



COASTAL RESOURCES DIVISION

ONE CONSERVATION WAY · BRUNSWICK, GA 31520 · 912-264-7218

WALTER RABON
INTERIM COMMISSIONER

DOUG HAYMANS
DIRECTOR

Finfish Advisory Panel Orientation

June 28, 2023 In-Person

- 6:00 Welcome & Introduction of AP Members
- 6:10 CRD Overview & Funding Summary
- 6:40 Summary of Legislative and State Rule Process in Marine Fisheries Regulations
- 7:15 Commercial & Recreational Fisheries Data Collection

August 14, 2023 Webinar

- 6:00 Research & Surveys Unit
 - Review Projects and Data Collection
 - Highlight Data through Red Drum Case Study



Division Overview • Tyler Jones, public information officer



“To balance coastal development and protection of the coast’s natural assets, socio-cultural heritage, and recreational resources for the benefit of present and future generations.”



– CRD MISSION



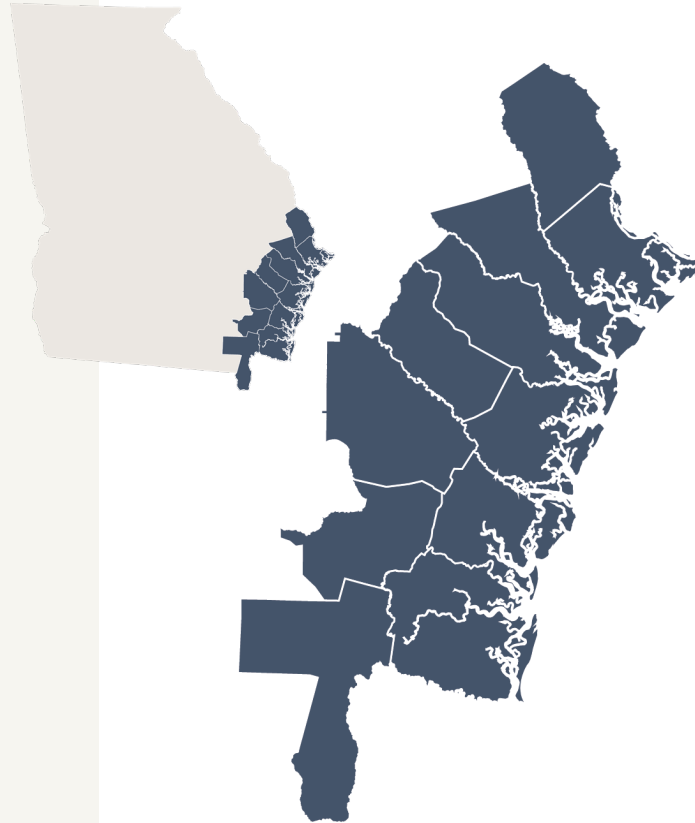
JURISDICTION

MARSH & SHORE

- Coastal Marshlands Protection Act
- Shore Protection Act
- Revocable Licenses

COASTAL MANAGEMENT PROGRAM

MARINE FISHERIES



- 368,000 acres of marshlands
- 300 square miles of Atlantic Ocean
- 3,400 miles of shorelines
- 105 miles of beaches
- 11 counties
- 680,000 people



DOUG HAYMANS
Director

67 full-time staff
13 part-time



KARL BURGESS
Assistant Director

Lexi Sams, budget

Kari Butler, federal grants

Gale Kennedy, H.R.

Tyler Jones, public info.

Cate Williams, marine ed.

JILL ANDREWS
Chief of Coastal Management

Buck Bennett, compliance

Kelie Moore, fed. consistency

Josh Noble, marsh/shore mgmt.

Jan Mackinnon, ocean/coast mgmt.

Dom Guadagnoli, shellfish/water quality

CAROLYN BELCHER, Ph.D.
Chief of Marine Fisheries

Paul Medders, habitat/access

Kathy Knowlton, program support

Jared Flowers, Ph.D., research/surveys

Julie Califf, statistics

Ellis Johnson, vessel support



COASTAL MANAGEMENT



01

OCEAN & COASTAL
MANAGEMENT

02

MARSH & SHORE
MANAGEMENT

03

COMPLIANCE &
ENFORCEMENT

04

SHELLFISH & WATER
QUALITY





01

COASTAL & OCEAN MANAGEMENT

GREEN GROWTH

Building & planning best practices; Low-impact development

COASTAL HAZARDS

Community resiliency; Disaster recovery; Assessing climate change

GIS & PLANNING

Regional LIDAR; Imagery gathering; Web-based mapping

WETLANDS

Assessing health; Monitoring dieback; Promoting restoration



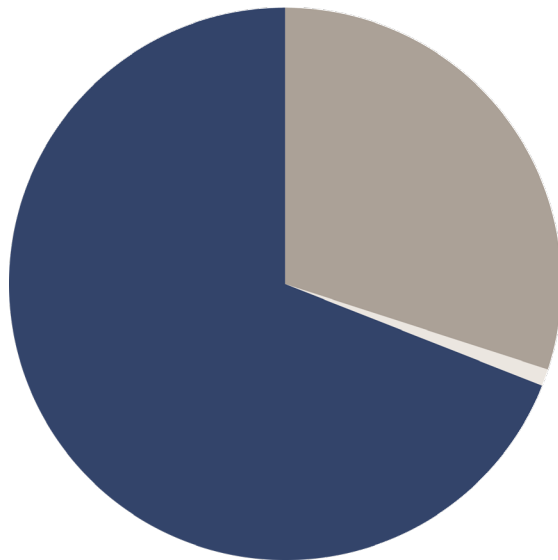





01

COASTAL & OCEAN MANAGEMENT

COASTAL INCENTIVE GRANTS

Nearly 450 projects funded
over 20 years, representing
\$40 million including
matching funds

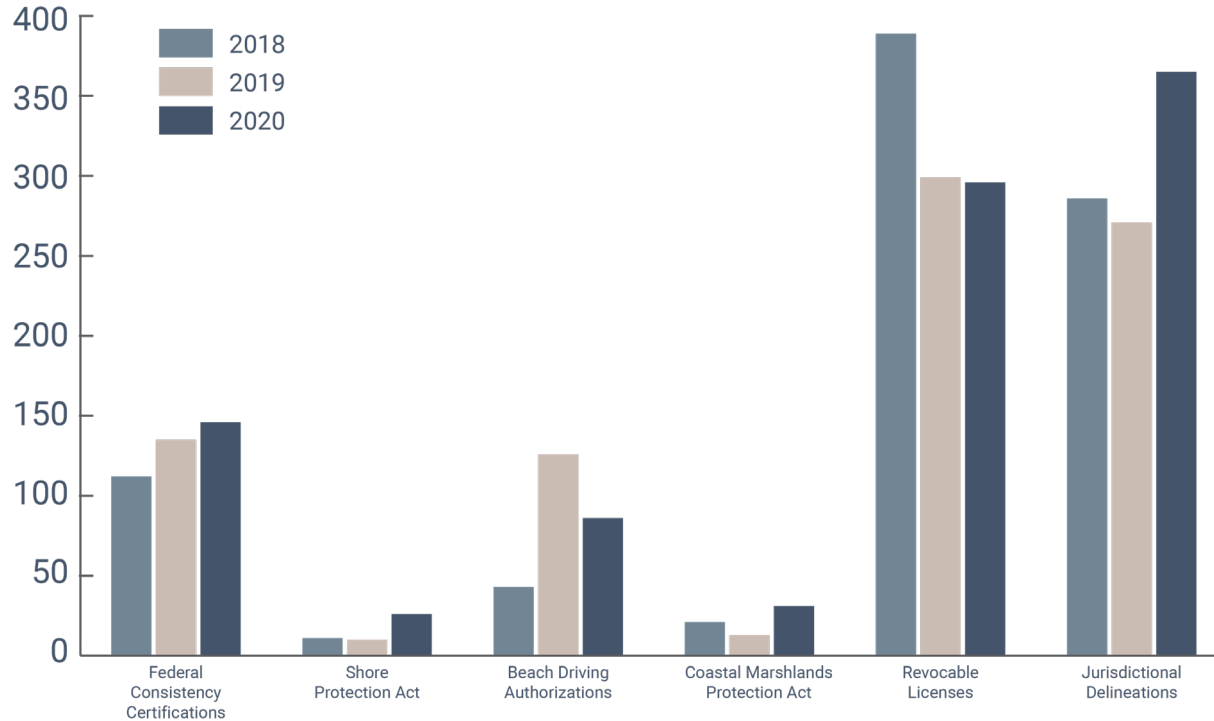


-  **69 percent**
Universities
-  **30 percent**
Local governments
-  **1 percent**
State agencies



02

MARSH & SHORE MANAGEMENT



03

COMPLIANCE & ENFORCEMENT

- Investigates marsh & shore laws violations
- Inspects authorizations & permits
- Monitors sunken & derelict vessels





04

SHELLFISH & WATER QUALITY

- 17 commercial leases
- 82 sites per month
- FDA & USDA certified
- 1.8 million pounds per year harvested



MARINE FISHERIES



01

RESEARCH & DATA
COLLECTION

02

SURVEYS & STATISTICS

03

HABITAT ENHANCEMENT
& PUBLIC ACCESS

04

FISHERY MANAGMENT
PARTNERSHIPS



01

RESEARCH & DATA COLLECTION

Ecological Trawl
Monitoring

Marine Sportfish
Population Health

Adult Red Drum &
Shark Longline

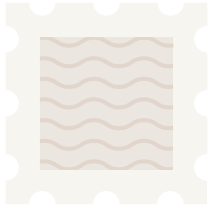
Carcass Recovery
Project



02

SURVEYS & STATISTICS

Seafood harvest statistics
Recreational effort & catch surveys



Mail surveys (effort)
x Dock surveys
+ For-hire surveys
= Total catch





03

HABITAT ENHANCEMENT & PUBLIC ACCESS

ARTIFICIAL REEFS

CRD builds and maintains both inshore and offshore reefs. Support reef creation with a Marine Habitat License plate.

WATER ACCESS

Boat ramps are often maintained in partnership with local governments.



04

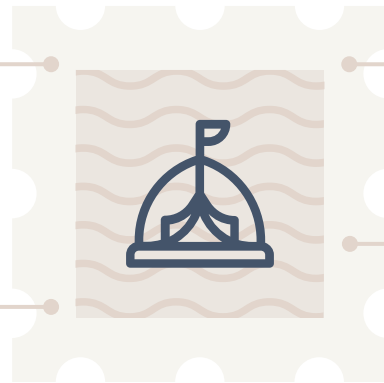
FISHERY MANAGEMENT PARTNERSHIPS

ATLANTIC STATES MARINE FISHERIES COMMISSION

15 member states;
Authority in state waters;
Formed 1942

GET INVOLVED

Contact CRD for volunteer opportunities



SOUTH ATLANTIC MARINE FISHERIES COUNCIL

3-200 nautical miles offshore; Federal fisheries; N.C., S.C., Ga., Fla.

CITIZEN ADVISORY PANELS

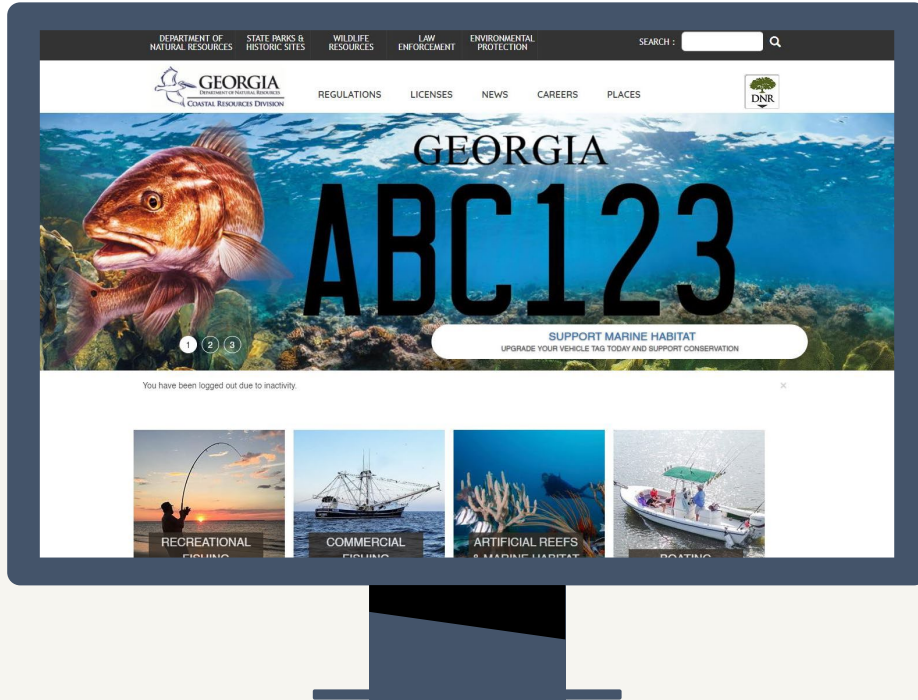
Coastal Advisory Council;
Marine Fisheries Advisory Council



OUTREACH & EDUCATION

- Media engagements
- Web & social media
- Family fishing derbies
- CoastFest
- Sportfish and civic clubs





CONNECT WITH CRD

Visit CoastalGaDNR.org anytime to learn more about how we conserve the coast





GEORGIA

DEPARTMENT OF NATURAL RESOURCES

COASTAL RESOURCES DIVISION

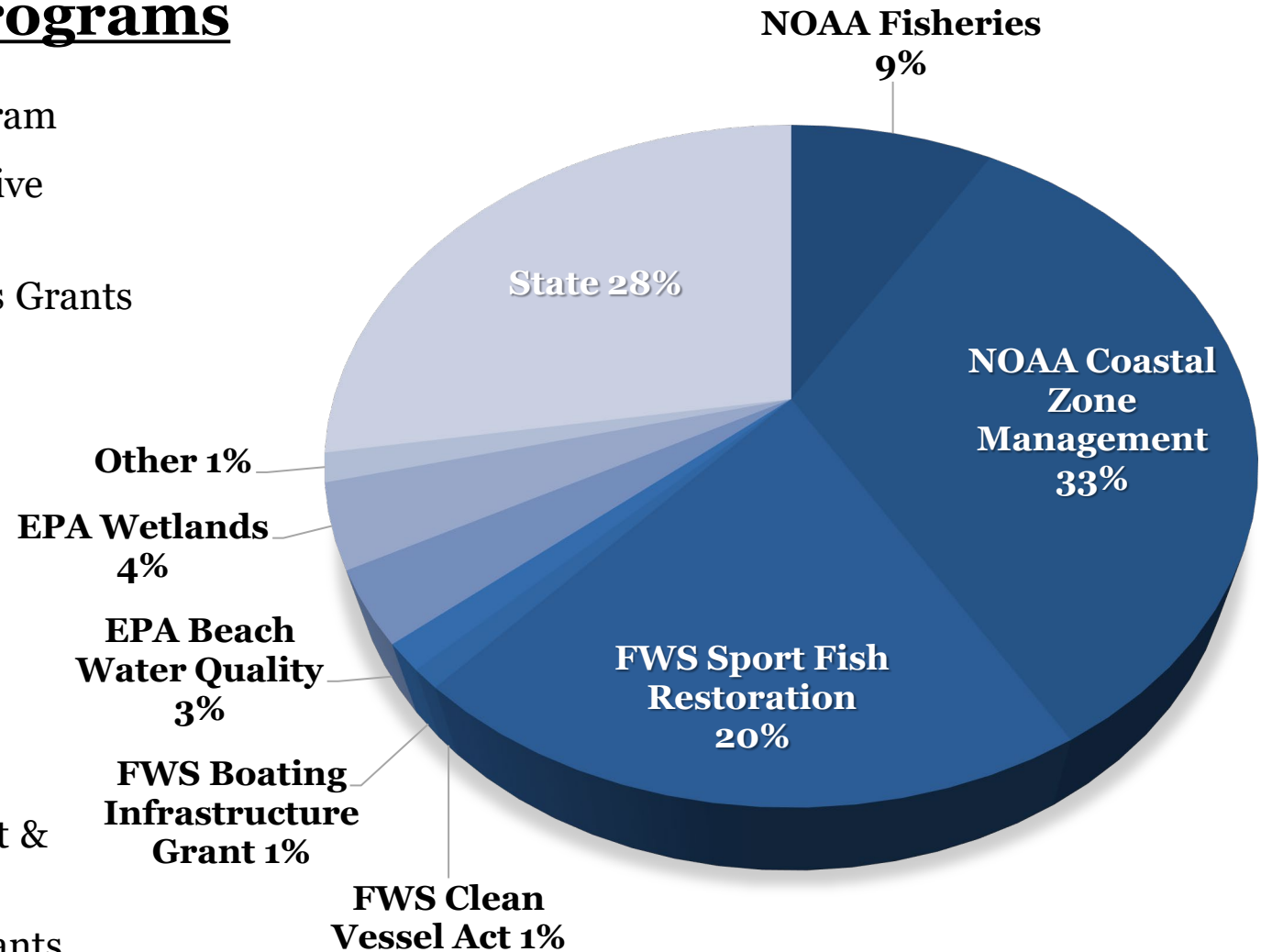


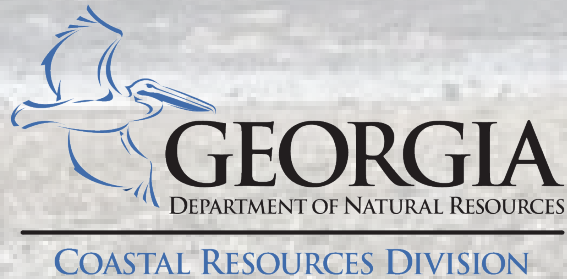
Coastal Resources Division

Federal Funding for Coastal Programs



- Georgia Coastal Management Program
- Atlantic Coastal Fisheries Cooperative Management Grants
- Interjurisdictional Marine Fisheries Grants
- NOAA Species Recovery Grants
- Coastal Resiliency Grant
- Sportfish Restoration Grants
- State and Tribal Wildlife Grants
- Cooperative Endangered Species Conservation Fund
- Beaches Environmental Assessment & Coastal Health Grants
- Wetland Program Development Grants





Public Participation in Georgia Saltwater Fisheries Management

Kathy Knowlton

**Finfish Advisory Panel Orientation
June 28, 2023**

Mission Statement:

To balance coastal development and protection of the coast's natural assets, socio-cultural heritage and recreational resources for the benefit of present and future generations.

Marine Fisheries Management Authority

Official Code of Georgia Annotated (O.C.G.A) Title 27 “Game and Fish”

Legal basis for management of marine fish & invertebrates GA’s coastal waters

General
Assembly

DNR Board

DNR
Commissioner

Prior to 2013

- Some marine species: General Assembly retained sole authority
- Other marine species: combination, e.g. Red Drum
General Assembly = size limit DNR Board = creel limit

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“Title 27 Reform”

- Authority to change size, possession & creel limits for marine species added to Board
- Increased public participation
- Created Saltwater Information Program (SIP) permit

Increase in Public Participation

Legislators in session 40 days



- DNR Board meets 10 months of year
- More timely response to FMPs & weather
- Board action requires public involvement
Administrative Procedures Act
- DNR Board primary focus natural resource management
- Creation of DNR Finfish Advisory Panel

Marine Fisheries Advisory Council (MFAC)

GA law authorizes a department head or Governor to create advisory councils

- Created only for “purpose of acting in an advisory capacity”
- Termination date not to extend beyond the term of the current Governor

2012 DNR Commissioner added **Finfish Advisory Panel**

- Three other APs: Blue Crab, Shellfish/Mariculture, and Shrimp
- DNR Commissioner appoints members based on applications
- Members can request reappointment when MFAC reauthorized every 4 years

Saltwater Information Program (SIP) Permit

General
Fishing License



- Free annual permit added to general fishing license
- Identified universe of saltwater anglers in GA
- State/Federal surveys more efficient & accurate

MARINE FISHERIES ADVISORY COUNCIL OPERATIONAL GUIDELINES

Updated August 3, 2020

I. Name and Objectives

The name of the organization shall be the Marine Fisheries Advisory Council, hereinafter referred to as the "MFAC."

Objectives:

- 1) The MFAC will provide input and advisement to the Georgia Department of Natural Resources (DNR), on its current assessment and management practices; various marine recreational and commercial fisheries management issues; research; and enhancement needs and projects.
- 2) The MFAC will assist DNR in implementation of recreational and commercial fisheries initiatives.
- 3) The MFAC will serve to communicate issues and activities of the Coastal Resources Division (CRD) to individual constituencies and provide feedback to DNR to improve the use of information for marine fisheries management.

II. Membership

The MFAC shall be composed of the membership of the DNR Marine Fisheries Advisory Panels represented by recreational, commercial, environmental, academic and marine business interests (as summarized in Appendix A).

- (1) The membership of the MFAC, as defined by each Advisory Panel (AP), shall be determined jointly by the Commissioner of Natural Resources (Commissioner), the Director (Director) and the Chiefs of Marine Fisheries and Coastal Management Sections of the CRD. When vacancies occur, the CRD staff (Staff) shall solicit nominations or suggestions for replacements from the current AP members and interested public. Staff shall, in turn, recommend individuals for appointment, based on their interest area and expertise, to the Commissioner or Director as authorized on his/her behalf. Appointments shall be until the termination date of the Administrative Order creating the Advisory Council, with the possibility for reappointment after creation of the next Administrative Order. Such termination date will not extend beyond the term of the Governor at the time of the Council's creation.
- (2) Any individual issued a fishing-related violation up to two years prior to filling a vacancy, or having a pending citation, may not be considered for appointment to the

MFAC or any of its Advisory Panels. For current members, citations and/or convictions of fishing-related violations will be referred to the Commissioner and Director to decide if the individual should be considered for removal from the MFAC. This decision will be based on the following three criteria: 1) severity; 2) intent; and 3) the number of violations. If, based on these criteria, the Commissioner and Director decide that dismissal from the MFAC is appropriate, the individual will be removed from the MFAC and will receive a letter to that effect.

- (3) Two consecutive unexcused absences will result in immediate termination of membership. A Chief is authorized to excuse an absence from meetings or conference calls. Within any calendar year, any member who has not attended at least one-half of the formally scheduled meetings of their Advisory Panel and the full MFAC, without excused absences, may be deemed to have resigned their appointment. In extenuating circumstances, if a member expects a long-term absence, that individual can recommend a proxy to be appointed by the Director. Long-term proxies have full privileges.
- (4) When required to attend a meeting, each MFAC member is eligible for compensation of travel related expenses (subsistence and mileage) as provided by law. Travel expense statements will be submitted to and processed by Staff.

III. Staff

Staff will moderate meetings and provide technical, clerical, and secretarial services as required. Staff will take notes and produce a written summary of the meeting, and/or an electronic file of presentations made during the meeting. Copies of the meeting summary/presentations will be provided to each member via email.

IV. Meetings

- (1) Meetings will be held a minimum of once annually and as deemed necessary by the Staff.
- (2) New members shall be required to attend an orientation and education program.
- (3) Meetings will be announced to all members not less than two weeks in advance, and will list the date, time, location, and proposed agenda.
- (4) Members may submit agenda items, as well as requests for nonmembers to participate in an upcoming meeting, directly to Staff for consideration at the meeting at least five working days in advance of the meeting.
- (5) The current revised edition of Roberts Rules of Order shall guide meeting procedures and all business, as much as practical.

- (6) Non-DNR scientists and State agency personnel will be appointed as ex-officio members.
- (7) A quorum shall consist of a simple majority of the voting membership, with the number of members dependent on whether it is an AP or full MFAC meeting. For example, an AP with 10 appointed members would require 6 members present to establish a quorum at a meeting. No action items will be taken without a quorum. Votes are a simple majority, except on amendments as noted below. The MFAC shall provide the opportunity for dissenting opinions to be reflected in meeting summaries. Once a meeting or conference call is adjourned, participating members may not change their vote. Ex-officio members do not have voting privileges and do not count toward establishing a quorum.
- (8) Electronic voting (e.g., via email or Survey Monkey) may be used with unanimous concurrence by members, following the same rules for establishing a quorum at meetings. The discussion summary will be sent out to the membership. Additional written or oral comments will be considered for one week and shared with membership electronically at the time Staff call for a vote.
- (9) All meetings are open to the public and all interested persons are invited to attend. Public comment, or questions regarding matters on the meeting agenda, may be taken at designated periods at the discretion of the meeting moderator.

V. Amendment of Guidelines

These guidelines may be amended by a two-thirds vote of the MFAC.

VI. Ad Hoc Panels

Ad hoc panels composed of MFAC members shall be appointed by the Director as necessary.

Appendix A

The purpose of the Advisory Panels is to provide input and advice to CRD regarding management of specific marine fisheries. It is the goal of the MFAC and Director to have equitable representation from the various sectors in proportions as listed below:

The Blue Crab Advisory Panel's (BCAP) membership will consist of 11 to 15 persons who are knowledgeable about Georgia's blue crab fishery:

- Maximum of eight licensed commercial crabbers/dealers, with at least one crabber from each geographic sector (North – Chatham/Bryan; Middle – Liberty/McIntosh; South – Glynn/Camden). Fishermen must have possessed a Georgia Resident Commercial Fishing license during the previous two years, have reported landings of crab, and must possess all other state and federal permits, as required.
- Minimum of two licensed recreational crabbers, who do not possess a commercial fishing license.
- One non-DNR scientist experienced with crustacean population dynamics and/or management and affiliated with a non-governmental organization or academic institution based in Georgia (ex-officio member).

The Finfish Advisory Panel's (FAP) membership will consist of no more than 12 persons who are knowledgeable about Georgia's saltwater finfish fisheries:

- Seven licensed recreational anglers - two each from the Northern and Southern coastal geographic sectors (North – Chatham/Bryan/Liberty; South – McIntosh/Glynn/Camden), two non-coastal at-large (reside in a non-coastal county), and one at-large (reside in any Georgia County). These individuals do not possess a commercial fishing license.
- Three licensed saltwater fishing guides - one from each sector (North – Chatham/Bryan/Liberty; South – McIntosh/Glynn/Camden; and at-large – reside in any GA county). The guides must have possessed a Georgia Resident Saltwater Fishing Guide license for the previous two years and possess all other state and federal permits, as required.
- One licensed commercial fisherman – Fisherman must have possessed a Georgia Resident Commercial Fishing license during the previous two years, have reported landings of finfish, and must possess all other state and federal permits, as required.
- One non-DNR scientist experienced with saltwater fish population dynamics and/or management and affiliated with a non-governmental organization or academic institution based in Georgia (ex-officio member).

The Shrimp Advisory Panel's (SAP) membership will consist of 11 to 15 persons who are knowledgeable about Georgia's shrimp fisheries:

- Maximum of five commercial food shrimp trawlers, with at least one from each geographic sector (North – Chatham/Bryan; Middle – Liberty/McIntosh; South – Glynn/Camden).
- Maximum of two commercial castnetters.
- Minimum of one commercial bait shrimp fishermen/dealer.
- Minimum of one commercial food shrimp dealer associated with a seafood processing facility.
- Commercial fishermen must have possessed a Georgia Resident Commercial Fishing license during the previous two years, have reported landings of shrimp, and must possess all other state and federal permits, as required.

- Minimum of two licensed recreational shrimpers, who do not possess a commercial fishing license.
- One non-DNR scientist experienced with crustacean population dynamics and/or management and affiliated with a non-governmental organization or academic institution based in Georgia (ex-officio member).

The Shellfish and Mariculture Advisory Panel's (SMAP) membership will consist of 11 to 15 persons who are knowledgeable about Georgia's shellfish and mariculture fisheries:

- Maximum of four certified shellfish dealers.
- Maximum of four licensed master harvesters.
- Minimum of two licensed recreational shellfish harvesters or coastal county residents.
- One non-DNR scientist experienced with shellfish science and affiliated with a non-governmental organization or academic institution based in Georgia (ex-officio member).
- One Department of Agriculture food safety officer (ex-officio member).
- One private, commercial, in-state shellfish hatchery or nursery operator.
- One related business owner such as a restaurateur.

Potential GADNR Rule Changes

Official Code of Georgia Annotated (O.C.G.A.)

Title 27 Game & Fish (primarily license fees, penalties & comm)

Changes occur through legislation

Authorizes Board to promulgate rules & regs for fishing

Rules & Regulations of the State of Georgia

Title 391 Rules of Georgia Department of Natural Resources

Chapter 391-2-4 “Saltwater Fishing Regulations” authorizes

- Board of Natural Resources with 18 Sections of regulations
- e.g., eel, shad, shrimp, crab, rec & comm fishing
- Process of “Rule Making” includes public notice & Board action with GADNR Board meeting monthly

Potential GADNR Regulatory Changes



Atlantic States Marine Fisheries Commission

- Partnership of 15 Atlantic coast states
- Works for the conservation & management of shared near shore fishery resources (0-3 miles)

Bluefish Coastal assessment: stock is overfished

States have 2 options

- Adopt coastwide ASMFC measures: 3-fish rec and 5-fish for-hire creel
- Offer “Conservation Equivalency” option: allows states flexibility to develop alternate regulations still achieve coastal objectives
 - Required GA decrease in coastwide rec harvest = 8.13%
 - Achieve estimated 13.1% decrease by closing March & April harvest (2020 & 2021)



CRD has decided to continue to annually close March & April via Administrative Order by DNR Commissioner rather than codify through Board Rule.

Potential GADNR Regulatory Changes



South Atlantic Fishery Management Council

- Conservation & management of stocks 3-200 miles offshore
- Proposed rule changes are sent to NMFS for review & final approval by Secretary of Commerce

Dolphin (federal waters)

- Sept 2021 Council meeting: amendment for proposed rule being prepared for submission to NMFS
- Decrease vessel creel limit for rec and charter vessels from 60 to 54 fish
- Individual creel limit 10 per person or 54 per vessel, whichever is less



Current Georgia state water dolphin regulations: 10 per person not to exceed 60 per boat.

If approved by NMFS, recommend state regs changed through Board Rule to match federal.
Estimated impact: <0.1% of Georgia angler trips.

Potential GADNR Regulatory Changes



NOAA Atlantic Highly Migratory Species (HMS)

- Most federal water species are managed through Councils
- HMS species found throughout Atlantic, GOM & Caribbean and thus NOAA has primary management authority (HMS Management Division)
- Strictly managed with required rec & charter vessel permit & reporting
- In addition to minimum sizes, annual US landings limit of 250 Atlantic blue marlin, white marlin & roundscale spearfish (combined).

Current GA Board Rule for sailfish, blue & white marlin:

“No open season has been established by the Board of Natural Resources.”

CRD recommends state regs changed through Board Rule

- Match federal minimum sizes
 - 63-inch, 99-inch & 66-inch LJFL (respectively)
- Season: only open when allowed by applicable federal law



Potential GADNR Regulatory Changes

Sometimes inquiries lead to recommended changes

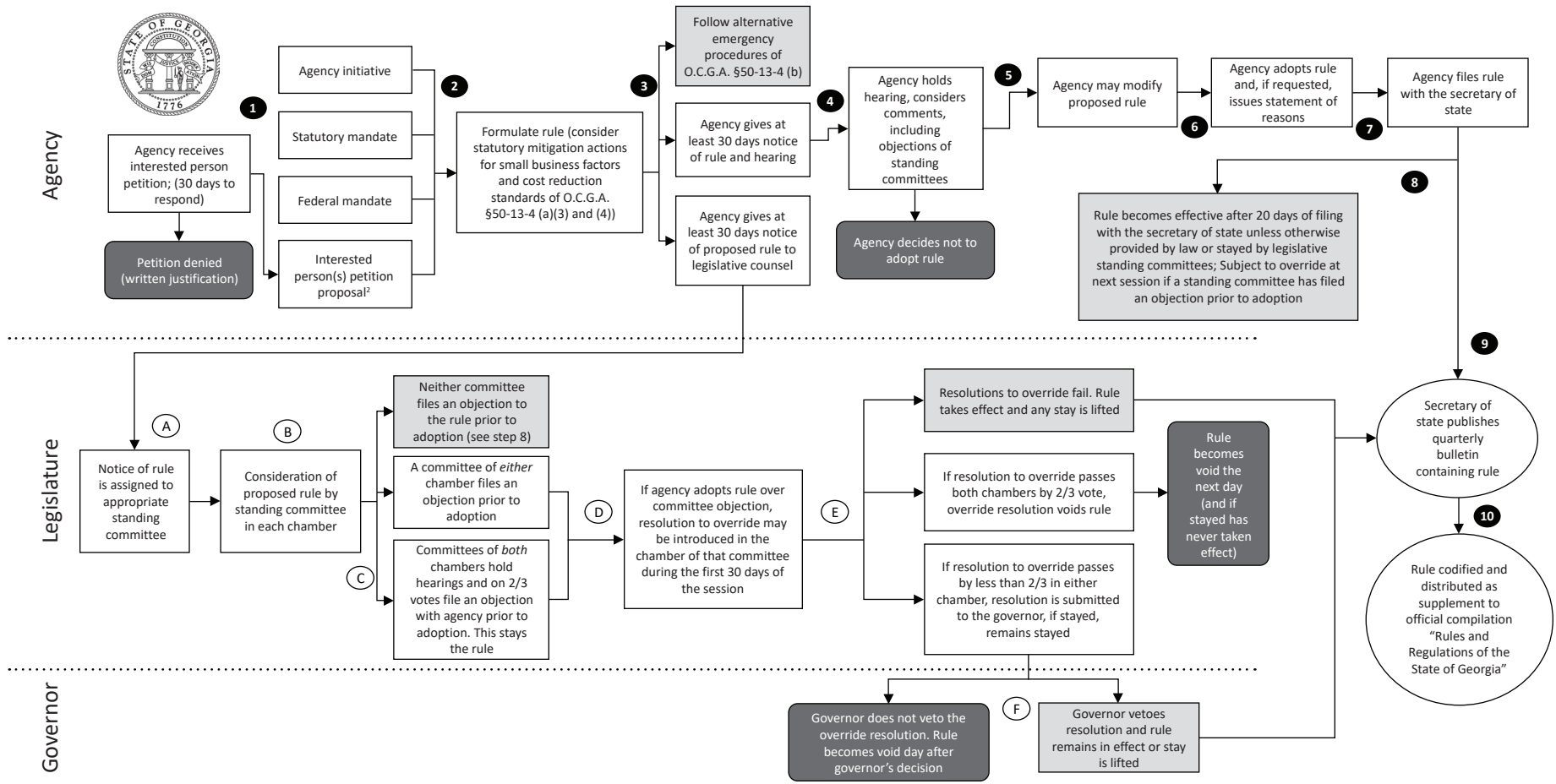
- Current GA Tarpon regs = minimum 68” FL allows for possible record landing
- Primarily catch & release with anglers seeking photos holding fish prior to release
- Being lifted from the water can reduce ability to survive
 - Damage to jaw and gills
 - If lifted into boat, easy to drop when fish “kicks”
 - Intense innate fight when caught & leads to oxygen depletion, often severe

Recommend add to Board Rule

“Tarpon over 40-inch fork length must remain in the water at all times, with gear limited to hook and line, and no gaffing.”

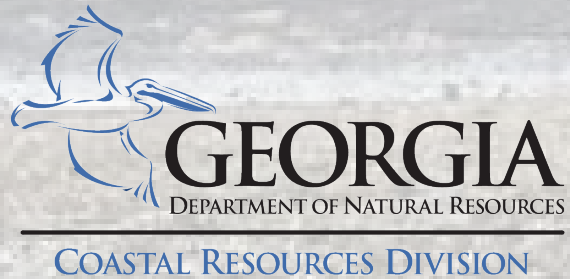


Rulemaking under the Administrative Procedures Act



1. O.C.G.A. §50-13-4 (simplified)

2. See Wesley Education Foundation v. State Election Board, 282 Ga. 707, 654 S.E.2d 127 (2007) (failure to respond to petition in time is not a basis for ordering the rule promulgation process to commence).



Marine Data Collection in Georgia

Dawn Franco

Advisory Panel Orientation

June 28, 2023

Mission Statement:

To balance coastal development and protection of the coast's natural assets, socio-cultural heritage and recreational resources for the benefit of present and future generations.

Commercial Reporting - Mandatory

GA = Monthly Trip reports from dealer/harvester

Federal = Weekly Electronic from dealer

- Area Fished & Gear
- Effort (# tows, # hours)
- Amount Harvested
- Price

1950 to present

- GA trip ticket began 2001

Quality Control

Confidentiality



140

ALL ITEMS ARE MANDATORY!

SHRIMP LANDINGS REPORTING FORM
GEORGIA DEPARTMENT OF NATURAL RESOURCES - Coastal Resources Division
Our Conservation Way - Brunswick, Georgia 31520 - 912/264-7218

Fisherman Name	Commercial Fishing License Number (Not required if card is presented)	Rig type (circle one) Single Double T	Number of Tows
Trip Start Date	Number of Crew (include captain)	Area Fished	Fishing Time (total hours the nets were in the water)
Unloading Date	Dealer Name	County of Landing	Fishing Time (total amount of time actually spent fishing)
	Boat Registration # or Documentation #	Dealer code (ONS use only)	

PLEASE SPECIFY IF SHRIMP IS HEADS ON OR TAILS

COUNT	1/15	1620	2125	2620	3125	3640	4120	5180	6170	7180
POUNDS										
PRICE										
POUNDS										
PRICE										

SPECIES	POUNDS	PRICE	SPECIES	POUNDS	PRICE
MIXED FISH			WHILEK		
WHITING			OTHER SPECIES (name)		
FLOUNDER			OTHER SPECIES (name)		
BLUE CRABS			OTHER SPECIES (name)		

WHITE COPY - Dealer YELLOW COPY - Harvester PINK AND GOLD - DNR

Commercial Reporting – How it's used:

Economic Impact in 2018

953

FULL AND PART-TIME
JOBS SUPPORTED

\$49.1

MILLION EARNED
IN LABOR INCOME

\$45.5

MILLION IN TOTAL
SALES IMPACT

- Top 3 Fisheries:
- Shrimp (Food & Bait)
 - Blue Crabs
 - Oysters

YEAR	Food Shrimp	Hard Blue Crab	Bait Shrimp	Peeler & Soft Blue Crabs	Finfish	Misc. & Confidential	Oysters	Total
2022 lbs	2,005,220	2,750,108	53,566	21,808	27,811	336,448	17,612	5,212,573
2022 value	10,669,630	5,798,879	832,814	263,781	46,496	2,858,115	151,574	20,621,289

Marine Recreational Information Program (MRIP)

Access Point Angler Intercept Survey (APAIS)

- Dockside
- Catch data

Fishing Effort Survey (FES)

- Mail Survey
- Effort for Private/Rental and Shore

For-Hire Telephone Survey (FHTS)

- Telephone Survey
- Effort from Charter

[Your Fishing Counts](#)



Methodology

MRIP: 1981-present

- Design
- Sampling
 - March to December (Waves 2-6)
- Quality control
 - Validation, procedure review, data proofing, annual site checks



How an intercept becomes an estimate...



**Estimated number of
summer flounder
harvested per trip**

EEZ • Private Boat
New Jersey • Wave 5 • 2019
(Based on Observed Harvest)

X



**Estimated number
of angler trips**

EEZ • Private Boat
New Jersey • Wave 5 • 2019

=



**Estimated total summer
flounder harvested**

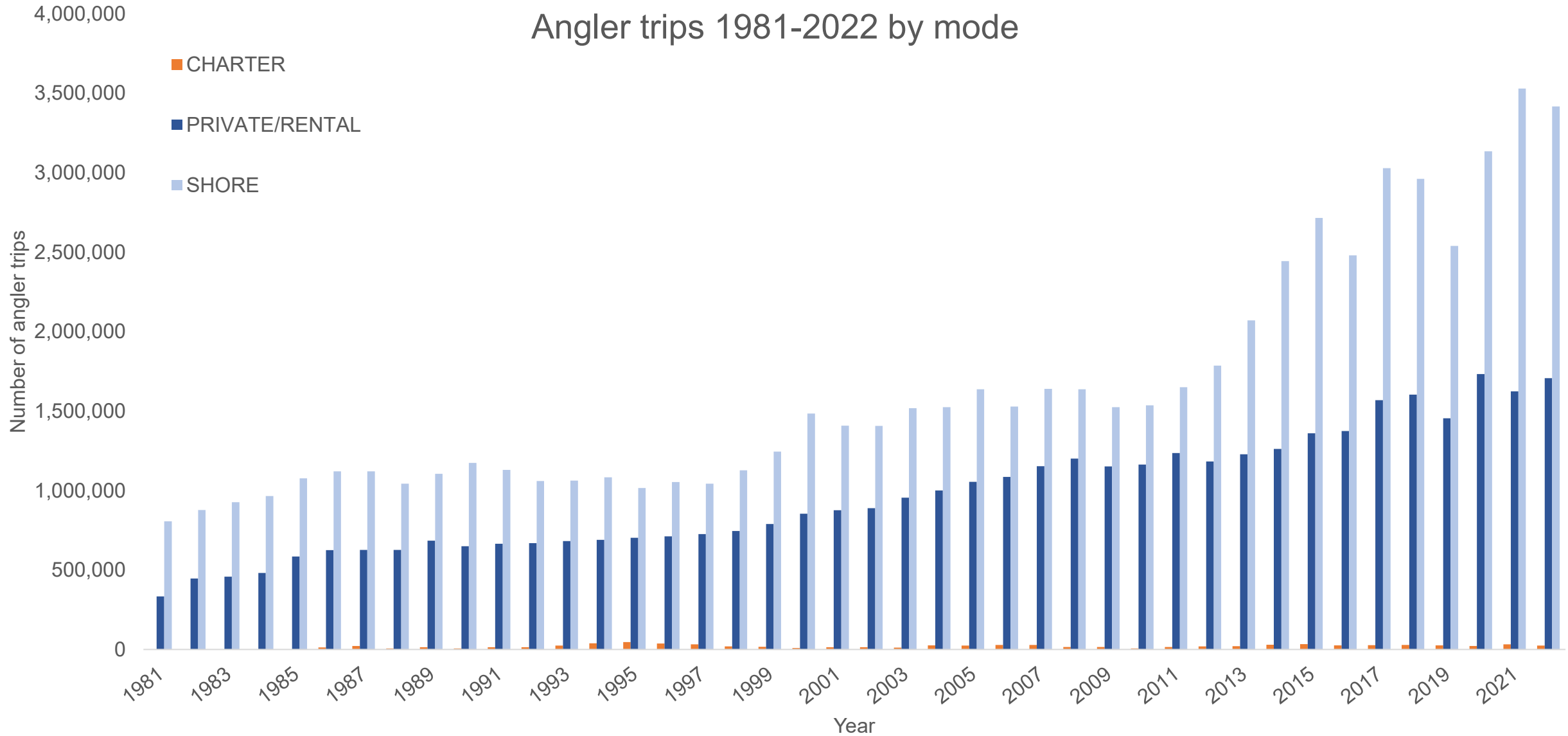
EEZ • Private Boat
New Jersey • Wave 5 • 2019
(Based on Observed Harvest)



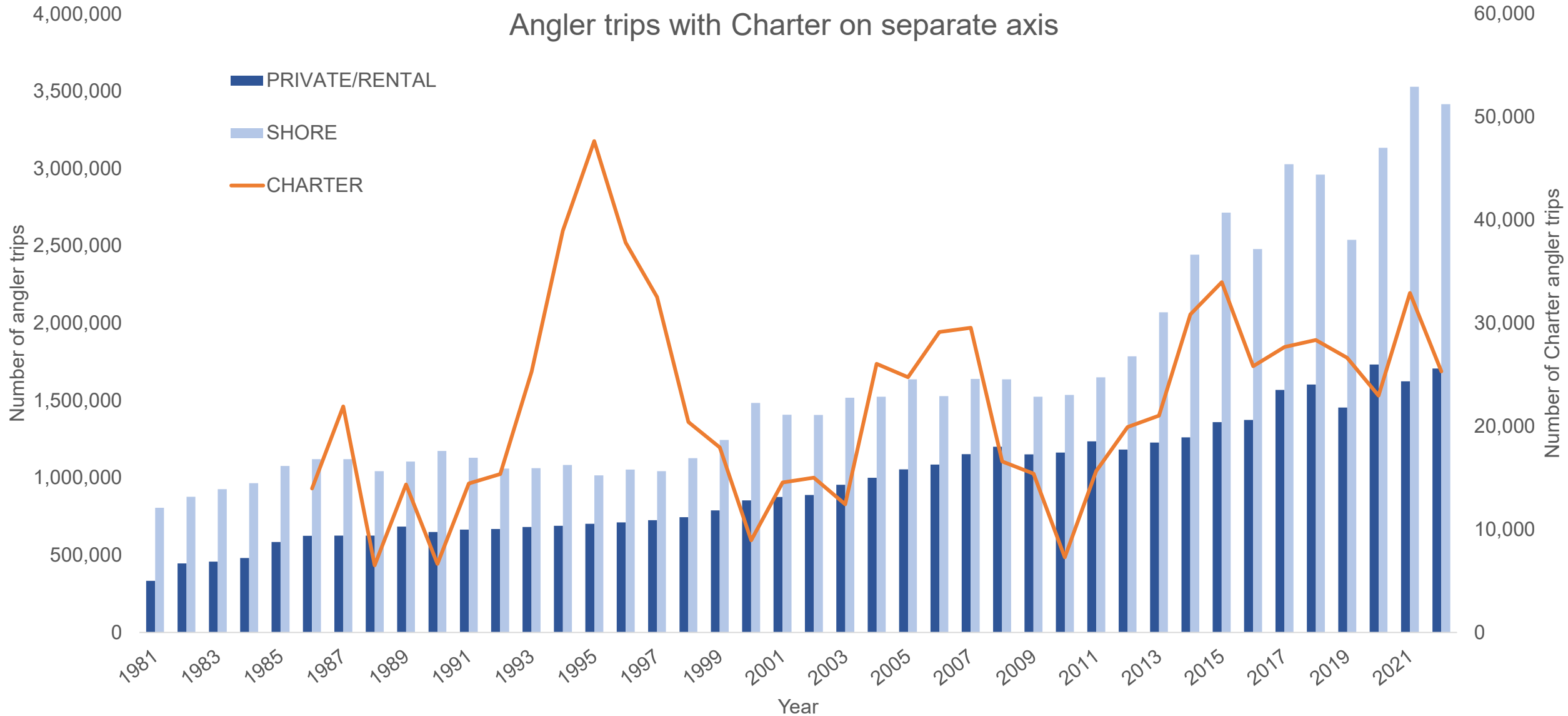
**NOAA
FISHERIES**

Effort in Georgia

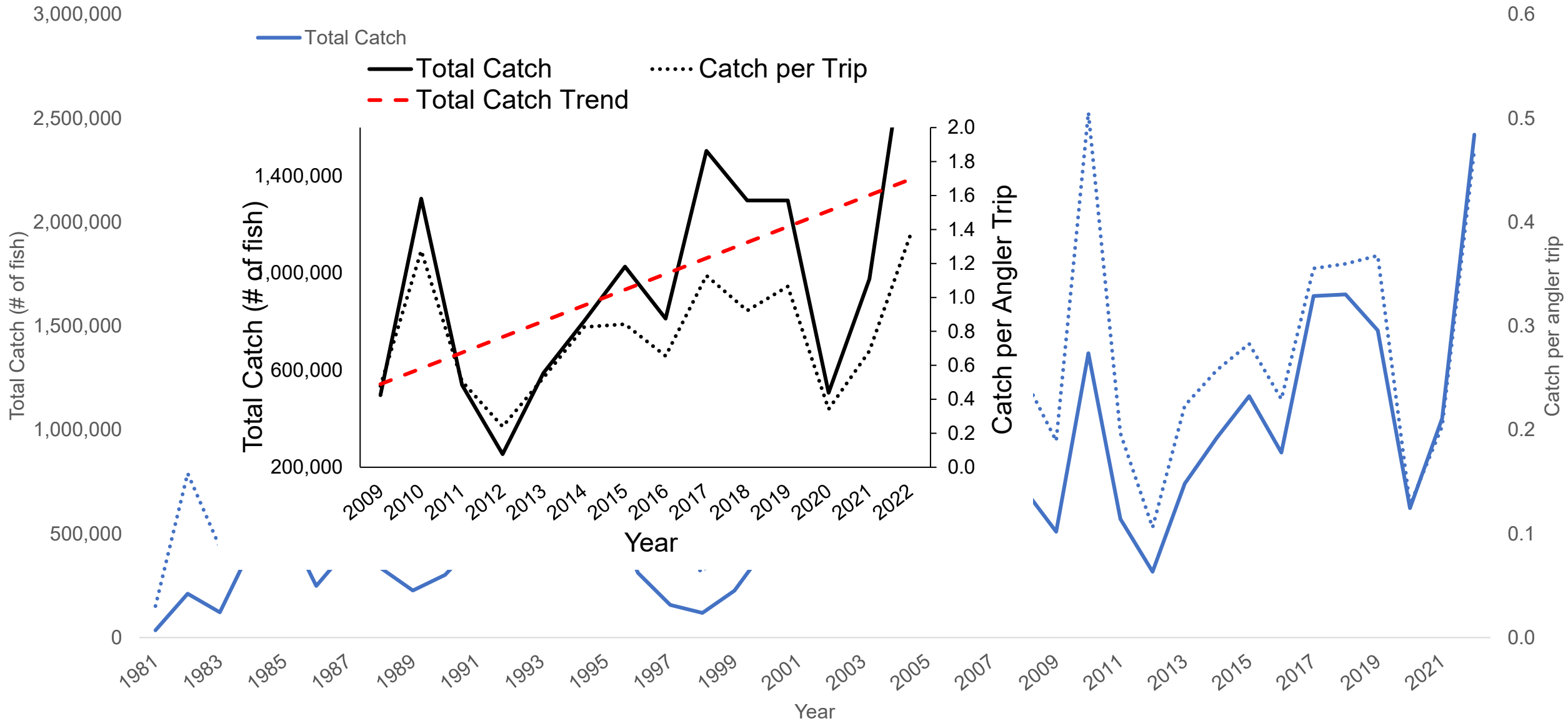
Angler trips 1981-2022 by mode



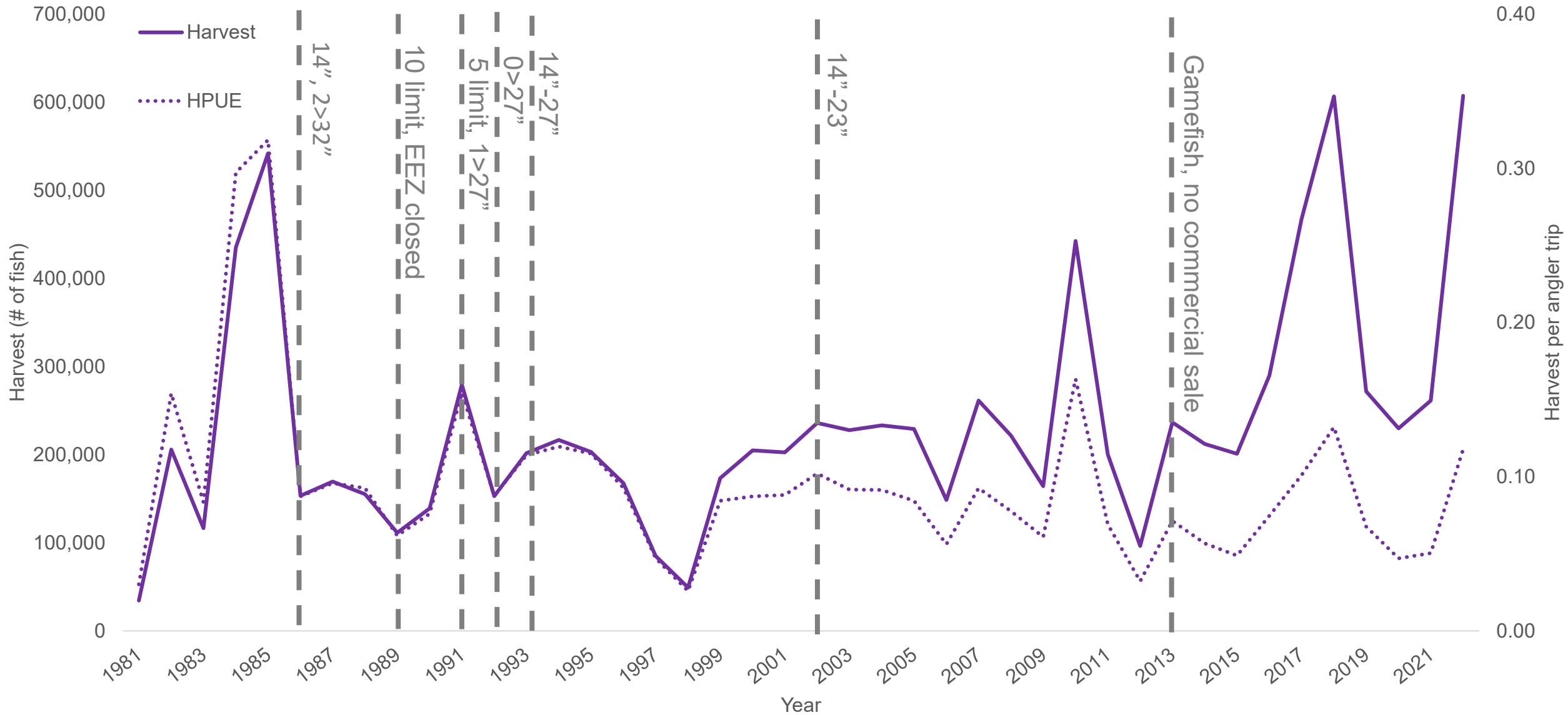
Effort in Georgia



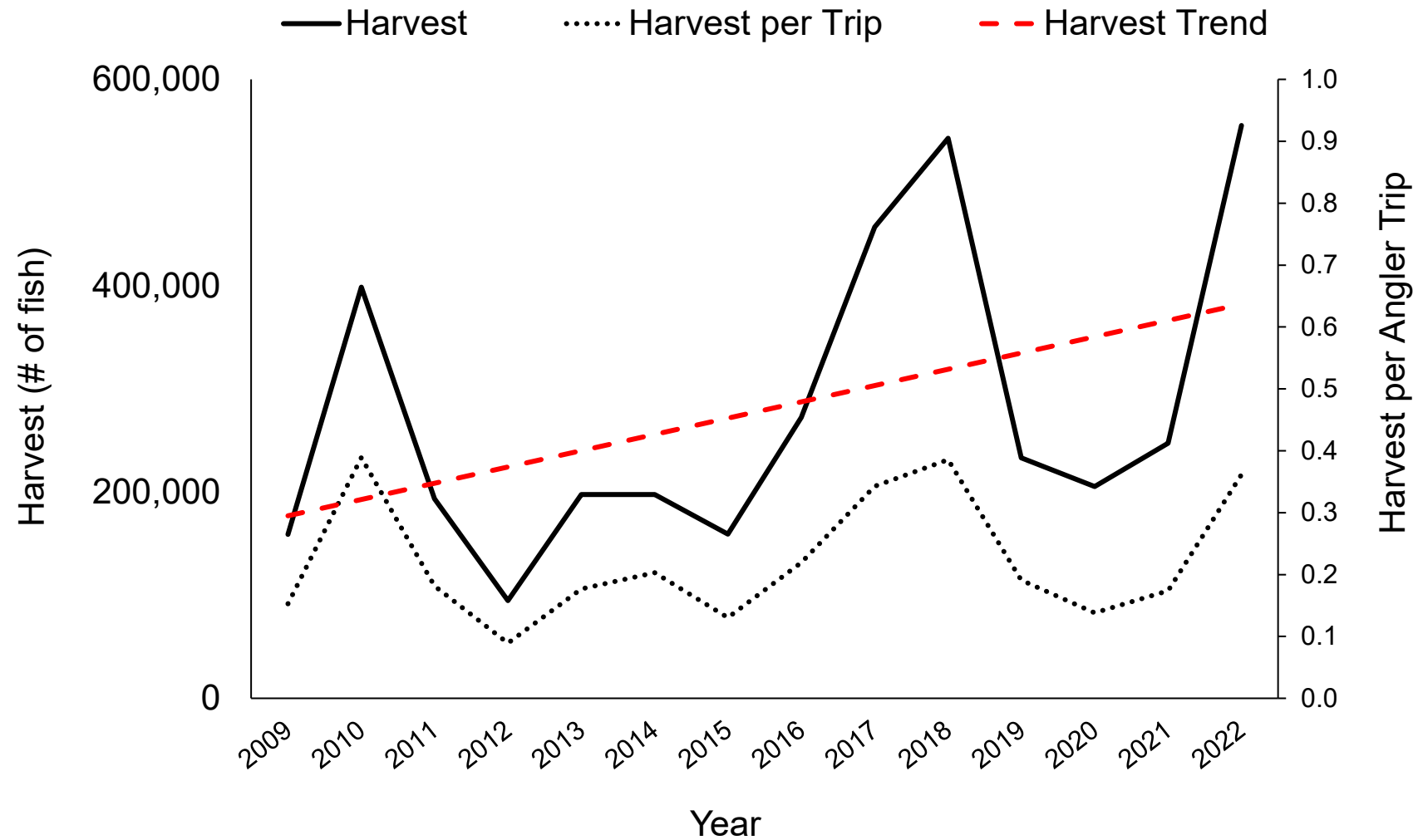
Red Drum Total Catch



Red Drum Regulation Timeline

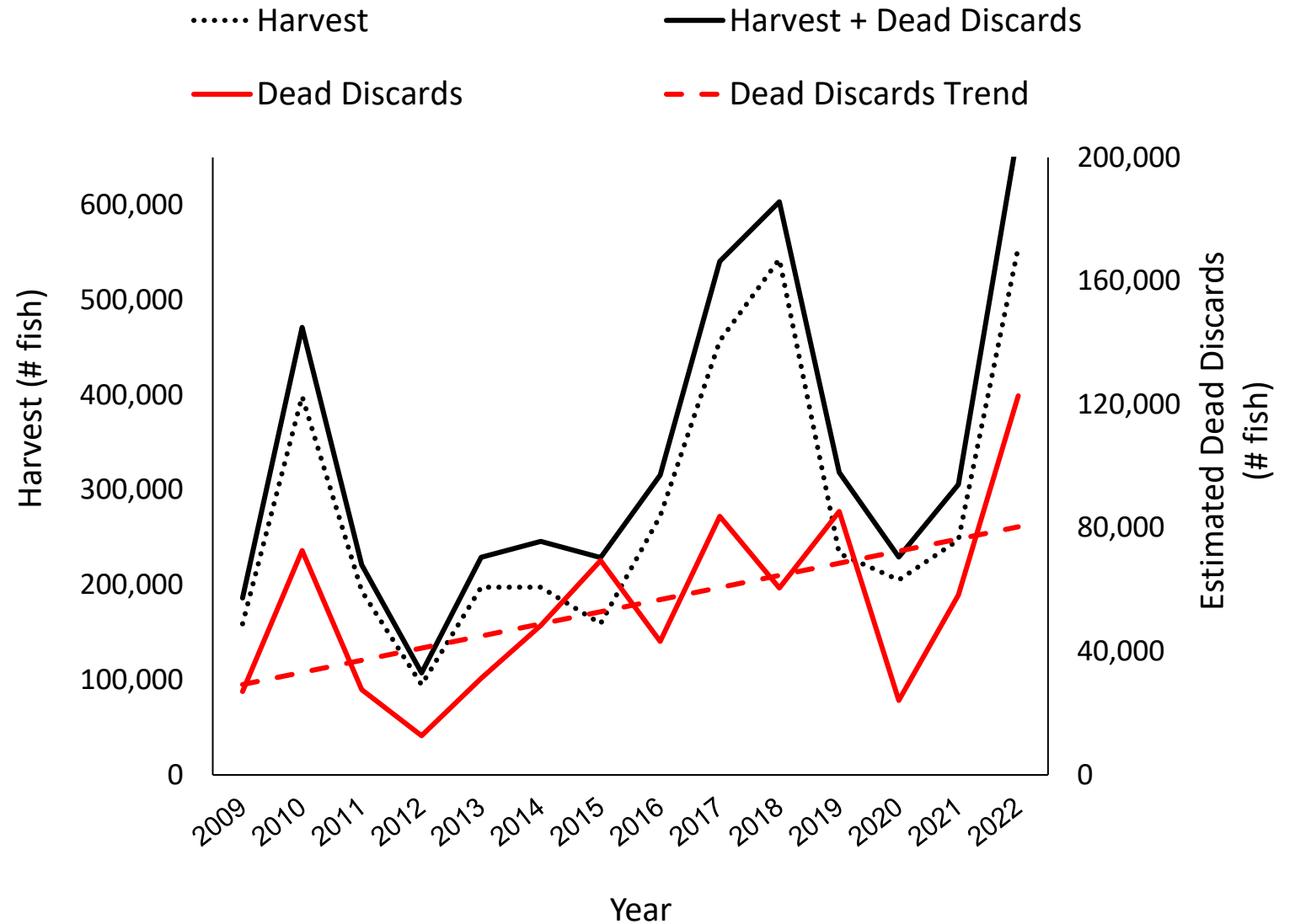


Red Drum Harvest - PR Inland

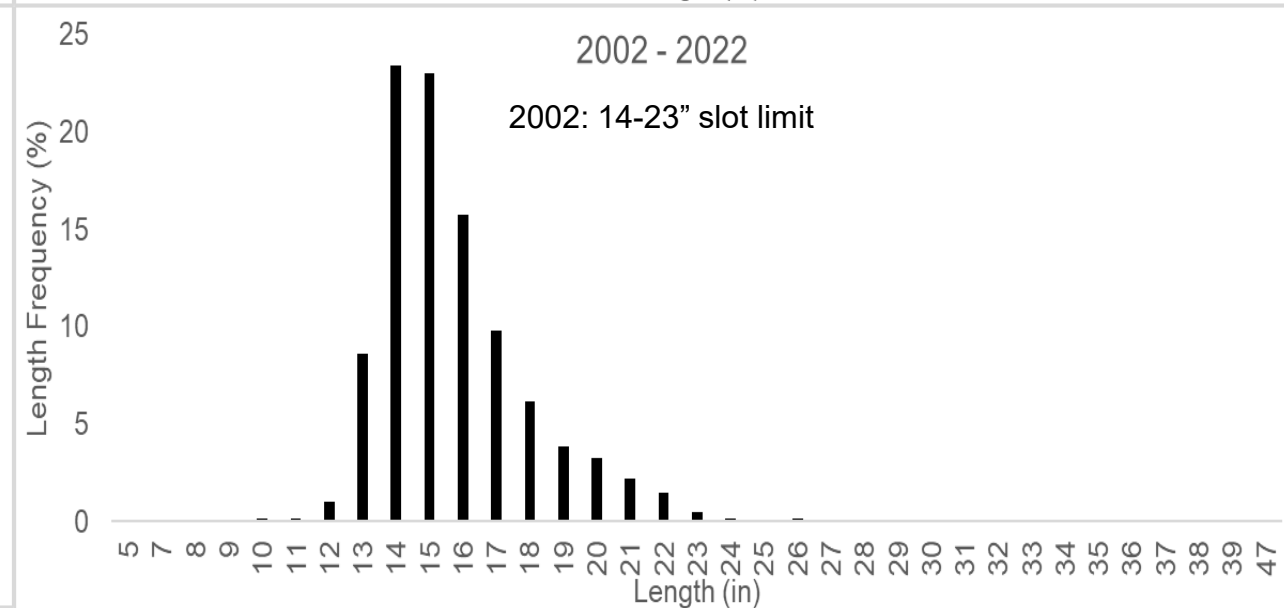
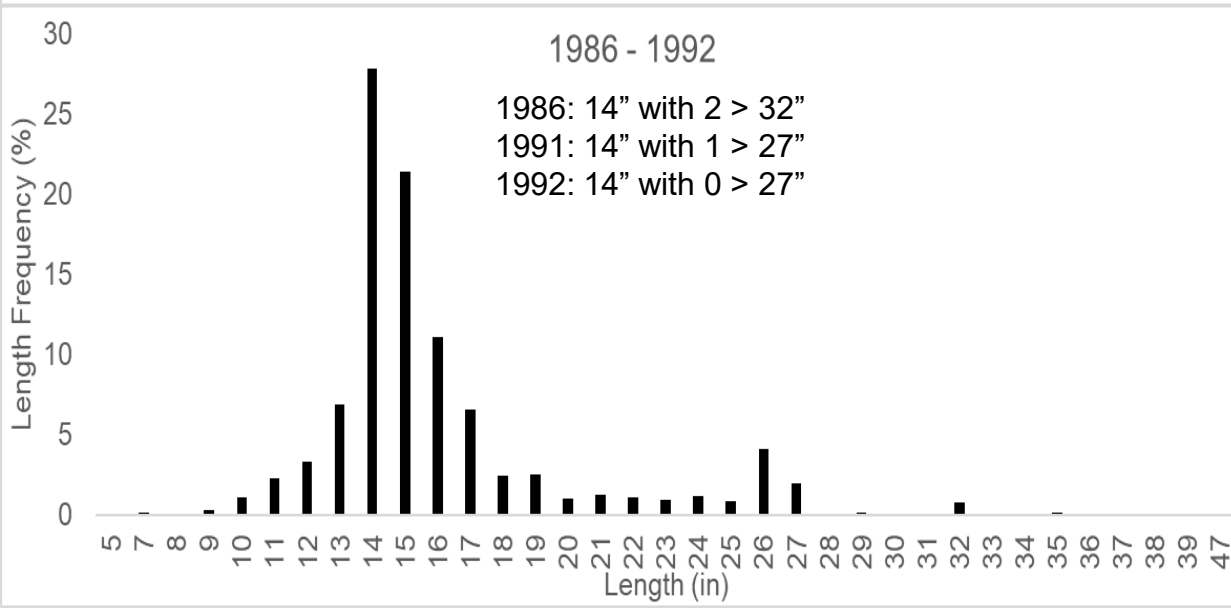
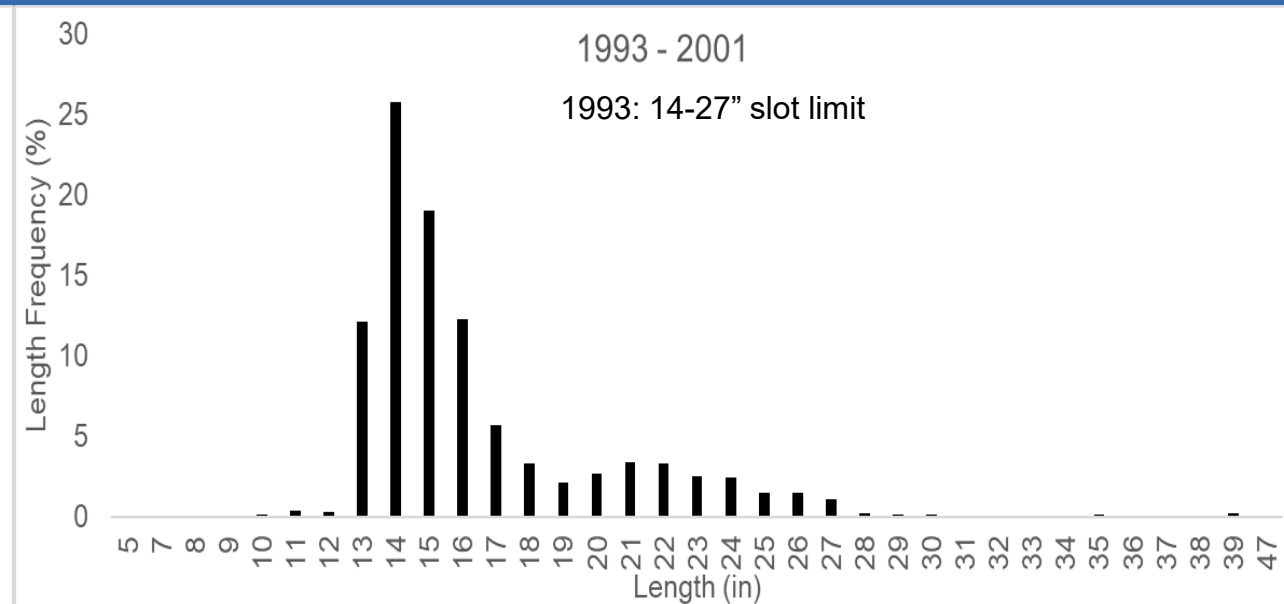
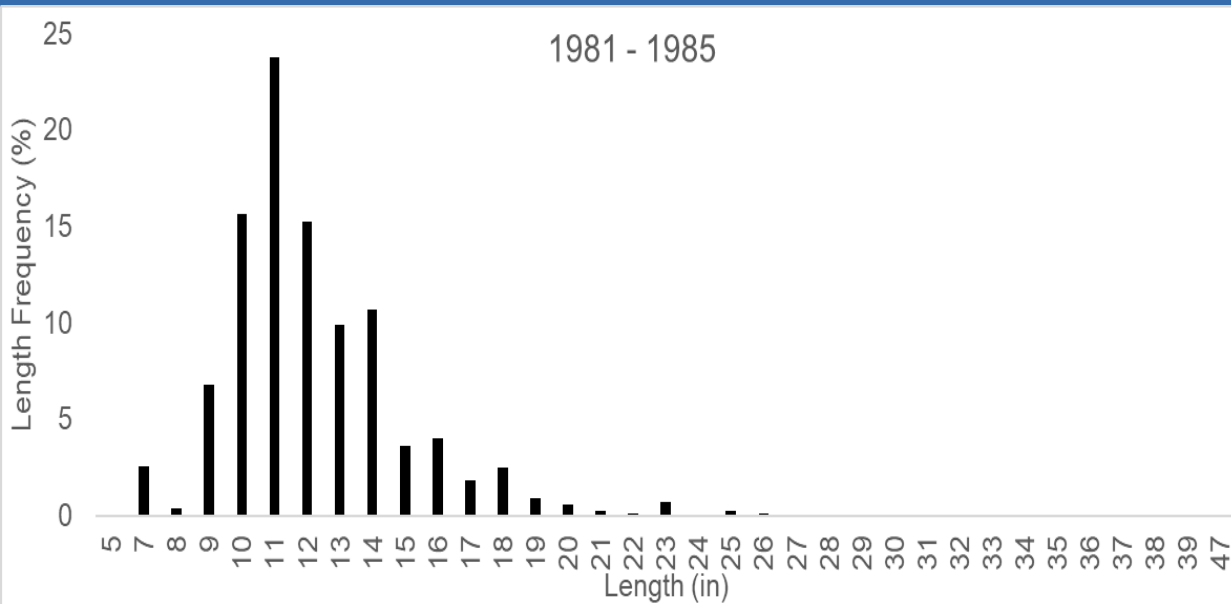


Dead discards

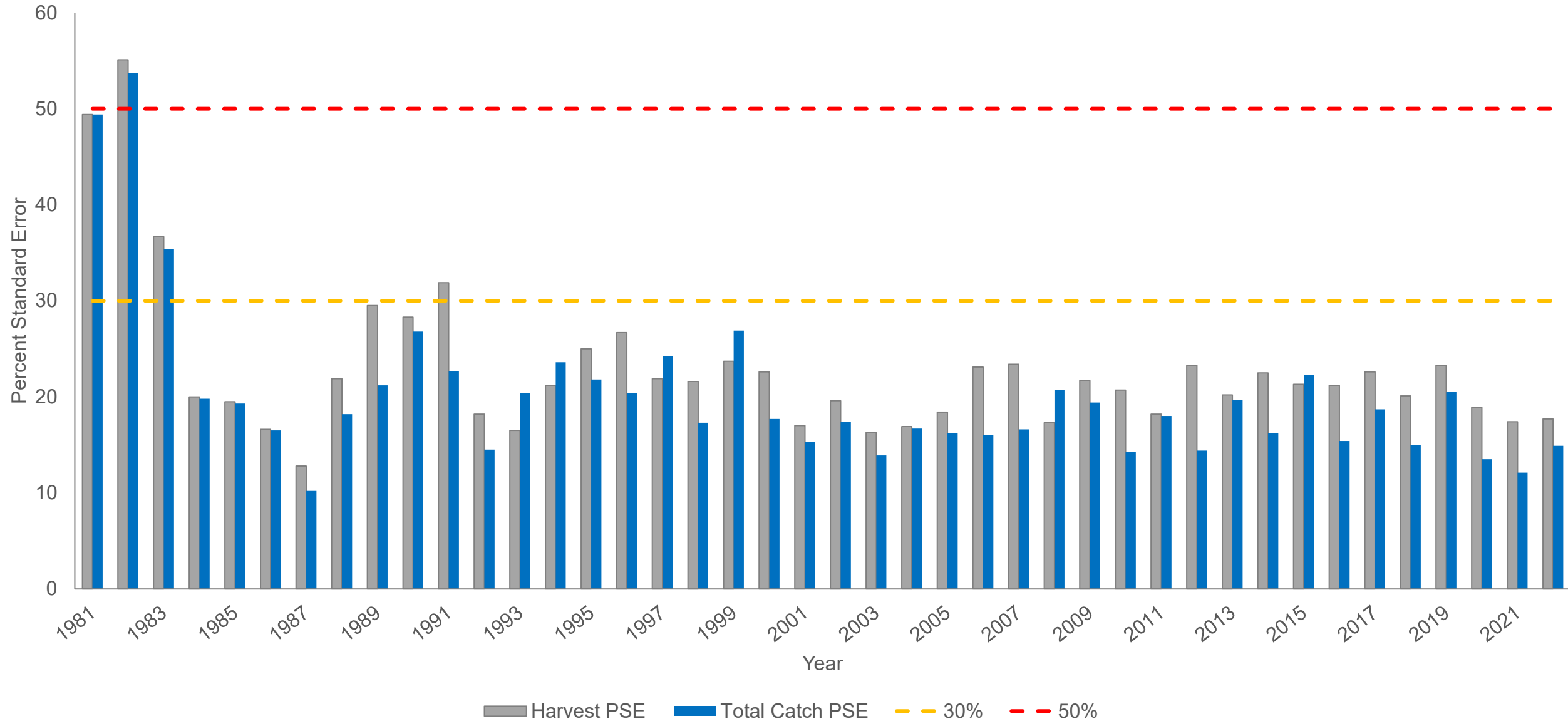
- 8% released Red Drum assumed to experience discard mortality.
- Total removal = Harvest + Dead discards



Length Frequency Harvested Red Drum



Percent Standard Error (PSE) Red Drum



Data Available and Needs

Commercial Trip Ticket:

Landings

Effort

Value

Data Wants/Needs:

- Bycatch
- Dockside validation
- Option for electronic reporting vs paper

Recreational Survey :

Estimates by domain

- Catch
- Effort

Length Frequency

Precision

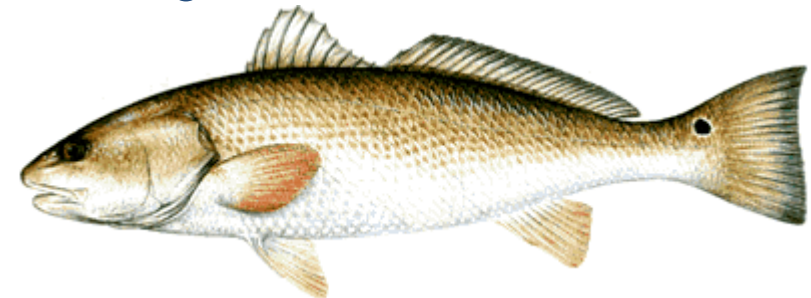
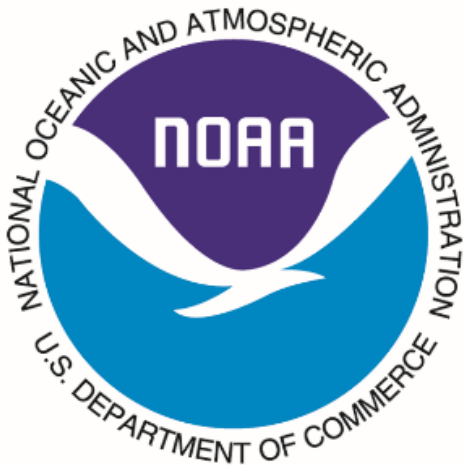
Data Wants/Needs:

- Length data on discards
- Anglers returning to private docks
- Wave 1
- Night sampling (trips ending from 8pm to 8am)

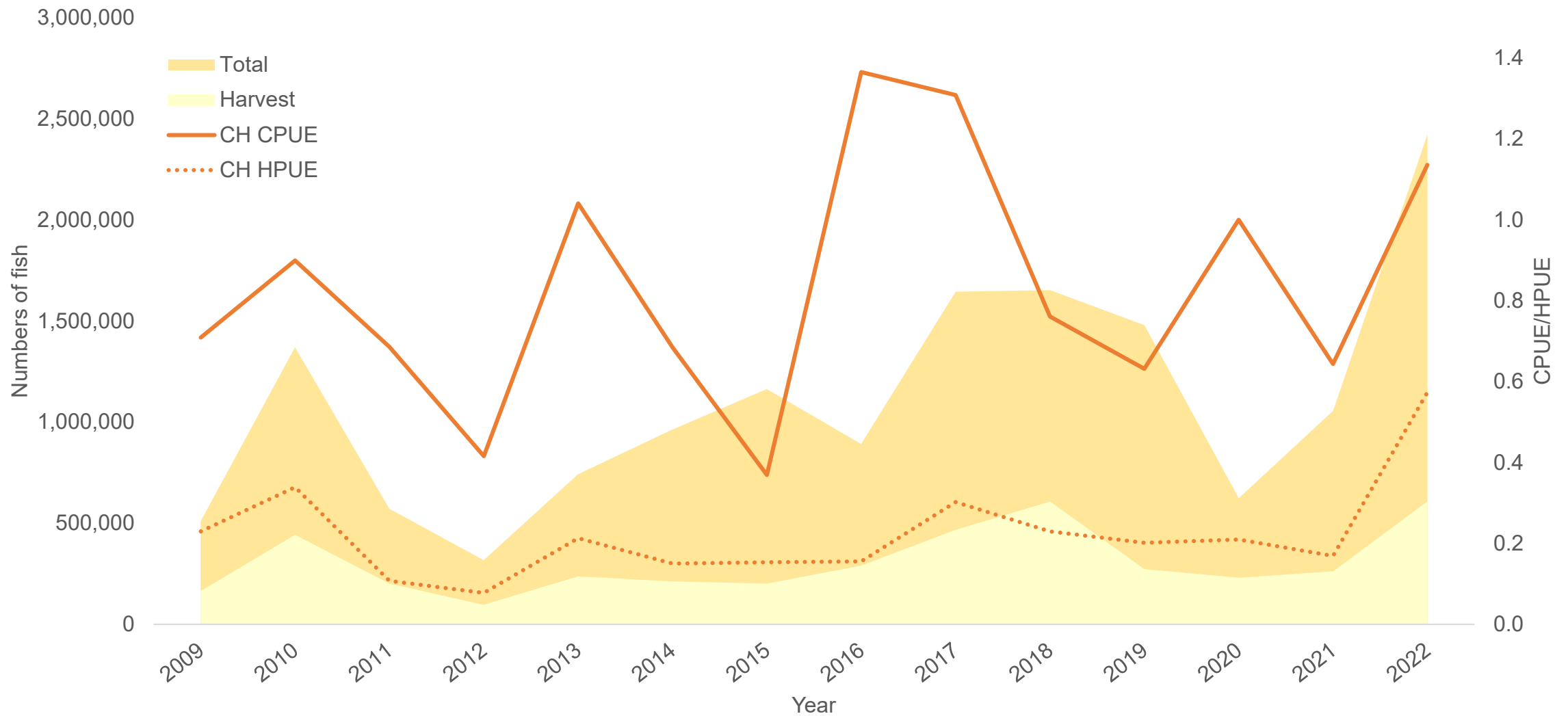
Thank you!

Special thanks to:

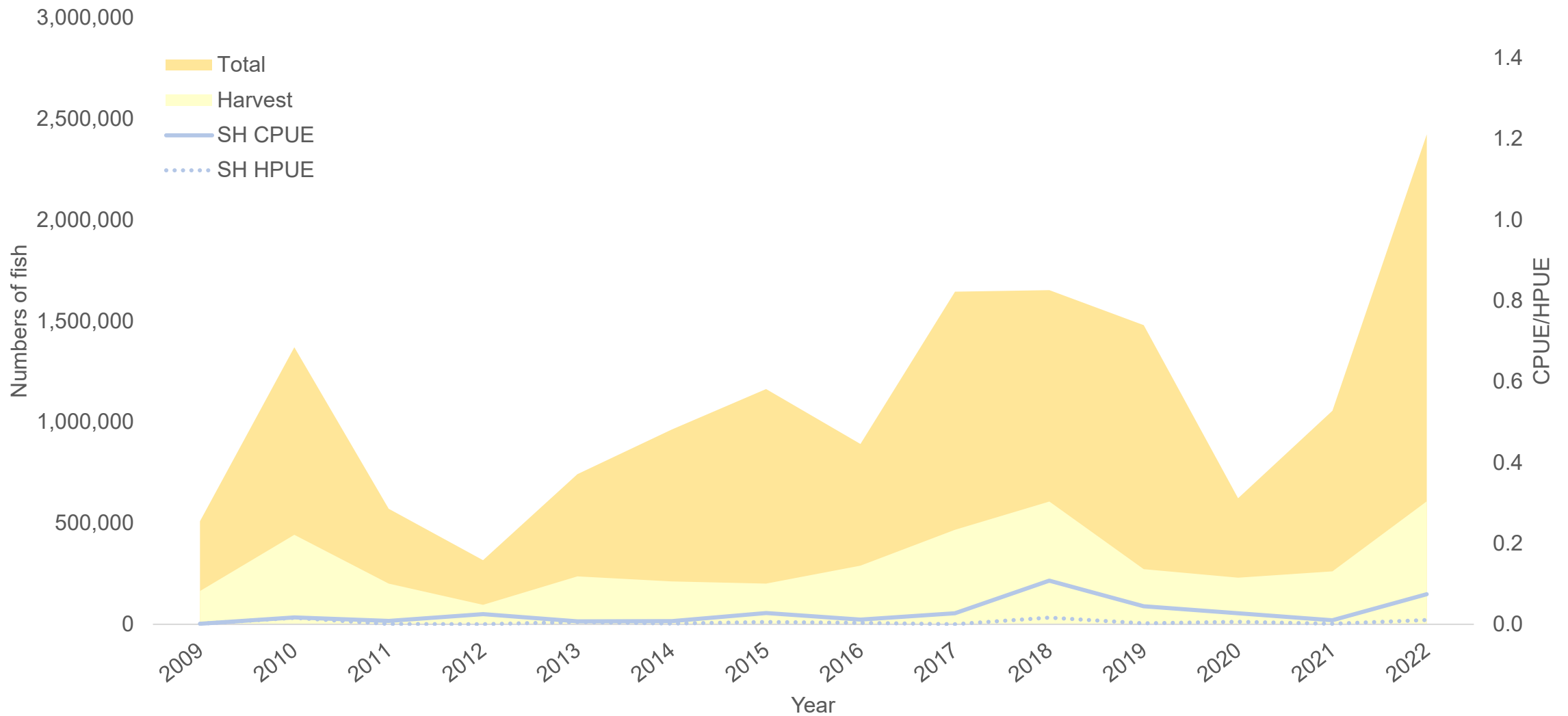
GADNR Fishery Statistics Unit,
and data providers including
Commercial Dealers, For-Hire
Captains and Anglers



Red Drum – CH catch rates



Red Drum – SH catch rates





Finfish Advisory Panel Research and Surveys Overview

H. Jared Flowers

Mission Statement:

To balance coastal development and protection of the coast's natural assets, socio-cultural heritage and recreational resources for the benefit of present and future generations.

Marine Fisheries Section – Data Collection



**Fisheries
Dependent
Data**



Data gathered during or as a result of regular fishery activities

**Fisheries
Independent
Data**



Data gathered outside of regular fishery activities

Research and Surveys – Sampling Surveys and Programs

Six established surveys at CRD:

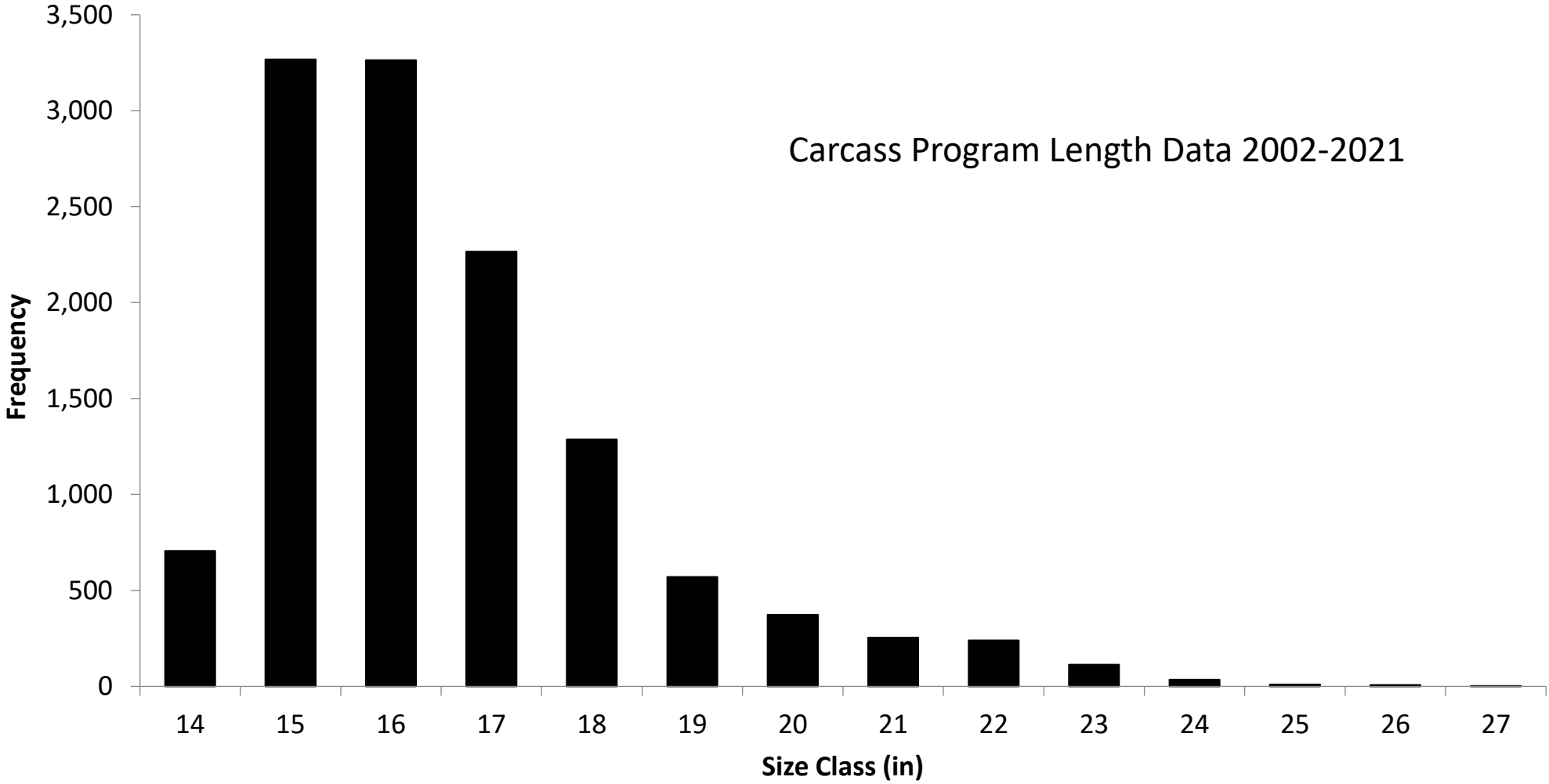
- **Marine Sportfish Carcass Recovery Program**
 - **The Cooperative Angler Tagging Program**
 - **The Escapement Project**
 - **Marine Sportfish Population Health Survey (MSPHS)**
 - **Ecological Monitoring Trawl Survey (EMTS)**
 - **Coastal Longline Survey (CLS)**
- Surveys designed to sample different species at different life stages and provide varying data types
 - Indices
 - Biological data



Fisheries Dependent – Carcass

- Initiated in 1997
- With the help of anglers, collects biological data from recreationally harvested finfish such as Red Drum, Spotted Seatrout, Southern Flounder, Sheepshead, and Southern Kingfish.
- Chest freezers are located at public access points along the Georgia coast.
- CRD personnel collect the carcasses and process them to determine species, fork length (FL), and sex (when possible).
- Sagittal otoliths are removed and processed to determine the age of the fish.
- Since the inception of the project, 2,785 anglers have participated, and more than 87,000 finfish carcasses have been processed.

Red Drum Harvest Length Distribution – Carcass Program



Fisheries Dependent* – Cooperative Tagging

- Began in 1987
- Designed to gather growth, mortality, and movement information
- Targets Red Drum, Black Drum, and Tripletail
- Tagging equipment and tags provided to volunteer taggers
- Tags include return information
- Tagging instructions provided to ensure adherence to established methodology
- Data collected include tag number, trip date, location, species, total length (TL), release condition, hook removal, and fishing mode
- Effort variable over time
- Since 2018
 - Different tag types – double, high reward
 - Staff tagging added to improve numbers and distribution of tags

Fisheries Dependent* – Cooperative Tagging

2018-present

- 7,887 tags released, 1,169 total returns
- 95% returns in state, 3% Florida, 1% SC
- Double Tags - Assess retention
 - 241 released
 - 33 returns, most with both tags
 - 100% retention in 2 week tank study
- High Reward Tags - Assess reporting
 - 97 tags released
 - 22 returns
 - ~ 70% estimated reporting rate



REWARD
FOR TAGGED RED DRUM

← PINK TAG

\$100 CASH REWARD
YOU MUST **REMOVE** PINK TAG.
Record date, location of catch, your name, address and phone number.
Retain or release fish as normal.

Mail tag and information to:
Georgia Department of Natural Resources
Cooperative Angler Tagging Project
One Conservation Way,
Brunswick, GA 31520

Fish must have **PINK** tag to be eligible for cash reward.
YELLOW tags are eligible for other non-cash prizes.
YELLOW tags may be removed or left in the fish.

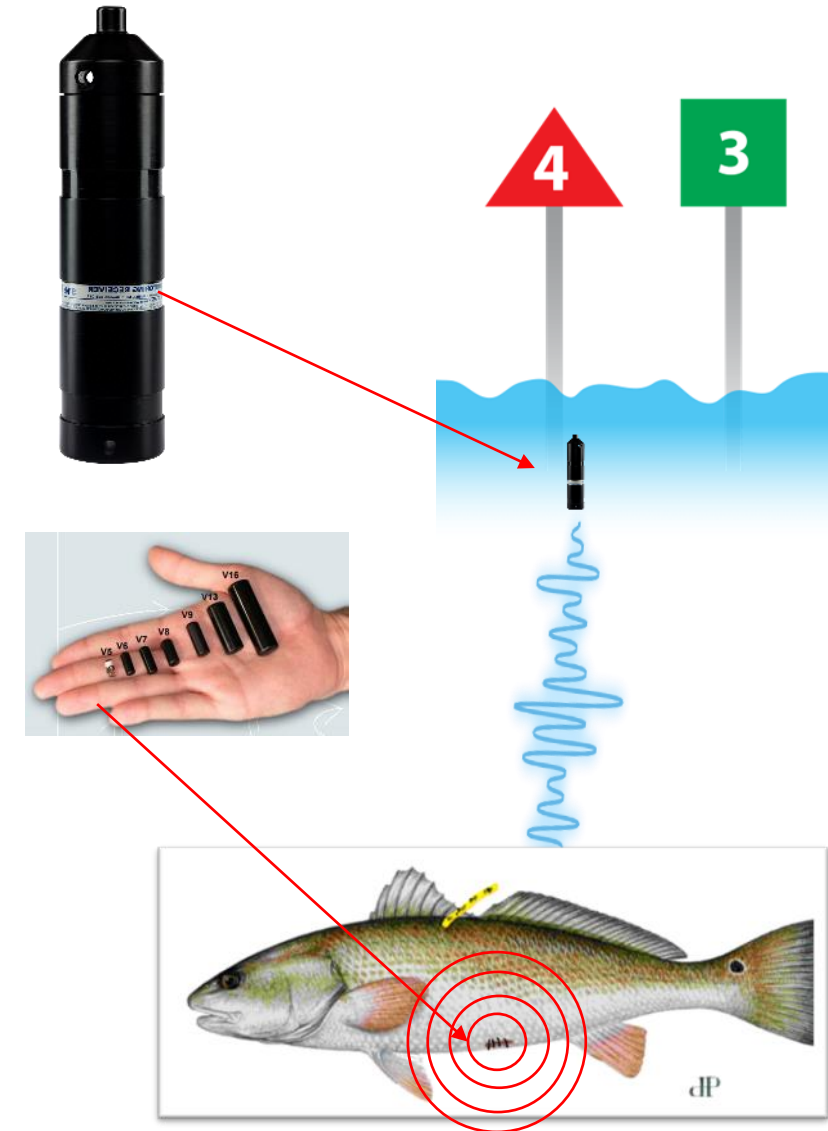
Visit CoastalGaDNR.org/FishTag or call 912-264-7218 for more information.

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
COASTAL RESEARCH DIVISION

GEORGIA
NATURAL RESOURCES ASSOCIATION

Fisheries Independent – Red Drum Escapement Project

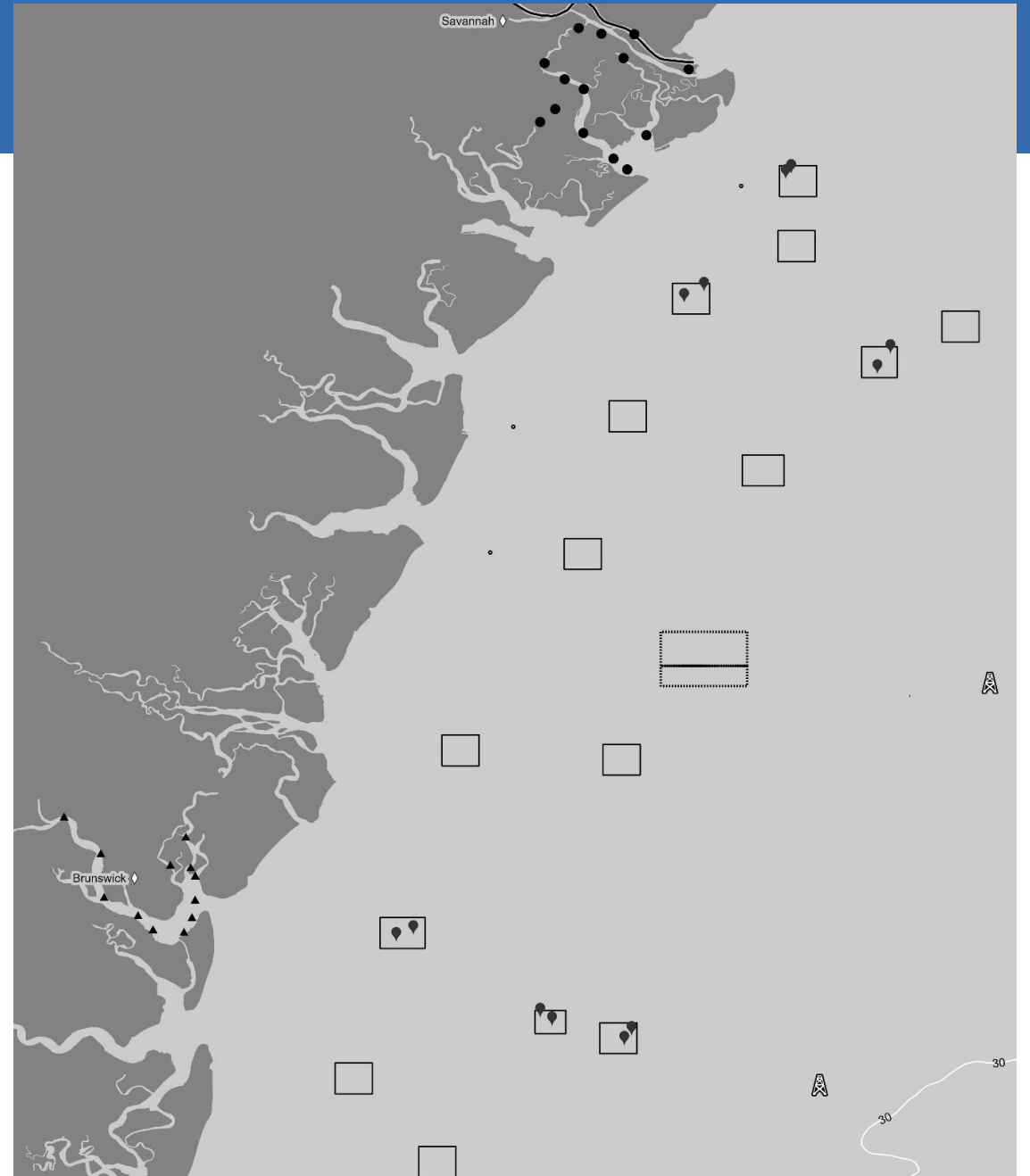
- Uniquely coded tags are surgically implanted into fish of varying sizes and released back into the wild
 - Batteries last 3-6 years depending on size/specs
- Movements are tracked by stationary receivers deployed throughout an area “array”
- Receivers log unique fish IDs, Date/Time, and position
- Equipment is universal, this means tags can be detected by receivers in other studies if fish move outside the study area
 - FACT Network
- 2 size classes targeted
 - V13 Fish: Smaller “slot fish” 14-23”
 - V16 Fish: Larger “outside slot” fish > 23”



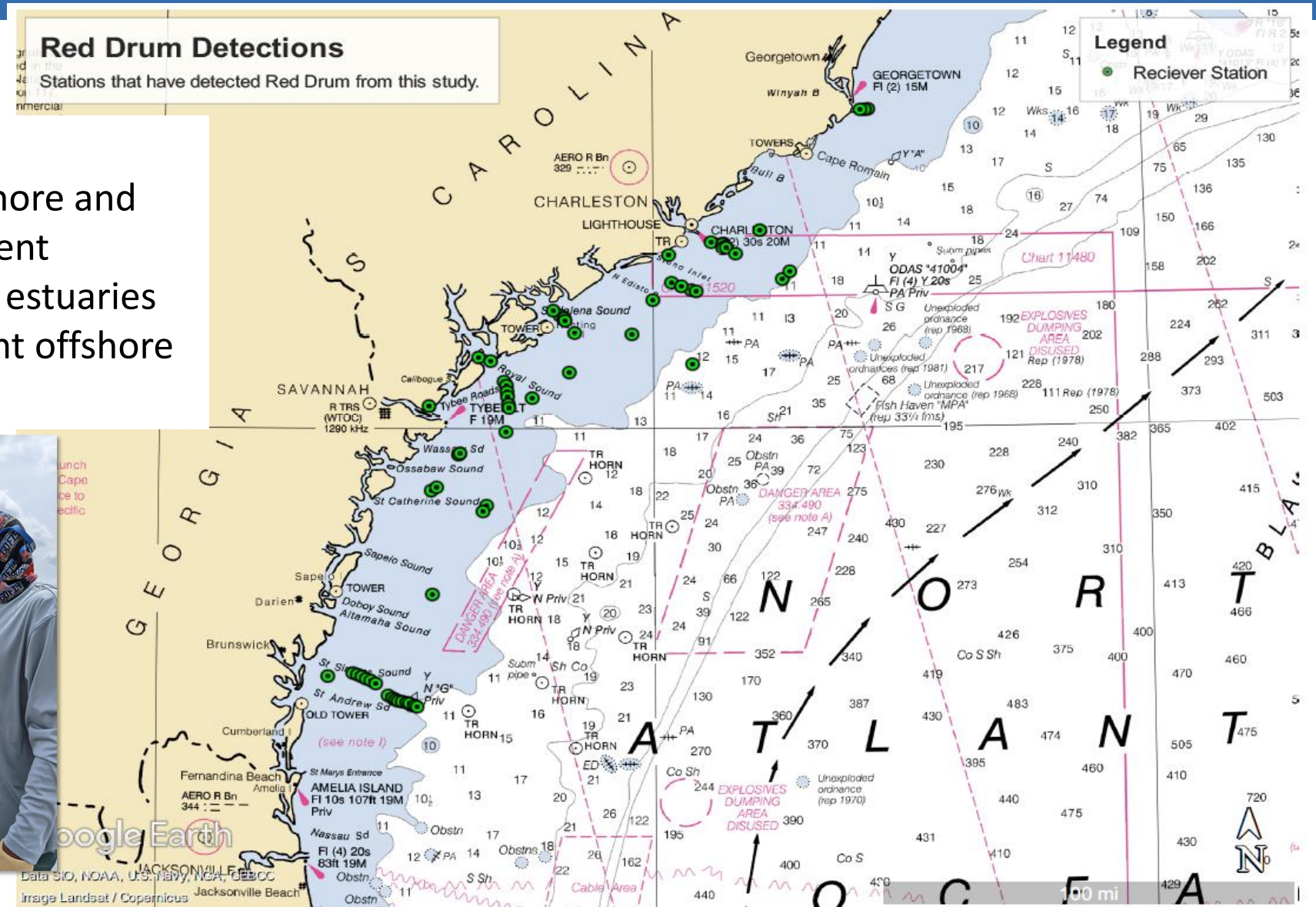
Tags and Receivers

- 117 total fish tagged
 - 83 in Wassaw Sound (began 2019)
 - 34 in St. Simons Sound (began 2022)

Tag Type	N	FL Mean (mm)	FL Range (mm)
V13	69	437.8	345-601
V16	47	672.3	495-969



Offshore and Interstate Movement



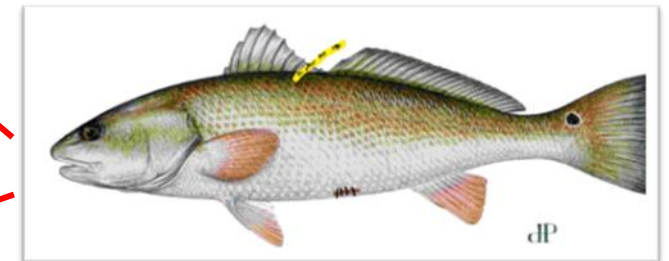
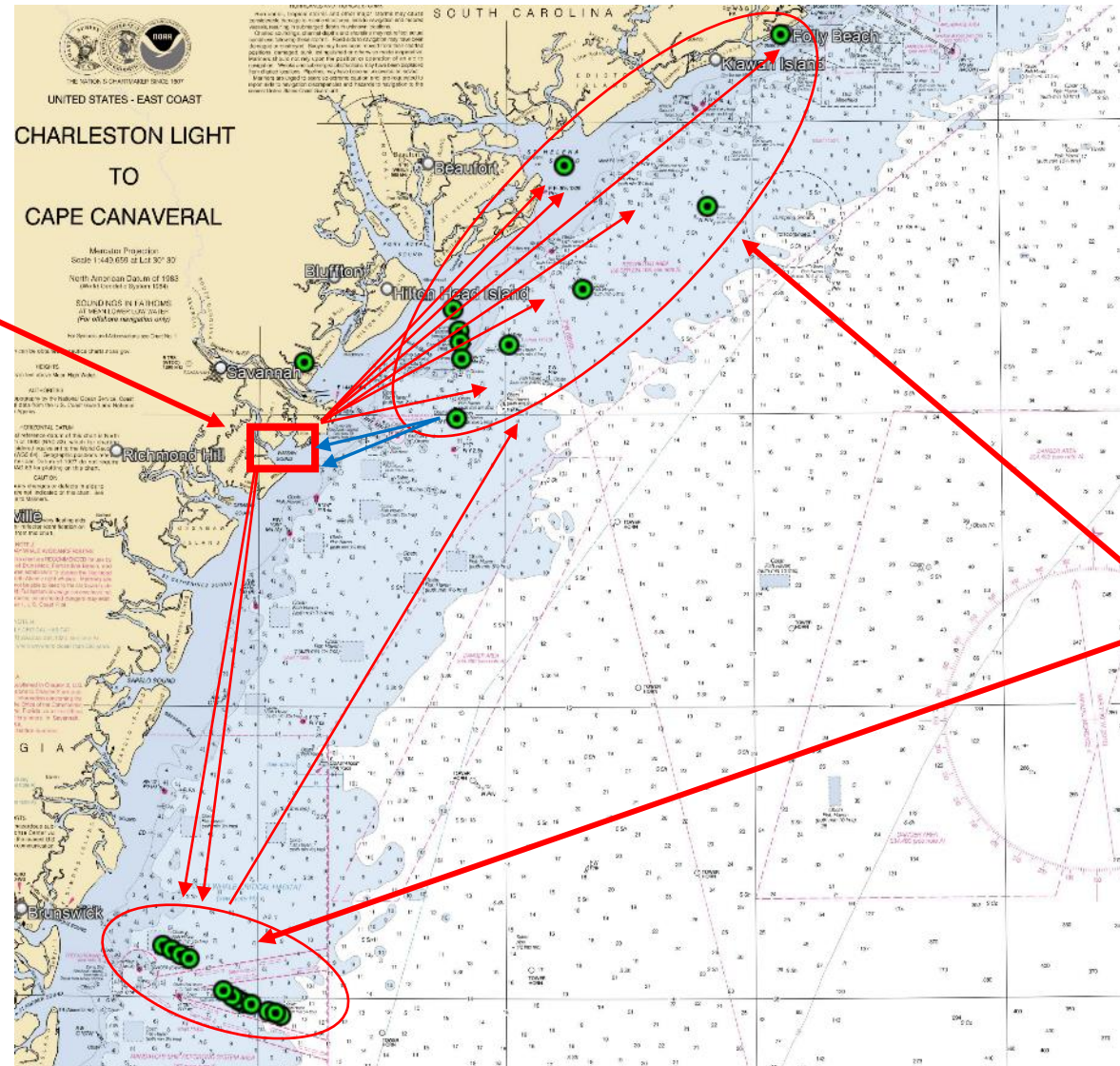
Generally:

- Smaller fish stay inshore and exhibit little movement
- Larger fish leave the estuaries and exhibit significant offshore movement



Data: BOD, NOAA, U.S. Navy, ICGA, FERC
Image: Landsat / Copernicus

Offshore and Interstate Movement



Fisheries Independent – MSPHS Netting

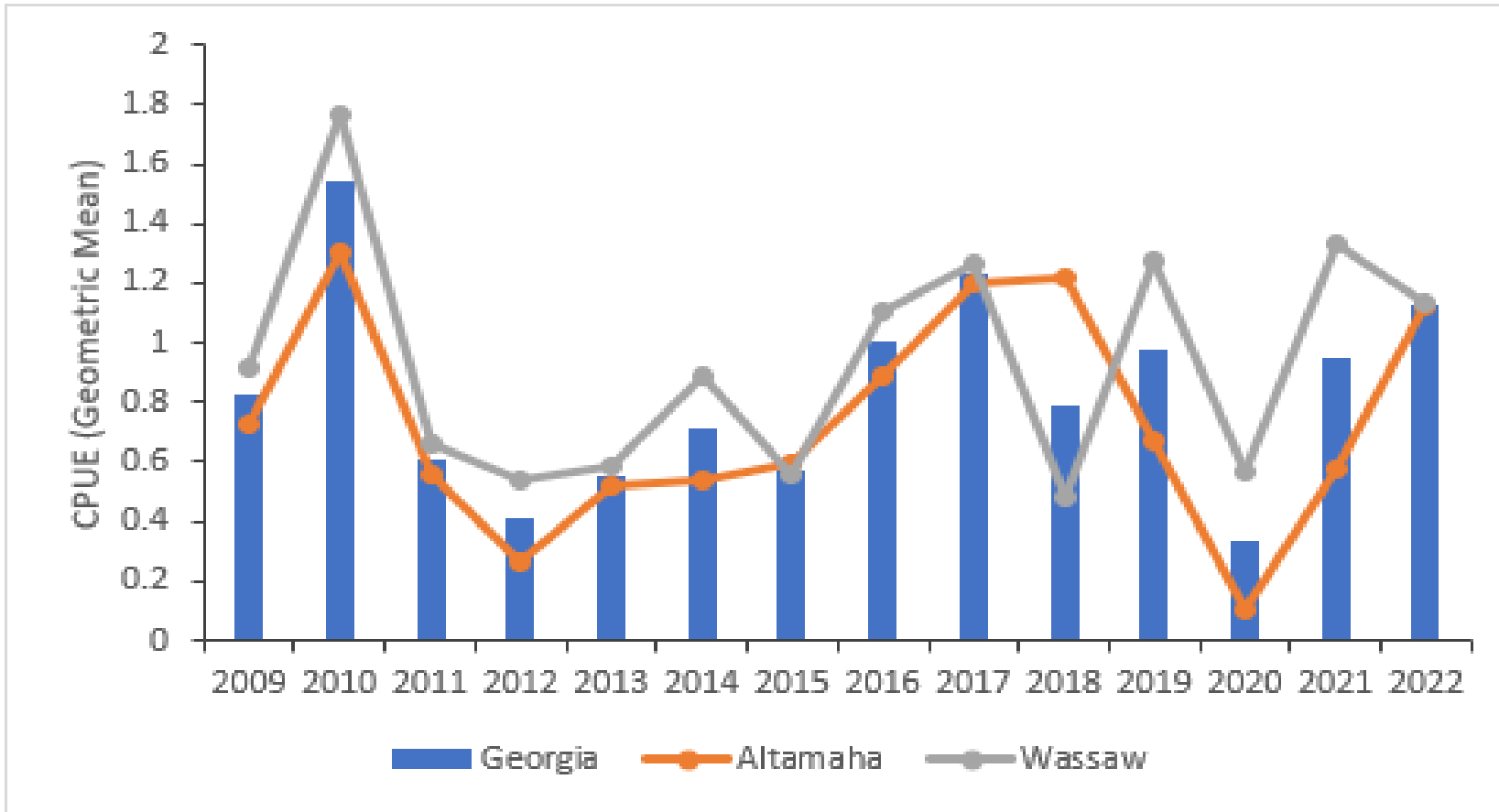
- The Marine Sportfish Population and Health Survey (MSPHS)
- Used to collect information on the biology and population dynamics of recreationally important finfish
- Began in 2006
- Sampling is ongoing in three Georgia estuaries, Altamaha, St. Andrew, and Wassaw, on a seasonal basis, using entanglement gear.
- St. Andrew added in 2018
- Fork lengths are measured in millimeters and total numbers recorded by species. All fish are then released



Fisheries Independent – MSPHS Netting

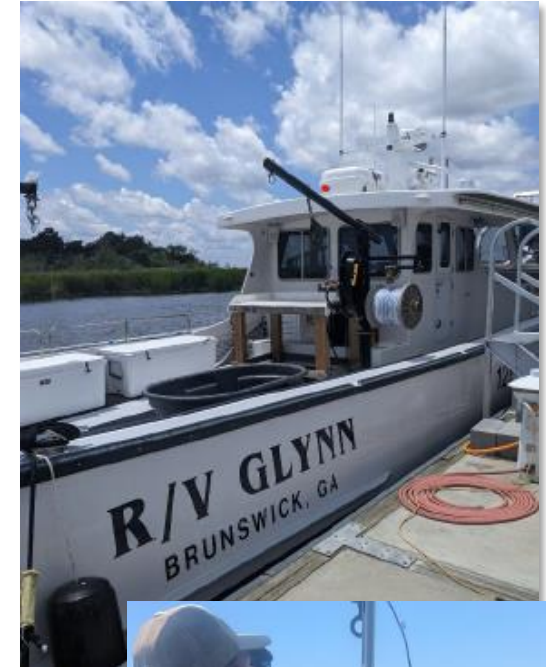
- **Gillnet Survey**
 - June and August
 - 300 ft x 9 ft with 2.5 in stretched mesh
 - Targets young-of-the-year Red Drum
 - Information collected on other finfish species is still useful when considering relative abundance, seasonal trends, and location of occurrence.
- **Trammel Net Survey**
 - September and November
 - 300 ft x 7ft with 14 in stretched outer panels and 2.75 stretched inner mesh
 - Targets fish populations- Spotted Seatrout, Black Drum, Red Drum, Sheepshead, etc.

MSPHS Gillnet Survey

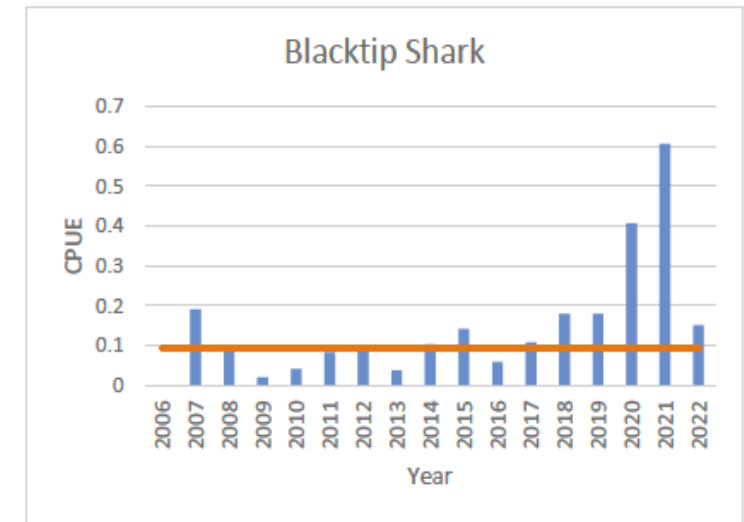
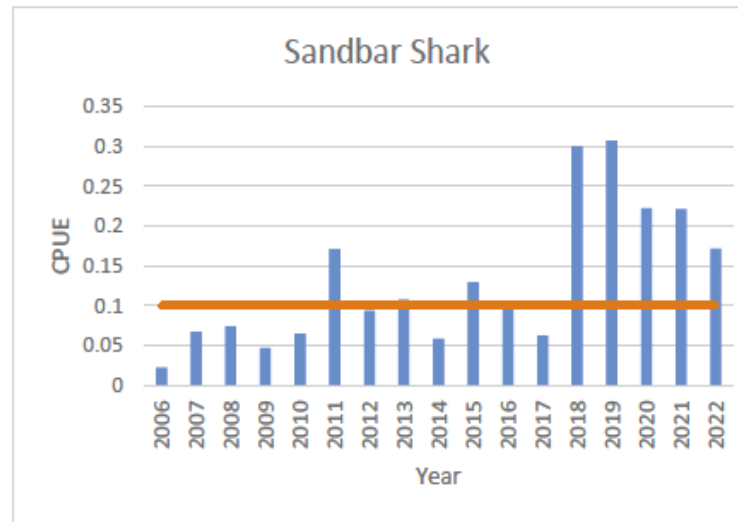
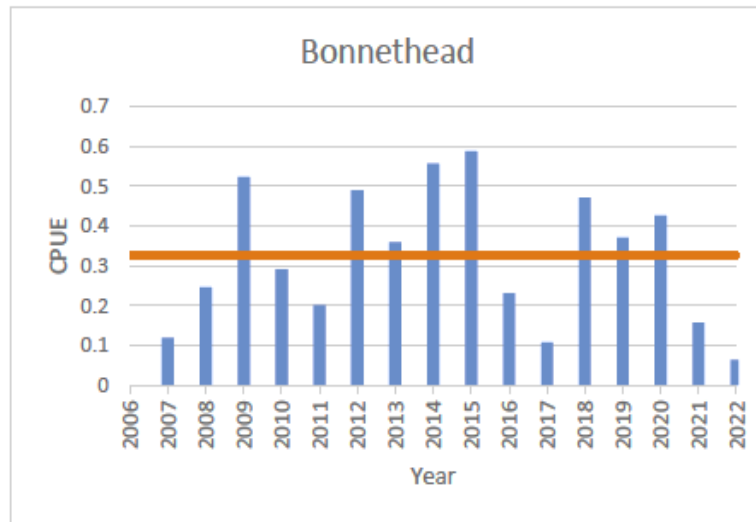
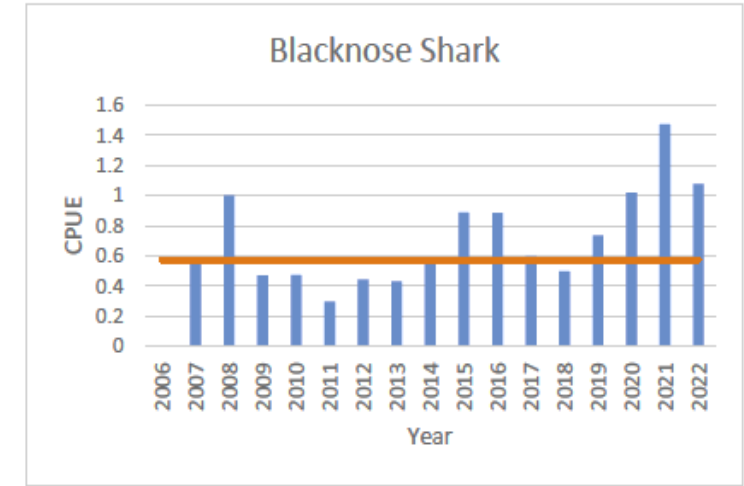
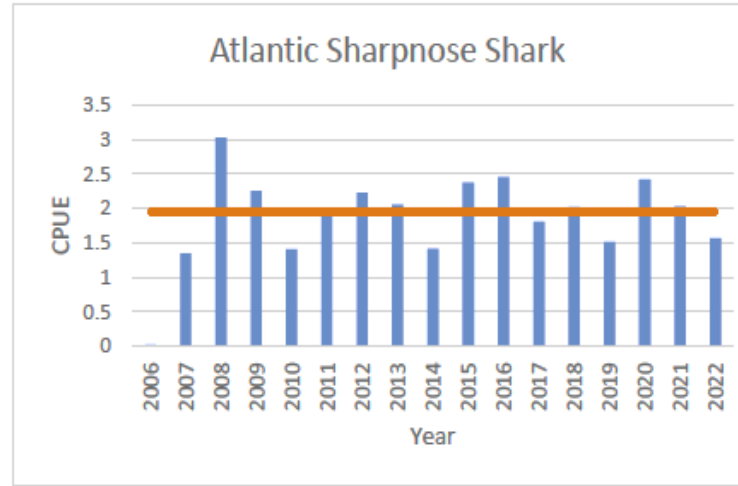
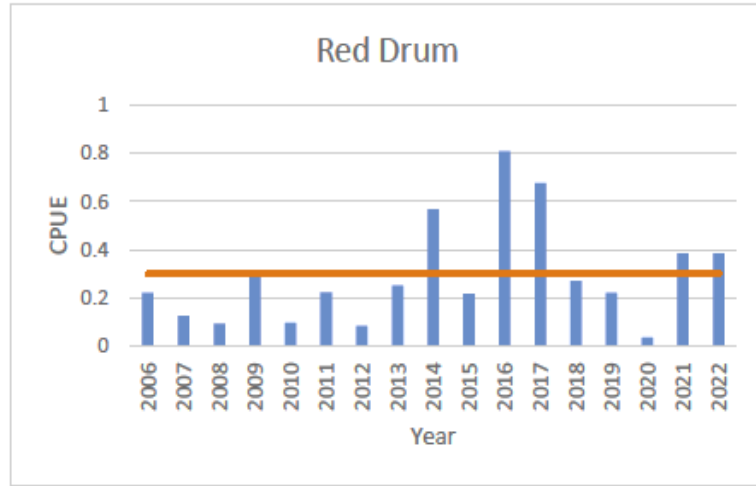


Fisheries Independent – Coastal Longline

- Since 2006
- R/V Glynn (previously R/V Marguerite)
- Samples adult Red Drum and coastal sharks
- Sampling occurs in inshore (sounds, estuaries, barrier islands), nearshore (0-3 nm) and offshore (3-12 nm) waters of southeast Georgia from mid-June through mid-December
- Sampling gear consists of ½ mile bottom longline baited with cut mullet



Fisheries Independent – Coastal Longline



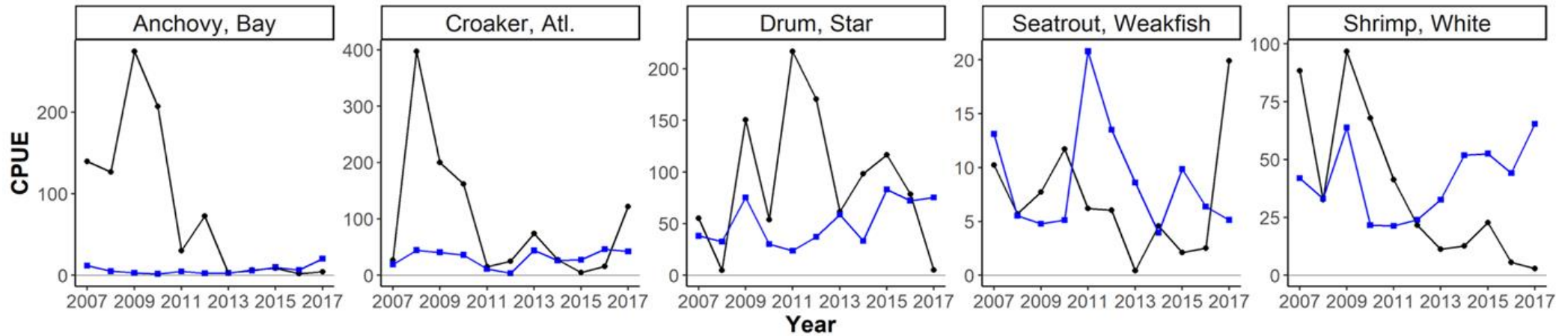
Fisheries Independent – EMTS Trawl

- Since 1976 (all bycatch since 2003)
- R/V Reid W. Harris (previously R/V Anna)
- Fish and invertebrate populations in six Georgia estuaries (Wassaw, Ossabaw, Sapelo, St. Simons, St. Andrew, and Cumberland) and offshore state waters
- Monitored monthly utilizing a 12.1-meter (40 ft.) flat otter trawl- no TEDS or BRDs
- Trawl times are standardized to 15 minutes bottom time
- Data collected include abundance, size composition, reproductive status, and temporal and spatial distributions of various marine species

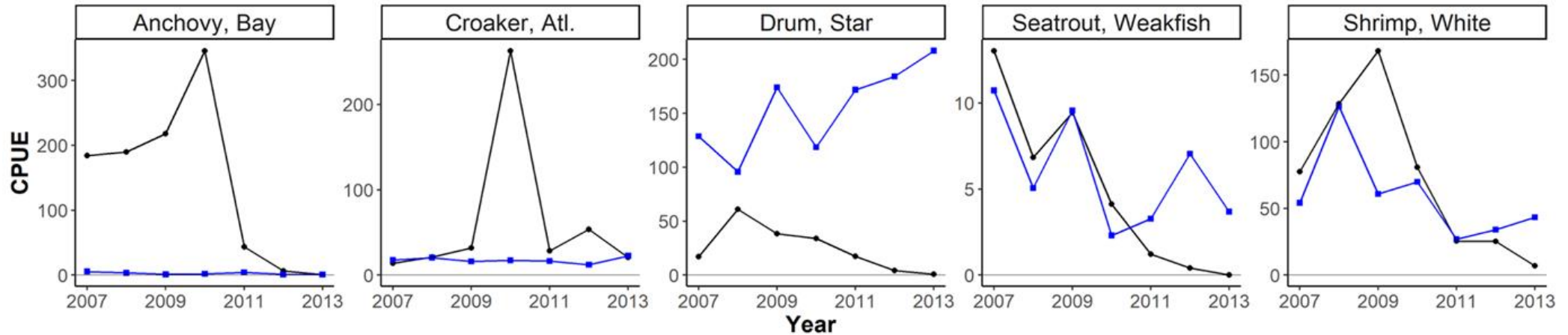


Fisheries Independent – EMTS Trawl

(a) Ossabaw Sound Mean Annual CPUE



(b) St. Andrew Sound Mean Annual CPUE



Survey Uses – Regional Stock Assessments

- **Marine Sportfish Carcass Recovery Program**
 - Red Drum, Southern Flounder
- **The Cooperative Angler Tagging Program**
 - Red Drum
- **Marine Sportfish Population Health Survey**
 - Red Drum, Black Drum, Southern Flounder, Atlantic Croaker, Spot
- **Ecological Monitoring Trawl Survey**
 - Southern Flounder
- **Coastal Longline Survey**
 - Red Drum, coastal sharks

Research and Surveys - Sampling Surveys and Programs



Red Drum Case Study

- Red Drum are the most popular saltwater gamefish in GA
- State Saltwater fish; have “Gamefish” status
- Managed regionally by ASMFC
- One of the species affected by Title 27 reform
- Recent concern and comments brought into question if there was a problem with Georgia’s Red Drum fishery
- Common themes:
 - Regulations too liberal
 - Overharvest
 - Illegal fishing
 - Insufficient enforcement
 - Golden Ray pollution

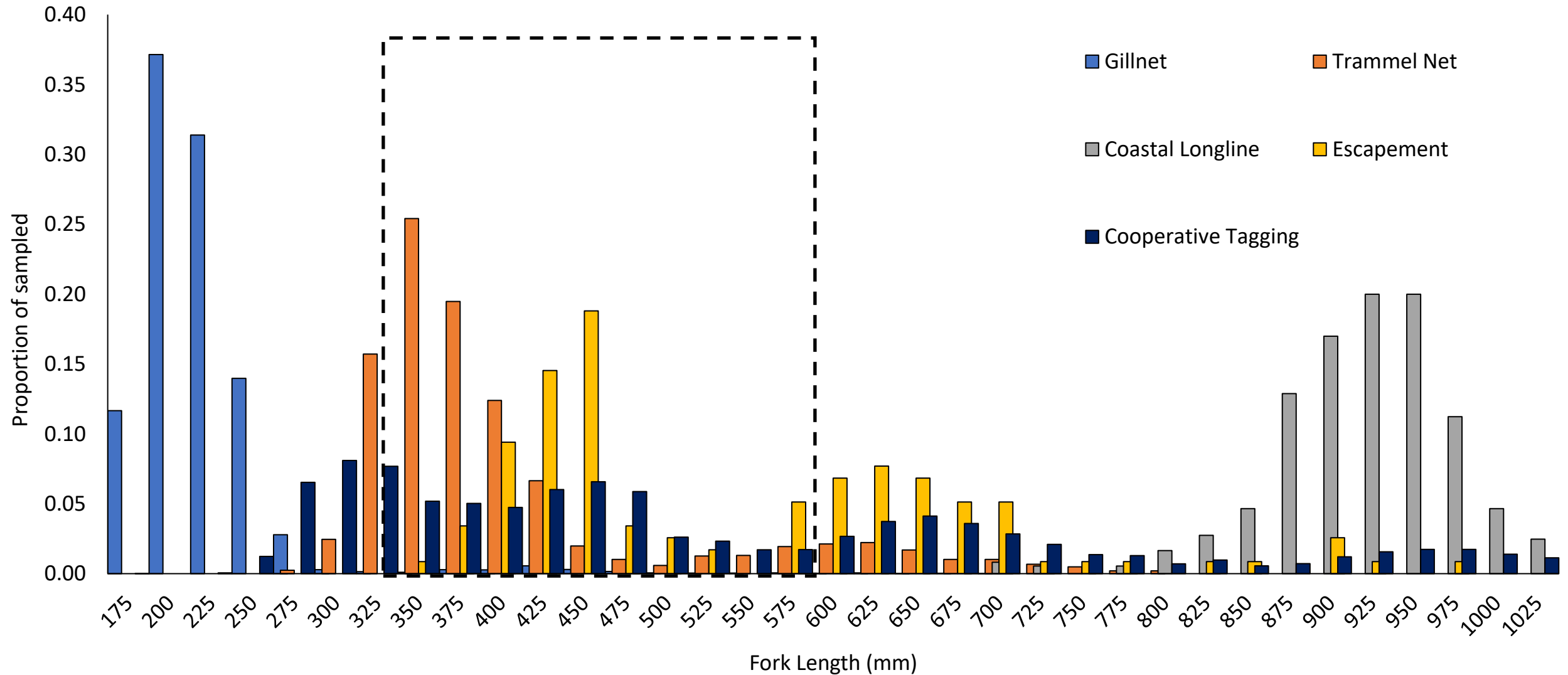


CRD Response

- Prompted a review of all available state Red Drum data
- Despite being the best studied marine fish population in the state, insufficient data to run a full stock assessment
- 5 State field surveys/programs encounter Red Drum
- Also:
 - MRIP (Marine Recreation Information Program)
 - CRD sponsored angler satisfaction surveys (2017 & 2022)
- Regional ASMFC stock assessments
 - 2009 and 2017 –
 - Overfishing was not occurring, could not determined if overfished, recruitment stable

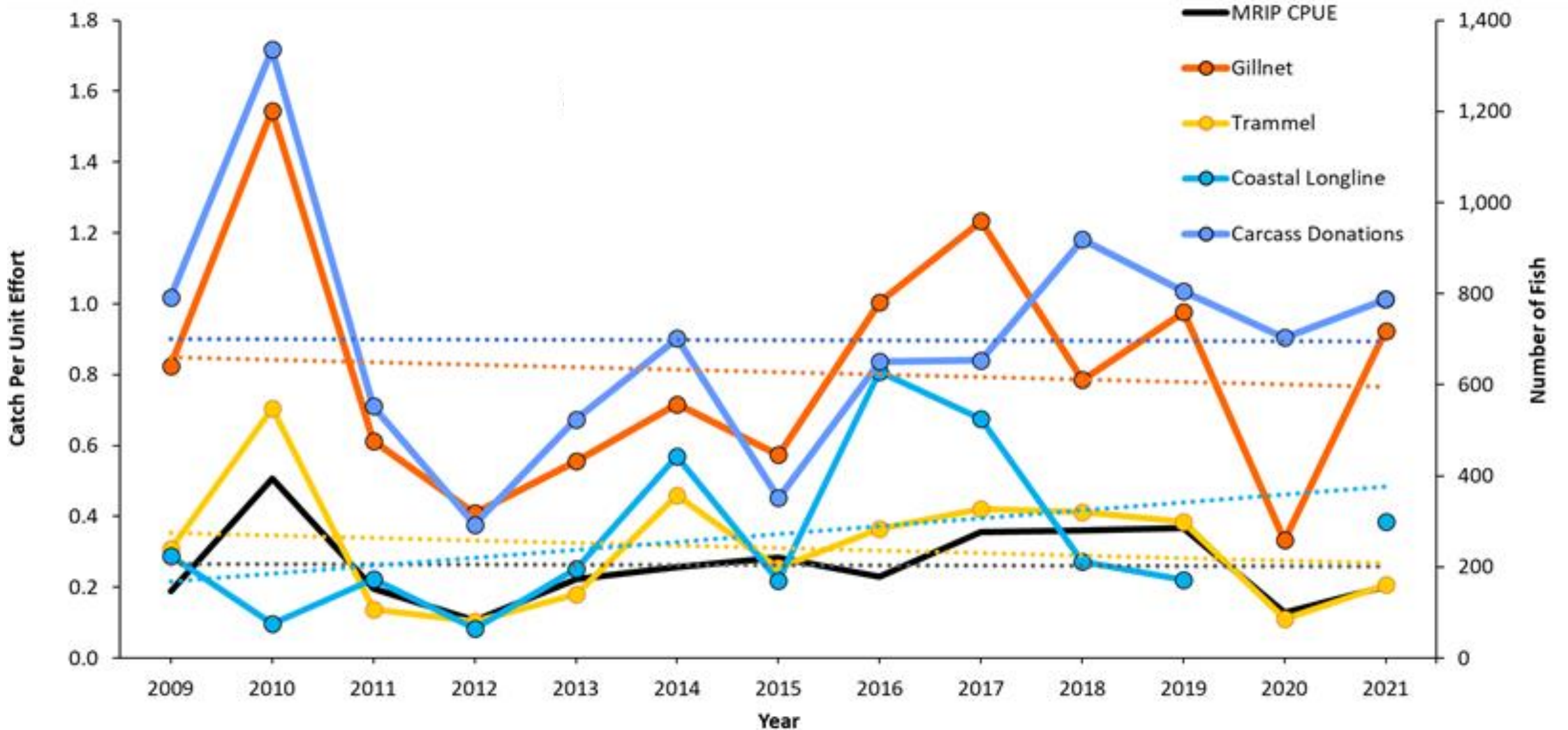


Length Distributions – Red Drum Sampling



Slot is 355 mm – 584 mm (14 - 23 in)

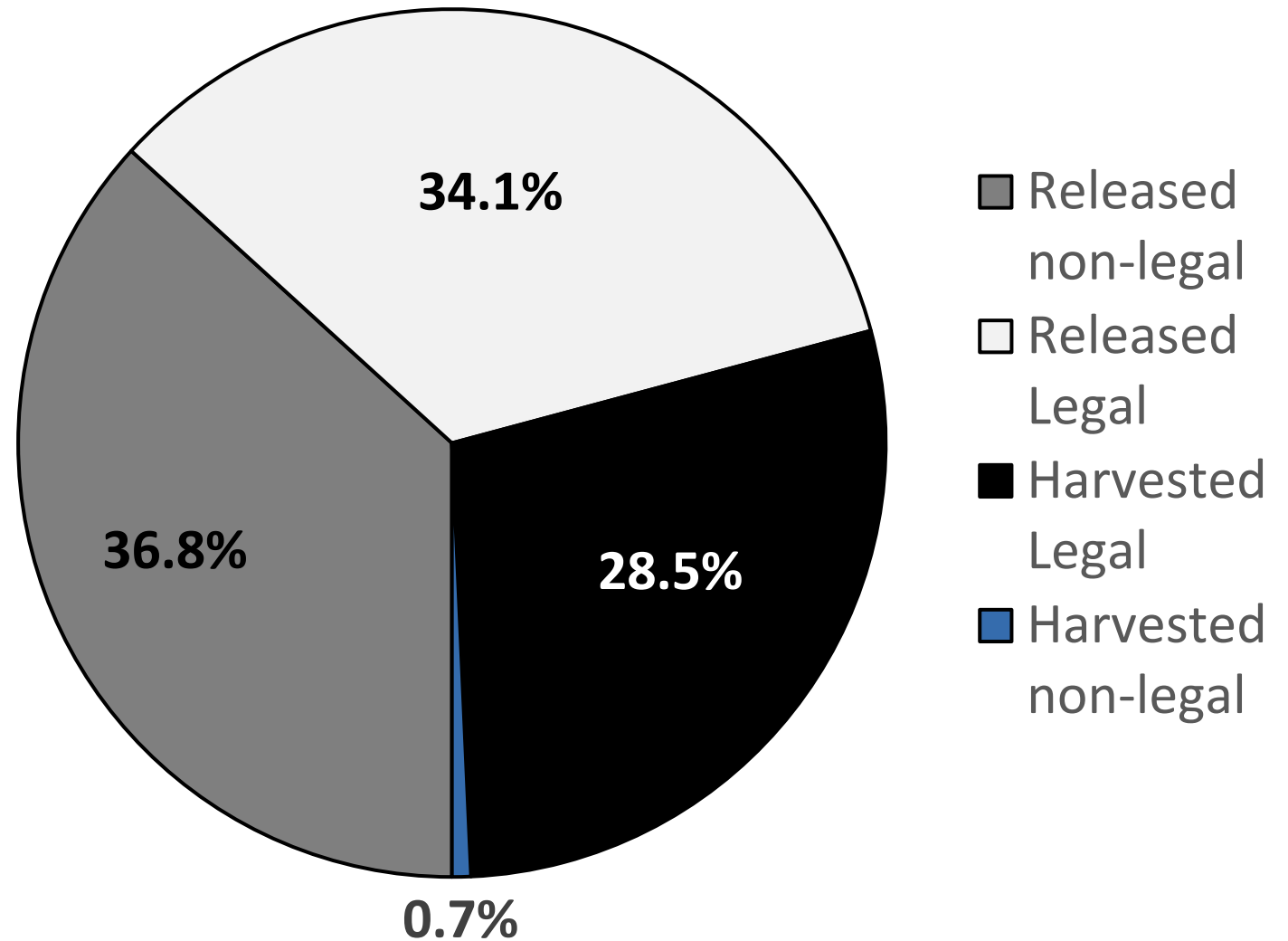
Red Drum State Surveys & MRIP



Cooperative Angler Tag Fates 2019-present

Of released, non-legal fish

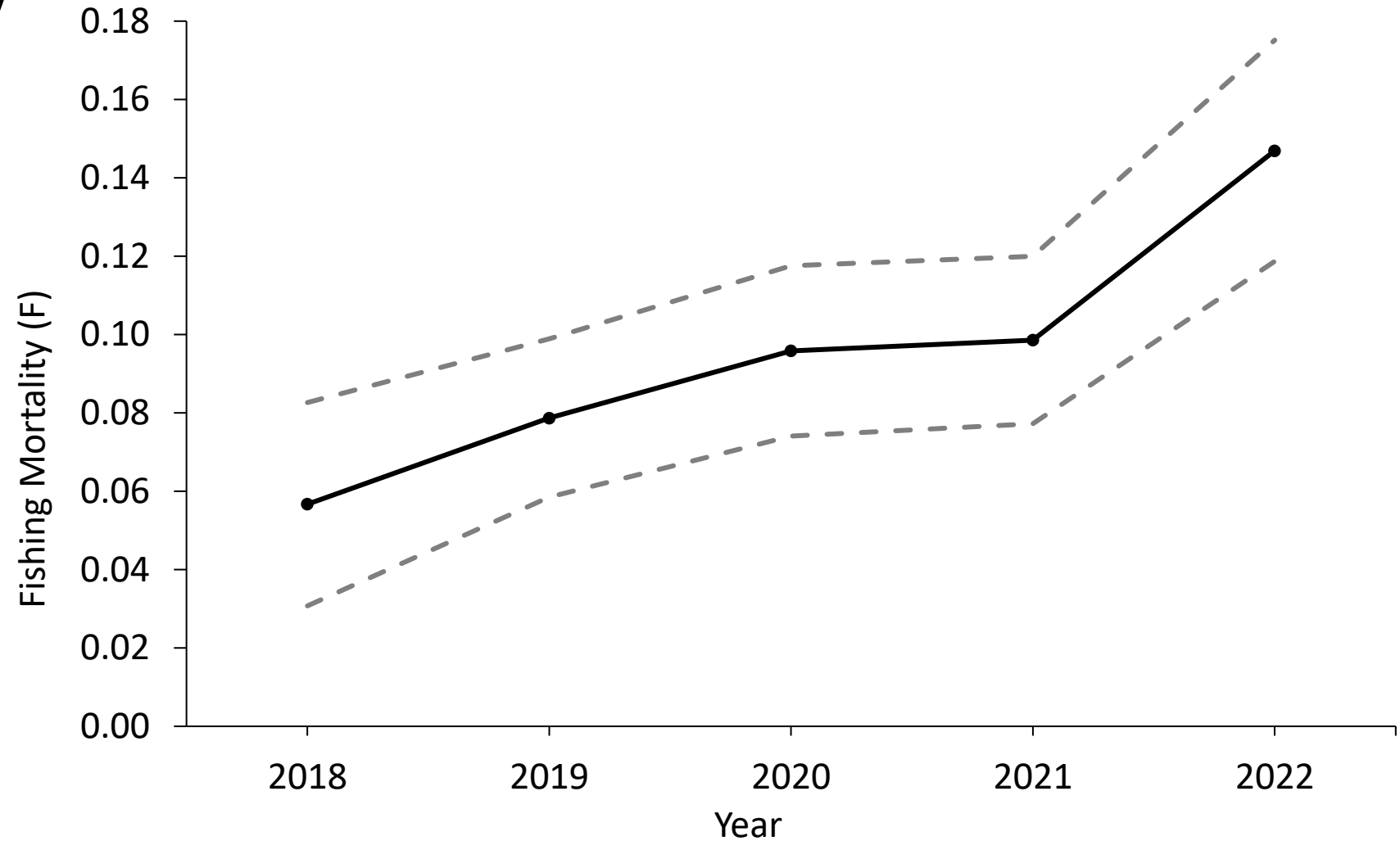
- **23% were undersized**
- **77% were oversized**



Cooperative Angler Tag Mortality Estimates

Preliminary fishing mortality (F) estimates based on tag return data

- Similar to F estimates in 2017 regional stock assessment
- Estimates will improve over time as more tags are returned
- Examine other models to improve estimates



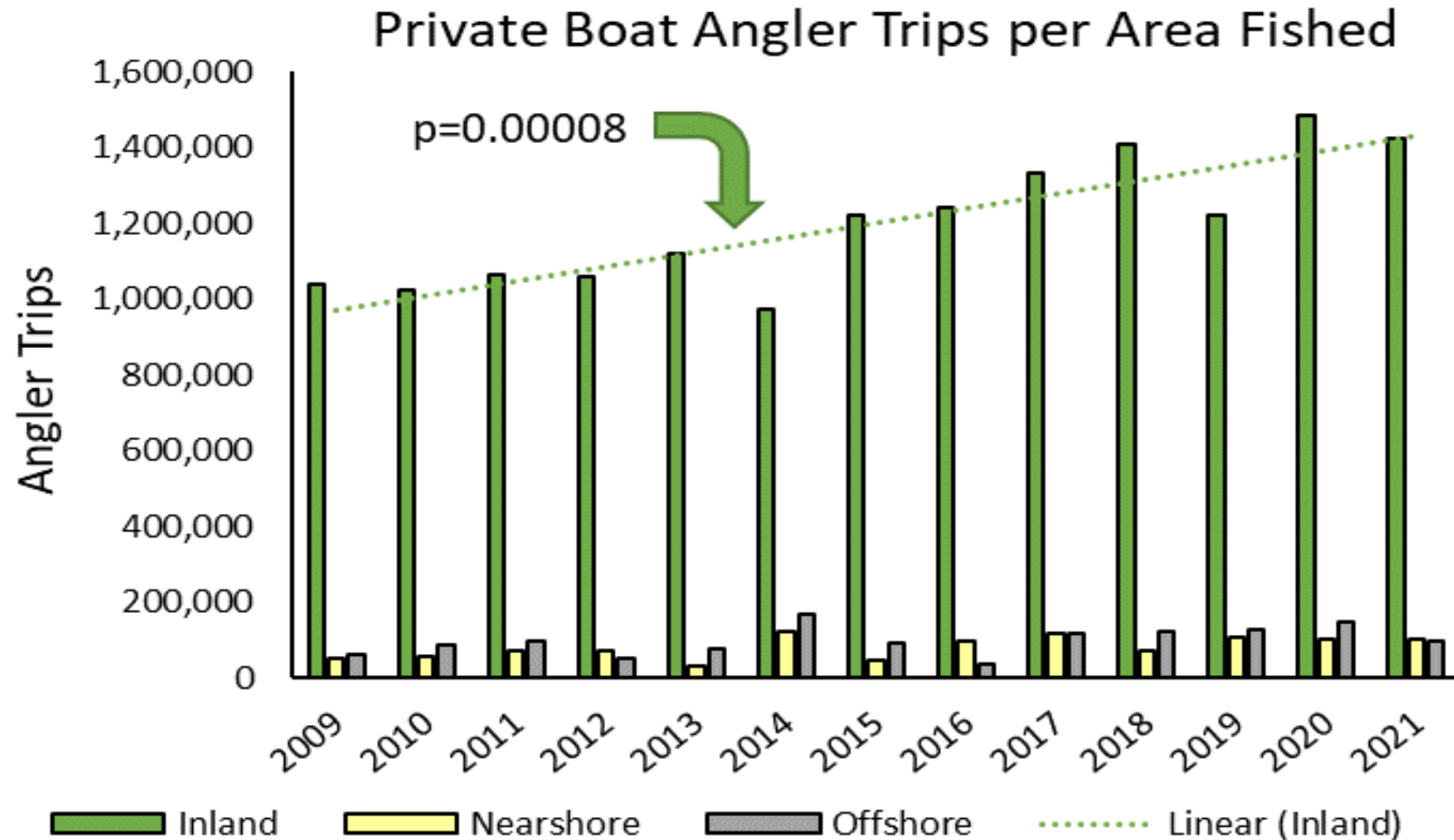
Red Drum Status Report

2020 and 2021 updated Red Drum Status Reports published and presented to state Finfish Advisory Panel

- Based on available data, no management action is warranted at this time.
- Red Drum indices have been variable, but trend relatively stable over time
- Tagging data estimated fishing mortality to be low and suggests fish are escaping the fishery
- Indices tended to agree over time
- No regional information or regulations suggesting change



Red Drum Catch & Effort Data (MRIP)



Angler Satisfaction Survey

- Completed in May 2022
 - Conducted late 2021
 - Randomly surveyed 2,026 SIP permit holders; 107 fishing captains (all invited)
 - Statistically sound (valid to $\pm 2\%$)
 - Tried to repeat questions from 2017 survey to allow comparisons
- Overall, a majority of anglers were satisfied (70%), but majority of charter guides dissatisfied (38%)
 - Satisfaction had declined from 2017 survey (70%/76%)
- Majority or plurality support for more restrictive regulations
 - Slot size
 - Bag
 - Vessel Limit
 - Guide retention
 - Season

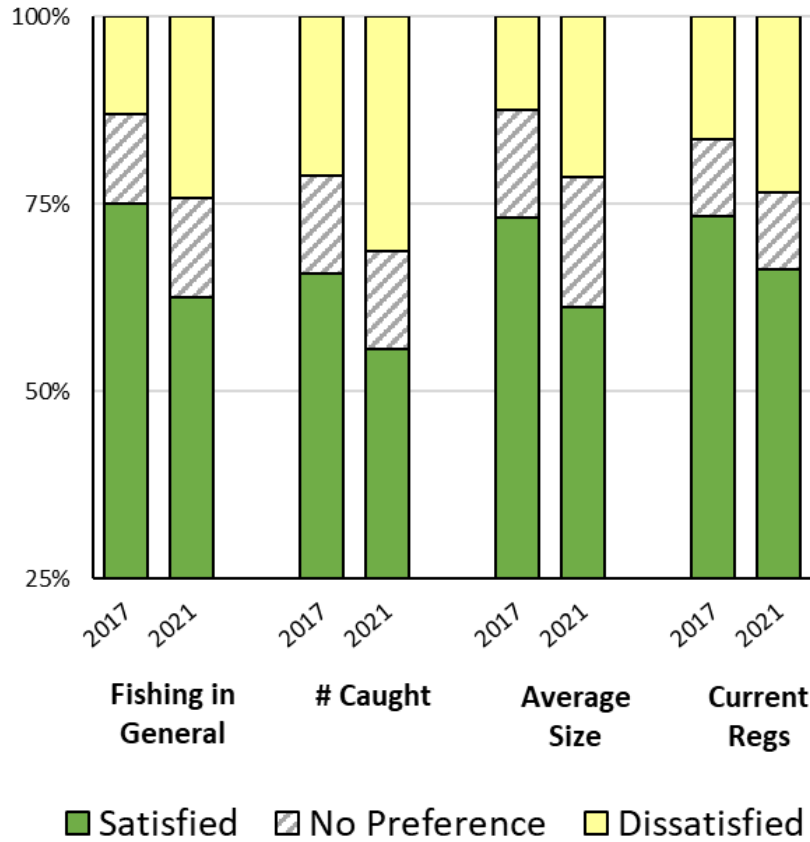


Are you satisfied or dissatisfied with your Red Drum fishing?

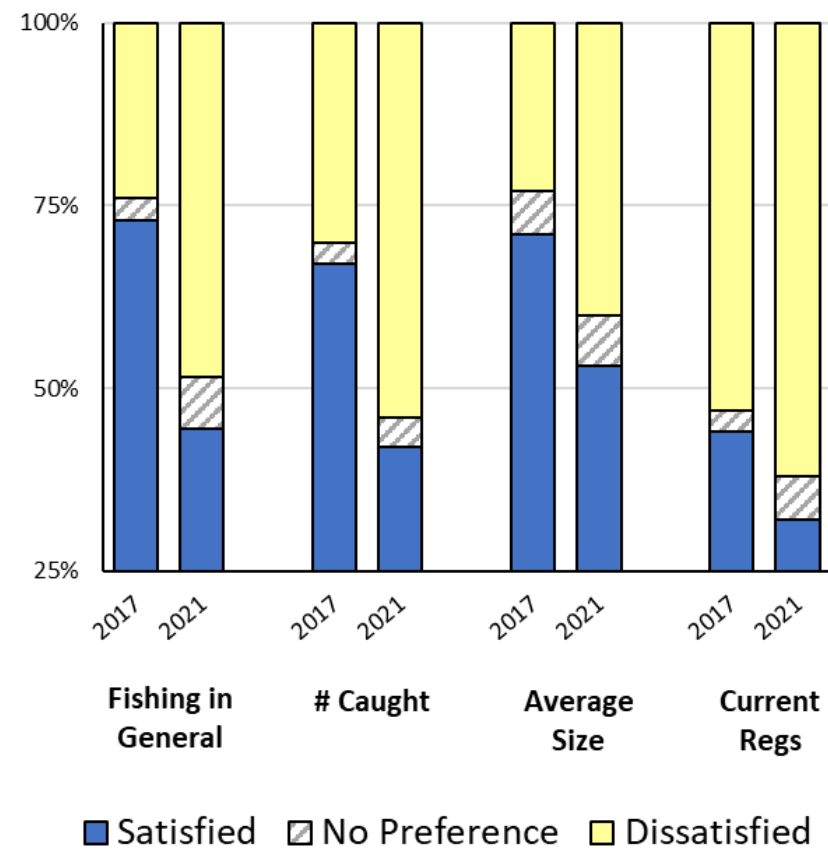


10% less satisfied

Anglers



Guides



21% less satisfied

Satisfaction = "Very" + "Somewhat"

The Process

- Finfish Advisory Panel
- Town Halls: June 6 & 9
 - Savannah (55)
 - Brunswick & online (97)
- 5 management questions asked
 - 257 recreational anglers
 - 55 guides
- Their opinions, along with those from the Satisfaction Surveys presented to DNR Board
 - CRD proposed: reduction in bag limit, establish vessel limit, and restrict guide harvest
 - DNR Board generally thought to support measure
 - Final vote scheduled at November 2022 meeting
 - But.....

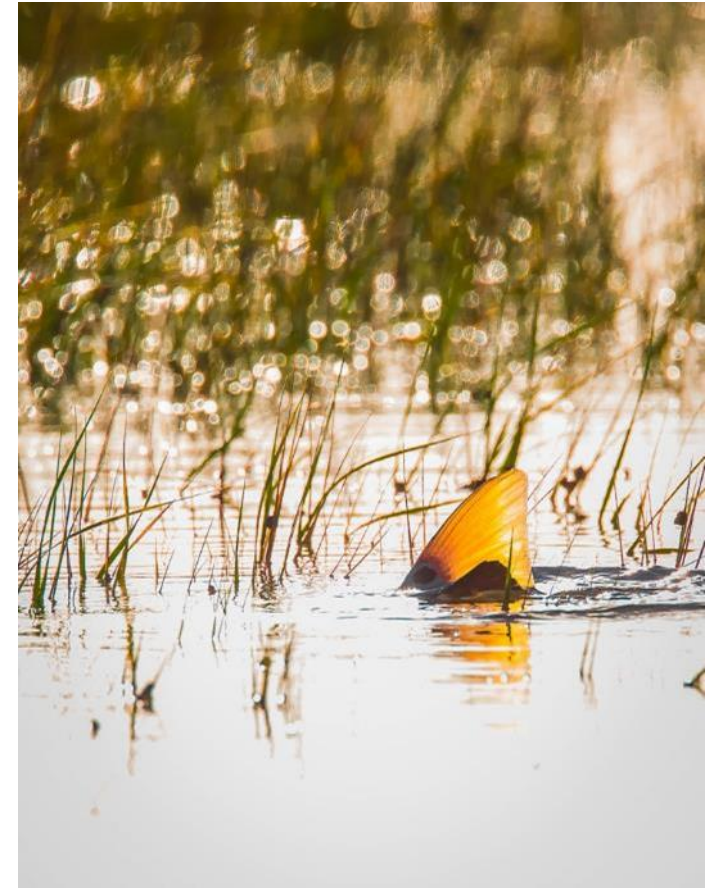


Current Status

Legislative support was lacking for rule change

CRD tabled rule change

Vote tabled until after next regional stock assessment 2024



Questions?

Reports and more at:
coastalgadnr.org

Jared Flowers
jared.flowers@dnr.ga.gov

