

NOAA Technical Memorandum

NMFS-SEFC-129



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SURVEY OF CHARTERBOAT CAPTAINS IN
THE SOUTHEASTERN UNITED STATES, 1982

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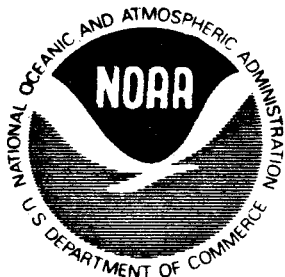
March 1984

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Southeast Fisheries Center
Panama City Laboratory
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Panama City, Florida 32407-7499

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William G. Gordon, Assistant Administrator for Fisheries

INTRODUCTION

A pilot study to evaluate the feasibility of obtaining recreational fishing data under contract with charterboat captains was conducted by personnel of the National Marine Fisheries Service (NMFS), Southeast Fisheries Center, Panama City Laboratory, during 1982. Captains who conducted chartered fishing trips off the southeastern United States coast were contracted to provide daily records of their catch and effort to us. The purpose of this report is to make available the detailed data provided by each of the survey participants.

METHODS

Nine charterboat captains from five regions (Figure 1) participated in the survey. Log sheets (Figure 2) and self-addressed, government-franked envelopes were provided to the captains, who completed the form using the following definitions:

1. Fishing Zone -- Three distinct fishing zones were defined: estuarine or bay waters (zone 1), offshore waters less than ten fathoms deep (zone 2), and offshore waters over ten fathoms deep (zone 3). When more than one zone was fished, all pertinent numbers were recorded.
2. Fishing Method -- "Troll" was defined as fishing activity undertaken with the boat moving under power. "Bottom" included all other fishing, including "conventional" bottom-fishing, drift-fishing, and flylining.
3. Hours Actually Fished -- Only actual fishing times, rounded to the nearest half-hour, were reported. Running times when hooks were not in the water were specifically excluded.
4. Species and Number Caught -- The catches of all species were reported. Any species not included in the printed list of twenty-four were identified in lines 25 through 30 and the number of fish that were caught was noted in the appropriate column.

Each week, log sheets were mailed to the Panama City Laboratory, where the data were transcribed into a computerized system that archived the data and provided analyses.

RESULTS AND INTERPRETATION

Appendix Tables 1 through 9 are the data listings by region and fishing method. The elements of the Appendix Tables are defined as:

1. Date -- the actual date fishing activity occurred.
2. Zone -- fishing in multiple zones is reported as:
 - zone 4 (i.e., fished in zones 1 and 2);
 - zone 5 (i.e., fished in zones 1 and 3);
 - zone 6 (i.e., fished in zones 2 and 3);
 - zone 7 (i.e., fished in zones 1, 2, and 3).
3. Hours fished -- the total number of hours fished by a single boat on all of its trips on one day using a particular method.

4. Catch per species -- each catch is reported in a "species-code(number-caught)" format; that is, of each pair of numbers, the species code (Table 1) is on the left and the number of fish that were caught is on the right in parentheses. For example, the first entry in Appendix Table 1 shows that fifty bluefish were caught.
5. Continuation lines -- when more than one line is required to display a day's catch data, the catches are continued on the next line but the date, zone, and hours-fished are not repeated (see Appendix Table 1, May 29). However, when a continuation must extend from the bottom of one column to the top of the next column, the trip information is repeated in the new column and a "+" is inserted after the hours-fished (see Appendix Table 2, October 13).

Table 1. Common names, scientific names, and numeric codes of reported species.

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>	<u>SPECIES CODE</u>
Albacore	<u>Thunnus alalunga</u>	32
Almaco jack	<u>Seriola rivoiliana</u>	41
Atlantic bonito	<u>Sarda sarda</u>	8
Atlantic croaker	<u>Micropogonias undulatus</u>	27
Atlantic sharpnose shark	<u>Rhizoprionodon terraenovae</u>	56
Banded rudderfish	<u>Seriola zonata</u>	66
Bar jack	<u>Caranx ruber</u>	67
Black drum	<u>Pogonias cromis</u>	43
Black grouper	<u>Mycteroperca bonaci</u>	19
Black sea bass	<u>Centropristis striata</u>	15
Blackfin tuna	<u>Thunnus atlanticus</u>	23
Blacktip shark	<u>Carcharhinus limbatus</u>	29
Blue marlin	<u>Makaira nigricans</u>	38
Blue runner	<u>Caranx crysos</u>	7
Bluefin tuna	<u>Thunnus thynnus</u>	65
Bluefish	<u>Pomatomus saltatrix</u>	5
Cero	<u>Scomberomorus regalis</u>	25
Cobia	<u>Rachycentron canadum</u>	2
Conger eels	Congridae	44
Crevalle jack	<u>Caranx hippos</u>	12
Cusk-eels	Ophidiidae	47
Dolphin	<u>Coryphaena hippurus</u>	24
Dusky shark	<u>Carcharhinus obscurus</u>	75
Flounder	<u>Paralichthys sp.</u>	70
Gafftopsail catfish	<u>Bagre marinus</u>	73
Gag	<u>Mycteroperca microlepis</u>	17
Gray snapper	<u>Lutjanus griseus</u>	54
Gray triggerfish	<u>Balistes capriscus</u>	20
Great barracuda	<u>Sphyrna barracuda</u>	11
Greater amberjack	<u>Seriola dumerili</u>	13
Hammerhead shark	<u>Sphyrna sp.</u>	35
Horse-eye jack	<u>Caranx latus</u>	74
Houndfish	<u>Tylosurus crocodilus</u>	40
Jewfish	<u>Epinephelus itajara</u>	64
King mackerel	<u>Scomberomorus cavalla</u>	1
Kingfish	<u>Menticirrhus sp.</u>	45
Ladyfish	<u>Elops saurus</u>	9
Lane snapper	<u>Lutjanus synagris</u>	42
Lesser amberjack	<u>Seriola fasciata</u>	72
Little tunny	<u>Euthynnus alletteratus</u>	6
Lookdown	<u>Selene vomer</u>	71
Mako	<u>Isurus sp.</u>	33
Morays	Muraenidae	51
Mutton snapper	<u>Lutjanus analis</u>	60
Pinfish	<u>Lagodon rhomboides</u>	30
Porgies	Sparidae	50
Rainbow runner	<u>Elagatis bipinnulata</u>	57

Table 1 (continued). Common names, scientific names, and numeric codes of reported species.

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>	<u>SPECIES CODE</u>
Red drum	<u>Sciaenops ocellatus</u>	4
Red grouper	<u>Epinephelus morio</u>	18
Red snapper	<u>Lutjanus campechanus</u>	14
Rock sea bass	<u>Centropristis philadelphica</u>	69
Sailfish	<u>Istiophorus platypterus</u>	39
Sand seatrout	<u>Cynoscion arenarius</u>	28
Scamp	<u>Mycteroperca phenax</u>	16
Searobins	Triglidae	46
Seatrout	<u>Cynoscion sp.</u>	58
Sharks	Squaliformes	36
Sheepshead	<u>Archosargus probatocephalus</u>	34
Silky shark	<u>Carcharhinus falciformis</u>	59
Skipjack tuna	<u>Euthynnus pelamis</u>	68
Soapfish	<u>Rypticus sp.</u>	53
Spadefish	<u>Chaetodipterus faber</u>	63
Spanish mackerel	<u>Scomberomorus maculatus</u>	3
Spinner shark	<u>Carcharhinus brevipinna</u>	52
Spotted seatrout	<u>Cynoscion nebulosus</u>	31
Tarpon	<u>Megalops atlanticus</u>	10
Toadfish	<u>Opsanus sp.</u>	48
Tripletail	<u>Lobotes surinamensis</u>	61
Vermillion snapper	<u>Rhomboplites aurorubens</u>	62
Wahoo	<u>Acanthocybium solanderi</u>	22
Warsaw grouper	<u>Epinephelus nigritus</u>	37
White marlin	<u>Tetrapturus albidus</u>	55
Yellowfin grouper	<u>Mycteroperca venenosa</u>	49
Yellowfin tuna	<u>Thunnus albacares</u>	21
Yellowtail snapper	<u>Ocyurus chrysurus</u>	26

Figure 1. Charterboat sampling ports, 1982, showing (1) estuarine zones, (2) oceanic zones less than 10 fathoms, and (3) oceanic zones greater than 10 fathoms.

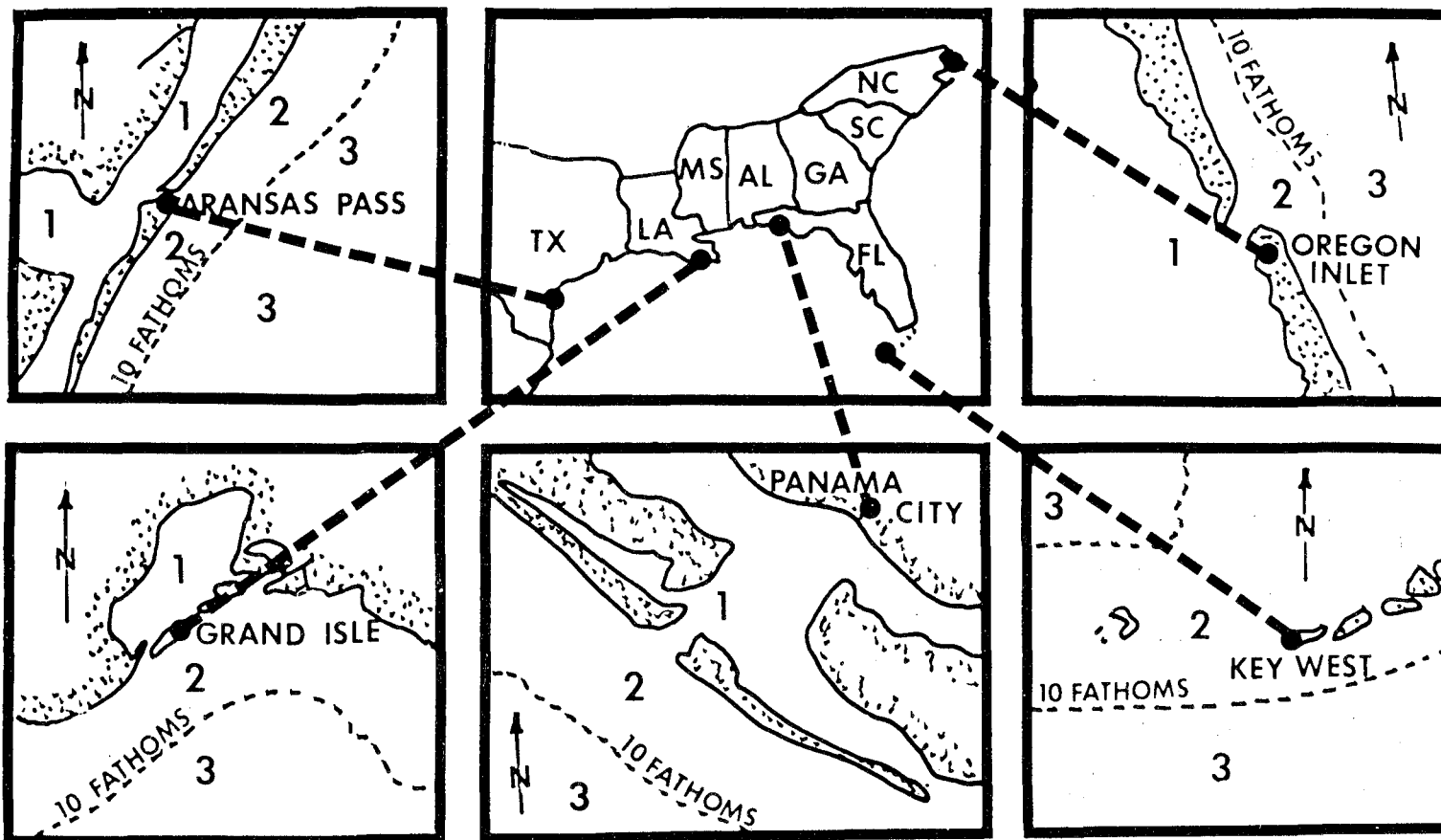


Figure 2. Log used in the 1982 charterboat survey.

Please fill in the requested information for each day of week _____ Charter Boat Name _____

Day	Sunday		Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Comments
Area Location Number(s)	Troll	Bottom	Troll	Bottom	Troll	Bottom	Troll	Bottom	Troll	Bottom	Troll	Bottom	Troll	Bottom	
Fishing Method															
Hours Actually Fished															
SPECIES	NUMBER CAUGHT														
1 King mackerel															
2 Cobia (ling)															
3 Spanish mackerel															
4 Redfish															
5 Bluefish															
6 Little tunny (bonito)															
7 Blue runner (hardtall)															
8 Atlantic bonito															
9 Ladyfish (skipjack)															
10 Tarpon															
11 Great barracuda															
12 Crevalle jack															
13 Greater amberjack															
14 Red snapper															
15 Black sea bass															
16 Scamp															
17 Gag grouper (black)															
18 Red grouper															
19 Black grouper															
20 Gray triggerfish															
21 Yellowfin tuna															
22 Wahoo															
23 Blackfin tuna															
24 Dolphin															
25															
26															
27															
28															
29															
30															

APPENDIX TABLE 1. LOGGED 1982 TROLL-FISHING CATCH AND EFFORT FROM OREGON INLET, NC.

DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES ---	DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES ---
10 APR	3	7.0	5(50)	22 MAY	3	8.0	21(1)
12 APR	3	4.0	5(46)	22 MAY	3	6.0	24(16)
12 APR	3	4.5	5(31)	23 MAY	3	8.0	24(20)
13 APR	3	4.5	5(56)	24 MAY	3	6.0	5(42) 24(26)
13 APR	3	8.0	5(125)	25 MAY	3	6.0	21(3) 22(1) 24(52)
15 APR	3	8.0	6(97)	25 MAY	3	8.0	21(9) 24(12)
15 APR	3	4.5	5(17) 32(1)	26 MAY	3	6.0	24(57)
16 APR	3	8.0	5(60)	27 MAY	3	6.0	21(11) 24(60)
16 APR	3	4.0	6(45)	27 MAY	3	8.5	5(15) 24(15)
17 APR	3	4.0	21(1) 24(2)	28 MAY	3	8.0	21(2) 24(40)
17 APR	3	7.0	1(4) 24(1) 32(2)	28 MAY	3	6.0	24(79)
18 APR	2	3.0	5(122)	29 MAY	3	6.0	5(12) 22(1) 24(62)
19 APR	2	3.5	5(126)				68(2)
20 APR	2	4.5	5(62)	30 MAY	3	8.0	1(1) 24(30)
21 APR	2	3.5	5(56)	31 MAY	3	8.5	24(30)
21 APR	2	3.0	5(65)	31 MAY	3	6.0	24(96)
24 APR	3	6.0	5(70)	1 JUN	3	8.0	1(2) 5(19) 32(1)
24 APR	2	8.0	5(85)	2 JUN	3	8.5	21(1) 24(3)
25 APR	2	3.5	5(52) 32(2)	3 JUN	3	8.5	6(1) 21(12) 22(1)
25 APR	3	5.0	5(85)	4 JUN	3	8.5	21(32) 24(5)
26 APR	2	3.5	5(14) 33(1)	5 JUN	3	8.5	24(1)
30 APR	2	5.0	5(60)	5 JUN	3	7.0	21(1)
1 MAY	2	10.0	5(110)	6 JUN	3	8.0	21(5)
1 MAY	3	7.0	5(125)	7 JUN	3	8.5	1(3) 6(1) 21(12)
2 MAY	2	8.0	5(90) 32(2)				24(50)
3 MAY	2	2.5	5(55) 32(1)	8 JUN	3	8.0	1(1) 21(19) 35(1)
4 MAY	3	5.5	8(4) 23(1) 24(2)	8 JUN	3	6.0	21(34) 68(3)
4 MAY	3	3.5	5(15) 22(1)	9 JUN	3	6.0	21(25) 24(15)
5 MAY	2	2.5	5(60)	9 JUN	3	6.0	21(45) 68(4)
6 MAY	3	8.0	21(2)	10 JUN	3	6.0	21(37) 68(10)
7 MAY	6	8.0	5(26) 32(4)	10 JUN	3	8.0	6(1) 21(32) 24(12)
8 MAY	6	8.0	5(25) 32(5)	12 JUN	3	8.0	21(17) 24(5)
8 MAY	3	5.0	1(81) 6(1)	12 JUN	3	6.0	1(5) 21(24) 22(1)
11 MAY	3	8.0	5(58)				24(3) 68(1)
11 MAY	6	3.5	5(20)	13 JUN	3	8.0	21(17) 24(15) 55(1)
14 MAY	3	4.0	5(31)	15 JUN	3	9.0	21(5) 24(152) 55(2)
15 MAY	3	6.0	22(1) 24(21)	15 JUN	3	6.0	21(12) 22(1) 24(129)
15 MAY	3	8.5	24(20)				68(2)
16 MAY	3	8.0	24(3) 36(1)	16 JUN	3	6.0	21(23) 24(12) 68(1)
17 MAY	3	8.0	24(15) 38(1)	16 JUN	3	8.5	21(17) 24(11)
17 MAY	2	4.0	5(88)	17 JUN	3	8.0	21(1) 22(2) 24(75)
18 MAY	3	6.0	24(82)	17 JUN	3	6.0	21(1) 22(1) 24(8)
18 MAY	3	8.0		18 JUN	3	6.0	21(32) 68(1)
19 MAY	3	6.0	24(40)	18 JUN	3	8.0	21(30) 35(1)
20 MAY	1	4.0	5(250)	21 JUN	3	8.0	21(21) 22(2)
21 MAY	3	6.0	22(3) 23(8) 24(21)	21 JUN	3	6.0	21(36)
21 MAY	3	8.0	21(6) 24(12)	22 JUN	3	6.0	21(49)

APPENDIX TABLE 1 (CONTINUED).

DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES ---			DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES ---		
22 JUN	3	8.0	21(30)	22(2)	24(62)	17 JUL	3	8.0+	55(1)		
23 JUN	3	8.0	21(18)	22(1)		18 JUL	3	8.0	38(1)		
23 JUN	3	6.0	21(20)	22(2)	24(1)	19 JUL	3	8.0	8(2)	24(35)	
24 JUN	3	6.0	21(19)	65(7)		19 JUL	3	6.0	21(2)	24(153)	
24 JUN	3	8.0	21(21)	24(32)		20 JUL	3	6.0			
25 JUN	3	8.0	21(12)	24(12)		20 JUL	3	8.0	24(20)	55(1)	
25 JUN	3	6.0	21(18)			21 JUL	3	8.0	8(1)	24(35)	38(1)
26 JUN	3	6.0	21(12)	24(1)	38(1)				39(1)		
26 JUN	3	8.0	21(4)	24(1)	55(1)	22 JUL	3	8.0	21(2)	24(15)	55(2)
27 JUN	3	10.0	21(7)	24(115)	65(1)	22 JUL	3	6.0	21(1)	24(3)	
28 JUN	3	9.0	1(6)	6(2)	21(5)	23 JUL	3	6.0	21(3)	22(2)	24(4)
28 JUN	3	6.0	21(32)			23 JUL	3	8.0	8(3)	21(4)	24(25)
29 JUN	3	6.0	21(2)			24 JUL	3	8.0	21(5)	24(20)	
29 JUN	3	8.0	1(7)	21(6)	24(2)	24 JUL	3	6.0	24(49)		
30 JUN	3	6.0	21(21)			25 JUL	3	7.5	6(10)	21(11)	22(1)
1 JUL	3	4.0	1(3)						24(40)		
1 JUL	3	8.0	5(15)	21(5)	24(2)	26 JUL	3	8.5	6(4)	21(3)	24(63)
			65(12)			26 JUL	3	6.0	21(3)	24(63)	68(12)
2 JUL	3	8.0	21(1)			27 JUL	3	6.0	24(87)	68(9)	
2 JUL	3	6.0	5(56)	21(3)		27 JUL	3	8.0	6(7)	21(5)	24(25)
3 JUL	3	6.0	24(1)	55(1)					55(1)		
3 JUL	3	8.0	21(3)	22(1)	55(6)	28 JUL	3	8.0	6(11)	21(1)	24(71)
4 JUL	3	8.0	1(3)	22(1)	23(1)	28 JUL	3	6.0	24(67)	68(2)	
			24(2)			29 JUL	3	7.5	21(2)	24(64)	
6 JUL	3	6.0	5(1)	55(1)		29 JUL	3	6.0	21(1)	22(2)	24(42)
7 JUL	3	6.0	21(3)	24(50)	55(1)				68(3)		
7 JUL	3	8.0	21(3)			30 JUL	3	8.0	6(12)	21(1)	24(40)
8 JUL	3	8.0	24(2)			30 JUL	3	6.0	23(2)	24(162)	68(2)
8 JUL	3	6.0	24(71)	55(1)		6 AUG	3	6.0	22(2)	23(7)	24(30)
9 JUL	3	6.0	21(14)	68(2)		7 AUG	3	6.0	22(1)	23(3)	24(84)
9 JUL	3	8.0	22(1)	38(1)	55(2)				68(4)		
10 JUL	3	8.0	6(1)			9 AUG	3	6.0	21(3)	24(15)	
10 JUL	3	6.0	21(3)	24(73)	55(1)	10 AUG	3	6.0	21(3)	24(8)	
			68(5)			11 AUG	3	6.0	24(1)	38(1)	55(1)
11 JUL	3	9.0							68(2)		
12 JUL	3	6.0	1(1)	21(3)	22(3)	12 AUG	3	6.0	1(2)	21(5)	22(2)
			24(63)						24(7)	68(6)	
13 JUL	3	6.0	21(14)	24(41)	68(2)	13 AUG	3	6.0	21(5)	24(15)	68(25)
13 JUL	3	8.0	21(5)	24(14)		14 AUG	3	6.0	21(16)	24(1)	55(1)
14 JUL	3	8.0	6(2)	21(13)					68(6)		
14 JUL	3	6.0	24(23)			16 AUG	3	6.0	24(4)		
15 JUL	3	6.0	21(3)	24(115)	68(5)	17 AUG	3	6.0	22(2)	23(4)	24(166)
15 JUL	3	8.0	8(15)	22(1)	24(76)	18 AUG	3	6.0	24(106)		
16 JUL	3	8.0	8(1)	55(1)		19 AUG	3	6.0	22(3)	23(14)	24(136)
16 JUL	3	6.0	21(3)	24(93)	68(4)	20 AUG	3	6.0	21(2)	23(2)	24(76)
17 JUL	3	6.0	24(71)			23 AUG	3	6.0	24(67)	38(1)	55(1)
17 JUL	3	8.0	21(4)	24(30)	38(1)	24 AUG	3	6.0	24(37)	55(2)	

APPENDIX TABLE 1 (CONTINUED).

DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES --			DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES --		
25 AUG	3	6.0	55(4)								
27 AUG	3	6.0	24(94)	55(1)							
28 AUG	3	6.0	55(3)								
30 AUG	3	6.0	24(55)	55(1)							
31 AUG	3	6.0	24(48)	38(1)							
1 SEP	3	6.0	24(94)	55(1)							
2 SEP	3	6.0	24(90)	38(1)	55(1)						
7 SEP	3	6.0	21(2)	55(3)							
10 SEP	3	6.0	55(3)								
11 SEP	3	6.0	55(3)								
13 SEP	3	6.0	55(5)								
14 SEP	3	6.0	24(58)	55(5)							
15 SEP	3	6.0	24(114)	55(4)							
16 SEP	3	6.0	24(20)								
17 SEP	3	6.0	21(7)	24(32)							
18 SEP	3	6.0	21(6)	24(92)	55(3)						
20 SEP	3	6.0	21(3)	24(59)							
21 SEP	3	6.0	21(1)	24(32)							
22 SEP	3	6.0	21(2)	22(4)	55(1)						
23 SEP	3	6.0	21(2)	55(1)							
24 SEP	3	6.0	22(3)	24(62)	55(1)						
25 SEP	3	6.0	21(3)	22(2)	23(3)						
			24(10)	55(1)							
28 SEP	3	6.0	1(5)	6(5)							
29 SEP	3	6.0	21(32)	24(3)							
30 SEP	3	6.0	21(16)	22(1)							
2 OCT	3	6.0	21(15)	55(1)							
4 OCT	3	7.5	1(28)	6(1)	24(1)						
5 OCT	3	6.0	6(3)	24(118)							
6 OCT	3	6.0	21(6)	24(86)	68(1)						
7 OCT	3	6.0	21(23)	24(16)	39(1)						
8 OCT	3	7.0	1(19)	5(14)	6(21)						
			24(1)	33(1)							
9 OCT	3	6.0	1(4)	6(6)	24(54)						
			39(1)								
15 OCT	3	7.0	1(9)	5(1)	6(7)						
16 OCT	3	7.0	1(14)	6(8)							
18 OCT	3	7.0	1(49)	6(1)							
19 OCT	3	4.0	1(86)	6(6)	23(1)						
20 OCT	3	6.5	1(90)	6(6)							
21 OCT	3	6.5	1(52)	6(3)							

APPENDIX TABLE 2. LOGGED 1962 TROLL-FISHING CATCH AND EFFORT FROM KEY WEST, FL.

DATE	ZONE	HOURS FISHED	--- CATCH PER SPECIES ---				DATE	ZONE	HOURS FISHED	--- CATCH PER SPECIES ---			
29 MAR	3	6.0	11(1)	23(2)	24(2)	16 APR	3	6.0	6(1)	24(26)	25(2)		
			39(1)			17 APR	3	6.0					
29 MAR	2	2.5	7(1)	11(2)	17(1)	17 APR	3	6.0	1(1)	8(1)	11(3)		
			19(1)	25(1)	26(6)				22(1)	39(1)			
30 MAR	3	6.0	1(1)	6(6)	11(1)	18 APR	3	5.0	11(4)	39(1)			
			12(1)	19(3)	24(2)	18 APR	3	2.5	39(1)				
			25(5)			19 APR	3	1.5	8(1)				
30 MAR	3	5.0	8(1)	11(1)	22(1)	20 APR	3	6.0	6(1)	24(14)	25(1)		
			23(2)	24(1)		22 APR	3	6.0	22(2)	24(26)			
31 MAR	3	2.0	6(1)	25(1)		23 APR	3	2.5	22(1)	24(1)			
1 APR	6	6.0	6(1)	7(1)	11(2)	24 APR	3	6.0	1(1)	22(1)	24(26)		
			17(1)	19(4)	25(2)	24 APR	3	5.5	11(1)	22(1)	24(7)		
			26(12)			27 APR	3	5.0	24(8)				
1 APR	3	5.0	25(2)			28 APR	3	5.0	11(3)	24(5)			
2 APR	2	2.0	11(3)	25(3)		29 APR	3	5.0	11(1)	24(1)			
2 APR	3	6.0	24(10)	26(4)		30 APR	3	2.5	13(4)				
3 APR	6	6.0	6(1)	11(4)	24(2)	1 MAY	3	6.0	24(26)				
			25(3)	26(6)	39(1)	1 MAY	3	2.0	24(1)				
3 APR	3	3.0	22(1)	24(9)		2 MAY	3	3.5	24(6)				
4 APR	3	6.0	1(1)	6(1)	8(1)	2 MAY	3	2.5	6(1)	22(1)	24(7)		
			11(2)	13(2)	25(8)	3 MAY	3	3.0	8(4)	24(5)			
5 APR	3	6.0	6(1)	19(1)	22(1)	4 MAY	3	5.5	23(1)				
			24(2)	26(6)		5 MAY	3	5.0	24(11)				
5 APR	2	3.5	11(3)	17(1)	19(3)	5 MAY	3	6.0	11(2)	24(11)			
			25(2)			8 MAY	3	6.0	24(7)				
6 APR	3	5.5	8(1)	11(1)	39(2)	8 MAY	3	6.5	24(7)				
7 APR	3	4.5	1(1)	8(2)	11(1)	9 MAY	3	6.0	24(50)				
			22(1)			11 MAY	3	6.0	12(1)	13(1)	24(2)		
7 APR	3	6.0	1(1)	6(8)	11(2)	13 MAY	3	3.5	24(20)				
8 APR	3	6.5	8(4)	11(2)	24(2)	14 MAY	3	6.0	24(70)	59(3)			
9 APR	3	4.5	8(8)	22(1)	23(1)	15 MAY	3	6.0	24(25)				
			24(1)			15 MAY	3	6.0	13(1)	24(14)			
9 APR	3	6.0	6(5)	11(8)	12(1)	16 MAY	3	3.0	11(2)	24(15)			
			19(1)	23(2)	24(1)	17 MAY	3	2.0	24(9)				
			26(9)			18 MAY	3	6.0	13(2)				
10 APR	3	6.0	1(1)	6(7)	11(5)	18 MAY	3	5.0	24(4)				
			22(1)	23(1)	24(11)	19 MAY	3	6.0	11(2)	24(13)	39(2)		
			25(2)	39(1)		19 MAY	3	6.0	11(1)	22(1)	24(2)		
10 APR	3	4.5	8(8)	11(3)	22(2)	20 MAY	3	2.0	24(5)				
			24(2)			20 MAY	3	6.0	24(24)				
11 APR	3	6.5	1(1)	8(4)	11(3)	22 MAY	3	6.0	8(3)	11(3)	24(18)		
			22(1)	24(1)	39(2)	22 MAY	3	6.0	11(1)	24(25)			
11 APR	3	6.0	1(1)	6(3)	11(4)	23 MAY	3	6.0	6(1)	24(13)			
			23(3)	24(2)		23 MAY	3	6.0	24(4)				
13 APR	3	5.0	21(1)	24(3)		24 MAY	3	2.0	24(1)				
14 APR	3	3.0	24(4)			25 MAY	3	4.0	24(11)				
15 APR	3	6.0	6(3)	23(1)	24(14)	26 MAY	3	2.5	24(9)				

APPENDIX TABLE 2 (CONTINUED).

DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES ---	DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES ---
28 MAY	3	2.5	24(9)	11 JUL	3	4.0	8(6) 11(1) 26(3)
29 MAY	3	3.0	24(16)	12 JUL	3	6.0	22(1) 24(11)
29 MAY	3	5.0	24(5)	14 JUL	3	4.5	6(5) 11(1) 24(53)
30 MAY	3	5.0	11(1) 24(17)	16 JUL	3	6.0	24(35) 61(1)
30 MAY	3	6.0	24(22)	17 JUL	3	6.0	24(40) 38(1)
31 MAY	3	1.5	24(16)	17 JUL	3	7.0	
31 MAY	3	6.0	24(30)	18 JUL	3	7.0	11(1) 24(2)
1 JUN	3	6.0	22(1) 23(1) 24(15)	18 JUL	3	6.0	24(51)
5 JUN	3	6.0	11(1) 23(1) 24(5)	19 JUL	3	7.0	24(3)
6 JUN	3	6.0	24(6)	25 JUL	3	2.5	24(11)
6 JUN	6	6.0	11(1) 18(3) 24(11) 26(1) 60(1)	25 JUL	3	6.0	11(1) 24(50)
7 JUN	3	4.5	8(2) 11(2) 24(12)	26 JUL	3	6.0	11(2) 24(25)
7 JUN	3	6.0	11(1) 24(9)	26 JUL	3	6.0	22(2) 24(19)
8 JUN	3	6.0	24(25) 60(1)	27 JUL	2	2.5	11(1) 24(11)
8 JUN	3	6.0	24(46)	27 JUL	3	6.0	24(75) 59(1)
9 JUN	3	6.0	8(1) 11(1) 24(14)	28 JUL	3	6.0	24(8) 59(2)
9 JUN	3	6.0	6(3) 11(2) 22(1) 24(17) 60(2)	28 JUL	3	6.0	11(2) 24(29) 39(1)
10 JUN	3	6.0	24(38)	29 JUL	3	2.5	11(3) 22(1) 24(7)
11 JUN	3	6.0	11(1) 22(1) 24(6)	1 AUG	3	6.0	24(26) 66(1)
12 JUN	3	6.0	11(1) 22(1) 24(40) 61(1)	2 AUG	3	5.0	11(2) 22(1) 24(17)
13 JUN	3	2.5	8(1) 11(2) 22(1) 24(20)	3 AUG	3	3.0	
14 JUN	3	5.0	11(1) 24(40)	3 AUG	6	3.0	11(4)
14 JUN	3	6.0	24(37)	4 AUG	3	6.0	11(1) 24(7)
15 JUN	3	6.0	24(2)	7 AUG	3	4.0	24(3)
20 JUN	3	6.0	8(6) 11(2) 24(4)	8 AUG	3	6.0	8(1) 11(7) 22(1) 24(12) 36(1)
24 JUN	3	6.0	6(2) 24(9)	10 AUG	2	3.0	11(15)
26 JUN	3	6.0	6(1) 24(6) 39(1)	11 AUG	3	6.0	24(22)
27 JUN	3	6.0	6(2) 11(2) 24(5)	11 AUG	3	6.0	6(1) 11(2) 24(27)
29 JUN	3	2.5	11(2) 24(2)	12 AUG	6	6.0	11(2)
30 JUN	3	6.0	11(1) 24(40)	13 AUG	3	6.0	11(1) 24(28) 36(1)
2 JUL	3	6.0	11(1) 24(10)	14 AUG	6	6.0	11(24) 25(1)
3 JUL	3	3.0	11(7) 25(1) 26(1)	14 AUG	3	6.0	6(1) 11(2)
3 JUL	3	2.5	6(5) 10(1) 25(2)	15 AUG	2	3.0	6(1) 11(5) 26(2)
4 JUL	3	6.5	22(1) 24(31)	15 AUG	3	6.0	39(1)
4 JUL	3	6.0	7(1) 24(63) 36(1)	16 AUG	2	0.5	11(5)
5 JUL	2	2.5	1(1) 6(2) 11(4) 25(1)	17 AUG	3	6.0	6(4) 11(1) 22(1) 26(1)
6 JUL	2	2.5	6(9) 11(1) 25(1)	18 AUG	3	6.0	1(1) 8(1) 11(5) 22(1) 25(4)
7 JUL	3	6.0	11(1) 24(35)	20 AUG	3	7.0	11(6) 24(10)
8 JUL	3	6.0	11(1) 24(13)	20 AUG	3	4.0	1(2) 6(1) 7(1) 11(2) 24(14) 26(2)
9 JUL	3	6.0	24(23)				54(1)
10 JUL	3	6.0	11(1) 24(14)	22 AUG	2	0.5	11(11)
11 JUL	3	6.0	6(1) 11(2) 24(34)	22 AUG	6	6.0	1(6) 8(12) 11(6) 13(1) 22(1) 25(3)

APPENDIX TABLE 2 (CONTINUED).

DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES ---				DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES ---			
23 AUG	3	6.0	1(3)	8(10)	11(5)	12 OCT	6	6.0+	26(16)	67(1)			
			22(1)	25(2)		13 OCT	6	6.0	11(10)	24(2)	26(6)		
23 AUG	2	6.0	1(3)	6(7)	11(8)				39(1)				
25 AUG	3	4.0	1(6)	8(8)	11(6)	14 OCT	6	3.0	11(12)	26(4)	39(1)		
			25(1)			14 OCT	6	6.0	11(14)	19(1)	24(3)		
28 AUG	3	6.0	1(7)	6(8)	11(12)				25(2)	26(13)			
			22(1)			15 OCT	6	3.0	11(6)	12(1)	26(1)		
28 AUG	2	6.0	1(2)	6(4)	11(3)	16 OCT	3	6.0					
			22(1)			16 OCT	6	4.0	11(11)	26(9)	67(1)		
29 AUG	2	3.0	11(3)	26(1)	39(1)	17 OCT	2	3.0	6(1)	11(11)	25(2)		
31 AUG	3	6.0	11(3)	24(20)	55(1)				26(6)				
1 SEP	3	6.0	1(2)	8(5)	11(10)	17 OCT	6	5.5	11(7)	19(1)	26(5)		
3 SEP	2	6.0	6(2)	11(8)	22(1)	18 OCT	3	6.0					
			23(3)			19 OCT	3	2.0	6(1)	11(1)			
4 SEP	2	6.0	8(1)	11(22)	25(2)	20 OCT	3	7.0					
			26(6)			20 OCT	3	7.0	38(1)				
4 SEP	6	4.5	11(6)			21 OCT	3	7.0					
5 SEP	3	6.0	11(5)	38(1)		21 OCT	3	7.0					
6 SEP	2	1.0	11(6)			22 OCT	3	7.0					
8 SEP	3	6.0	11(2)	24(20)		22 OCT	3	7.0					
10 SEP	3	6.0	11(1)	24(25)		23 OCT	3	7.0					
11 SEP	3	6.0	11(1)	24(1)		23 OCT	3	7.0					
12 SEP	3	6.0	22(1)	24(75)		24 OCT	6	6.0	11(9)	12(1)	25(1)		
14 SEP	6	3.0	11(8)						26(7)	39(1)	60(4)		
15 SEP	6	6.0	11(16)	12(2)	22(1)	27 OCT	6	6.0	11(13)	26(6)			
			26(6)			28 OCT	2	3.0	11(4)	25(2)	26(3)		
21 SEP	3	6.0	11(2)	22(1)	24(6)				60(1)				
22 SEP	2	2.0	6(2)	11(1)	25(2)	1 NOV	3	6.0	11(3)	39(1)			
23 SEP	2	4.0	6(1)	11(1)	25(1)	2 NOV	3	6.0	11(1)	39(4)			
23 SEP	6	6.0	11(6)	19(1)	24(3)	3 NOV	6	6.0	6(2)	11(19)	12(1)		
			26(1)						19(2)	25(2)	26(3)		
28 SEP	3	6.0	11(1)	22(1)	24(4)	7 NOV	3	6.0	6(1)	11(1)	39(1)		
			29(1)			9 NOV	2	3.0	11(11)	19(1)	25(2)		
1 OCT	3	7.0				10 NOV	6	3.0	11(9)	25(1)			
2 OCT	3	7.0				11 NOV	3	6.0	24(10)				
2 OCT	3	6.0	38(1)			12 NOV	6	4.0	3(1)	11(3)	23(1)		
3 OCT	3	6.0							24(1)	25(2)			
3 OCT	3	7.0				13 NOV	6	6.0	11(18)	12(1)	25(3)		
4 OCT	3	7.0							26(2)				
4 OCT	6	3.0	11(27)			14 NOV	6	6.0	1(1)	7(1)	11(23)		
5 OCT	3	6.0							19(1)	60(2)			
7 OCT	6	4.0	6(1)	11(12)	24(2)	14 NOV	2	3.0	11(19)	25(1)	26(8)		
9 OCT	3	6.0							60(1)				
9 OCT	3	6.0	6(2)	11(1)	24(9)	15 NOV	2	2.5	3(1)	11(10)	25(1)		
			61(2)						26(2)	57(1)	60(1)		
10 OCT	2	3.0	11(7)	25(2)	26(2)	16 NOV	6	6.0	11(14)	24(2)	25(2)		
12 OCT	6	6.0	6(1)	11(19)	25(3)				74(1)				

APPENDIX TABLE 2 (CONTINUED).

DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES ---	DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES ---
16 NOV	6	6.0	1(1) 11(6) 19(1)	25 DEC	3	6.0+	25(7)
			24(1) 25(2) 26(1)	26 DEC	3	6.0	11(2) 24(19) 25(4)
17 NOV	6	6.0	1(1) 11(9) 19(2)	26 DEC	3	6.0	6(1) 11(2) 24(12)
			26(2) 60(3)				39(2)
17 NOV	6	6.0	1(1) 11(10) 19(2)	27 DEC	3	2.0	24(1) 25(3) 39(1)
18 NOV	6	6.0	11(6) 19(1) 24(2)	28 DEC	3	5.0	1(33) 11(1) 12(1)
			74(1)				24(1)
19 NOV	3	6.0	1(1) 39(1)	28 DEC	3	6.0	1(8) 6(2) 24(4)
19 NOV	6	6.0	11(8) 12(1) 24(2)				25(2)
			25(1) 26(2)	29 DEC	6	6.0	1(1) 11(1) 19(3)
20 NOV	6	6.0	11(9) 25(1) 39(1)				25(4)
20 NOV	3	6.0	1(1) 11(1) 25(1)	29 DEC	3	6.0	1(5) 23(1) 24(6)
21 NOV	6	6.0	1(1) 6(1) 11(6)				25(4)
22 NOV	6	6.0	11(14) 18(1) 19(2)	30 DEC	3	6.0	1(4) 11(1) 19(1)
			24(1) 25(3) 26(1)				24(7) 25(6)
23 NOV	6	6.0	1(2) 11(5) 19(3)	30 DEC	6	7.0	1(5) 24(6) 25(1)
			25(5) 26(3) 39(1)	31 DEC	6	6.0	1(1) 11(2) 24(2)
			67(1) 74(1)				25(2)
26 NOV	6	6.5	11(12) 19(1) 24(1)	31 DEC	3	6.0	11(2) 19(1) 24(2)
			25(3) 26(1) 57(1)				39(1)
30 NOV	3	6.0	11(1) 22(7) 24(14)				
			36(1) 39(1)				
30 NOV	6	6.0	6(2) 11(1) 24(28)				
			25(4) 26(2) 75(1)				
1 DEC	3	6.0	11(4) 24(5)				
2 DEC	3	3.0	8(2) 24(2) 39(1)				
2 DEC	2	6.0	1(5) 6(1) 11(2)				
			24(12) 25(1) 75(1)				
9 DEC	2	3.0	1(14) 11(3) 25(2)				
			67(1)				
10 DEC	2	3.0	1(7) 25(1) 60(1)				
10 DEC	3	3.0	1(3) 11(2)				
11 DEC	3	6.0	1(1) 11(3) 24(12)				
			36(2) 39(1)				
11 DEC	2	3.0	24(5) 25(1)				
12 DEC	3	3.0	1(1) 6(3)				
12 DEC	3	4.0	11(2) 24(11) 25(1)				
16 DEC	3	6.0	1(1) 24(4)				
21 DEC	3	3.0	1(1) 6(1) 11(4)				
			24(3) 25(4)				
21 DEC	6	6.0	1(1) 6(3) 11(10)				
			18(1) 19(1) 25(4)				
22 DEC	6	6.0	1(3) 6(1) 11(12)				
			19(3) 25(4)				
23 DEC	2	6.0	1(2) 6(1) 11(16)				
			19(1) 24(7) 25(2)				
25 DEC	3	6.0	6(2) 11(3) 24(14)				

APPENDIX TABLE 3. LOGGED 1982 BOTTOMFISHING CATCH AND EFFORT FROM KEY WEST, FL.

DATE	ZONE	HOURS FISHED	--- CATCH PER SPECIES ---	DATE	ZONE	HOURS FISHED	--- CATCH PER SPECIES ---
30 MAR	2	1.0	13(3)				
1 APR	2	1.0	13(2)				
2 APR	3	1.0	13(3)				
3 APR	3	1.0	13(4)				
6 APR	3	1.0	13(4)				
7 APR	3	1.5	13(5)				
9 APR	3	1.5	13(5)				
10 APR	3	1.5	13(3)				
13 APR	3	1.0	13(4)				
14 APR	3	3.0	13(8)				
18 APR	3	1.0	13(5)				
19 APR	3	1.5	13(4)				
24 APR	3	1.0					
27 APR	3	1.0	13(4)				
28 APR	3	1.0	13(4)				
29 APR	3	1.0	13(4)				
1 MAY	3	1.5	13(6)				
4 MAY	3	1.0	13(5)				
5 MAY	3	1.0	13(3)				
18 MAY	3	1.0	13(2)				
24 MAY	3	1.0	13(5)				
25 MAY	3	2.0	8(1) 13(8)				
31 MAY	3	1.5	13(4)				
7 JUN	3	1.5	13(1)				
14 JUN	3	1.0	13(4)				
3 JUL	2	3.0					
10 JUL	2	2.5	26(104)				
16 AUG	3	2.5	13(3)				
25 AUG	3	2.0	13(3) 37(1)				
22 SEP	2	8.0	2(1) 11(3) 18(14) 26(21) 42(14) 54(9) 64(1)				
23 SEP	2	8.0	11(2) 18(9) 26(27) 42(19) 54(6)				

APPENDIX TABLE 4. LOGGED 1982 TROLL-FISHING CATCH AND EFFORT FROM PANAMA CITY, FL.

DATE	ZONE	HOURS FISHED	--- CATCH PER SPECIES ---			DATE	ZONE	HOURS FISHED	--- CATCH PER SPECIES ---		
3 APR	1	6.0	3(47)	5(28)		16 JUN	3	2.0	1(7)		
11 APR	1	3.5	3(4)	5(1)		17 JUN	6	4.0	1(4)	6(2) 24(12)	
15 APR	1	3.0	3(4)	5(12)		18 JUN	6	8.5	1(9)	6(1) 7(1)	
16 APR	1	10.0	3(1)	5(107)					24(6)		
17 APR	1	6.0	5(86)			19 JUN	6	2.5	1(2)	3(1) 6(1)	
24 APR	1	3.5	3(26)	4(1) 5(1)					11(1) 20(1)		
30 APR	4	10.5	3(26)	6(2) 7(22)		20 JUN	2	4.5	1(8)	24(6)	
			8(27)			22 JUN	2	6.5	1(4)	6(2) 8(1)	
1 MAY	4	8.5	3(17)	5(27) 7(11)					24(32)		
			8(3)			23 JUN	2	2.5	6(1)	24(3)	
4 MAY	4	10.0	3(8)	5(32) 6(2)		24 JUN	2	2.5	1(1)	8(1) 24(1)	
			7(32)	8(18) 23(1)		25 JUN	6	5.5	1(2)	2(1) 6(3)	
7 MAY	4	4.5	2(1)	7(1) 9(1)					8(1) 13(9) 24(2)		
15 MAY	4	7.0	2(1)	5(8) 7(2)		26 JUN	2	2.5	6(3)	8(2)	
			8(1)			27 JUN	4	7.0	3(1)	6(13) 7(78)	
16 MAY	2	3.0	3(3)	7(22) 9(7)					24(4)		
19 MAY	4	3.0	5(1)	6(3) 7(22)		28 JUN	2	3.0	6(1)	7(7) 8(1)	
20 MAY	2	3.5	2(1)	6(3) 7(26)					24(1)		
			8(3)			29 JUN	2	3.5	6(1)	7(2) 24(1)	
21 MAY	4	7.0	3(5)	5(1) 6(5)		1 JUL	4	3.5	6(8)	7(12)	
			7(86)	8(6)		4 JUL	3	5.5	1(1)	6(2) 24(1)	
22 MAY	2	6.0	3(3)	6(2) 7(23)		6 JUL	3	2.5	1(1)		
			8(3)			7 JUL	2	3.0	7(2)	13(3) 24(1)	
23 MAY	2	3.0	3(2)	6(11) 7(21)		8 JUL	2	4.0	13(1)	16(1) 19(2)	
			8(7)						24(1)		
26 MAY	4	3.5	5(1)	6(5) 7(38)		9 JUL	3	3.5	7(2)	24(4)	
28 MAY	2	6.0	7(5)	8(5) 13(5)		10 JUL	3	8.0	1(3)	6(1) 8(1)	
			54(1)						13(8) 24(2)		
29 MAY	2	8.0	1(2)	6(26) 7(48)		12 JUL	2	3.0	6(1)	13(7) 19(1)	
			8(1)	20(1) 24(12)					24(5)		
30 MAY	4	5.0	3(3)	5(3) 6(8)		14 JUL	2	6.5	6(1)	7(1) 13(7)	
			7(98)	8(18)					19(3)		
31 MAY	4	5.5	6(2)	7(32) 9(13)		17 JUL	2	3.5	13(10)	19(2) 20(1)	
3 JUN	2	3.5	6(3)	7(119) 9(3)		20 JUL	2	3.0			
5 JUN	4	9.5	3(1)	5(3) 6(20)		21 JUL	2	5.5	1(2)	3(3) 6(3)	
			7(118)	9(2) 13(1)					8(15)		
			24(2)			22 JUL	2	6.5	1(3)	6(1)	
6 JUN	2	6.0	1(1)	3(1) 6(3)		23 JUL	2	2.5	7(1)		
			7(15)	13(1)		25 JUL	2	3.0	1(6)	6(2) 24(3)	
7 JUN	2	6.0	6(9)	7(16)		26 JUL	2	2.5	24(21)		
8 JUN	2	6.0	6(26)	7(1)		27 JUL	2	5.5	1(1)	24(39)	
9 JUN	2	3.0	6(38)	7(61)		30 JUL	2	2.5	3(1)	6(7)	
10 JUN	6	5.0	6(4)	24(5)		31 JUL	2	3.0	3(12)	6(121) 7(6)	
11 JUN	2	3.0	1(1)	2(1) 8(3)					9(14)		
12 JUN	2	3.0	6(32)	7(7)		1 AUG	2	2.5	6(3)	13(1)	
14 JUN	2	3.0	1(1)	6(8) 24(11)		2 AUG	1	3.5	3(21)	6(9) 7(6)	
15 JUN	3	3.0	1(10)	2(1)		3 AUG	2	3.5	6(9)	7(6)	

APPENDIX TABLE 4 (CONTINUED).

DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES --			DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES --		
5 AUG	2	6.5	1(14)			29 SEP	2	4.0			
6 AUG	2	2.5	3(4)	6(7)	7(5)	30 SEP	2	3.0	6(2)		
			9(4)			2 OCT	2	6.0	1(2)	3(2)	6(2)
11 AUG	2	3.5	3(18)	6(3)	7(1)	3 OCT	2	5.0	1(7)		
12 AUG	2	3.5	3(38)	6(12)		5 OCT	2	2.5	1(10)	6(1)	
13 AUG	2	3.5	3(1)	6(15)	7(2)	6 OCT	2	5.5	1(1)	6(1)	
14 AUG	2	9.0	1(2)	3(2)	6(13)	7 OCT	2	3.0	3(6)	5(1)	6(4)
			7(2)	24(5)					7(1)		
15 AUG	2	2.5	6(2)	24(8)		8 OCT	2	4.0	1(5)	6(1)	20(1)
17 AUG	2	3.5	3(2)	6(7)	9(3)	9 OCT	4	8.0	1(14)	3(2)	6(12)
19 AUG	2	3.5	3(18)	6(17)	7(6)				7(3)		
			9(6)			10 OCT	2	6.0	1(3)		
21 AUG	1	7.0	3(41)	6(48)		11 OCT	2	6.0	1(16)	6(1)	
23 AUG	2	3.5	1(34)	3(2)	6(2)	14 OCT	2	6.0	1(10)		
24 AUG	2	3.5	1(20)	3(1)	20(1)	16 OCT	2	2.5	1(2)		
25 AUG	1	3.5	3(49)	6(10)		23 OCT	4	8.5	3(5)	5(2)	6(4)
28 AUG	3	9.0	1(26)	20(1)							
29 AUG	2	5.0	1(1)	20(2)							
30 AUG	2	4.0	1(5)	6(4)	24(1)						
31 AUG	2	3.5	6(2)	24(1)							
2 SEP	4	3.5	3(80)	6(4)	7(25)						
4 SEP	4	5.5	1(3)	3(60)	7(13)						
			20(4)								
5 SEP	4	7.5	1(1)	2(1)	3(53)						
			6(4)	7(2)							
6 SEP	1	3.5	3(1)	6(9)							
7 SEP	1	7.0	4(16)	6(18)	20(1)						
8 SEP	2	7.0	3(154)	6(17)							
11 SEP	4	10.0	3(69)	6(3)	7(11)						
			9(5)								
12 SEP	4	3.5	1(6)	3(30)	7(11)						
			9(3)								
13 SEP	4	7.0	3(75)	6(4)	7(5)						
14 SEP	1	3.0	3(45)	6(4)							
16 SEP	4	3.5	3(19)	6(3)	7(6)						
			12(4)								
17 SEP	2	6.5	1(4)	6(1)	20(1)						
			24(2)								
18 SEP	3	10.0	1(6)	6(3)	20(1)						
			24(2)								
19 SEP	3	7.5	1(31)	3(1)	20(1)						
			24(7)								
20 SEP	3	7.0	1(27)	24(5)							
22 SEP	2	2.5	1(2)	3(1)	24(2)						
25 SEP	2	8.0	1(8)	3(1)	20(1)						
26 SEP	2	6.5	1(68)								
27 SEP	3	2.5	1(16)	13(1)							

APPENDIX TABLE 5. LOGGED 1982 TROLL-FISHING CATCH AND EFFORT FROM GRAND ISLE, LA.

DATE	ZONE	HOURS FISHED	--- CATCH PER SPECIES ---			DATE	ZONE	HOURS FISHED	--- CATCH PER SPECIES ---		
16 APR	3	1.0				12 JUL	3	5.0	22(8)	24(305)	
17 APR	3	1.0				12 JUL	3	6.5	22(2)	24(4)	
27 APR	3	4.0				17 JUL	3	5.0	7(14)	24(68)	
15 MAY	2	3.5	3(2)	6(1)	7(1)	26 JUL	3	4.5	24(319)	41(5)	
			12(1)			26 JUL	3	6.0	22(2)	24(42)	
16 MAY	3	2.0	11(3)	22(1)		27 JUL	3	6.0	21(1)	24(38)	
16 MAY	3	2.0	3(12)	5(6)	6(15)	29 JUL	3	5.0	22(4)	24(3)	
			7(12)			29 JUL	3	6.0	22(2)	24(1)	
19 MAY	3	1.0	3(1)	7(12)		30 JUL	3	6.0	22(2)	24(25)	
20 MAY	3	1.0	11(1)	22(1)	24(3)	30 JUL	3	5.5			
21 MAY	3	5.0	2(2)	22(2)	24(73)	31 JUL	3	6.0	21(1)	22(3)	24(2)
			36(1)			31 JUL	3	5.0	21(2)		
22 MAY	3	4.0	11(1)	24(68)	40(1)	2 AUG	3	2.5	1(1)	3(24)	6(6)
23 MAY	3	4.5	2(3)	6(3)	23(1)				7(10)	12(4)	
			24(11)			3 AUG	3	7.0	21(1)	22(1)	24(6)
25 MAY	3	1.0	24(23)			4 AUG	3	1.0	3(1)	6(1)	
26 MAY	3	0.5	24(40)			5 AUG	3	3.0	22(1)		
27 MAY	3	1.0	24(4)			7 AUG	3	1.5	1(1)	3(10)	
28 MAY	3	2.0	1(4)	6(4)	12(14)	9 AUG	3	4.0	13(7)	24(83)	41(2)
29 MAY	3	2.0	1(1)	6(2)	7(10)				99(2)		
			12(5)			9 AUG	3	2.5	1(1)	3(14)	4(4)
31 MAY	3	1.0							5(2)	6(6)	7(10)
1 JUN	3	5.0	3(12)	5(8)	7(19)	11 AUG	3	6.5	21(1)	24(6)	
4 JUN	3	5.5	24(233)			13 AUG	3	1.0	3(3)		
9 JUN	3	3.0	7(2)	24(260)		14 AUG	3	2.0	24(43)		
10 JUN	2	2.0	3(4)	5(1)		15 AUG	3	2.0	1(2)	5(6)	6(5)
19 JUN	3	3.0	2(2)	13(8)	24(167)				12(1)		
20 JUN	3	4.0	6(3)	24(57)		21 AUG	3	6.0	3(32)	4(2)	5(7)
21 JUN	3	1.0	24(2)						7(10)		
23 JUN	3	4.0	22(1)	24(202)		22 AUG	3	3.0	1(2)	3(24)	4(6)
25 JUN	3	4.0	6(1)	7(4)	22(1)				6(4)	12(1)	
			24(215)	36(3)		24 AUG	3	2.5	1(1)	3(32)	
27 JUN	3	4.0	1(5)	6(11)	7(6)	27 AUG	3	4.0	1(3)	2(1)	6(6)
			12(4)						7(3)	12(4)	23(2)
29 JUN	3	3.0	3(25)	5(6)	6(18)				29(3)	52(7)	
			7(10)	12(6)		28 AUG	1	2.0	3(9)	4(9)	
2 JUL	3	7.0	21(1)	22(2)	24(64)	28 AUG	3	3.0	3(20)	4(24)	6(6)
2 JUL	3	4.0	6(3)	7(5)	24(64)	29 AUG	2	2.0	3(9)	4(43)	6(1)
			36(2)	61(2)		29 AUG	3	3.0	3(26)	4(51)	5(4)
3 JUL	3	4.0	1(2)	6(18)	7(3)				6(12)	12(2)	
			12(11)			1 SEP	6	5.0	3(5)	5(1)	6(18)
3 JUL	3	8.0	21(5)	22(3)	24(85)				12(4)	23(1)	
4 JUL	3	6.0	22(2)			2 SEP	6	6.0	3(8)	4(13)	6(14)
7 JUL	3	4.0	36(4)	61(1)					7(5)	12(7)	
10 JUL	3	6.0	22(2)	24(35)		3 SEP	3	3.0	3(14)	4(24)	5(2)
11 JUL	3	7.0	22(3)	24(10)					6(6)	12(4)	
11 JUL	3	3.0	22(1)	24(196)		4 SEP	3	5.0	3(62)	4(11)	5(4)

APPENDIX TABLE 5 (CONTINUED).

DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES ---			DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES ---		
4 SEP	3	5.0+	6(5)	12(3)							
5 SEP	3	5.0	3(15)	4(12)							
5 SEP	3	5.0	22(5)	55(1)							
6 SEP	3	2.0	7(3)	13(5)	22(1)						
			24(21)								
7 SEP	3	4.5	1(2)	6(17)	12(6)						
			23(6)								
12 SEP	3	1.0									
17 SEP	3	6.0	11(5)	22(7)	23(2)						
			24(1)								
26 SEP	3	1.5	6(3)	7(1)	23(3)						
8 OCT	3	1.5	6(3)								
2 NOV	3	2.0									
7 NOV	3	1.0	6(4)								
7 NOV	3	5.0	1(7)	5(6)	7(5)						

APPENDIX TABLE 6. LOGGED 1982 BOTTOMFISHING CATCH AND EFFORT FROM GRAND ISLE, LA.

DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES ---			DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES ---		
1 APR	3	6.0	5(10)	7(20)	13(12)	17 MAY	3	3.5+	14(5)	23(6)	36(2)
4 APR	6	5.0	6(2)	7(12)	13(16)	19 MAY	3	3.5	2(1)	12(1)	20(6)
											36(1)
12 APR	6	5.0	6(4)	7(6)	12(1)	20 MAY	3	3.5	6(2)	12(3)	14(2)
											23(10)
											36(3)
16 APR	3	4.0	7(8)	14(82)	27(21)	22 MAY	3	1.0	2(1)	23(3)	36(2)
						25 MAY	3	5.0	2(2)	14(1)	27(28)
17 APR	3	3.5	7(1)	14(22)	27(2)						28(28)
											41(1)
											45(1)
17 APR	3	4.0	7(8)	14(55)		26 MAY	3	5.5	2(1)	13(1)	17(6)
18 APR	3	6.0	1(12)	2(2)	6(4)						20(4)
											27(11)
											42(2)
19 APR	3	5.0	1(1)	7(12)	13(12)	27 MAY	3	4.0	1(4)	7(1)	13(1)
											14(58)
											16(4)
											20(1)
											27(15)
27 APR	3	2.0	2(1)	7(3)	13(1)						28(5)
											29(2)
											41(1)
											42(1)
											48(2)
28 APR	3	5.0	2(1)	7(2)	13(2)	28 MAY	3	4.5	14(86)	17(3)	20(5)
											27(3)
											28(5)
											28(7)
30 APR	3	4.0	2(1)	7(3)	14(14)	28 MAY	3	4.0	2(1)	4(6)	13(2)
											14(41)
											20(20)
											27(15)
											28(10)
1 MAY	3	2.0	2(1)	5(9)	6(1)	29 MAY	3	4.0	2(1)	5(6)	11(1)
											13(1)
											14(35)
											20(16)
1 MAY	3	6.0	1(1)	5(8)	6(2)	29 MAY	3	5.0	2(1)	5(5)	14(4)
											16(4)
											20(1)
											27(5)
											41(1)
2 MAY	3	5.0	5(4)	6(6)	7(10)	30 MAY	3	6.0	5(10)	7(5)	14(41)
											20(25)
											2(1)
											24(160)
2 MAY	3	4.0	2(1)	12(1)	13(7)	31 MAY	3	5.0	2(4)	6(3)	7(3)
											14(17)
											20(1)
											27(2)
											29(1)
6 MAY	3	5.0	4(1)	5(1)	14(18)	1 JUN	3	5.5	1(1)	2(2)	11(1)
											13(1)
											14(52)
											20(2)
											27(33)
											28(10)
											30(11)
											41(8)
											44(4)
											47(3)
7 MAY	3	4.5	5(1)	7(3)	14(13)						50(1)
											51(1)
											20(20)
8 MAY	3	5.0	5(1)	7(16)	14(8)	1 JUN	3	1.0	2(6)	24(200)	
15 MAY	3	2.0	14(1)	27(13)	28(18)	2 JUN	3	6.0	2(5)	24(178)	
15 MAY	3	6.0	2(2)	5(6)	6(2)	3 JUN	3	6.0	2(8)	24(185)	
16 MAY	3	5.0	2(1)	13(4)	14(25)	4 JUN	3	6.0	7(15)	14(120)	20(15)
16 MAY	3	2.5	6(1)	12(3)	23(9)	5 JUN	3	4.0	1(1)	7(5)	12(1)
											13(2)
											14(1)
											17(2)
											20(8)
											27(32)
											28(2)
17 MAY	3	3.5	2(2)	6(6)	12(3)	5 JUN	3	6.0	1(1)	7(1)	62(2)
											41(4)
											47(1)
											62(2)
											2(1)
											5(10)
											7(3)
											8(5)
											12(2)
											14(52)

APPENDIX TABLE 6 (CONTINUED).

DATE	ZONE	HOURS FISHED	--- CATCH PER SPECIES ---	DATE	ZONE	HOURS FISHED	--- CATCH PER SPECIES ---
8 JUN	3	6.0+	16(1) 20(31)	15 JUL	3	6.0	1(1) 2(2) 6(6)
9 JUN	3	1.0	2(1) 14(5) 20(2)				14(48) 20(10)
			28(1)	16 JUL	3	6.0	2(1) 13(3) 14(42)
10 JUN	3	2.0	13(2) 14(13) 20(1)				20(5)
10 JUN	3	6.0	2(5) 12(2) 24(155)	17 JUL	3	6.0	1(1) 2(2) 7(5)
11 JUN	3	5.0	1(2) 7(2) 14(12)				13(1) 14(28) 20(12)
			17(3) 27(94)				24(1)
12 JUN	3	5.0	1(5) 12(1) 14(1)	18 JUL	3	5.5	1(1) 2(7) 6(4)
			27(64) 49(1) 50(1)				13(2) 14(38) 20(6)
12 JUN	3	6.0	2(7) 24(185)	19 JUL	3	4.0	1(1) 12(1) 20(2)
13 JUN	3	5.0	1(2) 2(1) 6(6)				27(31) 28(3) 49(1)
			7(10) 12(1) 13(2)				66(1) 69(2)
			14(36) 20(10) 24(86)	20 JUL	3	5.0	1(2) 6(1) 14(3)
13 JUN	3	5.0	2(3) 24(255)				27(51) 28(2) 69(3)
14 JUN	3	5.5	2(4) 24(174)	23 JUL	3	5.0	1(8) 2(1) 6(2)
17 JUN	3	5.0	1(12) 2(6) 7(2)				11(1) 13(1) 14(12)
			8(1)				16(1) 20(4) 27(64)
18 JUN	3	5.0	2(3) 24(225)				28(8)
19 JUN	3	6.0	2(2) 14(45) 20(20)	24 JUL	3	5.0	1(2) 5(1) 14(10)
			24(122)				27(76) 28(3) 30(5)
19 JUN	3	2.0	1(1) 6(1) 7(3)	24 JUL	3	6.0	1(1) 2(1) 6(2)
			13(7) 20(3) 29(2)				11(1) 14(60) 20(4)
			57(2)	25 JUL	3	6.0	2(1) 12(1) 13(1)
20 JUN	3	1.0	1(1) 2(4) 6(3)				14(32) 20(6)
			12(2) 14(7)	25 JUL	3	5.0	1(2) 2(2) 6(1)
20 JUN	3	6.0	2(2) 6(1) 7(6)				7(1) 13(1) 14(18)
			12(2) 13(2) 14(62)				20(5) 27(110) 30(6)
			20(5)				42(3) 54(1) 57(10)
21 JUN	3	6.0	1(4) 2(2) 24(65)				69(2) 70(1)
21 JUN	3	4.0	1(13) 2(1) 6(9)	26 JUL	3	0.5	2(2) 30(1) 57(1)
			7(3) 12(4) 52(5)	1 AUG	3	5.5	1(2) 2(1) 12(2)
22 JUN	3	6.0	2(3) 13(5) 14(48)				14(22) 20(10)
23 JUN	3	1.0	1(6)	2 AUG	3	3.0	14(12) 20(6)
26 JUN	3	4.0	1(1) 14(12) 27(5)	3 AUG	3	5.0	1(1) 2(1) 8(1)
			28(4)				12(2) 14(4) 27(27)
27 JUN	3	2.0	2(2) 13(2) 14(46)				29(3) 52(1) 69(1)
			16(2) 20(14)	4 AUG	3	4.0	1(1) 2(1) 12(2)
29 JUN	3	3.0	13(6) 14(22) 20(10)				14(2) 27(59) 29(5)
2 JUL	3	1.0	13(11) 41(15)				30(3) 52(1) 58(13)
3 JUL	3	1.0	2(5) 20(2) 54(11)	4 AUG	3	7.0	
7 JUL	3	5.0	14(56) 20(10)	5 AUG	3	4.0	
9 JUL	3	4.0	11(1) 13(7) 14(35)	7 AUG	3	5.0	14(15) 20(4)
			20(3) 29(1)	7 AUG	3	5.0	1(3) 14(9) 27(95)
10 JUL	3	4.0	2(3) 13(3) 14(34)				28(3) 29(5) 42(1)
			20(1) 30(3) 41(6)	8 AUG	3	5.0	1(1) 5(1) 12(3)
11 JUL	3	2.0	1(1) 8(8) 12(1)				14(11) 20(1) 27(326)
			29(5)				30(6) 71(3)

APPENDIX TABLE 6 (CONTINUED).

DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES --			DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES --		
9 AUG	3	3.5	14(10)	20(6)		16 SEP	3	5.0+	42(4)	52(3)	63(2)
13 AUG	3	6.5	14(25)			17 SEP	3	5.0	1(2)	5(3)	7(1)
13 AUG	3	3.0	1(1)	14(2)	17(1)				13(1)	14(26)	17(1)
			27(161)	30(3)	52(1)				20(2)	27(97)	29(4)
14 AUG	3	2.0	1(1)	2(2)	7(4)				42(1)	43(1)	52(1)
			13(7)	14(13)	30(8)				63(3)		
			49(1)	50(4)	52(1)	18 SEP	3	5.0	1(1)	5(5)	7(4)
14 AUG	3	6.0	1(1)	14(45)					14(11)	20(2)	27(299)
15 AUG	3	4.0	14(20)						28(7)	29(10)	42(2)
15 AUG	3	5.0	1(4)	7(2)	12(1)				43(2)	52(2)	63(2)
			14(31)	18(7)	20(1)	18 SEP	3	5.0	1(2)	4(5)	5(6)
			27(203)	28(19)					6(1)	7(12)	9(1)
16 AUG	3	5.0	1(2)	5(4)	7(4)				12(2)	13(1)	14(19)
			13(3)	14(40)	16(3)				20(11)		
			17(2)	20(2)	27(69)	19 SEP	3	5.5	1(6)	5(5)	7(12)
			28(1)	49(1)	54(2)				13(2)	14(25)	20(16)
			63(1)			19 SEP	3	4.5	2(1)	5(2)	7(5)
17 AUG	3	5.0	1(5)	7(8)	12(1)				14(12)	20(2)	27(174)
			14(52)	16(2)	27(44)				28(3)	63(3)	
			28(7)	29(3)	52(2)	20 SEP	3	5.5	1(1)	5(4)	7(9)
17 AUG	3	6.0	1(1)	14(10)					14(18)	20(7)	
18 AUG	3	6.0	7(6)	14(5)	20(17)	25 SEP	3	5.5	1(2)	5(6)	6(2)
19 AUG	3	6.0	14(37)	20(10)					7(12)	14(15)	20(6)
20 AUG	3	6.0	13(12)	14(18)		26 SEP	3	6.0	1(2)	5(7)	6(1)
21 AUG	3	4.5	1(2)	14(1)	27(164)				7(5)	20(4)	
			28(1)	29(1)		26 SEP	3	4.5	1(4)	5(7)	12(1)
22 AUG	3	5.0	1(1)	14(2)	27(299)				14(35)	27(202)	28(15)
			29(5)	35(1)	52(1)				29(12)		
22 AUG	3	3.5	14(10)	20(4)		3 OCT	3	5.5	1(4)	6(2)	7(6)
24 AUG	3	4.0	20(10)						12(1)	14(75)	20(6)
25 AUG	3	5.0	14(9)	16(2)	17(1)	7 OCT	3	4.5	1(1)	5(4)	7(3)
			20(5)	27(41)	42(2)				14(3)	27(117)	28(7)
26 AUG	3	5.0	4(1)	5(3)	7(2)				42(2)	49(1)	
			13(2)	14(26)	20(11)	8 OCT	3	3.0	1(2)	27(69)	29(1)
			27(2)	29(2)					49(1)		
27 AUG	3	0.5	14(1)	27(11)	54(1)	8 OCT	3	5.5	1(2)	5(7)	7(2)
28 AUG	3	2.5	1(1)	6(1)	7(1)				14(25)	20(4)	
			14(2)	27(198)	29(1)	9 OCT	3	5.5	5(3)	6(2)	14(46)
			52(1)						20(2)		
28 AUG	3	3.0	14(6)			9 OCT	3	5.0	6(2)	7(12)	14(17)
29 AUG	3	3.0	14(12)	20(10)					23(3)	27(27)	28(5)
3 SEP	3	3.0							29(2)	30(23)	69(1)
5 SEP	3	2.0	1(2)	14(10)	20(16)	10 OCT	3	5.5	1(5)	5(6)	7(5)
6 SEP	3	2.0	2(1)	23(2)					14(45)	20(6)	
12 SEP	3	1.0	27(31)			11 OCT	3	5.5	1(2)	7(6)	14(10)
16 SEP	3	5.0	5(2)	12(1)	14(17)	11 OCT	3	6.0	1(3)	3(1)	5(8)
			27(76)	28(3)	30(4)				6(12)	7(7)	12(1)

APPENDIX TABLE 6 (CONTINUED).

DATE	ZONE	HOURS FISHED	--- CATCH PER SPECIES ---			DATE	ZONE	HOURS FISHED	--- CATCH PER SPECIES ---		
11 OCT	3	6.0+	14(5)	20(1)	27(131)	7 NOV	3	4.0+	28(151)		
12 OCT	3	5.5	1(6)	7(4)	14(42)	8 NOV	3	4.0	1(11)	27(9)	28(50)
13 OCT	3	5.0	1(19)	5(3)	6(2)	12 NOV	3	5.0	1(1)	4(1)	5(1)
14 OCT	3	3.5	1(8)	5(5)	7(2)	13 NOV	3	3.0	1(9)	5(4)	7(9)
16 OCT	3	5.0	1(3)	14(5)	27(173)	14 NOV	3	5.5	1(7)	5(6)	6(2)
17 OCT	3	5.5	1(5)	5(10)	7(6)	14 NOV	3	5.0	1(8)	2(1)	4(2)
19 OCT	3	5.5	1(6)	5(4)	7(10)	17 NOV	3	5.0	1(10)	4(2)	5(5)
23 OCT	3	4.5	1(3)	14(8)	20(2)	18 NOV	3	5.0	4(1)	5(1)	7(14)
24 OCT	3	5.0	1(6)	7(2)		19 NOV	3	6.0	1(12)	2(1)	3(1)
25 OCT	3	5.0	1(5)	3(1)	5(2)	20 NOV	3	5.0	1(8)	5(2)	6(1)
29 OCT	3	4.5	1(6)	3(1)	5(1)	21 NOV	3	6.0	1(19)	4(2)	5(7)
30 OCT	3	5.0	1(2)	3(1)	7(2)	22 NOV	3	5.5	1(7)	3(2)	5(6)
30 OCT	3	5.0	1(8)	5(5)	12(2)	27 NOV	3	5.0	1(10)	4(5)	5(4)
31 OCT	3	5.5	1(12)	7(2)	13(1)	27 NOV	3	5.0	6(1)	7(7)	14(15)
2 NOV	3	4.0	1(11)	3(1)	5(1)	27 NOV	3	5.0	1(1)	3(1)	4(7)
5 NOV	3	5.5	1(2)	5(3)	7(9)	28 NOV	3	5.0	1(13)	4(4)	5(7)
6 NOV	3	5.0	1(1)	4(3)	5(8)	29 NOV	3	5.0	1(7)	3(3)	4(11)
6 NOV	3	5.0	1(6)	5(5)	6(2)	29 NOV	3	5.0	1(12)	3(2)	4(6)
7 NOV	3	4.0	1(3)	2(1)	5(5)	4 DEC	3	5.0	1(8)	4(8)	5(10)

APPENDIX TABLE 7. LOGGED 1982 TROLL-FISHING CATCH AND EFFORT FROM PORT ARANSAS, TX.

DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES ---			DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES ---		
30 APR	2	6.0	1(1)	12(1)		6 JUL	2	8.0	1(8)	2(1)	
8 MAY	2	6.0	1(1)	12(18)	29(4)	6 JUL	6	8.0	1(14)	2(7)	14(1)
15 MAY	3	6.0	29(3)						24(2)		
25 MAY	2	2.0				8 JUL	2	9.0	1(1)	14(4)	
29 MAY	2	6.0	1(2)	12(1)		8 JUL	2	8.0	1(18)	2(2)	
29 MAY	2	7.0	1(1)	12(5)		9 JUL	2	5.0	1(9)		
30 MAY	2	6.5	1(4)	12(2)		9 JUL	2	7.0			
30 MAY	2	7.0	12(3)			10 JUL	2	6.0			
2 JUN	2	2.0	1(1)	12(2)		10 JUL	2	5.5	1(3)	56(2)	
3 JUN	2	5.0	1(1)	2(3)	12(1)	11 JUL	2	5.0	1(3)	56(1)	
5 JUN	2	5.5	1(5)	12(2)		11 JUL	2	7.0	1(1)	12(1)	
5 JUN	1	6.0	58(3)			12 JUL	2	5.0	1(21)	2(1)	
7 JUN	2	5.5	1(5)	2(1)	12(1)	13 JUL	2	5.0	1(28)	39(1)	56(1)
			24(1)			14 JUL	2	5.0	1(13)		
11 JUN	2	5.0	1(2)	2(1)		14 JUL	2	5.0	1(20)	2(1)	29(4)
12 JUN	2	5.5	1(3)	2(1)		15 JUL	2	5.0	1(4)	2(1)	24(15)
12 JUN	2	5.0	1(3)			15 JUL	2	7.0	1(16)		
13 JUN	2	6.0	1(5)	2(9)	14(2)	16 JUL	6	5.0	1(10)		
			20(1)			16 JUL	2	8.0	1(23)	2(2)	6(1)
14 JUN	2	5.0	1(6)	2(2)	13(4)	17 JUL	2	7.0	1(12)	6(1)	24(1)
			56(1)			17 JUL	6	5.0	1(7)		
17 JUN	2	5.0	1(22)	2(4)	6(1)	18 JUL	2	7.0	1(1)		
			29(3)			18 JUL	6	5.5	2(1)		
18 JUN	2	5.0	1(18)	29(4)	56(2)	19 JUL	6	6.0	1(9)	2(1)	
19 JUN	2	5.0	1(12)	2(1)		20 JUL	3	5.5	1(5)	2(1)	12(1)
19 JUN	2	6.0	1(2)	12(3)		20 JUL	2	7.0	1(6)	24(3)	
20 JUN	2	5.0	1(11)	2(1)		21 JUL	2	8.0	1(16)	12(4)	
21 JUN	2	5.0	1(6)	6(1)		21 JUL	3	5.5	1(14)		
21 JUN	2	6.0	1(6)	6(1)	63(1)	22 JUL	3	5.0	1(16)		
22 JUN	2	5.0	1(12)	56(2)		22 JUL	2	8.0	1(10)	12(1)	24(1)
23 JUN	2	5.0	1(7)			23 JUL	3	5.0	1(10)		
24 JUN	2	8.0	1(5)	6(1)		24 JUL	3	5.0	1(13)	56(7)	
24 JUN	2	5.5	1(6)	24(2)		25 JUL	3	5.0	1(9)	24(2)	
25 JUN	2	5.0	1(8)	2(1)	24(2)	25 JUL	2	8.0	1(16)	24(1)	29(3)
25 JUN	2	3.0				26 JUL	2	8.0	1(21)	29(2)	
26 JUN	2	8.0	1(7)	2(1)		26 JUL	3	5.0	1(5)	3(1)	
26 JUN	6	5.5	1(1)	24(5)	56(1)	27 JUL	3	5.5	1(27)	24(2)	
27 JUN	2	5.0	1(13)	2(1)	72(2)	28 JUL	6	5.0	1(14)	2(2)	
28 JUN	2	7.0	1(4)	12(2)		28 JUL	2	8.0	1(14)	24(1)	
30 JUN	2	5.0	1(2)	24(1)	56(2)	29 JUL	6	5.0	1(5)	2(1)	
1 JUL	2	5.0	1(4)	5(3)		29 JUL	2	7.0	1(18)	24(2)	
2 JUL	2	7.0	1(5)			30 JUL	2	6.0	1(18)		
3 JUL	2	6.0	1(3)	12(1)		30 JUL	6	5.5	1(10)	29(2)	56(2)
3 JUL	6	4.5	1(8)	2(2)	14(1)	31 JUL	6	5.5	1(5)	29(1)	52(1)
			24(1)						56(4)		
4 JUL	6	5.0	1(10)	24(1)	56(3)	1 AUG	6	5.0	1(12)	2(1)	
4 JUL	2	7.0				1 AUG	2	8.0	1(6)	12(1)	

APPENDIX TABLE 7 (CONTINUED).

DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES --				DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES --			
2 AUG	2	7.0	1(16)	6(1)	12(4)								
2 AUG	6	5.0	1(18)	2(2)									
3 AUG	2	8.0	1(15)	6(4)	12(1)								
4 AUG	2	5.5	1(7)	56(6)									
5 AUG	2	5.5	1(3)	2(1)	56(5)								
5 AUG	2	6.0	1(12)	12(6)									
6 AUG	2	5.0	1(8)	24(2)									
7 AUG	2	8.0	1(5)	12(1)									
7 AUG	6	5.0	1(5)	24(2)									
8 AUG	2	8.0	1(22)	12(8)									
10 AUG	2	6.0	1(4)	6(2)									
10 AUG	3	5.0	1(7)	29(1)									
11 AUG	2	8.0	1(5)	12(2)									
11 AUG	3	5.0	1(7)	24(5)									
12 AUG	3	5.0	1(9)	4(1)	29(3)								
12 AUG	2	8.0	1(3)	6(1)	12(1)								
13 AUG	3	5.0	1(8)	24(20)									
13 AUG	2	8.0	1(3)	6(3)	12(2)								
14 AUG	2	7.0	1(8)	12(5)									
14 AUG	3	4.5	1(7)	56(3)									
15 AUG	3	6.0	1(6)	56(2)									
15 AUG	2	7.0	1(4)	2(1)	6(2)								
16 AUG	2	8.0	1(3)	12(1)									
16 AUG	3	5.5	1(12)	24(1)									
17 AUG	3	6.0	1(7)	56(1)									
17 AUG	2	8.0	1(5)	12(1)									
18 AUG	3	5.5	1(17)	3(1)	6(1)								
19 AUG	3	5.5	1(2)	14(12)									
19 AUG	2	8.0	1(4)	12(2)									
20 AUG	2	8.0	1(10)	6(1)	12(2)								
20 AUG	3	5.5	14(10)	24(15)	29(1)								
21 AUG	3	6.0	24(1)										
22 AUG	6	5.0	1(2)	3(8)	14(1)								
23 AUG	3	4.0	1(3)										
26 AUG	3	4.5	1(15)	24(19)									
27 AUG	3	4.5	1(13)										
28 AUG	3	4.5	1(5)										
5 SEP	2	6.0	1(2)	36(3)									
6 SEP	2	7.0	1(3)	2(1)	36(5)								
12 SEP	2	1.0	3(18)										
18 SEP	2	4.0	3(148)										
18 SEP	2	6.0	3(31)										
19 SEP	2	4.0	3(150)										
19 SEP	2	6.0	3(28)	61(1)									
25 SEP	2	1.0	3(18)										