

**FINAL PROGRESS REPORT**

Contract No. 40GANF800101

Amount of Contract: Federal \$25,000 Match -0- Total \$25,000

Project Title: **Monitoring the large coastal shark fishery - July and August 1998 Season in the southeastern United States**

Contractee: Gulf & South Atl. Fisheries Development Foundation, Inc.

Contract Period: From: 29 June 1998 To: 31 August 1998

Report Deadline: 30 December 1998

**Background:** Recent stock assessments (Anderson 1985, 1990; Parrack 1990; NMFS 1994, 1995, 1996) indicate that the large coastal shark stock is overfished, resulting in a 50% reduction of the large coastl shark quota beginning in 1997. Various management strategies have been inacted for most states, and a federal shark fishery management plan was implemented in May 1993 for the U.S. Atlantic. Implementation of this Plan, in development for nearly a decade, was hampered by a lack of adequate data that could withstand the rigors of a detailed stock assessment. Recognizing these data inadequacies, in 1994, the Gulf and South Atlantic Fisheries Development Foundation (Foundation) and the University of Florida jointly began a data collection program for the shark fishery and resource, funded by a variety of NOAA/NMFS financial instruments (MARFIN, SK and sole-source contracts). The program has focused on placing observers aboard commercial boats to monitor the catch from North Carolina through the Gulf of Mexico along the west Florida coast. In addition, during 1997, a contract to the Foundation provided observer coverage of the western Gulf of Mexico during the second semester of 1997 and the first semester of 1998. The area now covered by the Foundation's program contributes about 75% of the landings in the commercial fishery, and newly awarded one year MARFIN grant will provide additional sampling in Louisiana. However, formal funding support for this program ended in April of 1998, and the recently selected MARFIN award was not slated to begin until December 1, 1998, thereby precluding observer coverage for the July-August 1998 large coastal shark fishing season. This was to be the first time since 1994 that the shark fishery would not have observer coverage, a critical component utilized in the assessment of the overfished shark stocks. This missing information was to be particularly problematic due to the rebuilding plan that NMFS is required to complete for overfished fisheries as part of the Magnuson-Stevens Fishery Conservation and Management Act. A fishery management plan covering all highly migratory species, including a rebuilding plan for shark, is currently being prepared for submission to the Secretary of Commerce at the end of September 1998. The purpose of this contract was to ensure that critical observer coverage during the second fishing season of 1998 was continued so that NMFS could better assess the status of overfished stocks.

## Statement of Work:

**Methods:** Through cooperative efforts of the Foundation, the University of Florida, and participating commercial shark fishermen, qualified observers were placed aboard commercial longliners operating in the eastern Gulf of Mexico (west Florida coast), and the South Atlantic (Atl. Florida coast and North Carolina) during the second fishing season of 1998. Two observers were employed through the University of Florida and a third was contracted directly through the Foundation. Vessels were compensated at a rate of \$50 per day to offset observer accommodation costs, and liability insurance was provided to the owner to cover the observer's presence onboard. Observers recorded detailed information on the catch and effort according to procedures outlined in previous Foundation reports concerning this program (e.g. Branstetter and Burgess 1997, 1998). Data were to be archived along with the remaining observer program database, housed at both the University of Florida and with a contracted Foundation data manager, as well as provided to NMFS for their use.

A sub-contract was issued to the University of Florida, by the Foundation, for the period July and August 1998. All performance by UF personnel was conducted during that timeframe. Data entry began with the closure of the season, thus only descriptive summary information could be generated during that performance period.

**Results:** The fishery was open from 1 July through 4 August 1998. During that time, observers logged 34 days monitoring the efforts of 26 longline sets during 11 different shark fishing trips (Table 1). For the North Carolina area, 5 sets totalling 5119 hooks had a fishing time of 108.4 total hours and caught 453 sharks (365 large coastals and 88 small coastals). The Atlantic Florida monitoring included 13 longline sets totalling 5612 hooks with a total soak time of 131.8 hours, which caught 648 sharks (251 large coastals and 397 small coastals). The Gulf Florida observer monitored 8 sets totalling 4179 hooks fished for a total of 106.3 hours which caught 232 sharks (214 large coastals, 18 small coastals). Overall, the sandbar shark dominated the large coastal catch, comprising 338 of 830 (41%) total large coastals captured; however regionally, there were differences in the catch composition. Tiger sharks were the second most common species taken in the South Atlantic areas, and the bull and nurse shark were the two most common species taken in the Gulf Florida efforts.

This summary information was all the information that could be compiled prior to the end of the University of Florida sub-contract. An electronic copy of this dataset is included in this report. Additional analyses, providing a more detailed investigation of catch rates, and comparing those data to our historical database will be provided at a later date.

Table 1. General summary information for the catch and effort of the monitored commercial shark longline fishery during the second 1998 fishing season.

Atlantic Florida 1998 (2)					West Florida 1998 (2)					North Carolina 1998 (2)				
Species	Caught	Carcass	Other Tagged / Kill	Released	Species	Caught	Carcass	Other Tagged / Kill	Released	Species	Caught	Carcass	Other Tagged / Kill	Released
CP	94	93	0	1	CP	37	38	0	0	CP	207	191	13	3
CL	27	27	0	0	CL	18	17	1	0	CL	5	3	2	0
CO	1	1	0	0	CO	1	1	0	0	CO	11	9	2	0
CF	10	0	9	1	CF	0	0	0	0	CF	2	0	1	1
CB	3	2	0	1	CB	44	44	0	0	CB	7	5	0	2
BN	1	1	0	0	BN	0	0	0	0	BN	0	0	0	0
CM	1	0	1	0	CM	0	0	0	0	CM	0	0	0	0
CS	0	0	0	0	CS	0	0	0	0	CS	1	0	1	0
CN	0	0	0	0	CN	0	0	0	0	CN	0	0	0	0
CG	0	0	0	0	CG	0	0	0	0	CG	0	0	0	0
NB	0	0	0	0	NB	18	16	0	2	NB	2	2	0	0
SL	3	0	3	0	SL	0	0	0	0	SL	1	0	1	0
SM	2	0	2	0	SM	12	0	12	0	SM	8	0	8	0
SZ	0	0	0	0	SZ	0	0	0	0	SZ	0	0	0	0
GN	21	0	2	19	GN	61	0	0	61	GN	3	0	0	3
GC	88	17	6	65	GC	23	12	9	2	GC	117	4	11	102
OT	0	0	0	0	OT	0	0	0	0	OT	1	0	0	1
CC	0	0	0	0	CC	0	0	0	0	CC	0	0	0	0
RT	351	27	324	0	RT	2	0	2	0	RT	88	0	87	1
ST	0	0	0	0	ST	0	0	0	0	ST	0	0	0	0
CA	46	41	4	1	CA	16	8	8	0	CA	0	0	0	0
CI	0	0	0	0	CI	0	0	0	0	CI	0	0	0	0
SD	0	0	0	0	SD	0	0	0	0	SD	0	0	0	0
AV	0	0	0	0	AV	0	0	0	0	AV	0	0	0	0
AS	0	0	0	0	AS	0	0	0	0	AS	0	0	0	0
IO	0	0	0	0	IO	0	0	0	0	IO	0	0	0	0
PG	0	0	0	0	PG	0	0	0	0	PG	0	0	0	0
MC	0	0	0	0	MC	0	0	0	0	MC	0	0	0	0
SA	0	0	0	0	SA	0	0	0	0	SA	0	0	0	0
HP	0	0	0	0	HP	0	0	0	0	HP	0	0	0	0
HV	0	0	0	0	HV	0	0	0	0	HV	0	0	0	0
M sp.	0	0	0	0	M sp.	0	0	0	0	M sp.	0	0	0	0
Unid	0	0	0	0	Unid	0	0	0	0	Unid	0	0	0	0
Total	648	209	351	88	Total	232	136	32	65	Total	453	214	126	113
Lg Coastal	251	141	23	87	Lg Coastal	214	128	22	65	Lg Coastal	365	214	39	112
Sm Coast	397	68	328	1	Sm Coast	18	8	10	0	Sm Coast	88	0	87	1
Pelagic	0	0	0	0	Pelagic	0	0	0	0	Pelagic	0	0	0	0
Other	0	0	0	0	Other	0	0	0	0	Other	0	0	0	0

region	sets	Length set (nm)	# hooks	Soak time (hrs)
Florida East Coast	1	3.8	333	2.4
	2	2	227	2.2
	3	5.7	477	13.8
	4	5.3	481	14.5
	5	4.7	457	14.6
	6	5.7	462	13.3
	7	5.7	451	14.1
	8	2.7	242	3.4
	9	5.7	471	14.1
	10	5.5	470	12.9
	11	6.1	608	10.3
	12	2.5	525	4.4
	13	5.4	428	11.9
Total	13	60.8	5612	131.8
Florida Gulf Coast	1	7	573	11.5
	2	7	545	13.4
	3	6.9	537	13.1
	4	7.5	520	14.8
	5	6.9	468	13.3
	6	7	455	13.8
	7	8	552	14.0
	8	7	529	12.4
Total	8	57.3	4179	106.3
North Carolina	1	19.2	1056	17.6
	2	14.2	840	42.6
	3	19.6	1154	16.6
	4	17.4	1106	16.6
	5	14.25	983	15.0
Total	5	84.65	5119	108.4

## CODES FOR SPECIES NAMES

sandbar	<i>Carcharhinus plumbeus</i>	CP
dusky	<i>Carcharhinus obscurus</i>	CO
bignose	<i>Carcharhinus altimus</i>	BN (common name <u>BigNose</u> )
Carib. reef	<i>Carcharhinus perezii</i>	CS (S for springer)
blacktip	<i>Carcharhinus limbatus</i>	CL
spinner	<i>Carcharhinus brevipinna</i>	CM (M for maculipinnis)
bull	<i>Carcharhinus leucas</i>	CB (B for bull)
silky	<i>Carcharhinus falciformis</i>	CF
night	<i>Carcharhinus signatus</i>	CN (N for night)
Galapagos	<i>Carcharhinus galapagensis</i>	CG
sandtiger	<i>Odontaspis taurus</i>	OT
tiger	<i>Galeocerdo cuvieri</i>	GC
lemon	<i>Negaprion brevirostris</i>	NB
nurse	<i>Ginglymostoma cirratum</i>	GN (N for nurse)
scalloped hammerhead	<i>Sphyrna lewini</i>	SL
great hammerhead	<i>Sphyrna mokarran</i>	SM
smooth hammerhead	<i>Sphyrna zygaena</i>	SZ
white	<i>Carcharodon carcharias</i>	CC
shortfin mako	<i>Isurus oxyrinchus</i>	IO
longfin mako	<i>Isurus paucus</i>	IP
bigeye thresher	<i>Alopias superciliosus</i>	AS
common thresher	<i>Alopias vulpinus</i>	AV
blue	<i>Prionace glauca</i>	PG
whitetip	<i>Carcharhinus longimanus</i>	CW (W for whitetip)
sixgill	<i>Hexanchus griseus</i>	HG
bigeye sixgill	<i>Hexanchus vitulus</i>	HV
sevengill	<i>Heptranchus perlo</i>	HP
blacknose	<i>Carcharhinus acronotus</i>	CA
finetooth	<i>Carcharhinus isodon</i>	CI
smalltail	<i>Carcharhinus porosus</i>	CT (T for smallTail)
Atl. sharpnose	<i>Rhizoprionodon terraenovae</i>	RT
bonnethead	<i>Sphyrna tiburo</i>	ST
angel shark	<i>Squatina dumerili</i>	SD
smooth dogfish	<i>Mustelus canis</i>	MC
Florida dogfish	<i>Mustelus norrisi</i>	MN
spiny dogfish	<i>Squalus acanthias</i>	SA
Cuban dogfish	<i>Squalus cubensis</i>	SC
rougthead dogfish	<i>Cirrigaleus asper</i>	SR (S for old genus <i>Squalus</i> , R for rougthead)