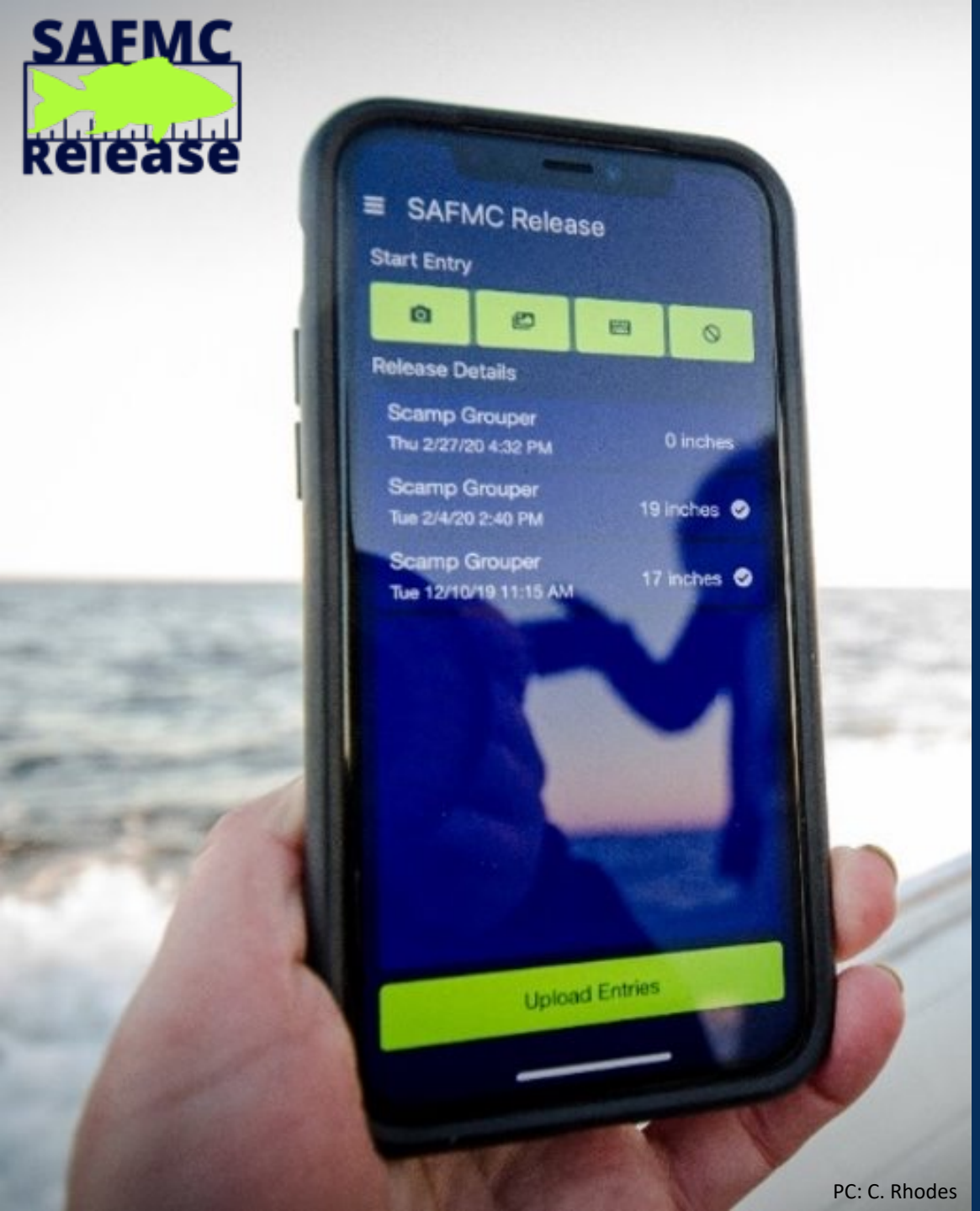
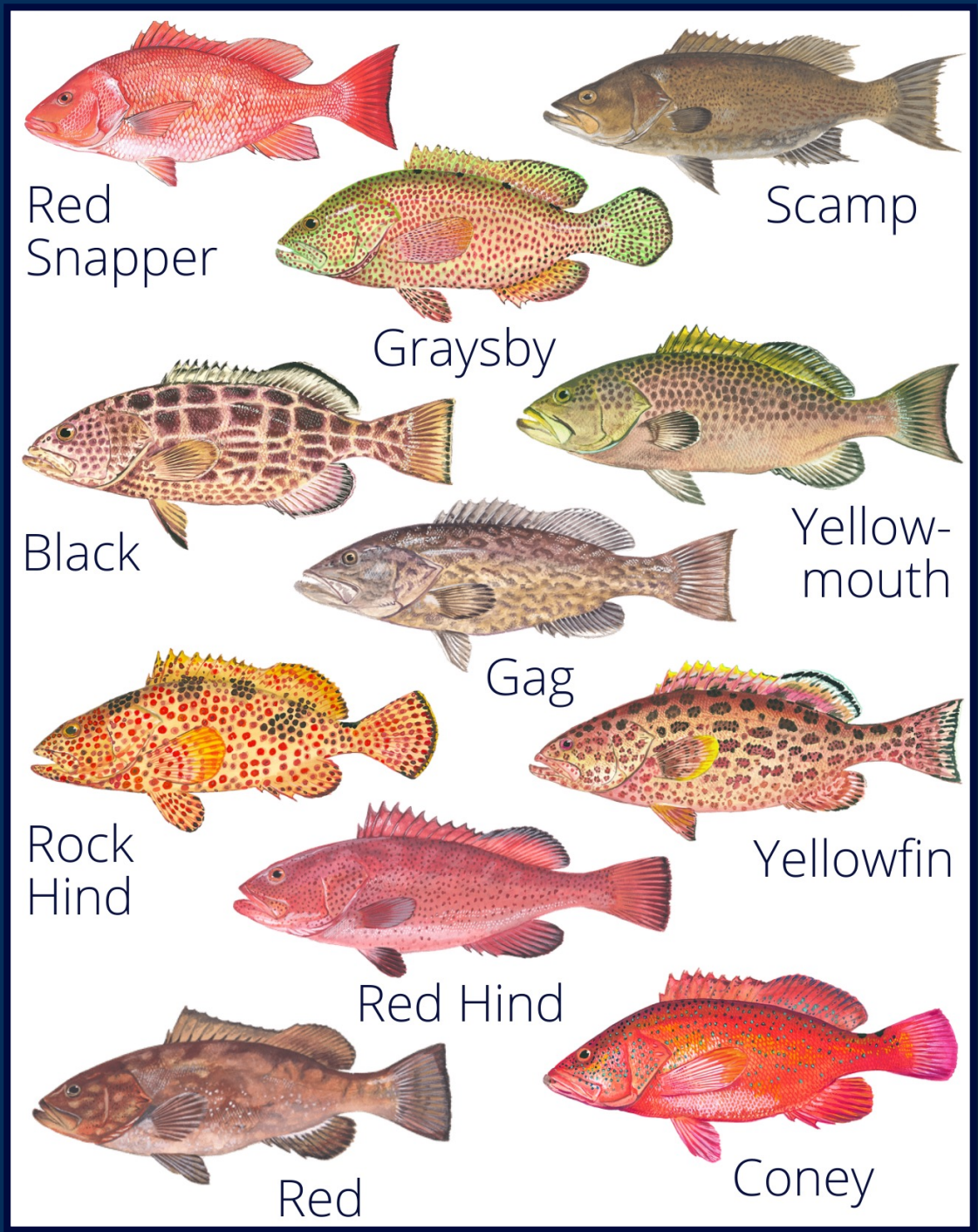
Citizen Science Program Update

Outreach & Communications AP
October 2022



PC: C. Rhodes

SAFMC Release



Updates

- Added Red Snapper in April 2022
- Volunteers are logging shallow water grouper & Red Snapper data in SciFish app
- SciFish app is operational & the project builder component is in development
- Outreach, recruitment, and retention push

Outreach Strategies

Partnerships

- BFP
- NCDMF: mailing to 10,000 licensed recreational saltwater anglers & laminated flyers with QR code at ~100 boat landings
- SCDNR: Governor's Cup & Charter Summits

Seminars & Conferences

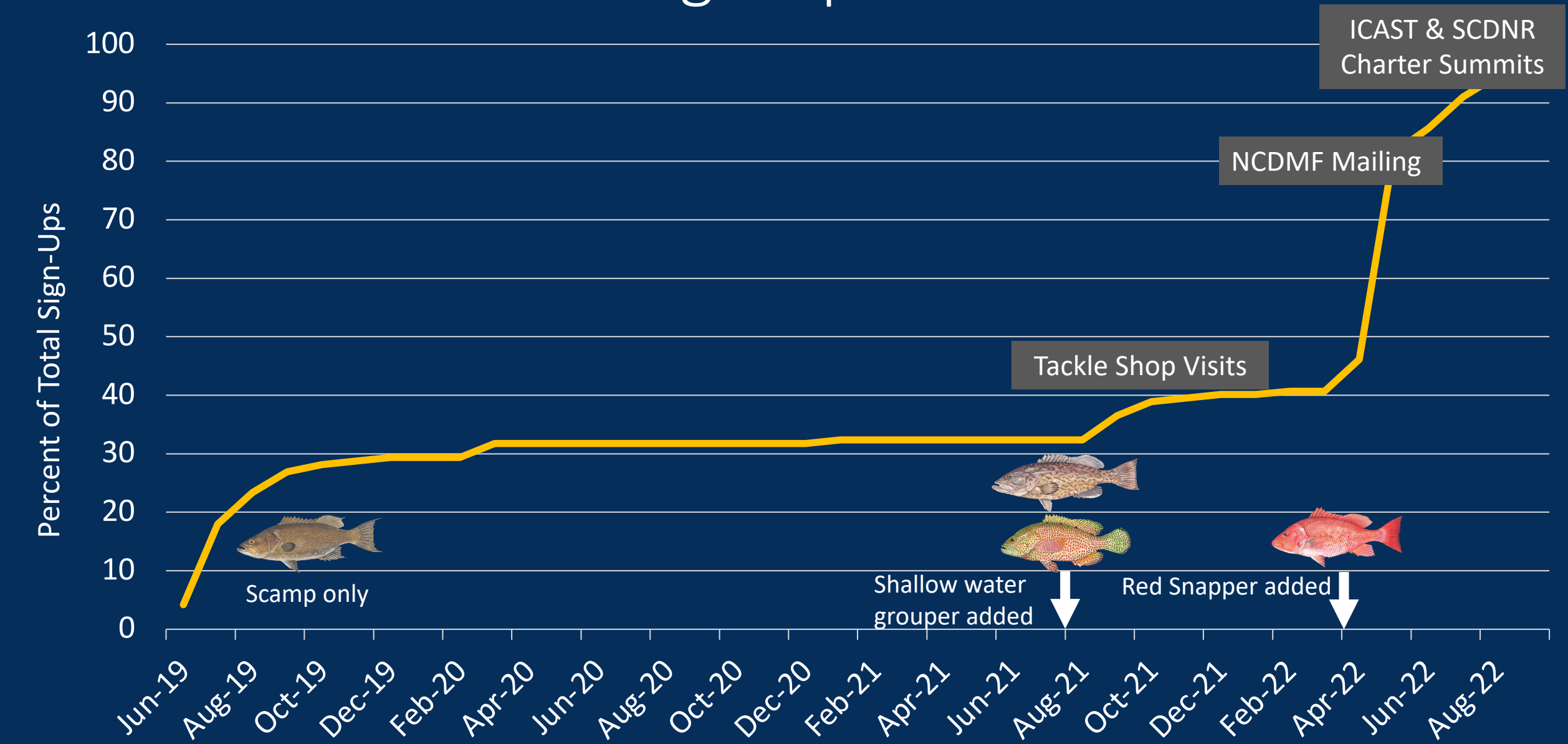
- Haddrell's in Charleston, SC
- ICAST in Orlando, FL

Tackle shop visits

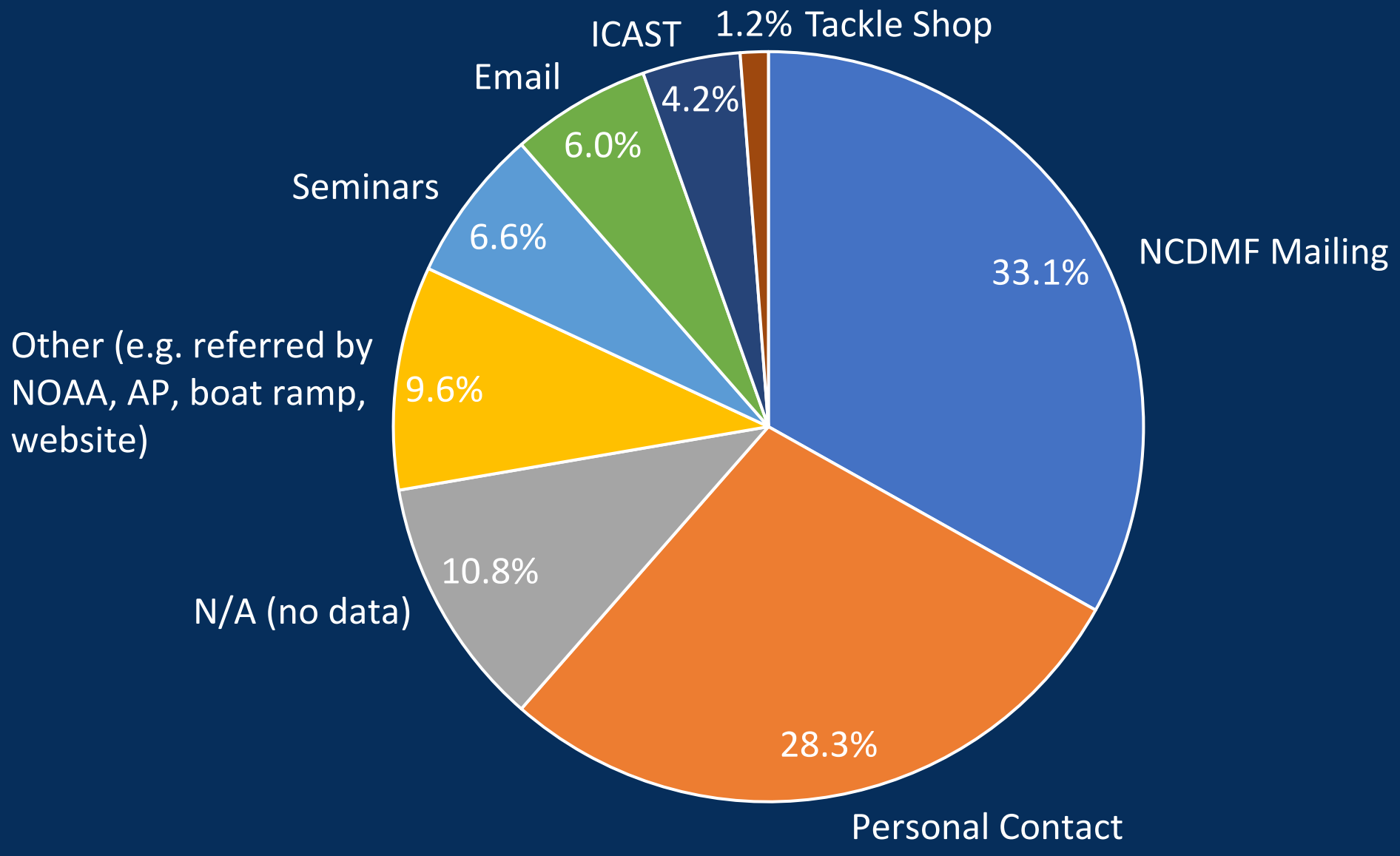
SAFMC Release newsletter

Social media

Percent Sign-Ups Over Time



Percent Sign-Ups by Origin



Release Submissions

A sign-up doesn’t necessarily equate to a release submission

Most submissions come from fishermen that we have built a personal connection or relationship with

Pushing to increase retention and the number of release submissions

Questions for You

1. We've heard from fishermen that they don't have time to log all their releases. How can we best address this challenge?

2. We've seen partners have success with short tournaments. Could building in short "tournaments" throughout the year be one way to encourage reporting?

3. What other strategies could we use to ensure participants stay involved and log releases?

Program Activities

- New CitSci Project Coordinator: Meg Withers
- Fisheries Magazine Special Issue on Citizen Science: November 2022
- SMILE Project
- Dolphin Stakeholder Workshops
- FISHstory pilot project
- Citizen Science Program: Evaluation Interviews

PC: REEF & Daryl Duda

SMILE Pilot Project

- Partners: REEF, SECOORA, UCSD Engineers for Exploration & SAFMC
- Partnering with recreational divers to collect length information on data limited species

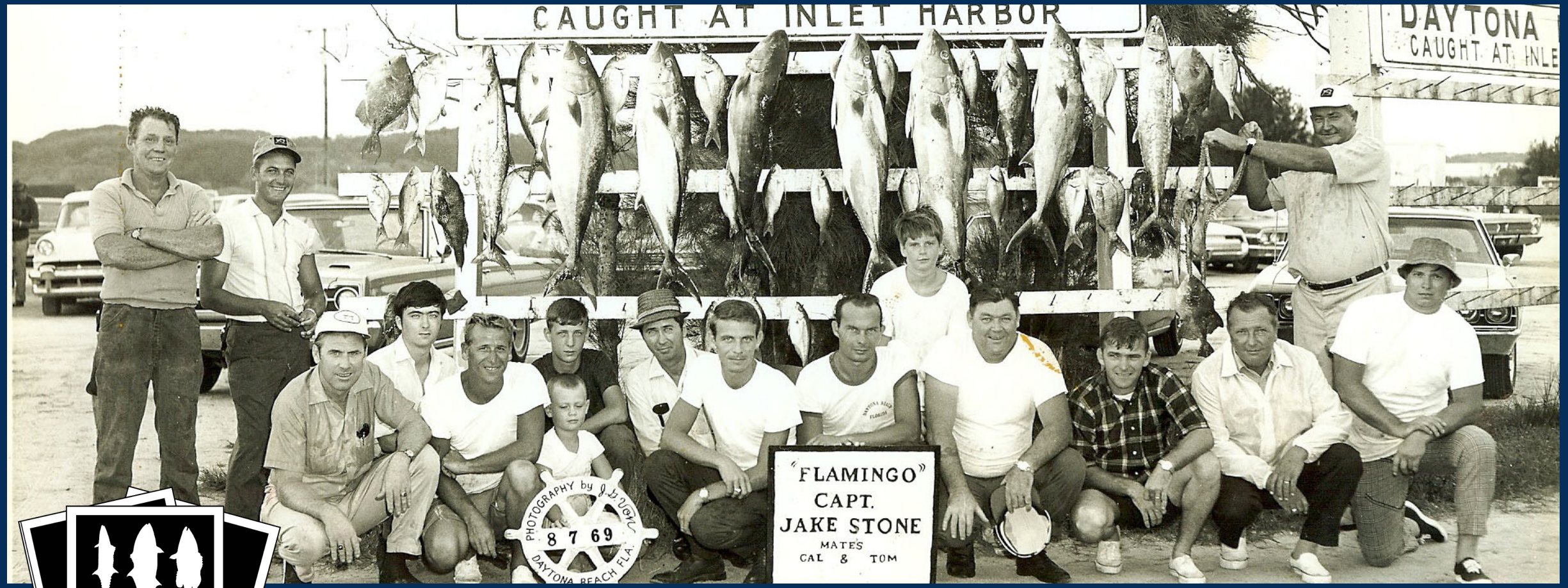
PC: Troy Frady

Dolphin Stakeholder Workshops

Focus on gathering information on preferences, priorities & concerns with dolphin fishery to evaluate future management strategies

- Week of October 4th, 2020: South Florida
- Week of October 31st, 2022: Rhode Island & New York
- Week of January 23rd, 2022: South Carolina, North Carolina & Virginia

NOAA FISHERIES



FISHstory

A SAFMC CitSci Project

FISHstory

Pilot project to document historic for-hire catch and length estimates using historic photos

FISHstory wouldn't be possible without so many amazing partners & volunteers!

- Rusty Hudson, Ken Brennan, Amber Von Harten & Allie Iberle
- FISHstory Design & Validation Teams
- FISHstory Length Analysts
- FISHstory Zooniverse Volunteers
- Outreach Partners
- Many Council Staff
- NOAA Fisheries - Fisheries Information System Program

FISHstory Project Components

Digitize & archive historic photos → Over 1,374 photos digitized & archived

For-hire catch composition in Zooniverse → Over 2,120 volunteers made 35,740 classifications
Validation Team reviewed 180 photos
Data can provide catch trends over time

Method to estimate length - test on King Mackerel → All 1,374 photos reviewed for King Mackerel
Length compositions developed

FISHstory Project Results

Results summary on Zooniverse

SAFMC Seminar Series on FISHstory

Key Takeaways

- Methods developed for historic photos show promise
- Volunteers can make valuable contributions
- But identifying fish in historic photos is challenging
- Simplifying data collection can improve data quality
- Citizen science is not a no cost endeavor
- Work done in pilot will make project more efficient moving forward
- Fishermen interested in sharing historic photos & stories

Next Steps

- **Move from pilot to full scale project**

Pursue funding to grow project

Expand geographic & temporal range of photos

Improve efficiency of processes

Estimate length compositions for more species

Explore oral history component

Citizen Science

Initial Program Evaluation Plan: Interview Results

Rick Bonney
Cornell Lab of Ornithology

Initial Program Evaluation Plan

- Gather baseline data on knowledge, attitudes, collaborations, engagement, and trust levels of various stakeholders in three stages:

Interviews → Complete: 6 fishermen, 6 scientists, 6 managers

Develop online survey → Beginning to draft survey questions

Implement & analyze survey

Interview Key Findings

- **The 18 Interviews were conducted by Zoom** and took from 30 to 45 minutes each. An initial draft of the findings was sent to all interviewees in mid-May 2022.

- **All interviewees were highly experienced**, and nearly all were familiar with the SAFMC, the stock assessment process, and how data are used to inform management decisions.

- Most of the fishermen have been fishing essentially all of their lives. **Three are commercial fishermen, two are charter boat captains, and one is a recreational fisherman.**

Interview Key Findings

- **Opinions on the health of the South Atlantic US fishery varied:**
  - *Most scientists* felt that many species are declining and in poor health.
  - *Managers* tended to feel that fish stocks are doing better than scientists feel they are, especially for the most actively managed species.
  - *Fishermen* were the most pessimistic about the health of the fishery, with all but one stating that it's getting very hard to catch fish. Fishermen used terms like "depleted resources" and "depressing." One said that when he talks to fishermen his own age, he ends up crying.

Interview Key Findings

- **Regarding the sufficiency of data available to support fisheries management:**
  - *Scientists* tended to feel that sufficient data are available, especially for species that receive stock assessments. Only one scientist strongly felt that more data are needed.
  - *Managers* were unequivocal that more data are needed. Only one manager said that sufficient data are available, and only for some species.
  - *Fishermen* mostly felt that more data are needed. Four said that more data are needed; one stated that scientists rely too much on modeling, and another said that scientists and managers need to obtain more data from fishermen, as they are the experts on the water.

Interview Key Findings

- **Considering familiarity with citizen science:**
  - *Scientists* were generally familiar, but not particularly engaged. Four had not engaged with citizen science projects or data.
  - *Managers* were more involved than scientists; three have participated in at least one program.
  - *Fishermen* were the most engaged, largely with SAFMC projects, with five having participated in some way.

Interview Key Findings

- **Familiarity with the SAFMC Citizen Science Program:**
  - *All scientists* were at least passingly familiar. Three knew about its goals and objectives and two had advised on current projects. None of them were familiar with the list of research priorities.
  - *Most managers* did not know specifics about the program, and none were familiar with the list of research priorities.
  - *Most fishermen* were familiar with some of the specifics, with some having gathered data. One was familiar with the list of research priorities but called it “a bit broad.”

Interview Key Findings

- **Support and faith in citizen science:**
  - *All scientists* were generally supportive, but stressed the need for sound project design, and offered many caveats.
  - *Managers* were very supportive; four stated that fishermen would be able to collect a great deal of useful data.
  - *Fishermen* did not seem optimistic about the utility or uptake of citizen science. Many of them felt that scientists and managers would not use or trust the data. Two felt that fishermen mostly won’t participate.

Conclusions

- *Scientists* need to be convinced that projects have sound design and that their data are truly needed.
- *Managers* need to be convinced that scientists will use the data.
- *Fishermen* need to be convinced that scientists and managers will use the data.
- *The fisherman audience* needs to be studied in much more detail.
- Fishermen are three audiences. More interviews with members of each audience would be helpful, especially younger individuals, who may be more optimistic.
- Deploying online interviews to scientists and managers should not be challenging.
- Deploying online interviews to fishermen, especially commercial fishermen, could be challenging.
- Research into needs/desires/motivations of fishermen & how best to reach fishermen are critical, which will require funding.

Keep Up with Projects & the Program!

http://safmc.net/citizen-science-program/

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