UNITED STATES DEPARTMENT OF COMMERCE
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RESEARCH INFORMATION REPORT TO SUPPORT DSEIS ON ENDANGERED AND THREATENED SPECIES OF SEA TURTLES, 1981

REPORT: Abundance of Loggerhead Sea Turtles in Cape Canaveral Ship Channel

FOR: Southeast Regional Office, NMFS, St. Petersburg, FL

BY: Southeast Fisheries Center, NMFS, Miami, FL

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Abundance of Loggerhead Sea Turtles in Cape Canaveral Ship Channel

Sea turtles have been shown to be abundant in the Cape Canaveral Ship Channel on the east-center of Florida Coast in recent years. (Table 1). These turtles were primarily loggerheads (99.7%). These turtles were taken during short drags (usually 15-mins) with shrimp or fish trawls by the NMFS Stock and Habitat Survey Project and by the Army Corps of Engineers Operation Sea Turtle Research Rescue. The effort expended in taking these turtles was variable between months and years and greatly increased during the second half of 1980 when the channel was being dredged.

Based on the research trawling stations made by the Sea Turtle Stock and Habitat Survey Proj.,the estimated mean number of sea turtles at any point in time, was calculated by month (with pooled data for 1978-1981) and for each channel position (research station zone). The channel positions are each 400 ft. wide and about 0.9-nautical miles long (Figure 1). The estimated mean number of sea turtles was calculated for each channel position on a yearly basis and for the total channel positions on a monthly basis (Table 2).

The sampling effort was very variable between positions, months, and years. Because of this, interpretation of Table 2 must be limited. General interpretations are:

a) Sea turtles are abundant during most, if not all, months of the year.

b) Sea turtles are most abundant in the channel between channel positions 8 and 11, a distance of about 3.6 nautical miles.

c) Sea turtle captures were very rare shoreward of the outer reaches (positions 1-6), and were relatively rare in control stations sampled outside of the channel.

The Cape Canaveral Ship Channel probably serves as a sea turtle hibernation area during relatively cold winters. Hibernation for many loggerheads and a few Kemp's ridley sea turtles was recorded for the period November 1977 through February 1978 (Carr, Ogren, and McVea, 1980; NMFS, 1978; Ogren and McVea, in press).

References:

Carr, A., L. Ogren and C. McVea. 1980. Apparent hibernation by the Atlantic loggerhead turtle, Caretta caretta, off Cape Canaveral, Florida. Biol. Consv., 19(1):7-14.

NMFS. 1978. Environmental assessment of proposed determination of critical habitat for the Kemp's ridley and loggerhead sea turtles in the Port Canaveral Navigation Channel.

Ogren, L.H., and C. McVea. In Press. Apparent Hibernation by Sea Turtles in North American Waters. Proc. World Conf. on Sea Turtle Consv., 26-30 Nov., 1979, Wash. D.C. Smithsonian Institution Press.

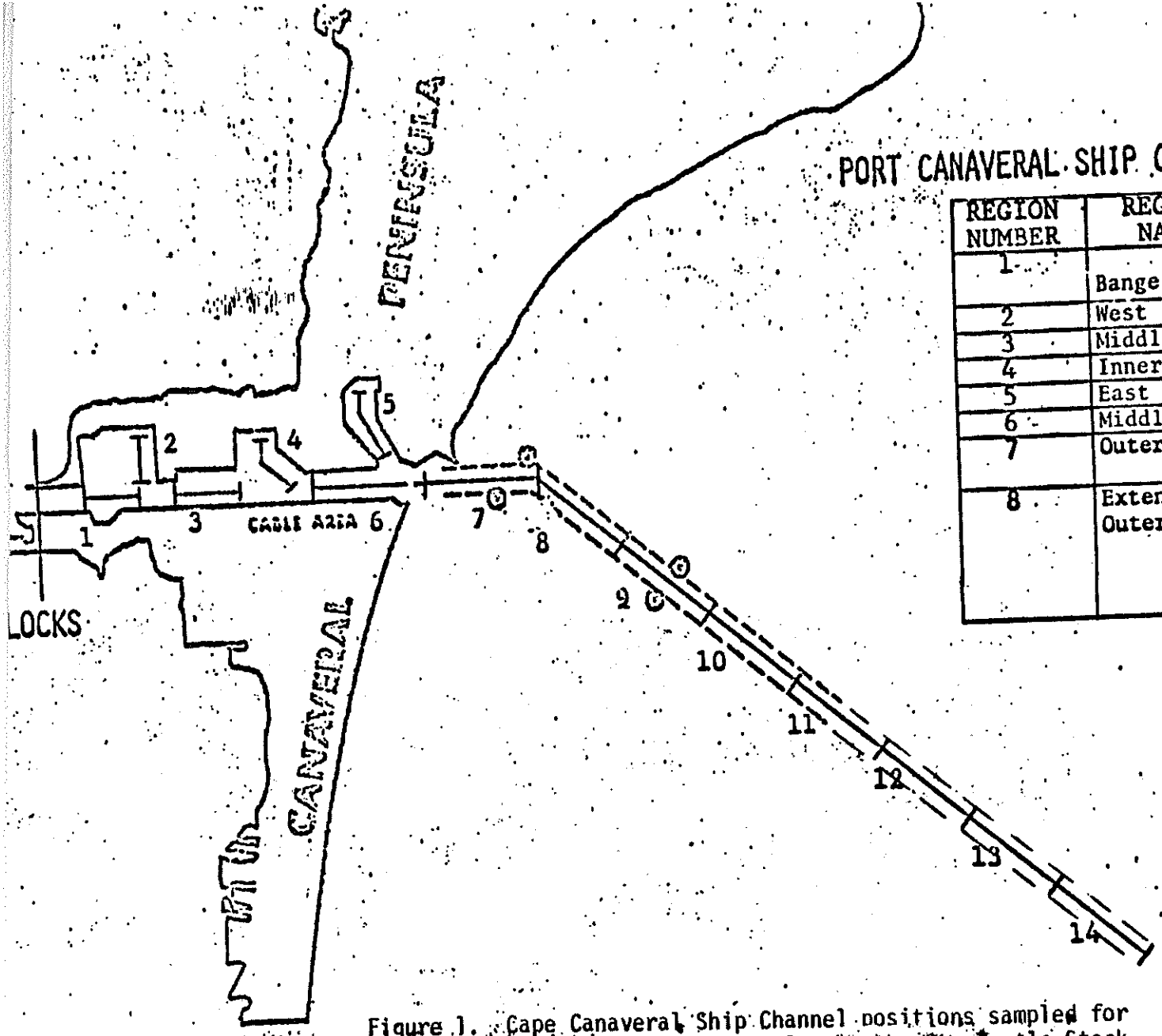
Table 1. Number of sea turtles caught in the Cape Canaveral Ship Channel by experimental trawling of the Stock and Habitat Survey Project and Operation Research Rescue, by species by year.

Species	1978	1979	1980	Total
Loggerhead	228	164	1678	2070
Kemp's Ridley	2	-	1	3
Green	-	-	3	3

Table 2. Estimated mean number of (primarily) loggerhead sea turtles, a point estimate at any time, by month and by channel position; based on pooled data of October 1978 to February 1981 from research trawl drags of the Sea Turtle Stock and Habitat Survey Project. (Note: the average 15-min drags were variable in number between months and between years

Month	CHANNEL POSITION 07	08	09	10	11	12	13	14	Total Channel Means
Jan.	16.0	21.5	33.0	69.5	88.0	28.0	9.0	*	265.0
Feb.	32.5	27.5	41.5	77.0	76.5	50.5	0.0	0.0	305.5
Mar.	34.0	32.0	63.5	50.0	70.5	83.5	42.0	39.0	414.5
April - Data incomplete									
May	15.0	18.5	18.0	3.0	24.0	0.0	0.0	0.0	84.5
June	27.0	63.0	36.0	110.5	52.5	5.0	3.0	0.0	297.0
July - Data not available									
Aug. - Data not available									
Sept.	*	21.0	26.0	48.0	18.0	0.0	0.0	0.0	113.0
Oct.	50.0	193.0	96.0	154.0	38.0	*	*	*	531.0
Nov.	25.0	58.0	67.0	29.0	19.0	*	*	*	198.0
Dec.	0.0	96.0	122.0	141.0	193.0	0.0	*	*	552.0
Yearly Means	24.9	58.9	55.9	75.8	64.4	23.8	10.0	7.8	321.5

* No Data Collected



PORT CANAVERAL SHIP CHANNEL SURVEY POSITIONS

REGION NUMBER	REGION NAME	POSITION
1	Bange Canal	1 3
2	West Basin	2
3	Middle Basin	4
4	Inner Reach	6
5	East Basin	5
6	Middle Reach	7
7	Outer Reach	8 9
8	Extended Outer Reach	10 11 12 13 14

Figure 1. Cape Canaveral Ship Channel positions sampled for occurrence of sea turtles by the Sea Turtle Stock and Habitat Survey Project.