

4802 hawksbill
9-22-97

MAUI

4801 hawksbill 9 AUG 98 0030 HST
(BOOK 1) BALAZS

2 OF 2



98raph.jpg at www.turtles.org

MAUI BOOK 11 GEORGE BALAZS (808) 395-6409

25 Aug 97 ALBERT
10-13 Aug 98 HAWAIIAN S.B.A.

See p 28, 29, 30

NMFS, HONOLULU LAB
Marine Turtle Research
2570 Dole Street
Honolulu, HI 96822-2396

TO SKIPPY HAW, DAL

Fedex # 802863269
867

Hobo Temperature loggers sent to Maui

for deployment at Kealia

(started 6/2/98 for 150 days)

Adwts by Nestoras

TO BE BUREIED
AT APPROX. 45cm
depth,

ID on logger	S/N number	ID on tape
E4 (FFS #9)	17473	Maui 3
T3 (FFS #1)	16591	Maui 1
T4 (FFS #3)	16593	Maui 2

BURIAL DATE	TIME	RECOVERY DATE	TIME
6/5/98	11:38	11/16/98	12:23
6/5/98	11:09	11/16/98	14:11
6/5/98	9:32	11/17/98	10:31

when recovered

Wet Sand
Dry Sand
Dry Sand

OBJECTIVES:

- Examine / Sample FP's
- Examine / Sample ^{Kingons} Barnacles
- Examine Salt & Pepper
- Discuss Longitudinal Records of IDed turtles

Need - Fedex TO URSULA
- NWHI Calendar

Daniel Smith
5316 Marmith Ave
Sacramento, CA 95841

NOTHONANI Apartments
3723 Lower Honoapiʻi
Lahaina, Maui, HI 96761

FROM SKIPPY - EXCAVATION DATA

HOBO TEMPERATURE LOGGERS

LOGGER ID	S/N	ID	LOCATION
E4 (FFS#9)	17473	MAUI 3	KEALIA
T3 (FFS#1)	16591	MAUI 1	MAKENA
T4 (FFS#3)	16593	MAUI 2	KIHEI

HONOKOWAI, MAUI

See
p. 70

10 AUG 98 ISLAND AIR

Monday Depart FL 1560 430pm for KAPALUA
MAUI. Marc Rice arriving Kahului ~ 6pm
checked in to Rm 107 NOKONANI -
BLU Robinson ~ #95 night. visited
Bennetts Rm 303.

11 Aug. 98 Denise Arrived 830am Kapalua.

TUES. obtained Scuba air rentals -

TIME = DIVE ONE - GHB, DMG, MARC Rice, Ursula,
Depth = Peter. To "Rock", Turtle House, Reef 2
Start 10am 55 MIN 8-9+ turtles 50'

TIME = DIVE TWO - same people as above
Depth = start 225pm 50 MIN. 6-7 turtles 35'

11 AUG TUES. Dinner at Mexican Compadres. Fish tacos
~ 9 PM VISIT Kahului Power Plant.
Tides not blowing. Warm water cell
seems more diffuse. Large turtles
present, but not in great numbers.
Photos of "turtle watchers". Perhaps
20 turtles present.

12 AUG, DIVE 3 @ 15 turtles 755AM out 9AM
Wednesday 51' 72 MIN

MAKANI Sands - Front
Many heads in the early AM.

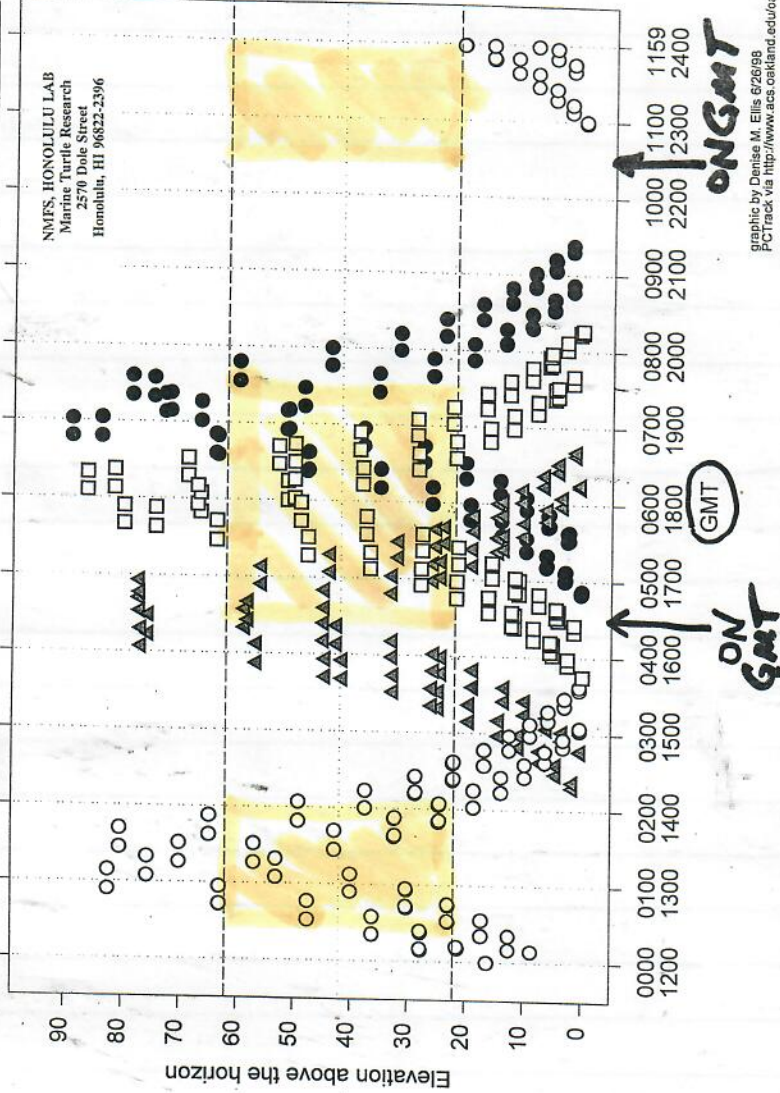
20 degrees, 45.25 minutes N, 156 degrees, 27.68 minutes W ^{from WJ GS}

BILL - TAKE MAGNET OFF (TO TURN TRANSMITTER ON) AT HAWAII TIMES AS FOLLOWS:

0230 ← MAGNET OFF 8 Aug 98 4801
 1430
 0830
 2030

Overpass predictions for NOAA 11, 12, 14, and 15 for Maui (20.5°N, 156°W), August 5-15, 1998

- Noaa 11 (H)
- ▲ Noaa 12 (D)
- Noaa 14 (J)
- Noaa 15 (K)



04801 Date : 09.08.98 01:14:08 LC : Z IQ : 10
Lat1 : 20.885N Lon1 : 153.017W Lat2 : ~~18.028N Lon2 : 165~~
44288 00 00 00
00 00

04801 Date : 09.08.98 07:47:07 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
42240 00 00 00
00 00

04801 Date : 09.08.98 18:38:13 LC : A IQ : 60
Lat1 : 20.629N Lon1 : 156.467W Lat2 : ~~16.030N Lon2 : 136.02~~
43008 45056 6A 00
29 02

04801 Date : 09.08.98 18:42:26 LC : B IQ : 00
Lat1 : 20.800N Lon1 : 156.493W Lat2 : ~~26.102N Lon2 : 173.315~~
43008 7424 6A 00
21 00

04801 Date : 09.08.98 20:13:09 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
43008 22272 6A 00
29 00

04801 Date : 10.08.98 13:31:04 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
09 10244 20 00
14 05

04801 Date : 10.08.98 18:31:45 LC : B IQ : 00
Lat1 : 20.608N Lon1 : 156.118W Lat2 : ~~22.482N Lon2 : 164.935~~
00 4356 20 00
14 3F

Already Released

= Aug 10 1005am Hawaii STANDARD TIME

04801 Date : 10.08.98 20:05:41 LC : (3) IQ : 60
Lat1 : 20.542N Lon1 : 156.291W Lat2 : ~~25.485N Lon2 : 178.340W~~
43008 6916 20 00
14 01

04801 Date : 11.08.98 00:49:37 LC : (2) IQ : 58
Lat1 : 20.486N Lon1 : 156.219W Lat2 : ~~21.659N Lon2 : 151.037W~~
43008 7680 35 01
88 00

04801 Date : 11.08.98 02:30:19 LC : A IQ : 08
Lat1 : 20.465N Lon1 : 156.253W Lat2 : ~~10.593N Lon2 : 160.731~~
42752 4096 35 01
88 01

04801 Date : 11.08.98 03:16:41 LC : A IQ : 08
Lat1 : 20.425N Lon1 : 156.216W Lat2 : ~~26.431N Lon2 : 128.633W~~
42752 9984 35 01
88 01

04801 Date : 11.08.98 07:14:43 LC : B IQ : 00
Lat1 : 20.033N Lon1 : 156.465W Lat2 : ~~16.990N Lon2 : 169.609W~~
42498 44800 35 01
88 00

04801 Date : 11.08.98 19:43:17 LC : B IQ : 00
Lat1 : 20.099N Lon1 : 156.168W Lat2 : ~~29.791N Lon2 : 157.626E~~
43008 22272 65 00
CA 00

04801 Date : 11.08.98 19:53:03 LC : (1) IQ : 50
Lat1 : 20.102N Lon1 : 156.165W Lat2 : ~~23.855N Lon2 : 172.530W~~
43008 37632 65 00
CA 00

04801 Date : 12.08.98 00:40:38 LC : A IQ : 08
Lat1 : 20.123N Lon1 : 156.075W Lat2 : ~~22.542N Lon2 : 145.487W~~
43776 15872 41 01
3F 00

04801 Date : 12.08.98 02:49:10 LC : A IQ : 08
Lat1 : 19.988N Lon1 : 156.224W Lat2 : ~~28.000N Lon2 : 117.931W~~
43264 7168 41 01
3F 01

04801 Date : 12.08.98 19:37:03 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
43009 24064 7E 00
A5 00

04801 Date : 13.08.98 00:30:51 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
01 22529 42 00
41 19

04801 Date : 12.08.98 07:02:47 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
42755 28416 41 01
3F 00

04801 Date : 12.08.98 15:21:45 LC : B IQ : 00
Lat1 : ~~20.150N Lon1 : 155.883W Lat2 : 12.367N Lon2 : 119.460W~~
42759 48384 7E 00
A5 01

04801 Date : 12.08.98 19:24:42 LC : B IQ : 00
Lat1 : 20.210N Lon1 : 155.940W Lat2 : ~~27.905N Lon2 : 167.685E~~
43010 5888 7E 00
A5 00

04801 Date : 13.08.98 18:57:49 LC : B IQ : 00
Lat1 : 20.268N Lon1 : 155.818W Lat2 : ~~25.976N Lon2 : 178.868E~~
42496 38913 CB 00
2E 00

04801 Date : 13.08.98 19:25:23 LC : B IQ : 00
Lat1 : 20.287N Lon1 : 155.900W Lat2 : ~~21.376N Lon2 : 160.476W~~
42496 52737 CB 00
2E 01

*positions are * error * All of ABOVE HAS (AI processing changed) Wds in 109Z by W. H. 16 x 16 ARGOS TO 9092*

04801 Date : 14.08.98 12:47:24 LC : B IQ : 00
Lat1 : 20.168N Lon1 : 155.582W Lat2 : ~~16.146N Lon2 : 138.198W~~
00 1373 393 54
00 04

04801 Date : 14.08.98 19:14:06 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
166 417 393 54
00 01

04801 Date : 15.08.98 01:50:15 LC : A IQ : 00
Lat1 : 20.152N Lon1 : 155.552W Lat2 : ~~15.074N Lon2 : 177.841W~~
165 1259 341 62
00 00

04801 Date : 15.08.98 03:23:15 LC : B IQ : 00
Lat1 : 20.168N Lon1 : 155.584W Lat2 : ~~24.493N Lon2 : 135.020W~~
166 192 341 62

04801 Date : 15.08.98 12:35:03 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
165 1369 322 65
00 00

04801 Date : 15.08.98 19:02:05 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ?????????? Lat2 : ?????????? Lon2 : ??????????
166 702 322 65
00 00

04801 Date : 16.08.98 01:33:15 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ?????????? Lat2 : ?????????? Lon2 : ??????????
167 491 282 347
00 34

04801 Date : 16.08.98 14:03:21 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ?????????? Lat2 : ?????????? Lon2 : ??????????
165 05 393 54
00 02

04801 Date : 16.08.98 19:30:37 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ?????????? Lat2 : ?????????? Lon2 : ??????????
165 12 393 54
00 01

04801 Date : 17.08.98 02:42:18 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ?????????? Lat2 : ?????????? Lon2 : ??????????
165 193 250 85
00 00

04801 Date : 17.08.98 01:25:41 LC : B IQ : 00
Lat1 : 20.180N Lon1 : 155.603W Lat2 : 17.351N Lon2 : 167.74W
165 1421 250 85
00 00

04801 Date : 18.08.98 01:14:36 LC : B IQ : 00
Lat1 : 20.167N Lon1 : 155.556W Lat2 : 18.555N Lon2 : 162.74W
166 350 204 104
00 00

04801 Date : 18.08.98 02:19:18 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ?????????? Lat2 : ?????????? Lon2 : ??????????
166 05 204 104
00 01

04801 Date : 18.08.98 20:04:34 LC : B IQ : 00
Lat1 : 20.157N Lon1 : 155.703W Lat2 : 25.291N Lon2 : 171.74W
166 244 514 41
00 00

04801 Date : 20.08.98 00:52:26 LC : B IQ : 00
Lat1 : 20.071N Lon1 : 155.970W Lat2 : 21.183N Lon2 : 151.74W
00 675 309 68
00 29

04801 Date : 20.08.98 03:13:26 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ?????????? Lat2 : ?????????? Lon2 : ??????????
166 308 309 68
00 00

04801 Date : 20.08.98 13:23:46 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ?????????? Lat2 : ?????????? Lon2 : ??????????
165 1445 540 39
00 00

04801 Date : 25.08.98 03:09:07 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ?????????? Lat2 : ?????????? Lon2 : ??????????
166 408 313 68
00 01

04801 Date : 21.08.98 02:49:48 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
165 257 720 29
00 01

04801 Date : 21.08.98 13:09:57 LC : B IQ : 00
Lat1 : 20.176N Lon1 : 155.242W ~~Lat2 : 18.692N Lon2 : 149.154W~~
00 1605 479 46
00 04

04801 Date : 21.08.98 15:17:56 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
164 181 479 44
00 00

04801 Date : 21.08.98 19:21:57 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
165 427 479 44
00 01

04801 Date : 21.08.98 19:21:57 LC : B IQ : 00
Lat1 : 20.180N Lon1 : 155.779W ~~Lat2 : 28.270N Lon2 : 167.275E~~
165 427 479 44
00 01

04801 Date : 22.08.98 02:30:08 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
165 423 295 71
00 01

04801 Date : 22.08.98 06:44:59 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
00 565 295 71
00 17

04801 Date : 23.08.98 06:32:45 LC : B IQ : 00
Lat1 : 20.125N Lon1 : 155.806W ~~Lat2 : 22.363N Lon2 : 146.176W~~
00 1298 326 64
00 14

04801 Date : 23.08.98 12:50:21 LC : B IQ : 00
Lat1 : 20.140N Lon1 : 155.663W Lat2 : 16.249N Lon2 : 138.367W
Nb mes : 002 Nb mes>-120dB : 000 Best level : -124 dB
Pass duration : 044s NOPC : 1
Calcul freq : 401 650410.1 Hz Altitude : 0 m
00 759 420 50
00 10

04801 Date : 23.08.98 18:59:44 LC : Z IQ : 10
Lat1 : 18.484N Lon1 : 148.678W Lat2 : 20.208N Lon2 : 155.345W
Nb mes : 003 Nb mes>-120dB : 001 Best level : -120 dB
Pass duration : 124s NOPC : 0
Calcul freq : 401 650410.1 Hz Altitude : 0 m
165 39 420 50
00 00

04801 Date : 24.08.98 03:25:31 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
Nb mes : 001 Nb mes>-120dB : 000 Best level : -124 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
165 595 511 41
00 00

TO P. 78

See p. 76 "Sample list" for Terry Spraker

SEA TURTLE TAGGING FORM

see p. 81 Tumor page

CAPTURE DATE, LOCATION AND METHOD:

8/11/98 (in front of) HonoKOWAI MAUI
 PERSON RECORDING DATA: Nohonai APle Polz "Barnie" in front of Nohonai
 Hand SCUBA 10 ft. depth

OLD TAGS: [] NEW TAGS: RFL []
 TUMOR SCORE: [] LFL []
 [] OTHER NEW TAGS: []
 [] 'PIT' []
 [] new LFF 40775106D
 []

STRAIGHT CARAPACE-LENGTH: 59.7 WIDTH: 47.5

NOTCH LENGTH: 59.2 DB: 3 L.O. VB: 1 L.O.

CURVED CARAPACE LENGTH: 64.0 WIDTH: 57.0

HEAD WIDTH: 9.4 SEX: MALE, FEMALE OR UNDETERMINED []

PPS: YES OR NO OR NE []

TAIL LENGTH: T 14.0 c 10.0

RIGHT FRONT FLIPPER WIDTH: 9.7 SAMPLES COLLECTED:

PLASTRON LENGTH: 48.0 Photos -

WEIGHT: []

DESCRIPTIVE REMARKS: []

Ch. Test plastron 4.4 long axis
 DORSAL 3 CT. 4.0, 3.5 cm, 3.8 cm. TOTAL = 3 formalin tanks
 2 Frozen tanks
 6 centrals, a little extra between 4+6; 5 laterals on RIGHT

u - chignon
 skin - barnacles
 under whole
 in tumor

Tumor page pg. 81

SEA TURTLE TAGGING FORM

V.P. Bennett's Nant

CAPTURE DATE, LOCATION AND METHOD:

8/13/98 Hand Scuba ~ 10ft depth 98# 28

PERSON RECORDING DATA: DMZ in front of NOTHONANI

OLD TAGS: []
TUMOR SCORE: 2

NEW TAGS: RFL []
LFL []

OTHER NEW TAGS: PIT 40772E605A

STRAIGHT CARAPACE-LENGTH: 50.6 WIDTH: 41.3

NOTCH LENGTH: 50.5 DB: [] L.O. [] VB: [] L.O. []

CURVED CARAPACE LENGTH: 53.5 WIDTH: 48.0

HEAD WIDTH: 7.9

PPS: YES OR NO OR NE 4 SEX: MALE, FEMALE OR UNDETERMINED U

TAIL LENGTH: T 10.5 c 7.0

RIGHT FRONT FLIPPER WIDTH: 8.8 SAMPLES COLLECTED:

PLASTRON LENGTH: 40.4 collected "non clinging" samples for ID

WEIGHT: []

DESCRIPTIVE REMARKS:

see tumor page 82; mild emaciation; soft plastron

Redmer

Date: Sun, 23 Aug 1998 22:07:42 -1000
From: Ursula Keuper-Bennett <howzit@TURTLES.ORG>
Reply to: Sea Turtle Biology and Conservation <CTURTLE@lists.ufl.edu>
To: CTURTLE@LISTS.UFL.EDU
Subject: NMFS crew "meets" the Clingons

[The following text is in the "iso-8859-1" character set]
[Your display is set for the "US-ASCII" character set]
[Some characters may be displayed incorrectly]

Aloha CTURTLErs,

A little over a week ago, George Balazs of the National Marine Fisheries Service (Honolulu) and dive partners Denise Ellis and Marc Rice showed up at our dive site to meet the Honokowai honu.

During his stay George et al captured and examined a good friend we've known since 1995 --a youngster called Polzbarney.

Polzbarney's bio at: <http://www.turtles.org/polzb.htm>

Peter and I managed to stay objective long enough to videotape and photograph the capture but once Polzbarney was dry and on his back, we both crumpled and cried by the freshwater shower. We know it's stupid but it felt like we were "turning in a friend"....

(I think the turtle handled the whole thing better than we did)

Either way George got some excellent tumour samples and confirmed that the barnacles we reported are different from the normal turtle barnacles. The beasties we call Clingons are indeed the ones he'd seen just three other times before "on dead or near-dead turtles" and only from Maui.

Image of George helping Polzbarney

<http://www.turtles.org/98biops.jpg>

Since George left, we've confirmed these Clingons on even more honu. At this point, Peter and I feel it is the rare turtle here that DOESN'T have these things. We think we know where they start too. The abdominal section just before the rear flippers --often obscured by a honu's fat folds (not that we got fat honu here by the way!)

<http://www.turtles.org/98cling.jpg>

If red-eared sliders are any indication, this is a turtle's softest skin.

There is presently no evidence these right-side-of-ugly pulsating things are harmful to the honu but we have plenty of videotape that suggests turtles with a major infestation are scratching up a storm, rubbing their armpits, butts, shoulders, neck and any other soft body parts I failed to mention on rocks and coral outcroppings.

As for Raphael (our worst Clingon case), the few times we do see her, that's essentially all she does. Scratch, go up for air, come back down to scratch some more.

<http://www.turtles.org/98raph.jpg>

DIVISION OF AQUATIC RESOURCES - MAUI
DEPARTMENT OF LAND & NATURAL RESOURCES

130 Mahalani Street
Wailuku, Hawaii 96793
Phone # (808) 243-5834
FAX #(808)243-5833
September 2, 1998

CAPTURE

To: Eric Onizuka, Acting Administrator
Emily Gardner, Endangered Species Specialist

PERSON

From: *Sh*
Skippy Hau, Aquatic Biologist

Subject: Hawksbill Hatchlings Found at Nest Site VFW-3 at Kihei Beach Reserve

OLD TIME

On Monday, 1 September 1998 (day 65), Mrs. Barbara Noel and other volunteers found hatchlings near the third nesting site. She reported finding many dead hatchlings in the grass and vegetation. I inspected the site and photographed some of the tracks to the ocean and several dead hatchlings. The hawksbill hatchlings appeared to have died from dehydration.

TUMESCENT SCORPION

About ten hatchling tracks were found leading to the ocean. Two live hatchlings were released before my arrival. There was one weak hatchling that was kept in a bucket of water and released later around noon. It appeared calm and floated in the water. It was not an active swimmer.

STRAIGHT

The dead hatchlings were brought back to the office, measured and kept in the freezer. Straight carapace lengths were taken to the nearest tenth of a millimeter. Seventy-two hatchlings averaged 37.2 millimeters (S.D.=1.3). The minimum and maximum lengths were 34.0 and 39.5 millimeters (See Attachment).

NOTCH

I contacted Ms. Kiti Jensen and Ms. Glynnis Nakai (FWS) to discuss the options for weak hatchlings. If hatchlings would not be allowed to be held temporarily to rest and gain strength, I would like Fish and Wildlife Service to determine what action should be taken. Ms. Jensen said she would be meeting with Ms. Karen Rosa to discuss weak hatchlings.

L.O.

CURVE

HEAD

Attachment (1)
c: DOCARE - Maui
Glynnis Nakai, FWS, Kealia NWR
George Balazs, NMFS
Margaret Dupree, NMFS
Karen Rosa, FWS
Hannah Bernard, Hawaii Wildlife Fund

MALE, FEMALE OR UNDETERMINED

PPS:

TAIL LENGTH:

T

C

RIGHT FRONT FLIPPER WIDTH:

SAMPLES COLLECTED:

PLASTRON LENGTH:

WEIGHT:

DESCRIPTIVE REMARKS:

September 1, 1998 VFW-3 Nest DEAD HATCHLINGS RECOVERED
STRAIGHT CARAPACE LENGTHS MEASURED

GGING FORM

35.7	36.6	COUNT = 72
37.5	38.2	MIN = 34.0
35.8	38.7	MAX = 39.5
38.6	34.4	AVE = 37.2
38.8	37.4	STDEV = 1.3
38.5	37.2	
38.2	36.9	
38.1	35.8	
37.9	35.2	
37.5	37.4	
38.8	39	
36.2	35.1	
39.4	38.7	
37.6	37.5	
36.4	36.3	
36.8	37.3	
35.7	35.8	
37	37.9	
38	36.7	
37.1	36.5	
35.9	35.2	
36.4	39.5	
38.5	39.1	
38.5	35.1	
38.1	37.4	
36.4	38	
36.9	37.8	
38.5	36.3	
37.5	37.3	
36.4	37.5	
36.3	37.9	
37.7	38.4	
35.6	34	
35.5	37	
38.4	36.5	
38.2	35	

DIVISION OF AQUATIC RESOURCES - MAUI
DEPARTMENT OF LAND & NATURAL RESOURCES

130 Mahalani Street
Wailuku, Hawaii 96793
Phone # (808) 243-5834
FAX #(808)243-5833
September 3, 1998

To: Eric Onizuka, Acting Administrator
Emily Gardner, Endangered Species Specialist

From: *slh*
Skippy Hau, Aquatic Biologist

Subject: Excavation of Hawksbill Turtle Nest Site VFW-3 at Kihei Beach Reserve

Due the large number of dead hatchlings found on the first day and one hatchling observed the evening before by Hawaii Wildlife Fund personnel, we decided to excavate on Wednesday, 02 September 1998 (day 66). Around 17:00, we searched the VFW-3 area for about 30 minutes. One hatchling was found crawling in the grass by Mrs. Esten Williams. It was immediately released on the beach.

We tried clearing the grass around the nesting site. The nest was found around 18:04. The second live hatchling was uncovered on the surface. Live hatchlings were found near the surface. Several hatchlings were blocked beneath grass roots.

The female appears to have nested beneath the grassy area. The diameter of the nest was about 28 centimeters across. The bottom of the nest was about 48 centimeters deep. With the assistance of FWS Volunteers and members of the Hawaii Wildlife Fund, we recovered: 47 live hatchlings; 8 dead hatchlings; 148 empty shells (est.) 59 undeveloped & partially developed eggs

207 Total Estimated Eggs

Page: Forty-six of the live hatchlings were released after being measured. Two weak hatchlings were held for observation overnight. One hatchling was dead in the evening and one was released this morning. The nest remains were shipped along with the 72 dead hatchlings to NMFS Honolulu Laboratory for further analysis and final accounting.

RIGHT FRONT FLIPP

PLASTRON LENGTH:

WEIGHT:

[Empty box for weight measurement]

- c: DOCARE - Maui
- Glynnis Nakai, FWS, Kealia NWR
- George Balazs, NMFS
- Margaret Dupree, NMFS
- Karen Rosa, FWS
- Hannah Bernard, Hawaii Wildlife Fund

DESCRIPTIVE REMARKS:

[Empty box for descriptive remarks]

78

59.7
cm

HONOLULU, MAUI PIT ID # 407751PDE
Green TURTLE Biopsies sent 9-14-98
to Terry SPRAKER CSU
FEDEX # / 8073 5191 6477

VIAL 1 (NORMAL SKIN
Left front (GROWTH

Flipper (GROWTH WITH BARNACLE WITHIN ---OR---
(BARNACLE WITH TUMOR ARISING AROUND IT

VIAL 2 (GROWTH
Left Jaw
HINGE

VIAL 3 (Growth
Right front (Growth including margin w/uninvolved skin
Flipper

Above 6 pieces of tissue total

George Balazs

HONOLULU LABORATORY
NOAA, NMFS
2570 Dole Street
Honolulu, HI 96822-2396

77
Date: Mon, 24 Aug 1998 21:13:36 -1000
From: Casey Jarman <jarman@aloha.net>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Re: Forwarded mail....

[The following text is in the "ISO-8859-1" character set]
[Your display is set for the "US-ASCII" character set]
[Some characters may be displayed incorrectly]

Hey Buddy -- we found her today! Your data positions are scattered around Waipio Valley, so we spent the day there and picked up signals from her twice, very weak, but she is in that vicinity, we're going back tomorrow to hunt some more. Got your e-mail position message this morning, but tomorrow we'll be outta here early so will call you to see if anything new is in. More tomorrow - Bill

Date: Wed, 26 Aug 1998 17:16:37 -1000
From: Casey Jarman <jarman@aloha.net>
To: Skippy Hau <skippy@dar.ccmil.compuserve.com>,
Steve Williams <williams@mauigateway.com>,
Glynnis Nakai <glynnis_nakai@fws.gov>,
Larry Katahira <larry_katahira@nps.gov>
Cc: "Bernard, Hannah" <wild@aloha.net>,
Suzanne Canja -Maui <scanja@juno.com>,
George Balazs <gbalazs@honlab.nmfs.hawaii.edu>
Subject: travelling turtles

[The following text is in the "ISO-8859-1" character set]
[Your display is set for the "US-ASCII" character set]
[Some characters may be displayed incorrectly]

Sasha, our Maui hawkbill nester was located Mon and Tues by a Hawaii Wildlife Fund crew. She's just N of Waipio Valley on Big Isl., we picked up a high rate of surfacing, which may mean she was feeding there.

Last weekend we were able to relocate one (A'a) of the 2 hawkbills instrumented at Kamehame on 8/12, she was still off shore at Kamehame. Signals from the other turtle (Pa'hoehoe) were not detected.

More effort to relocate the one Kamehame turtle and monitor the others will continue....and we'll keep you posted.

Date: Sat, 5 Sep 1998 11:00:52 -1000
From: Casey Jarman <jarman@aloha.net>
To: George Balazs <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Sasha

*Reduce -
Maui hawk*

[The following text is in the "ISO-8859-1" character set]
[Your display is set for the "US-ASCII" character set]
[Some characters may be displayed incorrectly]

We've been able to determine that she is between the N wall of Waipio and the N wall of Pololu. More work on her next weekend.

I left a radio receiver with Paul Breeze in Hawi....he'll go to the Pololu Lookout and check for her presence for me when I ask...may save some driving for me. We told some Balazs stories to each other - he's a talker!

I'll be around the lab Tues a.m. (mtg w/ Bud and Mike at 0900)!

see ya. -Bill



78
From
0.69

04801 Date : 04.09.98 15:08:47 LC : B IQ : 00
Lat1 : 20.222N Lon1 : 155.684W Lat2 : 11.108N Lon2 : 115.922W
167 1257 425 54
00 00

04801 Date : 07.09.98 06:43:45 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
00 894 563 38
00 11

04801 Date : 07.09.98 13:23:34 LC : B IQ : 00
Lat1 : 20.245N Lon1 : 156.003W Lat2 : 19.767N Lon2 : 153.930W
167 1229 708 30
00 00

04801 Date : 07.09.98 19:17:29 LC : B IQ : 00
Lat1 : 20.161N Lon1 : 155.528W Lat2 : 19.942N Lon2 : 154.557W
167 1275 708 30
00 01

04801 Date : 07.09.98 20:57:27 LC : B IQ : 00
Lat1 : 20.223N Lon1 : 155.676W Lat2 : 30.347N Lon2 : 157.399E
167 09 708 30
00 01

04801 Date : 08.09.98 02:54:28 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
167 121 406 52
00 00

04801 Date : 08.09.98 08:15:46 LC : B IQ : 00
Lat1 : 20.149N Lon1 : 155.749W Lat2 : 11.134N Lon2 : 165.464E
167 950 406 52
00 00

04801 Date : 25.08.98 19:32:40 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
166 332 481 44
00 00

04801 Date : 28.08.98 01:03:43 LC : B IQ : 00
Lat1 : 20.269N Lon1 : 155.152W Lat2 : 19.771N Lon2 : 157.318W
167 594 396 53
00 01

04801 Date : 28.08.98 19:41:39 LC : B IQ : 00
Lat1 : 20.156N Lon1 : 155.667W Lat2 : 22.636N Lon2 : 166.746W
167 706 443 48
00 00

04801 Date : 29.08.98 00:52:16 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
168 356 336 63
00 00

04801 Date : 29.08.98 03:18:59 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
167 493 336 63
00 02

04801 Date : 30.08.98 02:58:35 LC : B IQ : 00
Lat1 : 20.184N Lon1 : 155.727W Lat2 : 27.589N Lon2 : 121.120W
167 1076 379 56
00 01

04801 Date : 31.08.98 06:42:33 LC : B IQ : 00
Lat1 : 20.156N Lon1 : 155.509W Lat2 : 12.977N Lon2 : 175.851E
00 1947 531 40
00 13

04801 Date : 31.08.98 12:57:22 LC : B IQ : 00
Lat1 : 20.409N Lon1 : 155.177W Lat2 : 16.833N Lon2 : 143.275W
00 2522 664 32
00 02

04801 Date : 31.08.98 20:44:27 LC : 0 IQ : 60
Lat1 : 20.180N Lon1 : 155.679W Lat2 : 29.263N Lon2 : 163.296E
167 2385 664 32
00 00

04801 Date : 01.09.98 12:51:59 LC : A IQ : 00
Lat1 : 20.190N Lon1 : 155.639W Lat2 : 16.299N Lon2 : 138.356W
166 2341 480 44
00 00

04801 Date : 02.09.98 18:35:55 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ???????? Lat2 : ???????? Lon2 : ????????
00 580 727 29
00 11

04801 Date : 03.09.98 03:08:58 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ???????? Lat2 : ???????? Lon2 : ????????
166 571 400 53
00 00

04801 Date : 01.09.98 18:41:49 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ???????? Lat2 : ???????? Lon2 : ????????
00 434 480 44
00 17

04801 Date : 02.09.98 03:28:53 LC : B IQ : 00
Lat1 : 20.144N Lon1 : 155.671W Lat2 : 24.104N Lon2 : 136.990W
166 322 298 71
00 00

04801 Date : 02.09.98 12:43:57 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ???????? Lat2 : ???????? Lon2 : ????????
00 2619 727 29
00 02

04801 Date : 03.09.98 20:04:29 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ???????? Lat2 : ???????? Lon2 : ????????
166 307 480 44
00 01

04801 Date : 04.09.98 02:48:24 LC : B IQ : 00
Lat1 : 20.169N Lon1 : 155.580W Lat2 : 28.441N Lon2 : 116.537W
167 316 410 52
00 00

04801 Date : 04.09.98 07:23:18 LC : B IQ : 00
Lat1 : 20.149N Lon1 : 155.713W Lat2 : 16.892N Lon2 : 169.976W
167 1248 410 52
00 00

04801 Date : 08.09.98 08:15:46 LC : B IQ : 00
Lat1 : 20.149N Lon1 : 155.749W

167 950 406 52
00 00

04801 Date : 08.09.98 13:12:46 LC : B IQ : 00
Lat1 : 20.196N Lon1 : 155.729W

167 1092 364 58
00 00

04801 Date : 08.09.98 19:28:18 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????

167 110 364 58
00 01

04801 Date : 08.09.98 20:41:04 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????

167 89 380 16456
01 00

04801 Date : 09.09.98 08:02:44 LC : B IQ : 00
Lat1 : 20.142N Lon1 : 155.740W

167 905 294 72
00 00

04801 Date : 09.09.98 18:47:57 LC : Z IQ : 10
Lat1 : 16.322N Lon1 : 141.532W Lat2 : 20.181N Lon2 : 155.661W

166 30 490 43
00 01

04801 Date : 09.09.98 20:31:24 LC : B IQ : 00
Lat1 : 20.199N Lon1 : 155.621W

167 753 724 42346
01 22

04801 Date : 10.09.98 07:48:54 LC : B IQ : 00
Lat1 : 20.140N Lon1 : 155.706W

167 832 299 70
00 00

04801 Date : 10.09.98 18:36:28 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????

39 640 435 48
00 00

04801 Date : 10.09.98 20:18:01 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????

167 614 435 48
00 00

04801 Date : 11.09.98 01:48:24 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????

167 585 338 62
00 00

04801 Date : 11.09.98 07:38:44 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????

167 959 338 62
00 00

04801 Date : 11.09.98 20:07:42 LC : B IQ : 00
Lat1 : 20.197N Lon1 : 155.656W

167 430 1005 555
00 01

04801 Date : 12.09.98 01:41:03 LC : B IQ : 00
Lat1 : 20.198N Lon1 : 155.807W

167 487 269 77
00 01

LOCATION, SIZE, AND NUMBER OF TUMORS

See p. 71

	#1	#2	#3	#4	Total	Remarks
RT. EYE	2				2	
LT. EYE	2				2	
MOUTH	1	2			3	RTH #2 LTH #2 glottis = 1 #1 g (on tongue)
NECK	1	1			2	
RFF		1			1	anterior shoulder
LFF - removed	1				1	anterior shoulder under barnicle - photos
RHF						
LHF						
CLOACA/TAIL						
SEAMS/SCUTES						
INTERNAL						
Total	7	4			11	

OTHER INFORMATION:

2 suspicious grey patches on ventral neck.
Honokowai, Maui
8/11/98

* Polz "barney"



40775106D

LTH tumor sampled
RFF tumor sampled

RHF > normal
LHF > normal
Biopsies -
one for formalin, one for freezer

Approximate Tumor Size Categories:

#1 = detectable patch to 1cm diameter.
#3 = >4cm to 10cm.

#2 = >1cm to 4cm.
#4 = >10cm.

TUMOR SCORE:

1

LOCATION, SIZE, AND NUMBER OF TUMORS

	#1	#2	#3	#4	Total	Remarks
RT. EYE	1				1	
LT. EYE	1				1	
MOUTH	3				3	2#1 LSH 1#1 RSH
NECK		3	2		5	
RFF			1		1	
LFF		4	1		5	
RHF		1			1	
LHF		1			1	
CLOACA/TAIL						
SEAMS/SCUTES						
INTERNAL						
Total	5	9	4		18	

OTHER INFORMATION:

see pg 72

adult leeches LSH + RSH

Leech eggs ventral neck + FR

PC₁ in mouthNew
Pit

40772E605A



Approximate Tumor Size Categories:

#1 = detectable patch to 1cm diameter.

#3 = >4cm to 10cm.

#2 = >1cm to 4cm.

#4 = >10cm.

TUMOR SCORE:

2

04801 Date : 12.09.98 07:24:48 LC : B IQ : 00
Lat1 : 20.162N Lon1 : 155.729W

167 965 269 77
00 00

04801 Date : 12.09.98 19:41:07 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????

167 434 389 54
00 00

04801 Date : 12.09.98 19:56:18 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????

167 454 389 54
00 00

04801 Date : 13.09.98 01:25:25 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????

167 600 245 85
00 00

04801 Date : 13.09.98 02:50:37 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????

167 254 245 85
00 01

04801 Date : 13.09.98 19:15:42 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????

166 552 523 40
00 00

04801 Date : 13.09.98 19:41:41 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????

166 692 523 40
00 01

04801 Date : 14.09.98 01:17:38 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????

167 591 349 60
00 00

04801 Date : 14.09.98 19:31:56 LC : B IO : 00
Lat1 : 20.199N Lon1 : 155.800W

167 567 526 40
00 02

04801 Date : 15.09.98 06:44:12 LC : B IQ : 00
Lat1 : 20.151N Lon1 : 155.687W

00 845 249 84
00 12

04801 Date : 15.09.98 13:36:59 LC : B IQ : 00
Lat1 : 20.178N Lon1 : 155.640W

167 554 446 47
00 00

04801 Date : 15.09.98 18:36:21 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ????????

00 473 446 47
00 22

04801 Date : 16.09.98 19:02:45 LC : A IQ : 00
Lat1 : 20.171N Lon1 : 155.647W = >1cm to 4

167 34857 1099 50778
02 26

#4 = >10cm.

04801 Date : 17.09.98 00:41:34 LC : B IQ : 00
Lat1 : 20.063N Lon1 : 155.621W

167 37 265 79
00 01

TUMOR SCORE:

Date: Sat, 11 Jul 1998 10:06:44 -1000
From: Casey Jarman <jarman@aloha.net>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Re: reloc. nest permit mod.

*Rodney
Maui*

[The following text is in the "ISO-8859-1" character set]
[Your display is set for the "US-ASCII" character set]
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Two FYI things:

1. The Maui nester "dug" on nights of 5/18-19, 6/7-8, and 6/28-29. We only know for sure that the #2 nest had eggs (dog digging evidence!), but these 3 "nests" are on a 20d interval. Interesting that no false crawls here, but I suppose that could be because it's so much better habitat than encountered at Kealia where the turtles have trouble getting above the tide line and do a lot of searching along the fence line. So, we're expecting her next weekend, I'll go to Maui on Wed. to bracket the 20 day interval some and try to be sure to get her flipper tagged and a radio on her.

2. Re permit mod. request: I also stated in the orig. appl. that we would relocate to a partially shaded area if such were available near the orig nest. This was rejected as "no evidence to suggest this was necessary on Maui" - I've dug up my 3/98 Mexico notes and found the presentation from the Carrib. which indicates in their (Buck isl) hawksbill nest relocations they found 20% better success from nests in partial shade v. sun. So, I'm writing to the author to get a summary of findings to pass to Karen on this.

I guess I'm just paying my dues - need to show them I not a raving idiot, that I do base my actions on what appears best scientifically for the resource - it's not just whim!

--later, Bill

> From: George H. Balazs <gbalazs@honlab.nmfs.hawaii.edu>
> To: Casey Jarman <jarman@aloha.net>
> Subject: Re: reloc. nest permit mod.
> Date: Friday, July 10, 1998 6:21 AM

> I don't know what to say. I didn't catch that part about moving ones in
> pathway. That would have been a red flag. Sorry about the hassle they
> are givnig you. Geo.

> On Mon, 6 Jul 1998, Casey Jarman wrote:

> > They will allow relocation of nests for tidal flooding..so since they
> > cannot deny only a part of a modification request, they must deny it
> > all....so I must resubmit the appl. deleting request to relocate if in

a
> > gateway to the beach (as one was last year) or if in any other
situation

> > that may be poor (any of these would have been done with much
discretion

> > and consideration of risks of moving v. benefits of leaving- but they
act

> > like we may have moved any nest that could have been walked on!) and

> > request only to relocate if flooding is likely and they will issue it!

Date: Sun, 13 Sep 1998 11:11:23 -1000
From: Casey Jarman <jarman@aloha.net>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Re: Forwarded mail....

*4801
Maui
Rodney*

[The following text is in the "ISO-8859-1" character set]
[Your display is set for the "US-ASCII" character set]
[Some characters may be displayed incorrectly]

We listened to Sasha 12 hr on Sat - based on surface intervals, she is feeding in a.m, resting in afternoon. will try for 24 hr pattern soon. someone going to kamehame today to monday to check on those two.

re hobnobbing with Tillman: He is our current go-between on this big marine debris \$\$\$, so any good comments to him about working with WGG/Hawaii Wildlife Fund much appreciated!

have fun, have a margarita for me!

DIVISION OF AQUATIC RESOURCES - MAUI
DEPARTMENT OF LAND & NATURAL RESOURCES

130 Mahalani Street
Wailuku, Hawaii 96793
Phone # (808) 243-5834
FAX # (808) 243-5833
July 7, 1998

To: Bill Devick, Acting Administrator
Emily Gardner, Marine Mammal Specialist

From: *Sh* Skippy Hau, Aquatic Biologist

Subject: Turtle Nest in Kihei Beach Reserve Fenced On 30 June 1998

Last week, I was contacted by Dr. Steve Williams, coordinator for the Fish and Wildlife volunteers patrolling South Maui beaches. I received telephone messages at home reporting that a nest appeared to have been dug into by a dog. He estimated about 15 eggs were broken from the nest. After the incident, he and Mike Nishimoto, Fish and Wildlife Biologist inspected the nest damage.

Ms. Margaret Dupree (NMFS) and Ms. Karen Rosa (FWS) planned to meet with Steve Williams and inspect the nest areas in the afternoon on June 30. I was invited to meet with them and inspect a third possible nesting site found the day before (June 29).

We inspected the three sites in the Kihei Beach Reserve. I also explained that I had buried a temperature logger supplied by George Balazs (NMFS Marine Turtle Research Group). It was placed near the first 1997 nest site.

After inspecting the second nest, we decided it would be best to put up a fence to protect the remaining eggs in the nest. I've observed several dogs being walked along the beach without leashes. Other loose dogs also appeared to be from the neighborhood and were unleashed and without owner.

In the late afternoon, Steve Williams and I, pounded pieces of one-foot reinforcement bars into the ground to anchor drift fencing around the nest area. We also removed the coconut leaves used to block the trail from access by people. On July 2nd, I placed a small laminated sign on the fence identifying it as a turtle nesting area. As with other turtle notices, both agencies, Fish and Wildlife Service and State DLNR, Division of Aquatic Resources were listed along with telephone numbers.

We believe through neighborhood cooperation, the area is being carefully guarded by volunteers and neighbors.

c: George Balazs & Margaret Dupree, NMFS
Karen Rosa & Kiti Jensen, FWS

Maui

DIVISION OF AQUATIC RESOURCES - MAUI
DEPARTMENT OF LAND & NATURAL RESOURCES

130 Mahalani Street
Wailuku, Hawaii 96793
Phone # (808) 243-5834
FAX # (808) 243-5833
July 22, 1998

To: Bill Devick, Acting Administrator
Emily Gardner, Endangered Species Specialist

From: *Sh* Skippy Hau, Aquatic Biologist

Subject: Hook Removal From Green Turtle in Makena (Near Maui Prince Hotel)

At 10:00, I met Mr. Chris Quatre from the Maui Ocean Center at a parking lot next to the Maui Prince Hotel. We swam out to meet the vessel Prince Kuhio.

Around 11:10, together with Chris, Mr. Todd Winn, Mr. Wil Copeland, and Captain Mike Peavy on the Prince Kuhio, we grabbed one of two green turtles seen with hooks. I tried cutting the hook with my pliers. The hook was too big and the pliers could not cut the barb. We swam the turtle to the back of the vessel and placed it on the swim platform. Captain Peavy used a bolt cutter to remove the stainless steel hook.

Due to the moderate choppy conditions, no measurements were taken and the turtle was released after the hook was removed.

I estimated the turtle to weigh around 90 pounds. It appeared to be very healthy. There were no tags, tumors or barnacles.

This turtle was not the originally targeted animal. The one I observed on Saturday was absent. That animal was more than 150 pounds.

I informed DOCARE, the beach activities center at the Maui Prince Hotel and the Pacific Whale Foundation prior to our attempt to remove the hook from the turtle.

c: George Balazs, NMFS
Margaret Dupree, NMFS
Karen Rosa & Kiti Jensen, FWS

04801 Date : 17.09.98 03:04:08 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ?????????
167 426 265 79
00 00

04801 Date : 17.09.98 18:52:35 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ?????????
166 342 426 49
00 00

04801 Date : 18.09.98 00:34:00 LC : B IQ : 00
Lat1 : 20.276N Lon1 : 155.524W
00 633 338 61
00 20

04801 Date : 18.09.98 02:40:05 LC : B IQ : 00
Lat1 : 20.179N Lon1 : 155.593W
167 332 338 61
00 02

04801 Date : 18.09.98 20:20:48 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ?????????
167 991 751 28
00 00

04801 Date : 19.09.98 12:55:01 LC : A IQ : 00
Lat1 : 20.160N Lon1 : 155.589W
166 2741 2111 10
00 00

04801 Date : 23.09.98 01:14:59 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ?????????
167 296 358 63
00 00

04801 Date : 23.09.98 06:34:29 LC : B IQ : 00
Lat1 : 20.139N Lon1 : 155.772W
00 1254 358 59
00 09

04801 Date : 23.09.98 18:58:53 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ?????????
167 22 587 36
00 00

04801 Date : 23.09.98 19:15:16 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ?????????
167 487 587 36
00 00

04801 Date : 24.09.98 01:10:01 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ?????????
167 389 317 67
00 00

04801 Date : 24.09.98 08:17:06 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ????????? #2 = >1c
167 1138 317 67 #4 = >10c
00 00

04801 Date : 24.09.98 18:34:29 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ?????????
00 123 414 51

TUMOR SCORE:

04801 Date : 25.09.98 00:50:32 LC : B IQ : 00
Lat1 : 20.127N Lon1 : 156.198W
00 718 232 91
00 29

04801 Date : 29.09.98 14:22:56 LC : B IQ : 00
Lat1 : 20.222N Lon1 : 155.659W
167 916 317 66
00 00

04801 Date : 30.09.98 01:41:29 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ?????????
168 499 272 77
00 00

04801 Date : 30.09.98 03:10:00 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ?????????
167 391 272 77
00 00

04801 Date : 30.09.98 07:04:08 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ?????????
167 647 272 77
00 00

04801 Date : 30.09.98 19:33:29 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ?????????
167 35 411 51
00 00

04801 Date : 01.10.98 01:26:56 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ?????????
167 383 322 65
00 00

A/1

04801 Date : 01.10.98 20:56:34 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ?????????
167 830 367 57
00 01

04801 Date : 02.10.98 01:16:45 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ?????????
167 462 9249 25664
00 04

04801 Date : 02.10.98 02:28:13 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ?????????
167 485 326 64
00 00

04801 Date : 02.10.98 08:18:38 LC : Z IQ :
Lat1 : ???????? Lon1 : ?????????
166 385 326 64
00 00

04801 Date : 02.10.98 13:42:57 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ?????????
166 1381 496 42
00 00

04801 Date : 02.10.98 18:57:38 LC : Z IO : 00
Lat1 : ???????? Lon1 : ?????????
166 10 496 42 **atch to lcm diamete**
00 01

04801 Date : 03.10.98 01:11:37 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ?????????
166 525 427 49
00 01

04801 Date : 04.10.98 00:55:51 LC : Z IQ : 10
Lat1 : 20.528N Lon1 : 154.360W
166 2530 1741 12
01 00

04801 Date : 04.10.98 03:28:22 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????
166 2024 1741 12
00 00

04801 Date : 04.10.98 18:35:56 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????
166 15 1916 11
00 01

04801 Date : 05.10.98 00:48:50 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????
00 723 523 40
00 13

04801 Date : 25.09.98 20:32:16 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????
167 845 421 50
00 01

04801 Date : 26.09.98 00:44:48 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????
168 312 242 87
00 00

04801 Date : 26.09.98 03:00:23 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ???????
168 298 242 87
00 01

04801 Date : 26.09.98 20:19:25 LC : B IQ : 00
Lat1 : 20.204N Lon1 : 155.585W
168 380 410 51
00 00

04801 Date : 27.09.98 20:04:27 LC : A IQ : 00
Lat1 : 20.087N Lon1 : 155.527W
168 22 404 52
00 00

*Hereafter only LC A, B,
0, 1, 2 & 3 & Z (No ????)*

04801 Date : 09.10.98 03:14:56 LC : A IQ : 60
Lat1 : 20.188N Lon1 : 155.696W
166 1377 652 32
00 00

04801 Date : 15.10.98 19:47:18 LC : Z IQ : 10
Lat1 : 20.207N Lon1 : 156.399W
166 3225 2647 08
00 00

04801 Date : 24.10.98 19:18:20 LC : A IQ : 00
Lat1 : 20.188N Lon1 : 155.677W
167 06 514 41
00 00

04801 Date : 25.10.98 02:06:06 LC : A IQ : 08
Lat1 : 20.179N Lon1 : 155.465W
167 07 718 29
00 00

04801 Date : 27.10.98 08:05:12 LC : B IQ : 00
Lat1 : 20.174N Lon1 : 155.705W
166 1639 8693 35
03 48

04801 Date : 29.10.98 07:40:47 LC : B IQ : 00
Lat1 : 20.183N Lon1 : 155.703W
166 1142 292 72
00 00

04801 Date : 29.10.98 19:06:22 LC : B IQ : 00
Lat1 : 20.195N Lon1 : 155.684W
166 6622 3912 16838
01 00

04801 Date : 31.10.98 00:56:23 LC : B IQ : 00
Lat1 : 20.167N Lon1 : 155.641W
166 364 294 71
00 01

04801 Date : 02.11.98 00:33:28 LC : B IQ : 00
Lat1 : 20.163N Lon1 : 155.650W
00 702 466 45
00 00

04801 Date : 02.11.98 20:58:57 LC : B IQ : 00
Lat1 : 20.188N Lon1 : 155.678W
166 298 728 29
00 01

04801 Date : 04.11.98 20:36:18 LC : 1 IQ : 60
Lat1 : 20.195N Lon1 : 155.661W
165 1964 2346 09
00 00

04801 Date : 05.11.98 18:42:50 LC : B IO : 00
Lat1 : 20.185N Lon1 : 155.645W
00 669 2352 09
00 19

*Resumé
Z.???*

04801 Date : 07.11.98 01:23:28 LC : Z IQ : 10
Lat1 : 18.567N Lon1 : 161.535W
167 1092 1626 13
00 00

04801 Date : 08.11.98 13:37:07 LC : Z IQ : 10
Lat1 : 20.025N Lon1 : 155.309W Lat2 : 20.938N Lon2 : 158.693W
Nb mes : 003 Nb mes>-120dB : 002 Best level : -118 dB
Pass duration : 089s NOPC : 0
Calcul freq : 401 650455.8 Hz Altitude : 0 m
166 1942 658 32
00 00

04801 Date : 08.11.98 19:47:06 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ???????? Lat2 : ???????? Lon2 : ????????
Nb mes : 001 Nb mes>-120dB : 000 Best level : -125 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
166 605 658 32
00 00

04801 Date : 09.11.98 01:02:41 LC : B IQ : 00
Lat1 : 20.944N Lon1 : 154.863W Lat2 : 21.785N Lon2 : 152.708W
Nb mes : 002 Nb mes>-120dB : 000 Best level : -125 dB
Pass duration : 045s NOPC : 1
Calcul freq : 401 650455.8 Hz Altitude : 0 m
167 628 430 49
00 00

04801 Date : 10.11.98 00:50:18 LC : Z IQ : 00
Lat1 : ???????? Lon1 : ???????? Lat2 : ???????? Lon2 : ????????
Nb mes : 001 Nb mes>-120dB : 000 Best level : -128 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
00 787 721 29
00 07

Date: Thu, 28 May 1998 16:51:21 -0400
From: Peter Bennett <honu@turtles.org>
To: Ursula Keuper-Bennett <howzit@turtles.org>, "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Re: The List

Reduce for Maui Book

Hm. Well, I guess I should clarify a bit. This is primarily for George.

First point: the database is progressing but of course, not as fast as I'd like. Calling it "ready for Hawaii" might be a tad enthusiastic, although I hope to have it in useable form before then.

Remember, folks, this stage is strictly data capture, so any queries have to be handcrafted, and there is no reporting whatsoever as of yet. Also, I am certain that while I have the data structure well in hand, the interface is seriously flawed and eventually will have to be redone. I am only starting to gain the insight I need to do a proper interface. This version will be workable but clumsy, I think.

As for what's in it, at the moment I have maybe 50 test turtles. The data structure is intended to capture the same information that is in the records we sent you, George. It looks like this:

- Base turtle record, contains permanent information such as name and tag number.
- Annual turtle records, one for each year we see a turtle, contains info that changes yearly such as annual identification and annual profile pictures.
- Tumour records, one per tumour location per annual record, contains tumour scores and descriptions.

Doesn't look like much I know, and it certainly doesn't look complicated, but as with any data entry application, 85% of the effort goes into handling the 15% of cases that would be errors if allowed to go unchecked.

Second point: we know that the tumour essay does not get everything right, but we have not altered it and don't intend to. It's part of our record. At the appropriate time, we'll write another essay that builds from it, excising the inaccurate parts and expanding on the things we did get right. I'm not sure you've ever read it, George, but I hope you will.

need

Third point: George, I get the idea that you are quite fond of that old Goonybird N36. If that extends to DC-3s in general, know that you have a soulmate here. I have been fascinated by airplanes for all my life (grew up around them and I used to be a sailplane instructor) and the DC-3 is simply the most incredible airplane ever built. I've been in love with them since I was old enough to tell airplanes apart. I have a book that I treasure, "The Plane that Changed the World", written in 1966 by Douglas Ingells. It's long out of print and hard to find, but if you are interested in it I can arrange a loan. Let me know.

Sorry you couldn't make the FFS for June 1, but I'm sure your thoughts will be there. Aloha, see you this summer I hope.

_ / /// / /// / /// / Peter Bennett, Mississauga, Ontario

04801 Date : 10.11.98 03:10:40 LC : Z IQ : 00
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -134 dB
 Pass duration : ? s NOPC : ?
 Calcul freq : 401 650000.0 Hz Altitude : 0 m
 166 266 721 29
 00 00

04801 Date : 10.11.98 19:14:29 LC : Z IQ : 00
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -128 dB
 Pass duration : ? s NOPC : ?
 Calcul freq : 401 650000.0 Hz Altitude : 0 m
 166 124 1247 17
 00 00

04801 Date : 11.11.98 00:31:21 LC : B IQ : 00
 Lat1 : 20.145N Lon1 : 155.696W Lat2 : 23.702N Lon2 : 139.633W
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -122 dB
 Pass duration : 044s NOPC : 1
 Calcul freq : 401 650455.8 Hz Altitude : 0 m
 00 873 530 40
 00 11

04801 Date : 11.11.98 06:34:55 LC : Z IQ : 00
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -128 dB
 Pass duration : ? s NOPC : ?
 Calcul freq : 401 650000.0 Hz Altitude : 0 m
 00 1874 530 40
 00 05

04801 Date : 13.11.98 18:32:16 LC : Z IQ : 10
 Lat1 : 23.993N Lon1 : 169.004W Lat2 : 19.992N Lon2 : 155.484W
 Nb mes : 003 Nb mes>-120dB : 000 Best level : -128 dB
 Pass duration : 092s NOPC : 0
 Calcul freq : 401 650455.8 Hz Altitude : 0 m
 162 54292 22175 2261
 02 47

04801 Date : 14.11.98 18:31:16 LC : Z IQ : 00
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -128 dB
 Pass duration : ? s NOPC : ?
 Calcul freq : 401 650000.0 Hz Altitude : 0 m
 00 171 1935 11
 00 09

04801 Date : 16.11.98 01:20:19 LC : B IQ : 00
 Lat1 : 20.151N Lon1 : 155.750W Lat2 : 18.941N Lon2 : 160.999W
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -123 dB
 Pass duration : 044s NOPC : 1
 Calcul freq : 401 650455.8 Hz Altitude : 0 m
 166 825 490 43
 00 00

04801 Date : 16.11.98 07:12:26 LC : Z IQ : 00
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -132 dB
 Pass duration : ? s NOPC : ?
 Calcul freq : 401 650000.0 Hz Altitude : 0 m
 00 2236 38363 3627
 01 24

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DIVISION OF AQUATIC RESOURCES - MAUI
DEPARTMENT OF LAND & NATURAL RESOURCES

130 Mahalani Street
Wailuku, Hawaii 96793
Phone # (808) 243-5834
FAX # (808) 243-5833

July 30, 1998

To: Bill Devick, Acting Administrator
Emily Gardner, Marine Mammal Specialist

From: *SA* Skippy Hau, Aquatic Biologist

Subject: Hawksbill Turtle Update From Bill Gilmartin

According to Bill Gilmartin, on Saturday night, 18 July 1998 (day 20 from the last crawl observation), he and members of the Hawaii Wildlife Fund were able to monitor the return of the hawksbill female in the Kihei beach reserve. While she was digging, a barking dog caused the female to stop nesting. They were able to catch the dog and remove it from the scene. In the morning, it did not appear that she nested.

On her way back to the ocean, they contained her and placed a radio transmitter on the dorsal carapace. Since then, the female hawksbill appears to be staying in the waters around Wailea. *VHF*

Two days later, the turtle returned on the evening of Monday, 20 July 1998. Tracks were reported the next morning. Photographs were taken of the tracks and two possible nest sites. The location was again very close to the second nest. She was observed trying to crawl through the fence.

On Friday, 24 July 1998, Steve Williams, Suzanne (HWF) and I met to exchange information on their observations and radio tracking. The female turtle stayed in a grassy area for a long time. She could have made a nest in the grass. This third site will not be disturbed. We plan to clean up some of the vegetation before the expected hatching.

After excavating the first nest (July 27), slats on the ocean side of the fence for the second nest were raised up on the ocean side.

This afternoon, I took the GPS coordinates for the four nesting sites.

c: George Balazs, NMFS
Margaret Dupree, NMFS
Karen Rosa & Kiti Jensen, FWS

DIVISION OF AQUATIC RESOURCES - MAUI
DEPARTMENT OF LAND & NATURAL RESOURCES
130 Mahalani Street
Wailuku, Hawaii 96793
Phone # (808) 243-5327
FAX #(808)243-5326
July 30, 1997

Red
M

To: Bill Devick, Acting Administrator
Emily Gardner, Endangered Species Specialist

From: ^{Sh} Skippy Hau, Aquatic Biologist

Subject: Excavation of Hawksbill Turtle Nest Site VFW-1 at Kihei Beach Reserve

On Monday, 27 July 1998 (on day 69), at 17:00, I excavated two locations near site VFW-1. No eggs were found in the monitored location.

We checked an adjoining area also photographed in slides after finding the turtle tracks. We initially found the first egg approximately 27 centimeters from the surface.

With the assistance of volunteers and members from the Hawaii Wildlife Fund, we recovered 213 undeveloped and decomposed eggs. The diameter was about 28 centimeters across. The bottom of the nest was about 56 centimeters deep.

At the office six eggs were placed in a ziplock plastic bag. The rest of the remains were placed in plastic bags and frozen. Ms. Hannah Bernard tried to contact Dr. Peter Dutton for his assistance in checking the eggs. We were unable to contact him so the eggs were also placed in the freezer.

The nest remains were shipped to NMFS Honolulu Laboratory on Thursday, 30 July 1998.

The GPS position for this nest was 20° 45' 18 N Latitude and 156° 27' 44 W Longitude.

c: DOCARE - Maui
Glynnis Nakai (Kealia NWR, FWS)
George Balazs, NMFS
Margaret Dupree, NMFS
Karen Rosa & Kiti Jensen, FWS

35

Date: Mon, 10 Aug 1998 15:49:09 -0400
From: skippy@dar.CCMAIL.compuserve.com
To: "CCMAIL:DEckert at dar" <DEckert@dar.CCMAIL.compuserve.com>,
"CCMAIL:EGardner at dar" <EGardner@dar.CCMAIL.compuserve.com>
Cc: "INTERNET:smurakaw@honlab.nmfs.hawaii.edu"
<smurakaw@honlab.nmfs.hawaii.edu>,
"INTERNET:gbalazs@honlab.nmfs.hawaii.edu"
<gbalazs@honlab.nmfs.hawaii.edu>,
"Internet:kitti_jensen@smtp2.irm.r9.fws.gov"
<kitti_jensen@smtp2.irm.r9.fws.gov>,
"Internet:karen_rosa@smtp2.irm.r9.fws.gov"
<karen_rosa@smtp2.irm.r9.fws.gov>,
"Internet:Margaret.Dupree@noaa.gov" <Margaret.Dupree@noaa.gov>,
"Internet:jarman@aloha.net (Bill Gilmartin)" <jarman@aloha.net>,
"Internet:williams@mauigateway.com" <williams@mauigateway.com>,
"Internet:glynnis_nakai@mail.fws.gov" <glynnis_nakai@mail.fws.gov>
Subject: Hawksbill Turtle Update

Dave and Emily,

On Saturday night, Bill Gilmartin called to notify me that the female hawksbill had come up to nest. I came to watch her nest and watch them put on the satellite and radio transmitters on her shell. She came up around 20:00 and nested to about 22:00. She was secured in a box on the beach and was released before 24:00.

This was her fifth nest (August 8th). We're hoping she comes up one more time before leaving.

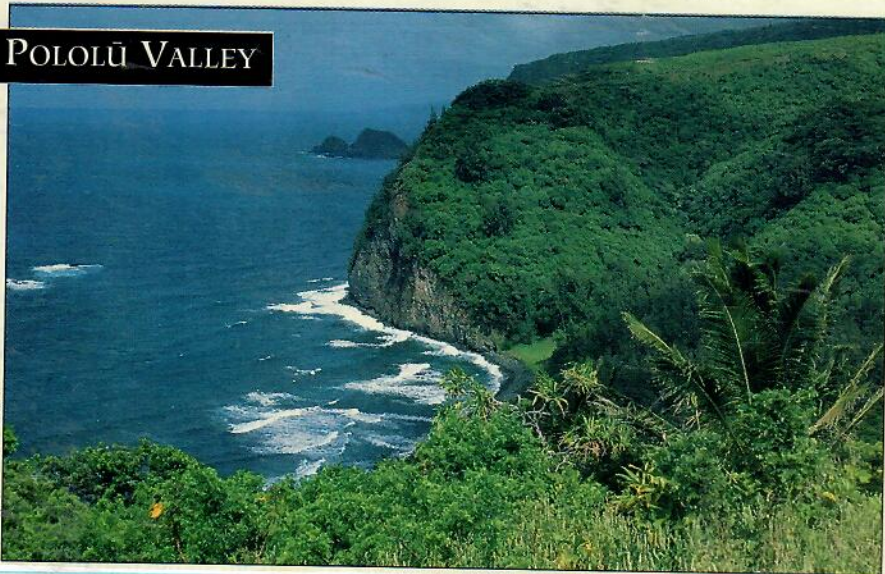
We delayed excavating on Saturday after volunteers reported seeing several more tracks going to the ocean in the morning. On Sunday, we excavated after 17:00 and released 7 hatchlings. One of the hatchlings was weak but I decided to release it instead of killing it in the freezer with the rest of the remains.

Most of the remains will be sent to George Balazs this week for confirmation. One dead hatchling and one dead hatchling in a shell was preserved and will be given to Allen Tom at the Humpback Whale Sanctuary for display purposes.

Emergence began on August 5th (Day 59). Excavation was on Day 63 (August 9th).

I'll be working on three site inspection requests by DOCARE and Francis Oishi. I won't have time to complete a memo for a couple of days.

POLOLŪ VALLEY



BRETT UPRICHARD

Date: Tue, 11 Aug 1998 08:57:46 -1000
 From: Casey Jarman <jarman@aloha.net>
 To: skippy@dar.CCMAIL.compuserve.com,
 "INTERNET:larry_katahira@nps.gov" <larry_katahira@nps.gov>,
 "INTERNET:kitti_jensen@smtp2.irm.r9.fws.gov"
 <kitti_jensen@smtp2.irm.r9.fws.gov>,
 "INTERNET:Eugene.Nitta@noaa.gov" <Eugene.Nitta@noaa.gov>,
 "INTERNET:karen_rosa@smtp2.irm.r9.fws.gov"
 <karen_rosa@smtp2.irm.r9.fws.gov>,
 "INTERNET:gbalazs@honlab.nmfs.hawaii.edu"
 <gbalazs@honlab.nmfs.hawaii.edu>,
 "INTERNET:egardner@soest.hawaii.edu" <egardner@soest.hawaii.edu>,
 "Internet:glynnis_nakai@mail.fws.gov" <glynnis_nakai@mail.fws.gov>,
 "CCMAIL:EGardner@dar" <EGardner@dar.CCMAIL.compuserve.com>,
 "CCMAIL:DEckert at dar" <DEckert@dar.CCMAIL.compuserve.com>
 Cc: "INTERNET:williams@mauigateway.com" <williams@mauigateway.com>
 Subject: Re: Weak Hawksbill Turtle Hatchlings

[The following text is in the "ISO-8859-1" character set]
 [Your display is set for the "US-ASCII" character set]
 [Some characters may be displayed incorrectly]

Skippy: We had considered putting this into our original application for hawksbill work last year, but deleted it when there appeared to be objections to much of what we had originally planned to do. I think it will be an important part of the learning experience about hawksbills and we can add a few hopefully stronger releases to the off-spring of a nest. I expect there are also arguments against doing this.... But, even if a few of these apparently weak animals were held in captivity permanently (as an option, if there are objections to releasing such animals) they could still serve well as educational and research animals).

We will be resubmitting our application for hawksbill reserves this winter for next year and can add it in - let's talk more about it and see what the benefits and risks, costs, etc. might be. Yes, I'm sure WOC would be interested. If you want to consider the possibility for the next few years nest hatchings, Kitty will have to comment on whether an emergency modification of our permit is needed or perhaps Balazs' permit would cover this sort of thing. --Bill Gilmartin

04801 Date : 16.11.98 13:51:32 LC : A IQ : 00
 Lat1 : 20.175N Lon1 : 155.649W Lat2 : 22.094N Lon2 : 164.112W
 Nb mes : 003 Nb mes>-120dB : 000 Best level : -122 dB
 Pass duration : 089s NOPC : 2
 Calcul freq.: 401 650457.5 Hz Altitude : 0 m
 165 2286 9074 58308
 03 40

04801 Date : 16.11.98 15:04:22 LC : B IQ : 00
 Lat1 : 20.171N Lon1 : 155.603W Lat2 : 11.330N Lon2 : 114.174W
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -131 dB
 Pass duration : 045s NOPC : 2
 Calcul freq : 401 650457.5 Hz Altitude : 0 m
 165 2150 1008 21
 00 00

04801 Date : 16.11.98 19:05:23 LC : Z IQ : 00
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -138 dB
 Pass duration : ? s NOPC : ?
 Calcul freq : 401 650000.0 Hz Altitude : 0 m
 165 984 1008 21
 00 00

04801 Date : 16.11.98 19:40:10 LC : Z IQ : 00
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -128 dB
 Pass duration : ? s NOPC : ?
 Calcul freq : 401 650000.0 Hz Altitude : 0 m
 166 981 1008 21
 00 00

From
 p.92

Date: Tue, 11 Aug 1998 10:34:24 -0400
From: skippy@dar.CCMAIL.compuserve.com
To: "INTERNET:jarman@aloha.net" <jarman@aloha.net>,
"INTERNET:larry_katahira@nps.gov" <larry_katahira@nps.gov>,
"INTERNET:kitti_jensen@smtp2.irm.r9.fws.gov"
<kitti_jensen@smtp2.irm.r9.fws.gov>,
"INTERNET:Eugene.Nitta@noaa.gov" <Eugene.Nitta@noaa.gov>,
"INTERNET:karen_rosa@smtp2.irm.r9.fws.gov"
<karen_rosa@smtp2.irm.r9.fws.gov>,
"INTERNET:gbalazs@honlab.nmfs.hawaii.edu"
<gbalazs@honlab.nmfs.hawaii.edu>,
"INTERNET:egardner@soest.hawaii.edu" <egardner@soest.hawaii.edu>,
"Internet:glynnis_nakai@mail.fws.gov" <glynnis_nakai@mail.fws.gov>,
"CCMAIL:EGardner at dar" <EGardner@dar.CCMAIL.compuserve.com>,
"CCMAIL:DEckert at dar" <DEckert@dar.CCMAIL.compuserve.com>
Cc: "INTERNET:williams@mauigateway.com" <williams@mauigateway.com>
Subject: Weak Hawksbill Turtle Hatchling

Yesterday, we excavated a hawksbill turtle nest in the Kihei Beach Reserve. We had seven hatchlings with one of them being weaker than the others. Although I released the weaker one later in the evening, has anyone tried holding hatchlings?

I previously talked with Aaron Miroz, Marine Curator at the Maui Ocean Center who said they raise hawksbill turtles in captivity at the facility in Israel.

Could they help us hold weak hatchlings? I wanted to know what kind of permits would be involved and if there were any concerns about the aquarium holding a hatchling until it gets stronger.

We have about three more nests for this season and would like to try to improve the chances for weaker hatchlings. Before having any serious discussion with the aquarium management, I would like to know your concerns or suggestions.

Skippy

04801 Date : 17.11.98 15:20:12 LC : B IQ : 00
Lat1 : 20.217N Lon1 : 155.685W Lat2 : 31.192N Lon2 : 153.275E
Nb mes : 002 Nb mes>-120dB : 000 Best level : -130 dB
Pass duration : 044s NOPC : 2
Calcul freq : 401 650457.5 Hz Altitude : 0 m
165 179 782 27
00 00

04801 Date : 18.11.98 00:57:29 LC : A IQ : 00
Lat1 : 20.179N Lon1 : 155.606W Lat2 : 21.412N Lon2 : 150.188W
Nb mes : 003 Nb mes>-120dB : 000 Best level : -123 dB
Pass duration : 109s NOPC : 2
Calcul freq : 401 650455.3 Hz Altitude : 0 m
165 24 1095 19
00 00

04801 Date : 18.11.98 06:48:49 LC : B IQ : 00
Lat1 : 20.179N Lon1 : 155.606W Lat2 : 21.559N Lon2 : 149.473W
Nb mes : 002 Nb mes>-120dB : 000 Best level : -132 dB
Pass duration : 044s NOPC : 2
Calcul freq : 401 650457.5 Hz Altitude : 0 m
00 2687 1095 19
00 02

DIVISION OF AQUATIC RESOURCES - MAUI
 DEPARTMENT OF LAND & NATURAL RESOURCES
 130 Mahalani Street
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 Phone # (808) 243-5834
 FAX #(808)243-5833
 August 12, 1998

To: Bill Devick, Acting Administrator
 Emily Gardner, Endangered Species Specialist

From: *Sh*
 Skippy Hau, Aquatic Biologist

Subject: Excavation of Hawksbill Turtle Nest Site VFW-2 at Kihai Beach

On Sunday, 09 August 1998 (day 63), at 17:00, we excavated site VFW-2. We removed the drift fence. Hatchlings emerged from August 5th (day 59). Two dead hatchlings were recovered by FWS personnel. Volunteers reported seeing try tracks every morning. More tracks were observed on day 60 and 62.

The first live hatchling was found around 14 centimeters. The first egg was approximately 23 centimeters from the surface. The diameter was about 31 centimeters across. The bottom of the nest was about 47 centimeters deep (nest was reburied after being disturbed on June 24, 1998). With the assistance of FWS Volunteers and members of the Hawaii Wildlife Fund, we recovered: 7 live hatchlings; 5 dead hatchlings;

- 114 empty shells (est.)
- 29 undeveloped eggs
- 28 whole egg
- 4 dead turtles in shell

175 Total Estimated Eggs

The seven hatchlings were released. One dead hatchling and one dead turtle in shell were preserved for the Humpback Whale Sanctuary educational program.

This morning, the nest remains were shipped to NMFS Honolulu Laboratory for further analysis and final accounting.

c: DOCARE - Maui
 Glynnis Nakai, FWS, Kealia NWR
 George Balazs, NMFS
 Margaret Dupree, NMFS
 Karen Rosa, FWS
 Hannah Bernard, Hawaii Wildlife Fund

04801 Date : 23.11.98 03:22:45 LC : A IQ : 00
 Lat1 : 20.167N Lon1 : 155.698W Lat2 : 24.736N Lon2 : 154.698W
 Nb mes : 003 Nb mes>-120dB : 000 Best level : -128 dB
 Pass duration : 134s NOPC : 1
 Calcul freq : 401 650445.6 Hz Altitude : 0 m
 163 2588 3528 06
 00 00

04801 Date : 25.11.98 19:31:57 LC : Z IQ : 00
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -121 dB
 Pass duration : ? s NOPC : ?
 Calcul freq : 401 650000.0 Hz Altitude : 0 m
 162 454 2368 09
 00 00

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hereafter - EVERYTHING

04801 Date : 18.11.98 13:31:33 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
Nb mes : 001 Nb mes>-120dB : 000 Best level : -132 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
00 2175 1508 14
00 03

04801 Date : 19.11.98 00:49:36 LC : B IQ : 00
Lat1 : 20.341N Lon1 : 155.514W Lat2 : 23.047N Lon2 : 145.957W
Nb mes : 002 Nb mes>-120dB : 000 Best level : -130 dB
Pass duration : 045s NOPC : 1
Calcul freq : 401 650457.5 Hz Altitude : 0 m
00 724 1486 14
00 04

04801 Date : 19.11.98 03:06:24 LC : B IQ : 00
Lat1 : 20.150N Lon1 : 155.693W Lat2 : 25.744N Lon2 : 129.141W
Nb mes : 002 Nb mes>-120dB : 000 Best level : -124 dB
Pass duration : 044s NOPC : 1
Calcul freq : 401 650457.5 Hz Altitude : 0 m
165 1296 1486 14
00 00

04801 Date : 19.11.98 06:32:00 LC : B IQ : 00
Lat1 : 20.176N Lon1 : 155.767W Lat2 : 22.909N Lon2 : 143.321W
Nb mes : 002 Nb mes>-120dB : 000 Best level : -125 dB
Pass duration : 044s NOPC : 1
Calcul freq : 401 650457.5 Hz Altitude : 0 m
00 2789 1486 14
00 02

04801 Date : 19.11.98 13:16:00 LC : B IQ : 00
Lat1 : 20.181N Lon1 : 155.735W Lat2 : 18.160N Lon2 : 147.512W
Nb mes : 002 Nb mes>-120dB : 000 Best level : -125 dB
Pass duration : 045s NOPC : 1
Calcul freq : 401 650457.5 Hz Altitude : 0 m
00 3289 1515 14
00 02

04801 Date : 20.11.98 00:36:48 LC : A IQ : 00
Lat1 : 20.229N Lon1 : 155.535W Lat2 : 23.896N Lon2 : 139.399W
Nb mes : 003 Nb mes>-120dB : 000 Best level : -125 dB
Pass duration : 090s NOPC : 1
Calcul freq : 401 650475.0 Hz Altitude : 0 m
164 2602 2102 10
00 00

04801 Date : 20.11.98 14:44:35 LC : A IQ : 00
Lat1 : 20.186N Lon1 : 155.670W Lat2 : 28.259N Lon2 : 168.981E
Nb mes : 003 Nb mes>-120dB : 000 Best level : -132 dB
Pass duration : 089s NOPC : 1
Calcul freq : 401 650452.6 Hz Altitude : 0 m
164 4665 2649 08
00 00

04801 Date : 21.11.98 20:25:14 LC : B IQ : 00
Lat1 : 20.178N Lon1 : 155.675W Lat2 : 26.028N Lon2 : 177.857E
Nb mes : 002 Nb mes>-120dB : 000 Best level : -122 dB
Pass duration : 091s NOPC : 1
Calcul freq : 401 650457.5 Hz Altitude : 0 m
00 3674 1936 11
00 08

04801 Date : 22.11.98 07:42:22 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
Nb mes : 001 Nb mes>-120dB : 000 Best level : -126 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
28 14456 57827 34574
00 62

04801 Date : 24.11.98 19:34:49 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
Nb mes : 001 Nb mes>-120dB : 000 Best level : -134 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
163 984 1938 11
00 00

TO P.99

See page 60

Honolulu, HI 96822-2396

HONOKOWAI, MAUI
SEAWALL 4-5-77
DEPTH =



S/N 181193

08/18

08/08

07/29

07/19

07/09

06/29
1998

6/29/98 start Honokowai deployment...

HONOKOWAI, MAUI
TURTLE
HOUSE
1998

DEPTH = 47 ft

MARKS, HONOLULU, HI
Marine Turtle Research
2570 Dole Street
Honolulu, HI 96822-2396

32

30

28

26

24

22

20

06/29
1998

07/09

07/19

6/29/98 start Honokowai deployment (2...

07/29

08/08

08/18

08/28

S/N 498

101

	Logger ID	Start Time
seawall near puka	→ 181-193	0830
Turtle House	→ 0498	0831
Reef 2 at Zeus' Lani	→ 0500	0832

seawall
TH
~~Reef 2~~ Zeus' Lani

Leaked -
NO DATA

③

"Quick'n dirty" VHS copy of
this morning's "temp logger"
disc

Thought you'd be interested
in Raphael's behaviour. She's
got the worst case of Cingons
& was scratching up a
storm!

End of clip shows (confirms)
first 1998 sighting of
Mendelbrot W359. Note
what's left of a large #4
cantaloupe sized tumour
she had in 1993.

Mendelbrot is also a
regression case (1994 onward)

Note D62 on shell.

Feel free to record over
this tape. Just wanted you
to share our happiness
in Mendelbrot's 25th
Anniversary run!

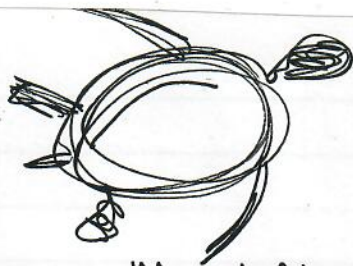
Over → Aloha.

Seas.

Where's Shredder? A 240

Will light a candle
starting tonight...P.S. 24 hours sighted this
PM disc! sighted this

②

formerly
Pikake
House

Sir,

Note that your honu, Mendelbrot U359

was sighted today at Reef 2 ~~at~~ near

"East" House resting beside Bandit.

Didn't need to read tags - recognized her beautiful left profile.

She bears (D62) on her right rear quarter panel. Sighted at 10:30A

980816. Regressed tumour very small under right armpit - eyes clear - doin' fine.

You are a man of your word. You said she was coming & to have faith. Mahalo.

Warm aloha!



Oh... NICE JOB on her spanky whistle clean shell. Your FFS staff did a nice polish job!

U359 is home and sends you her VERY BEST, as do Peter and me -

Date: Thu, 13 Aug 1998 13:13:57 -1000
From: Ursula Keuper-Bennett <howzit@turtles.org>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Cc: honu@turtles.org
Subject: George Balazs --email/real life...

Reduce Maui

cc'd to Peter

I am not sure if you'll understand this (but Peter will).

I want you to know that the George Balazs I hung around the last couple days did you credit. He's a strong-strong match to you and what I've imagined someone who's spent a lot of time at the Shoals would be like.

I was a bit worried the real life guy couldn't live up his email counterpart --(you're a hard act to follow)--but he did great.

You should have seen him, George. He was just everywhere --land AND water--investigating everything and MAN he loves the honu!

But after these last couple days the number one thing I realized --just watching him -- is just how MUCH learning I still have to do. The word, "overwhelming" comes to mind.

Only disorienting thing is when I look at him he doesn't change.

When I type at you I see you in all your years (1973 to 1998), FFS images too, the photos, one melding into the other, clips from Fall of the Ancients... all just flow.

In real life his image is FIXED. Don't get me wrong. He's TERRIFIC!

But in email my imagination can just plough through your 25 plus years and I feel, with you, I am communicating all along that time frame. (This whole honu history thing is REALLY important to me...and email provides that environment)

I realize after today I got the best of both worlds (email AND real life). Make sure you thank him for me.

Tag Number Date Tagged Tag Type Tag Position

K15	07/29/93	1681	LFL
K16	07/29/93	1681	RFL
K17	07/29/93	1681	LHF

Historical information--

Date	Type of Encounter	Location	Tumor Score	Nesting Activity	Straight Length	Since Last Encounter					
						Interval		Growth-rates		Interval	
						Month	Year	cm/mon	cm/yr	Month	Year
07/29/93	Near Shore	Maui, Black Rock	0	-	43.5	---	---	---	---	---	---
02/16/94	Near Shore	Maui, Black Rock	0	-	---	6	0.5	---	---	6	0.5
06/05/97	Near Shore	Maui, Black Rock	0	-	---	39	3.3	---	---	46	3.8
07/28/98	Near Shore	Maui, Honokowai	0	-	---	13	1.1	---	---	59	4.9

Date: Mon, 17 Aug 1998 19:21:55 -1000
From: Ursula Keuper-Bennett <howzit@turtles.org>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Cc: honu@turtles.org
Subject: Clingon update

105

cc'd to Peter

George,

Since you left here we have confirmed five more cases of Clingons! Five.

Gotcha (the big honu I photo'd you with) known since 1992
Nui (big honu you touched who took off) known since 1990
Noe (listed as having "suspicious gray bumps" in 1997
Zaphod (since 1993)

and remember I asked on CTURTLE if anyone had a regression case in the wild that got FP again? I was asking because Tutu was throwing all this white. Well she was scratching up a storm again and Peter got very close.

This is not FP she has but white ring, Clingons --no question.

At this point Peter and I will go on record to say, practically all the larger honu have Clingons. Starts in the soft skin between the legs where it meets the abdomen. Flipper usually tucked will obscure them.

Raphael here again today scratching like anything. Tutu was scratching too.. and Noe is a honu we rarely get close to. Today she was at Pikake House scratching like crazy and believe it or not I was able to place the camera an inch away from all her body parts.

George, at Honokowai there is a Clingon epidemic. Wish to share this info with CTURTLE as soon as my brain clears and I get some downtime.

Sorry for this crappy news....

Date: Tue, 18 Aug 1998 08:25:08 -1000
From: Ursula Keuper-Bennett <howzit@turtles.org>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Gotcha's name is changed to Ho'oulu

Marc
Denise
Redme
FFS
Bob

George,

(please share with Denise and Marc)

Note Gotcha is no longer Gotcha. Had told Peter she would get a name change if she gave you a good photo and let you touch her. She "delivered". Got a REAL NICE photo of the two of you I will make into a poster and use on Trax.

As of today she is Ho'oulu (this - symbol above the first "u")

If you check your Hawaiian dictionary you will see it is a PERFECT name. "Ho'oulu" can mean "To grow, increase, spread" and she sure has spread out since 1992. But ho'oulu also means "possessed/inspired by a spirit" and/or "to stir up, inspire, excite"

When she flies in and lands she does that to me each time --she is that beautiful... and that's ho'oulu's last meaning "to enter in and inspire"

It's this last meaning I find the most important especially in this 25th Anniversary year. The "entering in" at East and the terrific story there. She's not mature yet (so it's likely George, that you sat with her momma in those early 70's FFS days).

And I guess it's also appropriate because last week you et al showed up here, entered in and inspired both Peter and me. Will make some dupes of you and Ho'oulu ASAP and send it your way:

All the best to the three of you

Daily Log

Date 6/24/98

Location VFW Kihel

Recorder Mike Nishimoto

Survey Type Site inspection

Activities

About 0700 hours we received a call from Steve Williams who received information that Barbara Noel who checks for turtle nests at VFW found a nest that had been predated. A hole was dug and shell remains were present. Skippy Hau was out of town so I arranged to meet Steve at the site. The nest was located Maalaea side of VFW. Three houses down (Maalaea side) from a beach shack.

I met Steve at the site and proceeded to look for the nest. It was located on a path that leads from the house to the beach. It was covered with coconut leaves. The dug out area of the nest was 20" x 20" and 7 inches deep. This was measured from the rule on my compass. The pit looked old and the egg remains were brittle. There were no damp areas from freshly broken eggs. The materials dug out from the nest were as far as 5 ft beyond the nest. The dug out sand appeared packed and not loose as one would expect from a recently dug nest. There were no obvious predator tracks.

Photos were taken and shell remains collected. We then smoothed over the nest. A nearby resident came by and indicated that she knew that the nest found this year was more to the Makena side of the beach. She pointed out a site that appeared marked with dead coral and a piece of board. Steve also thought the nest was at the location pointed out by the resident. Steve indicated that he will check with Barbara to learn about the status of the dug out nest. If it was a new nest, he would contact us and we would make arrangements to fence it off to prevent further predation. The fence would be removed near the expected hatching date.

VFW-2-98

Emergence Aug. 5, 1998 (Day 59)

2 dead hatchlings (Glynnis)

Excavation Aug. 9, 1998 Sunday

(Day 63)

NEST REMAINS:

7 live hatchlings released

5 dead hatchlings

114 empty shells (Est.)

29 (undeveloped eggs)

4 dead turtle in shell

28 whole eggs

175

Kihel

inspection

io received information
i nest that had been
Skippy Hau was out of
located Maalaea side of
sk.

was located on a path
coconut leaves. The
is was measured from
is was brittle. There
dug out from the nest
ed packed and not
ere no obvious

othed over the nest. A
nest found this year
i site that appeared
ight the nest was at
he will check with
a new nest, he would
prevent further
atching date.

Date: Fri, 14 Aug 1998 06:50:45 -1000
From: Casey Jarman <jarman@aloha.net>
To: Larry Katahira <larry_katahira@nps.gov>,
George Balazs <gbalazs@honlab.nmfs.hawaii.edu>,
"Bernard, Hannah" <wild@aloha.net>
Subject: radio tags at kamehame

*Kamehame
Hawaii
Book*

[The following text is in the "ISO-8859-1" character set]
[Your display is set for the "US-ASCII" character set]
[Some characters may be displayed incorrectly]

We were able to get instruments on 2 animals on the night of 8/12. During the day 8/13 we got preliminary positions on the 2. Both have moved N/E of the nesting beach, one 1/4 mile and one at least 1/2 mile.

Suzanne and I are going back today to relocate and confirm positions.

More later. Bill

Date: Mon, 17 Aug 1998 11:46:12 -1000
From: Casey Jarman <jarman@aloha.net>
To: George Balazs <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Turtle transmitter application data

*Hawaii
Permit*

[The following text is in the "ISO-8859-1" character set]
[Your display is set for the "US-ASCII" character set]
[Some characters may be displayed incorrectly]

Info for your permit report:

Kihei hawksbill turtle:

7/18-19/98 "Sasha", tags applied: RFF: H328, LFF: H329 (under our permit)
CCL: 89.0cm, CCW: 87.0cm
Restraint: 12:00-01:49: 1hr, 49min.
Applied Radio tag #411206A (148.6904mhz)

8/8-9/98 "Sasha" --turtle nested this night (5th nest of season)
Restraint: 22:18-23:59: 1hr., 41min.
Removed radio tag #411206A
Applied: Sat. Transmitter #403727A - 4801 (tag turned on at 1430, 8/8)
and Radio tag#411201A (148.6204mhz)

Kamehame turtles:

8/12-13/98 "Pahoehoe": tags: RFF: Q827, LFF: Q828 (NPS previously tagged)
CCL: 82.0cm., CCW: 75.5cm.
Restraint: 21:27-23:00, 1hr., 33min.
Applied Radio tag#411202A (148.6408mhz)

8/12-13/98 "A'a": tags: RFF: Q849, LFF: 97D (NPS previously tagged)
CCL: 87.0cm., CCW: 86.0cm.
Restraint: 23:10-00:30, 1hr., 20min.
Applied Radio tag#411203A (148.6606mhz)

Hawks

Date: 9/3/98
Sender: skippy@DAR.CCMAIL.compuserve.com
To: George Balazs
cc: Margaret Dupree; Shawn Murakawa; jarman@aloha.net
Priority: Normal
Subject: Third Nest Site Excavated
George,

VFW-3-98 Nest Site was excavated yesterday.

Coordinates were 20° 45' 14N Latitude 156° 27' 43 W Longitude. The actual nest was about 10 feet where we thought the nest was located.

Yesterday, we released 47 hatchlings. The nest remains and dead hatchlings have been sent to the NMFS Honolulu Laboratory. This morning, I had a beached green turtle with tumors in Kahana. I shipped the turtle and the nest remains together. Please let me know what the final accounting for the nest and egg count for each of the nests.

I just got an email message from Karen Rosa about establishing a designated holding facility for weak hatchlings.

We had two weak hatchlings yesterday. The one found half-dead was dead in the evening. The other hatchling was released on the beach this morning.

Skippy

Date: Wed, 26 Aug 1998 10:23:08 -1000
From: Casey Jarman <jarman@aloha.net>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Re: Forwarded mail....

*Reduce
Miss Book*

[The following text is in the "ISO-8859-1" character set]
[Your display is set for the "US-ASCII" character set]
[Some characters may be displayed incorrectly]

George - we had time to stop by my office and get the position info off e-mail so no need to call you either a.m. Yesterday went well. She appears to be just north of the mouth of Waipio Valley, below cliffs that are 1500-200 ft high. It's going to take some hiking, perhaps boating, and additional effort to get a good position on her but we'll do it -- taking a break now though -- gotta get back to the manuscript!!
-Bill

> From: George H. Balazs <gbalazs@honlab.nmfs.hawaii.edu>
> To: Bill Gilmartin <jarman@aloha.net>
> Subject: Forwarded mail....
> Date: Wednesday, August 26, 1998 6:33 AM

> I had my cell on again all yesterday a.m., but no calls came. How did it go in the monitoring listening? Geo.

> ----- Forwarded message -----
> Date: Wed, 26 Aug 1998 16:02:27 GMT
> From: Automatic Distribution Service (301) 925 4411 <ads@argosinc.com>
> To: gbalazs@honlab.nmfs.hawaii.edu

> 04801 Date : 25.08.98 19:32:40 LC : Z IQ : 00
> Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
> Nb mes : 001 Nb mes>-120dB : 000 Best level : -130 dB
> Pass duration : ? s NOPC : ?
> Calcul freq : 401 650000.0 Hz Altitude : 0 m
> 166 332 481 44
> 00 00

Date: Thu, 03 Sep 1998 16:37:48 +0000
From: Steve Williams <williams@mauigateway.com>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Re: Map of latest hawksbill migration

109

Thankyou for mailing the updates and synopsis. interesting reading.
I'm glad to hear the research is underway to identify whether Big Island
and Maui turtles are separate groups, if it can be shown that they are
it would really strengthen our stance for their protection.
I realize they may be to closly related, but maybe with the d-loop..
Any time frame for results?

Nest #3 of our radio tagged turtle was excavated Wednesday night, You
may have already heard. It was great to see 47 live and healthy
hatchlings released. Especially gratifying since many of them were
trapped under the roots of the surrounding grass mat. The grass is an
invasive weed and has got to go (or at least be controlled). It was
largely responsible for the 72 dead stranded hatchlings found tuesday
morning.
Aloha, Steve

Date: Tue, 25 Aug 1998 19:34:23 -1000
From: Ursula Keuper-Bennett <howzit@turtles.org>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Re: U359= D62

Handwritten signature

With your permission will share what you wrote below on Trax and my next
CTURTLE message.

(Known Mendelbrot since 1993)

Mendelbrot FIRST sighted at Reef2 near East House on our morning dive of
August 16th (can give you exact second if you wish) and also pm dive the
next day (the 17th).

Here's my photo of Mendelbrot and that perfect D 62 during Aug17th pm divē.

<http://www.turtles.org/98d62.jpg>

Note: Mendelbrot is a REGRESSION case. In '93 she had eye tumours and a
cantaloupe sized tumour under her right armpit. Note she first-nested in
1994 and the FFS people did not record tumours then either.

We have video of this year's first sighting. The tumour under her right
armpit is clearly visible (a remnant darkened #3 now). Her eye tumours
though are completely gone. She's looking GOOD!

A while back this summer you wrote:

"Have faith. She will return to you."

Lost count long ago of how often you were right about things.... Mahalo.

At 04:20 PM 8/25/98 -1000, you wrote:

>
>Absolutely. U355 RHF (right hind flipper) and U359 LFL (left front
>flipper proximal tag site). CCL= 105.5 cm, SCL= 98.0 cm. No tumors
>noted. First seen in 1998 nesting on East 6/5/98.
>

>Please recap for me your sightings of this girl off Honokowai. Mahalo, Geo.

Date: 9/10/98
Sender: gbalazs@honlab.nmfs.hawaii.edu
To: George Balazs
Priority: Normal
Subject: Last few hours here...and Topsail crew ok (fwd)

----- Forwarded message -----
Date: Tue, 1 Sep 1998 15:02:44 -1000
From: Ursula Keuper-Bennett <howzit@TURTLES.ORG>
To: CTURTLE@LISTS.UFL.EDU
Subject: Last few hours here...and Topsail crew ok

Aloha CTURTLErs,

We're completing our final hours on Maui and everything we experience today will be the last for another 10 months. This summer was particularly rewarding. After so many years of telling people how special the Honokowai honu are, we were fortunate to host "visitors" who got to experience this unique brand of turtle "sunshine" for themselves.

Our most recent Friend of the Honu is Osha Gray Davidson, author of the coral reef book "The Enchanted Braid", who boarded a plane back to Iowa just yesterday. During his two week Maui stay he completed 15 dives with the Honokowai honu as part of his research for his new book on FP.

Before arriving here Osha had studied the videotapes we'd sent him, so he was already familiar with some of the Honokowai individual turtles and their "vocabulary."

And vocabulary he got, because the very first honu Osha met lost no time in raising a flipper to her head and signalling for Osha to back off.

Without the slightest cue from me, this Osha did. Turtle stayed on the bottom triumphant and secure in the knowledge she ranked higher in the scheme of things than this new human. Osha got accepted immediately after that...

Here's Osha with Pu'u ("Pu'u" means "bug" and she does. Pu'u has very early FP.)

<http://www.turtles.org/98o-p.jpg>

Here's Osha with Nui ("Nui" means "big" and we've known Nui since 1990. Matured into a male during our observation and is an FP regression case)

<http://www.turtles.org/98o-n.jpg>

Best memory is Osha inspecting Nui (resting so close to the big honu you could barely slip a piece of paper between them) and after a few minutes, Nui simply closed his eyes and went to sleep. The single greatest compliment a honu can pay a human being!

Next:

As part of our celebration of the 25th Anniversary of the French Frigate Shoals

Handwritten: 9/10/98 →

04801 Date : 27.11.98 20:45:35 LC : 0 IQ : 60
Lat1 : 20.202N Lon1 : 155.699W Lat2 : 28.992N Lon2 : 165.863E
Nb mes : 004 Nb mes>-120dB : 000 Best level : -131 dB
Pass duration : 134s NOPC : 1
Calcul freq : 401 650451.2 Hz Altitude : 0 m
163 1580 3046 07
00 00

04801 Date : 29.11.98 02:51:04 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ?????
Nb mes : 001 Nb mes>-120dB : 000 Best level : -131 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
162 3528 3530 06
00 00

111

(FFS) sea turtle tagging programme, we'd sent NMFS Honolulu the tag numbers of four Honokowai females and asked George Balazs to keep an eye out for them.

End of June we received a message on our answering machine. Mendelbrot (U 359) had nested at East Island. Later, in email George wrote, "Have faith. She will return to you."

We've known Mendelbrot since 1993 BEFORE she had any tags. 1994 she was missing. 1995 we resighted her resplendant in her new jewellery.

On the morning of August 16th, we saw Mendelbrot (recognized by facial markings only) for the first time this summer. She was back! She now sports a white D 62 on her carapace. This week George confirmed that D 62 "absolutely" belongs to tag number U 359 (and in NMFS talk that means Mendelbrot IS Mendelbrot).

<http://www.turtles.org/98d62.jpg>

(Just glad she hurried back so we wouldn't have to worry about her for 10 months)

Also as part of our FFS celebration, Peter and I ordered two plaques. The first we laid at the "gateway" to the Turtle House.

<http://www.turtles.org/98plaq5.jpg>

The second was placed (with the kind assistance of Osha Gray Davidson) at a coral head we now refer to as "East House" (it's nowhere near the East --the name honours the primary nesting grounds of the honu).

<http://www.turtles.org/98plaq4.jpg>

We made a farewell dive with Osha who presented a beautiful lei (from the upcountry rainforest) to Ho'oulu, a honu as placid as she is large. She must have liked his offering because she made no attempt to eat it...

Opportunity presented itself for Peter and me to make a final FINAL dive -- just the two of us. We'd already given leis so we brought out two large red ginger stalks instead.

The first we "planted" at the Turtle House. TAMU (known since 1995) was there scratching. We hadn't sighted him in weeks so it was good to see him again. What happened as we swam away was really cool. TAMU got up and headed for the red ginger flower and took a chomp.

Then he drew his right flipper to his mouth and swatted... guess he didn't like the taste of it any more than we would. Trouble is we can't decide whether this was an irritation display or him just trying to get the petals out of

04801 Date : 29.11.98 13:05:13 LC : A IQ : 00
Lat1 : 20.179N Lon1 : 155.649W Lat2 : 17.156N Lon2 : 142.434W
Nb mes : 003 Nb mes>-120dB : 000 Best level : -122 dB
Pass duration : 089s NOPC : 1
Calcul freq : 401 650457.8 Hz Altitude : 0 m
162 5706 3551 06
00 00

04801 Date : 29.11.98 20:21:55 LC : 0 IQ : 50
Lat1 : 20.179N Lon1 : 155.665W Lat2 : 26.165N Lon2 : 178.105E
Nb mes : 004 Nb mes>-120dB : 000 Best level : -125 dB
Pass duration : 134s NOPC : 1
Calcul freq : 401 650458.6 Hz Altitude : 0 m
162 09 3551 06
00 00

TO P.112

his
mouth!

This was our last view of TAMU for this summer. (The "offering" is sticking out of the coral head...)

<http://www.turtles.org/special/98aloha1.jpg> (video image)

And last we placed red ginger at Reef2 and presented it to Ho'olulu. As we approached she lifted for air. We decided to hang and wait. Four minutes later we were rewarded,

In the electric blue of the late afternoon sun, she was heading back to her rest spot --we have all this on video. She landed and I presented her with the red ginger stalk.

<http://www.turtles.org/special/98aloha2.jpg> (video image)

Up til this summer we'd called her "Gotcha" because that's what went through my mind in 1992 when I FINALLY sneaked up close enough to get a photo of her right profile. Every honu has a true Hawaiian name --it sometimes just takes a very long time for the turtle to reveal it.

Gotcha is now "Ho'oulu" --meaning "inspiration (brought by the wind)".

You'd have to see her fly in towards you after she's come down from air to fully appreciate this name

Next:

Yesterday Osha left for Iowa. This morning George left for the Shoals. Too soon we will leave for Canada. (Although it was about time anyway. Being surrounded by Americans was becoming all too natural and two weeks ago I'd stopped using adverbs altogether and just as bad --I was saying "that" for "who"...)

One final thing, I emailed Jean Beasley because I was worried about the Topsail Turtle Hospital in North Carolina what with the hurricane and everything. Please know, the Topsail facility came out of it ok --minimum damage only.

Jean wrote:

>The turtle nests are another story. They did not
>fare so well... Out of more than 100 nests, more than 30 had already hatched.
>We believe some probably hatched as the storm came in. The great majority of
>the remainder are gone...so sad...but we must remember the more than 4000 who
>had already left and that we got in safely. We have a few where some of the

>eggs are left...had been exposed but we covered them and think we will get
>some turtles. Each one is important!

04801 Date : 30.11.98 02:03:53 LC : B IQ : 00
Lat1 : 20.168N Lon1 : 155.651W Lat2 : 14.223N Lon2 : 177.937E
Nb mes : 002 Nb mes>-120dB : 000 Best level : -126 dB
Pass duration : 044s NOPC : 1
Calcul freq : 401 650457.5 Hz Altitude : 0 m
162 2456 2346 13
00 00

04801 Date : 02.12.98 07:19:38 LC : Z IQ : 10
Lat1 : 18.052N Lon1 : 161.793W Lat2 : 20.256N Lon2 : 155.686W
Nb mes : 003 Nb mes>-120dB : 000 Best level : -130 dB
Pass duration : 091s NOPC : 0
Calcul freq : 401 650457.5 Hz Altitude : 0 m
161 5268 3525 06
00 00

04801 Date : 03.12.98 01:29:08 LC : 2 IQ : 60
Lat1 : 20.172N Lon1 : 155.660W Lat2 : 17.888N Lon2 : 165.825W
Nb mes : 004 Nb mes>-120dB : 000 Best level : -121 dB
Pass duration : 180s NOPC : 2
Calcul freq : 401 650461.9 Hz Altitude : 0 m
162 3167 2636 09
00 00

04801 Date : 04.12.98 02:39:10 LC : 0 IQ : 60
Lat1 : 20.206N Lon1 : 155.735W Lat2 : 29.174N Lon2 : 114.447W
Nb mes : 004 Nb mes>-120dB : 000 Best level : -127 dB
Pass duration : 135s NOPC : 2
Calcul freq : 401 650435.3 Hz Altitude : 0 m
161 4851 3538 06
00 00

04801 Date : 04.12.98 19:09:02 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
Nb mes : 001 Nb mes>-120dB : 000 Best level : -138 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
160 3468 4270 05
00 00

04801 Date : 06.12.98 20:33:27 LC : B IQ : 00
Lat1 : 20.176N Lon1 : 155.652W Lat2 : 27.358N Lon2 : 173.172E
Nb mes : 002 Nb mes>-120dB : 000 Best level : -127 dB
Pass duration : 045s NOPC : 1
Calcul freq : 401 650461.9 Hz Altitude : 0 m
161 2665 5357 04
00 00

04801 Date : 07.12.98 13:12:57 LC : B IQ : 00
Lat1 : 20.151N Lon1 : 155.668W Lat2 : 16.776N Lon2 : 146.499W
Nb mes : 002 Nb mes>-120dB : 000 Best level : -132 dB
Pass duration : 044s NOPC : 1
Calcul freq : 401 650461.9 Hz Altitude : 0 m
165 5847 21154 33219
01 23

04801 Date : 07.12.98 19:48:11 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
Nb mes : 001 Nb mes>-120dB : 000 Best level : -138 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
173 21404 39951 65226
00 00

04801 Date : 08.12.98 02:51:07 LC : B IQ : 00
Lat1 : 20.179N Lon1 : 155.649W Lat2 : 27.656N Lon2 : 120.816W
Nb mes : 002 Nb mes>-120dB : 000 Best level : -134 dB
Pass duration : 044s NOPC : 1
Calcul freq : 401 650461.9 Hz Altitude : 0 m
161 3557 846 25
00 00

04801 Date : 08.12.98 20:11:45 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
Nb mes : 001 Nb mes>-120dB : 000 Best level : -131 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
161 517 3563 06
00 00

04801 Date : 09.12.98 02:05:27 LC : B IQ : 00
Lat1 : 20.163N Lon1 : 155.677W Lat2 : 14.238N Lon2 : 178.133E
Nb mes : 002 Nb mes>-120dB : 000 Best level : -124 dB
Pass duration : 048s NOPC : 1
Calcul freq : 401 650461.9 Hz Altitude : 0 m
161 566 810 26
00 00

04801 Date : 11.12.98 03:20:57 LC : 1 IQ : 60
Lat1 : 20.165N Lon1 : 155.664W Lat2 : 24.215N Lon2 : 136.538W
Nb mes : 005 Nb mes>-120dB : 000 Best level : -122 dB
Pass duration : 181s NOPC : 2
Calcul freq : 401 650466.7 Hz Altitude : 0 m
161 3636 2626 08
00 00

04801 Date : 14.12.98 02:17:22 LC : A IQ : 00
Lat1 : 20.052N Lon1 : 155.427W Lat2 : 30.869N Lon2 : 104.937W
Nb mes : 003 Nb mes>-120dB : 000 Best level : -134 dB
Pass duration : 089s NOPC : 1
Calcul freq : 401 650542.0 Hz Altitude : 0 m
161 1571 598 03
00 03

04801 Date : 14.12.98 08:07:37 LC : B IQ : 00
Lat1 : 20.184N Lon1 : 155.726W Lat2 : 13.276N Lon2 : 175.001E
Nb mes : 002 Nb mes>-120dB : 000 Best level : -129 dB
Pass duration : 044s NOPC : 1
Calcul freq : 401 650466.7 Hz Altitude : 0 m
160 3408 598 35
00 00

- What do folder-samples represent? Random? or?
- how many from, say 1991, still seen in 1997? 98?
- Small turtles? Honokowai
- picture of salt & pepper
- Total seen, total repeats each dive. (#) to FP
- Why weren't some named? ^{ME} ^{INTRE} ^{FACE}

8/11-8/12 Baraka, Makana, TIAMAT, Gotcha ^{ME} ^{INTRE} ^{FACE} HoA ^{note}

04801 Date : 14.12.98 18:49:50 LC : Z IQ : 00
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ??
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -129 dB
 Pass duration : ? s NOPC : ?
 Calcul freq : 401 650000.0 Hz Altitude : 0 m
 161 338 3038 07
 00 01

04801 Date : 16.12.98 14:59:52 LC : Z IQ : 00
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ?????
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -129 dB
 Pass duration : ? s NOPC : ?
 Calcul freq : 401 650000.0 Hz Altitude : 0 m
 164 1766 603 35
 00 00

04801 Date : 14.12.98 20:32:44 LC : Z IQ : 00
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ??
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -135 dB
 Pass duration : ? s NOPC : ?
 Calcul freq : 401 650000.0 Hz Altitude : 0 m
 161 290 3039 87
 00 09

04801 Date : 16.12.98 20:04:59 LC : -Z IQ : 00
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ?????
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -133 dB
 Pass duration : ? s NOPC : ?
 Calcul freq : 401 650000.0 Hz Altitude : 0 m
 164 08 603 35
 00 00

04801 Date : 15.12.98 01:00:37 LC : Z IQ : 00
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ??
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -123 dB
 Pass duration : ? s NOPC : ?
 Calcul freq : 401 650000.0 Hz Altitude : 0 m
 161 776 555 38
 00 00

04801 Date : 17.12.98 00:41:07 LC : Z IQ : 00
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ?????
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -136 dB
 Pass duration : ? s NOPC : ?
 Calcul freq : 401 650000.0 Hz Altitude : 0 m
 00 325 428 49
 00 20

04801 Date : 15.12.98 20:22:58 LC : Z IQ : 00
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ?
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -124 dB
 Pass duration : ? s NOPC : ?
 Calcul freq : 401 650000.0 Hz Altitude : 0 m
 163 269 849 25
 00 00

04801 Date : 17.12.98 02:53:41 LC : Z IQ : 00
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ?????
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -127 dB
 Pass duration : ? s NOPC : ?
 Calcul freq : 401 650000.0 Hz Altitude : 0 m
 164 538 428 49
 00 00

04801 Date : 16.12.98 00:43:21 LC : B IQ : 00
 Lat1 : 20.148N Lon1 : 155.783W Lat2 : 22.770N Lon2 :
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -122 dB
 Pass duration : 045s NOPC : 1
 Calcul freq : 401 650466.7 Hz Altitude : 0 m
 164 227 433 49
 00 00

04801 Date : 19.12.98 01:57:30 LC : A IQ : 00
 Lat1 : 20.205N Lon1 : 155.793W Lat2 : 15.667N Lon2 : 175.6
 Nb mes : 003 Nb mes>-120dB : 000 Best level : -127 dB
 Pass duration : 132s NOPC : 1
 Calcul freq : 401 650460.9 Hz Altitude : 0 m
 164 10 440 48
 00 00

04801 Date : 19.12.98 18:45:58 LC : Z IQ : 00
 Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ?????
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -126 dB
 Pass duration : ? s NOPC : ?
 Calcul freq : 401 650000.0 Hz Altitude : 0 m
 00 563 657 32
 00 14

16 folders

examined 8/98 sent

Returned to me in 6/98
1990 - 97
Addit ♀

1990 #5 TUTU USA21

FP Regression

1988 #1 Clotnahump

1988 - 93

"Youngster" FP program increase

1990 #7 NU1

1990 - 97

FP Regression
continued in 1994

1990 #13 Arkane

1990 - 96

Likely Tumor Free
ear 108ccl

1991 #4 POIND

1991 - 93

MALE FP progressed

1991 #10 (no name)

1991, 92, 95, 96

Subadult FP progression

1992 #3 Howzit

1992 - 95

Youngster FP programs

1992 #7 Goofyfoot

1992 - 96

Male Regression

1992 #17 Catscratch

1992 - 93

Subadult FP

1992-95 #22 Fourspot

1992, 95

Youngster FP

1992 #26A Raphael 1992-96 Subadult P. Regu

1992 #36 Zers 1992-97 Adult male FP IN 97

1993 #8D 1993-95 male FP MISSING

1993 #11 1993, 94, 95 male FP MISSING

1993 #23 Ludwig 1993, 95 Subadult FP MISSING

1997 #41 1997 Juvenile 1993-1995, 1997 SCL 42.5 FP

04 L N P C 1 0 04 L N P C 1 0 04 L N P C 1 0 04 L N P C 1 0 04 L N P C 1 0

04801 Date : 20.12.98 19:20:06 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ?
Nb mes : 001 Nb mes>-120dB : 000 Best level : -121 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
164 163 784 27
00 00

04801 Date : 22.12.98 19:14:24 LC : B IQ : 00
Lat1 : 20.160N Lon1 : 155.599W Lat2 : 27.681N Lon2 : ?
Nb mes : 002 Nb mes>-120dB : 000 Best level : -130 dB
Pass duration : 045s NOPC : 1
Calcul freq : 401 650466.7 Hz Altitude : 0 m
163 536 782 27
00 00

04801 Date : 21.12.98 01:32:13 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ?
Nb mes : 001 Nb mes>-120dB : 000 Best level : -126 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
164 471 339 62
00 00

04801 Date : 23.12.98 07:52:45 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ?
Nb mes : 001 Nb mes>-120dB : 000 Best level : -126 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
163 1631 480 43
00 00

04801 Date : 21.12.98 08:19:56 LC : A IQ : 00
Lat1 : 20.184N Lon1 : 155.693W Lat2 : 12.157N Lon2 : ?
Nb mes : 003 Nb mes>-120dB : 000 Best level : -128 dB
Pass duration : 090s NOPC : 1
Calcul freq : 401 650449.3 Hz Altitude : 0 m
164 1499 339 62
00 00

04801 Date : 23.12.98 18:42:03 LC : A IQ : 00
Lat1 : 20.164N Lon1 : 155.630W Lat2 : 14.855N Lon2 : 133
Nb mes : 003 Nb mes>-120dB : 000 Best level : -126 dB
Pass duration : 091s NOPC : 1
Calcul freq : 401 650447.6 Hz Altitude : 0 m
162 21 1387 15
00 00

04801 Date : 21.12.98 08:19:56 LC : A IQ : 00
Lat1 : 20.184N Lon1 : 155.693W Lat2 : 12.157N Lon2 : 17
Nb mes : 003 Nb mes>-120dB : 000 Best level : -128 dB
Pass duration : 090s NOPC : 1
Calcul freq : 401 650449.3 Hz Altitude : 0 m
164 1499 339 62
00 00

04801 Date : 25.12.98 02:27:12 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ?
Nb mes : 001 Nb mes>-120dB : 000 Best level : -130 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
162 2092 1608 13
00 00

04801 Date : 21.12.98 19:03:26 LC : Z IQ : 10
Lat1 : 16.024N Lon1 : 143.638W Lat2 : 20.030N Lon2 : 156.073W
Nb mes : 003 Nb mes>-120dB : 000 Best level : -127 dB
Pass duration : 092s NOPC : 0
Calcul freq : 401 650466.7 Hz Altitude : 0 m
164 05 725 285
00 01

COPY

DIVISION OF AQUATIC RESOURCES - MAUI
 DEPARTMENT OF LAND & NATURAL RESOURCES
 130 Mahalani Street
 Wailuku, Hawaii 96793
 Phone # (808) 243-5834
 FAX #(808)243-5833
 September 22, 1998

To: Bill Devick, Acting Administrator
 Emily Gardner, Endangered Species Specialist

From: *Sh*
 Skippy Hau, Aquatic Biologist

Subject: More Hawksbill Hatchlings Found at Nest
 Site VFW-3 at Kihei Beach Reserve

This morning, Ms. Glynnis Nakai (FWS Kealia NWR Manager) gave me the following dead hatchlings that were stored in their freezer.

On Thursday, 10 September 1998, a beach walker's dog found one dead hatchling located about 25 feet north of the nest. It appeared to have been lost in the grass.

Ms. Claudine Pauly (Ph.#874-9150) of the Dawn Patrol found three more dead hatchlings on the same day.

Seventy-two hatchlings were reported previously. A total of 76 dead hatchlings have been retrieved so far for the third nest.

c: DOCARE - Maui
 Glynnis Nakai, FWS, Kealia NWR
 George Balazs, NMFS
 Margaret Dupree, NMFS
 Karen Rosa, FWS

04801 Date : 25.12.98 19:50:51 LC : Z IQ : 00
 Lat1 : ???????? Lon1 : ???????? Lat2 : ???????? Lon2 : ????????
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -138 dB
 Pass duration : ? s NOPC : ?
 Calcul freq : 401 650000.0 Hz Altitude : 0 m
 162 1017 2645 08
 00 00

04801 Date : 28.12.98 18:45:16 LC : Z IQ : 00
 Lat1 : ???????? Lon1 : ???????? Lat2 : ???????? Lon2 : ????????
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -121 dB
 Pass duration : ? s NOPC : ?
 Calcul freq : 401 650000.0 Hz Altitude : 0 m
 00 686 782 27
 00 15

04801 Date : 25.12.98 19:52:38 LC : Z IQ : 00
 Lat1 : ???????? Lon1 : ???????? Lat2 : ???????? Lon2 : ?
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -136 dB
 Pass duration : ? s NOPC : ?
 Calcul freq : 401 650000.0 Hz Altitude : 0 m
 162 09 2645 08
 00 01

04801 Date : 28.12.98 19:15:36 LC : B IQ : 00
 Lat1 : 20.176N Lon1 : 155.855W Lat2 : 17.734N Lon2 : 149.326W
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -131 dB
 Pass duration : 117s NOPC : 1
 Calcul freq : 401 650466.7 Hz Altitude : 0 m
 162 688-782 27
 00 02

04801 Date : 26.12.98 00:33:02 LC : Z IQ : 00
 Lat1 : ???????? Lon1 : ???????? Lat2 : ???????? Lon2 : ?
 Nb mes : 001 Nb mes>-120dB : 000 Best level : -121 dB
 Pass duration : ? s NOPC : ?
 Calcul freq : 401 650000.0 Hz Altitude : 0 m
 00 566 618 34
 00 08

04801 Date : 29.12.98 03:28:45 LC : B IQ : 00
 Lat1 : 20.370N Lon1 : 155.514W Lat2 : 24.685N Lon2 : 139.525W
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -127 dB
 Pass duration : 044s NOPC : 1
 Calcul freq : 401 650466.7 Hz Altitude : 0 m
 163 350 354 60
 00 00

04801 Date : 27.12.98 02:26:38 LC : 0 IQ : 60
 Lat1 : 20.181N Lon1 : 155.653W Lat2 : 29.433N Lon2 : 1
 Nb mes : 004 Nb mes>-120dB : 000 Best level : -129 dB
 Pass duration : 134s NOPC : 1
 Calcul freq : 401 650451.3 Hz Altitude : 0 m
 162 1814 802 26
 00 00

04801 Date : 31.12.98 02:42:07 LC : B IQ : 00
 Lat1 : 20.157N Lon1 : 155.630W Lat2 : 28.259N Lon2 : 117.319W
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -131 dB
 Pass duration : 044s NOPC : 1
 Calcul freq : 401 650466.7 Hz Altitude : 0 m
 163 795 483 44
 00 00

04801 Date : 27.12.98 14:34:01 LC : B IQ : 00
 Lat1 : 20.176N Lon1 : 155.627W Lat2 : 26.807N Lon2 : 110.020W
 Nb mes : 002 Nb mes>-120dB : 000 Best level : -125 dB
 Pass duration : 044s NOPC : 1
 Calcul freq : 401 650466.7 Hz Altitude : 0 m
 161 2377 1107 19
 00 00

DIVISION OF AQUATIC RESOURCES - MAUI
DEPARTMENT OF LAND & NATURAL RESOURCES

130 Mahalani Street
Wailuku, Hawaii 96793
Phone # (808) 243-5834
FAX #(808)243-5833
September 22, 1998

To: Bill Devick, Acting Administrator
Emily Gardner, Endangered Species Specialist

From: Skippy Hau, Aquatic Biologist

Subject: Excavation of Hawksbill Turtle Nest Site VFW-4 at Kihei Beach Reserve

While I was on vacation, hatchling tracks were found at the nest indicating emergence on 12 September 1998 (day 54). Excavation was conducted by Ms. Glynnis Nakai (FWS) on Tuesday, 15 September 1998 (day 57). This morning, I recovered the nest remains and excavation summary.

According to Ms. Hannah Bernard (Hawaii Wildlife Fund), the nest was also disturbed by a dog or other animal. Ms. Susan Scott and Mr. Gary Kubota, a writer and reporter for the Star Bulletin came to inspect the nesting area and wrote articles about the hawksbill turtle nesting.

The bottom of the nest was about 49 centimeters deep. The top of the nest was around 20 centimeters. With the assistance of FWS Volunteers and members of the Hawaii Wildlife Fund, they recovered: 17 live hatchlings; 3 dead hatchlings;

- 117 empty shells (est.)
- 46 undeveloped eggs
- 40 partially developed eggs

203 Total Estimated Eggs

The live hatchlings were released.

The nest remains for the fourth nest will shipped along with 4 dead hatchlings from the third nest to NMFS Honolulu Laboratory for further analysis and final accounting.

c: DOCARE - Maui
Glynnis Nakai, FWS, Kealia NWR
George Balazs, NMFS
Margaret Dupree, NMFS
Karen Rosa, FWS
Hannah Bernard, Hawaii Wildlife Fund

04801 Date : 31.12.98 19:19:42 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
Nb mes : 001 Nb mes>-120dB : 000 Best level : -130 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
163 481 882 24
00 01

04801 Date : 01.01.99 01:12:03 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
Nb mes : 001 Nb mes>-120dB : 000 Best level : -126 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
00 1424 613 35
00 06

04801 Date : 01.01.99 06:31:07 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
Nb mes : 001 Nb mes>-120dB : 000 Best level : -128 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
00 1407 613 35
00 08

04801 Date : 02.01.99 15:09:16 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
Nb mes : 001 Nb mes>-120dB : 000 Best level : -131 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
163 1214 1107 19
00 00

04801 Date : 03.01.99 02:29:39 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
Nb mes : 001 Nb mes>-120dB : 000 Best level : -133 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
163 220 1484 14
00 00

04801 Date : 03.01.99 03:11:06 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
Nb mes : 001 Nb mes>-120dB : 000 Best level : -133 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
163 886 1484 14
00 00

04801 Date : 03.01.99 19:43:50 LC : B IQ : 00
Lat1 : 20.083N Lon1 : 155.495W Lat2 : 21.699N Lon2 : 161.763W
Nb mes : 002 Nb mes>-120dB : 000 Best level : -124 dB
Pass duration : 106s NOPC : 1
Calcul freq : 401 650466.7 Hz Altitude : 0 m
162 332 963 22
00 01

04801 Date : 04.01.99 00:42:07 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
Nb mes : 001 Nb mes>-120dB : 000 Best level : -131 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
00 399 417 51
00 17

04801 Date : 06.01.99 14:20:29 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
Nb mes : 001 Nb mes>-120dB : 000 Best level : -134 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
163 1221 965 22
00 00

04801 Date : 06.01.99 18:47:55 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
Nb mes : 001 Nb mes>-120dB : 000 Best level : -126 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
00 1084 965 22
00 16

04801 Date : 07.01.99 01:46:46 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
Nb mes : 001 Nb mes>-120dB : 000 Best level : -131 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
163 275 577 37
00 00

04801 Date : 09.01.99 20:08:11 LC : B IQ : 00
Lat1 : 20.082N Lon1 : 155.534W Lat2 : 24.551N Lon2 : 173.073W
Nb mes : 002 Nb mes>-120dB : 000 Best level : -124 dB
Pass duration : 136s NOPC : 1
Calcul freq : 401 650466.7 Hz Altitude : 0 m
163 1521 602 33
00 02

04801 Date : 22.01.99 19:29:45 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
Nb mes : 001 Nb mes>-120dB : 000 Best level : -138 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
162 07 1054 20
00 00

04801 Date : 23.01.99 01:16:00 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
Nb mes : 001 Nb mes>-120dB : 000 Best level : -128 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
172 25037 3328

04801 Date : 23.01.99 19:12:50 LC : Z IQ : 66
Lat1 : 20.198N Lon1 : 155.668W Lat2 : 26.962N Lon2 : 172.992E
Nb mes : 004 Nb mes>-120dB : 000 Best level : -126 dB
Pass duration : 135s NOPC : 3
Calcul freq : 401 650477.6 Hz Altitude : 0 m
160 3703 3034 07
00 00

04801 Date : 25.01.99 12:36:41 LC : A IQ : 00
Lat1 : 20.149N Lon1 : 155.669W Lat2 : 12.931N Lon2 : 123.824W
Nb mes : 003 Nb mes>-120dB : 000 Best level : -128 dB
Pass duration : 089s NOPC : 2
Calcul freq : 401 650452.8 Hz Altitude : 0 m
160 5461 3553 06
00 00

04801 Date : 27.01.99 01:21:17 LC : B IQ : 00
Lat1 : 20.125N Lon1 : 155.820W Lat2 : 19.602N Lon2 : 158.133W
Nb mes : 002 Nb mes>-120dB : 000 Best level : -125 dB
Pass duration : 089s NOPC : 1
Calcul freq : 401 650477.6 Hz Altitude : 0 m
160 1819 2121 10
00 00

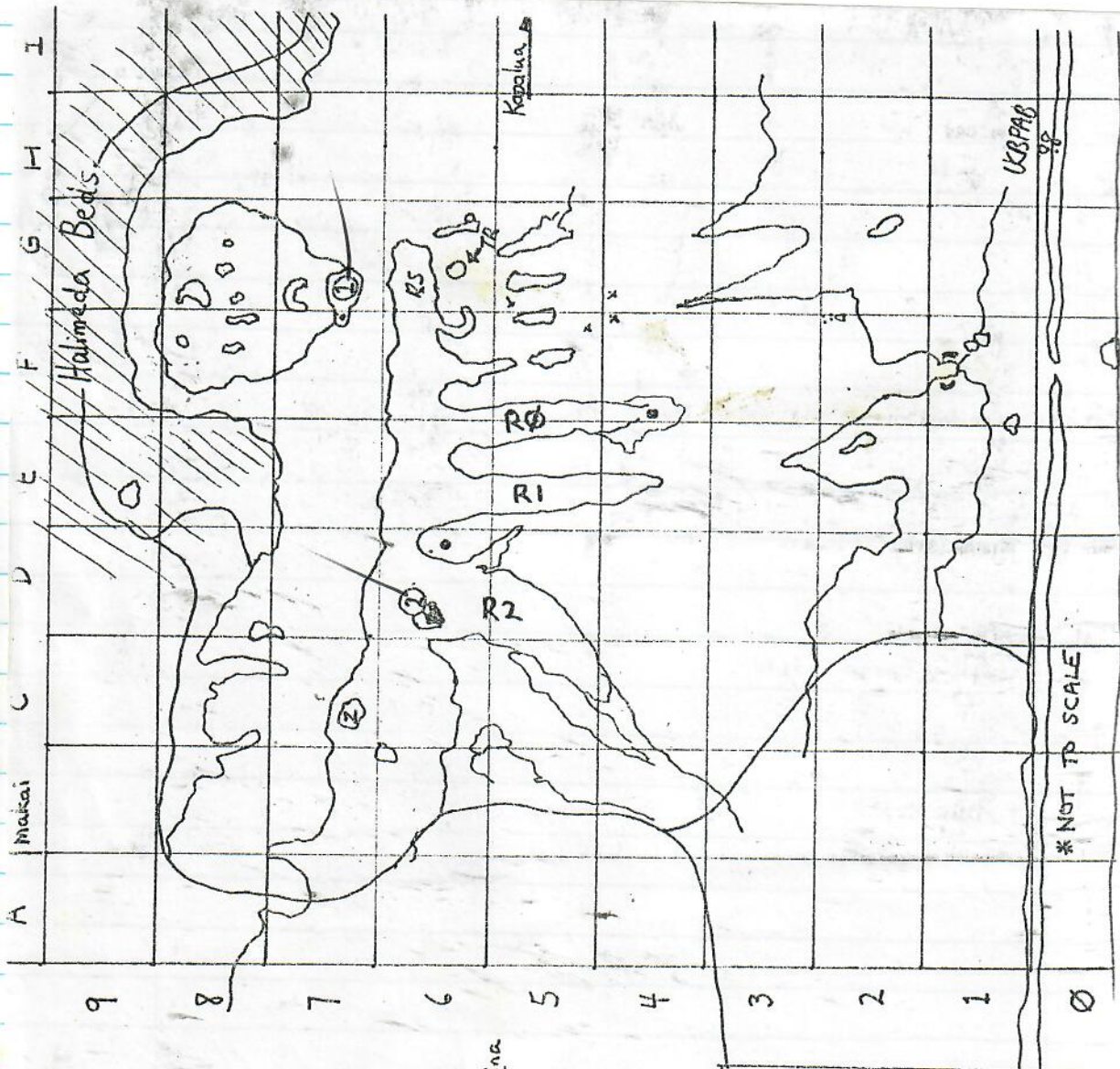
04801 Date : 27.01.99 02:44:08 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
Nb mes : 001 Nb mes>-120dB : 000 Best level : -130 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
161 2451 2121 10
00 00

04801 Date : 27.01.99 13:52:37 LC : B IQ : 00
Lat1 : 20.169N Lon1 : 155.600W Lat2 : 21.453N Lon2 : 161.286W
Nb mes : 002 Nb mes>-120dB : 000 Best level : -121 dB
Pass duration : 045s NOPC : 1
Calcul freq : 401 650477.6 Hz Altitude : 0 m
00 4843 1525 14
00 01

04801 Date : 27.01.99 19:19:51 LC : Z IQ : 00
Lat1 : ??????? Lon1 : ??????? Lat2 : ??????? Lon2 : ???????
Nb mes : 001 Nb mes>-120dB : 000 Best level : -133 dB
Pass duration : ? s NOPC : ?
Calcul freq : 401 650000.0 Hz Altitude : 0 m
161 336 1525 14
00 00

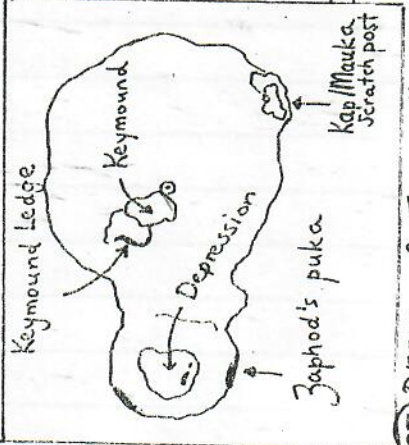
04801 Date : 03.02.99 01:44:19 LC : 0 IQ : 50
Lat1 : 20.180N Lon1 : 155.668W Lat2 : 17.226N Lon2 : 168.519W
Nb mes : 004 Nb mes>-120dB : 000 Best level : -122 dB
Pass duration : 134s NOPC : 1
Calcul freq : 401 650462.9 Hz Altitude : 0 m
159 1544 5333 04
00 00

TO PAGE 121
MANU @ Book



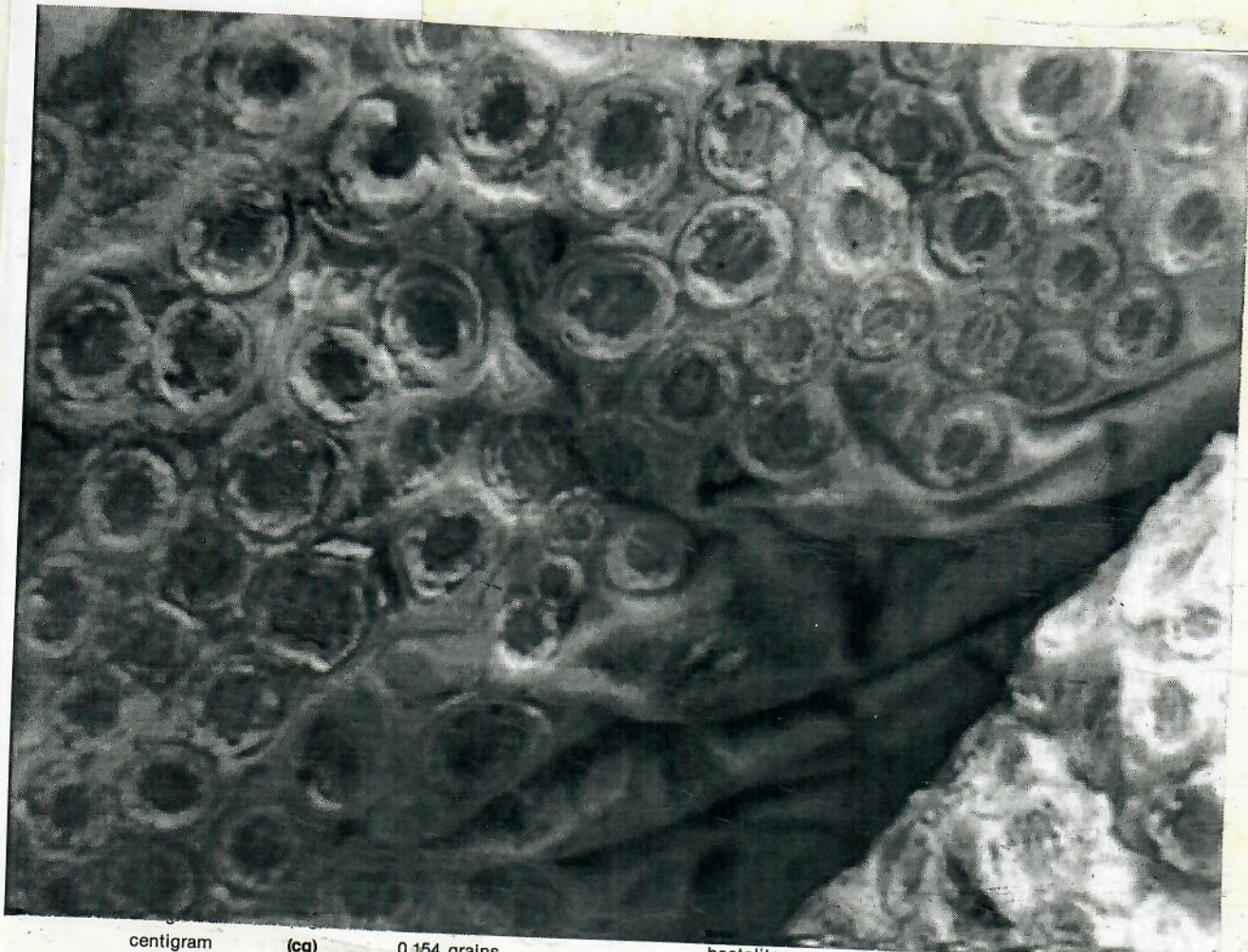
- BANNERFISH ROCK E9
- BROKEN REEFS G5
- CAVERN F1
- CLEANER STATION E2
- CORAL HEAD 2 • F4
- CORAL HEAD 3 • D6
- GRAVEYARD G2
- METAL RINGS F, G 4, 5 x's
- OUTBACK E, F, G, H and 9's
- PIKAKE HOUSE D6
- REEF 0 R0
- REEF 1 R1
- REEF 2 R2
- RESTSITE G6 (RS)
- THE ROCK G6 (TR)
- TURTLE HOUSE G7 ①
- ZEUS' LAIR C7 Z

Lahaina



DETAIL of TURTLE HOUSE

"CLINGONS"



centigram	(cg)	0.154 grains
decigram	(dg)	1.543 grains
gram	(g)	0.035 ounces
decagram	(Dg)	0.353 ounces
hectogram	(hg)	3.527 ounces
kilogram	(kg)	2.2046 pounds
quintal		220.46 pounds
metric ton		1.1 tons

hectoliter	(h)	2.84 bushels
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CAPACITY, LIQUID

milliliter	0.27	fluidrams
centiliter	0.338	fluidounces
deciliter	0.21	pints
liter	1.057	quarts
decaliter	2.64	gallons

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9.5X7.5

\$4.50