

SOUTH CAROLINA'S 1976 SHRIMP TRAWLER SEASON

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Abstract

Data concerning the shrimp trawler fishery of South Carolina were collected during the 1976 season by the Marine Resources Division. Of 62 Shrimp Buyer and Shipper License Holders, 37 were considered full-time shrimp packers, and were located on charts. Six hundred thirty-two single rig and 497 double rig trawlers were registered. Length, horsepower, and other data on trawlers were compiled by homeport county along with age, race, and location information on captains. Owners' motivation (i.e. commercial, recreational) and locations were evaluated. Catch, effort, value, and location data on shrimp landings were summarized for use by shrimpers, dealers, and researchers. The 1976 season was reviewed on a monthly basis.

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Introduction

The quantity and quality of information on the South Carolina shrimp fishery has increased in recent years as a result of the following activities:

1. the establishment of a Fisheries Statistics Section within the Division of Marine Resources of the South Carolina Wildlife and Marine Resources Department;
2. State/Federal investigations of the South Atlantic shrimp fishery (e.g., see Calder et. al., 1974; Eldridge and Goldstein, 1975; and Rhodes and Eldridge, 1975);
3. data collection (i.e. vessel, gear and personnel employment) by the National Marine Fisheries Service;

4. activities of the South Carolina Sea Grant Marine Extension Program (e.g., Roberts, 1975); and

5. other research such as the Feasibility Study of a Seafood Industrial Park for South Carolina (Mc Kenzie et. al., 1976) supported by the Coastal Plains Regional Commission.

These data, however, are widely dispersed, and there exists no summary of the overall shrimp trawler industry in South Carolina. The present report, then, is intended to accomplish three objectives:

1. to provide a base of socio-economic information concerning the South Carolina shrimp fishery which will facilitate initiation of future data collection and prevent duplication of effort;
2. to communicate this data base to the industry in usable summary form; and
3. to document the dynamic aspects of the industry such as trawler statistics, volume of landings, seasonal species composition, and prices.

Such data are available through the Fisheries Statistics Section of the South Carolina Wildlife and Marine Resources Department.

Shrimp Packing Houses

Shrimp Buyers and Shippers

Between July 1 and December 31, 1976, 62 Shrimp Buyer and Shipper licenses were sold in South Carolina by the License and Leasing Section of the Marine Resources Division. Shrimp Buyers and Shippers provide docking, unloading, heading, packing, and shipping facilities used by commercial shrimpers. In some cases, operators of packing houses owned one or more vessels and contracted verbally with other shrimpers for use of the docks' facilities. Some packing houses were run basically for and by family groups, while others had no ownership ties to vessels or family ties with the owners. During the 1976 season, one Buyer and Shipper in South Carolina was a true co-operative of boat owners.

Many docks operated solely to process shrimp. At others, fishery activities such as crab processing, oyster shucking, and finfish processing occurred. Related services as fuel and ice sales, net and gear storage, and railway service were available at many. Public sales of seafood, bait, net, traps, tackle, and ice occurred at some docks.

Table 1. Distribution of Shrimp Buyer and Shipper License holders and of full-time packing houses in South Carolina during 1976 by county.

County	Licenses sold (%)		Full-time packers (%)	
Georgetown	3	(5)	3	(8)
Charleston	23	(37)	16	(43)
Berkeley	1	(2)	0	(0)
Colleton *	7	(11)	5	(14)
Beaufort	26	(42)	13	(35)
Jasper	2	(3)	0	(0)

* Four of the Colleton County docks were in Charleston County until March 26, 1975 when Edisto Beach Island was annexed into Colleton County.

During 1976 several license holders handled shrimp from their own boats for bait or retail sales but did not market large quantities of shrimp. Other license holders probably did not operate during 1976. Thirty-seven Shrimp Buyers and Shippers were considered full-time packers, with dock-space, heading, packing, ice, and fuel facilities. Most of these were located in either Charleston or Beaufort County (Table 1).

Typically, shrimp dealers in South Carolina act as primary wholesalers; they buy from shrimpers and sell to secondary wholesalers (Mc Kenzie et. al., 1976). The shrimper pays for the service of having his shrimp headed and packed before selling to the dealer. Actually, the costs of these services are taken from the value of the shrimp before the shrimper receives payment, thereby resulting in a single transaction. Often the costs of ice and fuel purchases are similarly subtracted from the value of a shrimper's production before payment.

There is no significant shrimp processing in South Carolina, and local retailers, chain stores and restaurants each received less than five percent of the State's production. Dockside sales amounted to about six to eight percent. In contrast, approximately 50 percent was sold to out-of-state processors such as breaders. Other wholesalers received about 30 percent of the harvest, most of which was consumed out-of-state.

Locations and Addresses

Chart 1 depicts the coastline of South Carolina with inserts of Charts 2-10 which show the location of full-time commercial packing houses. Each location is numbered to correspond to the list of packing houses. (See Appendix).

Shrimp Trawlers

Trawler Statistics

The National Marine Fisheries Service considers trawlers as vessels or as boats. Vessels are documented with the Coast Guard as being five or more tons (100 cu. ft. = 1 ton), generally over 32 feet in length, and in most cases diesel powered. Boats are not documented, generally under 32 feet in length, and in most cases gasoline powered (Prytherch, personal communication^{1/}).

In accordance with Sections 28-944 and 28-945, South Carolina Code of Laws, resident and non-resident trawler owners who trawled for shrimp in South Carolina during fiscal year (FY) 1977 (July 1, 1976 through June 30, 1977) registered their boats and vessels with the License and Leasing Section of the Marine Resources Division (Form 1). A resident license cost is \$75.00, and a non-resident license cost is \$200.00.

Trawlers which shrimped the full 1976 season (May through December) were required to obtain two trawler licenses because the season overlapped two fiscal years. It is not known how many trawlers operated in May and June of 1976 and were not re-registered during FY 1977. Therefore, the total number of trawlers operating in South Carolina during the 1976 season is not accurately known. However, it is known that 1,129 trawler licenses were sold between July 1 and December 31, 1976, which included the major part of the season. Of these, 833 were homeported in-state and 296 homeported out-of-state (Table 2). Owners of 840 trawlers registered as residents, but seven of these homeported out-of-state. Two hundred eighty-nine trawlers were registered by non-residents. Following the boat-vessel criteria of the

^{1/}Prytherch, H. F., 1977. Fishery Reporting Specialist, National Marine Fisheries Service, Savannah, Georgia.

Form 1: Application for commercial shrimp trawler license used in South Carolina during Fiscal Year 1977 (1976 season).

SOUTH CAROLINA WILDLIFE AND MARINE RESOURCES DEPT.
(Marine Resources Division)

Application For South Carolina Trawler License
1976 - 1977

Office Use Only

Lic. #
Date

OWNER:.....

STREET:..... TELEPHONE NO.

CITY & STATE..... ZIP CODE

NAME OF BOAT..... REGISTERED
CAPTAIN.....

ADDRESS.....

U.S.C.G. OFFICIAL NO.....

S. S. NO.....

S. C. REGISTRATION NO..... AGE HGT. WGT. RACE.....

HOME PORT..... TELEPHONE NO.....

OVERALL LENGTH..... HORSEPOWER.....

INBOARD.....OUTBOARD.....DIESEL.....GAS.....

DOUBLE RIG.....SINGLE RIG.....NET SPREAD.....
(Floatline)

I, THE UNDERSIGNED APPLICANT, DO HEREBY DECLARE THAT I AM A RESIDENT.....
OR NON-RESIDENT..... OF THE STATE OF SOUTH CAROLINA, AND THE ABOVE TO BE THE
TRUE FACTS CONCERNING SAID BOAT.

.....
SIGNATURE OF OWNER OF BOAT

SWORN to before me this day of

....., 19.....

.....
Notary Public for South Carolina

My commission expires:.....

THIS APPLICATION MUST BE COMPLETED AND PRESENTED TO THE LICENSE AGENT WHEN
PURCHASING TRAWLER LICENSE FOR 1976-77.

Table 2. Data concerning all shrimp trawlers registered in South Carolina (July 1 through December 31, 1976), summarized by homeport county or state.

<u>County</u>	<u>No.</u>	<u>Percent of All Rigs</u>	<u>Length Range (Ft.)</u>	<u>Horsepower Range</u>	<u>Gasoline Powered</u>	<u>Diesel Powered</u>
Aiken	6	*	14-27	35-165	6	0
Allendale	4	*	16-26	80-125	3	1
Bamberg	3	*	14-19	115-135	3	0
Barnwell	2	*	14-17	30-60	2	0
Beaufort	324	29	12-73	8-461	199	125
Berkeley	7	*	16-24	70-190	7	0
Charleston	236	21	13-80	18-670	78	158
Colleton	55	5	14-78	35-400	33	22
Darlington	1	*	19	210	1	0
Georgetown	124	11	13-75	25-670	103	21
Hampton	23	2	14-21	40-220	23	0
Horry	10	1	14-70	35-365	5	5
Jasper	20	2	15-40	45-150	19	1
Kershaw	2	*	16-20	130-135	2	0
Marion	1	*	15	55	1	0
Newberry	3	*	15-18	40-65	3	0
Orangeburg	6	*	15-23	50-240	4	2
Richland	2	*	17	75-110	2	0
Spartanburg	1	*	21	155	1	0
Sumter	2	*	16-20	115-165	2	0
Williamsburg	1	*	19	110	1	0
In-State Totals	833	74	12-80	8-670	498	335
<u>State</u>						
Florida	14	1	23-80	140-365	1	13
Georgia	118	10	14-72	35-500	43	75
North Carolina	164	15	20-85	55-600	22	142
Out-of-State Totals	296	26	14-85	35-600	66	230
Totals	1,129	100	12-85	8-670	564	565

* Less than 1 percent.

National Marine Fisheries Service, 52 percent (587) of South Carolina's 1976 shrimp trawler fleet were boats, and 48 percent (542) were vessels. Beaufort, Charleston and Georgetown Counties had the majority of trawlers (61 percent) homeported at their docks. The extremes of length and horsepower were from these counties as well (Table 2).

Tables 3 and 4 present similar data for single and double rig trawlers. Fifty-six percent (632) of the trawlers registered were single rig, but less than four percent (45) were single rigs over 30 feet in length.

The large number of single rig trawlers in Beaufort County is due to shallow water shrimping done in protected sounds of that county. Most single rig boats shrimped only when sounds were open. Trailerable single rig boats were also concentrated at Mc Clellanville and Georgetown near Bulls Bay which is shrimped extensively by smaller boats because of its shallow waters.

As expected, double rig trawlers were homeported in coastal counties. These vessels were the major producers of commercial shrimp in the State. Beaufort and Charleston Counties accounted for almost half (241) of them. Somewhat surprisingly, 42 percent (211) of them were out-of-state trawlers some of which registered but never shrimped in South Carolina. Many unloaded regularly in South Carolina, but a substantial volume of shrimp caught in South Carolina was probably landed in other states and, therefore, never credited to the correct shrimping location. The same situation was probably true for the other South Atlantic States during 1976.

Trawler length data indicates again that many of the trailerable boats (up to 20 feet in length) were homeported near sounds in Beaufort County and in inland counties near Beaufort (Table 5).

Seventy-two percent (817) of registered trawlers were operated by their owners (Table 6). Many non-owner operated trawlers were operated by members of the owner's family. Most non-owner operated trawlers were 40 feet or more in length.

There were 1.41 times as many captains as trawlers licensed to shrimp during 1976 (Table 7). A trawler could be operated by any licensed captain, and in many cases two or more captains operated a single trawler during the season due to dual ownership, change of full-time captain, or loss of license by a captain. The average age of trawler operators was 36.6 years. Most of the captains resided in Beau-

fort (29.2%), Charleston (18.4%), and Georgetown Counties (12.9%). Negro captains lived in eight of 26 counties where captains lived, with Beaufort being the home of the majority (119). Caucasian captains lived in all 26 counties.

Motivation Survey

No distinction was made in licensing between commercial, commercial/recreational, and recreational shrimpers. Thus, neither a reliable estimate of the number of true commercial shrimpers nor a catch per commercial vessel figure exists for the South Carolina trawler fishery. Therefore, the Fisheries Statistics Section surveyed vessel owners by telephone after the 1976 shrimping season to determine their motivation for participating in the fishery. Commercial shrimpers were those who shrimped strictly for profit even though shrimping may or may not have been their major source of income. Recreational shrimpers worked to supply themselves, relatives, and friends with shrimp. Those who shrimped for themselves and to make profit were considered commercial/recreational. Vessel owners already identified as commercial shrimpers through the shrimp ticket system (described in SHRIMP SEASON DATA) or by commercial dealers were not contacted. All other resident and non-resident license holders who could be reached were asked the following questions:

1. Did you trawl for shrimp in South Carolina during 1976?

IF YES

2. a. Was it strictly recreational?
- b. Was it strictly commercial?
- c. Was it both?

IF RECREATIONAL

3. a. Roughly how many days did you shrimp in South Carolina?
- b. Roughly how many pounds did you catch?

IF COMMERCIAL OR BOTH

4. a. Did you sell to a a packing house? Which one?
- b. Did you sell to individuals or stores?
- c. Roughly how many days did you shrimp in South Carolina?
- d. Roughly how many pounds did you catch?

Table 3. Data concerning single rig shrimp trawlers registered in South Carolina (July 1 through December 31, 1976), summarized by homeport county or state.

County	No.	Percent of Single Rigs	Percent of All Rigs	Length Range (Ft.)	Horsepower Range	Each Net Range (Ft.)
Aiken	6	1	*	14-27	35-165	20-40
Allendale	4	*	*	16-26	80-125	30-50
Bamberg	3	*	*	14-19	115-135	20-40
Barnwell	2	*	*	14-17	30-60	20-30
Beaufort	209	33	19	12-40	8-280	15-50
Berkeley	7	1	*	16-24	70-190	18-60
Charleston	110	17	10	13-47	18-340	15-75
Colleton	34	5	3	14-27	35-270	20-45
Darlington	1	*	*	19	210	50
Georgetown	105	17	9	13-28	25-300	15-70
Hampton	23	4	2	14-21	40-220	25-50
Horry	6	1	*	14-38	35-200	24-70
Jasper	19	3	2	15-24	45-150	10-40
Kershaw	2	*	*	16-20	130-135	30-45
Marion	1	*	*	15	55	40
Newberry	3	*	*	15-18	40-65	18-40
Orangeburg	6	1	*	15-23	50-240	18-35
Richland	2	*	*	17	75-110	30-50
Spartanburg	1	*	*	21	155	20
Sumter	2	*	*	16-20	115-165	20-25
Williamsburg	1	*	*	19	110	45
In-State Totals	547	87	48	12-47	8-340	10-75
<u>State</u>						
Florida	1	*	*	23	225	33
Georgia	44	7	4	14-45	35-360	25-55
North Carolina	40	6	4	20-42	55-350	20-60
Out-of-State Totals	85	13	8	14-45	35-360	20-60
Totals	632	100	56	12-47	8-360	10-75

* Less than 1 percent.

Table 4. Data concerning double rig shrimp trawlers registered in South Carolina (July 1 through December 31, 1976), summarized by homeport county or state.

County	No.	Percent of Double Rigs	Percent of All Rigs	Length Range (Ft.)	Horsepower Range	Each Net Range (Ft.)
Beaufort	115	23	10	29-73	65-461	30-80
Charleston	126	25	11	20-80	60-670	30-100
Colleton	21	4	2	24-78	100-400	25-90
Georgetown	19	4	2	37-75	110-670	42-90
Horry	4	*	*	41-70	105-365	36-80
Jasper	1	*	*	40	120	40
In-State Totals	286	57	25	20-80	60-670	25-100
<u>State</u>						
Florida	13	3	1	25-80	140-365	25-80
Georgia	74	15	7	28-72	110-500	30-80
North Carolina	124	25	11	30-85	60-600	28-100
Out-of-State Totals	211	42	19	25-85	60-600	25-100
Totals	497	100	44	20-85	60-670	25-100

* Less than 1 percent.

Table 5. Numbers of trawlers in each length group registered in South Carolina (July 1 through December 31, 1976, summarized by homeport county or state.

County	Trawler Length (in feet)								Total
	10/20	21/30	31/40	41/50	51/60	61/70	71/80	81/90	
Aiken	3	3	0	0	0	0	0	0	6
Allendale	3	1	0	0	0	0	0	0	4
Bamberg	3	0	0	0	0	0	0	0	3
Barnwell	2	0	0	0	0	0	0	0	2
Beaufort	182	23	17	44	38	17	3	0	324
Berkeley	5	2	0	0	0	0	0	0	7
Charleston	62	29	34	27	36	36	12	0	236
Colleton	30	6	2	9	5	2	1	0	55
Darlington	1	0	0	0	0	0	0	0	1
Georgetown	98	7	2	5	2	4	6	0	124
Hampton	22	1	0	0	0	0	0	0	23
Horry	4	1	1	1	0	3	0	0	10
Jasper	18	1	1	0	0	0	0	0	20
Kershaw	2	0	0	0	0	0	0	0	2
Marion	1	0	0	0	0	0	0	0	1
Newberry	3	0	0	0	0	0	0	0	3
Orangeburg	5	1	0	0	0	0	0	0	6
Richland	2	0	0	0	0	0	0	0	2
Spartanburg	0	1	0	0	0	0	0	0	1
Sumter	2	0	0	0	0	0	0	0	2
Williamsburg	1	0	0	0	0	0	0	0	1
In-State Totals	449	76	57	86	81	62	22	0	833
Percent of Total	39.8	6.7	5.0	7.6	7.2	5.5	2.0	0	73.8
<u>State</u>									
Florida	0	1	1	0	5	5	2	0	14
Georgia	37	7	2	16	22	31	3	0	118
North Carolina	2	24	27	25	37	30	17	2	164
Out-of-State Totals	39	32	30	41	64	66	22	2	296
Percent of Total	3.5	2.8	2.7	3.6	5.7	5.8	1.9	0.2	26.2
Totals	488	108	87	127	145	128	44	2	1,129
Percent of Total	43.2	9.6	7.7	11.3	12.8	11.3	3.9	0.2	100

Table 6. Numbers and percents of owner and non-owner operated shrimp trawlers registered in South Carolina (July 1 through December 31, 1976), summarized by homeport county or state.

<u>County</u>	<u>Owner Operated</u>		<u>Non-Owner Operated</u>	
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
Aiken	6	100	0	0
Allendale	4	100	0	0
Bamberg	3	100	0	0
Barnwell	2	100	0	0
Beaufort	238	72	86	28
Berkeley	6	86	1	14
Charleston	157	66	79	34
Colleton	45	82	10	18
Darlington	1	100	0	0
Georgetown	96	77	28	23
Hampton	21	91	2	9
Horry	9	90	1	10
Jasper	18	90	2	10
Kershaw	2	100	0	0
Marion	0	0	1	100
Newberry	3	100	0	0
Orangeburg	6	100	0	0
Richland	1	50	1	50
Spartanburg	1	100	0	0
Sumter	2	100	0	0
Williamsburg	1	100	0	0
<hr/>				
In-State Totals	622	75	211	25
<u>State</u>				
Florida	10	71	4	29
Georgia	71	60	47	40
North Carolina	114	70	50	30
<hr/>				
Out-of-State Totals	195	66	101	34
Totals	817	72	312	28

Table 7. Numbers and average ages of trawler captains of each race licensed in South Carolina (July 1 through December 31, 1976), summarized by county or state of residence.

County	Negro		Caucasian		Unknown	Total	Over-all Avg. Age.
	Number	Avg. Age	Number	Avg. Age			
Aiken	0	-	14	37.9	1	15	38.3
Allendale	2	24.0	11	35.3	0	13	33.6
Bamberg	0	-	7	39.1	0	7	39.1
Barnwell	0	-	7	38.7	0	7	38.7
Beaufort	119	38.4	340	35.8	6	465	36.4
Berkeley	0	-	18	37.0	1	19	37.1
Calhoun	0	-	1	54.0	0	1	54.0
* Charleston	43	39.8	244	37.2	1	293	37.5
Colleton	5	32.2	78	34.4	1	84	34.3
Darlington	0	-	3	38.3	0	3	38.3
Dorchester	1	21.0	10	36.8	0	11	35.3
Fairfield	0	-	1	63.0	0	1	63.0
Florence	0	-	5	47.4	0	5	47.4
Georgetown	4	31.7	200	32.1	1	205	32.0
Greenville	0	-	4	38.0	0	4	38.0
Hampton	1	55.0	35	38.5	0	36	39.0
Horry	0	-	21	42.3	0	21	42.3
Jasper	3	27.6	40	34.8	0	43	34.3
Kershaw	0	-	4	37.5	0	4	37.5
Marion	0	-	1	34.0	0	1	34.0
Newberry	0	-	3	43.0	0	3	43.0
Orangeburg	0	-	11	43.1	0	11	43.1
Richland	0	-	4	32.2	0	4	32.2
Spartanburg	0	-	1	58.0	0	1	58.0
Sumter	0	-	2	44.0	1	3	46.6
Williamsburg	0	-	3	34.3	0	3	34.3
In-State Totals	178	38.0	1,068	35.8	12	1,263	36.1
<u>State</u>							
Florida	0	-	9	42.7	1	10	40.3
Georgia	33	43.4	119	35.7	2	154	37.5
North Carolina	4	44.2	156	38.8	2	162	39.0
Ohio	0	-	1	47.0	0	1	47.0
Out-of-State Totals	37	43.5	285	37.5	5	327	38.3
Totals	215	38.6	1,353	36.1	17	1,590	36.6

* There were five additional captains listed who were non-caucasian and non-negro - the average age was 32.2. These are included in the totals.

A determination of motivation was made for 92 percent (1,043) of the 1,129 trawlers licensed (Table 8). An estimated 87 percent (257) of out-of-state trawlers were strictly commercial compared to 48 percent (397) of in-state trawlers. Of all trawlers, 63 percent (712) were considered commercial or commercial/recreational by their owners (Table 9). Ninety-six percent (475) of the double rigs and 38 percent (237) of the single rigs were commercial or commercial/recreational. Strictly recreational vessels included less than 1 percent (4) of double rigs and 47 percent (298) of the single rigs. Ten percent (115) of license holders did not shrimp.

Since reports of landings data were required from holders of Buyer and Shipper licenses and not from individual trawler operators, only commercially landed shrimp were reported. Therefore, a catch per recreational vessel could not be determined accurately. Considering only the commercial and commercial/recreational trawlers, a figure of 7,700 pounds (heads-off) per vessel was estimated for shrimp trawlers working in South Carolina during 1976. This index, when compared to those for future seasons, should reveal any trend in the catch per vessel figure.

Shrimp Season Data

Acquisition

Collection of catch, effort, location, and value data on the trawler fishery in South Carolina is the responsibility of the Fisheries Statistics Section of the Marine Resources Division. The Section collected catch data by two methods during 1976.

1. Shrimp Buyers and Shippers are required by law to file Monthly Dealer Reports with the License and Leasing Section of the Marine Resources Division. These reports detail the number of pounds of shrimp by size (count of heads-off shrimp per pound) packed by each dealer but included no information on effort, catch, location, or value.

2. The Fisheries Statistics Section employed a voluntary confidential shrimp-landing ticket system to collect other types of information. During the 1976 season 21 dealers supplied a landing or trip ticket (Form 2) for each trawler unloading at their dock. For the season 9,662 tickets covering 55 percent of the State's production were obtained. Three hundred sixty-four trawlers registered after July 1 from all coastal counties were represented. Each ticket contained the following data elements: dealer name, vessel or

shrimper name, unloading date, general shrimping location, shrimping effort in whole days, pounds of shrimp by size count, and finfish pounds unloaded, if any. The ticket was designed also for use by dealers in their bookkeeping. It included spaces for price per pound, total value, and dockside transactions such as sale of ice and fuel. Since the ticket was composed of three no-carbon-required sheets, dealers were told the copy to be sent to the Fisheries Statistics Section could be torn out before any confidential business data were added.

When received, trip tickets were checked for completeness and processed by computer. A current heads-off price list supplied by a major dealer was used to determine value unless the individual dealer entered the price per pound on the tickets.

Species composition data collected by port samplers from each shrimping location were incorporated with the catch and effort data from the tickets. Three types of reports were generated.

a. A weekly table of species composition for all sizes of shrimp and locations of catches was produced along with a list of all unloadings showing each ticket's data and a breakdown of the catch by size and species.

b. A confidential three part dealer report was prepared showing (1) total catch and effort with catch per effort for each vessel, (2) total catch and effort with average daily pounds for all vessels, and (3) a breakdown of catch showing pounds, percent of total, and value for each species by size group.

c. A location report showed the catch, value, and species composition of landings from each location.

These reports could be generated to cover any time periods.

Other methods of collecting pertinent data included dockside and telephone interviews carried out primarily by one full time and two summer aide port samplers. These port samplers obtained locational catch and species composition data useful to the Marine Resources Division in making decisions on the opening and closing of seasons in specific locations. They also responded to requests for information from shrimpers and dealers.

Evaluation

Five general shrimping areas in South Carolina produced over one-half million pounds of shrimp (heads-off) during 1976, and for four of these areas the value of the catch exceeded one million dollars (Table 10). The two most

Table 8. Number of trawlers registered in South Carolina (July 1 through December 31, 1976), according to motivation of owners and summarized by homeport county or state.

<u>County</u>	<u>Commercial</u>	<u>Recreational</u>	<u>Both</u>	<u>No Trawl</u>	<u>Unknown</u>
Aiken	1	2	0	2	1
Allendale	1	3	0	0	0
Bamberg	0	2	0	1	0
Barnwell	1	1	0	0	0
Beaufort	145	93	27	34	25
Berkeley	0	3	1	1	2
Charleston	150	44	9	18	15
Colleton	26	18	5	4	2
Darlington	0	1	0	0	0
Georgetown	34	48	13	20	9
Hampton	1	12	3	4	3
Horry	4	2	0	4	0
Jasper	3	7	3	2	5
Kershaw	0	1	0	0	1
Marion	0	0	0	0	1
Newberry	0	3	0	0	0
Orangeburg	0	5	1	0	0
Richland	0	2	0	0	0
Spartanburg	0	1	0	0	0
Sumter	0	2	0	0	0
Williamsburg	0	0	1	0	0
In-State Totals	366	250	63	90	64
<u>State</u>					
Florida	13	0	0	1	0
Georgia	82	16	4	6	10
North Carolina	143	2	0	7	12
Out-of-State Totals	238	18	4	14	22
Totals	604	268	67	104	86
Percent of Total	53.4	23.8	5.9	9.2	7.7

Table 9. Results of survey to determine motivation (i.e. commercial or recreational) of owners of shrimp trawlers registered in South Carolina (July 1 through December 31, 1976) with expanded estimates including those owners not reached.

<u>Known Motivation</u>	<u>Survey Results</u>		<u>Expanded</u>
	<u>Trawlers</u>	<u>%</u> ^{1/}	<u>Estimates</u>
			<u>Trawlers</u> ^{2/}
Commercial single rigs	144	25.7	162
Recreational single rigs	264	47.1	298
Comm. and Rec. single rigs	67	11.9	75
Total - Did trawl - single rigs	475	84.7	535
Did not trawl - single rigs	86	15.3	97
Total single rigs	561	100.0	632
Commercial double rigs	460	95.5	475
Recreational double rigs	4	0.8	4
Comm. and Rec. double rigs	0	0.0	0
Total - Did trawl - double rigs	464	96.3	479
Did not trawl - double rigs	18	3.7	18
Total double rigs	482	100.0	497
Total - Known Motivation	1,043	-	-
<u>Unknown Motivation</u>			
Single rigs	71	-	-
Double rigs	15	-	-
Total - Unknown Motivation	86	-	-
Total - Known and Unknown Motivation	1,129		

^{1/} Percent of single or of double rigs of Known Motivation

^{2/} Estimates include trawlers of Unknown Motivation

Table 10. Estimated volume and value of shrimp taken from specified shrimping areas of South Carolina during 1976 and landed at commercial packing houses in South Carolina, with open season dates, average price per pound, and percent of the State's total volume.

<u>Bays and Sounds</u>	<u>Open Season Dates</u>	<u>Thousands Heads-off Pounds</u>	<u>Thousands of Dollars</u>	<u>Average Value/Lb.</u>	<u>Percent of Total</u>
Bulls Bay	7/4-7/20, 9/15-12/8	128	205	1.61	2.3
St. Helena Sound	9/15-11/26	321	471	1.50	5.8
Port Royal Sound	9/15-12/8	214	424	1.98	3.9
Calibogue Sound	9/15-12/8	<u>91</u>	<u>171</u>	<u>1.88</u>	<u>1.6</u>
Totals for Bay and Sounds		754	1,271	1.69	13.6
<u>Off-Shore Areas</u>					
Murrell's Inlet to Winyah Bay	6/1-11/26	205	444	2.17	3.7
Winyah Bay to Cape Romain	5/14-12/8	406	726	1.79	7.3
Cape Romain to Price Inlet	5/14-12/8	569	1,308	2.30	10.2
Price Inlet to Jetties	5/14-12/8	565	1,118	1.99	10.1
Jetties to Lighthouse Inlet	5/14-12/8	720	939	1.30	12.9
Lighthouse to Stono Inlet	5/14-12/8	239	588	2.46	4.3
Stono Inlet to Jeremy Inlet	5/14-12/8	517	1,185	2.29	9.3
Jeremy Inlet to Fripp Inlet	5/14-12/22	726	1,402	1.93	13.0
Fripp Inlet to Port Royal	5/14-12/22	261	599	2.29	4.7
Port Royal to Savannah River	5/14-12/22	408	864	2.12	7.3
Out-of-State	-	<u>107</u>	<u>307</u>	<u>2.88</u>	<u>1.9</u>
Totals for Off-Shore Areas		4,723	9,480	2.01	84.7
Beaufort Co. Channel Net (part)	9/15-12/8	<u>98</u>	<u>101</u>	<u>1.04</u>	<u>1.8</u>
Totals		5,575	10,852	1.95	100.0

Note: These 1976 data do not include commercial catches made in South Carolina and unloaded out of state. Also not included are catches made by recreational fishermen who did not unload at commercial docks.

important areas in terms of volume of shrimp caught were from Jeremy Inlet southward to Fripp Inlet and from Charleston's South Jetty to Lighthouse Inlet (Morris Island). The highest catch value (1.4 million dollars) was obtained in the area from Jeremy Inlet to Fripp Inlet, while the second highest value was realized from the area between Cape Romain and Price Inlet. Charleston County accounted for the greatest volume and value of shrimp landings (Table 11).

White shrimp were by far the most important species taken, which has been true since 1967 (Table 12). The peak volume of white shrimp was landed in September and October and that of brown shrimp in July. The value of May white (roe) shrimp exceeded that of the far greater volume of July brown shrimp due to their large size.

The 1976 fall white shrimp catch of 3,107,000 pounds (heads-off) was down from the 1975 catch of 3,590,000 pounds but the total 1976 catch (5,573,000 pounds) was not greatly below that of 1975 (5,690,000 pounds) because of increased landings of spring white (roe) shrimp and summer brown shrimp during 1976. The 11.1 million dollar value of South Carolina's 1976 shrimp harvest was a record, although during 1971 and 1975 more shrimp were landed. Prices paid to shrimpers were especially high during the Spring (Table 13).

Statistical Publications

As well as collecting information for use by the Marine Resources Division and the shrimp industry itself, the Fisheries Statistics Section prepared catch and value data on all South Carolina fisheries for formal publication by the National Marine Fisheries Service in the following and other periodic publications.

1. South Carolina Landings -

This monthly publication included the total pounds and value of each fish and shellfish species reported landed in each of the three districts of South Carolina's coast. Shrimp were not reported by species. Monthly State totals were given and compared to landings of the corresponding month of the previous year. Also given were cumulative totals of landings during the calendar year. South Carolina Landings, Annual Summary gave the year's total by district, the State's annual landings compared to the previous year's totals, and an updated listing for each month.

2. Shrimp Landings - Presented in this monthly series was the pounds, size, and value of heads-off shrimp of each species landed in South Carolina. An Annual Summary of Shrimp Landings

gave annual totals and updated monthly totals of data supplied in Shrimp Landings.

Data from these publications and other more detailed information of the shrimp fishery are available from the Fisheries Statistics Section at Fort Johnson near Charleston.

Month-by-Month Review of 1976 Season

January - Unusual catches of 50 to 70 count (heads-off shrimp per pound) white shrimp were taken during January more than three miles off Beaufort County. Normally no commercial shrimp landings are recorded during January. The lowest average water temperature reached during the 1975-76 winter off Charleston Harbor was 50° F. in early January.

February - No shrimp landings were reported during February 1976. Post-larval brown shrimp began to enter South Carolina estuaries in significant numbers during the third week of the month.

March - A few catches of white shrimp were made off Beaufort County or northern Georgia. One landing of pink shrimp was made from Florida. The largest peak of post-larval brown shrimp recruitment was recorded on March 23.

April - Early white roe shrimp catches were made in April, mostly off Hilton Head Island and the North Edisto River area. Shrimpers received \$3.40 to \$3.80 for 20-30 count (heads-off) shrimp. Spawning activity of white roe shrimp began during the last week of April, reached its peak during the second week of May, and continued through June.

May - The inshore (within three miles of beaches) trawling season opened May 14 in South Carolina except for the area north of the South Santee River which by law cannot be opened before June 1. Prior to May 14 catches of white shrimp mixed with up to 14 percent pink shrimp were caught in all areas south of Bulls Bay. White shrimp of less than 25 count (heads-off) brought over \$4.00 per pound during May and June. The first brown shrimp, about 90 in count size (heads-off), were taken off Hilton Head during the first week of the season. During the last week of May most areas produced 60-90 count (heads-off) brown shrimp which were retailed at docks. Catches of 80 count (heads-off) shrimp made off Hilton Head were 20 percent pink shrimp. The first post-larvae white shrimp were collected at Breach Inlet on May 21.

June - Unusually large catches of pink shrimp, up to 25 percent of some catches, were taken in many areas the first week but declined sharply thereafter. The contribution of white shrimp to the total catch declined all month particularly in the northern areas. Brown shrimp per-

Table 11. Volume and value (in thousands of pounds and dollars) of shrimp (heads-off) landed during each month of 1976 in each South Carolina county having commercial docks.

	Georgetown		Charleston		Colleton		Beaufort		Total	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
January	0	0	0	0	1	1	20	22	21	23
February	0	0	0	0	0	0	0	0	0	0
March	0	0	0	0	0	0	3	6	3	6
April	0	0	4	13	*	*	5	16	9	30
May	22	88	227	862	12	47	201	796	463	1,793
June	103	188	435	848	32	72	194	416	764	1,525
July	150	223	471	830	25	44	211	383	857	1,479
August	47	86	342	629	45	73	234	378	669	1,166
September	125	286	603	1,177	69	119	408	802	1,205	2,385
October	218	349	435	892	26	44	214	442	894	1,726
November	28	37	319	444	14	17	257	379	617	876
December	0	0	20	20	6	7	46	54	72	82
Totals	693	1,257	2,856	5,715	230	424	1,793	3,694	5,573	11,090

* Less than 500 pounds or dollars

Note: Totals may not agree due to rounding to thousands.

Table 12. Volume and value (in thousands of pounds and dollars) of white, brown, and pink shrimp (heads-off) landed in South Carolina each month of 1976.

	White Shrimp		Brown Shrimp		Pink Shrimp		All Shrimp		Accumulative Totals	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
January	21	23	0	0	0	0	21	23	21	23
February	0	0	0	0	0	0	0	0	21	23
March	2	4	0	0	1	2	3	6	24	29
April	9	30	0	0	0	0	9	30	32	59
May	446	1,730	4	13	13	50	463	1,793	495	1,851
June	212	723	547	787	5	15	764	1,525	1,259	3,376
July	42	105	815	1,374	0	0	857	1,479	2,116	4,856
August	388	692	280	473	0	0	669	1,166	2,785	6,021
September	1,137	2,226	67	156	0	0	1,205	2,385	3,990	8,406
October	893	1,725	1	1	0	0	894	1,726	4,884	10,132
November	617	876	0	0	0	0	617	876	5,501	11,008
December	72	82	0	0	0	0	72	82	5,573	11,090
Totals	3,839	8,216	1,714	2,804	19	67	5,573	11,090	-	-

Note: Totals may not agree due to rounding to thousands.

Table 13. Ex-vessel prices (heads-off) paid by a Southern Breader, before heading and packing charges were removed, for shrimp landed in South Carolina during 1976, with effective dates.

	<u>4-19-76</u>	<u>4-29-76</u>	<u>5-14-76</u>	<u>5-18-76</u>	<u>6-15-76</u>	<u>6-17-76</u>	<u>6-22-76</u>	<u>6-30-76</u>	<u>7-02-76</u>
16/20	-	-	4.15	4.25	4.25	4.25	4.15	-	-
21/25	3.60	3.80	3.95	4.05	4.05	4.05	4.00	4.00	3.75
26/30	3.40	3.60	3.85	3.95	3.70	3.70	3.55	3.45	3.30
31/35	3.13	3.35	3.50	3.55	3.35	3.25	3.20	3.10	3.00
36/40	2.68	3.00	3.10	3.20	2.75	2.60	2.45	2.35	2.30
41/45	2.40	2.60	2.60	2.60	2.20	1.95	1.85	1.85	1.80
46/50	2.30	2.40	2.40	2.40	1.95	1.70	1.55	1.55	1.55
51/55	2.00	2.10	2.10	2.10	1.55	1.30	1.25	1.25	1.25
56/60	1.80	1.85	1.85	1.85	1.25	1.10	1.05	1.10	1.10
61/70	1.30	-	1.60	1.60	.95	.95	.95	1.00	1.00
Over 70	-	-	-	-	.70	.70	.70	.90	.90

	<u>7-09-76</u>	<u>7-23-76</u>	<u>7-28-76</u>	<u>7-30-76</u>	<u>8-02-76</u>	<u>8-12-76</u>	<u>8-18-76</u>	<u>8-24-76</u>
16/20	4.20	4.00	3.75	3.00	3.00	3.20	3.40	3.65
21/25	3.85	3.65	3.35	2.85	2.50	2.90	3.10	3.35
26/30	3.40	3.00	2.60	2.20	2.20	2.45	2.55	2.85
31/35	2.95	2.60	2.20	2.00	2.00	2.25	2.35	2.65
36/40	2.25	2.00	1.95	1.85	1.90	2.15	2.25	2.50
41/45	1.90	1.90	1.85	1.75	1.80	2.00	2.05	2.20
46/50	1.70	1.70	1.65	1.60	1.60	1.90	1.95	2.10
51/55	1.45	1.50	1.50	1.40	1.50	1.70	1.75	1.85
56/60	1.30	1.30	1.30	1.30	1.30	1.50	1.60	1.70
61/70	1.10	1.10	1.20	1.20	1.20	1.35	1.45	1.60
Over 70	.90	.90	.90	.90	.90	.90	.90	.90

	<u>9-01-76</u>	<u>9-04-76</u>	<u>9-07-76</u>	<u>9-09-76</u>	<u>9-10-76</u>	<u>9-13-76</u>	<u>9-15-76</u>	<u>9-21-76</u>
16/20	3.90	-	3.90	3.90	3.75	-	-	3.70
21/25	3.55	3.40	3.55	3.45	3.40	3.45	3.45	3.35
26/30	3.00	2.85	3.00	3.00	2.90	2.95	2.95	2.80
31/35	2.85	2.70	2.85	2.85	2.70	2.85	2.85	2.55
36/40	2.60	2.50	2.60	2.55	2.40	2.55	2.35	2.20
41/45	2.35	2.20	2.25	2.25	2.10	2.25	1.85	1.80
46/50	2.20	2.10	2.15	2.05	1.90	2.00	1.75	1.70
51/55	2.10	1.90	2.05	1.85	1.80	1.85	1.65	1.60
56/60	1.90	1.75	1.85	1.60	1.60	1.65	1.45	1.40
61/70	1.60	1.60	1.60	1.40	1.40	1.40	1.25	1.20
Over 70	.90	.90	1.00	.95	.95	.95	.85	.85
Over 80	-	.70	.80	.80	.80	-	-	.75

	<u>9-28-76</u>	<u>10-13-76</u>	<u>10-15-76</u>	<u>10-28-76</u>	<u>11-02-76</u>	<u>11-11-76</u>	<u>11-18-76</u>	<u>11-29-76</u>
16/20	3.75	-	3.50	3.50	3.60	3.80	-	4.15
21/25	3.40	3.25	3.25	3.25	3.25	3.35	3.55	3.70
26/30	2.85	2.70	2.60	2.75	2.85	3.00	3.20	3.40
31/35	2.60	2.45	2.35	2.45	2.55	2.70	2.90	3.00
36/40	2.25	2.10	2.00	2.15	2.25	2.30	2.35	2.45
41/45	1.85	1.70	1.60	1.70	1.80	1.90	2.00	2.05
46/50	1.75	1.60	1.50	1.60	1.70	1.80	1.85	1.90
51/55	1.65	1.50	1.40	1.50	1.60	1.70	1.70	1.75
56/60	1.45	1.30	1.30	1.40	1.50	1.50	1.55	1.60
61/70	1.25	1.10	1.10	1.20	1.45	1.45	1.45	1.50
Over 70	.90	.75	.90	.90	.95	1.00	1.00	1.00
Over 80	.80	-	-	-	-	-	-	-

centages and sizes increased all month for all areas.

July - The peak inshore movement of post-larval white shrimp was recorded during July. The first sub-commercial size white shrimp were taken during the second week of July, and during the third week the first commercial size catches were made off Hunting Island. Unusually small brown shrimp (98 count, heads-off) in extremely large volumes (up to 800 pounds per boat per day) were caught near the north jetty of Winyah Bay during early July. Bulls Bay was opened to trawling from July 14 through July 20. Catches of brown shrimp there were moderate the first day but fell to about 50 pounds per boat per day thereafter.

August - By early August white shrimp were available in all areas south of Charleston Harbor. Whites off Morris Island regularly were smaller than in other areas. By mid-month roe white shrimp had disappeared from the fishery, and the percentages of small brown shrimp began falling off in Beaufort County. Most count groups contained mixed brown and white shrimp in the Mc Clellanville and Georgetown areas. These areas produced good catches of browns by the end of the month. On August 19 and 20 dock and boat owners prepared for Hurricane Dottie. She made landfall near Charleston on the afternoon of the twentieth in a state much weaker than expected and caused no damage.

September - Brown shrimp catches declined steadily and made up less than ten percent of the catch by the end of the month. A few small pink shrimp were taken off Mc Clellanville and northward. The Sounds and Bays were opened to trawling on September 15. There was little activity in Winyah Bay or North Santee Bay during the inshore season. Moderate catches of white shrimp mixed with about 12 percent browns were made in Bulls Bay during September but fell off thereafter. Early catches in St. Helena and Port Royal Sounds were very good, averaging 600 to 800 pounds per boat per day. Calibogue Sound produced about 400 pounds per boat per day. All catches made in the Beaufort County Sounds were white shrimp. As expected catches fell off sharply after the first three days, and many boats returned to outside shrimping grounds. A large number of Georgia boats shrimped the South Carolina Sounds because the Georgia Sounds did not open until October due to heavy rainfall. The two States consulted on opening dates but were unable to coordinate their openings.

October - Small numbers of large brown shrimp remained in the fishery at Rockville up to the end of the month.

White shrimp in all count groups were taken all month from most areas particularly the Sounds. Morris Island produced relatively large volumes of 60 to 70 count (heads-off) shrimp during the last week of October. The area from Bulls Island to Winyah Bay entrance was extremely productive during the entire month.

November - Channel netters and a few trawlers were making large catches of undersize (100 count, heads-off) white shrimp in Winyah and North Santee Bays so those areas were closed on November 4. During the first week many boats left South Carolina for Florida where 21 to 25 count (heads-off) white shrimp were being caught. By mid-month white shrimp of up to 120 count (heads-off) were being taken by channel net above St. Helena Sound on the Coosaw River, and by trawler from St. Helena Sound. Extremely large numbers of small shrimp were being taken off the entrance to Winyah Bay. For these reasons the following areas were closed to shrimping activity on November 26: (1) all areas north of South Santee River, (2) South Santee River channel net area, (3) Coosaw River channel net area, and (4) St. Helena Sound. November was the coldest month in Charleston since 1742; low water temperatures caused small white shrimp to move seaward earlier than normal.

December - The early seaward movement of large numbers of small shrimp continued through December. The trawling season in Calibogue Sound was extended beyond December 1 because large white shrimp were still available although mixed with small shrimp. Shrimp of over 110 count (heads-off) were caught at Morris Island, Edisto Beach Island, Fripp Island, and Calibogue Sound. On December 8 the following areas were closed to shrimping: (1) between South Santee River and Edisto Beach Island inclusive, (2) Port Royal and Calibogue Sound, and (3) all remaining channel net areas. The situation continued to worsen until the decision was made to close all remaining areas, namely south of Edisto Beach Island, on December 22. Very little effort was spent in any areas after December 15.

The opening and closing of relatively small shrimping areas during 1976 were accomplished as a result of the passage of legislation (Section 28 - 861.5) dividing the coastline of South Carolina into three zones. They are:

1. Northern zone - from the North Carolina line to the southern end of Cedar Island at the South Santee River.

2. Central zone - from the southern end of Cedar Island to the southern tip of Edisto Island at the South

Edisto River.

3. Southern zone - from the southern end of Edisto Island to the Georgia line.

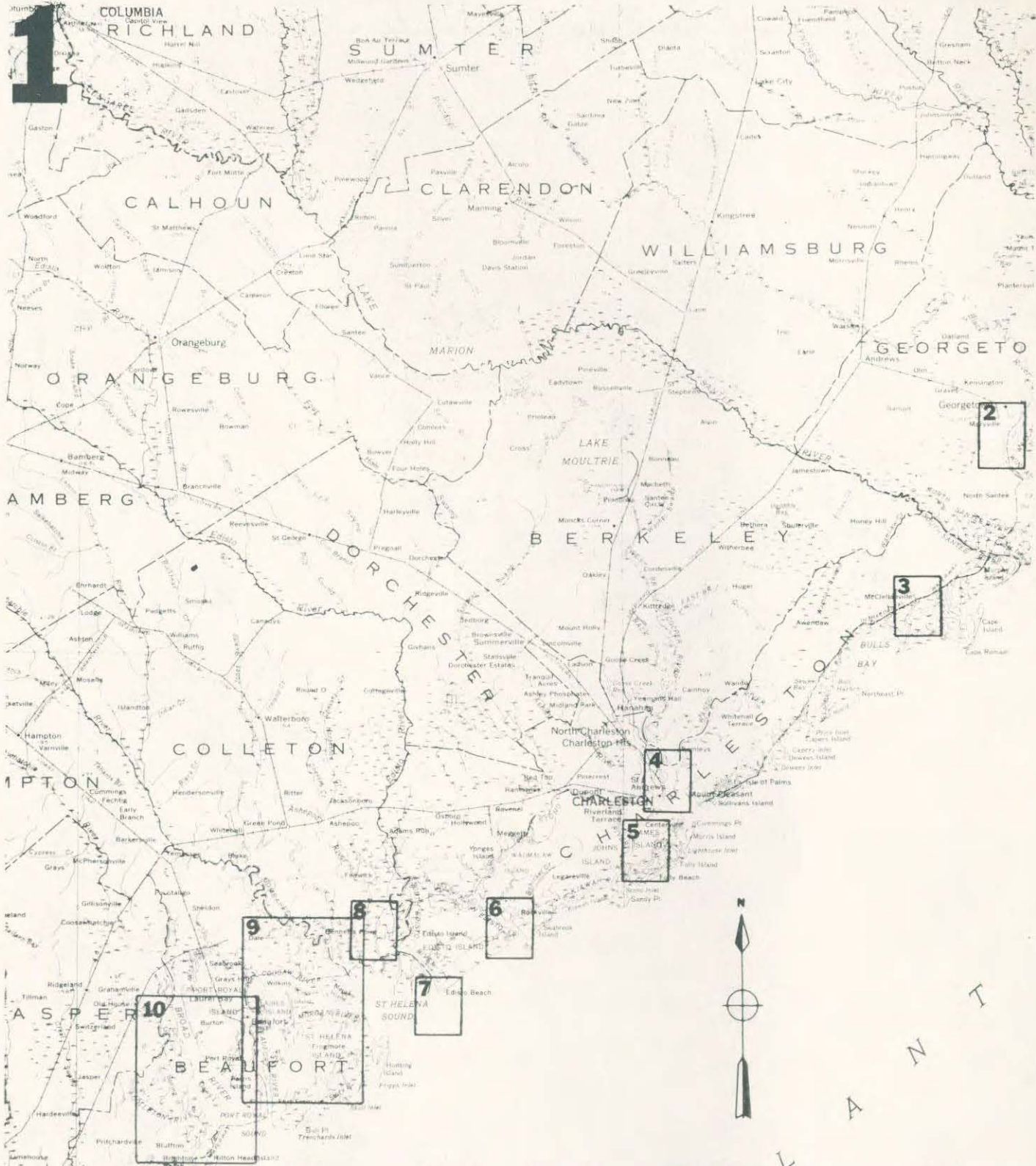
Any of these zones or areas within them can be opened or closed to trawling or any other commercial fishing activity by the Wildlife and Marine Resources Commission. The law proved effective when large volumes of very small shrimp moved into open shrimping grounds.

Summary

An estimated 63 percent (712) of trawlers registered in South Carolina produced the 1976 commercial shrimp harvest. Ten percent (115) did not shrimp, and 27 percent (302) were strictly recreational. Nearly all commercial landings (5,573,000 pounds, heads-off) were made at 37 packing houses mostly in Charleston (2,856,000 pounds) and Beaufort Counties (1,793,000 pounds). About 55 percent (3,085,000 pounds) of the landings were recorded on the Fisheries Statistics Section ticket system, including catch, effort, value, and location information. These and other data should prove useful to shrimpers, dealers, and researchers interested in South Carolina's shrimp trawler fishery.

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Index Chart

1976 Shrimp Packing Houses- Georgetown and Charleston Counties

CHART 2 GEORGETOWN (Georgetown County)

1. Leonard and Son Shrimp Co.
Operator: Danny Leonard
P. O. Box 1073
Georgetown, S. C. 29440
Phone Number: 546-3816
2. Independent Seafood
Operator: Glennie Tarbox
1 Cannon St.
Georgetown, S. C. 29440
Phone Number: 546-6642
3. R. Y. Cathou and Sons
Operator: R. Y. Cathou
St. James St.
Georgetown, S. C. 29440
Phone Number: 546-5441

CHART 3 MC CLELLANVILLE (Charleston County)

4. Bulls Bay Seafood
Operator: Tom Duke
Box 366
Mc Clellanville, S. C. 29458
Phone Number: 887-3519
5. Carolina Seafood
Operator: Rutledge Leland
P. O. Box 285
Mc Clellanville, S. C. 29458
Phone Number: 887-3713
6. S. C. Crab Co., Inc.
Operator: Billy Marlowe
P. O. Box 123
Mc Clellanville, S. C. 29458
Phone Number: 887-3544

CHART 4 SHEM CREEK (Charleston County)

7. Mt. Pleasant Seafood Company
Operator: Walter Toler
Box 378
Mt. Pleasant, S. C. 29464
Phone Number: 884-4122
8. Moultrie Fisheries
Operator: Red Simmons
P. O. Box 30
Mt. Pleasant, S. C. 29464
Phone Number: 884-9831
9. Jenkins Seafood
Operator: Kenny Jenkins
130 Mill St.
Mt. Pleasant, S. C. 29464
Phone Number: 884-8611

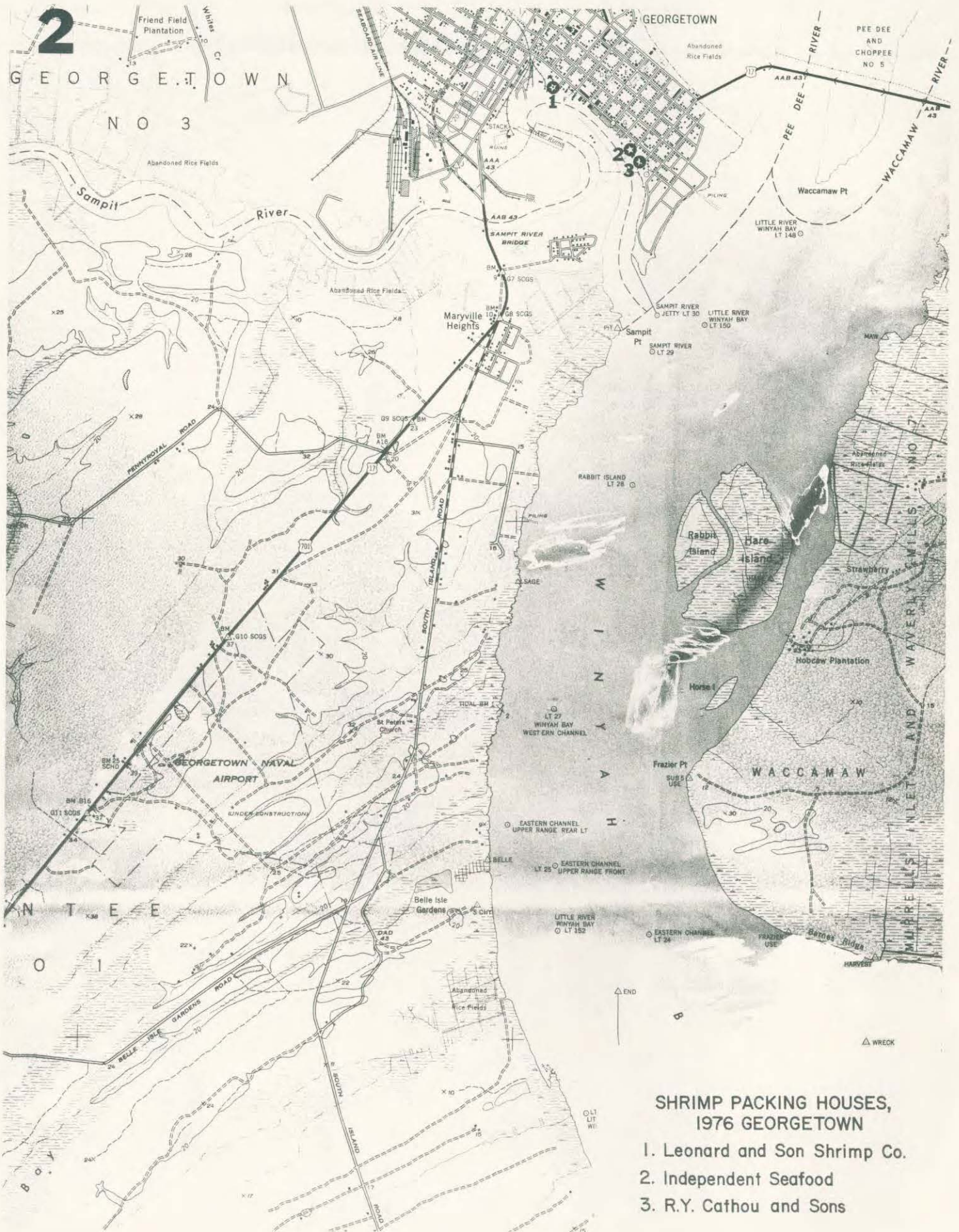
10. C. A. Magwood and Sons
Operator: Junior Magwood
110 Haddrell St.
Mt. Pleasant, S. C. 29464
Phone Number: 884-3352
11. Wando Shrimp Company
Operator: Jeff Thelning
102 Haddrell St.
Mt. Pleasant, S. C. 29464
Phone Number: 884-9933

CHART 5 FOLLY BEACH AREA (Charleston County)

12. Backman Seafood Co.
Operator: Thomas Backman
Rt. 5, Box 182A
Charleston, S. C. 29412
Phone Number: 795-2393
13. Massenburg Shrimp Dock
Operator: Ralph Massenburg, Jr.
Rt. 5, Bowen's Island
Charleston, S. C. 29412
Phone Number: 795-5652
14. Folly Beach Seafood and Net
Operator: Earl Glines
Folly Rd.
Folly Beach, S. C. 29439
Phone Number: 588-2015
15. Ott Seafood Company
Operator: Carl Ott
Box 298
Folly Beach, S. C. 29439

CHART 6 ROCKVILLE (Charleston County)

16. Rockville Seafood Company
Operator: Wilson Ambrose
Box 298C
Wadmalaw Island, S. C. 29487
Phone Number: 559-9755
17. Hart Shrimp Company
Operator: R. M. Hart
Wadmalaw Island, S. C. 29487
Phone Number: 559-1438
18. East Coast Seafood
Operator: Jimmy Green
Rt. 1, Box 280
Wadmalaw Island, S. C. 29487
Phone Number: 559-1377
19. Cherry Point Seafood
Operator: D. H. Stephens
Wadmalaw Island, S. C. 29487
Phone Number: 559-9666



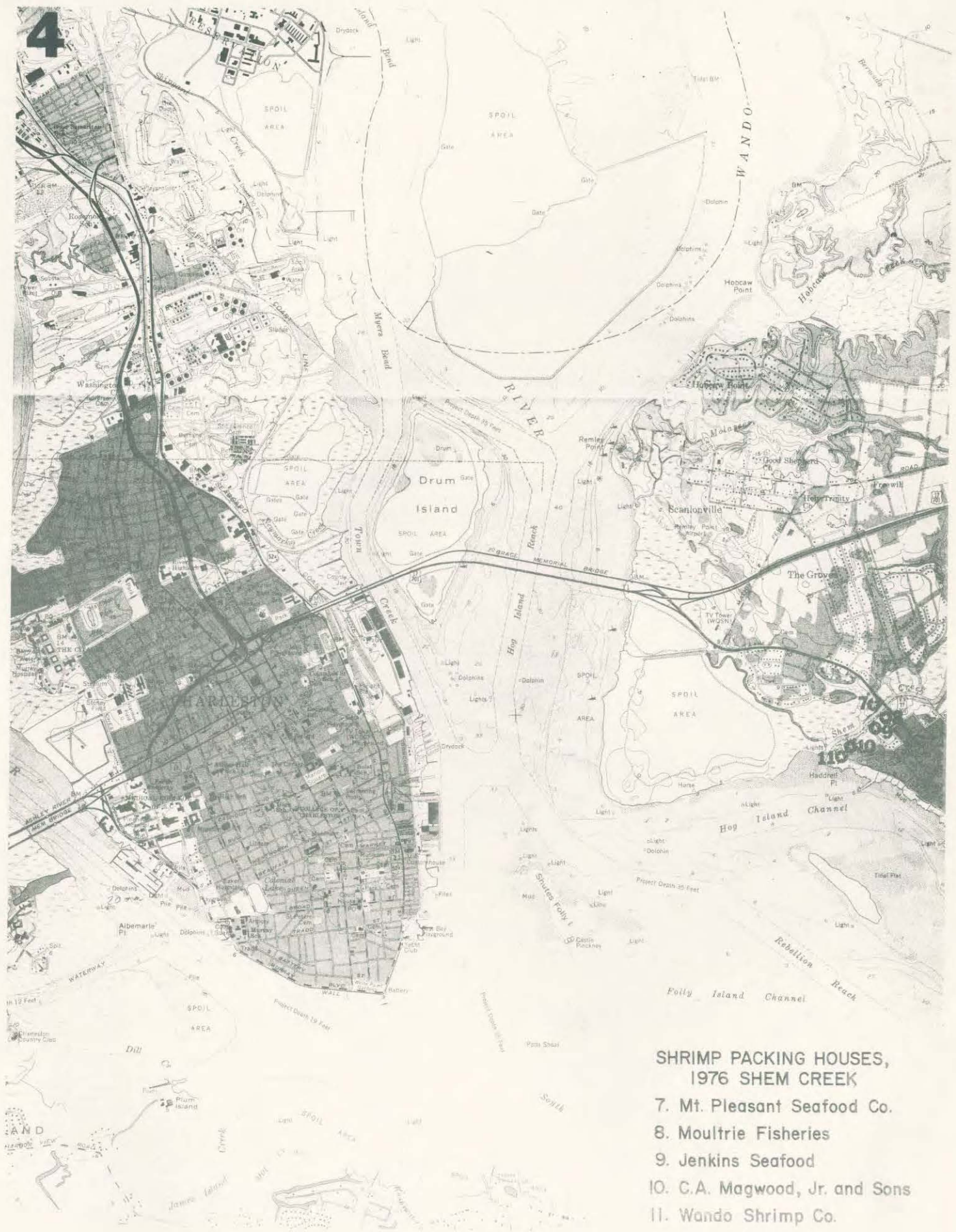
**SHRIMP PACKING HOUSES,
1976 GEORGETOWN**

1. Leonard and Son Shrimp Co.
2. Independent Seafood
3. R.Y. Cathou and Sons



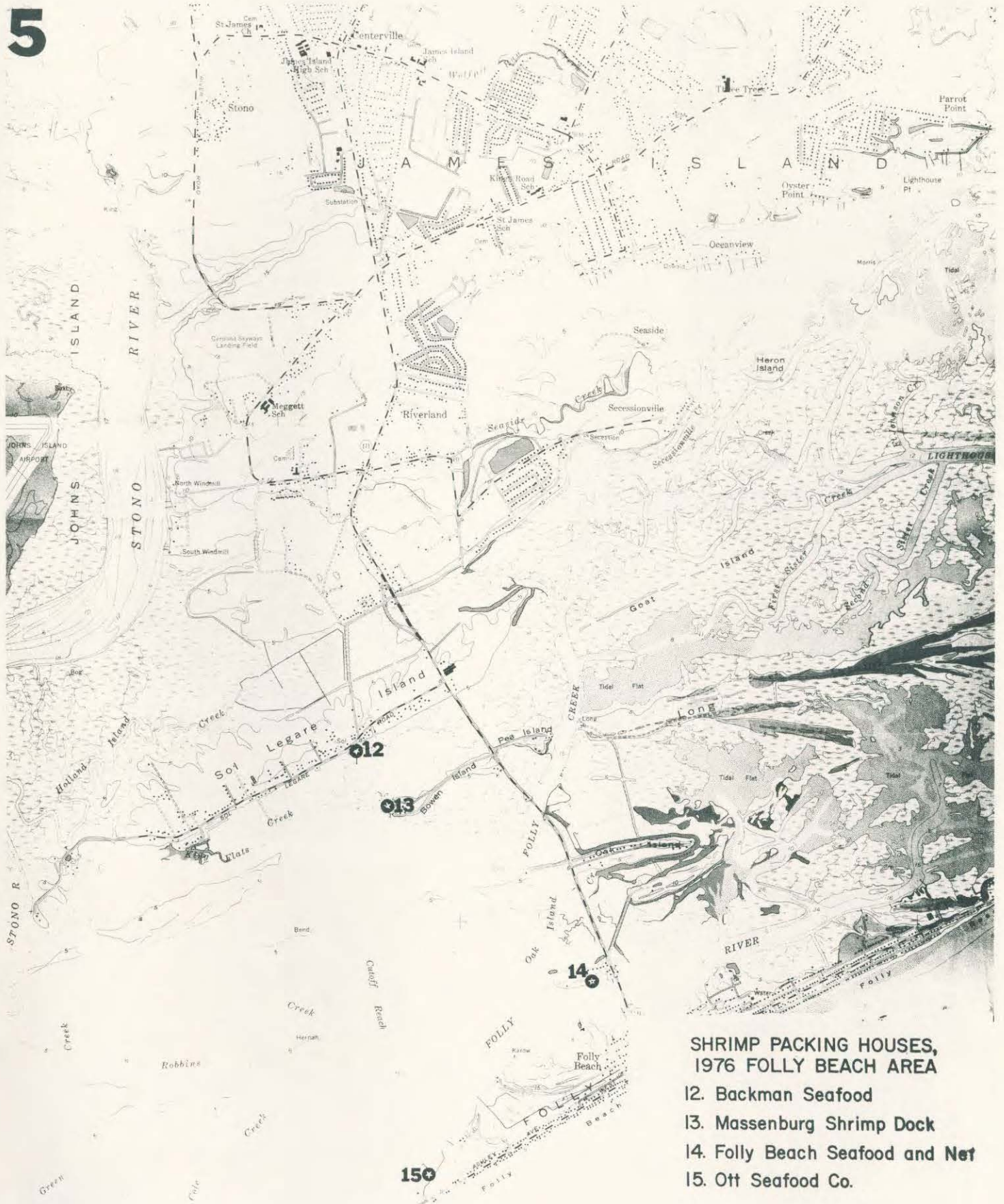
**SHRIMP PACKING HOUSES,
1976 McCLELLANVILLE**

- 4. Bulls Bay Seafood
- 5. Carolina Seafood
- 6. S.C. Crab Co., Inc.



**SHRIMP PACKING HOUSES,
1976 SHEM CREEK**

- 7. Mt. Pleasant Seafood Co.
- 8. Moultrie Fisheries
- 9. Jenkins Seafood
- 10. C.A. Magwood, Jr. and Sons
- 11. Wando Shrimp Co.



**SHRIMP PACKING HOUSES,
1976 FOLLY BEACH AREA**

- 12. Backman Seafood
- 13. Massenburg Shrimp Dock
- 14. Folly Beach Seafood and Net
- 15. Ott Seafood Co.

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**SHRIMP PACKING HOUSES,
1976 ROCKVILLE**

- 16. Rockville
- 17. Hart Shrimp Co.
- 18. East Coast Seafood
- 19. Cherry Point Seafood

A T L A N T I C

1976 Shrimp Packing Houses- Colleton and Beaufort Counties

CHART 7 EDISTO BEACH (Colleton County)

- 20. Edisto Marine Service
Operator: Ted Fontaine
Rt. 1, Box 137
Edisto Beach, S. C. 29438
Phone Number: 869-2568
- 21. Bell Buoy Seafood
Operator: Weldon Bell
Bay Point
Edisto Beach, S. C. 29438
Phone Number: 869-2222
- 22. Flowers Shrimp House
Operator: Steve Flowers
Rt. 1, Box 13AA
Edisto Island, S. C. 29438
Phone Number: 869-2412
- 23. Edisto Beach Seafood
Operator: George Fontaine
Rt. 1, Box 475
Edisto Beach, S. C. 29438
Phone Number: 869-2366

CHART 8 BENNETT'S POINT (Colleton County)

- 24. W. S. Baldwin Seafood
Operator: Billy Baldwin
Rt. 2, Box 52
Green Pond, S. C. 29446
Phone Number: 844-2322

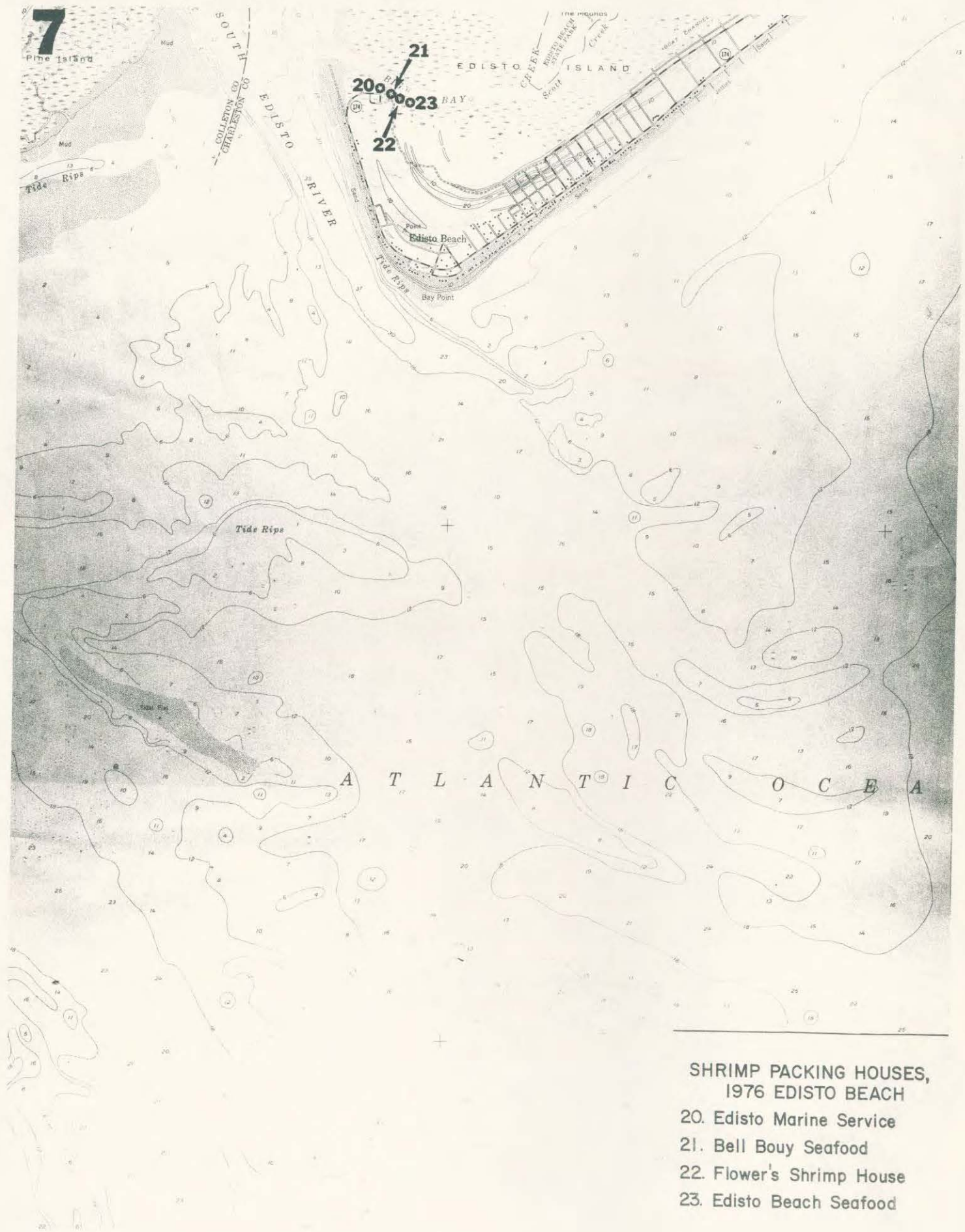
CHART 9 BEAUFORT AREA (Beaufort County)

- 25. Sea Island Seafood
Operator: John Harter
P. O. Box 566
Port Royal, S. C. 29935
Phone Number: 524-2431
- 26. H. H. Von Harten & Sons Seafood
Operator: Bubba Von Harten
P. O. Box 150
Beaufort, S. C. 29902
Phone Number: 524-3939
- 27. Gault Fish Company, Inc.
Operator: Bob Gault
Star Rt., Box 201A
Beaufort, S. C. 29902
Phone Number: 524-4230
- 28. Coastal Seafood, Inc.
Operator: W. F. Lubkin
P. O. Box 628
Beaufort, S. C. 29902
Phone Number: 838-2831
- 29. Chaplin and Sons Seafood Co.
Operator: Jack Chaplin
Coffin's Point
Frogmore, S. C. 29920
Phone Number: 838-2681

- 30. Fripp Point Seafood
Operator: Mrs. W. Golden
P. O. Box 117
Frogmore, S. C. 29920
Phone Number: 838-2326
- 31. Porpoise Fish Company
Operator: Norman Gay
Box 88
Beaufort, S. C. 29902
Phone Number: 838-2311
- 32. Kinard Seafood
Operator: George Kinard
Duke St.
Frogmore, S. C. 29920
Phone Number: 838-3336
- 33. Shipman Seafood Company
Operator: Joe Shipman
Coffin's Point
Frogmore, S. C. 29920
Phone Number: 838-2381
- 34. Gay Fish Company
Operator: John Gay
Rt. 1
Frogmore, S. C. 29920
Phone Number: 838-2763

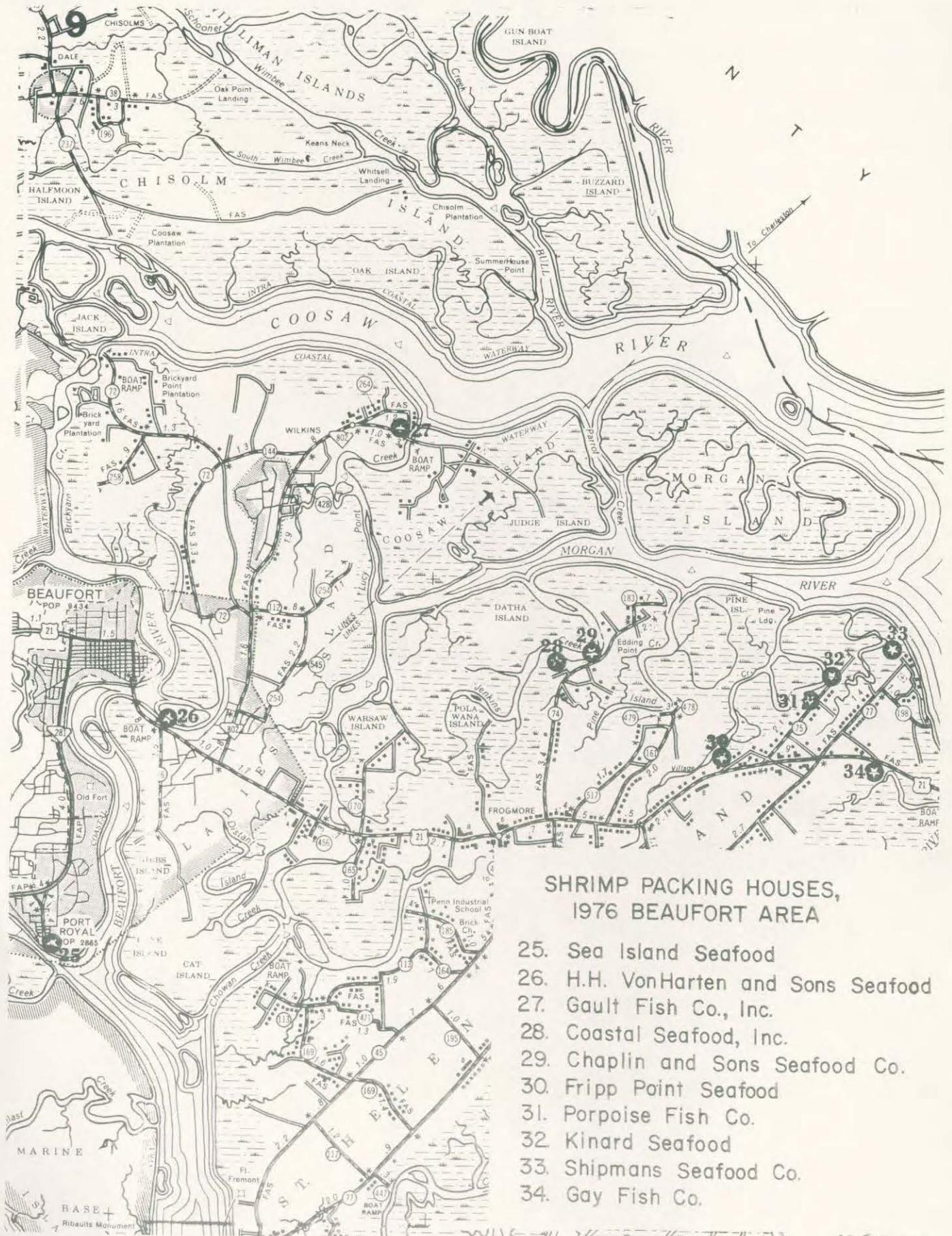
CHART 10 HILTON HEAD AREA (Beaufort County)

- 35. Colleton River Shrimp
Operators: Raymond Beach and
Henry Padgett
P. O. Box 1131
Hilton Head, S. C. 29928
Phone Number: 757-3278
- 36. Hilton Head Fishing Coop.
Operator: David Jones
P. O. Box 1067
Hilton Head, S. C. 29928
Phone Number: 785-2989
- 37. Hudson Seafood Company
Operator: Brian Carmines
P. O. Box 1056
Hilton Head, S. C. 29928
Phone Number: 785-2772



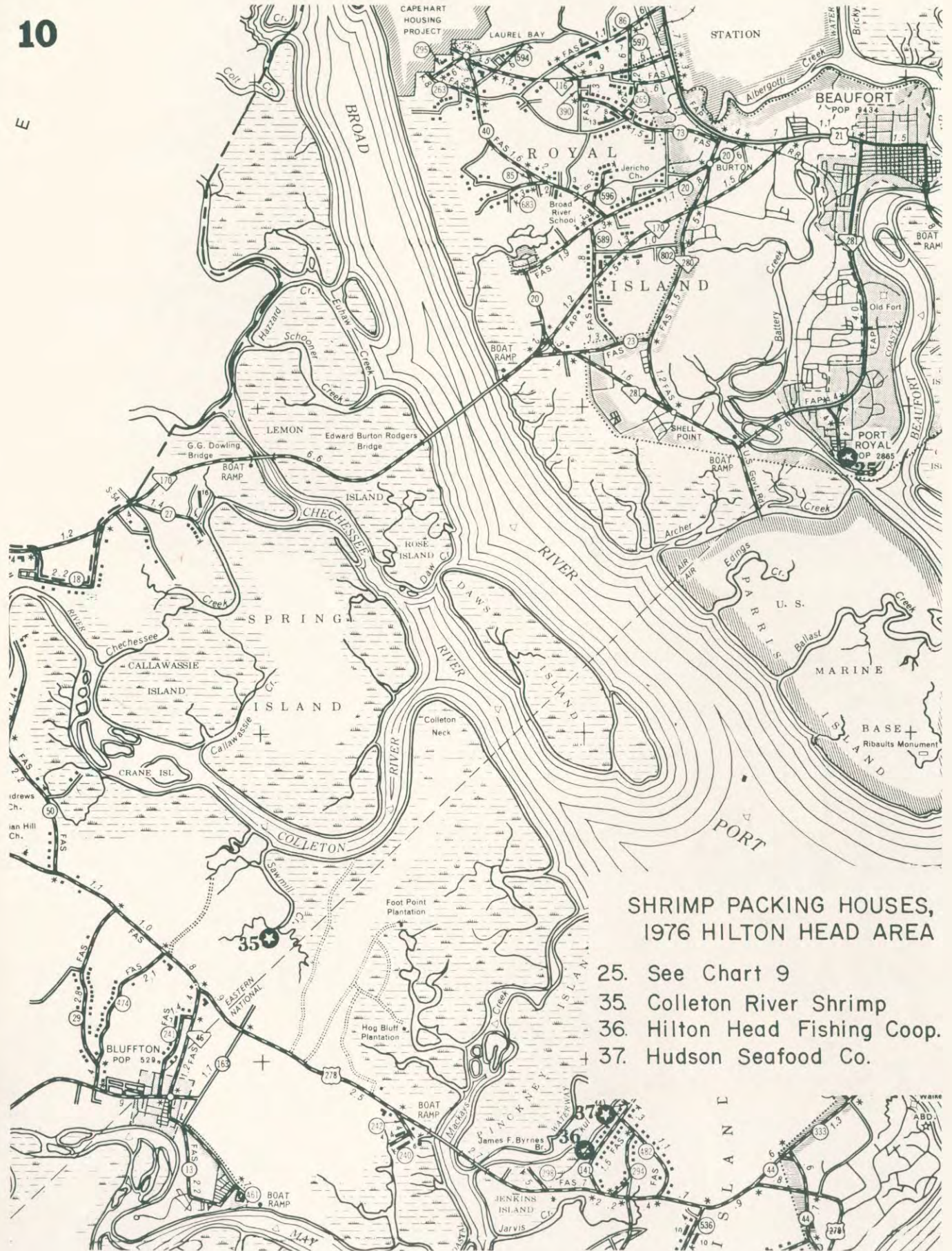


SHRIMP PACKING HOUSE,
 1976 BENNETTS POINT
 24. W.S. Baldwin Seafood



**SHRIMP PACKING HOUSES,
1976 BEAUFORT AREA**

- 25. Sea Island Seafood
- 26. H.H. VonHarten and Sons Seafood
- 27. Gault Fish Co., Inc.
- 28. Coastal Seafood, Inc.
- 29. Chaplin and Sons Seafood Co.
- 30. Fripp Point Seafood
- 31. Porpoise Fish Co.
- 32. Kinard Seafood
- 33. Shipmans Seafood Co.
- 34. Gay Fish Co.



**SHRIMP PACKING HOUSES,
1976 HILTON HEAD AREA**

- 25. See Chart 9
- 35. Colleton River Shrimp
- 36. Hilton Head Fishing Coop.
- 37. Hudson Seafood Co.