

MOLOKAI-5

808-395-6409  
WH6BLQ  
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Honolulu, Hawaii 96825

1990-91

BALAZS

2 OF 2

82 green turtles captured and tagged  
at Site F, Palaau, Molokai, July 9-11, 1990

by  
George H. Balazs, Ed Medeiros, and Bill Puleloa  
Southwest Fisheries Center Honolulu Laboratory  
National Marine Fisheries Service, NOAA  
2570 Dole Street  
Honolulu, Hawaii 96822-2396

Tag no.	Straight carapace (cm)			Curved carapace (cm)	
	Length	Notch	Width	Length	Width
Y952, Z149	43.4	43.0	34.2	47.5	41.0
Y953, Z148	46.7	46.5	37.9	49.5	43.5
Y954, Y955	46.5 (LFL missing/healed)	46.3	37.2	49.0	42.0
Y956, Z147	56.5 (tumors)	56.5	43.5	59.5	52.0
Y957, Z146	50.4	50.2	39.7	53.5	48.0
Y958, Z145	48.6 (tumors)	48.4	37.9	51.0	46.0
Y959, Z144	48.9	48.7	39.1	52.0	46.0
Y960, Z143	47.0	46.9	37.7	50.0	45.0
Y961, Z142	49.4	48.9	39.9	52.5	45.5
Y962, Y963, Z141	63.6	63.5	51.7	67.5	62.0
*8521, 8522, (Z140)	48.5	48.3	37.4	51.5	45.5
Y964, Z139	51.0	50.6	40.5	54.5	47.5
Y965, Z138	49.2	48.8	40.5	--	--
Y966, Z137	57.0 (tumors)	56.9	44.4	62.0	54.0
Y967, Z136	54.0	54.0	40.9	58.0	52.0
Y968, Z135	41.9	41.7	32.9	44.5	39.5
*Y817, Y818	43.8	43.6	34.9	47.0	41.0

11 JULY 90

STRAIGHT

SITE F

Pickup Day 3  
(CURVED) 65

Tag No.

L x N x W

L x W

(8)

N-351 (R) 57.3 x 56.9 x 45.3  
Z-178 (L) clean

61.5 x 54.0

(9)

~~Recovery~~

8842 (R) 66.6 x 66.3 x 51.8

71.0 x 61.5

new Z-179 (R) (3-4)

Eye #2 • #1 Eye

photos  
with  
Ed.

Numerous #1 neck

Numerous #1 and #2 left & right FF &

TMR at tag site. 2 #1 left jaw

Numerous #1's hind flippers; #3 right shoulder

(10)

N-352 (R) 50.0 x 49.9 x 40.5

53.5 x 47.5

Z-180 (L) left hind head split

(11)

N-353 (3-4 R) 55.0 x 54.8 x 46.2

58.0 x 53.5

Z-181 (3-4 L) LFL<sup>od</sup> tag loss notch; clean

NOTE: This was likely a single tagged turtle by Bill Potebo

(12)

N-354 (R) 48.6 x 48.4 x 37.2

51.5 x 45.0

Z-182 (L) 2 #1 left eye and right eye (one right)

TMR

(13)

N-355 N/A <sup>head</sup>

54.8 x 54.7 x 43.8

59.5 x 54.5

N-357 (L) suspicious bump left eye

N-356 (R)

82 green turtles captured and tagged at Site-F, Palaau, Molokai, July 9-11, 1990.--Continued.

Tag no.	Straight carapace (cm)			Curved carapace (cm)	
	Length	Notch	Width	Length	Width
Y969, Z134	38.1 (blind in left eye)	37.7	30.5	40.5	36.5
Y970, Y971, Z133	67.5	67.1	52.7	73.0	67.0
*6533, 6534, Z132	72.5 (tumors, including RFL)	72.3	55.6	78.0	74.5
Y972, Z131	50.7	50.6	41.6	54.0	49.0
Y973, Z130	67.8	67.4	54.0	73.0	64.5
Y974, Z129	47.3	47.3	38.4	50.5	44.5
Y975, Z128	65.4 (tumor)	65.0	52.4	70.5	63.0
Y976, Z127	52.5	52.3	40.3	56.5	49.5
Y977, Z126	53.9	53.8	41.9	58.5	51.5
Y979, Z125	53.8	53.1	42.1	57.0	50.5
*7792, 7793, (Z124)	57.4	57.4	44.1	61.5	51.5
Y980, Z123	52.4 (tumors)	52.2	42.5	56.0	50.0
Y981, Y982, Z122	56.2 (bump on right eye)	56.0	43.1	60.0	53.5
Y983, Z121	46.9	46.6	35.6	50.0	43.0
Y984, Z120	52.9	52.7	41.2	57.0	49.0
Y985, Z119	61.9	61.9	50.0	67.5	62.0
Y986, Z118	61.7	61.6	46.6	65.5	55.5
Y987, Z117	51.3	51.2	40.4	55.0	49.0
Y988, Z116	57.9	57.8	44.1	62.5	55.5

11 July 90

Tag No

STRAIGHT  
L X N X WSITE  
FCurved  
L X W

67

(14)

N-358(R)  
Z-183(L)50.5 x 50.3 x 41.3  
clean

53.5 x 49.0

(15)

9450(L)  
9451(L)

\* Recovery #

52.5 x 52.4 x 42.3  
clean

55.5 x 50.5

(16)

N-359

not applied

48.6 x 48.4 x 38.6

51.0 x 45.0

N-360(L)

Z-184(L)

clean

(17)

N-361

N/A applied

45.4 x 45.3 x 36.3

47.5 x 43.0

N-362(L)

Z-185(R 3-4)

RFL split out  
Trying to apply N361

(18)

N-363(R)

Z-186(L)

44.0 x 43.8 x 45.1

47.0 x 41.0

left eye blind  
(hand caught by <sup>S4B</sup> ~~bird~~ on the way to the net)

(19)

N-364(R)

Z-187(L)

N-365(LH)

58.0 x 57.8 x 47.5  
clean

62.0 x 55.0

82 green turtles captured and tagged at Site F, Palaau, Molokai,  
July 9-11, 1990.--Continued.

Tag no.	Straight carapace (cm)			Curved carapace (cm)	
	Length	Notch	Width	Length	Width
Y989, Z115 (tumor on right eye)	55.0	55.0	44.4	59.0	53.0
Y990, Y991	70.4	70.2	52.4	76.5	65.5
Y992, Y993 (tumors) (possibly male)	71.6	71.5	54.4	77.0	65.0
Y994, Y995, Z114 (tumors) ("maturing male")	86.5	86.4	66.9	93.0	80.5
Y996, Z113	57.6	57.5	45.7	62.5	56.0
Y997, Y998, Y999 (tumors)	74.8	74.6	59.9	81.5	74.5
N326, Z111	46.8	46.6	38.4	50.0	49.0
N327, Z112 (bumps on right eye)	42.9	42.7	34.9	45.5	40.0
N328, Z110	39.6	39.2	34.8	41.0	40.0
N329, Z109	49.1	48.8	38.2	52.0	46.0
N330, N331, Z108	65.5	65.3	51.0	70.0	60.5
*9444, 9445 (Z107)	54.8	54.6	43.8	59.0	51.0
N332, N333, (Z106)	66.2	66.0	50.9	70.5	64.0
N334, Z105	60.0	60.0	47.6	63.0	57.0
*9440, 9441 (Z104)	63.7	63.5	51.1	68.0	61.0
N335, Z103 (tumor)	64.3	64.3	49.0	70.0	61.0
N336, N337 Z102 (tumors)	62.2	62.0	50.5	65.5	58.8

Pickup Day 3 STRAIGHT 11 July 90 Curved SINE F 69

Tag No

L x H x W

L x W

(20)

N-366(R) 52.3 x 52.1 x 41.5

55.0 x 50.0

Z-188(L)

clean

(21)

N-367(R) 34.4 x 34.2 x 28.6

36.5 x 33.0

Z-189(L)

Sea on shell  
pink speckled  
coralline algae

(22)

N-368

50.3 x 50.0 x 40.2

53.0 x 48.0

Z-190

left shoulder unusual seal material  
clean

(23)

N-369(R) 42.1 x 41.8 x 34.5

44.0 x 41.0

Z-191(L)

clean

(24)

N-370(R) 45.5 x 45.5 x 37.3

48.0 x 42.5

Z-192(L)

clean

(25)

N-371(R) 53.9 x 53.9 x 43.7

58.0 x 51.5

Z-193(L) upside down

clean

(26)

N-372(R) 49.5 x 49.0 x 39.6

52.5 x 48.0

Z-194(L)

clean

2-3 July 90  
9-11 July 90

36 + 82 = 118 total  
Tumors (13 + 16) = 29      29 with tumors (24.6%)  
17 Tag recoveries (14.4%)

#616 a day  
Contract \$3,080 = 5 pickup days = 119 Turt  
= \$26 a turtle

3 days at Site F = 82 Turtles  
10 Recoveries (12%)  
16 Tumors (19.5%)

18.1% 72 newly tagged (13 w/Tumors)  
30% 10 already tagged (3 w/Tumors)

Any of these already  
have tumors when orig.  
tagged?



Pick-up Day 3 / - Z-135 yellow paint thrown out  
11 JULY 90 SITE / - +1 blue paint thrown by Ed 71

(27) SL notch Width Length Curved width  
N-373(R) 49.2 x 49.0 x 38.6 52.5 x 46.5  
Z-195(L) clean

<sup>sent</sup>  
Baker

Nancy & Mike Baker  
956-2561 work  
845-1282  
Box 12146  
Honolulu 96828

Mrs. <sup>sent</sup> Kui Lester  
SR 229A } 6" stretch mesh  
Kauakakai } gill net  
948 Puukoo

Mele McPherson 10th grade

Mr. Chang - Maroa; retired from Hawaiian tel.  
Mike Chang

~~27~~ TOTAL  
4 Recoveries (15%)

4 Tumors (15%)

Newly tagged = 23 (2w/tumors)

Recoveries = 4 (2w/tumors)

5 Tags Ruined - not applied =

Y978, N344, N355, N359  
N361

82 green turtles captured and tagged at Site F, Palaau, Molokai,  
July 9-11, 1990.--Continued.

Tag no.	Straight carapace (cm)			Curved carapace (cm)	
	Length	Notch	Width	Length	Width
N338, Z101	58.1	58.1	48.1	63.0	58.5
N339, N340	55.8	55.7	44.6	60.5	52.5
N341, N342, Z171	65.4	65.3	53.9	70.0	65.5
N343, N345 Z172	61.6 (tumors)	61.6	47.2	65.5	56.0
*6743, (N346), (Z173)	72.1	71.8	58.0	77.5	71.0
N347, Z174	61.8	61.6	45.8	66.5	59.5
*7937, 7938 (Z175)	68.0	67.8	52.6	72.5	64.5
N348, Z176	58.7	57.9	46.7	63.0	56.5
N349, N350, Z177	65.8	65.6	51.2	71.0	62.5
N351, Z178	57.3	56.9	45.3	61.5	54.0
*8842, (Z179)	66.6	66.3	51.8	71.0	61.5
	(tumors, including LFL-photo w/E. Medeiros)				
N352, Z180	50.0	49.9	40.5	53.5	47.5
N353, Z181	55.0	54.8	46.2	58.0	53.5
	(healed notch at LFL)				
N354, Z182	48.6	48.4	37.2	51.5	45.0
	(tumors)				
N356, N357	54.8	54.7	43.8	59.5	54.5
	(bump on left eye)				
N358, Z183	50.5	50.3	41.3	53.5	49.0
*9450, 9451	52.5	52.4	42.3	55.5	50.5
N360, Z184	48.6	48.4	38.6	51.0	45.0

5

82 green turtles captured and tagged at Site F, Palaau, Molokai,  
July 9-11, 1990.--Continued.

Tag no.	Straight carapace (cm)			Curved carapace (cm)	
	Length	Notch	Width	Length	Width
N362, Z185	45.4	45.3	36.3	47.5	43.0
N363, Z186	44.0	43.8	45.1	47.0	41.0
	(blind in left eye)				
N364, N365, Z187	58.0	57.8	47.5	62.0	55.0
N366, Z188	52.3	52.1	41.5	55.0	50.0
N367, Z189	34.4	34.2	28.6	36.5	33.0
N368, Z190	50.3	50.0	40.2	53.0	48.0
N369, Z191	42.1	41.8	34.5	44.0	41.0
N370, Z192	45.5	45.5	37.3	48.0	42.5
N371, Z193	53.9	53.9	43.7	58.0	51.5
N372, Z194	49.5	49.0	39.6	52.5	48.0
N373, Z195	49.2	49.0	38.6	52.5	46.5

\*10 (12.2%) of the 82 turtles captures were tag resightings.

16 (19.5%) of the 82 turtles captured had tumors  
(fibropapillomas).

-Seawater temperature at Site F = 82° F  
-Seawater temperature nearshore 1m depth = 92° F

Tags not applied (malfunctions) = Y978, N344, N355, N359 and  
N361.

Necropsy conducted on 45.2 cm turtle found comatose, but  
unsuccessful in resuscitation, on 7/9 - 7/10/90.

Date Tagged: November 1, 1990

Location Caught: Kawela

Method of Capture: Nets

FIRST TAGGING  
AFTER DATA TABLER  
SUMMERIZATION

Tag Number On  
Left Front Flipper

Tag Number On  
Right Front Flipper

Curved Length (cm)

Curved Width (cm)

Number

1 72.0(67.0) 65.0(52.0) 9203 9204

6 PM  
TAGGED  
7/5/89 BBA408, Y426, Y427 S69.3  
C76.0 PALAU

SIGHTING INFORMATION TURTLE AND SEAL

Animal sighted (circle): Turtle  
 Number of animals: 5  
 Date: (Jan. 11, 1991)  
 Type, if known: Green Sea Turtle  
 Observer: Maile Johnson  
 Address & phone (optional): 3500 L. Honoapiʻiānā Hwy #10E  
 Lāhaina, HI 96761 669-8310  
 Time: 10:30 AM  
 Location: East Shore Lāhaina (Turtle Haven) Access Station  
 Observed from (circle): shore, boat (name: Sea Smoke)  
 while skin or SCUBA diving (on surface or at 30 feet deep).  
 Estimated size (length): 2 1/2' - 3'

Comments: (such as color pattern; injuries; scar patterns; tumors; whether flipper tags are present (Y/N); color and number of the tag(s); bleach marks (number/letter); behavior; and weather)  
 ONE LARGE TURTLE Had A White Tag on Left front flipper

Tag # BBA408 He/she appeared to be Healthy and Happy.  
 Number: Clam, light count A few P. M. in water.

Seals and sea turtles are protected under Federal and State law.

DO NOT DISTURB

JANUARY 11, 1991  
 KURTLE  
 HANSEN  
 LANNA

RESIGHTING

HAWAIIAN 537-5100 FL 700 Mon 7/8 5:40 PM  
 PAUHANA 536-7545 FL 769 7/9/91 TUES 6:20 AM  
 AVIS #21195 30632403 US4 Thurs 7/11/91 4:25 PM

July 91

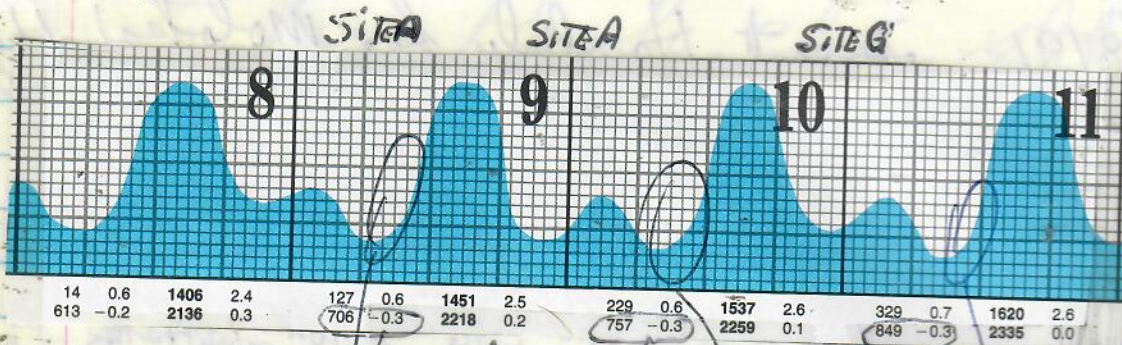
NO MOON = 11 JULY 91

MONDAY

TUES

WED

THURS 75



SITE A  
 DAY 1 PICKUP  
 12 CAPTURES 41.1 - 87.2 cm SL Range  
 (3 w/TUMORS)  
 (3 RECAPTURES, 1 of which has tumors)  
 9 w/o tumors (2 recaptures)  
 3 w/Tumors (1 recapture)  
 12  
 38.3 - 78.0 cm SL Range

SITE A DAY 2 pickup  
 17 CAPTURES  
 (4 w/TUMORS)  
 (NO RECAPTURES)

SITE B DAY 3 pickup  
 3 CAPTURES  
 (NONE w/TUMORS)  
 (NO RECAPTURES)

3-day total  
 31 turtles  
 (7 w/Tumors) 22.5%  
 (3 recaptures / 1 of these had tumors) 9.7%  
 (33.2%)

7/8/91 Depart Honolulu for Molokai HA 764  
 Monday Scheduled 5:20 pm but departed 6:25 pm  
 Arrive 6:45 pm  
 AVIS #21.95.

Pau Hana #45.00 "long house" Rm 113

BANG stick - Blew end of  
 thumb off

JACK EWING - Molokai 1 year ago - fished  
 of Medeiros moved to Molokai - caught turtles  
 Lived Hanalei - BANG stick NWOTI  
 Bill, Chad, Mike

7/9/91  
 TUES

Depart ~ 7:30 am w/ ED's Blue twin hp  
 speed boat. Also "Jack Hammer" boat  
 loaded w/kids - photos

Arrived at Site "A" "Segundo" just  
 to the West of harbor channel.

Low tide - calm water. Net pen  
 set in sandy/gravel area clear

77°F of coral head. No *Halophila*  
 seen growing on the bottom -  
 depth 3'. One large spotted  
 ray, and a 6' white tipped  
 shark in net - Bang Stichel  
 by DRET.

12 Turtles taken from pen.  
 (a 13th escaped over net).

Turtles worked up and  
 released by 11 am -

Back to KK Dock by 11:30 am.

At 1:30 pm Went with Bill

7/9  
TUES

to Larry Rawlins Chevron Station.  
Larry said that he recent weeks is the first ever he has seen turtles crawling onto coral heads at low tide.

7:30 - 8am this morning by reef house he saw many "bumps" on coral head - they were turtles. Many of these turtles have large hanging tumors. He has caught a lot of turtles in the past - but never saw tumors on them.

STOCK BRAND TITANIUM TAGS from Limpus  
USED THIS EXPEDITION: INSCRIBED  
T (SMALL "T") 50 - - -

"RETURN WILDLIFE  
BOX 190 NORTH QUAY  
4000 QLD AUSTRALIA"

Tags would only lock properly if Point End was bent in slightly by hand prior to application. Even then, tag point would not always fold back in to second hole, as it was designed to do.

1:30pm

Bill and I drove to Moomomi to examine turtle tracks reported

7/19/91  
 Seawater =  
 77°F

7/19  
 TUES to him yesterday. Walked main part  
 of bay and easily saw 3 set  
 of seemingly fresh tracks.  
 1 rock spanned across wide  
 beach and each lead to steep bank  
 where extensive digging had occurred.  
 Possible nests in each, although one  
 may have been false. Both Bill and I  
 agreed that only 2 turtles may have  
 been involved. I collected old egg  
 shells near one dig.  
 Sunk in up to my ankles in red mud  
 under sand at low spot at gulch exit.

10 July 91 Depart ~ 8am - 3 boats this time  
 Wed - Ed's twin 140hp "Jackhammer"; and  
 Jerome's BW that had to be towed.  
 Scores of kid and adults.  
 \* Kui told about dead turtle with  
 need large tumors on eyes found near her east  
 end home 2 months after our July trip  
 last year. It had 1 - clear blue  
 and 1 - bright metal tag. Dog took  
 them though. Neighbor has cleared  
 shell. Bill will measure it.

Net had 16 today, including one  
 that swam it ~ 11am. 17 total  
 including highly speckled turtle SL=60.



9 July 91

DAY 1 PICKUP SITE "A"

79

TAG NUMBERS

STRAIGHT

CURVED

	Length	Notch	Width	Length	Width
① T50,201 (LFL)	87.2	X	86.8	X	68.9
V-64 (RFL)	Likely male				
V-65 (RA)	clean, i.e. no tumors				

② V-66 (RFL)	67.1	X	66.9	X	50.9	TUMORS	SCORE = 1
V-67 (RA)							73.0 X 63.5
							#1 (right hind)
<del>T50,202 (LFL) = bent, discarded</del>							tumors: #1 (left eye)
T50,203 (LFL)							(3rd) #1 (right shoulder) #2 (1) also

③ V-68 (RA) - added today							RECAPTURE
V556 (RFL)	63.7	X	67.4	X	50.8	TUMORS	SCORE = 1
BBA-477 (LFL)							70.0 X 62.5
RECOVERY!!							T: (1) #2 left eye; (1) #1 right eye

④ V-69 (RFL)	68.7	X	68.6	X	51.8		
V-70 (RA)							74.5 X 64.0
<del>T50,204 (LFL) = discarded</del>							clean! T = ∅
T50,205 (LFL)							

⑤ V-71 (RFL)	74.9	X	74.8	X	59.9	TUMORS	SCORE = 1
V-72 (RA)							81.5 X 75.0
<del>T50,206 = discarded</del> ; T50,207 (LFL)							T: (1) #1 rt eye
							(1) #2 rt jaw hinge

⑥ V-73 (RFL)	61.6	X	61.4	X	46.5		
V-74 (RA)							67.0 X 56.5
T50,208 (LFL)							T: ∅

⑦ V-691 (RA)	47.0	X	46.6	X	37.0	RECAPTURE	SCORE = 1
V-690 (LFL)							50.0 X 45.5
added V-75 (RA)							from 5/8/90 SL = 43.7 cm
							T = ∅

T50202 (Retained - bent)

T50204 (bent - lost)

T50206 (Retained - bent)

V307 (Retained - bent)

T50210 → NOT ON STRIP -

T50211 Made in duplicate -

T50211 put on w/ V312, V313;

The other T50211 Apparently lost

T50225 NOT ON STRIP (NOT MADE?)

7/10/91 with extensive gray pigment in plastic  
Gray looking flippers. Several photos.  
On the emergent coral heads to the  
right of harbor channel 2 likely  
turtles were noted emergent. Too  
far away to see clearly.

Net picked up and moved to site  
G. Towel twin motor back with INDI  
- arrive K'K pier ~ 5:30pm.

- need

\* → KEANU KAPUNI photos - need to send  
→ 1992 Marine Life Tide Calendar - Dave Schrite  
Also ROSIE

7/11/91  
THURS. Saw 98% (behind clouds)  
eclipse 7:30am (6:30 - 8:30am) } Seawater 79°F

Depart K'K pier AT ~ 10am - Net bas  
+ Jackewings boat w/kids. South Swee  
up, lots of dark cloud cover but

7/19/91 SITE A

81

TAG  
Numbers

STRAIGHT

CURVED

L N W

L W

(8)

Y-766 (LFL) 51.7 x 50.3 x 39.4

55.5 x 48.0

Y-767 (RFL)

V-301 (RH) added T =  $\emptyset$

RECAPTURE from 5/8/90 SL = 48.4cm  
HALOPHILA in mouth

(9)

V-302 (RFL) 41.1 x 40.8 x 32.2

43.5 x 39.0

V-303 (LFL)

T =  $\emptyset$

(10)

V-309 (LFL) 58.5 x 58.2 x 47.5

64.0 x 56.5

V-304 (RFL)

TMR SCORE =  $\emptyset$

V-305 (RH)

T = ?? bumps on dorsal corner each eye

(11)

V-306 (RFL) discarded (Tore out)

~~V-307 (LFL)~~ 44.3 x 43.9 x 35.1

47.5 x 47.0

V-308 (L3-4)

V-309 (RH)

T =  $\emptyset$

(12)

RF - Tore out

V-310 (LFL) 46.9 x 46.8 x 38.2

51.5 x 45.5

V-311 (R3-4)

T =  $\emptyset$

END OF DAY 1 PICKUP SITE A

(13) (1)

START DAY 2 PICKUP SITE A

V-312 (RFL) 67.5 x 57.0

62.5 x 62.4 x 48.1

V-313 (RH)

T50,211 (LFL)

T =  $\emptyset$

(14) (2)

TMR SCORE = 2

#2 (2) LFL

(3) #2 neck (1) #2 RFL

V-314 (RFL) 78.0 x 70.0

(1) #2 at eye

72.4 x 72.4 x 55.2

V-315 (RH)

T- #1 (1) left eye, leeches

BOTH JAW hinges inside

T-50,212 (L3-4)

MOUTH (Approx. 10 each)

7/11/91

Thurs, in never rained on up.

① = 42

only 2 turtles in net - 2 1/2  
coolers of WEHE and 12-18 Popio.

3 large spotted rays.

Seawater 79°F.

At ~ 2pm Bill and I returned  
with Jack to KH. Ed et al. planned  
to move net to off <sup>+ Dianne</sup> Coconut grove.

Depart 4:15 HA Flight 769

DAY 2 7/10/91 PICKUP SITE A

TAG

STRAIGHT

CURVED

83

NUMBERS

(15) (3)

V-316 (RFL)

V-317 (RH)

T50,213 (LFL)

Length Notch Width  
length curved ← Reverse → length notch width  
67.5 x 63.5  
width

Length width  
STRAIGHT  
length notch width  
63.3 x 63.7 x 52.2

TMR SCORE = #1

Healed slit left hind.

T = (1) #1 & #2 LFF

↳ (LFL but NOT RIGHT WHERE TAG APPLIED)

(16) V-318 (RFL)

60.5 x 60.7 x 48.3

65.0 x 60.0

(4) V-319 (RH)

T50,214 (LFL)

T = ∅

(17) (5)

71.4 x 51.3 x 40.7

55.5 x 48.0

V-320 (RFL)

V-321 (RH)

T50,215 (LFL)

T = ∅

(18) (6)

73.6 x 73.3 x 57.1

80.5 x 70.5

V-322 (RFL)

V-323 (RH)

T50,216 (LFL)

T = ∅

(19) (7)

TMR SCORE = #2

63.1 x 62.9 x 50.9

65.0 x 60.5

V-324 (R-3-4)

V-325 (RH)

T50,217 (LFL)

T = (1) #2 at eye

(3) #2 left eye

5 (#1) RFF + 2 (#2)

LFF = 4 (#2); 4 (#1)

left jaw hinge = 3 (#2)

right jaw hinge = 2 (#2)

5 laterals right side

(20) (8)

63.1 x 62.8 x 51.0

68.0 x 61.0

V-326 (RFL)

V-327 (RH)

T50,218 (LFL)

T = ∅

# Sighting Information • TURTLE and SEAL

Animal sighted (circle): TURTLE SEAL  
 Number of animals: 1 Type, if known: GREEN / FEMALE  
 Date: 7/17/91 Observer: KEN BAIL / BUBBLES  
 Time: 10:30 Am Address & phone (optional): 822-3483  
 Location: SHERATON CAVENS / POIPU, KAWAI

Observed from (circle): shore; boat (name: BUBBLES BELOW);  
 while skin or SCUBA diving (on surface or at 55' feet deep).  
 Estimated size (length): 3 1/2 FT LONG SKEK

COMMENTS: (color pattern; injuries; scar patterns; tumors; flipper tags: present Y/N, tag color, and if readable tag number; bleach marks (number/letter); behavior; and weather.

TAGGED / LEFT FRONT FLIPPER  
 # BBA 442 = IS THIS THE ONE  
 SEW LAYING ON  
 KAWAI'S BEACH?

U.S. DEPARTMENT OF COMMERCE  
 National Oceanic and Atmospheric Administration  
 NATIONAL MARINE FISHERIES SERVICE  
 Southwest Fisheries Center Honolulu Laboratory  
 2570 Dole St. • Honolulu, Hawaii 96822-2396



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 U. S. DEPARTMENT OF COMMERCE  
 COM-210

OFFICIAL BUSINESS  
 PENALTY FOR PRIVATE USE, \$300

7/7/89

check  
 tags still  
 in stock

9171 RFL 9173 LH PALAU  
 9172 LFL Site G



U.S. DEPARTMENT OF COMMERCE  
 National Oceanic and Atmospheric Administration  
 NATIONAL MARINE FISHERIES SERVICE  
 Southwest Fisheries Center Honolulu Laboratory  
 2570 Dole St. • Honolulu, Hawaii 96822-2396



MOLOKAI

Below

6251 HAWAIIA Rd.  
 KAPAA, HI 96746

7/7/89 = SL = 70.7  
 CL = 76.5

Day 2 7/10/91 Pickup A  
STRAIGHT

Curved 85

TAG  
NUMBERS  
(21) (9)

Length Notch Width Length Width  
60.2 x 60.0 x 47.1 64.5 x 59.0

V-328 (RFD)

TMR =  $\emptyset$

head width = 8.8 RFF = 8.7

V-329 (RH)

PICS w/ ROSIE BIZOY

PLASTRA = 47.6

V-330 (LFL)

TOBY FLORES

SLIGHTLY SUNKEN extensive Gray Pig in PLASTRA

MEXICAN SUBSPECIES?

MEXICAN MEXICANI??

(22) (10)

NOTCH damaged

old .: spear mark?? in carapace

V-331 (RFD)

62.4 x 61.5 x 48.8

67.5 x 61.0

V-332 (LR)

50,219 (LFD)

T =  $\emptyset$

(23) (11)

V-333 (RFD)

58.5 x 57.4 x 47.1

52.5 x 55.0

V-334 (RH)

50,220 (LFD)

T =  $\emptyset$

Likely 62.5cm

(24) (12)

V-335 (RFD)

55.7 x 55.6 x 43.6

61.0 x 52.5

V-336 (RH)

50,221 (LFD)

T = (1) #2 LEFT shoulder

TMR SCORE = #1

(25) (13)

V-337 (RFD)

52.7 x 52.6 x 41.9

58.0 x 51.0

V-338 (LFD)

V-339 (RH)

T =  $\emptyset$

carapace deformed mild indentation left rear

(26) (14)

V-340 (RFD)

48.3 x 48.1 x 38.8

52.0 x 46.0

V-341 (LFD)

V-342 (RH)

T =  $\emptyset$

TAG

STRAIGHTCURVED

87

NUMBERS

Length Notch Width

Length Width

(27) (15)

38.7 x 38.1 x 32.6

41.0 x 38.5

V-343 (RFL)

V-344 (LFL)

T =  $\phi$ 

(28) (16)

38.3 x 37.6 x 32.2

40.5 x 36.5

V-345 (RFL)

V-346 (L3-4)

T =  $\phi$ 

(29) (17)

V-347 (RFL) 76.7 x 76.2 x 62.6

82.0 x 74.0

V-348 (RH)

50,222 (LFL)

T =  $\phi$ swam in while tagging ON ENDAK! <sup>healed</sup> LH = possible shark bite!

(30)

END OF DAY 2 PICK UP SITE A

V-349 (RFL) 63.7 x 62.8 x 51.4

69.0 x 61.5

V-350 (RH)

T 50,223 (LFL)

T =  $\phi$ 

(31)

V-351 (RFL) 54.2 x 54.0 x 42.9

59.0 x 51.0

V-352 (RH)

T 50,224 (LFL)

T =  $\phi$ very light abrasion  
- yellowish -

(32)

END OF DAY 3 PICK UP - SITE G



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1991



BBA 442

PALAU  
 7/7/89  
 SL = 70.7  
 CL = 76.5  
 GEORGE =

THANK YOU FOR YOUR CORRESPONDENCE. WE ARE ALWAYS INTERESTED IN ANY INFO YOU CAN SUPPLY US AND HAPPY TO INFORM YOU OF ANY SIGHTINGS IN THE FIELD. LET US KNOW OF ANY PARTICULARS YOU WOULD LIKE TO KNOW ABOUT. WE WOULD LIKE TO TAKE YOU OUT DIVING SOMETIME, NO CHARGE, JUST COME ON OVER. WE HAVE SYSTEMATICALLY EXPLORED MILES OF KAWAI'S SHORELINES IN SEARCH OF DIVE SIGHTS WHICH OFTEN TIMES ARE ~~TURTLE~~ RESERVE SPOTS ALSO.

I SPOTTED BBA 442 AGAIN ON 7/26/91 IN THE SAME CAVE AT THE SHERATON CAVERNS. THE NUMBERS ARE CLEAR ON THE BLUE TAG. ON YOUR ADVICE I ALSO SPOTTED 2 SMALLER METAL TAGS, ONE NEXT TO THE BLUE ONE ON THE LEFT FRONT FLIPPER, AND ONE ON THE LEFT REAR FLIPPER. THESE WERE TOO SMALL FOR ME TO READ ANY MARKINGS WITHOUT BOTHERING THE TURTLE. THERE DID SEEM TO BE A SMALL PEASIZE TUMOR FORMING ON THE RIGHT EYE AREA.

FANIEL THIS YEAR OFF OF THE EAST SIDE NEAR KAPAA I SPOTTED A TURTLE MISSING PART OF ITS SHELL, EXPOSING ITS LEFT REAR FLIPPER TOTALLY UP TO ITS BODY.

A FEW DAYS AGO A TURTLE ON THE BOTTOM STARTED MOVING ITS HEAD BACK AND FORTH WHILE OPENING AND CLOSING ITS MOUTH AS IF TO VOMIT ALTHOUGH NOTHING CAME OUT.  
 DO TURTLES VOMIT?

— OVER —

WE ALSO HAVE COME UPON TURTLE FEET UNDERWATER A NUMBER OF TIMES. WOULD YOU LIKE SAMPLES?

EVERYONE FOR NOW

KEEP IN TOUCH, KEN

DATE: 12-4-91

SITE = F (off west of  
PANAMA  
POUD 89  
CURVED

TAG DAY 1 STRAIGHT

NUMBERS

	Length	Notch	Width	Length	Width
①	60.9	60.7	44.7	65.0	54.5

V560 (R)

V561 (L)

V562 (RH)

clean!!

②

V563 (R)

V564 (L)

V565 (RH)

54.2 x 54.0 41.7

58.0 x 51.0

clean!!

③

V566 (R)

V567 (L)

V568 (RH)

56.7 x 56.6 x 44.7

60.5 x 53.5

1#1 (cc. shoulder)

SCORE = 1

④

V569 (R)

T50226 (L)

V570 (RH)

71.0 x 70.9 x 56.4

75.5 x 70.0

SAW HINGERS =  
RED Bumps!!

SCORE = 2

⑤

V571 (R)

V572 (L)

V573 (RH)

Notch

59.4 x 59.4 x 45.2

62.5 x 56.5

→ tumors on both sides, but NOT AT LFL TAG SITE.

rt eye = 2#1's

LFF = 3#2's

RFF = 1#2's

NECK =

lt eye 1#2

+ 6#1's

LH = 1#1 + 2

1#1's  
1#2's

⑥

V574 (R)

V575 (RH)

T50227 (L)

62.6 x 62.6 x 48.6

68.5 x 62.0

(TO P. 96)

BBA 417 (LFF) Seen Basking 11/7/91  
 ON EAST IS. FFS BY MARTIN SCHULTZ, FWS  
 Volunteer.

orig. Tagged 7/6/89 PALAAU BBA 417, Y533\* engraved  
 Site "A" S = 80.7 C = 86.5 LFF Amputated Y534  
 TAIL = 31cm (walk?)

ED Mecheros &  
 Bill Rieled.

2 day Contact

Date Tagged: November 15, 1991

Location Caught: Palaaau - Site E (page 1 of 3)

Method of Capture: FIF

(Straight) (length)  
 (Straight) (width)

Number	Curved Length (cm)	Curved Width (cm)	Tag Number On Left Front Flipper	Tag Number On Right Front Flipper	TMR massive on RFF
1* FIMB	73.5(68.0)	64.0(52.5)	9227	9228 (left hind; on RFF)	
2	70.0(65.0)	63.0(51.5)	9229	9230	
3** RECOVER!	61.0(55.5)	53.0(43.0)	10,857	10,858 (RECOVERY!)	
4*	60.0(56.0)	53.0(45.0)	9231	9232	

large tumor on RFF; several #2's on LFF.

left eye = #1

# TMR SCORE

(3)

(1)

TAG  
NUMBERS  
AM

STRAIGHT  
length notch width

CURVED  
length width

5	55.0(51.5)	47.0(42.5)	9233	9234
6**	62.0(55.5)	59.0(46.5)	9235=(added today)	Y488 RECOVERY
7	71.0(66.5)	62.0(48.5)	9236	9237
8	62.0(57.5)	53.0(44.5)	9238	9239
9**	75.0(70.5)	63.0(52.0)	Y-821	Y-822 RECOVERY
10*	62.0(57.5)	56.5(46.0)	9240	9241
11**	Tumor: right eye = #2;	left eye = #2	10,967	10,966 RECOVERY
12**,**	Note: notch on left rear edge of carapace.		Z164 (blue plastic)	10,933 RECOVERY!
13**,**	Tumor: right eye #2; also right hind deformed.		Y-431	Y-430 RECOVERY!
14**,**	Tumors: left eye = two #1s		covered by tumors; unreadable	10,883 RECOVERY!
Remarks:	Tumors: left eye = #3; right eye = #2; RFF (tag site) = #3; LFF = #4+			

\*\* = recaptured animals; previously tagged

\* = tumored animals

② ① ① ③

Date Tagged: November 15, 1991 (page 2 of 3)Location Caught: Palauu - Site EMethod of Capture: FIF

<u>Number</u>	<u>Curved Length (cm)</u>	<u>Curved Width (cm)</u>	<u>Tag Number On Left Front Flipper</u>	<u>Tag Number On Right Front Flipper</u>
15**	78.0(72.0)	68.5(56.0)	9425	9426 <b>RECOVERY!!</b>
16*	71.0(65.5)	60.5(51.0)	9242	9243
17*	Tumors: both eyes = #1		9244	9245
18**, **	63.0(59.0)	54.5(48.0)	Tumors: both front flippers greater than #4.	
19*	62.0(57.0)	53.0(44.5)	T50,221	V-335 <b>RECOVERY!!</b>
	Tumors: LFF = #3; neck #3; right rear #2;			V-336 (right hind)
	50.0(47.0)	43.5(36.0)	9246	9247
	Tumors: LFF = #2; neck #3; both eyes #2; tail = greater than #4.			

TMR  
SCORE #

①

③

②

⑤

20 61.5(56.0) 52.0(43.5) 9248 9249  
 21\*\* 62.5(58.0) 54.0(47.0) 9444 9445 RECOVERY!!  
 22\*\* 68.0(63.0) 61.5(51.0) Y-469 Y-468 RECOVERY!!!  
 23\*\*, \*\* 59.0(54.5) 54.5(43.0) (9250) (added today) 6590 RECOVERY!!  
 9206 (added today left hind)

Tumors: both eyes #2; tail #4; LFF #3; tail area = two #4.  
 24\* 68.5(64.0) 60.0(50.0) 9207 9208

Tumors: left eye #1; LFF greater than #4; neck greater than #4.  
 25\*\* 75.5(69.0) 64.0(53.0) T-50,205 V69 RECOVERY!  
 26 67.0(62.0) 63.5(50.0) 9209 V70 (right hind) 9210

27 77.0(73.0) 68.5(56.0) 9211 9213  
 28\*\* 57.0(52.5) 50.0(41.0) Z-117 (blue plastic) Y-987 RECOVERY!!!

29 48.0(45.0) 43.0(38.0) V-752 V-753  
 30\* 76.0(69.5) 71.5(56.0) V-754 V-755; V-756 on right hind

Tumors: RFF = #1; right eye = #1.  
 31 58.0(55.5) 55.0(46.0) V-757 V-758  
 32\*\* 66.0(61.5) 58.0(48.0) 9589 9590 RECOVERY!!!

32 total  
 TOTALS: 13\* tumored = 41%  
 \*\* 15 recoveries = 47%

5\*, \*\* tumored recovery  
 10 NON-TUMORED RECOVERIES  
 Tumored, NON-RECOVERY

32 TOTAL, Day 1  
 19 NO Tumors

Date Tagged: November 16, 1991Location Caught: Palaaau - Site EMethod of Capture: FIF( straight length ) ( straight width )

Number	Curved Length (cm)	Curved Width (cm)	Tag Number On Left Front Flipper	Tag Number On Right Front Flipper
1*, **	91.0 (84.5)	83.0 (63.5)	Y-806	Y-807 <b>RECOVERY!!</b>
2	Tumors: RFF massive; LFF #2;		right eye #2; left eye #2.	
	63.5 (60.0)	56.0 (45.0)	V-759	V-760
3	61.0 (56.0)	51.5 (42.0)	V-761	V-762
4	59.0 (56.0)	50.5 (42.5)	V-763	V-764
5	73.5 (68.5)	64.5 (54.5)	V-765	V-766
6*, **	55.0 (51.5)	47.5 (39.5)	8849	<b>V-767 RECOVERY!!</b>
	Tumors: LFF #2; left eye #3; right eye #3;		right eye #1; right hind #4.	
7*	67.5 (64.0)	60.0 (50.0)	V-768	V-769
	Tumor: right eye = #3			

TMR Score #

(3)

(3)

(2)

96

12-4-91 DAY 1 SITE F

Curved

STRAIGHT

Tag No.

L x N x W

L x W

(7)

SCORE = 2

V-576(R) 79.7 x 79.1 x 63.8

84.0 x 81.0

V-577(LH)

T-50228(L) LFF = 1#2

RH = 1#3

LEFT eye = 1#1#2

immature male

(but tail not measured)

(7)

V-578(R) 64.7 x 64.1 x 52.1

68.0 x 63.0

~~T-50229 = MALFUNCTION - NOT USED~~

T-50230

RT eye = 1#1

LFF = 1#2

V-579 (RH)

LEFT eye = 1#1

NECK = 1#2

SCORE = 1

(8)

RECOVERY!! #91

V-770) 53.7 x 53.6 x 42.9

57.5 x 48.5

V-771)

→ BOTH HAD BEEN APPLIED THRU FIRST

SCALE - LEFT &amp; RIGHT.

V-580 (RH) = added today!!

BOTH EXPANDED TODAY.

(9)

RECOVERY!! #101

V-322 (R) 74.6 x 74.4 x 57.6

81.0 x 71.5

T-50216 (L)

V-323 (RH)

(10)

V-581 (R) 55.8 x 55.5 x 45.0

59.5 x 53.5

V-582 (RH)

T-50231 (L)

(11)

RECOVERY!! #110

N-356 (R) 57.6 x 57.5 x 46.4

67.0 x 57.0

N-357 (L)

V-583 (RH) = added today!!

(12)



TAG. No!

DAY 1  
STRAIGHT

12-4-91  
SITE F

CURVED

97

L X N X W

L X W

RECOVERY 7/89

V-492 (R) 63.7 x 63.7 x 51.8

68.0 x 60.0

V-493 (L)

NOT CONSIDERED TUMORS

(13)

V-584 (RH) add today

?? bumps both eyes!

SCORE = 3

V-585 (L)

55.9 x 55.8 x 42.9

58.5 x 52.0

V-586 (RH)

RFF = 1 # 4

Rt jaw hinge = 1 # 1

Gloths = 1 # 2

LEFT eye = 2 # 1's

right eye = 2 # 1's & 1 # 2

LFF = 4 # 1's

(14)

V-587 (R)

55.9 x 55.7 x 43.2

59.5 x 52.5

V-588 (RH)

T-50232 (L)

LEFT eye = 1 # 2

RFF = 1 # 2

(15)

LFF = 2 # 2

SCORE = 2

V-589 (R)

48.2 x 47.5 x 38.2

51.0 x 44.5

V-590 (L)

(16)

V-591 (R)

38.9 x 38.4 x 33.6

40.5 x 39.5

V-592 (L)

(17)

V-593 (R)

50.5 x 50.3 x 40.5

54.0 x 48.0

(18)

~~V-594 (L)~~

SCORE OUT - NOT USED!

V-595 (RH)

98

12-4-91

straight DAY 1 SITE F

curved

TAG No.

L x N x W

L x W

V-596(R) 55.1 x 55.0 x 41.8 (19) 58.5 x 50.5  
 T-50233(L)

V-597(R) 54.2 x 53.9 x 42.5 58.5 x 51.5  
 T-50234(L) (20)

V-598(R) 41.6 x 41.2 x 35.3 43.5 x 40.0  
 V-599(L) (21)

V-105(R) 38.8 x 38.4 x 32.0 41.0 x 37.0  
 V-600(L) (22)

V-107(R) 55.6 x 55.5 x 46.2 (23) 60.0 x 55.0  
 T-50235(L)

RECOVERY!! 7/85

9435(L) 65.5 x 65.1 x 50.0 (24) 70.5 x 61.0

(V-108)(LH) LEFT front pupper trailing edge deformed

ADDED TODAY - LEFT eye → 1#1 ; R eye = 1#1  
 → 1#2

SCORE=2

V-109(R)

T-50236(L) 56.5 x 56.4 x 44.2 (25) 60.5 x 51.5

V-110(RH)

END DAY 1

12-5-91 DAY 2 SITE F

THURS

99

TAG NO.

L x N x W

L x W

V-111 (R) 58.7 x 58.6 x 44.7 (1) 63.5 x 55.0

T-50237 (L)

V-112 (RH) BEFI eye = 1 #1 **SCORE = 1**

V-113 (R) 62.5 x 62.5 x 46.0 (2) 66.5 x 57.0

T-50238 (L)

V-114 (RH) RT EYE = 1 #1 LFF = 1 #1 **SCORE = 1**

RFF = broken but healed over!  
foremargin

NOTE = RFL TAG SITE HAS #1 TUMOR PATCH RIGHT WHERE TAG WOULD GO.

V-115 (R3-4) 65.1 x 64.8 x 54.8 69.0 x 65.5

T-50239 (L)

V-116 (RH)

6 centrals  
7 laterals (right)  
5 left laterals

**SCORE = 2**

LEFT eye = 1 #1 + 2  
RIGHT eye = 1 #1

each jaw hinge = 1 #1

neck = 5 #2 ; 3 #1

LFF = 8 #1 ; 1 #2

RFF = 5 #2 ; 3 #1's

LH = 3 #1 ; 1 #2

RH = 6 #1 ; 2 #2

mild emaciation  
ie. the bugger  
hungry!!

**3**

V-117 (L) 52.4 x 52.3 x 43.6 56.5 x 51.5

T-50240 (R)

V-118 (RH)

clean!

**4**

100

18/6/91  
THURS

SITE F DAY 2 C

TAG No

L x N x W

L x W

V-119 (R) 57.8 x 57.3 x 44.9

62.0 x 52.5

T-50241 (L)

V-120 (RH) Clean

(5)

V-121 (R) 55.4 x 50.3 x 39.4

54.0 x 48.0

V-122 (RH)

clean

(6)

V-123 (R) 40.6 x 40.0 x 33.9

43.0 x 39.0

V-124 (Z)

(7)

V-125 (R-3-4) 46.6 x 46.4 x 37.6

50.0 x 45.5

V-126 (L3-4)

(8)

SCORE = 7

NOTE: small tumors at RFL and LFL tag sites

LFF = 5#2's; 3#1's

LEFT eye = 2#2

NECK = 4#1 + 2

RT eye = 1#1

RFF = 4#1's; 1#2

LH = 6#2's;

RH = 5#2's; 1#1

tail = 1#1

clean

RECOVERY 7/90

56.2 x 56.2 x 42.7

61.0 x 53.5

Z-136 (L)

Y-967 (R)

(V-127 (RH))

clean!!

(9)

added today

DAY 2  
SITE F  
Tag No.

Straight  
L x N x W

12/5/91  
THURS.

Curved 101  
L x W

V-128 (RH) 66.3 x 66.3 x 49.9

71.0 x 62.5

T-50243 (L)

V-129 (RB-4)

LEFT eye = 1#2

RT eye = 1#2 + 1

LFF = 2#2; 1#3

RFF = 4#2; 1#3

RH = 1#2

10

SCORE = 2

DAY 2

10 TOTAL

(1 Recovery - NO TMR

5 Tumors - all new total = 50%

FRI. 6 DEC 91

DAY 3

SITE F

①

64.9 x 64.9 x 51.1

69.5 x 61.0

9434 L } old  
9433 R }

RECOVERY 7/85

V130 RH ADDED NEW TODAY

R eye #2

SCORE = 1

②

67.3 x 67.3 x 51.9

71.0 x 62.0

R 10797 old

T 50244 NEW (L)

ADDED NEW TODAY

ADDED NEW TODAY

RECOVERY 7/88

V 131 (RH)

102

12/6/91 Friday

DAY (3)

SITE: F

$L \times N \times W$

Curve  
 $L \times W$

(#3) 62.0 x 62.0 x 47.3

66.5 x 58.5

V132 (RF) ~~thin~~

T50245 (LF)

V133 (RH)

[RECOVERY] 7/89

(#4) 68.6 x 67.5 x 55.6

74.0 x 68.5

old BBA 414 (3-4)

" Y524 (LFL)

" Y523 (RFL)

New ADDED TODAY V134 (RH) [PART. AMPUTATE. LH<sup>IND</sup> FLAPPER SCRIVELED]

RT EYE - 1 #1

SCORE = 1

(#5) 74.9 x 74.7 x 58.5

80.0 x 74.0

new

V135 (RF)

T50246 (LF)

V136 (RH)

V137 (LH)

(#6) 72.6 x 72.5 x 59.2

77.5 x 73.0

new thin

V138 (LF)

T50247 (RF)

V139 (RH)

LEFT JAW HINGE = 1 #1

RIGHT JAW HINGE 1 #1

L EYE 1 #2

R EYE 1 #1

LFF 2 #2, 3 #1

RFF 4 #1, 4 #2

NECK 5 #1, 1 #2

SCORE = 2

This #1 TMR (RINGS ABOVE eye)

RH 1 #1

LH 1 #1

END

SITE F  
12/6/91  
Friday

Day 3

6 TOTAL CAPTURES (3 Recoverys, 2 TMR)  
3 New, 1 TMR

10 Mon <sup>the</sup> 10/15/91

Palau E = westward movement of 6 1/2 miles

Palau E = westward movement of 6 1/2 miles

11/15/91

Palau E = westward movement of 6 1/2 miles

11/15/91

RECAPTURE

FROM 1/26/83

9206 ADDED 11/15/91

6589 (NO T HERE) 11/15/91

6590 RECAPTURE

9206 ADDED 11/15/91

FROM 1/26/83

||<C>||TAGTURTL

Dyne

||Rec: 72/1029

01/26/83  
Kawela D  
Kawela D  
FIF  
39.0 - 59.0 → is. about 1 1/2 yr !!  
36.5 - 54.5  
0.0  
0.0  
~~6589~~ → LOST  
6590  
na  
na  
N  
F  
F  
memo

EDIT

DATE  
LOCCAP  
LOCREL  
METHOD  
CURVLENGTH  
CURVWIDTH  
STRANGLENGTH  
STRAWIDTH  
TAGLEFTF  
TAGRIGHTF  
TAGLEFTR  
TAGRIGHTR  
RECOVERY  
TUMORS  
DISPLACED  
COMMENTS

by Bill Fuleloa

In regards to V770, V777 tags on 1st scale... I vaguely remember being the culprit myself. It was the second and last day of our operation and both Ed and Mike were pushing hard to pick up the net, wrap things up and get back, etc. In the rush of things, I guess I wasn't concentrating and for some odd reason inadvertently tagged the animal on the scale instead of the normal site. I can't recall how many (if any more) were done this way. Strange the things you do when operating under pressure. I'll be sure to pause and be more careful next time... or at least notate why things were done out of the ordinary. I also remember that on several occasions that when it was more expedient, I asked both Mike and Ed to attached a the tags on animals leaning or headed their direction. Could be one of those times... but why on both flippers I don't know!



Nearshore  
Resighting

# Bubbles Below, Inc.

## Scuba Charters

Quality Boat Dives of the Garden Isle, Kauai  
NAUI/PADI Instruction  
Underwater Photography

6251 Hauaala Road  
Kapaa, Hawaii 96746  
(808) 822-DIVE (3483)



RELODEX

Received

4/28/93

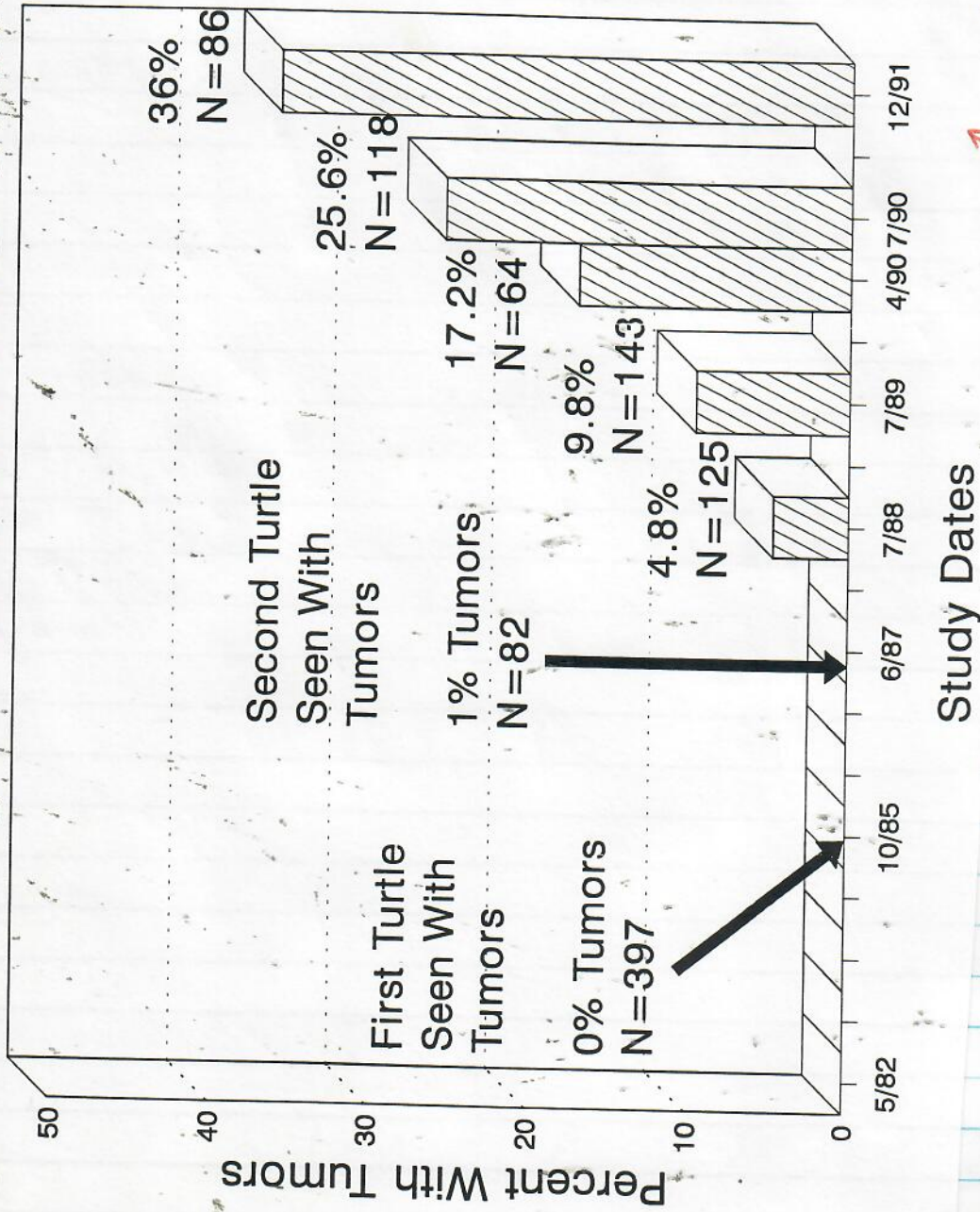
GEORGE ) HOPE ALL IS WELL. JUST A SHORT  
NOTE TO LET YOU KNOW THAT BBA442  
IS BACK. I SPOTTED HER IN EXACTLY THE  
SAME HOLE <sup>(60')</sup> AT THE SHERATON CONCRETE OFF  
OF POIPO AS I DID ON 7/17/91. THIS  
SIGHTING WAS ON 4/26/93. WE HAD NO  
OTHER SIGHTINGS OF THIS TURTLE IN THE ALMOST  
TWO YEAR PERIOD IN BETWEEN. SHE APPEARS HEALTHY,  
NO SIGNS OF TUMORS AND STILL HAS TWO  
OF THE SMALLER METAL TAGS ATTACHED ALSO.  
WE WILL KEEP YOU IN TOUCH WITH ANY OTHER  
INFO WE CAN. PLEASE SEND MORE TURTLE/SEAL  
SIGHTING CARDS SO I CAN DISTRIBUTE THEM. WE  
HAVE BEEN DIVING KAULA ROCK QUITE A BIT LATELY  
AND ARE CONCERNED ABOUT THE BOMBING OF SUCH A RICH  
AREA. YOU SEE SEALS ON THE MAJORITY OF THE DIVES,  
- OVER -

THE AREA SHOULD BE SPARED SUCH  
INTRUSIONS DON'T YOU THINK?

TAKE CARE AND COME DIVE  
WITH US WHEN YOU CAN.

KEN

# Tumor Incidence in Green Turtles in Nearshore Habitats Along the Southern Coast of Molokai



Handwritten notes in red ink:  $\leftarrow$  11/15-11/16/91 + 12/14-12/16/91

110

Need

Retired vet.

Bill & Francie Feeter

Star Rt 89

Kaunakakai MoloKai 96748

553-9857

12/6

Bill assisted

12/5

Bill & wife  
Both out

Dusty & Denise Peak  
28840 Boniface Drive  
Mauibu, CA 90265

video

sent photo  
10/92

✓ need = call w/ need

✓ T-shirt for Linda  
address - Dusty video  
+ literature video

✓ Report to Walter Ritt

✓ Ltr to Feeter -

✓ Thanks for photos  
- List from Bill  
Stroedger

Wed. GB&RM

111

12/4/91 Depart for Molokai 6:20 am  
HA 700. Land 6:50 am (brother  
Jessie)  
Depart KK dock ~ 7:45 am with Nicoya Wheeler,  
Bill Puleloa, Mike Cheng, Ed, Dusty and Denise  
Friends of Gene's <sup>Jack</sup> Wheeler, Peak  
Video taken

12/5  
Thurs. Depart 7:15 am

Saw numerous floating fecal pellets  
at Paloa. Several collected 12/6 am

12/6/91 Depart 6:15 am

Friday

Depart 5:15 pm FL 975 Hawaiian

Summary of 15-16 NOV 91 & 2 DAYS SITE E  
4-6 DEC 91 3 DAYS SITE F

45 16 w/TUMORS 27 (9 w/TMR) (1 w/TMR) TAG RECOVER

41 15 w/TUMORS 32 (12 w/TMR) (3 w/TMR) TAG RECOVER

86 TOTAL 31 TMR (36%) 27 (10 w/TMR) TAG RECOVER (32%)

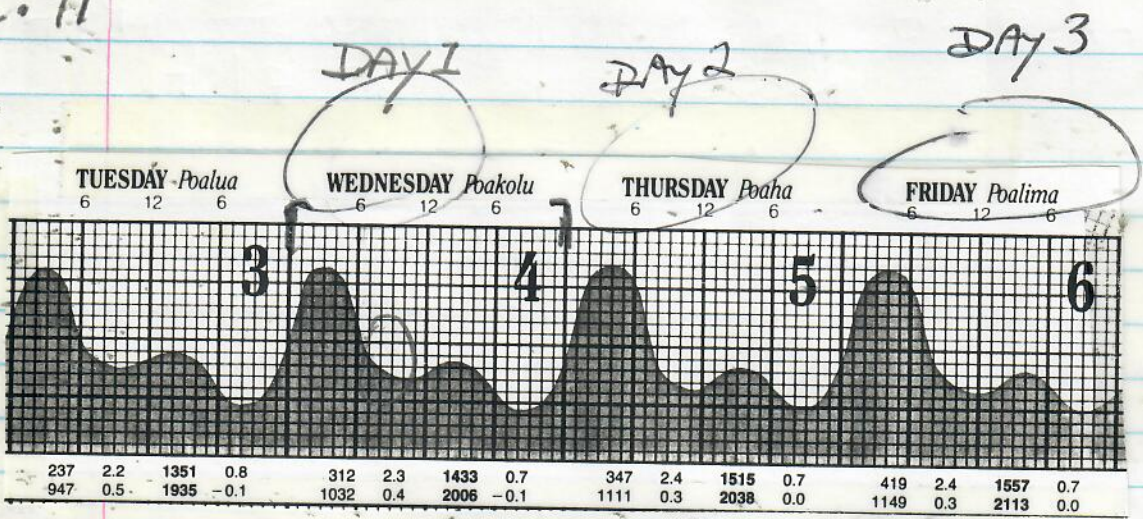
59 (21 w/TMR)

New TAGGINGS w/TMRS = 36%

TAG REC w/TMRS = 37%

NOTIFY DOCARE/NMFS - BANGSTICK 4 MAG. 113  
 NEED = Titanium tags/pliers  
 NMFS SIGN

DEC. 91

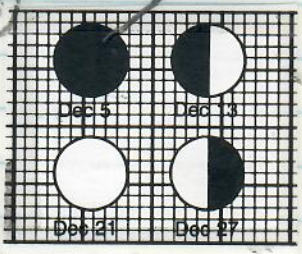


DAY 1

DEC. 4, '91 25 TOTAL (TUMORS = 7 (1 REC.; 6 NEW TAGS)  
 REC. = 5

DEC. 5, '91 10 TOTAL (TUMORS = 5 (5 ALL NEW TAGS)  
 REC. = 1

DEC. 6, '91 6 TOTAL (TUMORS = 3 (2 REC. 1 NEW)  
 REC. = 3



TOTAL = 41 (15 TUMORS (3 RECOVERED)  
 9 RECOVERED

26 NEW TAGGED (12 w/TUMORS)

U.S. DEPARTMENT OF COMMERCE

**SUPPLY, EQUIPMENT, OR SERVICE ORDER**

This Order Number must appear on all invoices and packages. Freight charge over \$100 requires Bill of Lading

6. ORDER NUMBER  
**40-JJNF-1-0150**

7. SUB

1. RECEIVING OFFICE NO. **9246**  
3. CONTRACT ORDER AGAINST

A. PURCHASE ORDER (See Reverse)  
DELIVERY ORDER (See Block 3)  
4. ORDER DATE **05/10/91**  
5. SOURCE **2**

Mr. Edwin Medeiros  
Friendly Idle Fishing Co.  
P. O. Box 1216  
Kaanakakai, Molokai, HI 96748

9. SHIP TO: REFERENCE ORDER NO. **40-JJNF-1-0150**

(INCLUDE ON SHIPPING LABEL)

NOAA, NMFS, Honolulu Laboratory  
2570 Dole Street  
Honolulu, HI 96822-2396  
ATTN: MTRT

TELEPHONE/CONTACT:

10. 1099 TAX  
11. EMPLOYER I.D. # **566-82-2448**  
B. REQUISITION NUMBER

C. REQUISITIONER INFO: (Last Name, Initial, Phone, Bldg. Room)

12. LINE ITEM	13. AC CD	13a. QTY/REC.	14. DESCRIPTION	15. BUDGET OBJECT	16. ACC LINE	17. QUANTITY	18. UNIT ISSUE	19. UNIT PRICE	20. AMOUNT
01			Provide time and space on board vessel for NOAA NMFS representative biologist to tag and study sea turtles captured incidentally during fishing operations conducted in the Palau region and other selected sites along the south shore of Molokai. Estimated requirement of approx. 110 turtles per month.	2517	01	330	ea	14.00	4,620.00

*Extend to 3/1/92*

*1/7 = \$660*

Ten tagged green turtles resighted at  
Site F, Palaa, Molokai, July 9-11, 1990

by  
George H. Balazs, Bill Puleloa, and Ed Medeiros  
National Marine Fisheries Service, Honolulu Laboratory  
2750 Dole Street  
Honolulu, HI 96822-2396

Tag no.	Date orig. tagged	Interval (Year)	Straight length (cm)		Curved length (cm)	
			original	7/90 and (increase)	original	7/90 and (increase)
Y817-18	5/90 (site A)	0.2	43.5	43.8 (0.3)	46.5	47.0 (0.5)
*6533-34 (Z132)	10/19/82 (site A)	7.8	--	72.5 (--)	62.5	78.0 (15.5)
7792-93 (Z124)	7/17/85 (site F)	5.0	52.9	57.4 (4.5)	55.5	61.5 (6.0)
8521-22 (Z140)	7/16/85 (site F)	5.0	39.7	48.5 (8.8)	42.5	51.5 (9.0)
9444-45 (Z107)	7/19/85 (site F)	5.0	47.4	54.8 (7.4)	51.0	59.0 (8.0)
9440-41 (Z104)	7/19/85 (site F)	5.0	55.9	63.7 (7.8)	59.5	68.0 (8.5)
6473 (N-346) (Z173)	10/20/82 (site A)	7.8	--	72.1 (--)	63.5	77.5 (14.0)
*7937-38 (Z175)	4/11/85 (outside Pakanaka Pond)	5.25	57.5	68.0 (10.5)	61.5	72.5 (11.0)
*8842 (Z179)	7/11/85 (Kaanakai Dock)	5.0	56.5	66.6 (10.1)	60.0	71.0 (11.0)
9450-51	7/19/90 (site F)	5.0	45.1	52.5 (7.4)	48.0	55.5 (7.5)

\*fibropapillomas present



Seven tagged green turtles resighted at  
 Site B, Palaau, Molokai, July 2-3, 1990  
 George Balazs, Ed Medeiros, and Bill Puleloa  
 Southwest Fisheries Center Honolulu Laboratory  
 National Marine Fisheries Service, NOAA  
 2570 Dole Street  
 Honolulu, Hawaii 96822-2396

Tag no.	Date orig. tagged	Interval (Year)	Straight length (cm)		Curved length (cm)	
			Original	7/90 and (increase)	Original	7/90 and (increase)
*7227, 28 (Z93)	5/9/84 Kaumana Pt.	6.2	44.5	63.0 (18.5)	47.5	68.0 (20.5)
Y428, 29 (Z162)	7/5/89 Site A	1.0	55.4	56.9 (1.5)	--	61.0 (--)
10931, 32 (Z164)	7/14/88 Site E	2.0	54.4	56.6 (2.2)	58.5	61.0 (2.5)
8519, 20 (Z166)	7/16/85 (7/88) Site D	5.0	49.0	62.4 (13.4)	53.0	67.5 (14.5)
Y452, 53 (Z167)	7/5/89 Site A	1.0	67.9	70.1 (2.2)	73.0	76.0 (3.0)
*10940, 41, 42 (Z168)	7/14/88 Site E	2.0	69.4	71.9 (2.5)	75.0	77.0 (2.0)
*7239, 9564 (Z153)	5/16/84 (3/86) Site G	6.2	40.0	56.7 (16.7)	42.0	61.0 (19.0)

\*Small tumors present when examined 7/90.

7grnt.yghb

Tagged and untagged green turtles with fibropapillomas  
 captured at Palaau, Molokai, June 1987-July 1990

George H. Balazs

Study Dates	Turtles encountered for the first time		Turtles encountered already tagged		Total N captured	Total No. and % with tumors
	N	No. and % with tumors	N	No. and % with tumors		
6/87	23	0 (0.0%)	4	1 (25.0%)*	27	1 (3.7%)
7/88	109	5 (4.6%)	16	1 (6.2%)*	125	6 (4.8%)
7/89	130	11 (8.5%)	12	3 (25.0%)	142	14 (9.9%)
3/90	12	5 (41.7%)	1	0 (0.0%)	13	5 (38.5%)
5/90	44	5 (11.4%)	7	1 (14.3%)	51	7 (13.7%)
7/90	100	23 (23.0%)	17	6 (35.3%)*	117	29 (24.8%)
3-year total	418	49 (11.7%)	57	12 (21.1%)	475	62 (13.1%)

\*Includes the following turtles (tag numbers) with fibropapillomas at one or more of the tag sites, in addition to those growing at other locations:

6/87 6698, 6699  
 7/88 7835, 7836  
 7/90 6533, 6534; 7937, 7938; 8842

16-19 JULY 1985 MOLOKAI  
(BULL-PEN) . . . . p. 4-65

TAG SERIES USED - 8519-8550 (32)

7748 (1)  
7792-7800 (9)  
7801-7850 (50)  
9401-9467 (67)

5-7 JULY 89  
Y-355 TO Y-600; 9163-9181  
BBA401 TO BBA446

TOTAL TAGS USED - 159

9476-9550 (75)  
9393-9400 (8)

TOTAL = 83  
Sent to Bill on 7/24/85.  
Puleloa

28 FEB - 90  
2 MARCH 90  
SITE A & C (2 days)  
Y-601 - 636  
+ 9202  
1

Bill Puleloa  
Box 175  
KUALAPUU, MOLOKAI 96757

SITE =  
3-4 JUNE 1987  
BULLPEN w/ MEDGARS - REC  
3 JUNE - 10 (1)  
4 JUNE - 17 (3)

27  
TAGS USED =  
9795  
9799-9800  
9841-9889  
(9857 NOT USED)

TAGS TO PULELOA, CONTINUED

2-2-84 6676-6700 (25)  
6726-6750 (25)  
7225, 7226 - 7250 (25)

5-22-84 7851-7950 (100)

ENT  
ESC

4/26/85 8602-8625 (24)  
8812-8825 (14)  
8826-8850 (25)  
" " " " " " " "  
63 total

TAGS SENT TO Bill Puleloa  
FOR USE ON MOLOKAI -

5-12-82 - 6426-6435 (10)  
5-19-82 - 6446-6450 (5)  
6376-6425 (50)  
9-8-82 - 6451-6475 (25)  
ED & MARGIN 6526-6550 (25)  
ED & MARGIN 6551-6600  
ED & MARGIN 10-11-82  
Made in U.S.A. 10-31-82 6601-6650  
7-8-83: 7276-7350 (75)

11-15 JULY 88

ED - BULLPEN CHARTER

+ 10,750 - 10,983 + 11,000  
+ REUSE TAGS - GRN, OR, RED, YEL TOPS w/ 2 ALPHABET LETTER

22-26 April 1985 Molokai ED CHARTER for BILL PEN (me & Robert) - P. 37-71  
 21-24 MAY 1985 ZADIR TO MOLOKAI - P. 77-89  
 28 MAY-3 JUNE 1985 Molokai (me & KAM) - P. 89-103

22-26 April 85  
 TAG NOS. 7942-7950 (9)  
 7901-7925 (25)  
 7876-7900 (25)  
 8569-8600 (33)  
 8626-8650 (25)  
 8601 (1)  
 TOTAL USED 118

BILL Puleoan  
 Box 175  
 KUALAPUU,  
 - 96757  
 553-3278

ED & DIANE Tel. 553-5702  
 VERNON McMILLAN Inc.  
 THE ROYAL LINE

Air Molokai -  
 553-3436  
 Molokai

ME  
LE  
mill  
cent  
dec  
met  
dec  
hec  
kilo  
myr

AR

squ  
squ  
are  
hect  
sq. ft

WE

milli  
cent  
deci  
gran  
deca  
hect  
kilog  
quint  
metric ton

COMPOSITION BOOK

9 3/4 IN. x 7 1/2 IN. (24.8 cm x 19 cm)

AVAILABLE AS:

No. 09-9130 (1130) 60 SHEETS COLLEGE RULED & MARGIN  
 No. 09-9132 (1130-P) 60 SHEETS COLLEGE RULED & MARGIN  
 No. 09-9134 (1143-X) 100 SHEETS COLLEGE RULED & MARGIN  
 No. 09-9132 (1130-P) NUMBERED PAGES

MADE IN U.S.A.

VERNON McMILLAN, Inc. ELIZABETH, N.J. 07208

TAGS LEFT FOR BILL

4/26/85 -

8602-8625 (24)

8812-8825 (14)

8826-8850 (25)

TOTAL - 63

21 May-3 JUNE 85

8453-55 (3) 1

8458-63 (6) 5/26/85

TOTAL - 9

220.46 pounds

1.1 ton

LIBRARY OF  
 GEORGE H. BALAZS

8456, 8457 (USED AT MAUI ELECTRIC)

GEORGE H. BALAZS  
 ZOOLOGIST  
 MARINE MAMMALS AND  
 ENDANGERED SPECIES PROGRAM



MEMBER IUCN MARINE TURTLE SPECIALIST GROUP

NATIONAL MARINE FISHERIES SERVICE  
 2570 DOLE ST.  
 HONOLULU, HAWAII 96822-2398

TELEPHONE  
 (808) 943-1221  
 (808) 395-8409

146.94 MAUI Repeater

INCOPIED

Size 681

Y-355 Through Y-600  
 TAGS

5- JULY 1989

SEND NMFS LAB VIRGINIA KEY 33149

+ BLUE DACTON PLASTIC BBA401 - BBA446 (FROM LARRY O'GREN)

G. H. BALAZS  
HONOLULU LABORATORY  
Southwest Fisheries Center  
2570 Dole Street  
Honolulu, HI 96822-2396

TAG NO. - 10,751 - 10,983  
+ 11,000

AG Summary  
N BACK COVER  
TED DATA p. 106-

11-15 JULY 1988 p. 9-57  
+ 106-111 DATA

ED MEDEIROS Bull PEN  
PALAAN  
SITE A (Days 1 & 2)

SITE E (Days 3 & 4)

125 INDIVIDUAL <sup>green</sup> TURTLES CAPTURED,  
of which - 16 LONGTERM RECAPTURES (12.8%)

+ 1 juvenile hawksbill

6 w/Tumors seen out of  
125 greens (SL = 53.3-93.9)  
(4.8%)

8-9 AUGUST 88 p. 61-

MOLOKAI -  
PRESENTATION TO  
PITTE MEETING  
"OUR REEF"

SITE VISIT w/PULELOA  
TO MOOMOONI

5-7 JULY 1989

3 green turtle individuals  
captured, of which 12 Molokai  
term recaptures (8.4%)

**B&P**  
BOORUM & PEASE

14 w/tumors seen out of 143 greens  
Composition Book • 9 1/4 in. x 7 1/2 in. (9.8%)

ED Medeiros Bull PEN PALAAN  
p. 68-93 (1500-)

(SITE "A" Days 1 & 2)  
(NEW SITE "G" Day 3)

## METRIC SYSTEM WITH U.S. EQUIVALENTS

### METRIC UNIT (1) U.S. EQUIVALENT

#### LENGTH

millimeter	(mm)	0.04 inches
centimeter	(cm)	0.39 inches
decimeter	(dm)	3.94 inches
meter	(m)	39.37 inches
decameter	(Dm)	32.81 feet
hectometer	(hm)	109.36 yards
kilometer	(km)	0.62 miles
myriameter		6.2 miles

#### AREA

square centimeter	(cm <sup>2</sup> )	0.155 sq. inches
square meter	(m <sup>2</sup> )	1.196 sq. yards
are	(a)	119.60 sq. yards
hectare	(ha)	2.47 acres
sq. kilometer	(km <sup>2</sup> )	0.3861 sq. miles

#### WEIGHT

milligram	(mg)	0.015 grains
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

### METRIC UNIT (1) U.S. EQUIVALENT

#### VOLUME

cubic centimeter	(cm <sup>3</sup> )	0.061 cubic inches
cubic decimeter	(dm <sup>3</sup> )	0.0353 cubic feet
cubic meter	(m <sup>3</sup> )	1.31 cubic yards
cubic decameter	(Dm <sup>3</sup> )	13.10 cubic yards

#### CAPACITY, CUBIC

milliliter	(ml)	0.06 cubic inches
centiliter	(cl)	0.6 cubic inches
deciliter	(dl)	6.1 cubic inches
liter	(l)	61.02 cubic inches
decaliter	(Dl)	0.35 cubic feet
hectoliter	(hl)	3.53 cubic feet
kiloliter		1.31 cubic yards

#### CAPACITY, DRY

deciliter	(dl)	0.18 pints
liter	(l)	0.908 quarts
decaliter	(Dl)	1.14 pecks
hectoliter	(h)	2.84 bushels

#### CAPACITY, LIQUID

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

UH Bookstore  
308417 000004  
13982H9 53.75