SEA LIFE PARK TURTLE DATA
70s - 1990s
J. BALAZS FILE

PART 2 OF 2

DATA - NOT CHRONOLOGICAL

4/20/90 DATA IN PENCIL

Table .--Tag numbers and carapace lengths of 23 green turtles(13 females, 8 males, 2 immature), 1 hawksbill, and 1 loggerhead in Sea Life Park's "Turtle Lagoon" on April 21, 1989. (Compiled by George H. Balazs and Barry K. Choy.)

Existing tags		Tag applied		Total (in cm)		Notes
Left	Right	Left	Right	Straight length	Notched length	
2987[a] No	NNW751			96.5	--	Female
2986[a] Yes	NNW771			85.9	--	Female (crack, 1st lat. right)
NNW775 Yes	2982[a]			93.0	--	Female
	8687[a]			63.5	63.3	Two size 1 tags
Yes	2061[a]	W704		86.8	--	Male
NNW756[a]				90.7	--	Female (peeling scutes)
5105[a] Yes	NNW762	W706		74.9	--	Male
5817 Yes	2070[a]			84.2	--	Female
15103[a] Yes	15104			78.8	--	Male
NNW759[a] /5100	NNNW758			88.3	86.4	Female; foam
-- No	8680[a]	W703		65.9	65.5	Reddish carapace
3282[a]	15092			94.4	--	Female; orange plastic
NNW764	NNW763			84.6	--	Male
--	--	Y32	Y33[a] Yes	79.4	--	Male
15101 Yes	2499[a]			80.9	--	Female
2985[a] Yes	6493			79.4	--	Male
15105 Yes	2984[a]			86.8	--	Female (?)
3287[a] Yes	6495			80.3	78.9	Male
NNW772[a] ?				80.0	78.6	Loggerhead
NNW767 Yes	3285[a]			83.0	81.7	Female

--	--	Y34[a] Yes	W705	85.5 85.5	--	Female	
9905[a] No				74.4 75.3	--	Male	
6498[a] Sent	5608	W707		81.2 81.6	80.3	Female; brown and gold carapace	
	NNW752[a]			81.7 82.0	78.2	Hawksbill	
6496[a] Yes	15102			88.9 89.6	87.1	Female	96.4 96.5

[a]Tag number engraved in carapace with Dremel Moto-tool.

2051 + 1[a] Yes 82.0

15092 Yes-9 3282 94.9

Y336[a] 6689[a] Yes 91.4 size 1 - left CL

See p. 12 Gray Book
+ newspaper clipping

Three juvenile green turtles from sea Life Park released at Bellows Air Force Station on January 5, 1990. (Compiled by Steve Kaiser and George H. Balazs.)

Tag No.	*Carapace length (cm) Straight	Curved	Notes
10,984-85 Y-338,39	46.7 N-46.4	50.0	From Turtle Lagoon; engaved Y338 1st LATR
Y-37,38 (new)	46.0 x 35.3 N-45.5	49.5 x 44.0	10/26/89 return from Vancouver Aquarium
Y-41,42 (new)	43.5 x 35.4 N-43.2	47.0 x 41.5	From Reef Tank

Note: 9910,11 (S-49.9, C-48.5) from Turtle Lagoon also released at Bellows, but was taken back to Sea Life Park when it crawled back up on the beach. ENGRAVED 9911

Measurements all taken 12/1/89.

Released Bellows 3/23/90

Y-39,40 S-41.0 x 31.0
N-40.8
C-44.0 x 37.0
12/1/89

10/26/89 Return from Vancouver.
Head above R eye had been crushed in from thrown stones into 20 footer
Thought to be blind in R eye, but Steve says no

9910,11 Released this date again 3/23/90.

SUMMER 1987 HATCHLINGS RELEASED ON 11/2/87
3 MILES OUTSIDE MANANA ISLAND

Compiled By Steve Kaiser & Earl Omoto

Tag Numbers	Straight Carapace Length CM
D-710	11.9
D-712	11.7
D-713	11.4
D-714	11.85
D-716	11.65
D-717	11.7
D-718	12.05
D-719	12.15
D-720	11.6
D-722	11.2
D-723	10.7
D-724	12.2
D-725	9.7
D-727	11.25
D-728	11.0
D-729	12.0
D-731	10.65
D-732	11.9
D-735	11.2
D-736	11.45
D-740	11.1
D-741	11.3
D-742	11.6
D-746	12.4
D-747	11.25
D-756	9.9
D-760	12.0
D-765	9.9
D-770	10.45
D-686 (Left Tag Only)	11.4

Total Released -- 30

1987 Hatchling Still Held at SLP on 11/4/87

D-737	11.95
D-738	10.45
D-739	12.4
D-748	9.3
D-750	9.4
D-758	11.95
D-766	12.5
D-772	12.5
D-689	12.8
No Tag	9.8
No Tag	13.0
No Tag	12.05

September 4, 1990

To: George Balazs

From: Steve Kaiser

Subject: Turtle Release

On August 29th I released 24 hatchling turtles at Waimanalo Beach Park. These turtles hatched the night before and are the third clutch to hatch this year. Other cluthes were August 11------13 hatchlings and August 24------24 hatchlings. The first two clutches were kept for headstarting.

The numbers for the reslesed turtles both front flippers tagged C053-C100.

Just had clutch four last night to be released to night. Nine hatchlings numbered C101-112 and C120-125. All are double tagged and I'll b e releasing them off beach at Laumilo Street side of Waimanalo Beach.

I GOT THE HOOK FROM THE TURTLE

SLP
Hatchlings

9/11/90
Release
Kahana Bay

TURTLES RELEASED LAST NIGHT AT KAHANA BAY

9/11/

# of Turtles	TAG #'s
1	153, 154
2	155, 156
3	157, 158
4	159, 208
5	161, 162
6	163, 164
7	165, 166
8	167, 168
9	169, 170
10	171, 172
11	173, 174
12	175, 209
13	176, 177
14	178, 179
15	180, 181
16	182, 183
17	184, 185
18	186, 187
19	188, 189
20	190, 191
21	192, 193
22	194, 195
23	196, 197
24	198, 210
25	199, 211
26	200, 201
~~27~~	~~202, 203~~
28	204, 205
29	206, 207

NEED COMING BACK UP BEACH REFU
SLP — WILL HEAD START

"C" prefix tags? HATCHED 9/14/90

Sea Turtles

# of turtles	tag #'s
1	212, 213
2	214, 215
3	216, 217
4	218, 219
5	220, 221
6	222, 223
7	224, 225
8	226, 227

tag # start 212
End 227

Released on 9/15/90 at 8:00 pm on Waimanalo Beach.
OFF LAUMILO ST.

"C"

Baby Turtles Born at Sea Life Park

(Hatch)
TODAYS DATE 9/27/90

Number of turtles hatched ↓	Tag #'s
1	228, 229
2	230, 231
3	232, 233
4	234, 235
5	236, 237
6	238, 239
7	240, 241
8	242, 243
9	244, 245
10	246, 247
11	248, 249
12	250, 251
13	252, 253
14	254, 255
15	256, 257

Baby Turtles will be released at Waimanalo Beach at 9:30 pm on September 27, 1990

942-2062

"C" prefix tags? HATCHED 9/14/90

Sea Turtles

# of turtles	tag #'s
1	212, 213
2	214, 215
3	216, 217
4	218, 219
5	220, 221
6	222, 223
7	224, 225
8	226, 227

tag # start 212
End 227

Released on 9/15/90 at 8:00 pm on Waimanalo Beach. OFF LAUMILO ST.

"C"

Baby Turtles Born at Sea Life Park

(Hatch) TODAYS DATE 9/27/90

Number of turtles hatched ↓	Tag #'s
1	228, 229
2	230, 231
3	232, 233
4	234, 235
5	236, 237
6	238, 239
7	240, 241
8	242, 243
9	244, 245
10	246, 247
11	248, 249
12	250, 251
13	252, 253
14	254, 255
15	256, 257

Baby Turtles will be released at Waimanalo Beach at 9:30 pm on September 27, 1990

942-2062

TO: STEVE KAISER FAX 259-7373

FROM: George BALAZS

SLP. BABY TURTLE HATCHLING INFORMATION

Hatchlings on October 27, 1990

all "C" prefix

Number of Turtles	TAG #'s
1	316, 317
2	318, 319
3	320, 321
4	322, 323
5	324, 325
6	326, 327
7	328, 329
8	330, 331
9	332, 333
10	334, 335 → JAMES ACOBAN FOUND Dead w/WOUND 10/28/90 1:30pm BELLOWS BEACH
11	336, 337
12	338, 339
13	340, 341
14	342, 343
15	344, 345
16	346, 347
17	348, 349
18	350, 351
19	352, 353
20	354, 355
21	356, 357

These Green Sea Turtles were released at 8:30 pm on Waimanalu Beach (near Shearwood Forest)

released by

CATHERINE MALIA LUERSE

June 6, 1991

George,

These turtles were released on May 21. All are tagged on their right front flipper and were released three to five miles outside Manana Island.

Tag Number	SCL Size (mm) with Calipers owned by Sea Life Park.
10645	184
10646	220
10647	173
10648	208
10649	190
10650	unknown

All are hatchlings from the summer of 1990.

Stevie K.

I TALKED TO THE WAHINE ON KAUAI. THEY HAVE A CLOSED SYSTEM WITH FILTERS. NOT REAL PROMISING FOR TURTLES. ALSO, SHE IS THE WILDLIFE MANAGER (BIRDS) AND I ASKED HER TO MAKE SURE THIS IS SOMETHING UPPER MANAGEMENT WOULD BE WILLING TO BACK. SHE WILL GET BACK TO ME —

~~GHB~~
WGG
↓ GHB
10/9/90

Steve Kaise

I released 29 turtles last Friday night the 5th at Waimanalo Beach. I was working late that nite and collected them as they emerged.
Tagged consecutively from
C250 - C315

25th ANNIVERSARY · 1964-1989

SEA LIFE PARK

HONOLULU LABORATORY
HONOLULU LABORATORY

OCT 26 6 12 AM '90
OCT 26 6 12 AM '90

NAT'L MARINE FISHERIES
SERVICE
NAT'L MARINE FISHERIES
SERVICE

COVER LETTER

DATE: 10-25-90 TO: GEORGE BAGAZS

FROM: SEA LIFE PARK ATTN: NMFS

STEVE GAISON FAX# 942-2062

FAX#: 808-259-7373
PH#: 808-259-7933

I am transmitting a total of 2 pages, excluding the cover letter. If you do not receive all the pages, please contact the undersigned operator as soon as possible at the above telephone number.

Thank you,

SG

Telecopier Operator

COPIES OF CITIES PERMIT — 1) YOU BETTER CATCH THESE TURTLES AGAIN AFTER RELEASE ITS PART OF THE PERMIT 2) DO YOU KNOW THIS GUY IN GALVESTON & DOES HE REALLY EXCERC HIS TURTLES

PARK: Makapuu Point / Waimanalo, Hawaii 96795 / Phone 259-7933
SALES OFFICE: 2222 Kalakaua Avenue / Suite 1300 / Honolulu, Hawaii 96815 / Phone 923-1631

CITES

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA

- [ ] IMPORT PERMIT
- [ ] EXPORT PERMIT
- [ ] RE EXPORT CERTIFICATE
- [ ] OTHER CERTIFICATES (See block 2)

1. Original Permit/Certificate No: US 750116

2. Valid until: 9/30/91

3. Permittee (name and address, country)

SEA LIFE PARK
MAKAPUU POINT
WAIMANALO HI 96795
U.S.A.

4. Consignee (name and address, country)

XXXX
VANCOUVER PUBLIC AQUARIUM
P.O. BOX 3232
VANCOUVER, B.C. V6B 3X8
CANADA

5. Special conditions

-MUST COMPLY WITH ATTACHED GENERAL AND SPECIAL PERMIT CONDITIONS.
-U.S. THREATENED SPECIES [50 CFR 17.42(b)].
-SEA TURTLES EXPORTED UNDER US 736812 ISSUED 9/8/89.

6. U.S. Management Authority

OFFICE OF MANAGEMENT AUTHORITY
U.S. FISH AND WILDLIFE SERVICE
DEPARTMENT OF THE INTERIOR
WASHINGTON, D.C. 20240
UNITED STATES OF AMERICA

10/10/90
Issue Date

Marvin A. Miller
United States Management Authority

Authority: Endangered Species Act of 1973 (16 USC 1531 et seq.)

7, 8 Common Name and Scientific Name of Species of Animal or Plant	9 Description of parts or derivative (including identifying marks or numbers tags, seals or bands)	10 Appendix No. and source (W, C, A or D)	11 Quantity number of specimens and/or net weight/vol or tissue
A. COMMON NAME: GREEN SEA TURTLE SCIENTIFIC NAME: CHELONIA MYDAS	REIMPORT: O.D.S. LIVE; HATCHED JULY 4, 1989; NMFS TAG #'s C-003, C-005, C-007, C-008, & C-009.	10: 1 C 12 Country of origin: U.S.A. Country of origin permit/certificate no: US 736812	11: 5
B. COMMON NAME SCIENTIFIC NAME		10 12 Country of origin Country of origin permit/certificate no	11
C. COMMON NAME SCIENTIFIC NAME		10 12 Country of origin Country of origin permit/certificate no	11
D. COMMON NAME SCIENTIFIC NAME		10 12 Country of origin Country of origin permit/certificate no	11

13. Endorsement

The quantities of specimens shipment upon exportation/re-exportation must enter the actual quantities of specimens being exported/re-exported in this block.

See block 7	Quantity
A	
B	
C	
D	

14. Bill of Lading/Air Way Bill Number

Port of Exportation/Re-exportation

Total No. of Shipping Containers

15. This document valid only with inspecting officer's ORIGINAL stamp, signature and date in this block.

Inspecting Officer's Stamp, Signature and Date

United States Department of the Interior

FISH AND WILDLIFE SERVICE
WASHINGTON, D.C. 20240

ADDRESS ONLY THE DIRECTOR,
FISH AND WILDLIFE SERVICE

Special Conditions
for US 750116

1. Turtles may be imported from Vancouver to Sea Life Park where they must be held until release in Hawaiian waters. Turtles may NOT be transferred to any other facility without prior approval of this office.

2. Due to the concern over fibropapillomatosis, the health of these turtles should be certified and monitored. Prior to their return to Hawaii the turtles must be examined by a qualified veterinarian and certified in writing to be in excellent health. In addition, since it is not known if fibropapillomatosis is contagious, the permittee should monitor these turtles to determine if they become infected following their return to Hawaii.

3. The turtles must be released in an area already supporting a similar size class of green turtles. The permittee should contact Dr. George Balazs, of the National Marine Fisheries Service (NMFS) Honolulu Laboratory at (808/943-1221) to determine the best site and to coordinate the actual release. Because the release of these turtles offers important research opportunities, the tagged turtles should be monitored and recaptured to determine if they disperse or remain in a specific area, and to determine their continuing state of health. The recapture of the turtles would require prior issuance of a threatened species take permit.

4. The turtles must be properly conditioned for release through exercise and diet so that they can adapt more easily to a new environment. The permittee should contact Dr. Edward Klima, Director of the NMFS Galveston Laboratory at (409/766-3500) to determine the most suitable conditioning protocol for the release of the captive turtles.

OCT 10 1990
Date

for Chief, Branch of Permits
Office of Management Authority

Balazs S : Sealife 4.20

Tag numbers and carapace lengths of 24 green turtles (14 females, 8 males, 2 immature), 1 hawksbill, and 1 loggerhead in Sea Life Park's "Turtle Lagoon", 1989-90.

compiled by
George H. Balazs

HONOLULU LABORATORY
Southwest Fisheries Center
2570 Dole Street
Honolulu, HI 96822-2396

Existing tags left	right	Tags newly applied 4/90	Straight length(cm) 4/89	4/90	Notes
2987[a]	NNW751		96.5	96.5	a = 0; F
2986[a]	NNW771		85.9	85.9	a = 3; F
NNW775	2982[a]		93.0	93.1	a = 3; F; Engraved 2982 x2 and "A-1"
Y336	8687[a]		63.5	71.4	a = 0; size #1LFL
	2061[a]	W704	86.8	86.9	a = 3; M
NNW756[a]			90.7	91.1	a = 1; F
5105[a]	NNW762	W706	74.9	75.1	a = 3; M
5817	2070[a]		84.2	84.5	a = 3; F
15103[a]	15104		78.8	78.9	a = 3; M
NNW759[a] 15100	NNW758		88.3	88.9	a = 1; F
	8680[a]	W703	65.9	73.1	a = 0; reddish
3282[a]	15092		94.4	94.7	a = 2; F; OP
NNW764	NNW763		84.6	84.3	M
Y32	Y33[a]		79.4	79.6	a = 2; M
15101	2499[a]		80.9	81.2	a = 3; F
2985[a]	6493		79.4	79.4	a = 3; M
15105	2984[a]		86.8	87.0	a = 3; F(?)
3287[a]	6495		80.3	80.4	a = 3; M
NNW767	3285[a]		83.0	83.3	a = 3; F

Existing tags left	right	Tags newly applied 4/90	Straight length(cm) 4/89	4/90	Notes
Y34[a]		W705	85.5	85.5	a = 3; F Dead 6/91 SAWA NECROPSY
9905[a]			74.4	75.3	a = 0; M
6498[a]	5608	W707	81.2	81.6	a = 1; F
6496[a]	15102		88.9	89.6	a = 3; F
2051[a]				82.0	a = 2; F
NNW772[a]			80.0	80.1	a = ?; loggerhead
	NNW752[a]		81.7	82.0	a = ?; hawksbill (W. Samoa)

[a]Tag number engraved in carapace on 4/21/89 with Dremel Moto-tool.

0 = No trace of engraving seen on 4/20/90
1 = Faint engraving present on 4/20/90
2 = Readable engraving present on 4/20/90
3 = Prominently readable engraving seen on 4/20/90

M = male
F = female

OP = orange plastic portion of Riese tag present along with tag 15092

NOTE: 2051 was not in "Turtle Lagoon" on 4/21/89.

HONOLULU LABORATORY
Southwest Fisheries Center
2570 Dole Street
Honolulu, HI 96822-2396

Sea turtles in captivity at Sea Life Park on August 28, 1987
Compiled by George H. Balazs and Marilyn Major.

Old tags present		New tags 8/28/87		Straight carapace length (cm)	Sex	Comments
Left	Right	Left	Right			
GREEN TURTLES						
2987	NNW751	--	--	96.7	F	NNW751 imbedded.
2062	NNW755 (4-5)	--	--	85.7	F	
NNW756	6494	--	--	90.6	F	Scutes peeling.
NNW759	NNW758, NNW760RH	--	--	82.8	IM	Hatched at Sea Life Park 12/80.
5815	2061, NNW761RH	--	--	86.5	M	
5105	NNW762RH	--	--	74.7	M	
NNW764	NNW763	--	--	84.6	M	"Natural" white marks in carapace.
6498, NNW765LH	5608 (imbedded)	--	--	77.9	IM	Kewalo transfer. 11th marginal left graft (dorsal visible but obscured. RH 1/2 missing.
15101	2499, NNW766RH	--	--	80.7	F	HIMB transferred from Kahala Hilton Hotel; repeatedly seen digging on beach.
5817	2070	--	--	84.4	F	
3282	--	--	--	94.4	F	
6496, 3524 (severely imbedded)	15102	--	--	84.7	IM	Hatched at Sea Life Park 12/80.
NNW767	3285	--	--	83.2	M	

(Continued)

Old tags present		New tags 8/28/87		Straight carapace length (cm)	Sex	Comments
Left	Right	Left	Right			
15103	15104, NNW768RH	--	--	78.6	M	
3287	6495, NNW769RH	--	--	79.7	M	
2985	6493, NNW770RH	--	--	79.5	M	
2986	NNW771	--	--	86.1	F	Repeatedly involved in 1986 nesting.
--	--	9903	9904	79.0	M	From Vancouver Aquarium 3/20/86.
--	--	9905, 9906LH	--	72.8	M	From Vancouver Aquarium 3/20/86.
NNW775	2982	--	--	93.1	F	
15105	2984	--	--	87.0	F	
HAWKSBILLS						
--	NNW752	--	--	81.8	F	1972 Western Samoa.
NNW757	--	--	--	85.5	F	Hawaiian Islands.
D774	D773, D775	--	--	28.7	IM	Customs confiscation to Waikiki Aquarium. SLP reef tank 15.9 on 7/2/86.
LOGGERHEAD						
--	NNW772	--	--	79.7	F	Molokai Channel-left front flipper amputated; eroded and flaking shell.

(Continued)

	Straight carapace length (cm)	Sex	Comments
MISCELLANEOUS DATA:			
NNW776, NNW777	54.5 on 2/5/86		Released at Makai Pier 7/11/86.
6914	25.2		Returned from Seattle Aquarium; released Waimanalo Beach 9/23/86.
6915	29.0		Returned from Seattle Aquarium; released Waimanalo Beach 9/23/86.
6916	29.3		Returned from Seattle Aquarium; released Waimanalo Beach 9/23/86.
8682	37.8		Released Makai Pier 3/26/86.
8686	36.9		Released Makai Pier 3/26/86.
9110, 9111, 9112	C69.8		Released Hawaii Kai boat ramp 3/6/87--Derby turtle confiscated 2/6/87.
NNW773, NNW774, 9901LH	79.2 on 2/19/87		Released Hawaii Kai boat ramp 3/6/87; adult male.
5101, 5102, 9902	78.2		"Joey" on 2/19/87; release Makai Pier 4/13/87. Formerly in reef tank 11/23/76--72.3 cm 11/30/80--74.5 cm 4/16/86--77.8 cm 4/16/86 moved to Turtle Lagoon but hind flippers bitten off during 1/87.

NNW 753, NNW 754

Released by Steve Kaiser sometime during 1986; exact date unknown.

HONOLULU LABORATORY
Southwest Fisheries Center
2570 Dole Street
Honolulu, HI 96822-2396

Tag numbers and carapace lengths of 22 green turtles (13 females and 9 males), 1 hawksbill, and 1 loggerhead in Sea Life Park's "Turtle Lagoon," 1989-91, as of August 22, 1991.

compiled by
George H. Balazs and Steve Kaiser

Existing tags left	right	Straight length(cm) 4/89	4/90	8/91	Notes 8/22/81
2987[a]	NNW751	96.5	96.5	96.5	a = 0; F; crack
2986[a]	NNW771	85.9	85.9	--	Shell abcess; F; not in lagoon
NNW775	2982[a]	93.0	93.1	93.0	a = 3; F;
Y336	8687[a]	63.5	71.4	80.2	a = 01 F; reddish
W704	2061[a]	86.8	86.9	87.0	a = 3; M
NNW756[a]		90.7	91.1	91.0	a = 0; F
5105[a] W706	NNW762	74.9	75.1	79.2	a = 3; M
5817	2070[a]	84.2	84.5	83.7	a = 3; F
15103[a]	15104	78.8	78.9	78.9	a = 0; M
NNW759[a]	NNW758	88.3	88.9	90.0	a = 0; F
W703	8680[a]	65.9	73.1	81.0	a = 0; F; reddish
3282[a]	15092	94.4	94.7	94.5	a = 2; F; OP
NNW764	NNW763	84.6	84.3	84.4	M; neck growth
Y32	Y33[a]	79.4	79.6	79.4	a = 0; M; black
15101	2499[a]	80.9	81.2	80.8	a = 0; F
2985[a]	6493	79.4	79.4	79.4	a = 0; M
15105	2984[a]	86.8	87.0	87.0	a = 3; F
3287[a]	6495	80.3	80.4	80.4	a = 3; M
NNW767	3285[a]	83.0	83.3	83.4	a = 3; M; black
Y34[a]	W705	85.5	85.5	--	Abcess; F; dead 6/91

HONOLULU LABORATORY
Southwest Fisheries Center
2570 Dole Street
Honolulu, HI 96822-2396

Tag numbers and carapace lengths of 22 green turtles (13 females and 9 males), 1 hawksbill, and 1 loggerhead in Sea Life Park's "Turtle Lagoon," 1989-91, as of August 22, 1991.

compiled by
George H. Balazs and Steve Kaiser

Existing tags left	right	Straight length(cm) 4/89	4/90	8/91	Notes 8/22/81
2987[a]	NNW751	96.5	96.5	96.5	a = 0; F; crack
2986[a]	NNW771	85.9	85.9	--	Shell abcess; F; not in lagoon
Right side Lmage fiber patch by Bob Morris 1/20/92					
NNW775	2982[a]	93.0	93.1	93.0	a = 3; F;
Y336	8687[a]	63.5	71.4	80.2	a = 01 F; reddish
W704	2061[a]	86.8	86.9	87.0	a = 3; M
NNW756[a]		90.7	91.1	91.0	a = 0; F
5105[a] W706	NNW762	74.9	75.1	79.2	a = 3; M
5817	2070[a]	84.2	84.5	83.7	a = 3; F
15103[a]	15104	78.8	78.9	78.9	a = 0; M
NNW759[a]	NNW758	88.3	88.9	90.0	a = 0; F
W703	8680[a]	65.9	73.1	81.0	a = 0; F; reddish
3282[a]	15092	94.4	94.7	94.5	a = 2; F; OP
NNW764	NNW763	84.6	84.3	84.4	M; neck growth
Y32	Y33[a]	79.4	79.6	79.4	a = 0; M; black
15101	2499[a]	80.9	81.2	80.8	a = 0; F
2985[a]	6493	79.4	79.4	79.4	a = 0; M
15105	2984[a]	86.8	87.0	87.0	a = 3; F
3287[a]	6495	80.3	80.4	80.4	a = 3; M
NNW767	3285[a]	83.0	83.3	83.4	a = 3; M; black
Y34[a]	W705	85.5	85.5	--	Abcess; F; dead 6/91

Existing tags left	right	Straight length(cm) 4/89	4/90	8/91	Notes 8/22/91
9905[a]		74.4	75.3	75.9	a = 0; M
6498[a] W707	5608	81.2	81.6	81.9	a = 0; F; RH ½ miss
6496[a]	15102	88.9	89.6	89.9	a = 3; F
2051[a]	2495	--	82.0	82.2	a = 2; F
NNW772[a]		80.0	80.1	79.5	a = 0; F loggerhead
	NNW752[a]	81.7	82.0	82.0	a = 0; F; hawksbill (W. Samoa)

[a]Tag number engraved in carapace on 4/21/89 with Dremel Moto-tool.

0 = No trace of engraving seen on 8/22/91
1 = Faint engraving present on 8/22/91
2 = Readable engraving present on 8/22/91
3 = Prominently readable engraving seen on 8/22/91

M = male
F = female

OP = orange plastic portion of Riese tag present along with tag 15092

NOTE: 2051 was not in "Turtle Lagoon" on 4/21/89.

Sealife4.20-7T.GHB

SEA LIFE PARK

MARINE RESEARCH AND
EDUCATION FOUNDATION

August 16, 1990

Mr. George Balazs
National Marine Fisheries Service
2570 Dole Street
Honolulu, HI 96822

Dear George,

Just wanted to let you know how the class went using your resident front-flipperless turtle. I have tried intermittently to get hold of you by phone, but between your busy schedule and my only working three days a week, I just have missed you.

Anyway, I couldn't be more enthusiastic about the turtle. He was easy to handle, and the children reacted extremely well to him. The class I was teaching was four and five year olds at Calvary-By-The-Sea Pre-School and I had about 18 kids in each class. I also did 10 minutes with the two and three year olds who were a little scared of the turtle.

The way I handled the class was to teach the lecture portion and then when that was complete, I put the turtle on my lap and let the children walk by and touch his/her? shell and back flipper. I kept little hands away from the head. The turtle was a perfect gentleman/woman and stayed very quiet on my lap (not even a poop out of it) until I tried to show what the plastron looked like. S/he took a slight exception to that, but that is understandable (after all, who wants to be turned upside down, or even part way). The children reacted with total wonder and it certainly made an impression in the way turtle shells and skulls never could. I have taught the same group of children twice since then on other subjects and they are still talking about the turtle that came to visit.

I took the liberty of saying that, while we don't know for sure, the loss of the front flippers could have been a result of entanglement in fishing line or other marine debris. Again, this makes an impression on the children. I would love to use s/he again when I do marine debris classes for older children.

Marilyn and I had no trouble catching the turtle...it was somewhat heavier than I had expected and as a result I got a little dirtier than I had expected taking it from it's tank. Next time we will know and be a little more prepared. I guess that final disposition of the turtle will be up to you with input from Marilyn, but, I for one, strongly support its use in education programs and would love to use it again. I think it would be a very valuable educational tool.

Thanks again for letting me use the turtle. If you want to talk to me about my impressions or need any kind of write- up from me to justify its continued existance, just let me know. By the way, a group from Channel 2 was filming some kind of a

MAKAPU'U POINT • WAIMANALO, HAWAII 96795 • (808) 259-7933

special program on early childhood learning and the learning process on that day, so they did some filming of my class. I have no idea how much will be a part of their special and how much will end on the cutting room floor, but your turtle may be a TV star!

Again thanks for the experience.

Aloha,

Kathy Hogue

Kathy Hogue
Educational Associate

GHB

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

May 29, 1990 F/SWC2:GHB

Ms. Marilyn Lee
Sea Life Park Marine
Research/Education Foundation
Makapuu, Waimanalo, HI 96795

Dear Marilyn,

About three years ago we acquired a juvenile green turtle found stranded at Punaluu Beach here on Oahu. The turtle was perfectly healthy, however both of its front flippers had been amputated and healed over. Based on its small size of 32 cm carapace length, the turtle had only recently arrived to coastal waters from high-seas habitat. Even without front flippers, the turtle had survived exceedingly well floating in the open ocean opportunistically feeding on jellyfish and other invertebrates. However, once "outgrowing" its pelagic home and entering into the coastal zone, the turtle was completely unable to negotiate waves, currents, and other factors that must be overcome to make a living.

While the amputations might have been due to shark attack, the most plausible explanation is severe self-tightening entanglement in buoyant plastic line or netting debris. We have handled many turtles over the years with various stages of front flipper entanglement which are strongly suggestive of eventual amputation at the distal joint of the humerus.

Since coming under our care, the turtle has been maintained in a shallow seawater tank at our Kewalo Research Facility where it has steadily grown to 15 kg in weight and 49 cm in carapace length. You may recall that for about a year our former volunteer, Marilyn Major, regularly incorporated this turtle into her independent educational outreach at preschools, Bishop Museum family Sundays, and other events focused on children. Unfortunately, for personal reasons, Marilyn had to discontinue her superb efforts on behalf of sea turtles and marine conservation. Marilyn regularly reported that the turtle was always the high point of her presentations, evoking sympathy and a better understanding of the serious harm that can result from ocean littering.

Without Marilyn's educational outreach, the turtle has been unused for several months and has become a liability to our research program. The turtle occupies an entire tank by itself, since we do not want it exposed to potentially diseased turtles sometimes cared for in our standing network. Personnel must

spend time feeding the turtle and cleaning the tank, with no prospect for release back into the wild. In trying to come up with a solution to this dilemma, it has occurred to me that the turtle could once again be an asset and ambassador for conservation as a part of your own educational program. I would like you to consider this opportunity, and evaluate the feasibility of maintaining the turtle on a longterm loan basis. However, I would not want this to be a burden to Steve Kaiser in any way.

In closing, I should mention that one of the tremendous advantages, reported by Marilyn, of handling and showing this turtle to children is its inability to crawl off or swim away. Call me at your convenience and I'll tell you whatever else you need to know about the turtle.

Sincerely,

George H. Balazs
Zoologist

Morphometrics and growth data for double front-flipper amputee pelagic green turtle found stranded at Punaluu, Oahu
July 18, 1987

In centimeters	Date	Interval and growth rate	Date	Interval and growth rate	Date	
	7/18/87	(1.7 yr)	3/27/89	(0.5 yr)	10/4/89	1/18/90
Straight carapace						
length	32.3	(8.4 cm/yr)	46.6	(5.2 cm/yr)	49.2	49.4
notch	31.7		45.6		48.4	
width	--		37.4		39.8	
Curved carapace						
length	--		50.0		52.0	52.8
width	--		45.0		47.5	
Plastron	--		37.7		--	
Head	--		7.7		--	
Tail	--		--		--	

-OVER-

Adisk No. 3
Amputee 718 (RM.)

1/18/90
Straight:
Notch 48.6
S-49.4
width 40.1

curve notch 52.0
C- 52.8
width 47.4

4/13/90
N- 48.6
S-49.4
W-40.2

C-53.0
W-48.0

8/6/90
N: 49.2
S49.8
W-40.5

C-54
W 48.5

9/10/91
S-51.4
W-41.7

C-56.0
W-50.0
32 lbs

Xerox

October 28 ,1991

George,

Had 50 hatchlings last nite. I tagged them right flipper only C401 to C450. I'm releasing them tonite at Makapuu. They looked like they had been in the nest to long. Shells had light colored spots on them and the umbilicals were completely closed. I am going to really try to get some beach sand for next year. Also, I got only about 120 small tags left.

November 18 ,1991

To: ~~Gene Nittta~~ cc GEORGE BALAZS
NMFS Fax ~~949-7400~~

From: Steve Kaiser
Sea Life Park Hawaii

I sent six turtles over to Mauna Lani last week. Four are from the Bronx Zoo that where sent up last year and two are from the Waikiki Aquarium also from last year. All are tagged on the right flipper only and are 11026, (1) (2) 11027, (3) 11028, (4) 11029. The next two still have their small tags on and are (5) B125/11030, C051/11031. (6)

11-19-91

STEVE = not released

MEASUREMENT DATA please, for each tagged turtle.

11-19-91

FOR STEVE KAISER

FAX 259-7373

November 18 ,1991

From: ~~To:~~ George Balazs
NMFS Fax 943-1290

" "
KATIE

~~From: Steve Kaiser~~
~~Sea Life Park Hawaii.~~

George the turtle I released today for the Today show is tagged RFL 11035 and LFL 11034. This was from our '90 group of hatchlings.

11-19-91

Steve -

Carapace length Straightline = Not Measured

date measurement taken = _____

SEA LIFE PARK
HAWAII

January 17,1992

To: George Balazs
NMFS

From: Steve Kaiser
SLPH

On January 16, 1992 we released three hatchlings from our 1991 clutch at Kumu Cove just below SLPH. This was done in conjuction with a film crew from Zoolife News.

RFF	LFF	SL/CL
C533	C534	13.5/14.5cm
C535	C536	13.0/13.7cm
C537	C538	12.9/13.4cm

PARK: Makapuu Point / Waimanalo, Hawaii 96795 / Phone (808) 259-7933 / FAX (808) 259-7373
SALES OFFICE: 2222 Kalakaua Avenue / Suite 1300 / Honolulu, Hawaii 96815 / Phone (808) 923-1531 / FAX (808) 926-4814

circled

8/22/91 SLP
and 4/6/92 SLP (red ink)

TAGS	CARAPACE LENGTH	NOTES
8/22/91 NNW759	90.0	F
NNW759 4/6/92 =	90.6	
8/22/91 4/6/92 NNW772 ~~4/6/92~~	79.5	F, Loggerhead
8/22/91 2985 4/6/92 6493+1 LFL	79.4	M
8/22/91 4/6/92 9905 LFL 9906 HIND LEFT	76.3 75.9 (A423 RFL A424 L34) NEWLY APPLIED	M
8/22/91 4/6/92 3282 LFL (Eng)	94.5	F
15092 with orange plastic ½ of Reese tag	94.3 ENGRAVED	—
8/22/91 4/6/92 NNW764 LFL NNW763 RFL	84.7 84.4	M, hard growth on neck, 11x5 cm, large white spots both sides of shell
4/6/92		
8/22/91 3287 (Eng) ~~RFL~~ EN 6495	80.4	M, scar on neck
8/22/91 4/6/92 NNW756 LFL	91.3 91.0	F
8/22/91 4/6/92 6490 LFL	89.7 89.9	F
15-- RFL 102		

4/6/92 SLP DATA

(ALL Red ink)

	CARAPACE	NOTES	
Loggerhead	79.2		T
			8/22/19
		M	15
6493	79.4		29
2985 EN			8/22/
			15
W704 LFL	87.2	M	15!
2061 RFL EN			8/22
			Y3
3285 RFL	83.5	M	Y3
NNW767 LFL			8/22/
			20
NNW775 LFL	93.1	F	24
2982 RFL			
			8/22/
2986 LFL	85.5	F	207
W771 RFL		FIBER PATCH	98
			8/22
W707 L34	82.2	F	151
+1 LFL			249
+1 R2			8/22
			NNW
Y336 L34 (ENG)	83.6	F	
+1 R34			
HATCHLING TAG 13 OR L3			5105
2987 LFL	96. +	F	86
NNW 751 RFL			+
			87

8/22/91 SLP
and 4/6/92 SLP (red ink)

Circled = red

TAGS	Length	NOTES
8/22/91 4/6/92		
15105 LFL	87.0	F
2994 RFL (Eng) EN	86.7	
8/22/91 4/6/92	79.0	
15104 RFL	7 ~~8~~8.9	M
15103 LFL		
8/22/91 4/6/92	79.7	
Y33 RFL	79.4	M, Black
Y32 LFL		
8/22/91 4/6/92	82.2	
2051 LFL (Eng) EN	82.2	F, Fat by hind flippers, cloaca hanging out - eggs?
2495 RFL		
4/6/92		
8/22/91	83.6	
2070 (Eng) EN	83.7	F,
5817 LFL (only tag)		
8/22/91 4/6/92	81.3	
15101 LFL	80.8	F
2499 RFL		
8/22/91 4/6/92		
NNW 752 RFL	82.0	F, Hawksbill
	N 78.1	
	87.2 N=78.1	
5105 (photo) (ENGRAVE) M.	S: 74.7	M
8680 RFL	S 83.2	F
+ 1 LFL		
8280 NEW ENGRAVE		

See last sheet he gave me

AUGUST 1,1989

TO: GEORGE BALAZS

FROM: STEVE KAISER

Prefix "E"

ON AUGUST FIRST, I RELEASED 134 HATCHLINGS. I TAGGED BOTH FRONT FLIPPERS WITH NMFS TAGS 415 TO 552. TAGS ARE IN CONSECATIVE ORDER.
E E

THEY WERE RELEASED AT THE BEACH RIGHT BELOW SEA LIFE PARK

JULY 7,1989

"E" prefix

TO: GEORGE BALAZ

FROM: STEVE KAISER

ON JULY 4TH FIFTY-FOUR HATCHLINGS WERE FOUND ON OUR TURTLE LAGOON BEACH.

ALL TURTLES WERE TAGGED ON THURSDAY THE 6TH AND FORTY-TWO OF THEM WERE RELEASED AT 8:00PM ON WAIMANALO BEACH. 7/6/89 42

THE OTHER 12 ARE BEING HELD HERE AT SEA LIFE. ALL THE TURTLES WERE TAGGED ON BOTH FRONT FLIPPERS. TAG NUMBERS 368,355,354,384,379,394 WERE SCREWED UP DUE TO OPERATOR ERROR(THE DAMN THINGS DIDN'T LOCK OVER RIGHT) AND WERE NOT USED.

TAG NUMBERS ARE FROM E 301 TO E 414. THE 12 TURTLES HELD HERE AT SLP NUMBERS ARE:

1-361/359	7-401/402
2-316/311	8-395/390
3-363/353	9-321/309
4-388/386	10-397/399
5-403/404	11-392/396
6-310/320	12-369/367

VANCOUVER AQUARIUM WOULD LIKE TO RAISE 10 HATCHLINGS THIS YEAR. AS THEY GET BIGGER THEY WILL SEND THEM TO US DURING THE NEXT 3 TO 4 YEARS.

AUGUST 29, 1989

TO: GEORGE BALAZS

FROM: STEVE KAISER

ON AUGUST 29 I RELEASED 52 TURTLES TAGGED E-551 TO E-656. THESE TURTLES HATCHED THE NIGHT BEFORE.

I ALSO RELEASED THE HATCHLINGS FROM 8/14/89, 21 TURTLES TAGGED E-657 TO E-698.

KAHANA Bay)
Oahu

4/22/92 KINOLO HAND SNORKEL
(L2-3) E622 (Applied H269
H268
14.5lbs = 6.6kg S 36.4 X 31.3 NOTCH 35.9
C 38.5 X 35.5

SEPTEMBER 20, 1989

GEORGE,

I RELEASED 49 TURTLES ON TUESDAY SEPTEMBER 12. THESE TURTLES HATCHED ON THAT DAY(WE FOUND THEM JUST BELOW THE SURFACE OF THE SAND THAT MORNING). IT WAS A CALM NIGHT SO USED THAT BEACH RIGHT BELOW THE SEALIFE AS A RELEASE SITE AGAIN.

TAG NUMBERS E699 TO E796.

Kihole #14 **SEA TURTLE TAGGING FORM** (23)

CAPTURE DATE, LOCATION AND METHOD:

4-22-92 Kihole, N. Kona Hand Snorkel

PERSON RECORDING DATA: Laura Dierenfield

OLD TAGS: RFL: LFL:

NEW TAGS: RFL: H-269 LFL: H-268

TUMOR SCORE: 0

(L2-3) E-622 SIZE #1 NONE

OTHER NEW TAGS:

STRAIGHT CARAPACE-LENGTH: 36.4 = 14.3 inches **WIDTH:** 31.3

NOTCH LENGTH: 35.9

CURVED CARAPACE LENGTH: 38.5 **WIDTH:** 35.5

HEAD WIDTH: 5.9

SEX: MALE, FEMALE OR UNDETERMINED

TAIL LENGTH: T 6.0 C 4.0

SAMPLES COLLECTED:

RIGHT FRONT FLIPPER WIDTH: 6.7

PLASTRON LENGTH: 29.8

WEIGHT: 14.5 lbs.

KAHANA BAY, Oahu, by Steve Rabes

DESCRIPTIVE REMARKS: E622 ORIGINALLY TAGGED AS HATCHLING 8/29/89 AND RELEASED. HATCHED 8/28/89 AT SEA LIFE PARK.

PCA Left post central broken

HPA - Mrs. Zackery's class present (4th grade class) several photographs by Mr. Rice

SEA LIFE PARK
HAWAII

May 11, 1992

Steve Kaiser
259-7933
OR
Karen Mendez-Cazares
922-2074

FOR IMMEDIATE RELEASE

Sea Life Park Hawaii has maintained the only captive breeding program in the United States for the giant green sea turtle. Under the U. S. Endangered Species Act of 1973, the turtles were listed as a threatened species and it was no longer lawful to capture the animals or harm them in any way.

At Sea Life Park, more than 1,700 turtles have been hatched since 1976, and all of them are released into Hawaiian waters.

For Steve Kaiser, the Sea Life Park's Curator of Reptiles and Fishes, releasing the turtles brings him mixed emotions. "It's like sending a child to college," explained Kaiser. "You're glad to see them go off on their own but you're still worried about if they'll make it."

Therefore, when he recently received news from the National Marine Fisheries Service that one of the turtles the park hatched then released as a hatchling in 1989 was spotted in April on the Big Island, Kaiser was understandably elated. "In 1989, he was 1 1/2 inches long and when he was recaptured at Keauhou Bay, he was 14 1/2 inches long," explained Kaiser.

Tagged with a National Marine Fisheries Service (NMFS) number E622, the turtle was spotted on April 22 by George Balazs of NMFS Marine Turtle Research Program who was able to verify that the animal was indeed one of the turtles who once resided at Sea Life Park Hawaii. Balazs made sure the turtle was in good health, retagged him with a new number, and promptly released the animal.

In Hawaii, only 100 to 350 green sea turtles nest each year in the wild, mainly at French Frigate

MORE

Shoals 400 miles northwest of Kauai. Commercial hunting and human encroachment have been significant factors in their decrease in population over the years. A hatchling which measures only about 1 or 2 inches and weighs as little as an ounce is ready prey for predators.

This fourth of July, the park hopes to release ten juvenile turtles at the Mauna Lani Resort. "Our tutrtles are given only the best accommodations," Kaiser laughed.

For the past three years, the park has been releasing turtles with much local fanfare at Mauna Lani where atrium ponds are maintained for the threatened species in preparation for their release into the wild . "We get several hundred people from the Big Island community," stated Leilani S. Hino, the Director of Community Affairs at Mauna Lani Resort who has organized the resort's "Turtle Independence Day" for the past three years. "It is one of our favorites," added Lino. "It is a total feel-good thing."

On July 3, Kaiser will weigh and measure the turtles at Mauna Lani Bay, making sure all turtles are in top shape before they venture out into the wild. Turtles who pass this test are then tagged with identifying markers from the NMFS. In 1990, the park released four turtles at the resort. In 1991, six were released. This year, the park hopes to releasea total of ten turtles about one to two years old.

As part of their on-going efforts to conserve the green sea turtle species --or *Chelonia mydas*, Sea Life Park has also loaned out the reptiles to several animal facilities throughout North America. "Some of the hatchlings are loaned to parks for display to educate the public about sea turtle conservation," explained Kaiser. "This gives the turtles time to grow prior to their release," he continued.

Vancouver Aquarium, Columbus Zoo, Cleveland Metro Zoo, Bronx Zoo, Seattle Aquarium, Steinhart Aquarium in San Francisco as well as Kahala Hilton and Waikiki Aquarium have all participated in the Educational Loan Program created by the park. "We feel by placing as many as possible with other institutions the turtles serve as living ambassadors of their species and thus increase the public's awareness about theneed to ensure their survival," Kaiser explained.

At full maturity which in the wild takes an average of 25 years, the green sea turtle can weigh up to 400 pounds and liveto a ripe old age. The green sea turtle can be seen at the park's Turtle Lagoon from 9:30 a. m. to 5:00 p. m. daily.

##

SEA LIFE PARK
HAWAII

August 5 ,1992

LOGGED
TDPS

To: George Balazs
NMFS
From: Steve Kaiser
SLPH
Subject: Turtle release

On August 4 we released 20 turtles at Kumu Cove in Waimanalo. They are from a clutch of twenty hatched on August 2 here at SLPH.

RFL	LFL	SCL
C571	C570	53MM
C572	C573	51
C574	C575	51
C576	C577	53
C578	C579	50
C580	C581	53
C582	C583	52
C584	C585	51
C586	C587	51
C588	C589	49
C590	C591	49
C592	C593	50
C594	C595	51
C596	C597	52
C598	C599	51
C500	C600	52
C496	C492	53
C498	C499	52
C488	C489	51
E009	E010	52

PARK: Makapuu Point / Waimanalo, Hawaii 96795 / Phone (808) 259-7933 / FAX (808) 259-7373
SALES OFFICE: 2222 Kalakaua Avenue / Suite 1300 / Honolulu, Hawaii 96815 / Phone (808) 923-1531 / FAX (808) 926-4814

LOGGED TDPS

August 11 ,1992

To: George Balazs
NMFS
From: Steve Kaiser
SLPH
Subject: Turtle release

On August 6 we released 8 turtles at Waimanalo Beach. They are from a clutch of 9 hatched on August 6 here at SLPH. The one we did not release had a bite mark from the larger turtles and subsequently died.

RFL	LFL	SCL
E011	E012	47MM
E013	E014	50
E015	E016	51
E017	E018	51
E019	E020	52
E021	E022	52
E023	E024	49
E026	E027	51

✓ Logged

ALL
SIZE 1
MONEL TAGS

August 20 ,1992

To: George Balazs
NMFS
From: Steve Kaiser
SLPH
Subject: Turtle release

hatchlings

On August 19 we released 38 turtles at Waimanalo Beach. They are from a clutch hatched on August 17 here at SLPH. The release with the public went great we had about 75 people show up.

LFL	RFL	LFL	RFL
XA34	XA33	XA35	XA36
XA37	XA38	XA39	E042
XA40	E046	E033	XA41
XA44	E044	XA45	XA46
XA47	E048	XA48	E038
XA49	XA50	E070	E058
E051	E050	E075	E074
E029	E028	E060	E061
E062	E063	E064	E065
E057	E056	E055	E054
E030	E031	E041	E040
E067	XA02	XA03	XA04
XA05	XA06	XA07	XA08
XA09	XA10	XA11	XA12
XA13	XA14	XA15	XA16
XA17	XA18	XA19	XA20
XA21	XA22	XA23	XA24
XA25	XA26	XA27	XA28
XA29	XA30	XA31	XA32

INFORMATION SUMMARY ON THE VANCOUVER AQUARIUM GREEN TURTLES

George H. Balazs
Southwest Fisheries Center Honolulu Laboratory
National Marine Fisheries Service, NOAA
Honolulu, Hawaii 96822-2396

Two green turtle, Chelonia mydas, were returned to Hawaii on March 20, 1986 from the Vancouver Aquarium. The turtles had originally been shipped to Vancouver in 1956 by Spencer Tinker, former Director of the Waikiki Aquarium. They were estimated to measure 45-50 cm in straight carapace length at that time. Transport of the turtles both to and from Vancouver was made courtesy of Canadian Pacific Airlines.

The turtles arrived in Hawaii in excellent condition and have been permanently housed at Sea Life Park on Oahu. Numerous color photos were taken of them on March 25th and April 9th. They were double-tagged on April 9th shortly before being moved into the Park's "Turtle Lagoon." Data are as follows:

	Straight carapace		Curved carapace	
Tag No.	Length	Width	Length	Width
NMW 780 NMW 781	78.6	58.3	82.5	69.0
NMW 782 NMW 783	70.2	56.1	74.0	64.5

While in Vancouver the turtles were held in an inside display tank with fluorescent lighting. Seawater temperature averaged about 25°C. Feeding occurred twice a week to satiation on a diet of frozen chopped fish.

The dorsal surfaces of the turtles are black, except for cream-colored seams between the scales on the head and flippers. The ventral surfaces are cream-colored or whitish. Upon arrival in Hawaii the turtles were completely free of algae and other fouling growth. However, by April 9th, some algal growth was present on the carapace and dorsal skin surfaces.

The larger turtle is clearly an adult male. Its tail is very thick at the base and measures at least 40 cm in length. The smaller turtle's tail measures only 29 cm and has a considerably smaller diameter to the base. This turtle is either an immature male, or an inter-sex individual. Upon being placed in the Turtle Lagoon, several of the existing male green turtles vigorously mounted this turtle to copulate.

About Kilo i'a

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Kilo i'a is published bi-monthly by the Friends of the Waikiki Aquarium and is dedicated to increasing the community's knowledge of the Waikiki Aquarium and Hawaii's marine life.

Kilo i'a

LOOKING AT THE SEA

Hawaiian Turtles in Canada

Throughout the years, sea turtles have been a popular attraction at the Aquarium. Visitors can currently see three species of them while learning about their unique ecology and threats to survival. The 11 inch olive ridley in gallery 1 offers a special treat since this species is seldom seen at such a young age. This particular one was found washed ashore on Molokai, tangled-up in plastic line. He was sent to the Aquarium 15 months ago, has since been restored to health and is now growing. Sharing the outdoor seal pool is an active adolescent hawksbill, with its longer beak and spiny-edged shell, and a larger male loggerhead who sleeps quietly on the bottom most of the time.

The number of turtles at the Aquarium has waxed and waned over its 79 year history. Green turtles or Honu, the most common of Hawaiian sea turtles, were once heavily exploited for food but are now legally protected. In the past, when a surplus existed from too many donations, turtles were tagged for research and returned to the sea. Some of the green turtles released in this manner were later found happily breeding at French Frigate Shoals, 500 miles up the Hawaiian chain. In 1956, three surplus green turtles left the Aquarium under somewhat novel circumstances —aboard Canadian Pacific Airlines. This interesting and nearly forgotten story was pieced together from an old newspaper article and recent correspondence with the Vancouver Aquarium where two of the turtles are still living 27 years later. These "high-flying" turtles were sent up to Canada by former Waikiki Aquarium Director, Spencer Tinker to help celebrate the grand opening of the Vancouver Aquarium. Sea turtles don't normally occur off Vancouver, so the gift has provided millions of Canadians the unique opportunity of seeing these amazing reptiles.

It's just possible that these immigrant turtles have set a record for the length of time a green turtle has been kept in captivity. No one really knows just how long they can live, so records like this are helpful. The growth rates are also of interest. During the 27 years, the two turtles, one male and one too small to determine its sex, grew from a shell length of about 12 inches to sizes of 32¼ and 28¼ inches.

If you are ever in Vancouver, please stop by and say Aloha to our old friends!

UH marine biologist George Balazs has been studying Hawaiian sea turtles for the past 17 years and is an active supporter of the Aquarium.

HISTORY OF SEA TURTLES AT
SEA LIFE PARK
— MORTALITIES —

HAWKSBILLS

(1) POMAIKAI - Adult male (hatchling Jan 75 Malekahana) ABCESS on neck - bitten by other turtles

(2) LARGEST FEMALE - DROPPED WHILE LIFTING FROM TANK - FULL of developing EGGS

(3) Juvenile from Puleloa - Molokai RAised by him in bucket - drowned when stuck in SLP drain.

(4) 2, via HIMB, from W. Samoa. MASSive internal body fat found upon necropsy!

(5)

GREENS

(1.) Very largest of original stock - All flippers bitten bad, especially hind flippers. Released into the wild.

LOGGERHEAD

(1) LARGEST FEMALE being held for Waikiki Aquarium, Bad abcess in pelvic region - Died - Necropsy by Dr. McKay.

Flipper tag retention and growth data for young captive hatched green turtles reared for a year at Sea Life Park

Compiled by George H. Balazs

Size 1 tag No. applied 9/18/84		Size 681[1] applied 9/19/85	Straight carapace length (cm)		Tag loss
Left	Right		9/18/84	9/19/85	
63G	61G	8681	5.9	30.9	None
* 96G	94G	8679	5.6	28.5	None
987K	985K	8682	5.8	31.9	None
* 106G	104G	8688	5.8	26.1	None
111G	109G	8680	6.0	29.7	None
114G	113G	8683	5.9	29.9	None
126G	122G	8686	5.6	28.9	126G
* 140G	137G	8678	5.9	29.1	None
* 50G	52G	8685	8.5	27.5	None
181G	176G	8687	9.6	27.3	None
N742[1]	[1]N732	8684	5.8	31.2	None

[1]Monel alloy tags. All other tags are made of titanium.

* RELEASED AT BELLOWS BEACH, WAIMANALO BAY, OAHU 9-27-85.

Tagging and measurements of sea turtles on November 4, 1985 by G. H. Balazs

Size 1 tag No. ALL 53-4		Size 681 applied 11/4/84		Straight carapace cm	
Left	Right			Length	Width
N579**	N580**	8690		20.3	16.5
N379**	N380**	8691		19.5	15.4
850**	851**	8692		19.0	14.7
924**	925**	8693		19.8	15.4
		Size 1 applied 11/4/85			
N389**	N390**	E007 RFL	E008 LFL	17.5	14.2
938**	887**	E006 RFL	E025 LFL	16.7	13.2
N395[1]	N396[1]	--		18.5	14.4
--	--	E002[2]	E003[2]	7.3	5.8
		--	E004[2]	6.3	5.2
		--	E005[2]	6.5	5.3
Philippines hatchling hawksbill[1]		--	--	4.3	--

*Titanium alloy tags; all others are Monel.

**RELEASED AT BELLOWS BEACH, WAIMANALO BAY, OAHU (6 TURTLES).

[1] Not released; kept at the Waikiki Aquarium for display; Graft on 3rd lateral left; Tag N395 imbedded and cause of deformity in 3-4th Scales.

[2] Three post-hatchlings brought to the Aquarium by Dick Wass for the Seattle Aquarium. Shells soft with scute material sloughing.

RECENT TRANSFER FROM PBRC WHITTOW TO KEWALO NMFS 5683; 8689 (NEW) 56.3 42.0
GRAFT ON 1st lateral right - photos taken.

5-27-93 S.L.P. CAPTIVE ♀ "HATCHERY"
TAGS 8687, Y336, 181/SCL=85.2cm

DATE	EVENT	COMMENTS	RESULTS
5-27-93	Necropsy	25 Shelled eggs 656 Unshelled eggs	Placed in cooler for incubation Disposed
7-2-93	GHB examines eggs	13 eggs discarded 12 eggs saved	All were non-turgid 1-dead embryo, 1.5cm long *SAVED* 1-possible early development 9-no signs of development 2-undersized with no yolk Transferred out, rinsed cooler, and placed in clean cooler in tray with water
7-26-93	SK examines eggs	4 eggs removed 8 eggs saved	Frozen for GHB's examination 1-turgid 2-semi-turgid 5-soft
8-9-93	GHB examines eggs	8 eggs removed	1-alive, maggots infesting umbilical area; sealed with vet. sealant and household "goop" by GHB; left in clean cooler with moist paper towels 1-pipped with shell attached *SAVED* 5-nearly full-term, no pipping *SAVED* 1-apparently no development
8-10-93	SK examines hatchling	1 hatchling removed	1-hatchling died *SAVED*

: Owner'sSEA LIFE PARK : Name c/o STEVE KAISER	State of Hawaii DEPARTMENT OF AGRICULTURE Division of Animal Industry Veterinary Laboratory 99-941 Halawa Valley Street Aiea, Hawaii 96701-5699	: Date Rec'd 5-24-94 : Log No. 94-1387 : Test BK, PS, PM, HE

VS/WPP No. 624

Final Report Date:6-7-94

REPORT TO DR THOMAS R SAWA
VETERINARY LABORATORY
DEPARTMENT OF AGRICULTURE
99-941 HALAWA VALLEY STREET
AIEA HI 96701

HATCHED AT SLP 8/84
9 YEARS, 8 MONTHS
87.5cm Straight Carapace Length
TAG 8680

Species & Breed: OTHER: GREEN SEA TURTLE ( ) Sex: FEMALE Age: ~~17 YRS~~

Type of Specimen(s): (A)Body[X] (B)Fixed[X] (C)Blood[ ] (D)Others[X] FECES

Examination completed: PM[x] Histo[X] Bact[X] P/O[X] Cyto[ ] Viro[ ]
BK665/666;HE-94-05-47 Chem[ ] Hemo[ ] Sero[ ] Tox[ ]
Other

Result(s)

BACTERIOLOGY: BK 665: OVIDUCT See below under Comments
BK 666: OVIDUCT See below

PARASITOLOGY: Direct Smears: Saline D'Antoni's Iodine: NONE SEEN
Flotation Smear: " "

GROSS FINDING: Autolysis; many graffian follicles; at least ten (10) eggs with shell in each horn; possibly infection of lower part of horn--fibrin tags on shell; liver appeared enlarged with rounded edge. Intestine--mostly greenish soft contents-small amount-a few firm fecal pellets; Stomach-small bolus mixed grass, stiff plastic like material; thin bony-like matter; mucosa appeared okay; lungs, kidney, spleen, heart appeared normal-fat, grayish. No other significant findings.

HISTOPATHOLOGY: All Sections: Severe autolysis; no significant antemortem lesions except for kidney which has large venous channel containing thrombus-like material in its' lumen. Liver is also autolyzed; possible fatty change, diffuse.

Pathological Findings Final CODES: DX1:T011 DX2:L023 DX3:NGRO ETIDX:XX00

(1) THROMBOSIS, RENAL VEIN
(2) HEPATIC LIPIDOSIS, POSSIBLE (AUTOLYZED)
(3) BK 666: NO SALMONELLA ISOLATED

Comments: BK 665: Citrobacter freundie, Acinetobacter calcoaceticus biotype Iwoffii, Pseudomonas putrefaciens, gamma-Streptococcus, alpha-Streptococcus, and Staphylococcus epidermidis isolated. (DX1 M064)
GREEN SEA TURTLE

cc: DR GEORGE H BALAZS
cc:
cc:
VL-4
1/89

Pathologist: Crane H. Hahn, DVM, MPH, MS.

JOHN WAIHEE
Governor

YUKIO KITAGAWA
Chairperson, Board of Agriculture
LETITIA N. UYEHARA
[redacted]
Deputy to the Chairperson

Phone: (808) 483-7100
FAX: (808) 483-7110

State of Hawaii
DEPARTMENT OF AGRICULTURE
Division of Animal Industry
99-941 Halawa Valley Street
Aiea, HI 96701-5699

July 7, 1994

Mr. George Balazs
U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Southwest Fisheries Science Center
Honolulu Laboratory
2570 Dole Street
Honolulu, HI 96822-2396

Dear George:

Re: Green Sea Turtle, Flipper #8680 TAG
Gross Findings: Fat, Grayish

Based on memory, there was abundant fat in the usual sites in the abdominal and pelvic cavities. The fat appeared normal in consistency.

Sincerely,

Thomas R. Sawa

THOMAS R. SAWA, D.V.M., Ph.D.
Program Manager
Veterinary Laboratory

TRS:jnf

LAB 336

SCUBA ① 60 MIN 40' ② 60 MIN 40'

16 AUGUST 94 HONOKOWAI MAUI 2 Scuba

w/ URSULA & Peter. Saw 5, then 8 turtles.

Saw F766 (RH) adult ♀ - No mototool #.

*Louie's Need

11503 was in Mainland AT =

17 AUGUST 94 SEA LIFE PARK - (AQUARIUM) VIGOROUS WILD! STRONG

Hatched at SLP

L2-3 **11503** old existing TAG OBTAINED PLASMA 2 VIALS Sent to A. AGUIRRE ~4cc each + used Lithium heparin SPUN CELLS for DNA

17 August 94 Sea Life Park

Above Turtle never fed algae. Recently Returned from aquarium. Now in reef tank (placed there after today)

SCL = 42.8 cm Notch = 42.6

CCL = 46.0 CCW = 40.0

TAIL T = 8.5 C = 5.5

PL - 34.6 Very white between scales

Head = 6.9

VERY SOFT SKIN Somewhat like Floating Turtles

DNA Sample + 4 vials plasma ~4 cc each all sent to A.A. on dry ice Models.

Hatched at SLP

11563 RFL (new) **11564** LFL

SCL = 54.6 notch = 59.0

SCW = 43.1 Head = 8.7

CCL = 59.0

CCW = 51.0

Tail = T = 12.5 C = 8.0

PL = 44.9

PPS = yes

In reef tank - bit divers ear ∴ Put into lagoon after bleeding today.

SNOR 18

8/2

Need Xer ← T page SLP folder + TDI See Sha

October 10 ,1994

To: George Balazs
From: Steve Kaiser
Subject: Turtles Released

Date	Quantity	Numbers
9/21/94	61	ZB01-ZB99&ZA01-ZA23
10/4/94	20	YC43-YC82
10/5/94	26	YC98-YC99&XI01-XI51
10/8/94	26	XI52-XI98&XJ01-XJ12

All tutles released at Kumu Cove in Waimanalo

LIHUE Aloha 484-1111 GASPRO 842-2130 842-2225 Billingham

Mon. 26 Sept 6:30am 201 FL ~~[illegible]~~ ~~[illegible] FL 93~~

$19.88 Dollar ALOHA AIRLINES FL 405 PM (220 Flight) 5pm

Confirm ~~No. 18985~~ 60 Record Loc. # JMSIHH

9/17/94 SEA LIFE PARK 9/17/94 TAGGED THIS DATE SEA LIFE PARK #20 Needles

AA & GHB (#1) CCL 31.5 (LFL) 11565 6 cc Blood

CCW 27.0 SCL = 30.0 2 vials plasm 15cc each

9/24/94 DNA Blood 2-6mm Biop (AA) LH

(#2) CCL 33.5 (RFL) 11566 9 cc Blood

CCW 29.5 SCL = 31.5 4 vials

9/24/94 — DNA Blood + 2 6mm Biop (AA) LH

(#3) CCL 32.0 (LFL) 11567 10 cc blood

CCW 26.5 SCL = 29.9 cm 4 vials

9/24/94 ~~Blood~~ DNA 2-6mm Biop (AA) LH

Above 3 C. mydas recently returned from MAINLAND AQUARIA

PAGER "NAUTILUS 5" 541-2450 USCG Kewalo basin

9/17/94 USCG SAT. Winfield need to contact person

[I declined.]

9/18/94 WAILUA Driving Range Kauai near

Sunday huge log

Anonymous TO DOCORE 30" ♂ missing LFF dead.

PAGER

GRAND TOTAL 55 TURTLES 22 w/tumors

23 SEPT. 94 Friday KBAY Marine Reef = 1

Reef 42 = 11

A.O.L. = 8

~~Reef #~~ — ~~10~~ TOTAL

[6 DAY TOTAL FOR KBAY = 55 Turtles (22 Tumors)

Dear Mr. Balazs,

My name is Shavonn Spencer Kennedy. I am presently taking care of the sea turtles at Sea Life Park. I am sending you this letter to inform you of the release of *Chelonia mydas* hatchlings. A total of 92 hatchlings were released at Kumu Cove Beach in Waimanalo.

Tag numbers, date and approximate time of release along with hatch date are as follows.

-Hatch date: OCtober 16.1994

-Released 37 hatchlings on October 17, 1994 at @9:30 pm

-Tag #s

Right front flipper	Left front flipper
XJ17	XJ18
XJ19	XJ20
XJ21	XJ22
XJ23	XJ24
XJ25	XJ26
XJ27	XJ28
XJ29	XJ30
XJ31	XJ32
XJ33	XJ34
XJ35	XJ36
XJ37	XJ38
XJ39	XJ40
XJ41	XJ42
XJ43	XJ44
XJ45	XJ46
XJ47	XJ48
XJ49	XJ50
XJ51	XJ52
XJ53	XJ54
XJ55	XJ56
XJ57	XJ58 mouth crooked, no left eye
XJ59	XJ60
XJ61	XJ62
XJ63	XJ64 mouth crooked, no left eye
XJ65	XJ66

Right front flipper	Left front flipper
XJ67	XJ68
XJ69	XJ70
XJ71	XJ72
XJ73	XJ74
XJ75	XJ76
XJ77	XJ78
XJ79	XJ80
XJ81	XJ82
XJ83	XJ84
XJ85	XJ86
XJ87	XJ88
XJ89	XJ90

-Hatch date: October 17, 1994

-Released 30 hatchlings on October 18, 1994 @ 8:30 pm

Right front flipper	Left front flipper
XJ91	XJ92
XJ93	XJ94
XJ95	XJ96
XJ97	XJ98
YA16	YA17
YA18	YA19
YA22	YA23
YA24	YA25
YA28	YA27
YA29	YA30
YA31	YA32
YA33	YA34
YA35	YA36
YA37	YA38
YA39	YA40
YA41	YA42
YA43	YA44
YA45	YA46
YA47	YA48
YA49	YA50
YA79	YA80

Right front flipper	Left front flipper
YA81	YA82
YA83	YA84
YA85	YA86
YA87	YA88
YA89	YA90
YA91	YA92
YA93	YA94
YA95	YA96
YA97	YA98

-Hatch date: November 2, 1994

-Released 25 hatchlings on November 11, 1994 @9:00pm

Right front flipper	Left front flipper
ZA26	ZA27
ZA28	ZA29
ZA30	ZA31
ZA32	ZA33
ZA34	ZA35
ZA36	ZA37
ZA38	ZA39
ZA40	ZA41
ZA42	ZA43
ZA44	ZA45
ZA46	ZA47
ZA48	ZA49
ZA50	ZA51
ZA52	ZA53
ZA54	ZA55
ZA56	ZA57
ZA58	ZA59
ZA60	ZA61
ZA62	ZA63
ZA64	ZA65
ZA66	ZA67
ZA68	ZA69
ZA70	ZA71

Right front flipper	Left front flipper
ZA72	ZA73
ZA74	ZA75

(need) Works for Greenpeace

1/17/95 Referral 874-5828 Ted (Maui) Plume

referred by Cathy Smith

6-10 years old

30 Walaka St. #3 Kihei HI 96753

(need) 879-2815 Debbie Miller

tagged turtle 1/17/95 ?

1-800-367-5246

SEA LIFE PARK

SLP 1/20/95 Returnees from Mainland 1/21/95 Sat.

	STRAIGHT		CURVED	TAG	
①	45.7	NOTCH 45.2 2 TUBES	49.0	(old) 2-3 11504	Monterey Bay Aquarium
②	46.2	45.9 2 TUBES	50.0	(new) LFL 11571	CZOO INCINATI
③	44.3	43.9 1 TUBE	48.0	(old) L2-3 11505	Monterey Bay Aquarium
④	38.3	38.1	41.0	(new) LFL 11572	V.A. on Coral (NO blood)
⑤	34.0	33.7 1 TUBE	37.5	(new) LFL 11573	V. Aquarium on Coral
⑥	37.5	37.4	41.0	(new) LFL 11574	V.A. & Centurk 6 Cat K (NO blood)
⑦	34.1	33.8 1 TUBE	36.5	(new) LFL 11575	V.A.

ABOVE PLASMA Samples collected for HERBST's study

The above 7 turtles will be shipped to Maura Cani 1/24/95

~~2 Bulls prob to Bob George 1/25/95; 1-35 mm D. Schmitt slot to Gerald-Cooks.~~

Wed. 1/25/95 Aloha FL. 80 5:30pm FL. 88 3:45 pm

484-1111 #31 NATIONAL # Record 15X3MP (5 pm)

HONAUNAU #2 17 Captures - all hand snorkel

10 new, 7 recaptures

1/21/95 Sampling PLASMA for Herbst

Call Mo

1/0

36

Mc 20 5 #5 #

1/2

need TAG INTO Research Grade Evaluation 1 1
Liquid Nitr. + "Blow Torch" + Cell Alloy Company.

UFO Secret: 1993 New Century Products INC.
The Roswell Crash "Official Denial" 1993 86 min.
Block Buster #391609685440 02
(Featuring Parker Stevenson, Elvin Gray, Chad Everett, Dirk Benedict)
"Messengers of Destiny" - Block Buster, #391609711830 01
UFO Central, 7538 Woodley Ave. Van Nuys, CA 91406
800-350-4639. Lee & BRIT ELDER © 1992.
7/11/91 sighting over Mexico City During Solar Eclipse.
GHB, Bob Morris, Karen PETRAS

PLASMA FOR Herbert

1/16/95 Bleeding SLP old To 5 cc → Plasma (Labels #5, 7) for Herbert
Monday (Holiday) TAG 11503 L 1-2
CCL 47.0 x 91.5 → change to 11503a 11503b
from Lagoon

11588 RFL new Applied This date.

FIBERGLASS ADULT GREEN released 1/20/95

ADULT FEMALE EXAM
1/16/95 Monday existing tags
SLP - ROUND TANK IN BACK
RFL NNW771 CCL: 92.5 cm SCL: 85.4
LFL: 2986 CCW: 91.5 cm SCW: 67.1
New Add = tag 11569 to RH flipper
New Add = 11578 R3-4. Fiberglass patch came off about 10 days ago.
Hole is 13.5 cm long x 10 cm wide, approx. 15 cm deep.
Released 1/20/95 off West Molokai Close to shore. 21-12 883° N 157-15-998° W
Sea Life Park

Karen Petras - 259-5641 home
1/18 Wed. 2 arriving from Monterey
1/20 Friday 4 from Vancouver, + 1 Columbia arriving
All going to Mauna Loa by end of month.
need # QUESTIONS - What time will they arrive on Friday? So all will be available to Bleed.
And photo adult w/ hole with tank drained.

-95A
95B

SLP - TURTLE LAGOON
DNA - SKIN Biopsy Sampling 10/10/94
Samples sent to Pete Dutton 1/95

IN DMSO SALT

10/5/94 John Wilson (Betty) 373-3648
Telecon
SYMPTOMS
Need CARD - Turtle Alert
Call Jeanne

2 ADULT - 1♂ 1♀ sleeping under 93
"Sid" - ATLANTIS WRECK AT 100' depth
- healing
- Seen Daily
- TAKE Bob Morris

TURTLE LAGOON - SLP
10 OCT. 94 SAT. SLP - GHB, Bob Morris, Denise Ellis, Steve KAISER

14 ADULT Turtles Sampled

VIAL NO. + TAG NUMBER				
1. vial 6	2051	♀	C.m.	6mm Biopsy punch Aug take from smooth skin dorsal of Hind flipper
✓ 2. vial 3	loggerhead	C.c.	W772	RFL
✓ 3. vial 8	2982	RFL	♀	C.m.
✓ 4. vial 12	♂ 2061	RFL		comments: serrated carapace black blotches.
✓ 5. vial 1	NNW763	RFL	♂	C.m.
✓ 6. vial 9	NNW756	LFL	♂	C.m.
✓ 7. vial 7	Y32	LFL	C.m. ♂	(satalitte test, Vand Aquarium)
✓ 8. vial 4	6496	LFL	C.m. ♀	brownish carapace
✓ 9. vial 11	15101	LFL	♀	C.m.
✓ 10. vial 13	NNW767	LFL	♂	C.m. Lively Vancover Aquarium
✓ 11. vial 10	2987	LFL	lg ♀	C.m.
✓ 12. vial 2	2986	LFL	♀	C.m. Patched fiberglass
✓ 13. vial 5	NNW759	LFL	♀	C.m.
✓ 14. vial 14	3282	LFL	vlg ♀	C.m.

Robert A. Morris, DVM Phone: 808 262-9621

MAKAI ANIMAL CLINIC
420 Uluniu Street
Kailua, Hawaii 96734

TO: George H. Balazs
FROM: Robert A. Morris, D.V.M.
DATE: April 1, 1995
RE: Release of mature green turtle from Sea Life Park
Tag # NNW 771, 2986, 11569, 11578

On January 11, 1992, I examined a mature female green turtle on exhibit at Sea Life Park. The chief complaint was a damaged area on the right side of the carapace. The area could have developed from some sort of impact to the shell. It was an old, infected wound that had partially sealed. After removing pieces of dead shell and an abundant amount of thick foul smelling pus, a large opening was cleaned and debrided. It was apparent that the turtle could not be exhibited with such a large wound. The area was cleaned, flushed and injectable antibiotics administered. A fiberglass patch was applied over the opening (large enough to insert a fist), using stainless wires and dental cement. The turtle was in apparent good health and was returned to the exhibit.

This turtle did well until January 9, 1995, when the patch fell off. The area had not healed and appeared larger and deeper. The opening measured 5" x 7". A large amount of pus was removed; the area was deep (at least 5"-6") and appeared to be walled off. Cultures were taken (see report) and injectable antibiotics administered. Curator Michelle Staller and I agreed the best chance of survival for this otherwise healthy green turtle would be release. Fresh sea water bathing the open area would promote healing.

On January 20, 1995, this turtle was transported by boat from Oahu to Molokai and released approximately 100 yards off the tip of Ilio Point. The turtle was observed diving and swimming strongly.

SLP

112 ☆ Need Works for Greenpeace

1/17/95 Referral 874-5828 Ted Plume (Maui)

referred by Cathy Smith

30 Walaka St. #3 Kehei HI 96753

Telecast 1/23/95 need

879-2815 Debbie Miller writing 6-10 year old kids book

Tagged turtle 1/17/95 ?

1-800-367-5246

SEA LIFE PARK Blood drawn Tags, measured

SLP 1/20/95 Returnees from Mainland 1/21/95 Sat.

	STRAIGHT		CURVED	TAG		
①	45.7	NOTCH 45.2	1 TUBE PLASMA 49.0	2-3 old 11504		entry M Bay Aquarium
②	46.2	45.9	1 TUBE PLASMA 50.0	new LFL 11571		INCINATI CZ 0
③	44.3	43.9	1 TUBE PLASMA 48.0	old 2-3 11505		entry M Bay Aquarium
④	38.3	38.1	41.0	new LFL 11572	V.A.	on Lower Aquarium NO blood
⑤	34.0	33.7	1 TUBE PLASMA 37.5	new LFL 11573		on Lower V. Aquarium
⑥	37.5	37.4	41.0	LFL new 11574	V.A.	Central 6 Cat K NO Blood
⑦	34.1	33.8	1 TUBE 36.5	LFL new 11575	V.A.	

Above Plasma Samples collected for Herbst Study

The above 7 turtles will be shipped to Maui Cani 1/24/95

~~2 Blue prints to Bob George 1/25/95; 1-35 mm Schmitt slide to Coral-Cokers.~~

Wed. 1/25/95 Aloha FL. 80 5:30 pm FL. 38 3:45 pm

484-1111 #31 National Record 15X3MP (5 pm)

HONAUNAU #2 17 Captures - all hand snorkel

10 new. 7 recaptures

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

January 16, 1996 F/SWC2:ghb

Ms. Michelle Sattler
Curator of Fish and Turtles
Sea Life Park Hawaii Inc.
Waimanalo, Hawaii 96795

Dear Michelle:

I am writing to let you know that on December 21, 1995 we documented the decomposing carcass of an adult female green turtle at Kahaluu along the Kaneohe Bay shoreline. Tags 11570 and NNW771 were recovered from the turtle's flippers. A large prominent hole was present through the right side of the carapace.

Our records show that this turtle was the one released from Sea Life Park off the west end of Molokai at Ilio Point 11 months earlier on January 20, 1995. Necrotic damage to the carapace was present at that time. This wound had been treated by Dr. Morris since January 1992, when he was initially contacted by Sea Life Park to render veterinary assistance. The attached letter from Dr. Morris summarizes his professional involvement in this unfortunate case. The initial mention to me by Sea Life Park staff of an injury to the turtle's carapace occurred some months earlier. Consequently, when Dr. Morris first saw the turtle he noted the presence of "an old, infected wound that had partially sealed off."

This case serves to emphasize my earlier suggestion for consistent routine veterinary care and health examinations of Sea Life Park's sea turtles. As with other marine animals in captivity, sea turtles benefit significantly from early diagnosis and treatment of problems, before they advance to critical and sometimes fatal stages. Although I have given advice to Sea Life Park in the past when asked about various health issues, I have limited knowledge about veterinary medicine. In fact, as previously mentioned, my program retains a veterinarian (Dr. Morris) under contract to tend to the health needs of turtles that periodically come under our care in our stranding program.

I should add that my recommendation also extends to routine health screening of turtles held at the Mauna Lani Hotel (and anywhere else in Hawaii where Sea Life Park may place turtles on loan). In a recent article by Dr. Elliott Jacobson (copy enclosed) this is referred to as a "preventative medicine program" for sea turtles.

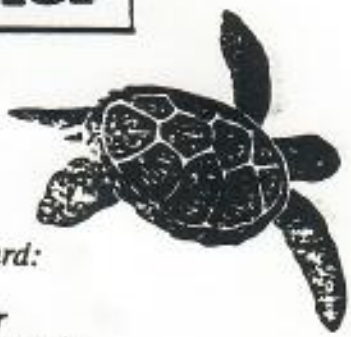
Lastly I should mention that the front flipper bones from the dead turtle were salvaged for use in skeletochronological age estimation. The animal had been in captivity and on display at Sea Life Park for at least 20 years, hence aging results should be of great interest.

Sincerely,

George H. Balazs
Zoologist

cc
Tim Guild
Dr. Bob Morris

Marine Turtle Newsletter



Number 72 January 1996

GUEST EDITORIAL: MARINE TURTLE FARMING AND HEALTH ISSUES

David Wm. Owens book review of "Last Chance Lost? Can and Should Farming Save the Green Turtle? The Story of Mariculture, Ltd., Cayman Turtle Farm" (Owens 1995) opens the door for what could be a never ending exchange of views on the pros and cons of sea turtle farming. Certainly Cayman Turtle Farm (CTF) can be used as a model (or example) of what is both good and problematic about turtle farming. As a professionally trained zoologist and veterinarian involved in disease diagnosis at CTF from 1978 to 1992, I believe I can make a number of important (and as unbiased as possible) statements concerning turtle farming in general and health related problems which should affect the release of captive bred and reared turtles and other reptiles. I personally have no problem with the farming of animals, even CITES-listed species, with the caveat that there is absolute insurance that the net result will ultimately benefit wild populations. If sick, or infected but apparently healthy, turtles are released to the wild, this caveat cannot be satisfied.

In some ways CTF was ahead of its time. I believe this was because Jim and Fern Wood, who managed the farm for many years, were professionally trained biologists interested in advancing knowledge about marine turtle biology. During their tenure, CTF promoted all types of research projects involving collaborators from around the globe. I have never seen a complete listing of published scientific papers based on studies conducted at CTF, but I expect there are many. This research comprised one of the most positive things to result from CTF over the years. The work contributed substantively to our knowledge about marine turtle biology, especially under captive conditions. Theoretically, other marine turtle farms in other parts of the world could do equally good things, but an up-front commitment with regard to financial and other resources would be needed before I would be a believer. Having astute, dedicated biologists involved with the operation would also be essential. *Could* this happen again somewhere else? I doubt it.

Let me move onto health related problems with turtle farming, an area which I have certain expertise. Since 1977 when I first arrived at the University of Florida and since 1978 when I first became involved in health issues at Cayman Turtle Farm, I have had the opportunity to see numerous types of health problems relating to farmed turtles and other reptiles. Reptile farming is no different than the farming of any other animal in the sense that certain principles apply to all farming operations. Successful farming of any aquatic species, however, has its own set of problems related to water quality and water as a medium for transmission of pathogens. If one goes into farming without giving serious consideration to health related problems and if one is not ready to commit adequate dollars and other resources to a solid preventative medicine program, epizootics (die-offs) are inevitable.

Many farming operations are reactive rather than pro-active, only ready to spend money on health related problems when "a fire needs to be put out." In my experience this was often the case at Cayman Turtle Farm. Over the 14 years that I and other colleagues worked on health related issues at CTF, three rather significant epizootics were studied in an attempt to define the causative agent. Based on these episodes, three papers were published (Jacobson et al. 1979, 1985; Homer et al. 1994) and a fourth was published on helminths in CTF green sea turtles (Greiner et al. 1980). These papers describe only a fraction of health problems affecting the CTF turtles. I expect that the birth vs. mortality data by year has never been published and probably never will. Mortality is something that most farms do not like to talk about, but unfortunately mortality is a consequence of any farming operation. The question comes down to this: "How much mortality is acceptable and how much money is one willing to expend in keeping it to a reasonable level?"

Based on my professional experience at CTF and other farming operations, money dedicated to health related issues is typically minimal. Relatively little money was expended by CTF on the above epizootics and I expect that their veterinary bill over the years has been minimal when compared to the financial loss associated with the deaths of large numbers of turtles. The last disease I worked on -- an outbreak of chlamydiosis following a near disastrous winter storm -- resulted in a major die-off. I was told that the loss ran into the hundreds of thousands of dollars, yet the financial support for studying this disease outbreak was less than US$ 5000. Concerted efforts to obtain adequate funding to study the disease, including developing a serodiagnostic test, were unsuccessful.

With this background, let us look at health related issues associated with captive breeding and release. A paper discussing this issue has already been published (Jacobson 1993), so I will limit my comments to the most salient points. As mentioned above, disease problems are a significant issue with all types of animal farming and captive propagation operations. Years ago when we knew very little about these problems, it was easy to picture a breeding/rearing facility

as a means to help sustain populations in the wild. Unfortunately, as this field of knowledge has matured and databases are now maintained on disease problems in captive and free-ranging wildlife, this approach has become more complicated. Certain pathogens, and the diseases they produce, are amplified in captivity, particularly in aquatic systems. The chlamydia seen in the most recent epizootic at CTF, and the herpesvirus responsible for gray patch disease and LET Disease are some examples.

Releasing infected, asymptomatic turtles into unexposed wild populations can result in disasters; that is, can result in major episodes of mortality. While turtle farming/ranching tied to release to the wild is very appealing, it has the potential of doing more harm than good. CTF has released large numbers of farmed turtles into local waters (Wood and Wood 1993). I expect that no one has a clue as to the potential risk to wild populations of marine turtles due to this action. Unless a farming operation can *clearly* demonstrate that it has the resources and commitment to establish a sound preventative medicine program and can demonstrate that only healthy turtles are being released, then it should not be supported by either conservationists or anyone else who has common sense. Goals and objectives must be clearly stated and time lines generated to determine success.

The rearing and release of baby turtles (and other animals) into wild populations is appealing since it often captures the public's attention. As such, these programs have a certain amount of charisma. However, when one looks deep into the issues of rearing and release, many problems surface. The more we know, the more difficult the task becomes. For me, the verdict is still out with regard to the conservation merits of sea turtle farming. While there is much potential for many significant contributions, the potential for ecological disasters is equally real.

Greiner et al. 1980. Helminths of mariculture-reared green turtles (Chelonia mydas mydas) from Grand Cayman, B.W.I. Proc. Helminth. Soc., Washington D. C. 47:142-144.

Homer, B. L., E. R. Jacobson, J. Schumacher and G. Scherba. 1994. Chlamydiosis in mariculture-reared green sea turtles (Chelonia mydas). Vet. Pathol. 31:1-7.

Jacobson, E. R. et al. 1979. Mycotic pneumonia of mariculture-reared green sea turtles. J. Amer. Vet. Med. Assoc. 175:929-933.

Jacobson, E. R. et al. 1985. Conjunctivitis, tracheitis, and pneumonia associated with herpesvirus infection in green sea turtles. J. Amer. Vet. Med. Assoc. 189:1020-1023.

Jacobson, E. R. 1993. Implications of infectious disease for captive propagation and introduction programs of threatened/endangered reptiles. J. Zoo Wildl. Med. 24:245-255.

Owens, D. W. 1995. "Last Chance Lost?" Or Is It? A Book Review. Marine Turtle Newsletter 71:11-12.

Wood, J. and F. Wood. 1993. Release and recapture of captive reared green sea turtles, Chelonia mydas, in the waters surrounding the Cayman Islands. Herpetological Journal 3:84-89.

ELLIOTT R. JACOBSON, Department of Small Animal Clinical Sciences, College of Veterinary Medicine, University of Florida, Gainesville, Florida 32610 USA.

TDPS ~~SHAWN~~ Photocopy and return to GHB

[31] From: Shawn Murakawa 12/21/95 10:49AM (1802 bytes: 26 ln)
To: George Balazs
Subject: Re: Balazs

---------- Forwarded with Changes ----------

From: George Balazs 12/21/95 7:50AM (446 bytes: 7 ln)
To: Shawn Murakawa
Subject: Re: Balazs

Location of stranded = Kahaluu, Kaneohe Bay

---------- Message Contents ----------

George....I just got back....I was trying to reach you at home, but the phone just kept ringing....anyway...it was a tagged turtle (R34 11570, RFL NNW771, LFL 2986). EXTREMELY decomposedm, melting skin, smelly, unknown tumors. I took both FF with the tags and brought it back. I took whatever measurements I could without the body ripping on me. It was SL=85.7, SW=66.7cm, CL=92.5, CW=92.0. It looked like a male, but I couldn't tell because when I pulled the tail it ripped apart. There was a 10 x 14cm hole on the 3rd-4th lateral ~~left~~. Couldn't tell what damaged it, but the insides were all full of sand and sea water. Tons of flies. I just wanted to double-check with you before leaving, but I really didn't see myself bringing it back it that condition. I photographed it and then spray painted it. I gave Linda (Country Cars) Dead Animal's number and thanked her.

Correct? no

right

Check polaroid photo

P.S. Tried to look it up in TDPS, but found no matching numbers.

Please call me at home if anything makes it necessary you need to talk to me. 395-6409. Do you have any of the quarters I gave you and Denise months ago? Drive safe. geo.

I'll be leaving around 8:00 to go and check out the turtle at Kahaluu.

Shawn- I wont be in until midmorning.g.

Fiberglass patch previously applied at SLP 1/92 by R. Morris due to necrotic cavity in right side of carapace - patch came off 1/6/95 exposing a hole 13.5 x 10 cm and 15 cm deep.

1/20/95
Released from SLP by R. Morris from ~~[illegible]~~ boat off west shore of Molokai 21.13°N, 157.16°W

EXISTING ~~TAGS~~ NNW 771 RFL
2986 LFL

TAGS Applied 1/16/95 at SLP 11569 R4 CCL-92.5 x 91.5
11570 R3-4S SCL=85.4 x 67.1
female

1/23/95

Feeder Dutton
1 3 SCP greens
1 Cornetta

2 Rose C.ns
3 juvenile C.ns Rose
+ 1 hook Hi strand
+ 1 leatherback Swan

Email
Dave owen
Blood #5
quantity

George,

Aloha,

Michelle S.L.P.

The following yearling turtles were sent to Mauna Lani Resort on July 24, 1995.

Tag #s		Straight Carapace length (cm)	Weight (kg)
Left Flipper	Right Flipper		
YE61	11515	22	1.6
YE59	11517	22.8	1.8
YE60	11510	23.9	1.95
None	YC39	23.9	1.95
None	11514, YE56	21.25	1.51
None	11513	23.4	1.68

On 7/20/95 one hatchling emerged on the beach at turtle lagoon. We dug into spot where hatchling came from and came up with a total clutch of 49 hatchlings. Tag numbers are as follows:

YB94
YB95
YG81 - YG82
YG85
YG91 - YG94
YG96 - YG99
YG01 - YG29
→ YG30 - YG32 ← left flippers

The above turtles were released across the street from Sea Life Park on July 20th 1995. Four were kept at the park for our turtle loan program. Tag numbers are as follows:

YG77
YG83
YG86
YG33

On 7/22/95 we had a lone hatchling emerge. We tagged him # YG34 and released him across the street from the park on 7/23/95.

We now have it perfected as to how to tag, but... we did have these "Screw up" tags:

YG78	YG79
YG80	YG84
YG95	YG87
YB96	YG88
YB93	YG89
YG76	YG90

Thanks!

June 29, 1995

George,

On Tuesday June 27, 1995 there were 27 hatchlings that emerged at turtle lagoon beach. On this same evening the following 24 turtles were tagged and released in front of Sea Life Park. Tag numbers are as follows:

YB

Y656 - Y664
Y667
Y671 - Y679
Y683 - Y684
Y686 - Y687

There were several tags that did not attach correctly, so they were removed. Also, in trying to apply them properly, some were used as practice tags. These numbers are as follows:

YB

Y654 - Y655
Y665 - Y666
Y668 - Y669
Y670
Y680 - Y682
Y685
Y688

One of the 24 hatchlings released was the deformed hatchling straggler that emerged on 6/13/95, tag # Y653. Four hatchlings are being held for the park's exchange program. Tag #'s Y689 - Y692.
Also, tag # ZA82 from the 6/12/95 clutch was given to the Waikiki Aquarium in exchange for last years hatchling tag # YC39.

Thanks for your articles!

Michelle Sattler

DAYS OF TURTLE HATCHINGS 11/5/90

DATE	NUMBER OF HATCHLINGS
12/30/80	2
2/10/83	12
7/23/84	35
8/10/84	9
9/11/84	27
6/18/86	46
6/25/86	36
6/28/86	38
7/10/86	46
7/22/86	53
8/04/86	73
8/16/86	73
8/28/86	67
7/18/87	13
7/25/87	20
8/08/87	36
6/28/88	79
9/24/88	8
7/04/89	54
7/16/89	24
7/17/89	2
7/20/89	2
7/24/89	2
7/25/89	6
7/26/89	1
7/31/89	59
8/03/89	7
8/13/89	2
8/14/89	24
8/28/89	52
9/12/89	49
9/15/89	2
7/11/90	13
7/24/90	24
8/29/90	24
9/3/90	9
9/11/90	29
9/14/90	8
9/27/90	15
10/5/90	29
10/27/90	21
11/5/90	31

Sea Life Park, as of 12/90

YEARLY TOTALS OF TURTLE HATCHINGS 11/5/90

YEAR		NUMBER OF HATCHLINGS
1976		343
1977-79		0
1980		2
1983		12
1984		71
1985		0
1986		432
1987		69
1988		87
1989		286
1990	(As of Date)	203
	TOTAL-	1505

DAYS OF TURTLE HATCHINGS 9/15/89

DATE	NUMBER OF HATCHLINGS
12/30/80	2
2/10/83	12
7/23/84	35
8/10/84	9
9/11/84	27
6/18/86	46
6/25/86	36
6/28/86	38
7/10/86	46
7/22/86	53
8/04/86	73
8/16/86	73
8/28/86	67
7/18/87	13
7/25/87	20
8/08/87	36
6/28/88	79
9/24/88	8
7/04/89	54
7/16/89	24
7/17/89	2
7/20/89	2
7/24/89	2
7/25/89	6
7/26/89	1
7/31/89	59
3/03/89	7
3/13/89	2
3/14/89	24
3/28/89	52
9/12/89	49
9/15/89	2

- 1 -

YEARLY TOTALS OF TURTLE HATCHINGS 9/15

YEAR	NUMBER OF HATCHLINGS
1976	343
1977-79	0
1980	2
1983	12
1984	71
1985	0
1986	432
1987	69
1988	87
1989 (AS OF DATE)	286
TOTAL-	1302

YEARLY TOTALS OF TURTLE HATCHINGS 10/5/90

YEAR		NUMBER OF HATCHLINGS
1976		343
1977-79		0
1980		2
1983		12
1984		71
1985		0
1986		432
1987		69
1988		87
1989		286
1990	(As of Date)	151
	TOTAL-	1453

Sea Life Park

DAYS OF TURTLE HATCHINGS 10/22/92

DATE	NUMBER OF HATCHLINGS
12/30/80	2
2/10/83	12
7/23/84	35
8/10/84	9
9/11/84	27
6/18/86	46
6/25/86	36
6/28/86	38
7/10/86	46
7/22/86	53
8/04/86	73
8/16/86	73
8/28/86	67
7/18/87	13
7/25/87	20
8/08/87	36
6/28/88	79
9/24/88	8
7/04/89	54
7/16/89	24
7/17/89	2
7/20/89	2
7/24/89	2
7/25/89	6
7/26/89	1
7/31/89	59
8/03/89	7
8/13/89	2
8/14/89	24
8/28/89	52
9/12/89	49
9/15/89	2
7/11/90	13
7/24/90	24
8/29/90	24
9/3/90	9
9/11/90	29
9/14/90	8
9/27/90	15
10/5/90	29
10/27/90	21

11/5/90	31
8/25/91	21
10/28/91	50
11/11/91	37
7/3/92	12 Premature
8/2/92	20
8/6/92	8
9/10/92	67
9/20/92	48
9/23/92	4
10/8/92	63

YEARLY TOTALS OF TURTLE HATCHINGS 10/22/92

YEAR	NUMBER OF HATCHLINGS
1976	343
1977-79	0
1980	2
1983	12
1984	71
1985	0
1986	432
1987	69
1988	87
1989	286
1990	203
1991	108
1992	222
TOTAL-	1835

SEA LIFE PARK: SEA TURTLES
Tag Numbers and Carapace Lengths of Adult Turtles

	Existing Tags 3/19/96			Straight Length (cm) 3/96				Notes
	Left	Right	Other	4/89	4/90	8/91	/95	
1	2985	6493	J				79.5	m:0 RR NNW-770
2	NNW-76	3285	O				84.	m:0
3		8677	L				76.7	F:0
4	NNW-75	NNW-758	M				91.5	F:0
5	Y-32	Y-33	R				79.5	m:0 Fiberglass Remains
6	9905	A-423	W				77	m:0 2nd FL TAG unreadable
7	5105	NNW-762	H				75.3	m:0
8	3287	6495	A				80.9	m:0
9	2051	2495	G				83.1	F:2 #2051 - swollen cloaca
10		11485	K				81.1	F:0 Tagged 3/96 no other present
11	6498		N				82.8	F:0 3rd left scale tagged W-707 / LR 765
12	NNW-766		U				91.6	F:0
13	3282	15092	V				94.9	F:0: OP
14	W-704	2061	D				87.4	M:0
15	9945	9946	T				71.7	M:0: RL 9947, sunken L-eye, blind?
16	NNW-775	2982	S				93.3	F:0
17	15103	15104	Q				79.3	M:0 RR NNW-768
18		NNW-763	C				85.	M:0 TAG is very abraded
19		NNW-782		not Present for engraving			79.6	F:0 Loggerhead adv. Ulcer Derm.
20	2987	NNW-751	E				96.5	F:0 Space between C-scutes.
21	15105	2984	B				87.3	F:0
22	5817		P				84.3	F:0 Swollen Cloaca
23	15101	2499	I				81.7	F:0: RR NNW-766
24	6496	15102	F				90.6	F:0: Removed old tag from FLF 3rd scale #2024
25								
26								
27								
28								
29								
30								
31								
32								
33								

*Tag number engraved in carapace on 4/21/89 with Dremel Moto-Tool.

0=No trace of engraving seen
1=Faint engraving present (unreadable)
2=Readable engraving present
3=Prominent readable engraving observed

M=Male
F=Female

OP=orange plastic portion of Riese tag present along with tag 15092
Note=2051 was not in Turtle Lagoon on 4/21/89

BALAZ
Line (24) was added to the list today. I missed her the first time I took measurements.
Line (17) was a repeat of Line (1) therefore deleted.
Line (15) is a sunken Left eye in the notes and not a sunken right eye.

♀ 7/22/92
2051, 2495
MOCK ST3

A-W 4th Lateral right 3/19/96

Thanks for everything Sonny

7/23/92 Y32, Y33
attach wood mock

9/3/93 BOTH REMOVED.

SEA LIFE PARK: SEA TURTLES

Tag Numbers and Carapace Lengths of Adult Turtles

Compiled by Sonny Lopez

	Existing Tags			Straight Length (cm)				Notes
	Left	Right	Other	4/89	4/90	8/91	3/96	
1	2985	6493					79.5	M:0: RR NNW-770
2	NNW-76	3285					84	M:0:
3		8677					76.7	F:0:
4	NNW-75	NNW-758					91.5	F:0:
5	Y-32	Y-33					79.5	M:0: Fiberglass remains
6	9905	A-423					77	M:0: 2nd FL tag unreadable
7	5105	NNW-762					75.3	M:0:
8	3287	6495					80.9	M:0:
9	2051	2495					83.1	F:2:#2051Swollen cloaca
10		11485					81.1	F:0:Tagged today,no other tags
11	6498		W-707				82.8	F:0:Both left tags / W-707 3rd scal
12	NNW-756						91.6	F:0:
13	3282	15092					94.9	F:0: OP
14	W-704	2061					87.4	M:0:
15	9945	9946					71.7	M:0: RL9947,sunken L-eye, blind
16	NNW-77	2982					93.3	F:0:
17	2985	6493					79.4	M:0: RR NNW-770
18	15103	15104					79.3	M:0: RR NNW-768
19		NNW-763					85	M:0: Tag is very abrased
20		NNW-772					79.6	F:0: Loggerhead; adv. bite wound
21	2987	NNW-751					96.5 ~~96~~	F:0: space between C scutes
22	15105	2984					87.3	F:0:
23	5817						84.3	F:0: swollen cloaca
24	15101	2499					81.7	F:0: RR NNW-766
25		11486					74.7	M:0: Tagged today :Reef Tank:Hawksbill
26		NNW-752					92.8	F:0: 20" Holding Tank: Hawksbill
27		11568					52.3	Sex unknown:0: Presently at Kahala
28		11563					65.2	Sex unknown:0:Presently at Kahala
29								
30								
31								
32								
33								

*Tag number engraved in carapace on 4/21/89 with Dremel Moto-Tool. #2051 only visible engraving

0=No trace of engraving seen
1=Faint engraving present (unreadable)
2=Readable engraving present
3=Prominent readable engraving observed

M=Male
F=Female

OP=orange plastic portion of Riese tag present along with tag 15092

I: Vancouve. ghb

INFORMATION SUMMARY ON THE VANCOUVER AQUARIUM GREEN TURTLES

George H. Balazs
Southwest Fisheries Center Honolulu Laboratory
National Marine Fisheries Service, NOAA
Honolulu, Hawaii 96822-2396

Two green turtle, Chelonia mydas, were returned to Hawaii on March 20, 1986 from the Vancouver Aquarium. The turtles had originally been shipped to Vancouver in 1956 by Spencer Tinker, former Director of the Waikiki Aquarium. They were estimated to measure 45-50 cm in straight carapace length at that time. Transport of the turtles both to and from Vancouver was made courtesy of Canadian Pacific Airlines.

The turtles arrived in Hawaii in excellent condition and have been permanently housed at Sea Life Park on Oahu. Numerous color photos were taken of them on March 25th and April 9th. They were double-tagged on April 9th shortly before being moved into the Park's "Turtle Lagoon." Data are as follows:

	Straight carapace		Curved carapace	
Tag No.	Length	Width	Length	Width
NNW 780 NNW 781	78.6	58.3	82.5	69.0
NNW 782 NNW 783	70.2	56.1	74.0	64.5

While in Vancouver the turtles were held in an inside display tank with fluorescent lighting. Seawater temperature averaged about 25°C. Feeding occurred twice a week to satiation on a diet of frozen chopped fish.

The dorsal surfaces of the turtles are black, except for cream-colored seams between the scales on the head and flippers. The ventral surfaces are cream-colored or whitish. Upon arrival in Hawaii the turtles were completely free of algae and other fouling growth. However, by April 9th, some algal growth was present on the carapace and dorsal skin surfaces.

The larger turtle is clearly an adult male. Its tail is very thick at the base and measures at least 40 cm in length. The smaller turtle's tail measures only 29 cm and has a considerably smaller diameter to the base. This turtle is either an immature male, or an inter-sex individual. Upon being placed in the Turtle Lagoon, several of the existing male green turtles vigorously mounted this turtle to copulate.

September 26, 1995

To: George Balazs

From: Michelle Sattler

Dear George,

Well we have had another clutch of eggs come up at Turtle Lagoon. 47 were found in the scum drain, one of these was dead. He looked less developed than the others. 2 more hatchlings were pulled from just under the surface of the sand. Tag numbers are as follows: YJ28 - YJ61, YJ63 - YJ74.

Of the 48 hatchlings above, 46 were released across the street from the park on September 26th, 8:00 p.m. The remaining two will be tagged in front of an education class and released the evening of September 29th at the same location as the above. Tag #'s YJ76, YJ77.

I have sent two older hatchlings to Dallas World Aquarium in exchange for the hatchlings we sent them in 1994. The tag #'s of the hatchlings sent to them are:

Hatchling #1 RF YB19
LF YJ15

Hatchling #2 RF YB90
LF YJ17

Both of these hatchlings were flipper traced by you. We have put adult tags on the yearlings from Dallas, Tag #'s 11483 and 11484.

It's been a good year for hatchlings, we've had a total of 267 hatch in 1995. Both Sonny and myself are still looking forward to ingraving ID numbers on turtles. Give me a call and let me know when you are available. I will be on vacation from October 6th till October 15th.

Aloha!
Michelle

P.S. after some deep digging I came up with a few records on Turtle Lagoon turtles.

George,

Aloha,

Michelle S.L.P.

The following yearling turtles were sent to Mauna Lani Resort on July 24, 1995.

Tag #s		Straight Carapace length (cm)	Weight (kg)
Left Flipper	Right Flipper		
YE61	11515	22	1.6
YE59	11517	22.8	1.8
YE60	11510	23.9	1.95
None	YC39	23.9	1.95
None	11514, YE56	21.25	1.51
None	11513	23.4	1.68

On 7/20/95 one hatchling emerged on the beach at turtle lagoon. We dug into spot where hatchling came from and came up with a total clutch of 49 hatchlings. Tag numbers are as follows:

YB94
YB95
YG81 - YG82
YG85
YG91 - YG94
YG96 - YG99
YG01 - YG29
→ YG30 - YG32 ← left flippers

The above turtles were released across the street from Sea Life Park on July 20th 1995. Four were kept at the park for our turtle loan program. Tag numbers are as follows:

YG77
YG83
YG86
YG33

On 7/22/95 we had a lone hatchling emerge. We tagged him # YG34 and released him across the street from the park on 7/23/95.

We now have it perfected as to how to tag, but.... we did have these "Screw up" tags:

YG78	YG79
YG80	YG84
YG95	YG87
YB96	YG88
YB93	YG89
YG76	YG90

Thanks!

United State Department of the Interior

OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL

To GEORGE BALAZS	# of pages ▸ 2
Dept./Agency	From T WORK
Fax #	Phone #
NSN 7540-01-317-7368 5099-101	Fax #

GENERAL SERVICES ADMINISTRATION

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IN REPLY REFER TO:

Pho

E-mail: R8_N

June 5, 1996

Mr. George Balazs
Marine Turtle Research Program
NOAA-NMFS-SWFC
2570 Dole St.
Honolulu, HI 96822

Dear George:

Following is pertinent information on the turtles we biopsied yesterday.

LEFT TAG	RIGHT TAG	BIOPSY SIT	SCL (cm)	CCL (cm)	RES. TIME
YJ22		Left hind	26.3	27.3	10 min
YJ04		L. hind	22.9	24.3	6:08 min
YJ20	YG77	L. hind	26.8	27.9	6:40 min
YJ24	YG38	L. hind	27.4	28.4	8:24 min
	YJ12	L. hind	25	26.4	8:08 min
YJ25	YG36	L. hind	22.5	23.9	6:46 min
11503	11568	L&R hind	53.2	56	10:38 min
11564	11563	None	64.8	68.5	None
YE63	YE64	L&R hind	15.2	16	NA

Each turtle received 0.3-0.5 cc intradermal injection of 1% Anthocaine in biopsy site administered with 25mm 27 gauge needle. Biopsy sites were sutured with 2-0 Dexon.

Sincerely,

Thierry M. Work

Received
11/84

Tagging records for sea turtles released from Sea World, Inc. in San Diego, California, on 16 November 1978.

On 16 November 1978 Sea World Inc. in Mission Bay San Diego, California, U.S.A. removed eleven sea turtles (7 Chelonia mydas, 4 Caretta caretta) from their display facility and released these animals into the Pacific Ocean. Six turtles were released near kelp beds 3 kilometers south of Mission Bay, north of San Diego Bay, five turtles were released 9 kilometers west of Mission Bay.

Since sea turtles are currently sighted seasonally in south San Diego Bay and are the object of intensive study at this time, the animals released by Sea World were tagged with University of Florida and México's Instituto Nacional de Pesca flipper identification tags and visually marked with livestock paint to allow identification of these animals should they be sighted locally and to also provide long term tagging information on previously captive animals.

Ray Keyes, curator of fishes, of Sea World supervized release activities and was assisted by Margie Stinson (San Diego State University) who is studying the San Diego Bay population of turtles.

Ray Keyes retained one University of Florida tag no. D1564 and one Instituto Nacional de Pesca Mexican tag no. C-06012 to see what affect salt water has upon the tags. These tags will be placed in a salt water tank

at Sea World for long term observation

Margie L. Stinson
1 December 1978

Tagging records for sea turtles released from Sea World, Inc. in

Species	Identification Tag No.	Carapace Length Curved	Carapace Length Straight
Chelonia mydas	Mex. No. C-06001 Univ. Fla. No. D1563	67.0cm	62.0cm
Chelonia mydas	Mex. No. C-06006 Univ. Fla. No. D1589	60.5	56.3
Chelonia mydas	Mex. No. C-06007 Univ. Fla. No. D1591	65.5	61.5
Chelonia mydas	Mex. No. C-06008 Univ. Fla. No. D1599	63.5	60.0
Chelonia mydas	Mex. No. C-06009 Univ. Fla. No. D1551	54.5	51.5
Chelonia mydas	Mex. No. C-06010 Univ. Fla. No. D1566	47.5	45.5
Chelonia mydas	Mex. No. C-06011 Univ. Fla. No. D1400	66.0	62.0
Caretta caretta	Mex. No. C-06002 Univ. Fla. No. D1533	73.0	76.5
Caretta caretta	Mex. No. C-06003 Univ. Fla. No. D1443	51.0	49.0
Caretta caretta	Mex. No. C-06004 Univ. Fla. No. D1535	46.0	39.5
Caretta caretta	Mex. No. C-06005 Univ. Fla. No. D1568	82.0	77.5

[1]Kelp Bed located 3 kilometers south of the entrance to Mission Bay, nor

[2] 9km Offshore directly west of the entrance to Mission Bay.

San Diego, California, U.S.A., on 16 November 1978.

Carapace Width Curved	Carapace Width Straight	Head Width	Release Site
58.5cm	51.2cm	10.0cm	Kelp Bed[1]
58.5	45.5	9.5	9km Offshore[2]
62.0	49.0	10.25	Kelp Bed
65.5	50.0	10.0	9km Offshore
52.5	42.0	9.0	9km Offshore
37.5	32.5	7.75	9km Offshore
53.0	46.0	9.5	9km Offshore
68.0	53.5	14.0	Kelp Bed
52.0	45.5	11.0	Kelp Bed
45.5	37.5	9.5	Kelp Bed
74.5	57.5	16.5	Kelp Bed

th of San Diego Bay, San Diego, California.

June 21, 1995

To: George Balazs

From: Michelle Sattler

Re: Turtle Release

Dear George,

Thank you for your prompt response to my requests and inquiries. And I also thank you for pointing out the misconceptions we have the potential to create concerning Head start and Release programs. I myself have been guilty of using words like " replenish and replace " in reference to what Sea Life Park is doing with the turtles. Once again, you have enlightened me! I will provide a copy of your letter to my staff so we can all be more aware of how we educate the public. Here are the tag numbers of our first clutch, and a recap of the release. About 150-200 people showed up to watch.

On June 12, 1995 there were 70 turtle hatchlings found at turtle lagoon.
67 were alive. 3 were drowned in the scum drain. (We have designed a new scum drain cover). All turtles climbed out of the nest themselves, we did not have to dig the nest up.
Turtles were tagged with tag numbers: ZA81- ZA99, and YB01- YB51. ZA98 has a deformed jaw. On June 13, one last hatchling emerged from the above nest site. He has a slightly deformed jaw also. Tag # YB53
June 14, ZA98 died.
On June 14, 1995 we did a public turtle release. We had 4 hatchlings in the back of two pick up trucks for people to view and touch. We also roped off the beach area so that the people would not interfere with the turtles plight to the water. Before the release I did a small talk. The release went well. The tide was going out and the moon was 2 days after full. Turtles went right to the water and none of them got washed back. The four turtles in the truck we did not release. Tag #'s ZA82, YB19, YB49, and YB53.

Thank you,

Michelle Sattler

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Fisheries Science Center Honolulu Laboratory
2570 Dole St. • Honolulu, Hawaii 96822-2396
(808)943-1221 • Fax: (808)943-1290

2 Sept. 95

Dear Michelle:

This time I'm getting around to writing you a note for two reasons. First, to clarify the seeming discrepancy about PIT tags in Tagged Mauna Lani turtle K96Ø, 11477. Recall that Leilani noted this in her cc'ed letter to us of 5 July 95. She is correct. A PIT tag (1F2648Ø46F) was placed in that turtle (on 6/20/94). And a second one (1F742A36ØD) inserted on 7/3/95. There are two possible explanations - 1.) The first PIT tag was lost, or 2.) I didn't scan it thoroughly enough to detect it on 7/3/95. The latter is the most plausible.

So - until the turtle is recaptured, we need to retain both PIT numbers in the database. It is possible to "read" 2 PIT tags in a flipper - one after the other - so that won't be a problem. If they are both present. (over)

The second issue I want to bring up -- are that is long overdue for action -- deals with consistent routine veterinary care and health-screening of SLP turtles. I've brought this up several times in the past (long before you arrived). We need to discuss in-depth in person or by phone. Briefly, it is my recommendation that a turtle veterinarian needs to routinely (2-3 x a year) examine, diagnosis, and generally consult with SLP on the health-status of its turtles. The way it is now (and always unfortunately has been, against my advice) a vet is only called in a crisis, piece-meal, to "treat" specific turtles. There is no consistent care and oversight by an experienced turtle veterinarian; and there should be. This includes SLP turtles at Maui Lani (where some problems and mortalities have occurred in the past) and other "loaner" places you may have in mind for your turtles. Doesn't this sound reasonable? I think you'll