2-26-82

NMFS Turtle Census, U.S. Virgin Islands

May 1, 1979 to December 31, 1979

Contract Issued: Department of Conservation & Cultural Affairs
Bureau of Fish & Wildlife

Fourth Quarter Report - December 31, 1979 - and Summation

Aerial Census Report: No deviation (see 1st Quarter Report).

Census Technique: No deviation (see 1st Quarter Report and 2nd Quarter Report corrections).

Results as of December 31, 1979:

St. Croix: Seven flights were flown during the 4th quarter with an average of 13 turtles observed per census flight. Flights were scheduled once per week with one week missed due to inclement weather. Average size of green turtles seen was 2.9' (range: 1.5' - 4'); average size of hawksbills seen was 1.8' (range: 0.5'- 4'). All turtle sizes were rounded off to nearest 0.5'. One leatherback turtle (size 0.5') was observed this quarter. Below are tabulated the data from census flights for each quarter followed by a data summation:

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Greens	46% (31)	30% (31)	40% (21)	30% (27)
Hawksbills	43% (29)	37% (39)	38% (20)	58% (52)
Leatherbacks				- (1)
Unidentified	12% (8)	33% (35)	23% (12)	12% (11)
Total seen	68	105	53	90

Data Summation (St. Croix)

Greens	35%	110
Hawksbills	44%	140
Leatherbacks		1
Unidentified	21%	66
Total for Program		317

St. Thomas/St. John: Five census flights were flown during the 4th quarter with an average of 17 turtles observed per census flight. Average size of green turtles seen was 2.3' (range: 1' - 3.5'); average size of hawksbills seen was 1.8' (range: 1'- 4'). No leatherback turtles were seen. Below are tabulated the data from census flights for each quarter followed by a data summation.

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Greens	39% (49)	47% (63)	62% (91)	63% (55)
Hawksbills	56% (69)	52% (70)	33% (48)	33% (29)
Unidentified	5% (6)	1% (2)	5% (7)	4% (3)
Total seen	124	135	146	87

Data Summation (St. Thomas/St. John)

Greens	52%	258
Hawksbills	44%	216
Unidentified	4%	18
Total for Program		492

Hawksbill turtle tracks were observed by boat during the final quarter; findings are tabulated below:

Date	Location	No. of "tracks"
11/16/79	Nelteberg Bay	3
11/16/79	Penn Bay	2
11/16/79	Little Hans Lollik	3
11/16/79	Carrot Bay	4
11/16/79	Sandy Bay, Inner Brass	5
11/16/79	Dry Bay, Hans Lollik	5
11/18/79	Coconut Bay, Hans Lollik	3
11/23/79	Carrot Bay	3
11/23/79	Coconut Bay, Hans Lollik	1
11/27/79	Little Hans Lollik	2
11/27/79	Great St. James	2
11/27/79	Little Coculus Bay	3
12/6/79	Stumpy Bay, destroyed eggs seen	
12/8/79	Bare Ass Bay, Great St. James, 2 hatchlings seen	
12/24/79	Red Hook National Park dock, 1 juvenile seen in water	
12/28/79	Sapphire Bay Resort 1 hatchling seen	

Program Summation: The amount of data collected does not allow for statistical testing and our analysis shows that a minimum of three years of data would be necessary to arrive at significance.

A revised plan has been submitted which would allow for a full-year aerial census of turtles in the St. Thomas/St. John waters to be conducted. Using the experience gained during the past 8 month census we've also submitted, as part of the revised plan, a segment which would aid in answering basic questions concerning aerial census technique, such as which altitude yields most accurate census data, and which hour of the day is the optimal hour to conduct the census. Also, as a part of this proposed plan, we would test the observers' ability to accurately determine the species, as well as the size, of the turtle observed.