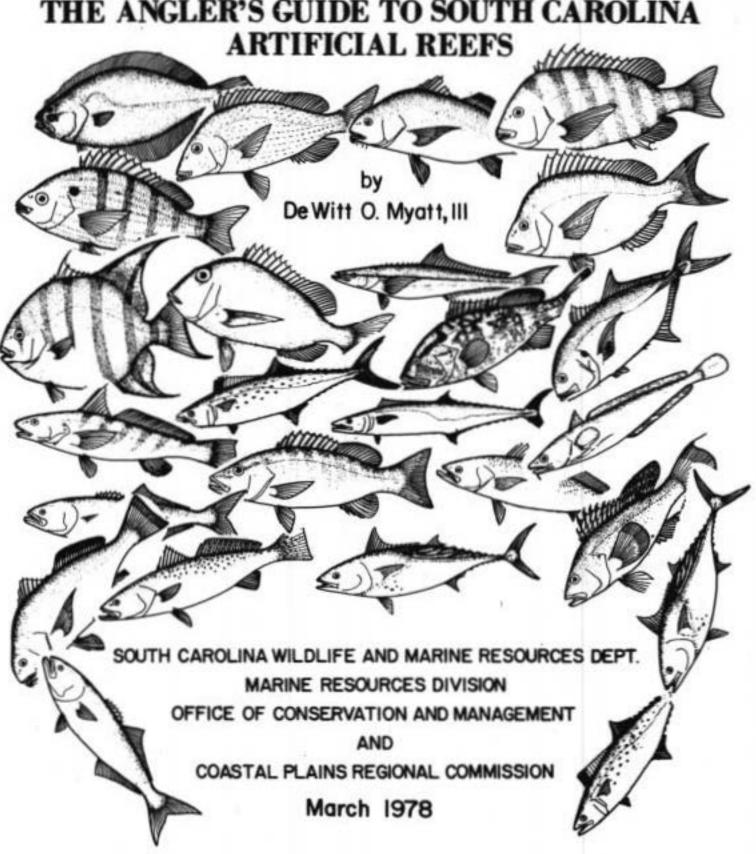


THE ANGLER'S GUIDE TO SOUTH CAROLINA



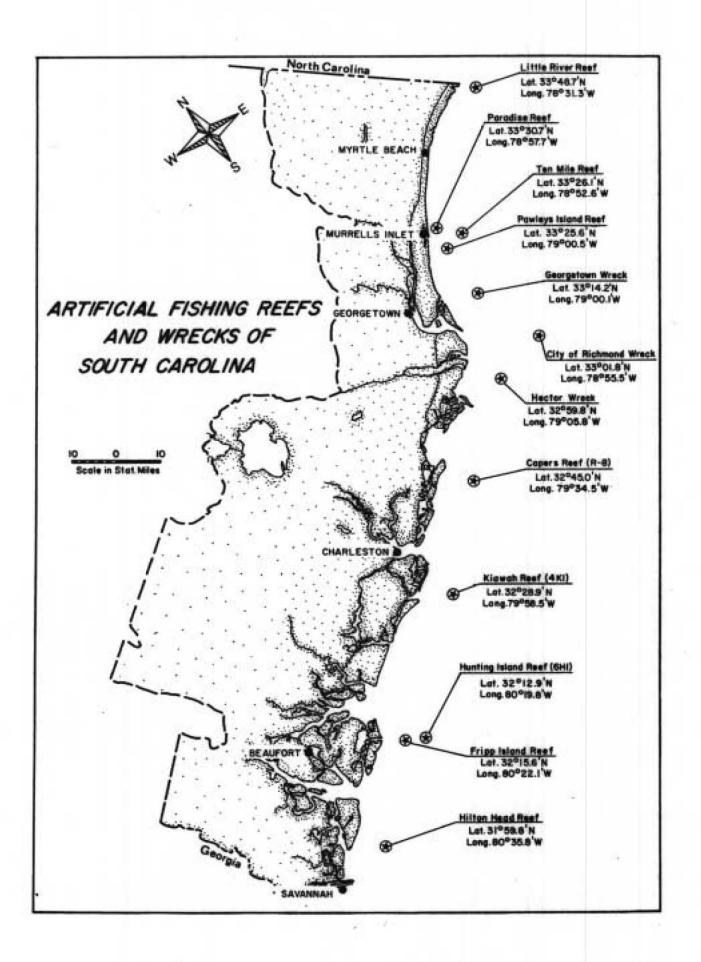
THE ANGLER'S GUIDE TO SOUTH CAROLINA ARTIFICIAL REEFS

BY

DE WITT O. MYATT, III MARCH 1978

EDUCATIONAL REPORT NUMBER 9

SOUTH CAROLINA WILDLIFE AND MARINE RESOURCES DEPARTMENT
MARINE RESOURCES DIVISION
OFFICE OF CONSERVATION AND MANAGEMENT
P. O. BOX 12559
CHARLESTON, SOUTH CAROLINA 29412
AND
COASTAL PLAINS REGIONAL COMMISSION



PREFACE

The information contained in this booklet is intended for use by anglers and SCUBA divers so they can utilize South Carolina artificial reefs more efficiently. The information is not intended for navigational purposes and reef users are advised to obtain the proper NOAA chart and know how to use it before embarking on a trip to any offshore reefs.

The following charts can be obtained at a nominal fee from marinas, boating supply houses or from the National Oceanic and Atmospheric Administration, National Ocean Survey, Washington, D. C.

(1) Little River to Winyah Bay Entrance #11535
Best Chart for: Little River Reef
Paradise Reef
10 Mile Reef
Pawleys Reef
Georgetown Wreck

(2) Winyah Bay Entrance to Isle of Palms #11531
Best Chart for: Hector Wreck
City of Richmond Wreck

(3) Charleston Harbor and Approaches #11521 Best Chart for: Capers Reef Kiawah Reef

(4) St. Helena Sound to Savannah River #11513
Best Chart for: Fripp Reef
Hunting Island Reef
Hilton Head Reef

The Wreck of Savannah and Wreck of Lawrence shown on Chart #11513 are hazardous and not recommended by the S. C. Marine Resources Division.

ACKNOWLEDGEMENTS

Gratitude is expressed to Mrs. Evelyn N. Myatt, Mr. David M. Cupka and Mr. Charles J. Moore for their suggestions and review of this guide. Special thanks are extended to Ms Karen Swanson and Mrs. Evelyn Myatt for the graphics, to Mrs. Betty Drews for typing, to Ms Donna Florio for her assistance in the publication process and to Ms Susan Smith of the National Marine Fisheries Service, who drew the fish that are used on the cover and throughout this brochure.

Messrs. Donald Hammond and Walter Pittam provided valuable assistance in obtaining data for the reef maps and helped in many small but essential tasks that made this work possible.

CONTENTS

Coastal Map of S. C. A	rti	fi	cia	al	Re	ee:	fs		٠		•	•	٠	•	•	٠	i
Preface																	ii
Introduction																	3
Table of Reefs and Wree	cks				٠												4
Little River Reef												٠					6
Paradise Reef				٠													8
Ten Mile Reef				٠				٠		٠							10
Pawleys Reef																	12
Capers Reef																	14
Kiawah Reef																	16
Hunting Island Reef																	18
Fripp Reef																	20
Hilton Head Reef																	22
How to Anchor on Reefs.																	24
Fishing Tips for Reefs.																	26
S.C.U.B.A. Diving	•																28
How Old Tires Improve Y	our	r I	is	hi	ng	,											30
Boating Safety																	31
Additional Recreational	Fi	ish	ner	ie	s	Se	ect	ic	n	Pu	ıb]	ic	at	ic	ms		31

DEDICATION

This publication is dedicated to the memory of William Y. Ripley, Jr. a good friend and valued associate.

INTRODUCTION

This guide describes South Carolina's nine offshore artificial reef sites in detail and gives information on several other areas near ship wrecks and jetties that may be of special interest to anglers. An artificial reef may be defined as almost any type of object or objects not naturally occurring in the ocean which have been placed there by man.

South Carolina's artificial reefs are constructed by sinking a wide variety of material at easily located sites along the coast. These reefs serve dual roles in that they create spots for recreational fishing and they are an effective means of disposing of materials which are unsightly litter when accumulated on land. Reef sites are selected largely on the basis of public demand, but at the same time they must be carefully located so that they do not conflict with commercial fishing or navigational interests. Sites are also chosen if they are determined by surveys to have good fishing potential. When solid material is sunk on South Carolina's sandy continental shelf, fish are drawn to it as if by a magnet. Some marine biologists think that the first fish to arrive on new artificial reef material are those forced to leave other reef habitats because of overcrowding by other more dominant fish.

As sunken material remains on the ocean floor, encrusting organisms such as barnacles, algae, coral and other species similar to those that foul the untreated bottom of a boat become attached. These organisms provide an important food source for reef fish such as the sheepshead and trigger fish. A dynamic self-sustaining reef community develops that is so biologically rich, that excess fish are available for man to catch. Despite the abundance of life on our reefs, some of the larger, more desirable species of fish are subject to overfishing, especially during the summer months. To counteract this, the South Carolina Wildlife and Marine Resources Department (SCWMRD) is continuing to expand and improve artificial reefs so that more fish will be available. We urge reef users not to take any more fish than they can use and to release the rest for future enjoyment.

SOUTH CAROLINA ARTIFICIAL REEFS AND WRECKS

HANGE OF REEST OR MERCK	LOCATION AND DEPTH	INST NOT	DATE OF COMPTRICCTION AND SIZE	MATERIAL	HIMMES
Little River Artificial Reef	2.6 miles bearing 145° magnetic from Little Biver Inlet busy, Dugith: 29 ft. Lat. 33°48.7° M. Lon. 76°31.3 W.	Two orange and white mun buoys with masts at HE and SH corners	81se: 1900' x 3000'	fires, baled (75,400)	Built as cooperative venture with State of S. C. Marine Fisheries. Best fishing is for mackerel, see base, grouper and flounder.
Paradise Reef	3.5 miles bearing 90° magnetic from Marrella Inlet bell buoy. Depth: 35 ft. Lat. 33°30.7'N. Let. 37°30.7'N.	Two orange & white numble busys with maste at NW & BW corners and two spar busys at NE & SE corners.	July, 1969 81se: 1500' x 3000'		Wery popular reef which yields good eatches of black seebass, flounder, see troot and sine specials and king mackers!, cobies, and seebar-jack. Barracuda frequently observed or caught at this site.
Ten Wile Reef	9.6 miles bearing 128° magnetic from Marrella links bell buoy. Dayth: 45 ft. Lat. 33°25.1' N. Lat. 38°52.6' N.	One orange & white num buoy with meat NN corner of reef site and one spar buoy 900' bearing 180° from num buny.	Site: 1500' x 1500"	Three, single & baled (Zh.000) Ship bull (1) LG8-6 bull (1) Dredge tender (1)	hest reef in S. C. for king markerel trolling.
Pavleys Island Reef	4.8 miles bearing 170° magnetic from Marrella Inlet bell buoy. Depth: 37 ft. Let. 33°25.6' M. Lon. 79°00.5' W.	One orange & white must buoy with mast at center of reef & one spar buoy 600 feet Northeast of nun, buoy.	August, 1973 Bire: 1500' x 1500'	Tires, single & baled (31,000) LON-6 bulls (4) LON-6 bull (\$)	Same fish present at this atte as at Paradise heaf, but not as beavily fished as nearby Paradise Heef.
Georgetown Wreck	5.0 miles bearing 55 magnetic from Winysh Buy ess busy. Depth: 40 ft. Lat. 35°18.2' N. Lat. 35°18.2' N. Lon. 79°00.1' W.	None at present time	Located June, 1975 Size: MA	Steel Shipwreck (1)	Located with help of U.S. Maval Mine Sweeper "Leader" Excellent site for black seebass fishing.
City of Richmond Wreck	13.0 miles bearing 145° magnetic from Winyah Bay sea buoy. Pepths: 49 ft. Lat. 33°01.8' E. Lon. 76°99.5' W.	WR-2A U.S. Coast Guard Maintained	NA.	Steel Shipwreck (1)	rields good catches of king mackersis, askerjack, cobis, barraculas & bluefish to trollers. Softon fabersen catch grouper, pink porgy, and some black see bare.

NAME OF FEET OR WORCE	LOCATION AND DEPTH	READ MADYS	AND SIZE	MATERIAL	RIDARKE
Mector Wreck	11.7 miles bearing 150° magnetic from Winyah Eay sea buoy. Dayth: 30° 59.6'N. Let. 32° 59.6'N. Loc. 750 05.8'V.	WR-4 U.S. Coast Guard maintained	XX	Steel Ghipwreck (1) broken up	Noted for excellent fishing for 10 to 20 pound bluefish in early spring.
Capers Seef (8-8)	12.1 miles bearing 90° magnetic from end of Charleston jettles. Depth: 45 ft. Lat. 32° 45.0'N Lon. 79° 34.5'V	One red busy, SE corner (U.S. Coast Guard Main-tained) One orange & white dose busy, SM corner, One orange & white mun busy, SW corner.	May, 1970 Size: 1500' z 1500'	Tires, single & baled (30,000), Steel yackt (1) Table buils (5) Wood & Steel travier (1) School & Steel & Concrete (1) Steel frees & Concrete (1) Steel frees & Concrete (1) Steel frees & Concrete (1) Amphibian wessel (1)	Good bluefishing in spring and early summer. Abundant suberjack & mackerel summer and fall & bottom finhing often very good for blackfish Divers have seen grouper in excess of 250 lbs on this rest.
Kissul Seef (4KI)	6.0 miles bearing 1070 magnetic from North Ediato Inlet beny (2-NE) Depth: k3 ft. Let. 32026.9'8 Lon. 79°98.5' V	One orwage & white num buny with seat & one orange and white dome buny.	October, 1967 Sise: 1900' x 3000'	Tires, single & baled (47,000). Auto bodies 70 (75 LCH-6 bull (1) Errydock (1) Fortgook (2) Fortgook (3) Mile best (2) Contrate oulwart (12 tons Cabin cruiser (1) L.G.U. Mull (1)	Older offsbore fishing rest in S.C. Eig bluefish offer smeallest fishing in spring, sapering fishing good with fishing for black scapedally knowled by after rough less.
Hunting Island Neef (GET)	9.0 miles bearing 210° magnetic from St. Helena entrance buony STM. Depth: 50 ft. Lat. 32°12.9' K. Lon. 80°19.8' W.	One orange & white num booy MF corner. One orange & white num booy SE corner, with two orange & white done booys between them; and red whistle booy (U.S. Coust Duard maintained). # mils NE of reef.	August, 1971 Size: 1960' x 3000'	Tires, single & baled (39,000) Barges (3) Dredge Tender (1) LOM-6 balls (2) Barge sections (6) Cabin cruiser (1)	Best bottom flathing near U.S. Coast Guard budgs. Restricts broughs. Restricts broughs. Excellent troiling for makered, barracule, and asberjack, with spring. Neat successful bottom flathing from drifting boats.
Pripp Island Neef	5.5 miles bearing 1290 magnetic from Fripp Inlet. Depth: 36 ft. Lat. 32'15.6' M. Lon. 80'22.1 W.	One orange and white num buoy with mast, at center of reef & one orange & white spar buoy.	June, 1968 Blast 1900' x 3000'	Three, single & baled (8,000)	Good bottom fishing for blank see bass. State record see trout caught on this rest in 1971, Good trolling over rest ares for Epanish Mack- erel, Drift fisherman often catch flounder.
Hilton Head Neef	5 miles bearing 195° magnetic from Part Hoyal sea busy (298). Depth: 55 ft. Lat. 31599.8' K. Lon. 60°35.8' W.	One orange & white man buoy with mast, at SE corner & one orange & white man buoy at NV corner,	September 1976 Siee: 1800' x 1800'	Tires, baled (8,000)	This reef is a joint venture with the State of Georgia. It is surper, of South, west of the tires are such near the NW buoy.

LITTLE RIVER from Little River Inlet Buoy REEF

2.6 miles bearing 1450 magnetic

Depth 20-29'

Date Construction Started: July,1975

The Little River Reef is being built as a cooperative venture with the North Carolina Division of Marine Fisheries and the South Carolina Wildlife & Marine Resources Department (SCWMRD). It is closer to shore than other S. C. Reefs and boaters can see the reef buoys from the mouth of Little River Inlet.

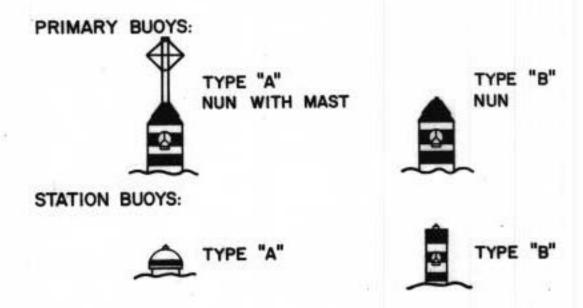
Reef Components:

Times:

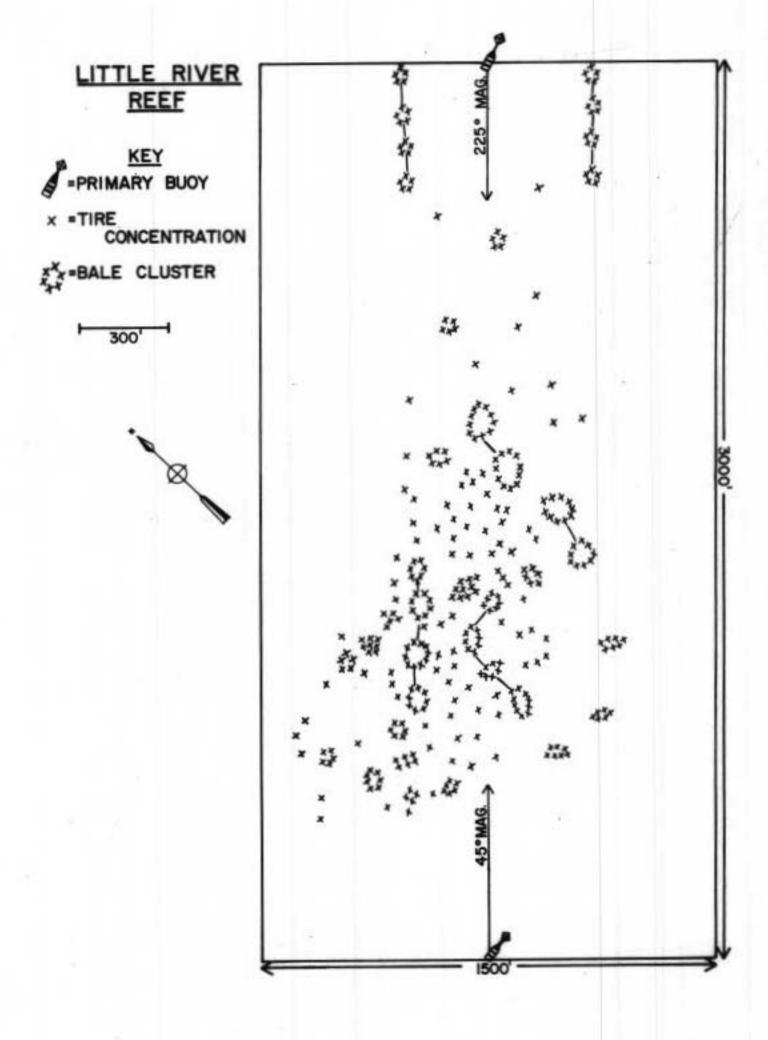
More than 25,400 truck and automobile tires have been sunk on this site. These tires were assembled into bales with 80% of these units clustered with cable to form patch reefs of 12 to 50 bales each. The tires have been sunk between the two buoys that mark the northeast and southwest boundaries of this site, few tires are sunk in the immediate vicinity of either buoy.

Although this reef is new, fishing can be very good for grouper, flounder and black sea bass by bottom fishing near the tire clusters. Spanish mackerel are caught by trolling small spoons over the reef near the buoys.

S.C. Artificial Reef Buoys



It is unlawful to tie to reef buoys



PARADISE REEF

3.5 miles bearing 90° from Murrells Inlet bell buoy.

Depth: 30-35'

Date Construction Started: July, 1969

Paradise Reef, the most popular fish haven in South Carolina, was started by the Myrtle Beach-Murrells Inlet Fishing Paradise Association with assistance from SCMRD. SCMRD assumed full responsibility for this reef in 1975 in order to expedite the proper permits required and to assure the future maintenance of the reef. Although the Paradise Reef is fished very heavily, it yields good catches of fish, especially following a period of bad weather. We intend to increase the fishing capacity of this reef by adding more material each year.

Reef Components:

Tires:

More than 60,000 automobile tires are sunk at the Paradise Reef site. These tires have been assembled into a wide variety of configurations, with the most numerous types being single-tire units, eight-tire units and ten-tire bale units. These units are scattered within the buoyed area, with heavy concentrations near each buoy.

Steel Vessels:

3 Landing Craft (L.C.M.) hulls 57' Length Half Landing Craft Personnel (L.C.P.L.) hull, original length 37'

2 Barges 100' x 35' x 7'

1 Sectional barge 50' x 20' x 4'

1 Lifeboat 26'

Other Material:

5 Concrete Mixers cut in half

50 Concrete culvert various sizes

20 Tons scrap steel and appliances

One L.C.M. loaded with ½ of an L.C.P.L. is marked by the northwest buoy. A 100 x 35' x 7' barge is sunk within 100 yards of the same buoy, bearing approximately 185°. The barge was loaded with culvert, tires and steel scrap, including 10 sections of concrete mixer drums which were cut in half.

The southeast spar buoy marks the approximate location of a small sectional barge, 50' x 20', and another concentration of tire units, landing craft and a 26-foot life boat are sunk on a line between the northeast barge and the southeast buoy. The landing craft is an especially good fishing spot and well worth the searching. It is within 150 yards of the northeast barge and surrounded with tire units. The lifeboat is sunk between the landing craft and the southeast barge. This vessel does not provide very high relief and is hard to locate, thus is not fished frequently.

The southwest buoy marks the location of a third landing craft and a concentration of tire units.

PARADISE REEF

E-PRIMARY BUOY

8 = SPAR BUOY

|| 二=LCM

=BARGE

D=CONCRETE MIXER

X=TIRE CONCENTRATION

CLUSTERED TIRE

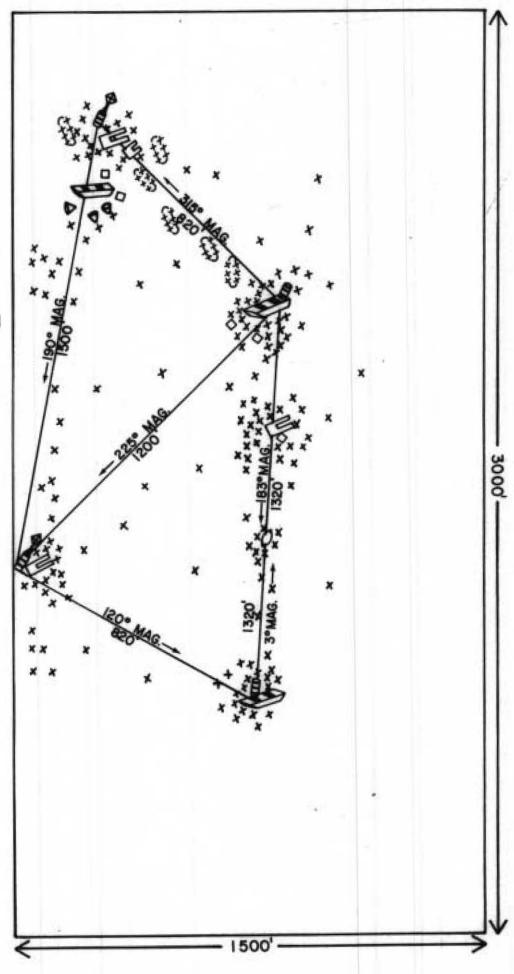
O = LIFE BOAT

■=1/2 LCPL

D = SCRAP METAL

300'





TEN MILE REEF

9.6 miles bearing 128° from Murrells Inlet, S. C. bell buoy

Depth: 33-45'

Date Construction Started: July, 1975

The Ten Mile Reef has proven to be an excellent location for king mackerel fishing and it is also very popular with SCUBA divers because of better then average water clarity and the large ship sunk at the NW corner.

Reef Components:

Tires:

Approximately 14,000 baled automobile tires were sunk on this reef as part of the cargo aboard the 200' ship. As the ship sank, the bales washed overboard and scattered to the southeast. These units are close together and provide excellent habitat for grouper, large pink porgy (silver snapper) and sheepshead. Another 10,000 tires in clusters of 120 each are in a southeasterly line that starts near the spar buoy.

Steel Vessels:

1 Ship 200' long

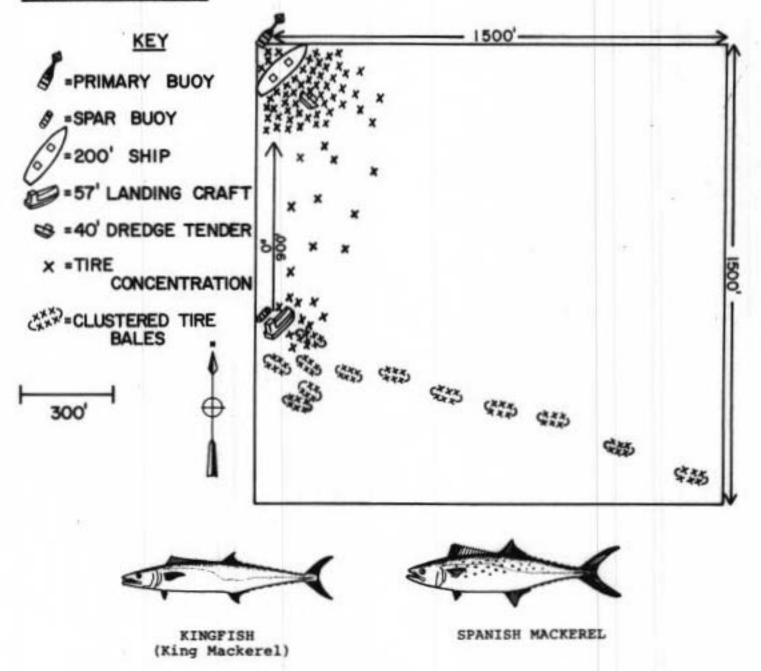
1 L.C.M. 57' long

1 Dredge Tender 40' long

The large buoy on the northwest corner of this site is chained to the hull of the 200' ship. This ship was originally a naval LSM which was acquired by Salmon's Dredging Corporation and converted into a floating crane named the <u>Little Boss</u>. The crane was removed in 1975 and the hull was donated by Salmon's Dredging Corporation to the SCMRD Artificial Reef Program.

40-foot dredge tender is sunk within 100 yards bearing southeast of the sunken ship. This small wreck is not buoyed. The spar buoy that is deployed 300 yards due south of the ship buoy marks the location of a Navy Surplus L.C.M. Tire units along with scrap steel are also sunk at this location. Party boat captains operating out of Murrells Inlet recommended this site since good fishing already existed there. The addition of an artificial reef changed a oncegood fishing spot into an excellent one. We wish to thank the party boat captains of Murrells Inlet for their help in selecting this site which is now easily found by small boat anglers.

TEN MILE REEF



King Mackerel have spots on their sides when they are young and are frequently mistaken for Spanish mackerel. You can avoid this mistake by noting that the lateral line on the side of the king has an abrupt dip in it while the Spanish mackerel does not.

PAWLEYS REEF

4.8 miles bearing 170° magnetic from Murrells Inlet, S. C. bell buoy

Depth: 23-37'

Date Construction Started: August, 1973.

The Pawleys Reef is built on sparse live bottom consisting of sponges, sea fans and other coral-like organisms. This reef does not receive the heavy fishing pressure that the Paradise and Ten Mile Reefs do, therefore it is a good place to try if the other sites are crowded.

Reef Components:

Tires:

Approximately 31,000 single and baled tires are sunk at this site. The majority of the tire units are concentrated near the buoys in the center of the reef area.

Steel Vessels:

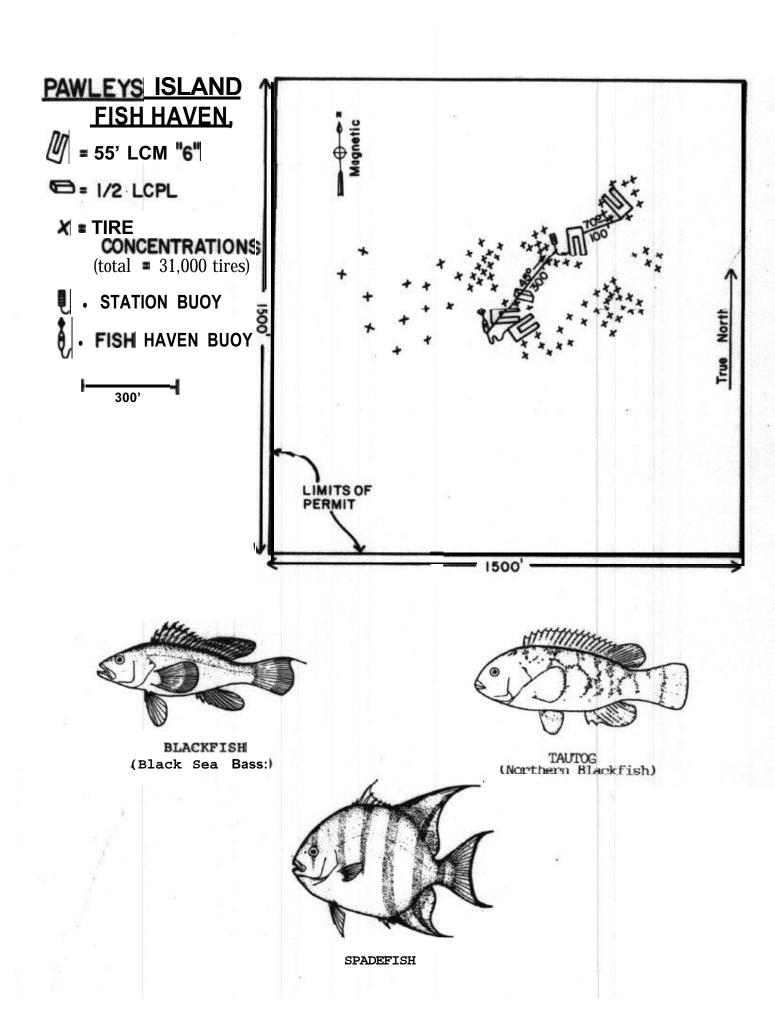
4 L.C.M.'s 57' length ½ L.C.P.L. 37' original length

Other Material:

Concrete culvert - 50 sections.

Two L.C.M.'s are sunk at the center of the reef and marked with a large buoy; both hulls are close together. One-half of an L.C.P.L. was sunk as part of the cargo of one of the L.C.M.s. The other L.C.M. was sunk with a load of truck and automobile tires. Two additional L.C.M.'s are sunk 45° magnetic from the large reef buoy. One L.C.M. is marked with a 12" diameter spar buoy; the other is sunk approximately 100 feet away on a bearing of about 70° magnetic from the spar buoy. Both of these L.C.M.s were loaded with tires when sunk so heavy concentrations of tires can be found around each vessel.

Fishing on the Pawley's Reef is very similar to the Paradise Reef. However, one interesting difference is that the Pawley's Reef often yields large tautog or "northern black fish". The tautog is an excellent food fish but has a very tough skin with heavy scales, and should be skinned when prepared for eating. The tautog can be caught with the same fishing techniques as used for black sea bass, but they are especially fond of fiddlers, fished very close to the wrecks.



CAPERS

12.1 miles bearing 90° magnetic from offshore end of the Charleston Jetties.

Depth: 20-45'

Date Construction started: May 11,1968

The Capers Reef originated from the efforts of interested anglers and divers from the Charleston area through the Trident Chamber of Commerce with help from the SCMRD. Responsibility for this reef was assumed by the SCMRD in 1975.

The Capers Reef has a wider variety and heavier concentration of material than any other South Carolina Reef. In fact, so much material was sunk at this site during the early phases of construction that we are not sure of the exact location and amount of material. Therefore the following is, at best, only a minimum approximation of the material on this reef.

Reef Components:

Tires:

More than 30,000 baled automobile tires have been sunk either as single bales or in clusters of up to 24 bales each. The heaviest concentration of tires is just NW of the Coast Guard Buoy.

Other Material:

5 LCM Hulls

1 Wood and Steel Hulled Trawler 80' long

1 Steel hull 35' long

1 Steel Yacht 60' long

1 School bus loaded with steel and concrete

1 Tank Truck body

1 Steel caisson 100'x 30'x 15'

100 Milk crates

1 Amphibious Vessel 60' long

1 Deckhouse 10' x 10' x 7'

Concrete rubble

Junked steel appliances (refrigerators and

washing machines)

Fishing on Capers Reef can be excellent, especially in the early spring when large bluefish migrate through South Carolina.

Bluefish are usually caught casting and trolling artificial lures or by drifting live bait over the reef. Later in the spring, cobia, amberjack, mackerel and barracuda can be caught by trolling or drifting live bait over the larger structures. This kind of fishing usually continues to be productive through the summer. The best bottom fishing is usually in the spring when heavy concentrations of large black sea bass move onto the reef. Later in the season, flounder and porgy move in and are caught by jigging bait close to the bottom. Although bottom jigging is productive, it is usually costly due to frequent snags on reef material. This reef continues to yield good catches through late summer and fall. Grouper and some small snapper arrive on the reef late in the season and, although divers often see some large fish on this reef, they are usually extremely wary and stay hidden in the reef material. In fact a 250+ pound warsaw grouper has been observed by divers during several recent years deep inside the caisson.

CAPERS REEF

EUS. COAST GUARD

-PRIMARY BUOY

=STATION BUOY

-CAISSON

@ =60' YACHT

-LANDING CRAFT

O-TRAWLER

O =BOAT

D-DECK HOUSE

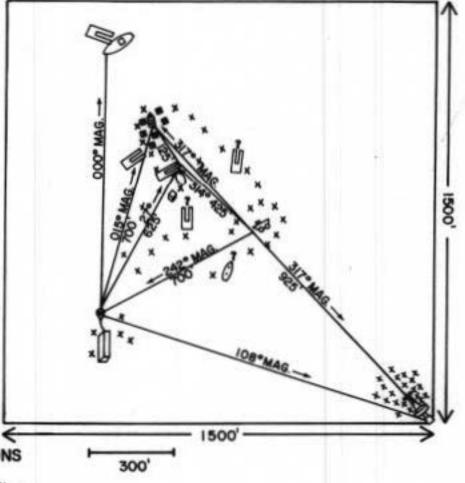
. = MILK CRATES

x =TIRE

CONCENTRATION

T=ESTIMATED POSITIONS

\$ = AMPHIBIOUS VESSEL









COBIA



SHEEPSHEAD

KIAWAH REEF

8.0 Nautical miles bearing 1070 magnetic from North Edisto Inlet Buoy (2-N.E.)

Depth: 20-43'

Date of first construction: October 1,1967

The Kiawah Reef was originally built by the U.S. Fish & Wildlife Service and the Bears Bluff Laboratory as part of a Federal artificial reef experiment. The early experimental reef was small, consisting of seventy old automobile bodies that were cabled together and sunk in one mass by flooding one side of a barge so that the cars could slide overboard. The experimenters discovered that although the old automobiles made excellent fish habitat at first, the cars rusted away rapidly and after 3 years only the chasis and other heavy components remained.

When the Federal experiment terminated in 1971, SCWMRD assumed responsibility for the reef site and began expanding the reef so that it would be better suited for recreational activities. The first item to be added to the reef was a 150' x 100' floating dry dock section donated by Detyens Shipyard, Inc. Automobile tires and the 90-foot long tug-boat Hinton were also sunk, which greatly increased the size of this reef. The tug Hinton, donated by Marine Contracting and Towing of Charleston was the first diesel powered tug used in Charleston Harbor. The hull, which was originally powered by steam, dates back to the days just after the Civil War.

Reef Components:

Tires: 30,000 baled and single tire units

Vessels:

1 90' long Tug Boat

1 57' long LCM

1 150' x 100' Floating Dry Dock 1 50' long "J" Boat

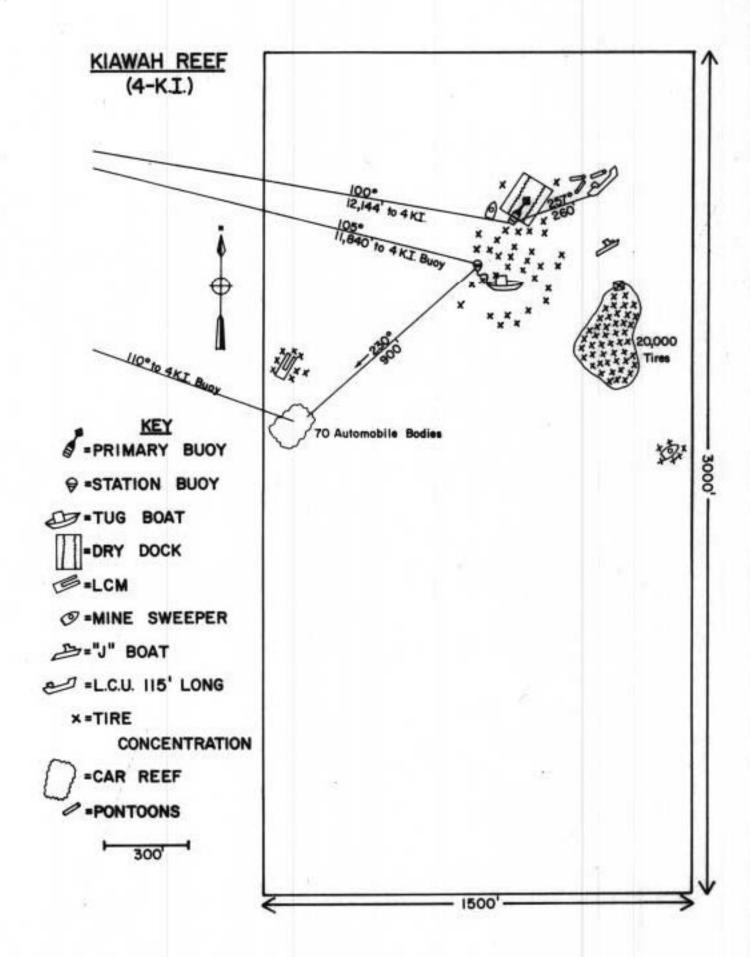
2 57' long Minesweepers (M.S.B.)

1 115' long Landing Craft Utility (L.C.U.)

4 50' long Pontoons

The original car reef is very difficult to locate now because it has disintegrated badly, but anglers and divers who do find it not only encounter a good population of sheepshead and black sea bass, but often run into some 6-8' sharks as well. The rest of the reef site is similar to Capers except that the mackerel and cobia fishing is usually a little better on this site, while bluefish and amberjack fishing is better at Capers reef.

Loggerhead turtles are frequently seen at the Kiawah reef. SCWMRD biologists sighted two Right Whales over the reef during February 1976.



HUNTING ISLAND REEF

9.0 miles bearing 2100 magnetic from St. Helena Entrance Buoy (S.T.H.)

Depth: 36' - 50'

Date Construction Started: August 1971

The Hunting Island Reef was started by the Beaufort-Jasper Outdoorama, Inc. then transferred to the SCMRD in 1975. This reef is also called the 6-HI reef locally because it is located close to the 6 HI buoy maintained by the U.S. Coast Guard. Fishermen and SCUBA divers find this reef attractive because of clear water and and abundance of large predatory fish, especially king mackerel, amberjack and barracuda.

Reef Components:

Tires:

More than 30,000 baled, single and eight-tire units were sunk on this site between 1971 and 1975 by the Beaufort-Jasper Outdoorama. All of these tires were sunk close to the 6-HI buoy.

Steel Vessels:

3 Barges 80' to 120' long and 22' x 7'

1 Dredge Tender 30' long

2 L.C.M. 57' long

8 Barge Sections 10' x 10' x 7'

1 Cabin Cruiser 50' long

All of the steel reef material was sunk by SCMRD on May 1,1975, within an area prescribed by the U.S. Army Corps of Engineers. The steel hulls provide high profile which enhances the attractiveness of the area to bait fish that in turn attract excellent populations of large game fish. The best technique for catching game fish near the steel wreckage is to troll both surface running lures and baits as close to the State-maintained buoys as possible. Bottom-feeding fish can be caught by anchoring and fishing close to the large steel structures or by drifting bait near the bottom over the tires that are sunk near the 6 HI Buoy.

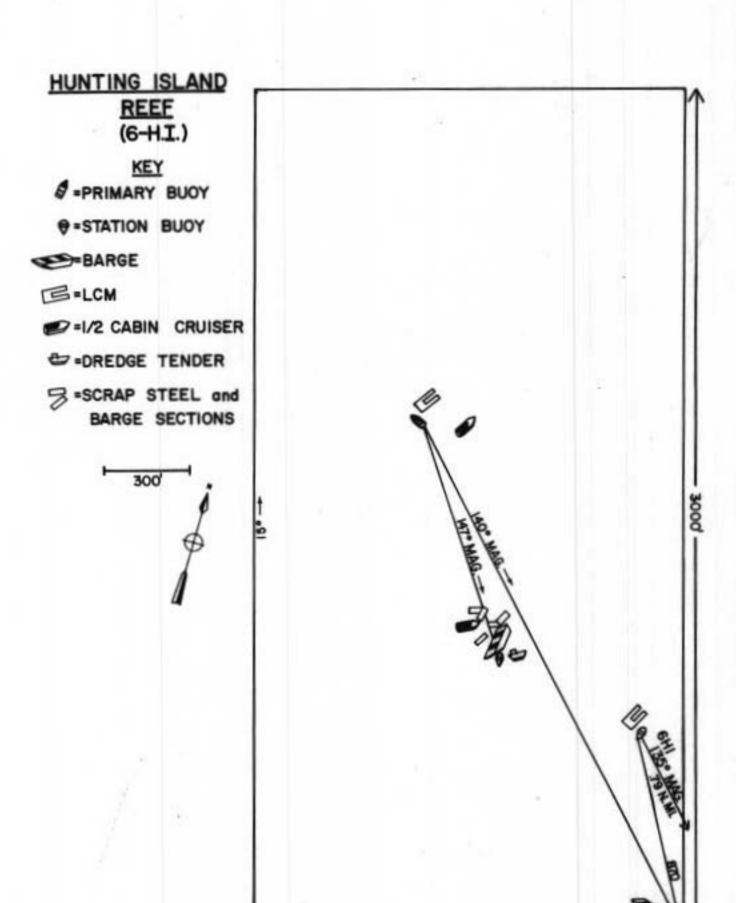
Future plans for this artificial reef will stress sinking tires and other low-profile material between the steel hulls that are marked with State-maintained buoys.



BONITO (Little Tuna)



JACK CREVALE



FRIPP ISLAND Fripp Inlet REEF

5.8 miles bearing 1250 magnetic from

Depth: 32-38'

Date Construction started: June, 1968

The Fripp Island Reef was started by the Beaufort-Jasper Outdoorama, Inc. in 1968 and transferred to SCWMRD in 1975.

Reef Components:

Tires:

50,000 Automobile tires in three-tire, eight-tire, single-tire, and baled-tire units.

Other Material:

15 tons of concrete culvert and telephone conduit.

Approximately 30,000 of the 50,000 automobile tires that have been sunk at this site were sunk by the Beaufort-Jasper Outdoorama. These first tires were sunk as three-tire, eight-tire, single-tire, and baled-tire units. The remaining 20,000 tires were sunk by SCMRD as either bales or single-tire units. Approximately 15 tons of concrete culvert and telephone conduit were also sunk.

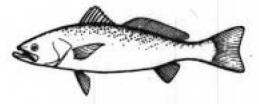
The best access to this reef is from the public landing at the end of Hunting Island or from the Fripp Island Marina. Since the channel at Fripp Inlet is poorly marked, it is suggested that people new to the area contact local sources for the best way to navigate it.

Bottom fishing at this reef for black sea bass, porgy and flounder is best done from drifting boats. This technique is particularly useful with live minnows or shrimp in the spring and fall when large seatrout are in the area. In fact, a State record seatrout was caught on this reef by Eddie Reed from Orangeburg, S. C. in 1971, using an artificial lure.

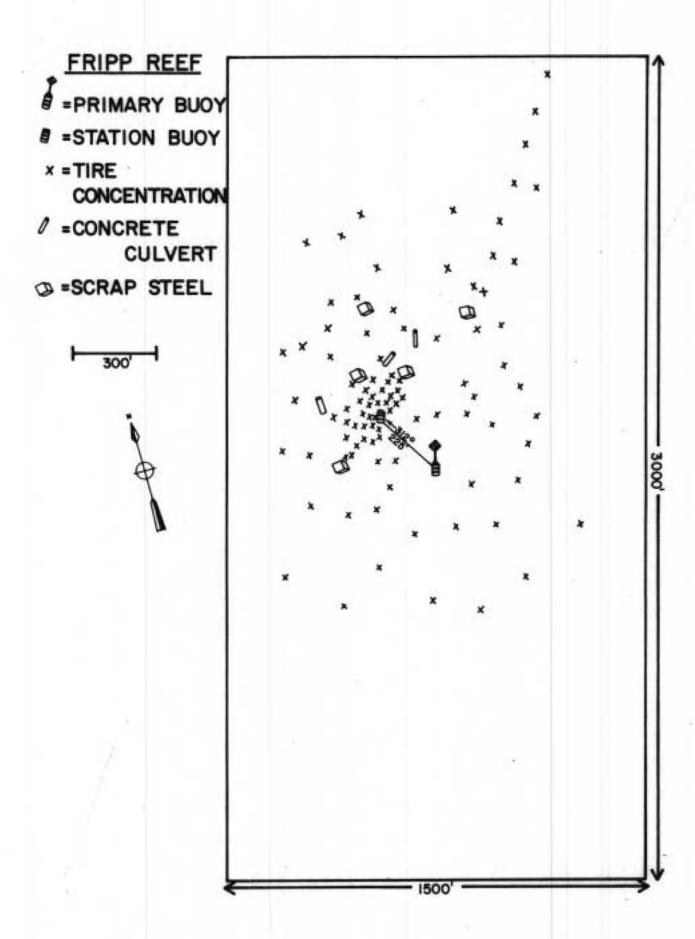
The Fripp Reef and the surrounding area is also a good place for trolling. Spanish mackerel and medium sized bluefish strike on small spoons and bucktail jigs trolled over the reef site or around schools of fish that are frequently spotted feeding on the ocean surface. When fish are found feeding on the surface another good fishing technique is to cast to the fish from a drifting boat. The latter method is often the only way to catch fish when they are "spooky". A very fast retrieve is best for mackerel.



WINTER TROUT (Spotted Sea Trout) 20



SUMMER TROUT (Gray Sea Trout)



HILTON HEAD Port Royal Sea buoy (2 PR) REEF

5 miles bearing 195° magnetic from

Depth 38-55'

Date of first construction: Sept. 1976

The Hilton Head Reef is our newest artificial reef and is a cooperative project between the Georgia Department of Natural Resources and SCWMRD. The site selected for this reef makes it available to anglers from Beaufort, Hilton Head Island and Savannah.

Reef Components:

Tires:

8,000 in eight-tire units with 450 pounds of concrete ballast in each unit.

Steel Vessels:

1 Barge 50'x 22'x 7' 1 Barge 45'x 25' x 11'

The eight-tire units are concentrated southeast of the nun-shaped reef buoy located at the northwest corner of the site. These tires were sunk by the Georgia Department of Coastal Fisheries in the spring of 1977. The two barges are sunk approximately 200 feet bearing 1300 magnetic from the masted primary reef buoy located near the southeast corner of the reef. The barges are approximately 100 feet apart.

There is good bottom fishing for black seabass and porgy near the tire units. There is also a fairly large area of live bottom near the tire units; thus the bottom species thrive throughout the area. The steel vessels sunk at the southeast corner of the reef rest on sandy bottom but host a large population of grouper, sheepshead, amberjack, mackerel, barracuda and cobia.

Demolition specialists from the Beaufort Marine Corps Air Station provided valuable assistance to the reef program by helping us sink one of the barges with explosives. The barge was intensively compartmentalized and thus would have been very difficult to sink in the proper position without the precise use of explosives.

Although this reef is new, it is located in an area that frequently provides good bottom fishing for black sea bass. Boats trolling in the area catch king mackerel, Spanish mackerel and barracuda. It is anticipated that this reef will improve the existing fishing just as the Ten Mile Reef did off Murrells Inlet.

HILTON HEAD REEF F = PRIMARY REEF BUOY WITH MAST # =PRIMARY REEF BUOY "NUN" **■ = EIGHT TIRE UNIT CONCENTRATION** =BARGE (50') €=BARGE(45') GROUPER RED PORGY

How To Anchor on an Artificial Reef

There are special procedures to follow for anchoring on an artificial reef. Here are some "tips" that may help you to use the reefs.

- (1) Do not tie to artificial reef buoys. Although buoys are usually anchored near some of the more prominant artificial reef material, the angler will find that when he ties to a buoy his boat will be the length of his bow line plus the length of his boat away from the best fishing. Besides, these buoys are not designed as mooring floats and hence tying to them can damage masts etc. and reduce their effectiveness.
- (2) When anchoring, it is best to drop your anchor well up-wind or up-current of the location you have selected to fish; then let out your anchor line until you are directly over the reef. An electronic depth finder is a valuable tool to the artificial reef fisherman and makes the job of anchoring over a productive bottom less difficult.
- (3) To avoid losing your anchor, a special "reef anchor" may be constructed in one of the following ways: (Figures 1-3).
 - A. Bend two 4 foot long sections of 3/8" concrete reinforcing rods double, then slide a 12" section of 1½" pipe over the bent rods. The anchor is completed by bending the ends of the rod to form a grapple. The resulting anchor will hold most boats in position once it snags on an old tire or some wreckage, but will usually come loose easily when a strong pull is made on the anchor line and the 3/8" rod straightens.
 - B. On calm days a few concrete or cinder blocks threaded on a length of rope will hold your boat in place. Those who would like to avoid the labor of hauling this heavy anchor back aboard can slip the bow line through the anchor and leave the blocks on the reef to provide additional habitat for fish.
 - C. Another method that can be used is to attach a trip line to your anchor so that should your anchor not break free, a pull on the trip line will usually release it. This trip line should be 45 feet long when used on the Paradise, Little River or Pawley's Reef and 70 feet long if you are fishing any of the other reefs.

As A Last Resort

Sometimes your anchor will be lost no matter how careful you are. As a last resort, stamp or stencil your name, address and phone number on your anchor. A surprising number of anchors are recovered by SCUBA divers and could be returned to owners if their identity were known.

FIGURE I

"REEF ANCHOR"

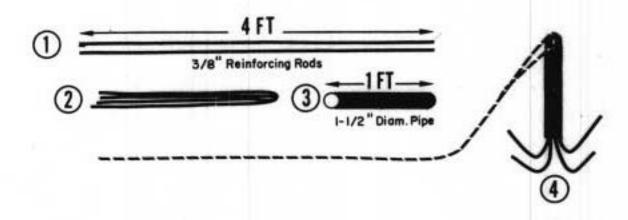


FIGURE 2 FLOAT TRIP LINE CINDER BLOCKS

Tips on Fishing an Artificial Reef

An important fact to remember when fishing on artificial reefs is that although a lot of good habitat has been sunk at a reef location, it is usually scattered. Therefore, if you don't catch many fish in one location, move a short distance and try again. Reef fish are very territorial and will not swim far even to feed.

Bottom Fishing:

Bottom fishing with live or cut bait will usually result in good catches of black sea bass, porgies, grunts or grouper. One of the most effective methods of fishing with cut bait is to use a double hooked dropper rig (Figure 4) baited with chunks of squid, shrimp or fish. When fishing with a dropper rig, do not cast but let your line fall straight down from your boat until it touches the bottom then take up the slack in your line until you can feel your sinker bumping the bottom. By fishing directly below your boat you will minimize the number of times you will snag your line and improve your chances of feeling the fish strike.

Fall flounder fishing can be fantastic on the reefs. The best way to catch flounder is to drag a live shrimp (Figure 5) or minnow along the bottom using one of the rigs illustrated. Unfortunately, flounder fishing will result in frequent snags, so be prepared; take plenty of terminal gear with you when the flounder are biting. Trout, channel bass, and blue fish are frequently caught while using this technique.

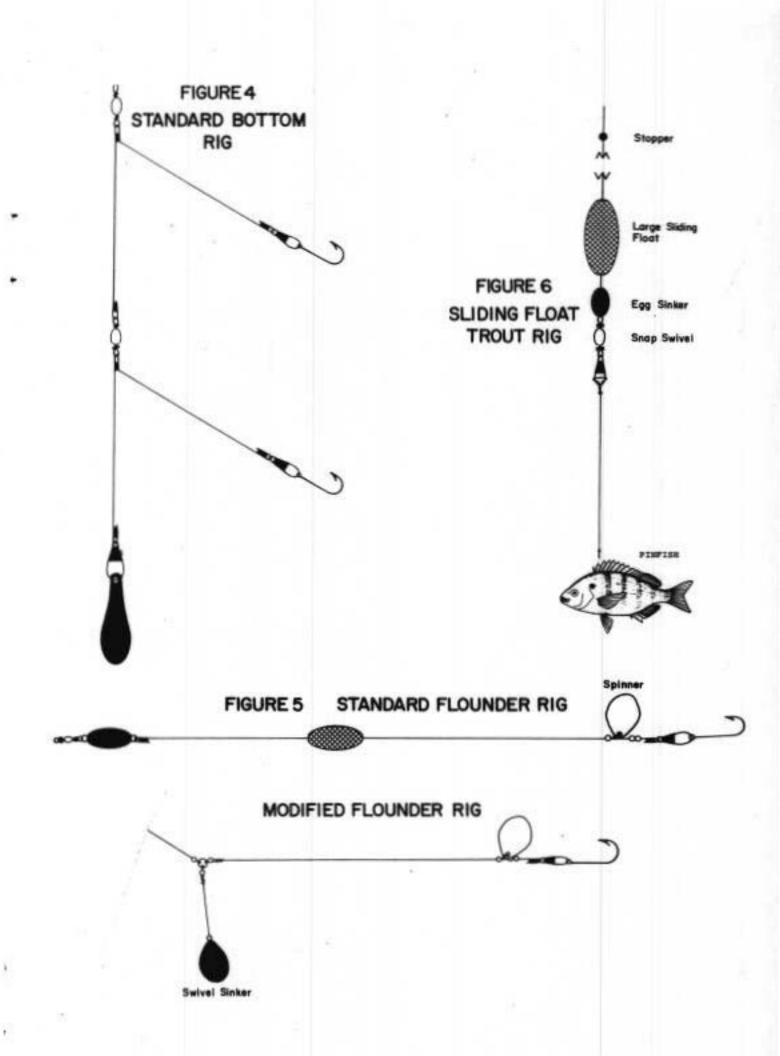
Float or Bobber Fishing:

Good catches of trout and other medium sized fish can be made while avoiding snags by drifting a live minnow or shrimp suspended three to five feet off the bottom with a sliding float trout rig as illustrated in Figure 6.

A live pinfish, sea bass or mullet drifted over the reef may produce a strike from a cobia, amberjack, barracuda, large king mackerel or big blue fish. Large plastic bobbers or ballons are usually used to keep the bait from seeking shelter in the reef material. Some of the fish caught this way may approach 100 pounds in weight, therefore use 30-50 pound class tackle and be prepared for a strong fight when using this technique.

Trolling:

Trolling on the reefs is usually best in the early morning before many anglers arrive and disturb the fish. Small spoons trolled fast near the surface from May through the fall are effective for catching Spanish mackerel. Deep running large spoons and plugs from the late spring through early fall are best for king mackerel. Planers or down riggers are usually employed for getting the lures down where the kings like to feed. Deep running rigged mullet or ballyhoo are often deadly when trolled over our reefs. Considerable skill is needed to rig these baits properly.



Hints for Diving on Reefs

South Carolina's artificial reefs are publicly funded, multipleuse facilities. Both sport divers and recreational anglers are equally welcome to use the reefs. Since diving activities and fishing activities are not always compatible, both the angler and the diver should make every effort to minimize conflicts on the reef sites.

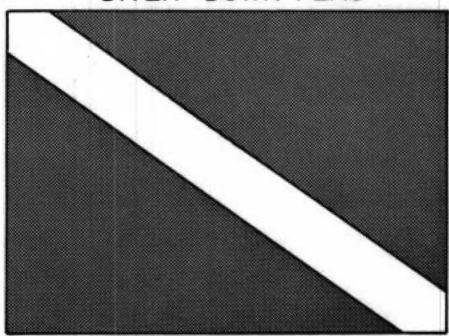
The following are a few facts and guidelines that may help avoid problems:

- As is the case with any public facility, the rule of first come, first served applies. However, don't monopolize a location if you are through using it.
- Divers do not necessarily scare fish away. In fact, divers dislodging small reef animals on the bottom often trigger feeding behavior in fish.
- 3. Divers must use and boaters must learn to recognize the DIVER BELOW FLAG which is illustrated in Figure 7. Boats must stay 300 feet from the flag when displayed in the ocean and 100 feet away in inland waters. Boat operators should always slow down and be on the lookout for bubbles or surfacing divers when entering an area where diving is being done. Divers, fish hooks and spinning propellers spell tragedy if mixed.
- 4. Divers should always observe diving safety procedures:
 - a. Never dive alone.
 - b. Plan your dive and then dive your plan.
 - c. Never hold your breath while ascending.
 - d. Display a diving flag.
 - e. Hand up, Look up, Come up.
 - Be sure of your equipment before entering the water.
 - g. Never leave your boat unattended when diving on a reef, always make sure that someone is left aboard your boat to maintain an anchor watch.
 - h. Be extra careful to keep track of your repetitive dives to avoid the bends.
 - Whenever possible, ascend and descend on your anchor line or special descending line to avoid losing contact with your boat.
 - Be extra careful when surfacing to avoid bumping your head, or even worse, being run over.
 - k. Most of the creatures that divers will find on the fish havens are harmless. The most likely animal to injure a diver is a sea urchin or barnacle, but also be on the lookout for scorpionfish (rare), the Portuguese man-of-war (also rare), the moray eel, or the occasional shark. When sharks are observed around a reef, it is advisable to postpone diving until a later date when they are not present. The odds of a shark attack are slim, but it is unwise to tempt fate.

- Spear fishermen should exercise discretion with regard to the type and number of fish speared and should always use the same safety precautions with spear guns as with fire arms.
- Because coral and other encrusting organisms growing on our reefs are essential to the fish as shelter and food, please don't destroy or remove them.
- Divers finding an anchor with owner identification can contact the S. C. Artificial Reef Coordinator by calling 803-795-6350 for assistance in returning it to the owner.

FIGURE 7

DIVER-DOWN FLAG



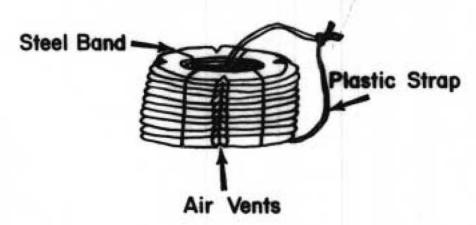
This red flag with white stripe indicates divers in the area.

How Old Tires Improve Your Fishing



TIRE BALER

COMPRESSED TIRE BALE



The baled tire unit was developed in South Carolina and is now being used in many states. The unit is held together with four steel bands and one plastic strap. When the bale is sunk in the ocean the steel straps corrode and break allowing the tires to expand against the plastic strap. Expanded bales anchor themselves in place by trapping sand and the complex shape provides excellent habitat for bottom dwelling fish.



EXPANDED TIRE BALE

Boating Safety

All of South Carolina reefs and wrecks are situated off-shore and as such require some special safety precautions:

File a float plan - let someone know where you are going and approximately what time you will return. Include a good description of your boat or the boat you will be riding in.

Make sure you have enough U.S. Coast Guard approved life jackets for everyone on board.

Don't go to sea in an inadequate boat. The small, highspeed run-about is great in protected waters, but it is a poor performer in a heavy sea.

Check with the S. C. Wildlife and Marine Resources Department Boating Division and get a list of safety equipment you should have for off-shore fishing. Take all of it with you, its always the item you leave behind that you need most in a crisis.

Don't forget extra fuel and extra drinking water.

Finally, check the weather before you go and keep a weather eye while you are out. When things begin to roughen up-head for shore.

Additional Publications From S.C. Marine Resources Division Recreational Fisheries Section

Billfishes, Mackerels, Tunas and Little Tunas of South Carolina by Donald L. Hammond and David M. Cupka

A Guide to Saltwater Recreational Fisheries in South Carolina by Charles J. Moore

Recreational Shellfish Guide by David M. Cupka and Margaret C. Pridgin

Saltwater Conversation (Bimonthly Newsletter)

