United States Department of the Interior

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FACSIMILE TRANSMISSION RECORD

DATE: 2-21-91

TO: GREG SPENCER
GEORGE BALAZS
JERRY LETHERALL

Phone No.:

FAX NUMBER: 942-2067

FROM: KEN McDERMOND

SUBJECT: 1991 TURTLE MONITORING PROPOSAL

NO. OF PAGES (including transmittal sheet): _____

REMARKS: Please provide each person with a copy.
Thanks
Input 1986-1990 SUMMARY IN MAIL
KEN

Honolulu

February 5, 1991

To: Tern Island Files

From: Tern island Staff KRN

Proposed 1991 Green Turtle Research
East Island, French Frigate Shoals

Following is a quick review of upcoming 1991 turtle research activities at East Island. These activities are based upon the objectives presented by George Balazs and Jerry Wetherall (both of the National Marine Fisheries Service) during a 9 January 1991 meeting between NMFS and FWS personnel. The following objectives have been condensed to include only those factors affecting activities at FFS.

Objectives For East Island Research:

1. Conduct complete season monitoring of East Island nesting activity. Late April or Early May through 15 September if possible.
2. Conduct more intensive fibropapilloma tumor exams on all of nesting females and basking turtles of both sexes at FFS.
3. Assess impacts of fibropapillomas on reproductive output.

Methods:

Following is a brief review of methods that we will be using this summer and questions about methodologies we are unsure of.

Objective 1. We will use the same methods as last year. Two researchers will rotate (4 nights on 4 nights off East Island) throughout the season. Tagging, temporary identification, and data collection and recording methods will remain the same as last year. Glynnis Nakai is developing a "Standard Operating Procedure" for East Island turtle research and camp operation that we should have soon.

Objective 2. Methods and training for fibropapilloma tumor detection should probably be upgraded. I am attaching a copy of the Codes for tumor size and tumor positions as were used last year. Maybe George Balazs would like to refine these to ensure that we get the kind of information he wants. I also recommend the 1991 turtle researchers be shown by Balazs the proper way to make a good exam for tumors before they come out to FFS. Guidelines on what should be done to examine basking males would also be appreciated.

Objective 3. I have ordered enough 2x2s five feet long to mark 60 nests on East Island so that we can compare hatching success and clutch size between tumor-afflicted and tumor-free females. Should 20 nests each from heavily tumor-afflicted, moderately afflicted, and tumor-free females be our goal or would another sampling scheme be more preferable? Should we try to mark nests only during June and July, the peak nesting time, to avoid any complicating factors such as difference in hatching success and clutch size variables between nests early in the season, mid season, and late in the season? We will not be able to get incubation lengths from these nests because most will probably hatch after the turtle camp closes for the season. We will have to go to East Island periodically to check the marked nests. We will have lay dates so we will generally know when to expect nests to hatch but the 53 to 97 day incubation period does not exactly pinpoint expected hatching time.

Personnel:

As mentioned before, two researchers will be needed to do the East Island work. Preferably, we would like to have both at FFS from the beginning of the season (late April) to the end (15 September). However, permanent Tern Island staff can fill in at the beginning or end of the season for a few rotations if both researchers cannot be scheduled for the entire season. It is essential to have at least one on hand to attempt to start the camp or to continue the camp as we near the end of the season.

Equipment:

We have all necessary field camp equipment at Tern Island for this season (tent, refrigerator, propane, fencing, etc.). Food will be integrated with standard Tern Island orders. We will need tags and applicators.

Comments:

If we can get out 1991 turtle researchers to meet with George Balazs to go over tumor examination it would also be beneficial to have George to show them tagging and temporary identification techniques. If transportation is available, George might like to come out to FFS and do some on sight training.

Proposed 1991 Turtle Research
Tern Island, French Frigate Shoals

Objectives:

1. Monitor nesting and hatchling emergence phenologies.

2. Continue hatching success analysis on Tern Island nests.

3. Tag and identify any nesting females encountered.

The 1991 Tern Island turtle research methods will be the same as in 1990. These methods are described in the accompanying 1990 "Summary of green turtle studies at Tern Island".

(continued)

Island Codes For The Hawaiian Archipelago

Island	TDPS Data Entry Code	TDPS Code	NMFS Code
Shark	SHAR	1082190	---
Gardner Pinnacles	GARD	1091100	1091100
Maro Reef	MARO	1111100	1111100
Laysan Island	LAYS	1121100	1121100
Lisianski Island	LISI	1142100	1142100
Pearl and Hermes Reef	PEAR	1171100	1171100
Midway Islands	MIDW	1211100	1211100
Kure Island	KURE	1231100	1231100

Species Codes

Common Name	Scientific Name	TDPS Data Entry Code	TDPS Code	NMFS Code
Turtles	Chelonia	UN (unknown)	UN	8621000000
Green Turtle	Chelonia mydas	CM	CM	8621110101
Hawksbill Turtle	Eretmochelys imbricata	EI	EI	8621110201
Loggerhead Turtle	Caretta caretta	CC	CC	8621110301
Olive Ridley Turtle	Lepidochelys olivacea	LO	LO	---
Leatherback Turtle	Dermochelys coriacea	DC	DC	8621160101

Size Codes for Tumors

Tumor Size	TDPS Data Entry Code	TDPS Code
Small	1	1
Medium	2	2
Large	3	3

Tumor Position Codes

Tumor Position	TDPS Data Entry Code	TDPS Code
Left jaw	J1	J1
Right jaw	J2	J2
Left eye	E1	E1
Right eye	E2	E2
Left dorsal of neck	N1	N1
Left ventral of neck	N2	N2
Right dorsal of neck	N3	N3
Right ventral of neck	N4	N4
Left distal of front flipper	F1	F1
Left proximal of front flipper	F2	F2
Right proximal of front flipper	F3	F3
Right distal of front flipper	F4	F4