PROJECT EXTENSION AND MODIFICATION

CRITICAL WINTER HABITAT FOR SEA TURTLES ON THE SOUTH CAROLINA AND GEORGIA COASTS: A SURVEY OF OVERWINTERING POPULATIONS AND POSSIBLE SEA TURTLE HIBERNACULA.

By

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To

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INTRODUCTION

Authorization for funding of Contract No. 03-78-D08-0062 was received 15 September 1978. Southeastern Wildlife Services, Inc. monitored incidental catch of sea turtles in Georgia waters by commercial shrimpers from mid-September to mid-October, planning to initiate contract work when turtles became present. However, almost no sea turtles were captured during this period of time, indicating that turtles had evidently departed Georgia waters by the beginning of the contract period. Therefore, the study plan described in the Contract was never initiated.

Southeastern Wildlife Services, Inc. requests that the Contract be modified to inventory winter sea turtle populations on the Georgia and South Carolina coasts, with particular emphasis on locating critical habitat used by marine turtles for hibernation. The period of performance will begin upon authorization from the contracting office and continue through 31 May 1979. A final report will be submitted on or before 31 May 1979. There will be no change in the amount of reward or method of payment. A modified budget is attached.

OBJECTIVES

Objectives of the modified project are as follows:

1. To survey and identify the existence (if any) of wintering populations of sea turtles in near-shore and estuarine waters of Georgia and adjacent South Carolina.

2. To drag portions of natural and artificially dredged channels within the study area for the purpose of identifying sea turtle hibernacula (if any).
3. To identify and describe possible critical winter habitat for sea turtles within the study area.
4. To describe any populations of overwintering sea turtles (if any) within the study area.

SUGGESTED CONTRACT MODIFICATIONS

Recent evidence of hibernating sea turtles in the Port Canaveral ship channel (unpublished report to Paul Hooker from Larry Ogren, 13 June 1978) suggests that other nearshore channels may also support hibernating sea turtles. At Port Canaveral, most of the turtles appeared to be located near the sides of the channel where the greatest vertical relief occurred. Depth of the channel was recorded to be about 42-48 feet while the adjacent sea floor shoaled to less than 20 feet.

Table 1 lists eleven channels from Port Royal Sound (SC) to St. Mary's Entrance (GA/FL) which have vertical relief that would indicate potential hibernant habitat. Four of these channels are dredged in a manner similar to the Port Canaveral ship channel. The remainder are naturally scoured and maintained by tidal action.

Southeastern Wildlife Services, Inc. proposes to drag likely hibernant habitat within nine Georgia channels and to drag two additional channels in South Carolina with the cooperation of the South Carolina Department of Natural Resources (Table 1). One or more commercial shrimp vessels with crew will be leased for the purpose of conducting the drags, one vessel per

Table 1. Preliminary estimates of water depths from natural and artificially dredged channels with steep edge relief. Data from NOAA navigational charts with 1:80,000 projection.

Location	Maximum natural depth	Dredged channel depth
Port Royal Sound, SC	54'	24'-27'
Calibogue Sound, SC	66'	
Savannah River Channel, SC/GA	33'	36'-38'
Wassaw Sound, GA	34'	
Ossabaw Sound, GA	48'	
St. Catherine's Sound, GA	50'	
Sapelo Sound, GA	44'	
Doboy Sound, GA	52'	
St. Simons Sound, GA	77'	32'
St. Andrew Sound, GA	64'	
St. Mary's Entrance, GA/FL	61'	34'

week for a total of four weeks. All areas will be dragged during a two-week period, once during the first half of December and again in February. Water temperatures are expected to remain above 15°C through mid-December. Southeastern Wildlife Services, Inc. will provide an on-board biological observer whenever drags are being conducted, and appropriate state and federal scientific collecting permits will be in the possession of the observer at all times.

Equipment will consist of a single 40' trawl net with 8" stretched mesh. In the event that this net becomes no longer repairable, the survey will shift to a standard crab trawl. Fifteen minute drag durations will eliminate the possibility of drowning captured turtles. Efforts are currently underway to acquire equipment for recording temperatures of substrate mud, adjacent water column, and any captured turtles. Turtles will be measured, photographed, tagged, and released. Evidence of black stains on the forequarters, indicating that the turtles have buried themselves in anaerobic mud, will be carefully noted.

If turtles appear to be buried in the mud, extreme care will be taken to minimize disturbance to the habitat since it is not known if a hibernating turtle will rebury itself after being dislodged from its hibernaculum. Multiple drags will not be conducted through areas that appear to contain hibernating turtles. Southeastern Wildlife Services, Inc. intends this survey to be qualitative rather than quantitative. The final report will be submitted on or before 31 May 1979, corresponding to the termination of the contract period. It will consist of a description of areas dragged, water depths, water temperatures, and any turtles captured in the area. If turtles are found buried in the mud, the location of the hibernaculum will be carefully mapped and described.

Southeastern Wildlife Services, Inc. has obtained recent although unconfirmed reports of hibernating sea turtles in an area southwest of Cape Lookout Shoals. One land trip will be conducted to this area (Beaufort, NC) in order to talk to local shrimpers about the possibility of hibernating sea turtles. If the presence of hibernating turtles appears likely, Southeastern Wildlife Services, Inc. will immediately advise NMFS of its findings so that additional sampling can be planned.

National Marine Fisheries Service

Proposed Budget (Critical Winter Habitat)

P.I. (½ time) 4 months @ $1500/mo.		$ 3000.00
Travel		
per diem 40 days @ $30/day	$1200.00	
mileage 2500 mi. @ $.05/mi.	125.00	
plane fare (Atlanta--New Bern)	150.00	
	$1475.00	1475.00
Equipment rental		
truck 5 weeks @ $125/week	$ 625.00	
vessels 4 weeks @ $900/week	3600.00	
	$4225.00	4225.00
Equipment purchase		
40' turtle seine (8" mesh)	$1000.00	
tags, applicator pliers, etc.	100.00	
	$1100.00	1100.00
Supplies		
navigational charts	$ 100.00	100.00
Report preparation and duplication	$ 400.00	400.00
Other		
contingency for additional crab nets or net repair work	$1000.00	
extra Workmen's Comp. for marine work	500.00	
	$1500.00	1500.00
		$11800.00
35% overhead		4130.00
	Total	$15930.00