of fish descending devices. This report is the second part of a cross-sectional study launched in 2021 to understand Gulf angler's reef fishing behaviors, awareness of barotrauma and best release practices, and attitudes around reef fishing. In 2021, an initial survey of Gulf anglers across three sectors, private recreational, state-licensed for-hire charter/head boats, and NOAA Gulf Charter Headboat for Reef Fish (RCG) permit holders was conducted around the same time that the Return 'Em Right program was launched.

This survey was used to create a baseline report titled "Awareness, Attitudes, Perceptions, and the Use of Best Fishing Practices by Recreational Reef Anglers in the Gulf of Mexico" (Southwick Associates, 2022). In 2021, most anglers had yet to hear about Return 'Em Right (96% of private anglers had no knowledge). As a result, these anglers provided a snapshot into the awareness and behavior of Gulf States anglers before Return 'Em Right. Three years later, in Fall/Winter of 2024, the survey was repeated, providing insight into how knowledge and awareness of best release practices has grown among the general Gulf angling public and how attitude and behavior may have changed in the past three years since the Return 'Em Right program began.

# Data and Methods

The populations of interest for this series of surveys were private recreational reef anglers, state licensed for-hire charters and NOAA Gulf Charter Headboat for Reef Fish (RCG) permit holders who fished from one of the five states located along the Gulf coast (Florida, Alabama, Mississippi, Louisiana, Texas) during 2024. Anglers were asked to self-report which sector they most identified with. In general, and for the purposes of this survey, a private recreational angler is an individual fishing from a private or rental vessel for personal or leisure purposes with no intent to sell their catch. A state-licensed for-hire charter refers to a vessel owner or operator that is operating as a for-hire entity, such as a charter boat, Headboat, or party boat under a state-issued license or permit, which does not permit fishing in federal waters. A NOAA RCG permit holder is a vessel operator holding a federal permit authorizing them to carry passengers for reef fishing in federal waters (Exclusive Economic Zone) of the Gulf.

Prior to survey development and identification of a sampling scheme, meetings were held with fisheries experts in each Gulf state to discuss the overall project, data needs and availability, how reef anglers are identified, and if anything had changed since 2021. The survey was distributed online using the Qualtrics platform, with potential respondents contacted up to 5 times to complete the survey.

Throughout the survey respondents were asked questions about their typical Gulf fishing trip, overall experience, awareness around reef fish handling and release practices, perception of ecosystem health, and beliefs and/or attitudes around the importance and impact of returning fish to depth (Appendix A).

Similar to 2021, knowledge of barotrauma and best release practices was assessed using three questions related to 1) recognizing the symptoms, 2) awareness of best release practices, and 3) how often they used best release practices. Individuals who vented fish were also asked the type of tool they most often used to vent. Also following 2021, the term "barotrauma" was not used. Similar to Crandell et al. (2018), the belief was that using that term may cause confusion and potentially bias results. In addition, there was concern among 2021 reviewers that the term may evoke negative reactions among survey recipients. Thus, the term "return to depth" was used in questions discussing fish trauma symptoms and release practices. Consequently, the survey verbiage did not change.

While this survey sought to capture changes in awareness, behavior, and attitudes following the implementation of Return 'Em Right, survey respondents were not asked if they knew about the program until the end of the survey (just prior to the demographics questions), and terminology commonly associated with this program like "best release practices" were avoided. This was done to minimize the risk of respondents being influenced (or primed) in how they answered questions.

### State-level sampling[3]

The sampling frame for each state was dependent on how their anglers were tracked and engaged by each Gulf state agency and was dependent on how each agency licenses anglers. The targeted response was 400 adult reef fish anglers per state[4] and given the differences (and availability) of state license data, the number of outgoing surveys by state was based on conversations with agency staff. For example, Florida routinely surveys holders of reef angler designations and has a good handle on response rates; thus, the number of surveys sent to Florida anglers reflects a goal of 400 responses, given the average response rate for that state (Table **1**).

Alabama (AL) provided complete license data, and a proportional sample was drawn based on residency status.

Florida (FL) also provided complete data, and the proportional sample was selected based on the stratification scheme used by the Florida Fish and Wildlife Commission (FWC) for holders of a 'State Reef Angler Designation' permit[5]. The FWC frequently surveys these permittees, and our proposed methodology and final sample were shared to avoid issues, such as survey fatigue and inconsistencies with their on-going work.

Louisiana (LA) provided data sufficient to select a proportional sample of Recreational Offshore Landing Permit holders based on residency status; they also fielded the survey through their email system.

Mississippi (MS) fielded the survey using the population of individuals who were registered in their reporting system, Tails n' Scales. In MS, it is mandatory for one angler from each fishing trip targeting red snapper to fulfill reporting system requirements. This responsibility often falls on the vessel owner, thereby resulting in our sampling frame being heavily skewed towards vessel owners. This had implications in our survey, which we'll discuss later in the report. Agency staff routinely communicate with reef anglers through the app, but to avoid survey fatigue, the number and frequency of questions they ask were limited.

Specific to Texas, there is no special reef angler permit or designation, so boat owners were used as a surrogate following the methods from a previously published study (Schuett, et.al., 2016).[6] The entire population of individuals with an email on file who owned boats 24 feet or larger in the counties identified by Schuett et al. (2016) were sampled. Similar to MS, this sampling frame is also heavily skewed towards vessel owners, which might influence survey responses.

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[3] As determined by each state, data sharing and privacy agreements were executed prior to obtaining study data.
[4] From the proposal, "a minimum of 400 completed responses is needed per survey to achieve overall margin of error of +/-5% at a 95% confidence level."
[5] In Florida, strata 500 is non-residents from Alabama and Georgia. We only surveyed Georgia residents from this strata to avoid duplicating individuals from the Alabama sample.
[6] Schuett et al. (2016) surveyed boat owners 26 feet and larger. GSMFC staff indicated south Texas anglers could reach reef fishing depths closer to shore, we opted to use boats 24 feet and larger from the same counties.

## Data Weighting

Sufficient data were not available to apply weighting procedures consistently. The MS Tails n' Scales app requires only the person reporting their catch to be registered in the system. This is typically the boat owner and is skewed strongly towards males.[7] In TX, the boat registration data does not include date of birth or gender and is also skewed towards males.[8] Consequently, we did not weigh the study data.

Table 1. Permit types used to count reef fishing anglers, permit cost, and sample sizes for each Gulf state surveyed.

| | | | | Sample size | | |
|---|---|---|---|---|---|---|
| State | Reef Angler Licensing Method | Required | Cost | Private | State for-hire | Total |
| Alabama | Reef Fish Endorsement | X | $10 | 7,000 | 223 | 7,223 |
| Florida | State Reef Fish Angler Designation | X | Free | 15,000 | 2,000 | 17,000 |
| Louisiana | Recreational Offshore Landing Permit | X | Free | 8,000 | No Data | 8,000 |
| Mississippi | Recreational Offshore Landing Permit | X | Free | 3,466 | | 3,466 |
| Texas | None | | | 12,227 | | 12,227 |
| Total | | | | | | 47,916 |

## Response Rate and Demographics

Of the 47,916 surveys distributed, 3,607 were undeliverable, and 5,616 individuals responded, which yielded a total response rate of 12.7% (Table 2). Of these responses, 3,819 were completed and the majority were from the private recreational sector (3,430, 90%). The state with the greatest representation was Louisiana with 1,263 responses (33% of the total). Focusing on private recreational anglers, compared to 2021, the 2024 survey had much higher representation from Louisiana, growing from 671 responses to 1,227. In contrast, the number of responses from Florida and Mississippi decreased by around 400 (Table 2)[9].

Table 2. Survey respondents by state and sector.

| | Sector | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| State | Private | | State for-hire | | NOAA RCG | | Total | |
| | 2021 | 2024 | 2021 | 2024 | 2021 | 2024 | 2021 | 2024 |
| Alabama | 613 | 647 | 33 | 16 | 27 | 13 | 673 | 676 |
| Florida | 950 | 489 | 107 | 164 | 149 | 93 | 1,206 | 746 |
| Louisiana | 671 | 1,227 | 20 | 29 | 14 | 7 | 705 | 1,263 |
| Mississippi | 1,043 | 656 | 38 | 25 | 2 | 1 | 1,083 | 682 |
| Texas | 628 | 411 | 43 | 27 | 24 | 14 | 695 | 452 |
| Total responses | 3,905 | 3,430 | 241 | 261 | 216 | 128 | 4,362 | 3,819 |

[7] Trevor Moncrief, MDMR, personal communication.

[8] Based on observations of first names in the boat registration dataset.

[9] In Florida, a series of hurricanes and tropical storms occurred in the Gulf, which may have influenced response rates. Mississippi opted to field the survey twice in 2024, as compared to 3 times in 2021. We also slightly increased the sample size in Louisiana because of the low response rates observed in 2021 (likely due to hurricane Ida).

Most respondents were male (92%; range = 89% – 97% ). (Table 3). State for-hire and NOAA RCG sectors had proportionally fewer female respondents. The State for-hire sector received three female responses, and NOAA Gulf Charter/Headboat for Reef Fish permittees (RCG) received two female responses[10].

Table 3. Survey participant male percentage by sector.

| | Private | | State For-hire | | NOAA RCG | |
|---|---|---|---|---|---|---|
| | Male | (n) | Male | (n) | Male | (n) |
| Alabama | 92% | 461 | 100% | 13 | 100% | 10 |
| Florida | 92% | 333 | 99% | 139 | 99% | 74 |
| Louisiana | 89% | 898 | 95% | 21 | 100% | 5 |
| Mississippi | 97% | 581 | 100% | 21 | 100% | 1 |
| Texas | 97% | 311 | 100% | 20 | 92% | 11 |
| Total | 92% | 2,584 | 99% | 214 | 98% | 101 |

Most respondents (91%) were White or Caucasian (Table 4). The next most common race/ethnicity selected was Hispanic (1.6%), with Texas having the highest percentage at 6.2%. Around 3% of the respondents elected not to share their primary race/ethnicity.

Table 4. Survey participant by primary race/ethnicity.

| State | White or Caucasian | Hispanic or Latino | Black or African American | American Indian or Native Alaskan | Asian | Native Hawaiian or Pacific Islander | Other | Prefer not to say | Count |
|---|---|---|---|---|---|---|---|---|---|
| Alabama | 93% | 0.4% | 0.6% | 1.3% | 0.6% | 0.2% | 0.8% | 3.6% | 593 |
| Florida | 89% | 1.9% | 1.5% | 1.2% | 0.7% | 0.3% | 1.5% | 5.1% | 591 |
| Louisiana | 92% | 0.9% | 0.9% | 1.3% | 1.3% | 0.3% | 0.7% | 2.4% | 1,065 |
| Mississippi | 92% | 0.9% | 1.4% | 0.9% | 1.1% | 0.2% | 0.5% | 2.5% | 633 |
| Texas | 85% | 6.2% | 1.4% | 0.3% | 1.1% | 0.0% | 1.7% | 4.8% | 357 |
| Total | 91% | 1.6% | 1.1% | 1.1% | 1.0% | 0.2% | 0.9% | 3.4% | 3,179 |
| Total Responses | 2,881 | 51 | 36 | 35 | 32 | 7 | 29 | 108 | |

[10] Gender was not available for RCG list. For Florida charters, only 1.6% of the records that included gender were female.

## Reef Fishing Experience

The average reef fishing experience was higher across almost all states and sectors in 2024 across each sector and state than in 2021. NOAA RCG respondents were the most experienced ($\bar{X}$ = 29.8 years), followed by state for-hire ($\bar{X}$ = 23 years) (Table 5). Private recreational respondents averaged 18.0 years, which varied considerably among states, with LA respondents averaging the fewest years ($\bar{X}$ = 15.3 years) and TX respondents the most ($\bar{X}$ = 23.7 years). Table 5

Table 5. Average years of reef fishing experience by state and sector between 2024 and 2021.

| | Private | | State for-hire | | NOAA RCG | | Overall | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 2024 | | 2021 | |
| State | 2024 | 2021 | 2024 | 2021 | 2024 | 2021 | Mean | (n) | Mean | (n) |
| Alabama | 18.4 | 15.4 | 19.6 | 17 | 33.1 | 23.9 | 18.7 | 666 | 15.8 | 673 |
| Florida | 17.6 | 12.8 | 25.6 | 21.2 | 28.7 | 25.9 | 20.8 | 734 | 15.2 | 1,206 |
| Louisiana | 15.3 | 9.5 | 15.1 | 15.7 | 27.2 | 22.9 | 15.3 | 1,253 | 10 | 705 |
| Mississippi | 19.6 | 17.3 | 20.7 | 13.8 | 20.0 | 15 | 19.7 | 680 | 17.2 | 1,083 |
| Texas | 23.7 | 21.7 | 20.3 | 16.8 | 35.5 | 26.4 | 23.8 | 447 | 21.6 | 695 |
| Overall Average | 18.0 | 15.3 | 23.0 | 18.2 | 29.8 | 25.4 | 18.8 | 3,780 | 16.0 | 4,362 |

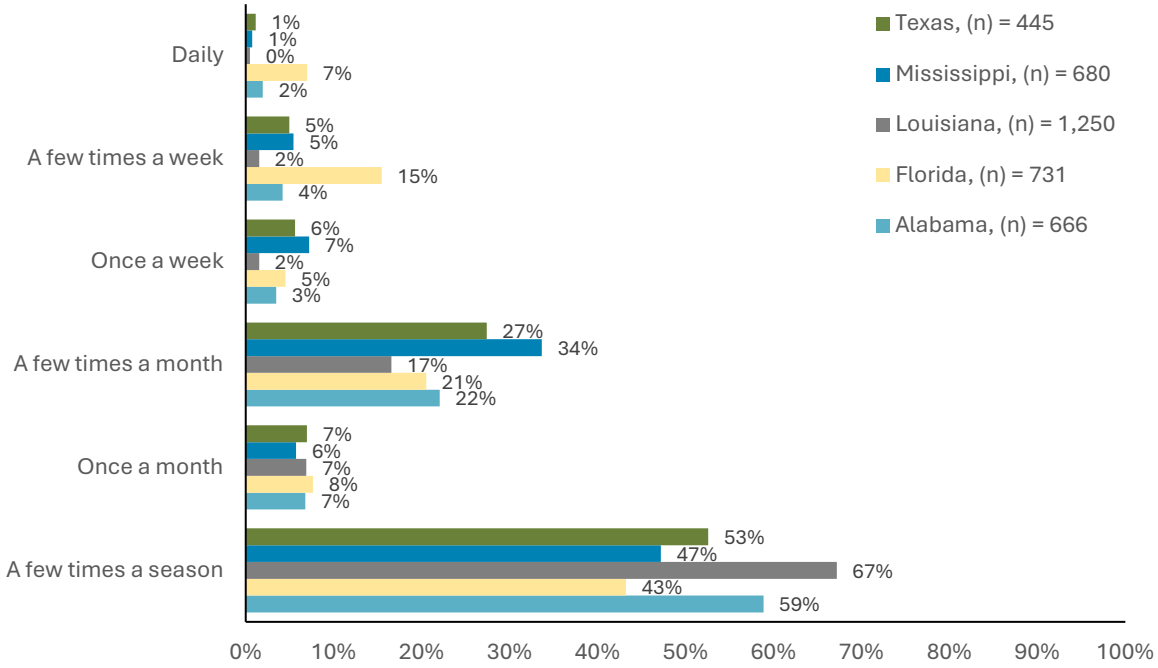
The average age of a survey respondent in 2024 was 53 years old. Anglers who participated in this year's survey were slightly older overall than in 2021 (Table 6). Texas had the oldest average respondent at nearly 58 years old, while Louisiana was the youngest at 50 years old.

Table 6. Average age of respondents by state and sector 2024 versus 2021.

| | Private | | | | State for-hire | | | | NOAA RCG | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2024 | | 2021 | | 2024 | | 2021 | | 2024 | | 2021 | |
| | Mean | (n) | Mean | (n) | Mean | (n) | Mean | (n) | Mean | (n) | Mean | (n) |
| Alabama | 55.0 | 507 | 51.6 | 493 | 56.2 | 13 | 49.0 | 30 | 54.2 | 11 | 50.0 | 24 |
| Florida | 56.9 | 374 | 52.3 | 755 | 54.1 | 142 | 50.0 | 86 | 55.3 | 75 | 52.8 | 131 |
| Louisiana | 50.3 | 1,029 | 41.7 | 516 | 45.7 | 22 | 44.4 | 13 | 51.4 | 5 | 50.9 | 11 |
| Mississippi | 51.2 | 606 | 48.3 | 981 | 46.0 | 21 | 44.2 | 36 | 33.0 | 1 | 41.0 | 2 |
| Texas | 57.5 | 322 | 56.4 | 515 | 57.9 | 20 | 51.6 | 34 | 59.2 | 12 | 56.9 | 20 |

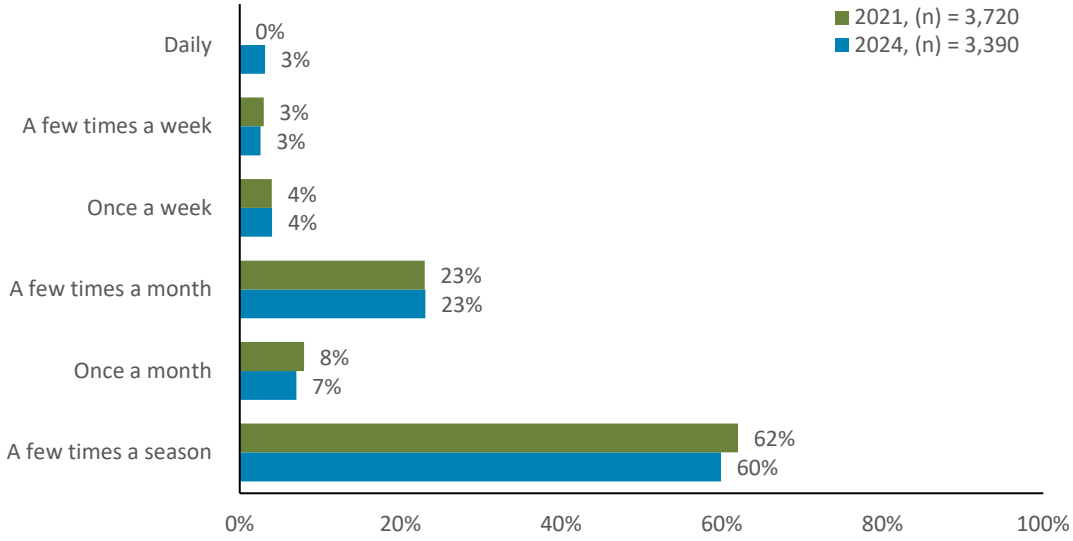
Most private recreational respondents only reef fish a few times a season; the state with the highest proportion was Louisiana at 67% (Figure 1). The next most common fishing frequency was a few times a month, with Mississippi having the most respondents in this group at 34%. Anglers in Florida fished the most often, with only 43% fishing a few times a season, and 7% reporting that they fished daily (3x more than the next highest state).

Figure 1. Private fishing frequency by state in 2024.



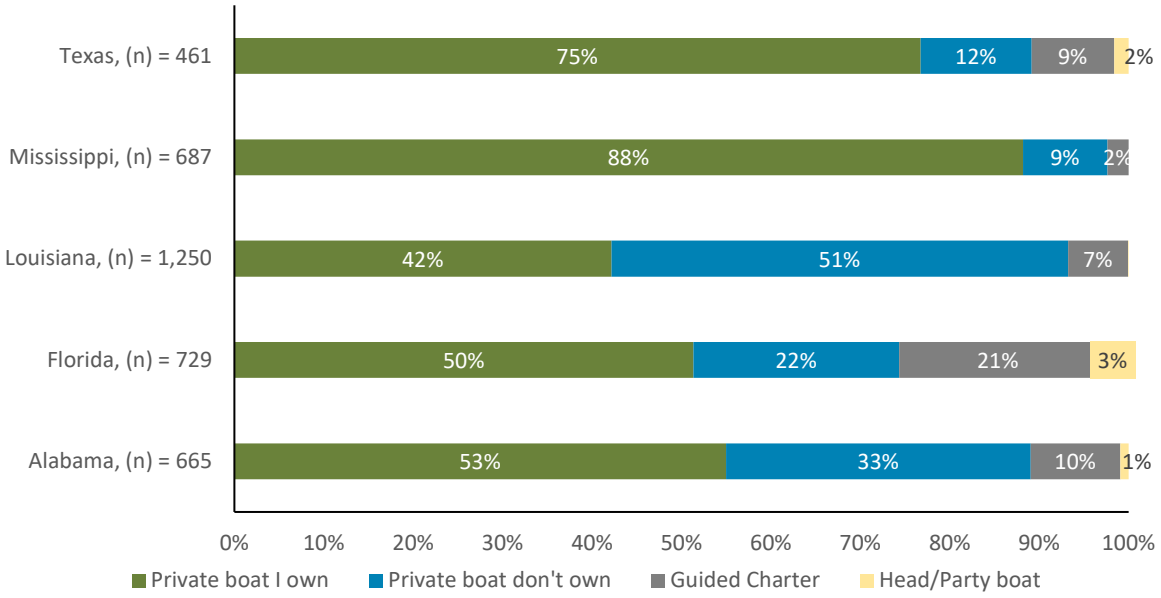

Combined across all states, private recreational respondents in 2024 fished as often as they did in 2021 (Figure 2).

Figure 2. Private recreational fishing frequency in 2024 and 2021.



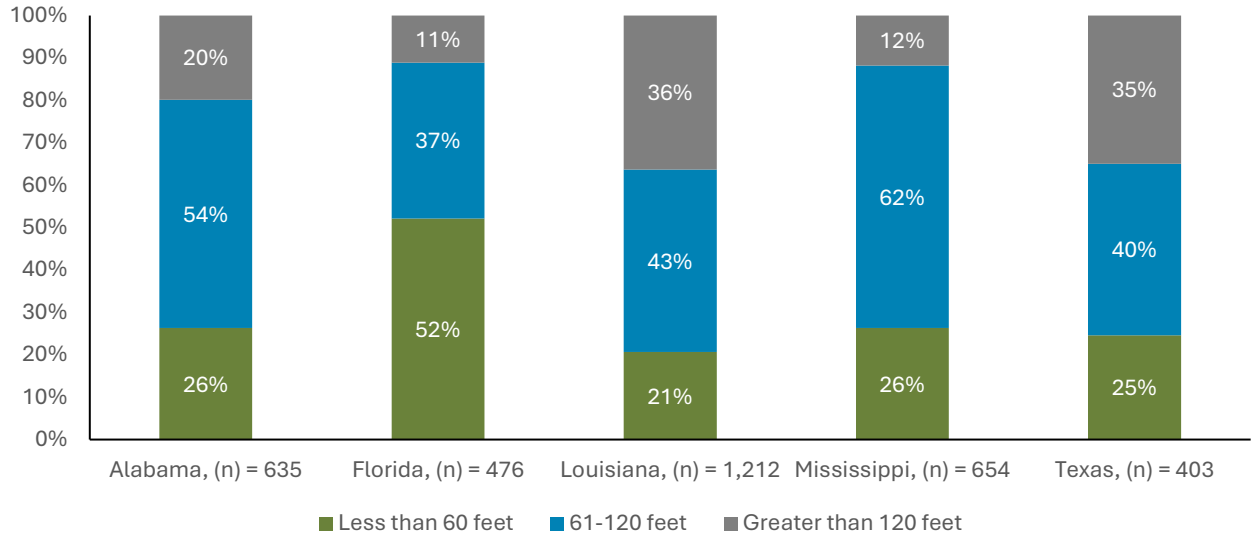
Overall, most respondents fished from a private boat that, with most using a boat they owned (Figure 3). Florida was the only state where more than 10% of the survey respondents fished from a guided charter.

Figure 3. Type of boat respondents primarily fished from by state.




Across the Gulf, respondents reported fishing at various depths. In Florida, 52% of respondents fished at less than 60 feet, which was by far the highest percentage of any state, with Alabama and Mississippi coming in a distant second at 26% (Figure 4). In contrast, Louisiana and Texas had the highest proportion of respondents fishing at a depth greater than 120 feet, at 36% and 35% respectively. These trends follow closely and are all similar to results from the 2021 survey.

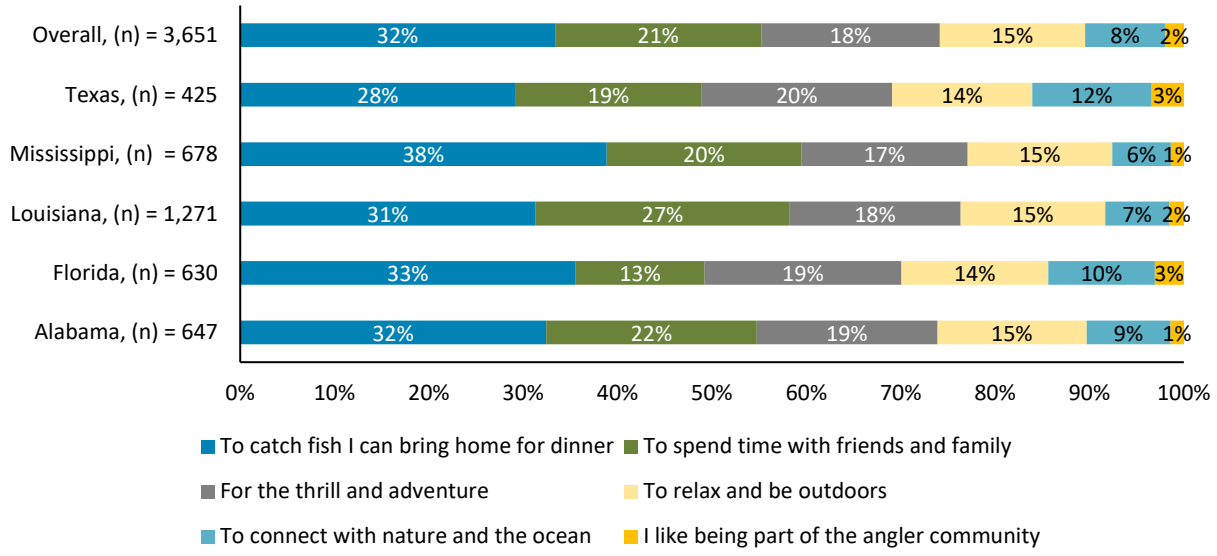
Figure 4. Private recreational fishing depth by state



## Angler Motivations

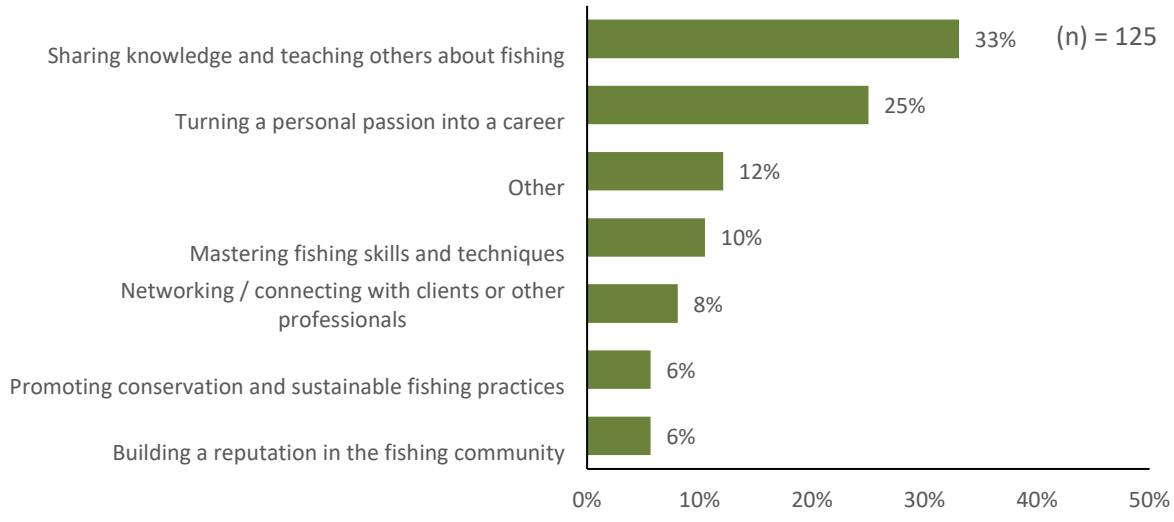
Private recreational respondents were asked what motivates them to fish in the Gulf. The two most common reasons were to catch fish to bring home for dinner (32%) and to spend time with friends and family (21%). For respondents in Texas and Florida, the second most popular reason was "for the thrill and adventure of fishing". The option that attracted the lowest percentage of respondents was, "they liked being part of the angler community", at 2% overall (Figure 6).

Figure 5. Private recreational respondents' motivations for fishing. Individuals could select only one option.




Further, NOAA RCG respondents were also asked about their top professional motivations. The most common selection was sharing their knowledge and teaching others about fishing at 33%. The next most common selection was turning their personal passion into a career at 25%. Promoting conservation and building their reputation was selected by 6% each. State level NOAA RCG results were not reported due to low sample sizes (Figure 6).

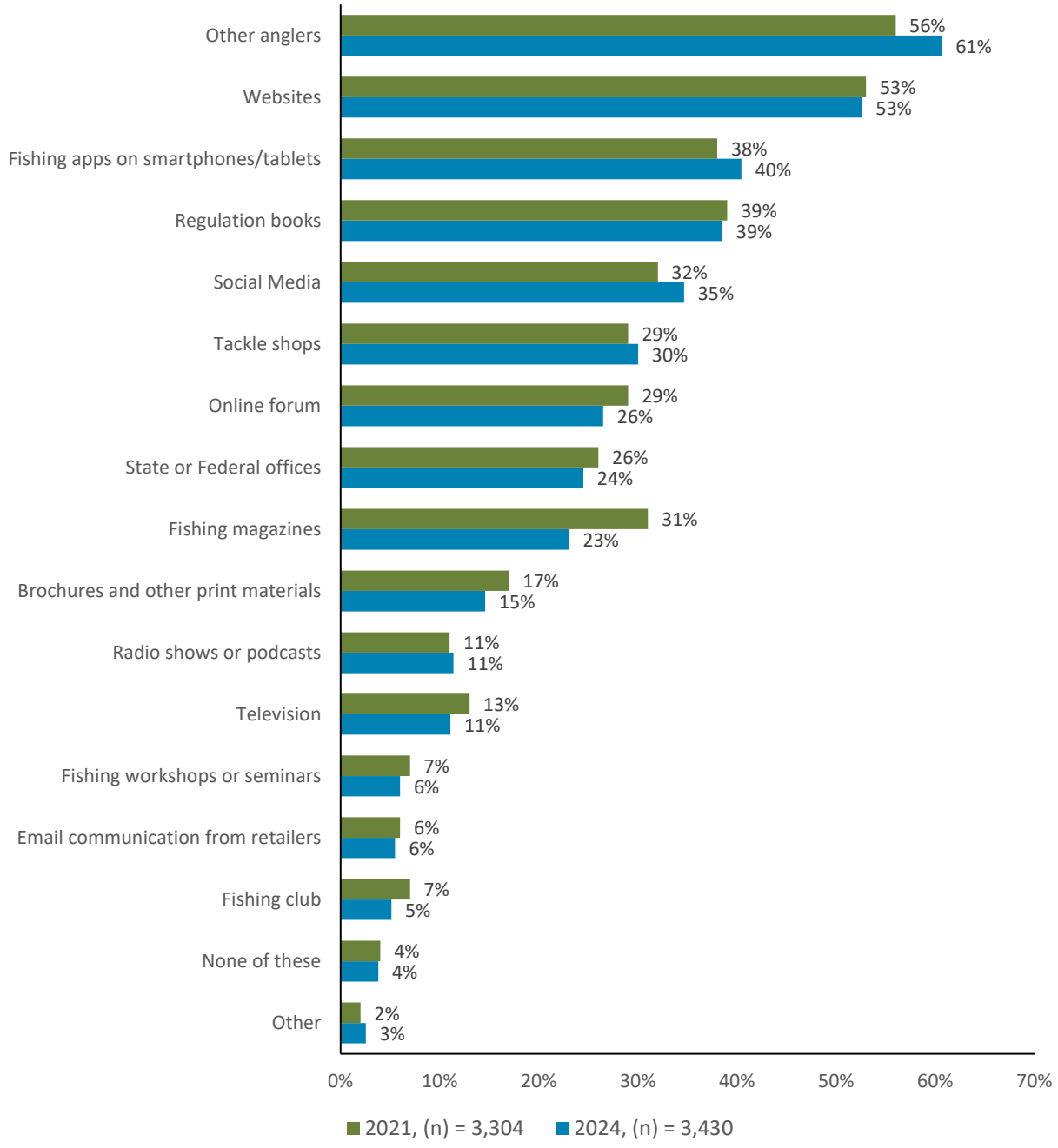
Figure 6. NOAA-RCG angler motivations. Individuals could select only one option.




## Information Channels

In 2024, the most common source of information for reef fishing of was other anglers (61%) or websites (53%). Fishing apps were also used commonly (40%), along with regulations books (39%), and social media (35%). In 2024, most communication channels used in similar rates to 2021(Figure 7).

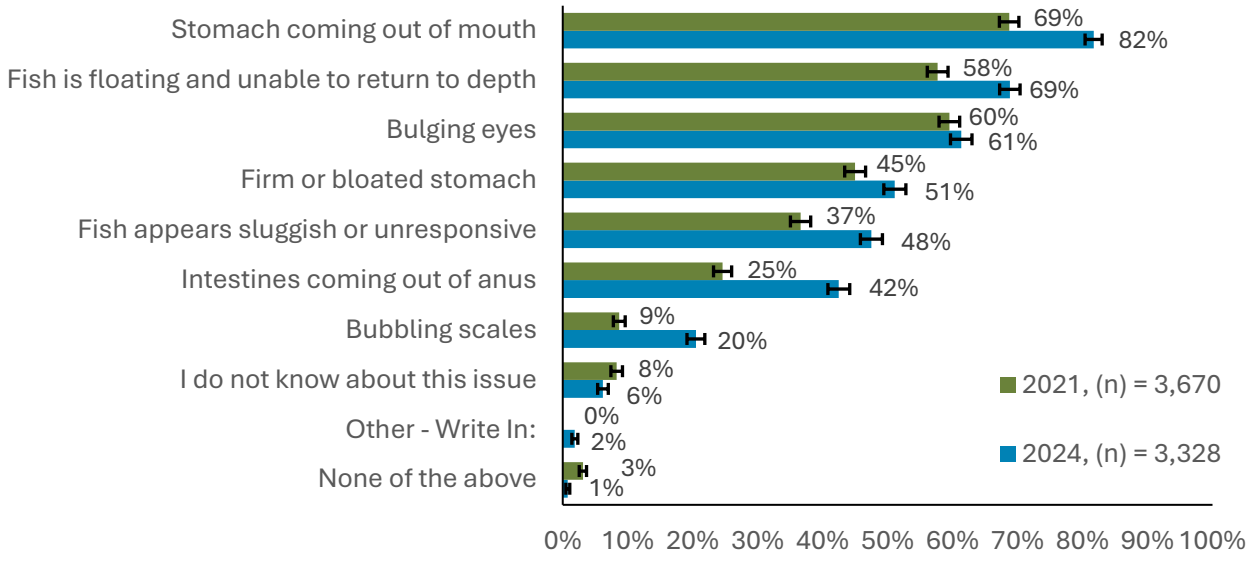
Figure 7. Reef angling information sources.



## Knowledge of Barotrauma Symptoms

In all cases, knowledge of barotrauma symptoms followed a similar pattern between surveys but was higher in 2024. The symptoms recognized most often were stomach coming out of the mouth (82%), floating fish (69%), and bulging eyes (61%). Intestines coming from the anus (42%) and bubbling scales (20%) were recognized less often; however, the percentages were significantly higher than 2021 (Figure 8) [11].

Figure 8. Barotrauma symptom awareness in the private recreational sector between 2021 and 2024.




By state, private recreational respondents in Texas and Mississippi were most aware of the various barotrauma symptoms with the highest awareness for 6 of the 8 symptoms (Table 7). Conversely, Mississippi had the smallest proportion of respondents who did not know about any of the symptoms (2%). The states with the least knowledge appear to be Alabama and Florida, with Florida having the most respondents who were unable to identify any symptoms (9%).

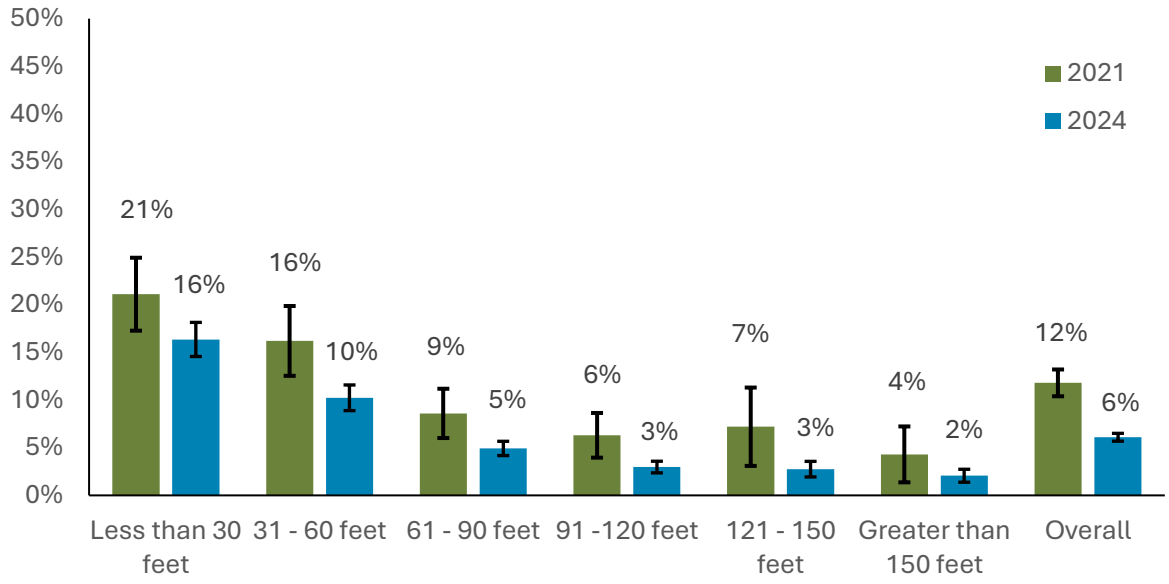
Table 7. Barotrauma awareness in the private recreational sector by state.

| Symptom | Alabama | Florida | Louisiana | Mississippi | Texas |
|---|---|---|---|---|---|
| Stomach coming out of mouth | 77% | 74% | 83% | 86% | 87% |
| Fish is floating and unable to return to depth | 66% | 69% | 66% | 74% | 73% |
| Bulging eyes | 57% | 65% | 61% | 62% | 64% |
| Firm or bloated stomach | 48% | 50% | 47% | 59% | 57% |
| Intestines coming out of anus | 40% | 39% | 40% | 45% | 52% |
| Fish appears sluggish or unresponsive | 42% | 50% | 48% | 51% | 44% |
| Bubbling scales | 17% | 18% | 19% | 25% | 25% |
| I do not know about this issue | 8% | 9% | 7% | 2% | 4% |
| Other - Write In: | 3% | 2% | 1% | 2% | 2% |
| Total respondents | 655 | 705 | 1,235 | 672 | 426 |

[11] When present error bars represent 95% confidence intervals.

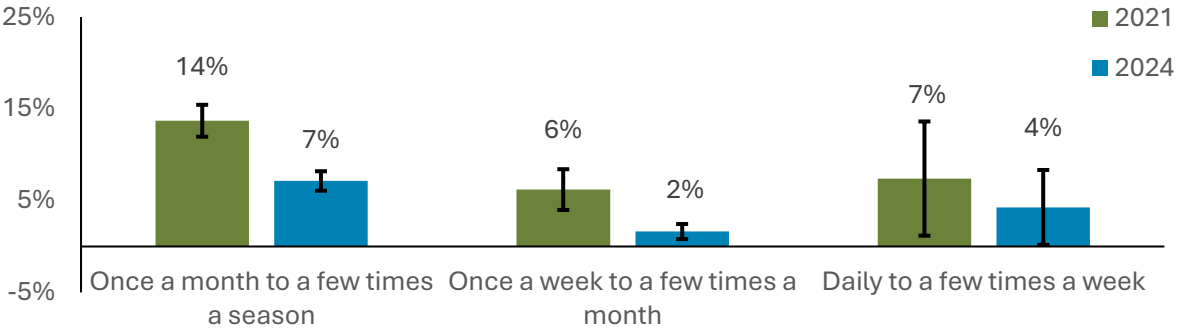
Looking at the respondents who did not know about any barotrauma symptoms, respondents who fished at depths of less than 60 feet were less likely to know about barotrauma symptoms (Figure 9). However, regardless of depth, more people knew about barotrauma symptoms in 2024 than they did in 2021.

Figure 9. Percent of respondents who did not know any barotrauma symptoms by depth.



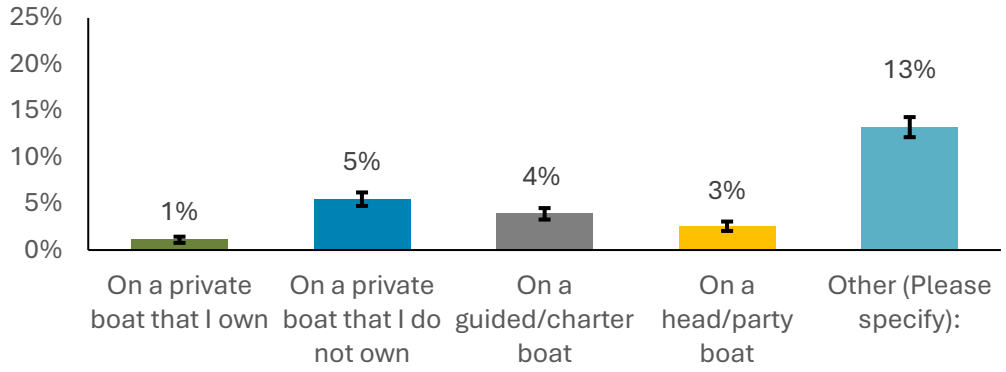

In contrast to depth, fishing frequency appears to only have a minor impact on their barotrauma awareness (Figure 10). In 2024, fewer respondents did not know at least one symptom.

Figure 10. Percent of respondents who did not know any barotrauma symptoms by fishing frequency.



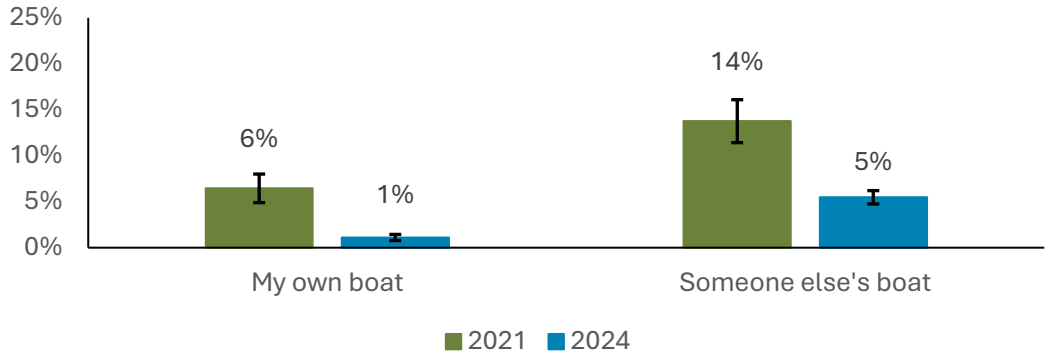

In 2024, respondents who fished from someone else's boat were more likely to not know about any barotrauma symptoms (Figure 11). Respondents who selected the "other" option for where they fished had the highest percentage of respondents who did not know about at least one symptom (13%). Looking at these responses, most reported fishing from either a pier or the shore.

Figure 11. Percent of respondents who did not know any barotrauma symptoms by boat type.




Comparing these results to 2021, respondents on private boats were more likely to not know about any barotrauma symptoms (Figure 12).

Figure 12. Percent of respondents who did not know any barotrauma symptoms on a private boat in 2024 compared to 2021.

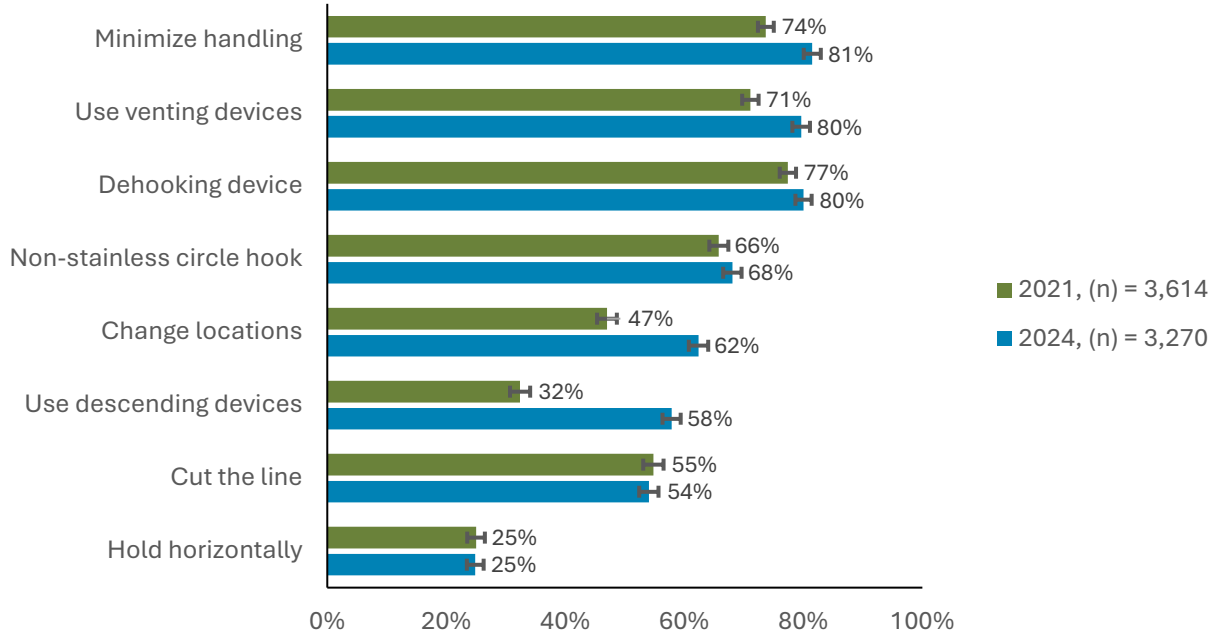



## Best Release Practices

This survey asked anglers questions about techniques that have been generally accepted as best handling practices in the fishery. These include techniques such as the use of venting and descending tools, non-stainless steel circle hooks, and handling fish in and out of water, each resulting in the increased likelihood of survival of released reef fish. Using venting and descending tools helps mitigate the effects of barotrauma. Venting involves inserting a hollow needle into the fish's abdomen to release excess gas from the swim bladder, while descending devices use a weight to return fish to their natural depth recompressing the excess gas inside their bodies.

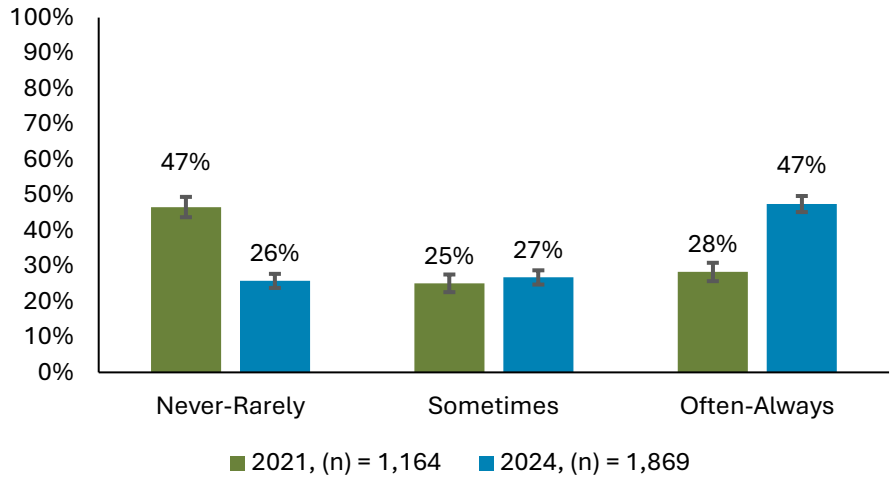
The management techniques that respondents were most familiar with were efforts to minimize handling, the use of venting methods, and dehooking devices at around 80%. For private recreational respondents, the awareness of these methods was slightly greater across the board in 2024 than it was in 2021 (Figure 13). The techniques that experienced the greatest growth in awareness between the years were the use of descending devices (26% increase) and to change locations if or when a predator arrived (15% increase).

Figure 13. Best release practice awareness in the private sector between 2021 and 2024.



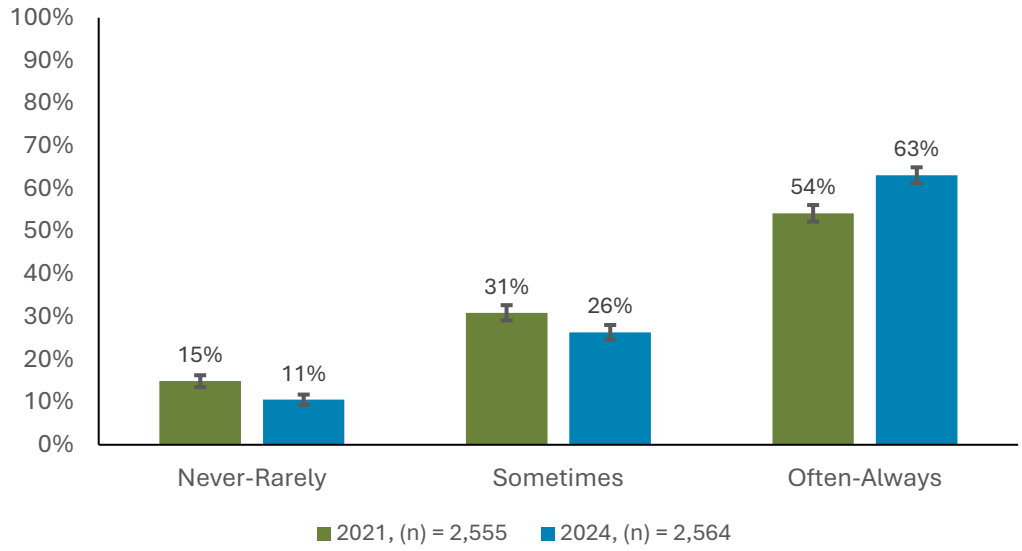

If a respondent reported being aware of a specific barotrauma management technique, they were asked about the frequency that they used said method. For the use of fish descending devices (FDD) and venting tools (both encouraged by the Return 'Em Right program), the frequency respondents used the techniques increased in 2024. For fish descending devices, the frequency they were used either "often" or "always" increased from 28% to 47% (Figure 14).

Figure 14. Private recreational angler usage rate for descending devices between 2021 and 2024.



For respondents who knew about venting methods, the proportion who vented fish often or always when they fished increased slightly from 54% to 63% (Figure 15).

Figure 15. Private recreational angler usage rate for venting methods.




### *Venting tool use*

Respondents who reported using venting methods at least sometimes when they fished were asked about the tools they used. The private recreational sector were the most frequent users of venting tools not compliant with federal and state regulations (i.e.; knife, ice pick or hook) at 14%, but they also had the second highest percentage of people who used a tool purchased specifically for venting (Table 8). The state for-hire sector had the lowest percentage of people who used non-compliant venting tools at 10%. NOAA RCG respondents had the lowest proportion of people using a venting-specific tool at 69% (18% used a hypodermic need). Overall, use of the various devices did not change significantly from 2021 to 2024.

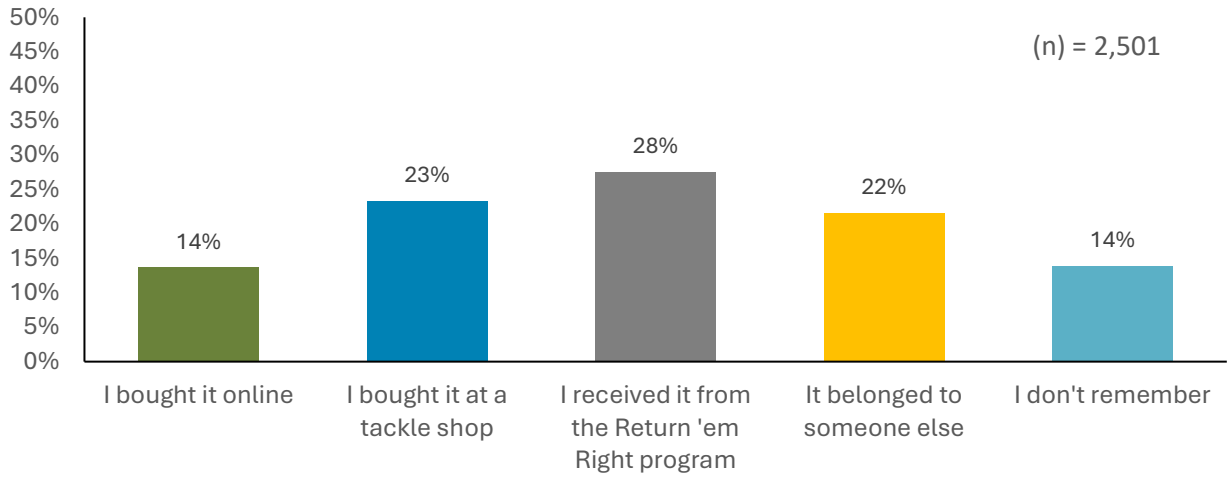
Table 8. Venting tool usage by sector

| | Private Recreational | | State for-hire | | NOAA RCG | | Total | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Tool | 2021 | 2024 | 2021 | 2024 | 2021 | 2024 | 2021 | | 2024 | |
| | | | | | | | % | (n) | % | (n) |
| Tool that I purchased specifically for venting | 76% | 75% | 82% | 81% | 72% | 69% | 76% | 2,101 | 75% | 2,299 |
| Hypodermic Needle | 9% | 11% | 7% | 9% | 13% | 18% | 9% | 261 | 11% | 348 |
| Knife (non-compliant) | 8% | 8% | 6% | 5% | 11% | 8% | 8% | 232 | 8% | 273 |
| Ice Pick (non-compliant) | 4% | 4% | 4% | 2% | 4% | 3% | 4% | 102 | 4% | 145 |
| Hook (non-compliant) | 3% | 2% | 1% | 3% | 0% | 2% | 2% | 65 | 2% | 71 |
| Total Non-compliant | 15% | 14% | 11% | 10% | 15% | 13% | 14% | 399 | 14% | 480 |

### *Descending device use*

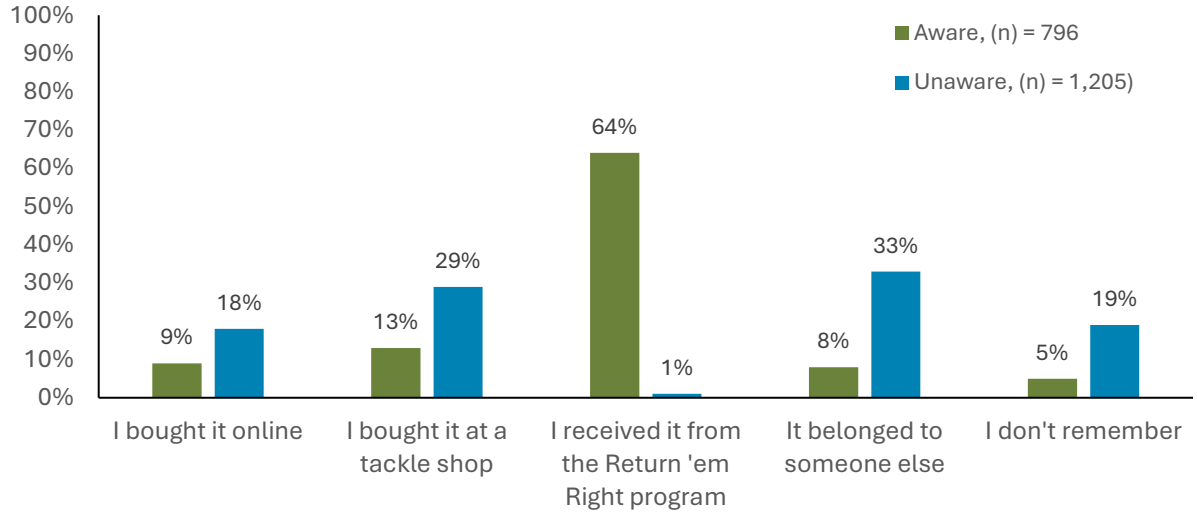
In 2024 respondents got their descending devices most frequently from the Return 'Em Right program at (28%), however, this was closely followed by a tackle shop (23%) and from someone else (22%) (Figure 16).

Figure 16. Fish descending device purchase location.



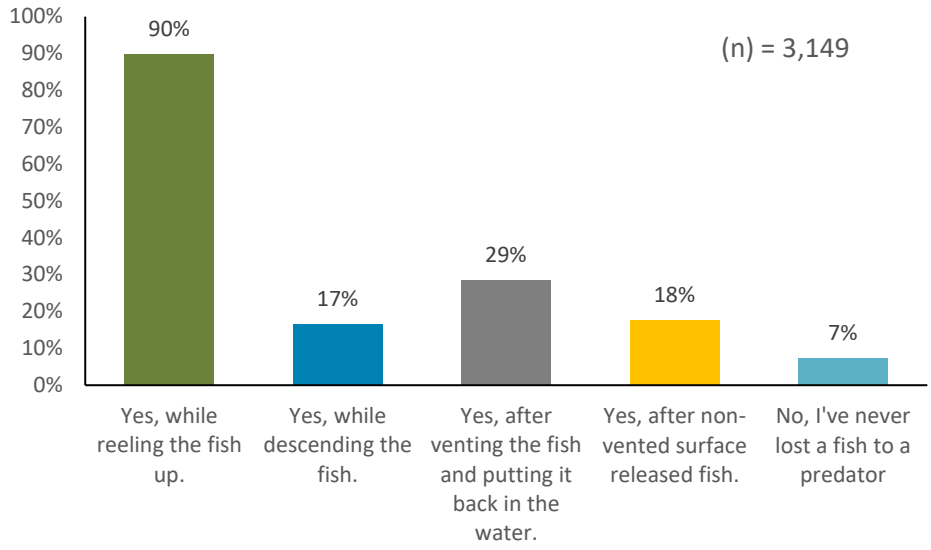

While the store/source an angler got their descending device varied considerably, respondents who were aware of Return 'Em Right were most likely to have received their device from the program 64% (Figure 17). In contrast, those who had not heard of Return 'Em Right probably received it from someone else (33%) or bought their device at a tackle shop (29%).

Figure 17. Fish descending device purchase location between those aware and unaware of Return 'Em Right.



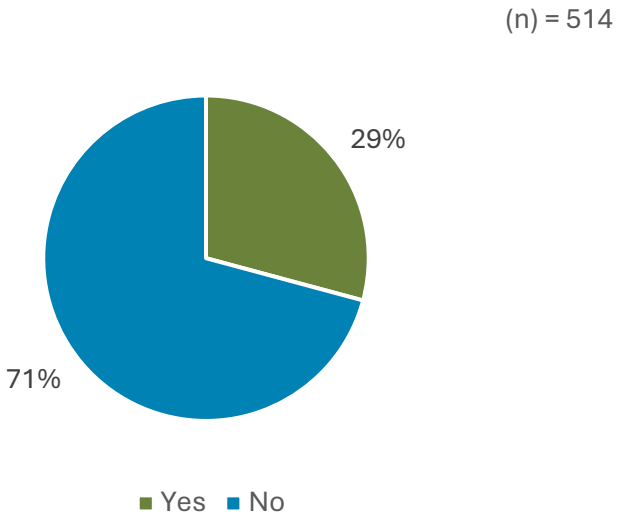
Survey respondents who used a fish descending device were also asked if they'd lost their catch to a predator before landing it. Most respondents have lost a fish to a predator while reeling their catch up (90%), conversely 17% and 29% of respondents reported losing a fish while descending it or after venting it (Figure 18). In total, only 7% of respondents reported that they've never lost a fish to a predator while reeling in or descending their catch.

Figure 18. Have respondents lost a fish to a predator.




Respondents who lost fish while using a fish descending device were also asked if they lost the device. A majority of respondents reported that they have not lost their descending device (71%) (Figure 19).

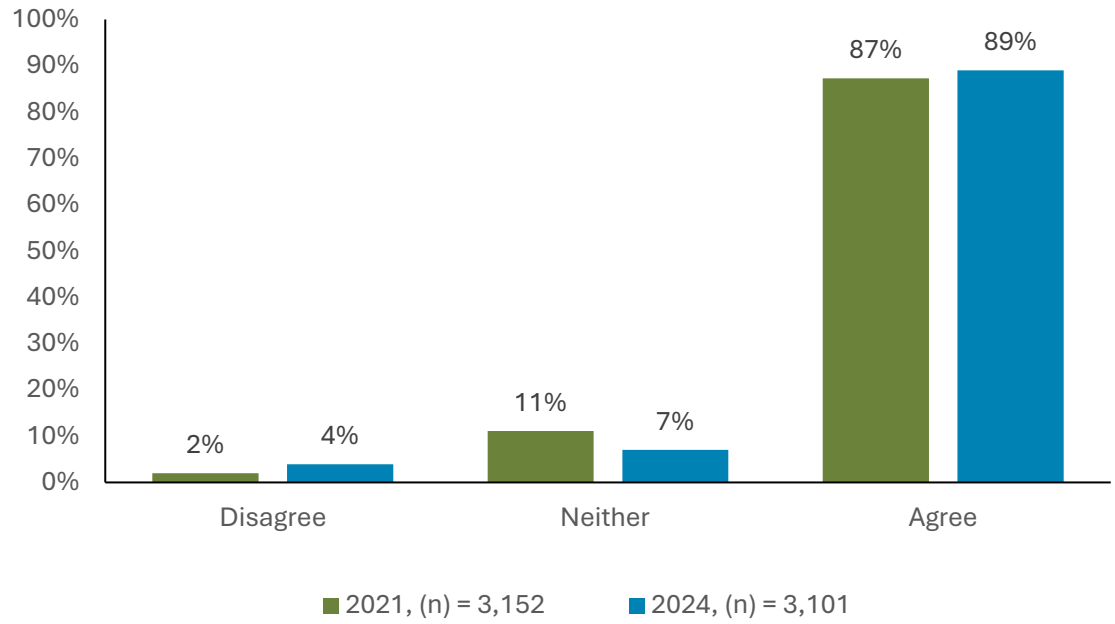
Figure 19. Percentage of respondents who reported losing a descending device along with their catch.



## Personal Assessment

Respondents were asked to report their level of agreement with a variety of statements in both 2021 and 2024 regarding their beliefs about returning fish to depth. The overwhelming majority (89%) of private recreational respondents reported they would help fish return to depth, which was similar to 2021 (Figure 20).

Figure 20. Respondents' level of agreement with the statement "I will help a fish return to depth when needed"



### Beliefs around venting tools and descending devices

Overall, most respondents (70%) believed returning fish to depth was within their personal control, a 15% increase from 2021 (Figure 21).

Between survey years, there was a notable shift in perceptions about the use and effectiveness of venting tools. In 2024, respondents were less likely to agree with negative statements about venting tools—such as being time-consuming, difficult to use, or too expensive—compared to respondents in 2021. Additionally, there was a significant increase in the belief that venting tools are effective in helping fish return to depth when needed, rising from 57% agreement in 2021 to 86% in 2024 (Figure 22A).

A similar shift in perceptions was evident for descending devices. From 2021 to 2024, fewer respondents agreed with negative views—such as descending devices being time-consuming or too expensive. There was also a 29% increase in those who found descending devices easy to use, and belief in their effectiveness at helping fish return to depth rose from 50% to 80% (Figure 22B).

Figure 21. Agreement/disagreement with the question, "Helping fish return to depth is out of my control".

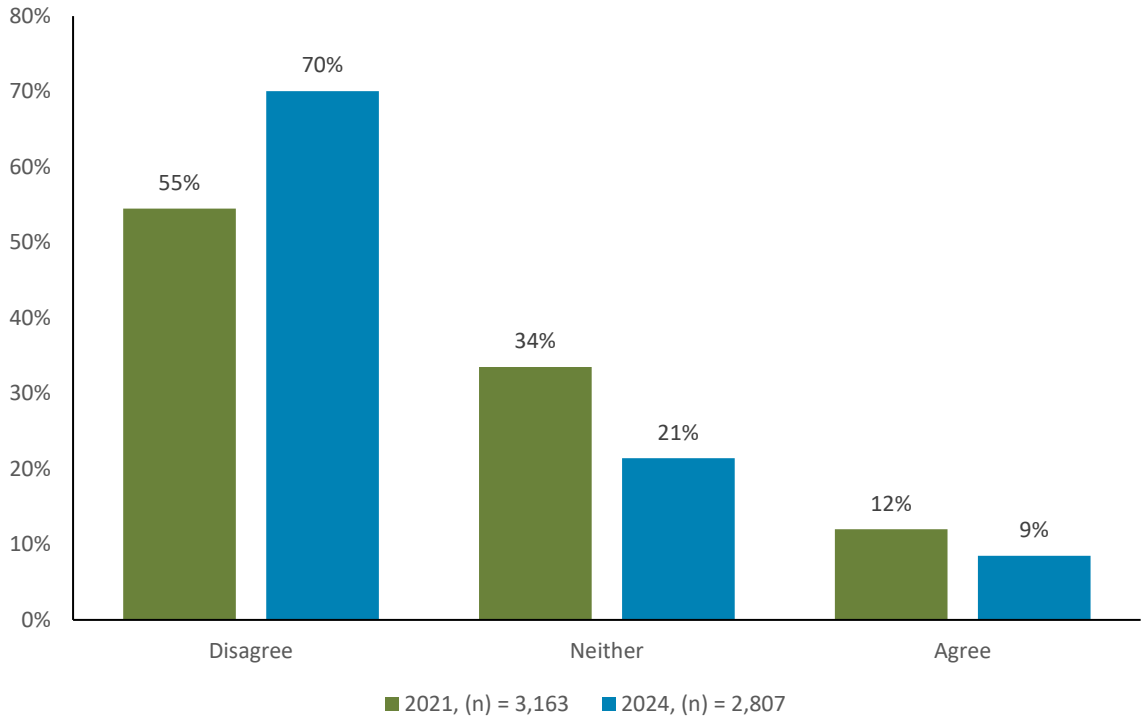
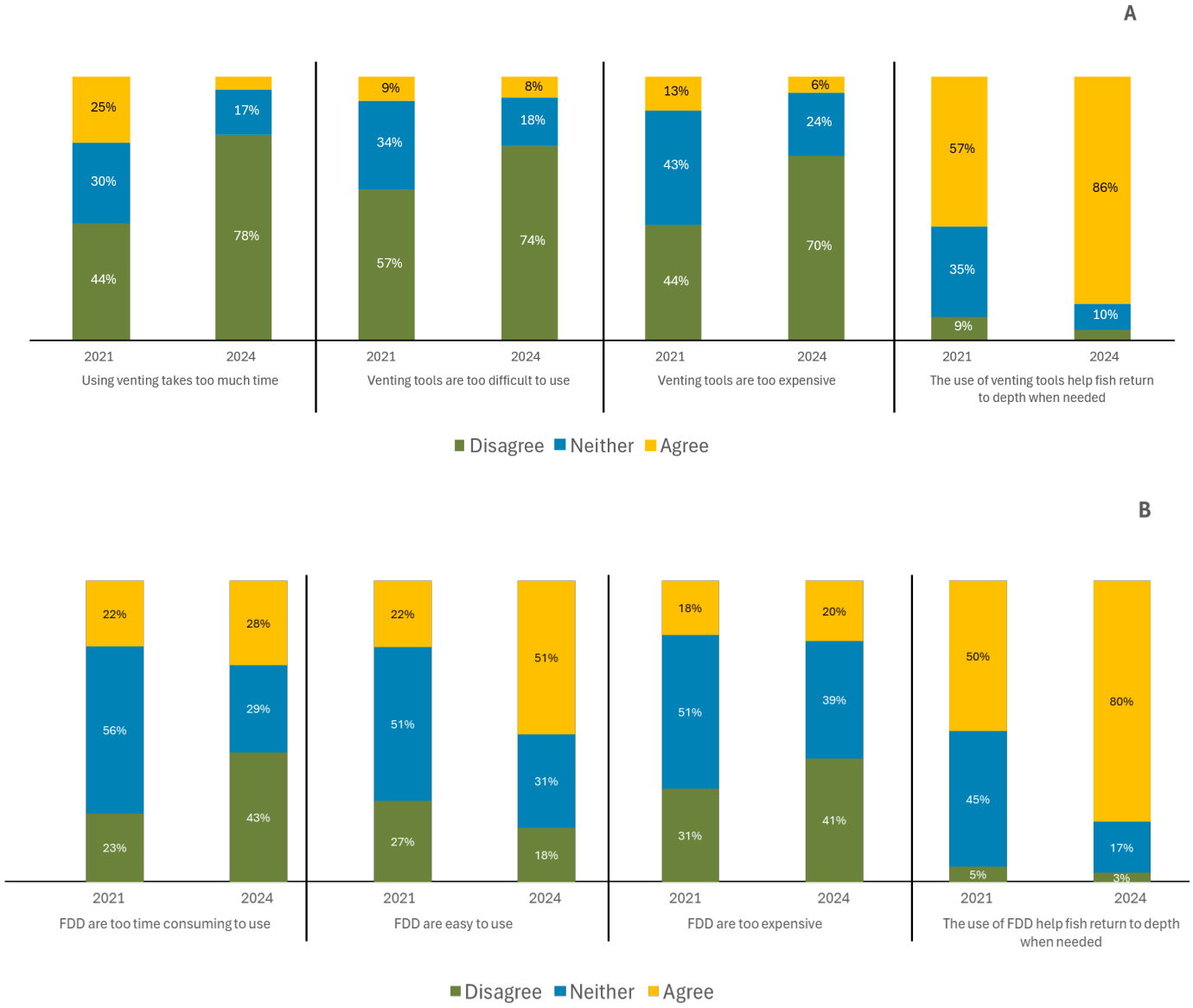


Figure 22. Comparison of attitudes toward venting tools (A) and descending devices (B) between 2021 and 2024.



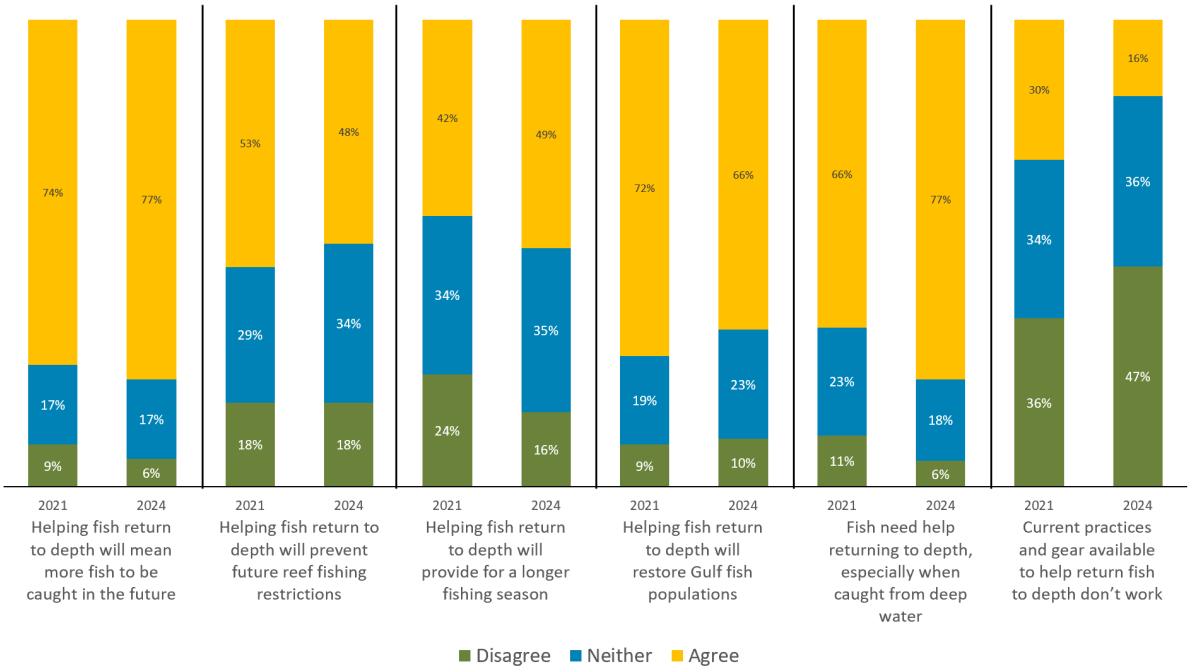
## Perceptions around fish health and current practices

Perceptions regarding management practices and gear aiding fish return to depth remained consistent between 2021 and 2024 with two notable exceptions:

- From 2021 to 2024, there was a significant decrease (14%) in respondents who agreed with the statement that current methods and equipment are ineffective.
- There was an 11% increase in respondents who believe fish need assistance returning to depth when caught from water deeper than 50 feet.

Overall, a significant majority agreed that assisting fish recovery improves future catch rates and restores Gulf fish populations. Approximately half of the respondents believe it would extend the fishing season and prevent future restrictions (Figure 23).

Figure 23. Beliefs about effectiveness and impact of management techniques between 2021 and 2024.



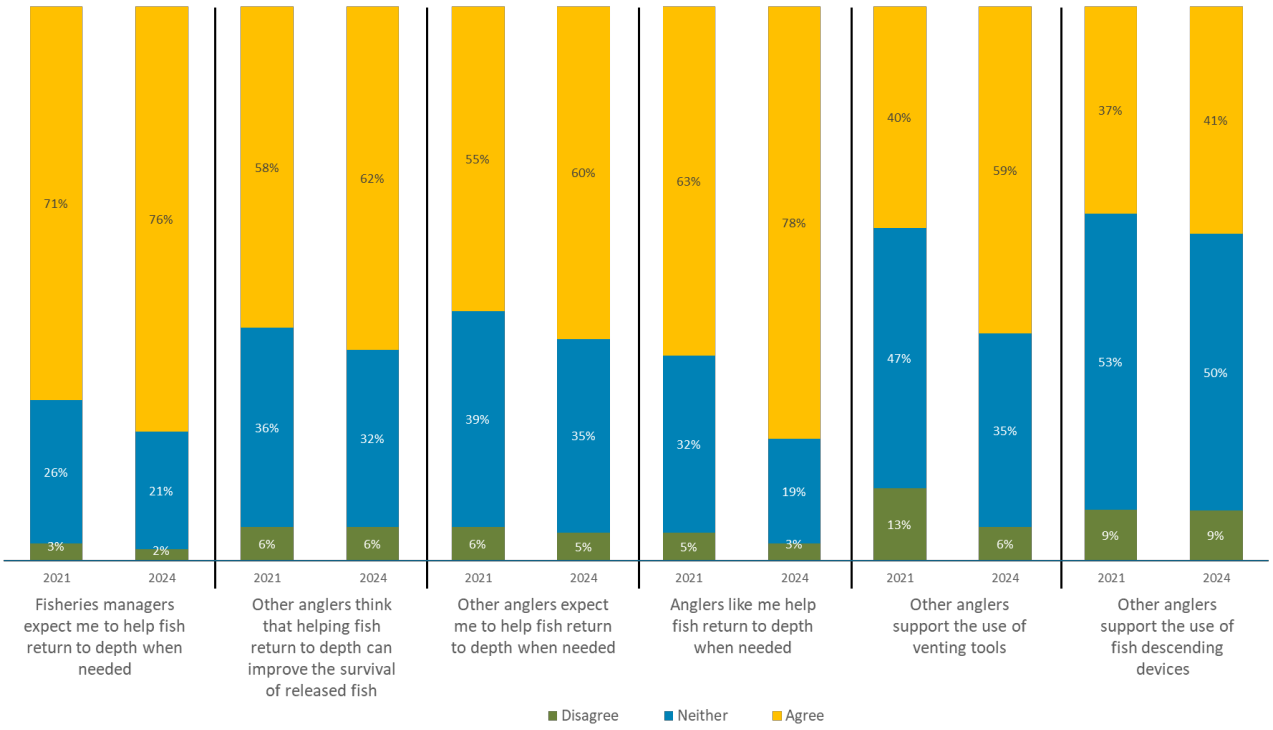
## Perceptions around social expectations

How a person is perceived by others has a strong effect on their behavior. Perceptions regarding social expectations around returning fish to depth remained consistent between 2021 and 2024 with two notable exceptions:

- From 2021 to 2024, there was a significant increase (19%) in respondents who agreed with the statement that other anglers support the use of venting tools
- There was a 16% increase in respondents who believe anglers 'like me' help fish return to depth when needed.

Overall, respondents felt that normative pressure from other anglers and fisheries managers led to expectation to return fish to depth (Figure 24).

Figure 24. Social expectations of survey respondents between 2021 and 2024.



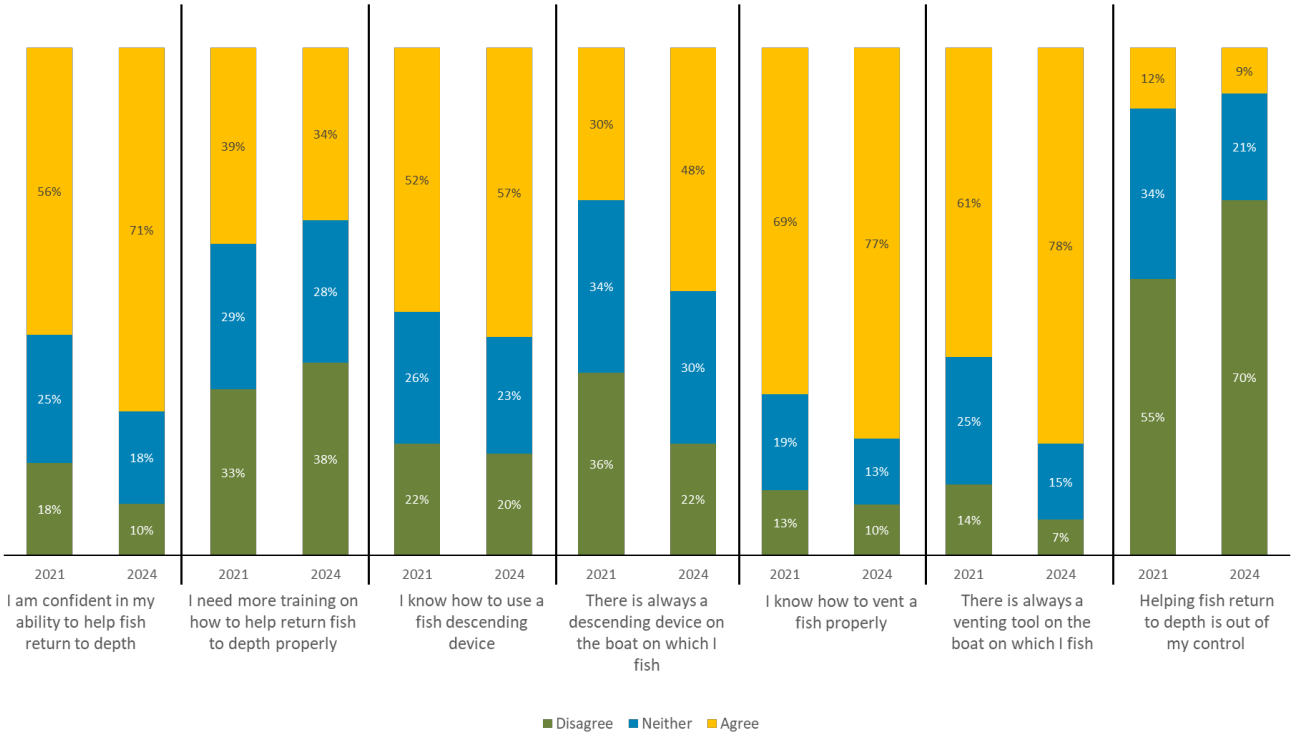
## Beliefs around Best Release Practices and Abilities

Along with a positive increase in the perception of venting and descending tools, 2024 survey respondents were more likely to indicate they had the proper tools onboard and a greater ability to return fish to depth. Of note:

- There was a significant decrease (13%) from 2021 to 2024 in respondents who said returning fish to depth was out of their control (from 34% to 21%).
- There was a 15% increase in respondents' confidence to return fish to depth (from 56% to 71%)
- There were increases in the percentage of respondents who always had a descending device (18%) and/or venting tool (17%) onboard.

Overall, 2024 respondents were more likely to have the appropriate tools to return fish to depth and expressed more confidence in using them. (Figure 25).

Figure 25. Beliefs about effectiveness and impact of management techniques between 2021 and 2024.



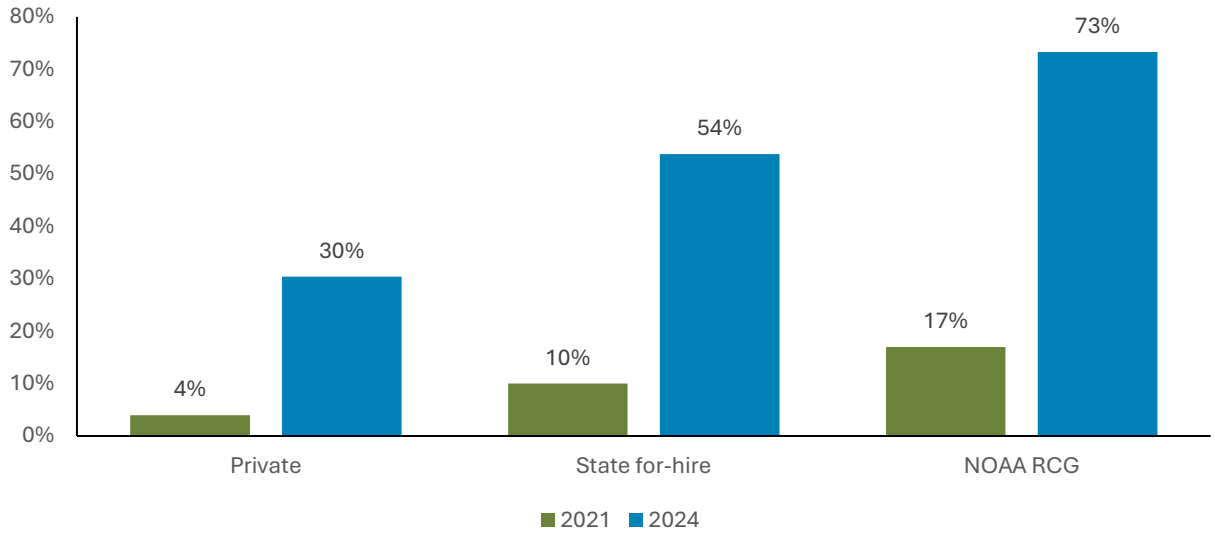
# Impacts of Return ‘Em Right

## Return ‘Em Right Knowledge

To avoid being primed when responding to the survey, respondents were not asked if they had heard about Return ‘Em until the end of the survey. This allowed for results to be broken down by those who’ve heard of the program and those who had not. In the survey, respondents were able to select one of four options regarding Return ‘Em Right: 1) They heard about Return ‘Em Right, 2) they heard about Return ‘Em Right and received a descending device and information materials, 3) they have not heard about Return ‘Em Right, and 4) they are not sure if they have heard about Return ‘Em Right.

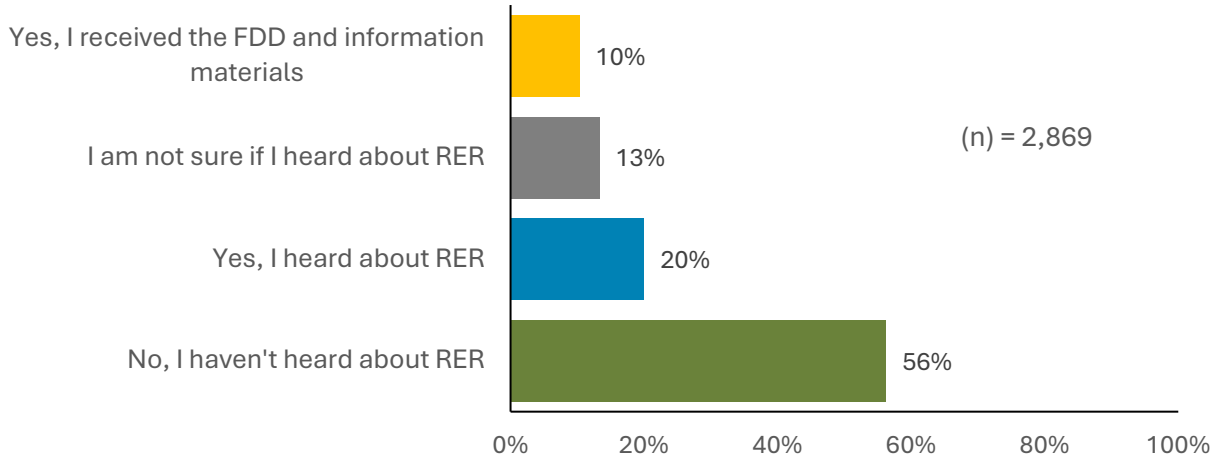
Thirty percent of private recreational respondents (n = 872) were familiar with Return ‘Em Right in 2024 compared to only 4% in 2021.This marked a 26% increase in Return ‘Em Right awareness among private recreational respondents, when the program was first introduced (Figure 26). Among the State for-hire and NOAA RCG respondents’ awareness of Return ‘Em Right grew as well, 44% (n =119) and 56% (n = 77) respectively.

Figure 26. Percentage of respondents who’ve heard or Return ‘Em Right.



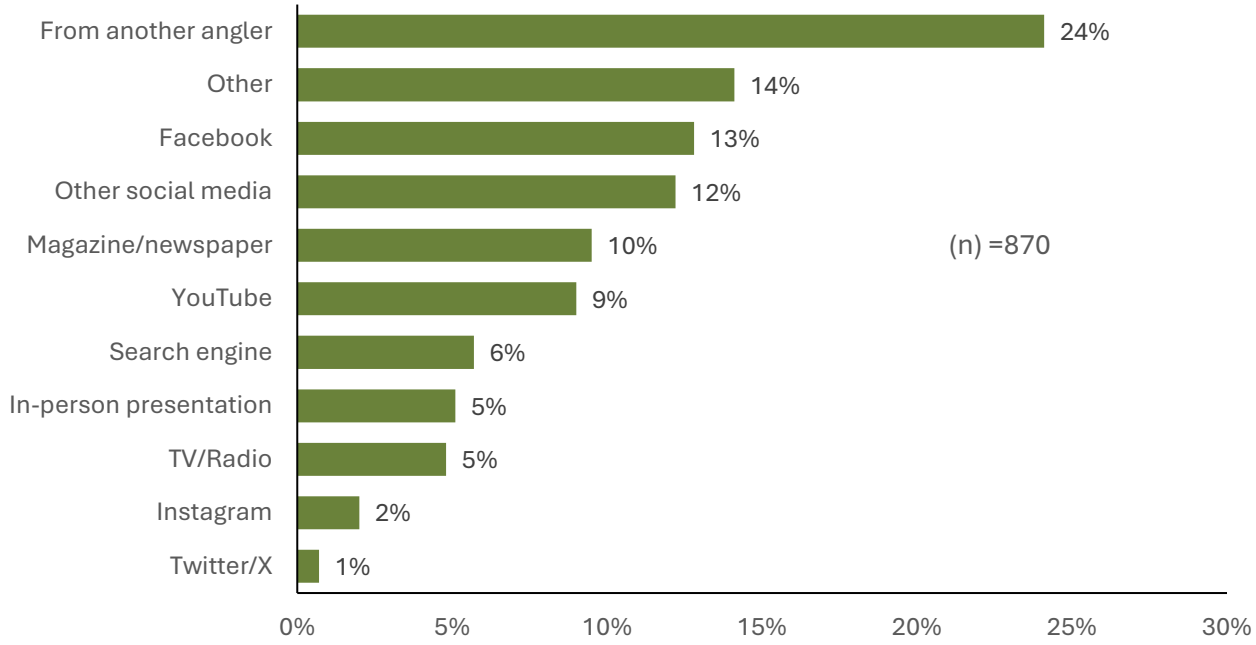
Focusing on private recreational respondents, 10% of respondents had heard of Return 'Em Right and received a FDD and the other 20% who'd heard about RER did not receive any materials (Figure 27). Most respondents did not receive a descending device or information materials (56%).

Figure 27. Breakdown of whether or not private respondents have heard of Return 'Em Right and whether or not they received an FDD and materials.




Private recreational survey respondents primarily learned about the Return 'Em Right program from another angler (24%). The next most common answer selected was "Other"[12] at 14%. Social media in general (Facebook, YouTube, Instagram, Twitter/X, and other social) is also an important source of information, with 37% of respondents learning about Return 'Em Right this way (Figure 28).

Figure 28. Return 'Em Right information sources.

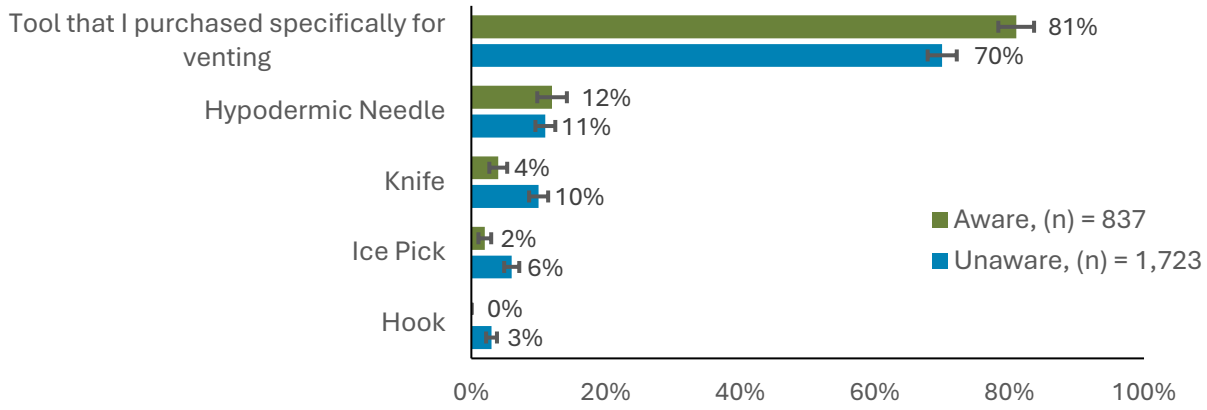



[12] An option to write-in 'other' was not presented. Likely, the other source of information is family and friends, which was not presented on the survey.

### Venting Tool Usage Differences

While roughly the same proportion of respondents used a tool specifically purchased for venting in 2024 as they did in 2021, respondents who were aware of Return 'Em Right used a specific venting tool more frequently than those who were unaware (81% vs. 70%) (Figure 29). Additionally, non-compliant tools (knife, ice pick, and hook) were used infrequently by those who knew about Return 'Em Right.

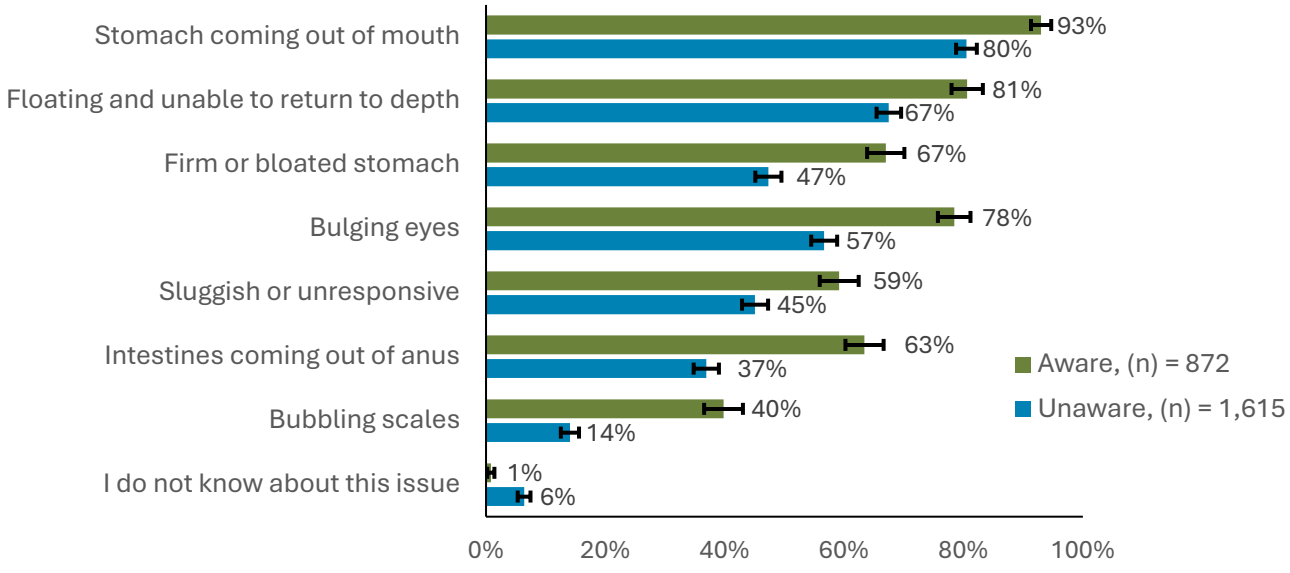
Figure 29. Venting tool usage between survey respondents aware and unaware of Return 'Em Right.




### Barotrauma Symptom Management

With a greater percentage of respondents aware of Return 'Em Right in 2024, it appears barotrauma symptom awareness differs across those who know about Return 'Em Right and those who don't. The sample of respondents who heard about Return 'Em Right were more likely to be aware of barotrauma symptoms that reef fish experience than those who were unaware (Figure 30). The biggest gaps in symptom knowledge were for intestines coming out of the anus and bubbling scales. Among respondents not aware of Return 'Em Right only 14% knew about bubbling scales and 37% knew about intestines coming out of the anus, while those with Return 'Em Right knowledge were aware of these symptoms 40% and 63% of the time.

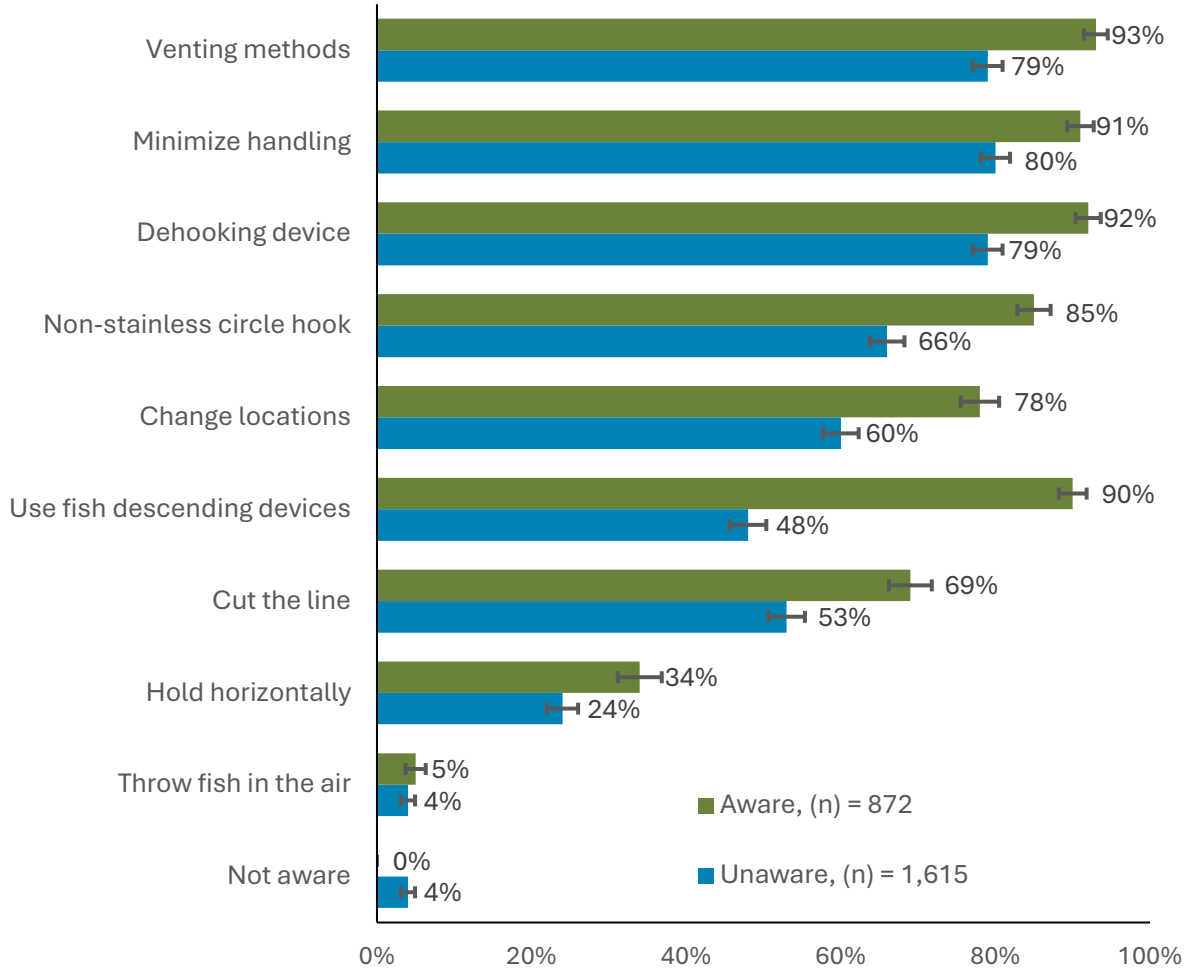
Figure 30. Barotrauma symptom awareness between survey respondents aware and unaware of Return 'Em Right.



### Best release practices

Respondents who heard about Return 'Em Right were on average more likely to be aware of best release practices than those who had not (Figure 31). The greatest difference was the use of fish descending devices, 90% of respondents who knew about Return 'Em Right also knew about descending devices compared to 48% of those who didn't know about descending devices. Similar descending device knowledge gaps existed in the 2021 study.

Figure 31. Barotrauma management technique awareness between survey respondents aware and unaware of Return 'Em Right.

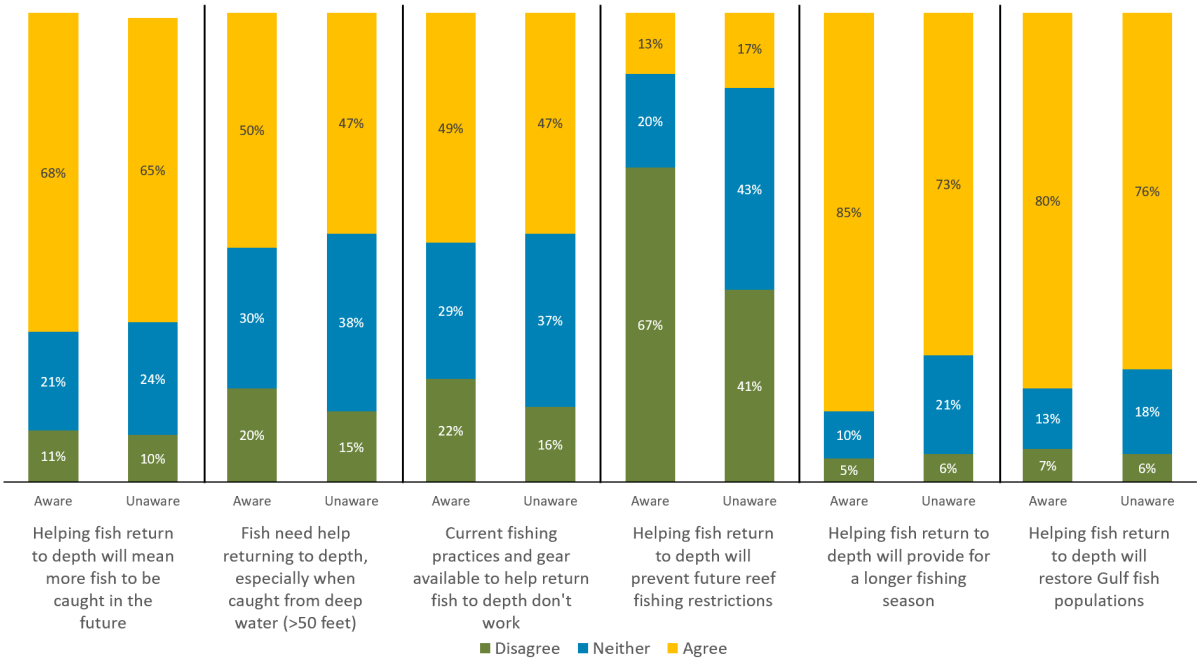


## Beliefs about Fish Health and Current Practices

When it comes to beliefs about fish population health and returning fish to depth, there were few differences between people with or without knowledge of Return 'Em Right. Most agreed with all the questions posed in Figure 32. The differences were:

- Respondents with knowledge of Return 'Em Right are more likely to agree (11%) that helping fish return to depth would provide for a longer season
- Helping fish return to depth will prevent future reef fishing restrictions (16%)

Figure 32. Beliefs about effectiveness and impact of management techniques among those who are aware and unaware of Return 'Em Right.




## Beliefs around Venting and Descending Devices

For venting tools, respondents generally believed venting tools help return fish to depth, do not take much time or are too difficult to use, nor are too expensive. The only notable difference between groups is respondents who were aware of Return 'Em Right were more likely to disagree that venting tools were too expensive (80% vs. 66%) (Figure 33A).

Between 2021 and 2024, the perception of venting tools among private anglers stayed relatively constant, with the exception of price.

However, there was a notable shift in perceptions about the use and effectiveness of fish descending devices between the two groups, for all questions (Figure 33B). Specifically, respondents who knew about Return 'Em Right were:

- More likely to agree FDDs were not too time consuming to use (48% vs. 39%).
- FDDs were not too expensive (50% vs. 19%).
- FDDs are easy to use (60% vs. 45%).
- FDDs will help return fish to depth if needed (88% vs. 75%).

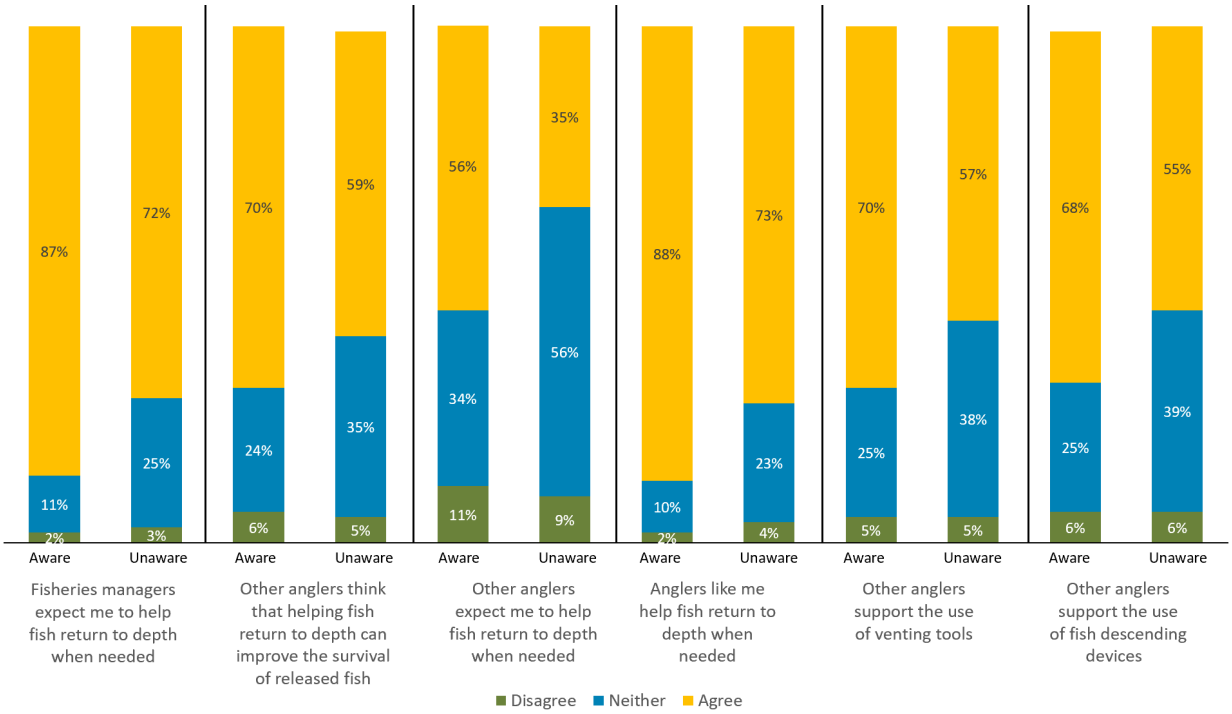
Figure 33. Comparison of attitudes toward venting tools (A) and descending devices (B) based on awareness of Return 'Em Right.

## Beliefs about Social Expectations

Knowledge of the Return 'Em Right program was influential in a respondent's perceptions regarding the social norms related to helping fish return to depth. These findings were significant for all the questions presented (Figure 34). Specifically, for the 30%[13] of anglers who knew about Return 'Em Right were more likely to agree that:

- Other anglers think helping fish return to depth improves survival (56% vs. 35%)
- Fisheries managers expect anglers to help (87% vs. 72%).
- Other anglers support using descending devices (68% vs. 55%)
- Other anglers support using venting tools (70% vs. 57%)
- Anglers return fish to depth when needed (86% vs. 73%)
- Other anglers think helping fish return to depth can improve survival (70% vs. 59%)

Figure 34. Social expectations of survey respondents between those aware or unaware of Return 'Em Right.



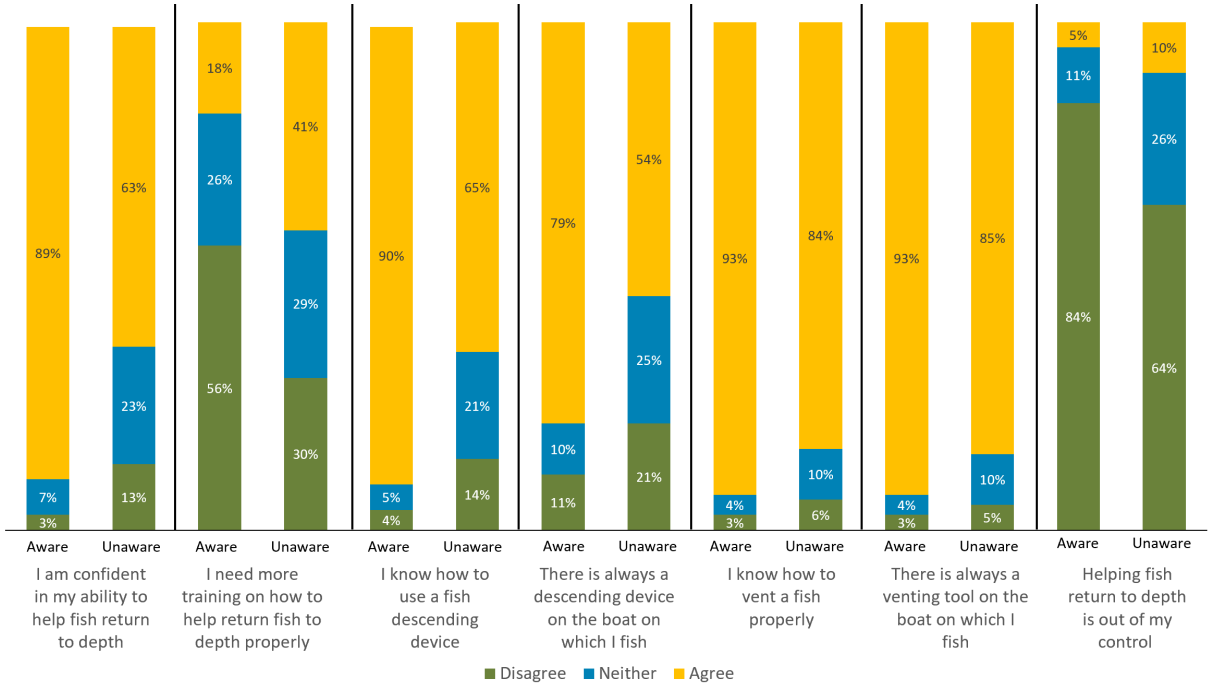

## Beliefs around the Ability to use Best Release Practices

Although most respondents were generally confident about using best release practices, it appears awareness of Return 'Em Right was highly influential in the strength of agreement (Figure 35). For example, if anglers were aware of Return 'Em Right, then:

- They had higher confidence in their ability to return fish to depth (89% vs. 63%)
- A much smaller percentage disagreed that they need more training on how to return a fish to depth (56% vs. 30%)
- Knowledge about using a descending device was 35% higher (90% vs. 65%)
- They were more likely to always have a descending device onboard (79% vs. 54%)
- They had more personal control over their ability to return fish to depth (84% s. 64%)

[13] Only 4% of recreational anglers had heard of Return' Em Right in 2021. Consequently, no comparisons between years and awareness were conducted.

Figure 35. Confidence in best release practices and returning fish to depth between those aware and unaware of Return ‘Em Right.



# Appendix A. 2024 Gulf state angler survey.

Gulf States Marine Fisheries Commission

2024/25 Best Practices Survey

Recreational, state for-hire, and NOAA RCG survey

The Gulf States Marine Fisheries Commission is conducting research about saltwater fishing to help state fisheries agencies improve communications. You have been randomly selected to participate and we ask that you take a few minutes to complete this important survey. Your response and identity will be kept strictly confidential and will never be used for any purpose beyond this study. Your individual responses will never be shared. By completing the survey, you will be automatically entered into a random drawing to **win one of 10 $100 VISA gift cards**. Your response and identity will be kept strictly confidential and will never be used for any purpose beyond this study. This survey should take less than 10 minutes to complete. Your participation is completely voluntary, and you can withdraw at any time. You must be at least 18 years old to participate. Are you at least 18?

- Yes
- No

Start of Block: Default Question Block

This survey has been sent to (either recreational, FL charter, or federally-permitted charter/head boats) in the 5 Gulf states. Seasons vary among the states for species and opening/closing dates. Please answer the question based on your state's seasons. Did you (recreationally fish or operate a charter or head boat) for reef fish (snapper, grouper, triggerfish, amberjack, etc.) in the Gulf of Mexico during 2024?

- Yes
- No

**End survey if no**

Which of the following best represents **YOUR PRIMARY ROLE** as a Gulf reef fish angler?

- Private recreational angler
- Charter boat captain/owner/operator
- Head boat captain/owner/operator
- Other - Write In: _____

From which state do you typically depart to reef fish in the **Gulf of Mexico**?

- Alabama
- Florida
- Louisiana
- Mississippi
- Texas
- None

**End survey if none**

**For TX anglers only.** On a typical trip, how many anglers are fishing with you on your boat, including yourself. _____

How many years have you fished for reef fish in the **Gulf of Mexico**? If this is your first year, please enter 1. _____

How often do you fish for reef fish in a typical season in the **Gulf of Mexico**?

- Never
- A few times a season
- Once a month
- A few times a month
- Once a week
- A few times a week
- Daily

How do you typically reef fish in the **Gulf of Mexico?**

- On a private boat that I own
- On a private boat that I do not own
- On a guided/charter boat
- On a head/party boat
- Other (Please specify): _____

When fishing for reef fish in the Gulf of Mexico, what is your most often targeted range of fishing depth? We recognize that people may fish at different depths on the same trip. We would like to know the depth range you fish most often.

- Less than 30 feet
- 31 - 60 feet
- 61 - 90 feet
- 91 -120 feet
- 121 - 150 feet
- Greater than 150 feet

**For recreational anglers**

Thinking of all the reasons you fish, please indicate which is your top motivator? [select one]

- To catch fish I can bring home for dinner
- To spend time with friends and family
- To connect with nature and the ocean
- To relax and be outdoors
- For the thrill and adventure
- I like being part of the angler community
- Other (Please specify): _____

**For NOAA RCG anglers**

What motivates you most in your profession as a for-hire angler? [select one]

- Building a reputation in the fishing community
- Mastering fishing skills and techniques
- Networking / connecting with clients or other professionals
- Turning a personal passion into a career
- Sharing knowledge and teaching others about fishing
- Promoting conservation and sustainable fishing practices
- Other (Please specify): _____

How strongly do you agree or disagree with the following statements?

| | Strongly Disagree | Slightly Disagree | Neither Agree or Disagree | Slightly Agree | Strongly Agree |
|---|---|---|---|---|---|
| The ocean is a valuable ecosystem we need to protect | ○ | ○ | ○ | ○ | ○ |
| Climate change is affecting our oceans and the fish that live in it | ○ | ○ | ○ | ○ | ○ |
| It is my responsibility to help protect and preserve the fisheries I enjoy | ○ | ○ | ○ | ○ | ○ |
| I care about the next generation having the same opportunities to fish that I've had | ○ | ○ | ○ | ○ | ○ |
| I believe fishing is my right and I don't want to be told how to do it | ○ | ○ | ○ | ○ | ○ |

Which of the following signs do you use to recognize that a fish may need help returning to depth? Please check all that apply.

- Stomach coming out of mouth
- Bulging eyes
- Bubbling scales
- Firm or bloated stomach
- Intestines coming out of anus
- Fish appears sluggish or unresponsive when brought to the boat
- Fish is floating and unable to return to depth
- None of the above
- I do not know about this issue
- Other - Write In: _____

Are you aware of the following reef fish handling protocols? Please check the box for each of the protocols you are familiar with (even if you don't use them).

- Take efforts to minimize the handling of fish
- Use descending devices
- Use venting methods
- Use dehooking devices
- Use non-stainless steel circle hooks when using natural bait
- Change locations if or when predators arrive
- Cut the line when the fish is hooked too deeply
- Hold the fish horizontally while on deck
- Throw the fish up in the air or against the surface to get them back to depth
- I'm not aware of options for returning fish to depth

When fishing for reef fish, how often do you ...

| | Never | Rarely | Sometimes | Often | Always |
|---|---|---|---|---|---|
| Take efforts to minimize the handling of fish | ○ | ○ | ○ | ○ | ○ |
| Use descending devices | ○ | ○ | ○ | ○ | ○ |
| Use venting methods | ○ | ○ | ○ | ○ | ○ |
| Use dehooking devices | ○ | ○ | ○ | ○ | ○ |
| Use non-stainless steel circle hooks when using natural bait | ○ | ○ | ○ | ○ | ○ |
| Change locations if or when predators arrive | ○ | ○ | ○ | ○ | ○ |
| Use rubberized landing nets | ○ | ○ | ○ | ○ | ○ |
| Cut the line when the fish is hooked too deeply | ○ | ○ | ○ | ○ | ○ |
| Hold the fish horizontally while on deck | ○ | ○ | ○ | ○ | ○ |
| Throw the fish up in the air or hard against the surface to get them back to depth | ○ | ○ | ○ | ○ | ○ |

**For people use descending device from above question**

Where did you get a descending device you use when reef fishing? Please select all that apply.

- ○ I bought it online
- ○ I bought it at a tackle shop
- ○ I received it from the Return 'em Right program
- ○ It belonged to someone else
- ○ I don't remember

**For people who vent from above question**

What tool do you **most** often use for venting fish?

- ○ Knife
- ○ Ice Pick
- ○ Hook
- ○ Hypodermic Needle
- ○ Tool that I purchased specifically for venting

Have you **lost your catch** to **predators** (such as, sharks, dolphins, etc.)?

- Yes, while reeling the fish up.
- Yes, while descending the fish.
- Yes, after venting the fish and putting it back in the water.
- Yes, after non-vented surface released fish.
- No

For people who lost a fish while descending

Did you **lose** the **descending device** to predators?

- ○ Yes
- ○ No

Please indicate the level to which you agree or disagree with the statements below.

| | Strongly Disagree | Slightly Disagree | Neither Agree or Disagree | Slightly Agree | Strongly Agree |
|---|---|---|---|---|---|
| I will help fish return to depth when needed | ○ | ○ | ○ | ○ | ○ |

Please indicate the level to which you agree or disagree with the statements below:

| | Strongly Disagree | Slightly Disagree | Neither Agree or Disagree | Slightly Agree | Strongly Agre |
|---|---|---|---|---|---|
| Helping fish return to depth will mean more fish to be caught in the future | ○ | ○ | ○ | ○ | ○ |
| Fish need help returning to depth, especially when caught from deep water (>50ft) | ○ | ○ | ○ | ○ | ○ |
| Current practices and gear available to help return fish to depth don't work | ○ | ○ | ○ | ○ | ○ |
| Helping fish return to depth will prevent future reef fishing restrictions | ○ | ○ | ○ | ○ | ○ |
| Helping fish return to depth will provide for a longer fishing season | ○ | ○ | ○ | ○ | ○ |
| Helping fish return to depth will restore Gulf fish populations | ○ | ○ | ○ | ○ | ○ |

Please indicate the level to which you agree or disagree with the statements below.

| | Strongly Disagree | Slightly Disagree | Neither Agree or Disagree | Slightly Agree | Strongly Agree |
|---|---|---|---|---|---|
| Using venting tools takes too much time | ○ | ○ | ○ | ○ | ○ |
| Venting tools are too difficult to use | ○ | ○ | ○ | ○ | ○ |
| Venting tools are too expensive | ○ | ○ | ○ | ○ | ○ |
| Helping fish return to depth is unnecessary, even when I see they can't swim down on their own | ○ | ○ | ○ | ○ | ○ |
| The use of venting tools help fish return to depth when needed | ○ | ○ | ○ | ○ | ○ |
| Fish descending devices are too expensive | ○ | ○ | ○ | ○ | ○ |
| Fish descending devices are easy to use | ○ | ○ | ○ | ○ | ○ |
| Fish descending devices are too time consuming to use | ○ | ○ | ○ | ○ | ○ |
| The use of descending devices help fish return to depth when needed | ○ | ○ | ○ | ○ | ○ |

Please indicate the level to which you agree or disagree with the statements below.

| | Strongly Disagree | Slightly Disagree | Neither Agree or Disagree | Slightly Agree | Strongly Agree |
|---|---|---|---|---|---|
| Fisheries managers expect me to help fish return to depth when needed | ○ | ○ | ○ | ○ | ○ |
| Other anglers think that helping fish return to depth can improve the survival of released fish | ○ | ○ | ○ | ○ | ○ |
| Other anglers support the use of fish descending devices | ○ | ○ | ○ | ○ | ○ |
| Anglers like me help fish return to depth when needed | ○ | ○ | ○ | ○ | ○ |
| Other anglers expect me to help fish return to depth when needed | ○ | ○ | ○ | ○ | ○ |
| Other anglers support the use of venting tools | ○ | ○ | ○ | ○ | ○ |

Please indicate the level to which you agree or disagree with the statements below.

| | Strongly Disagree | Slightly Disagree | Neither Agree or Disagree | Slightly Agree | Strongly Agree |
|---|---|---|---|---|---|
| I am confident in my ability to help fish return to depth | ○ | ○ | ○ | ○ | ○ |
| I know how to use a fish descending device | ○ | ○ | ○ | ○ | ○ |
| I need more training on how to help return fish to depth properly | ○ | ○ | ○ | ○ | ○ |
| There is always a venting tool on the boat on which I fish | ○ | ○ | ○ | ○ | ○ |
| Helping fish return to depth is out of my control | ○ | ○ | ○ | ○ | ○ |
| There is always a descending device on the boat on which I fish | ○ | ○ | ○ | ○ | ○ |
| I know how to vent a fish properly | ○ | ○ | ○ | ○ | ○ |

Which sources do you use most frequently to find information regarding reef fishing in general? Check all that apply.

- Fishing magazines
- Brochures and other print materials
- Regulation books
- Television
- Radio shows or podcasts
- Websites
- Online forum
- Social Media
- Fishing workshops or seminars
- Fishing apps on smartphones/tablets
- Tackle shops
- Other anglers
- State of Federal offices
- Fishing club
- Email communication from retailers
- ⊗None of these
- Other (Please specify): _____

Have you ever heard of, or received outreach information from the "Return 'Em Right" (Return ‘Em Right) program?

- Yes, I heard about Return ‘Em Right
- Yes, I received the FDD and information materials
- No, I haven't heard about Return ‘Em Right
- I am not sure if I heard about Return ‘Em Right

Where did you first hear about the "Return 'Em Right" program? (choose one)

- In-person presentation
- Magazine/newspaper
- From another angler
- TV/Radio
- Facebook
- Instagram
- YouTube
- Twitter/X
- Other social media
- Search engine
- Other

What year were you born? Please enter all 4 digits.

_____

What is the zipcode of where you currently live? Please enter all 5 digits.

_____

What is your gender?

- Male
- Female
- Prefer not to say

What is your primary race/ethnicity?

- White or Caucasian
- Black or African American
- Hispanic or Latino
- American Indian or Native Alaskan
- Asian
- Native Hawaiian or Pacific Islander
- Other (Please specify): _____
- Prefer not to answer

**Alabama questions**

Display This Question:

If From which state do you typically depart to reef fish in the Gulf of Mexico? = Alabama

Have you heard of Alabama's Snapper Check Program?

- Yes
- No

How did you learn about the Snapper Check program?

- Social media
- Podcasts
- News or magazine articles
- Public signage
- From family or friends
- Other (Please specify): _____

Are you aware that three reef fish: Gray Triggerfish, Greater Amberjack, and Red Snapper are required to be reported through Snapper Check?

- Yes
- No

How often do you report your catch through Snapper Check?

- Always
- Sometimes
- Never
- Prefer not to answer

Display This Question:

If How often do you report your catch through Snapper Check? != Always

If you don't always report your catch through Snapper Check, please indicate why? (Select all that apply).

- Lack of trust in Government
- I was concerned about the season getting shortened
- I thought dockside validation was the report
- It's too burdensome
- I forgot
- I did not know I needed to report my catch
- ⊗Prefer not to answer

**Mississippi questions**

Did you register for a Mississippi Recreational Offshore Landing Permit (ROLP) for the 2024 fishing season?

- Yes
- No
- Don't remember

Did you take a Red Snapper fishing trip during the Mississippi 2024 fishing season?

- Yes
- No

If yes

About how many red snapper fishing trips did you take in the Mississippi 2024 fishing season.

_____

About how many trips did you take for Mississippi Recreational Offshore Landing Permit Species **other than** Red Snapper in the 2024 fishing season? (ROLP species include Cobia, any species of Snapper, Amberjack, Grouper, Hind, or Triggerfish). If you didn't fish for anything but red snapper, please enter a '0'.

_____