



HONOKOWAI 19-22 JAN 99 PAGE 43

4801 Book II Mead =710-98

COMPOSITION 1999

MAUI BOOK 2

HONOKOWAI 11-12 AUG 99 PAGE 70

HONOKOWAI 29 AUG 99 P. 88

~~HAWAII 9/28/99 Kihai~~ 320 0280 44/0280 137

100 sheets • 200 pages • 100 hojas

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4801 (1998)
CONTINUED

GEORGE BLAZZ (808) 983-5732

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



Blue
ROBINSON

Rm - 105 Nohohani
2 Bedroom
1.5 BATH 669-5504

Retul
\$140 in 1999

My address is:

Debbie deBord
715 So. Kihei Rd. #120
Kihei, HI. 96753
(808) 879-5949
Email: dive@maui.net

Coygers p.55, 61, 78, 138

uncovered by wave
Stranding

- 505 Front St.
- Tennis court
- Small park


RANDY MILLER

Camera Repair - Photo-art
Stock Images

P.54

Randy's Repair
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ph#(808) 661-8054
E-mail: millermermaid@compuserve.com


Laura Scott
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Butterfly fish = p.

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Randy AWO

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↓ DONNA BROWN = 984-3203
PAGER = 984-4555
home = 669-7580

↓ GYNNIS NAKAI = 875-1582
↓ HIHWMIS = 879-2818

Summary of Scuba Dives

Bottom
Time only

1-19-99 ^① GHB, DME, JZ
TUES Honohowai Turtle House, Reef 2 = 47.56 MIN

1-20-99 ^① MARC, GB, JZ, DME
Wed. Reef 2 / Search Zeus Caur EST. ~~40~~ 40 MIN
^② MARC, GB, JZ, DME Turtle House 49' 64 MIN
^③ Koholui Power Plant Srokel THE ROCK

1/21/99 ^① Mala Wharf Randy Miller, DME, 40' 35 MIN
Thursday 4800 Search MR, Skippy HAV, GB collected SKIN BERRY
^② Honohowai Turtle House, The Rock
S HAV, GHB, MR, DME, JZ 45 40 MIN

1/22/99 ^① Mala Wharf Randy Miller
Friday 4800 Search GHB / Marc Rice 40' 30 MIN

onset
Stowaway
in PVC

DATA LOGGER SUMMARY (3)

4 on Maui (West Maui)
23 of 1/22/99
+ 1 AT Zeus CAIR 1 hour
(since late 8/98)

1-19-99 #0498 Stowaway 1 hour removed from
Turtle House Honolulu 1-19-99 47'
Replaced #181186 (in PVC) 30 min

1-19-99 new #181194 PVC Reef 2 30' deployed
Honokoua 7 hours

1/20/99 new #86131 The Rock 30'
1 hour Honokoua

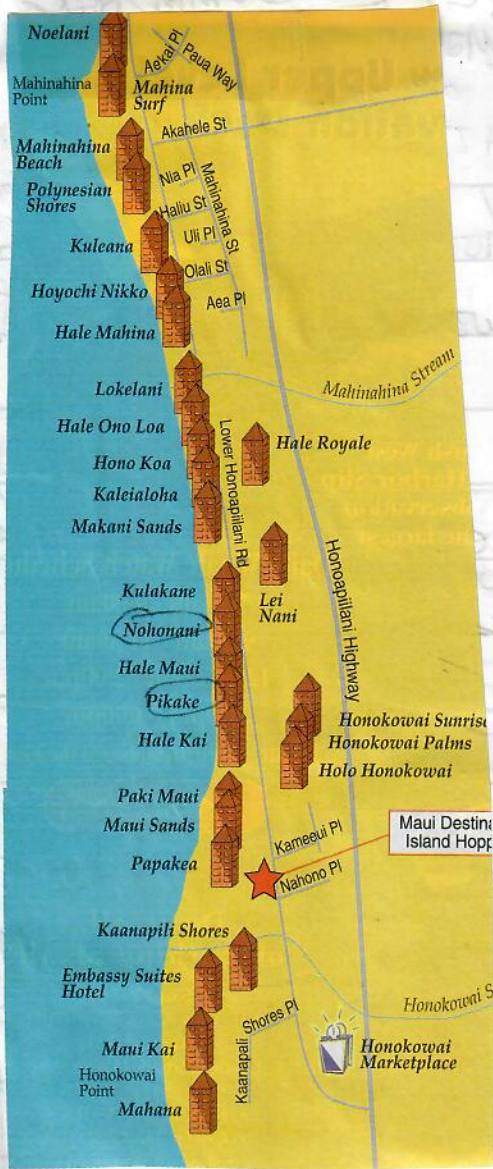
1/21/99 new #122323 1 hour
Mala Wharf ILOW PARASAIL wreck 40' deep
"Turtle Condor" 2.5 per Randy
20° 53.534 N
156° 41.325 W




Date: Mon, 25 Jan 1999 08:44:18 -1000 (HST)
From: Denise Ellis <dellis@honlab.nmfs.hawaii.edu>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Data Loggers for Maui

- At turtle house - S/N 181186 set to record every 1/2 hr.
- At Reef 2 - S/N 181194 set to record every 1 hr.
- At "The Rock" - S/N 86131 set to record every 1 hr.
- At 4800 spot - S/N 122323 set to record every 1 hr.

4



Tattoos by Micah



Highway 30 Tattoos
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808-667-0951

Maui beach trying erosion plan

Honokowai owners divided

By Edwin Tanji
ADVERTISER MAUI COUNTY BUREAU

HONOKOWAI, Maui — While his little girl played among the roots of an old kamani tree, Sione Fakava remembered when the roots were underground and the sand extended another 30 feet out at Honokowai Beach Park.

"There used to be a picnic table under the tree," said Fakava, who moved to West Maui 10 years ago.

The sand has since washed away, undercutting

the trees that line the edge of the neighborhood beach park.

All along the Honokowai coastline, the shoreline has been eroding as condominium owners have installed seawalls to protect their land from the encroaching ocean.

All of this makes Honokowai beach an ideal site to demonstrate a new erosion-control technique, according to state planner Sam Lemmo. The plan is to replenish the beach with new sand while installing three low rock-wall groins with a structure on the end of each to hold the sand in place.

The project results from

months of study and planning, according to Lemmo, and has been recommended by Kevin Bodes of Olsen & Associates, a Florida-based consulting firm.

"It's not an experiment," said Lemmo, who manages the state's Coastal Lands program in the Department of Land & Natural Resources. "It is a demonstration of a method that is already established."

Lemmo added that similar projects on the East Coast and in the Caribbean have shown that beaches can be successfully restored.

When Lemmo explained the concept to Honokowai residents last week, some

feared the new rock structures would cause more erosion of the shoreline fronting their condominium homes.

Others just hoped it would succeed. Ralph Sanborn, who's lived around West Maui all of his 76 years, said the beach fronting Honokowai used to be a wide stretch of white sand. But it has been under constant assault from wind, waves and currents.

"When my parents were living, the sand already was slowly moving away," he said. "Then people started dropping rocks on the beach to save their land."

See BEACH, B2

Beach: Method tried elsewhere

FROM PAGE B1

Rob Mullane, ocean resources specialist with the University of Hawaii Sea Grant program, noted that while beaches in Hawaii regularly erode under seasonal high waves, sand may return when the swells calm down.

But buildings on the shoreline disrupt the natural movement of sand, leveling protective sand dunes and reducing vegetation. Siltation and other pollutants also harm the reefs that help slow wave action and collect sand, Mullane said.

Lemmo said a task force of state, federal, county and private officials reviewed eroded shoreline areas on Maui and Oahu before choosing Honokowai for the

demonstration project.

As a relatively small area, restoration of Honokowai was seen as having the most beneficial effect.

Although sand has been trucked into Waikiki and at beaches at Maalaea on Maui, nothing has been put in place to hold down that sand when high waves hit the shoreline.

Jack Mueller, a resident of the Kana'i a Nalu condominiums at Maalaea, said the beach once extended 30 to 50 feet out from the property line. A low stone wall was put in when the project was built to keep the lawn level. But erosion over the past 20 years cut away the beach until it became a seawall.

The owners have spent \$70,000 over the past two years to haul in about 4,000 cubic yards of sand for

their beach, he said.

"But we're going to have to continue this for another 20 years to actually rebuild the beach."

That restoration has paid off elsewhere, however. Mueller noted that "the folks in the two condominiums on the Kihei side are getting their beach back because of us."

At Honokowai, Lemmo said the rock groins will help to hold the sand, although the state or county likely will need to add sand again in five to 10 years. State land officials, the Army Corps of Engineers and county leaders throughout the Islands are watching the project.

"We've really got a lot of people involved in trying to change the way we manage our shoreline."

6 PAGE 70 wed. Thurs.
11-12 AUGUST 99
HONOKOWAI

Summary of SCUBA DIVES

22 FEB ☉☉ GB, ANNA S. & Yvette Anderson
TUESDAY TO Kanaha collected algae, fecal pellets.
Saw 10-15 at warm-water outflow rd. See p. 9
Ross' (2 younger sons) saw Turtle snorped up by shark
in corner of Powerplant.
TO Honokowai. Saw Polzbarney - 400 ASA, photo
Each eye on small #3, left eye also has #2. ^{"vibrated"} Very
whitish. #4' right shoulder. Robust
body. Didnt spook - ran my hands over
it. Dropped off stranding kit
at NOAA Sanctuary office.

9 MARCH 2000 DMP & GB to Kaimuki / Honokowai
Thursday ^{see} page 90; Data 188, 189 + TMR Page 182.
Scuba ~ 1130 AM - 30 min caught outtagged 38 lb
130 PM - 30 min caught Polzbarney 72 lb
Sample Cost page 91

*Polzbarney
Treatments*

Summary of onset loggers -
Deploy and Retrieve

8/11/99 Retrieved Turtle House
#181186

Deployed & replaced w/ one early in "63"

8/11/99 Reef 2 Retrieved 181194
(not replaced)

8/12/99 MAZA wharf
Paragail wreck ⁴⁹⁰⁰ side

Retrieved #122323

Replaced Deployed with one early

"65"

TOC (see also inside cover)

9/28/99 HIHWMS - page 134
TRAIN

4-4-φφ HIHWMS - p. 137
TRAIN

4-20-φφ HIHWMS - p. 144 NAMES of
Thursday TRAIN Volunteers =
+ Meeting w/ DONNA BROWN McC-MOP p. 95

Raised feces

Fecal Sample List
(to Dennis Russell)

Date	Sample	Location	Size of pellet
2/22/00	1	Kanaha, Maui	M
2/22/00	2	Kanaha, Maui	S
2/22/00	3	Kanaha, Maui	S
2/22/00	4	Kanaha, Maui	L
2/22/00	5	Kanaha, Maui	L
2/22/00	6	Kanaha, Maui	S
2/22/00	7	Kanaha, Maui	M
2/22/00	8	Kanaha, Maui	L
2/22/00	9	Kanaha, Maui	L
2/22/00	10	Kanaha, Maui	M
2/22/00	11	Kanaha, Maui	S
2/22/00	12	Kanaha, Maui	S
2/22/00	13	Kanaha, Maui	M
2/22/00	14	Kanaha, Maui	L
2/22/00	15	Kanaha, Maui	L
2/22/00	16	Kanaha, Maui	M
3/15/00	1	Kailua, Oahu	S
3/15/00	2	Kailua, Oahu	S
3/15/00	3	Kailua, Oahu	S
3/15/00	4	Kailua, Oahu	M
3/15/00	5	Kailua, Oahu	M
3/15/00	6	Kailua, Oahu	M
3/15/00	7	Kailua, Oahu	M
3/15/00	8	Kailua, Oahu	S

Sizeclass:
< 1 cm=S; 1-1.5 cm=M; 1.5cm<=L

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3-31-00
for Robert

SCUBA

Certification Class (PADI)

10



ISLAND
SCUBA

A sea turtle swimming underwater. The turtle is shown in profile, moving towards the left. The water is a clear, light blue. The turtle's head is slightly above the water surface.

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

130 Mahalani Street
Wailuku, Hawaii 96793
Phone # (808) 243-5834
FAX #(808)243-5833
October 8, 1998

Home-
244-3894

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

From: *Sh*
Skippy Hau, Aquatic Biologist

Subject: Hawksbill Turtle Hatchling Measurements

Straight carapace lengths were measured to the nearest tenth of a millimeter. Twenty-one live hatchlings were measured by Dr. Steve Williams during excavation of the fifth nest. They averaged 39.1 millimeters (S.D.=1.1). The minimum and maximum lengths were 36.5 and 40.7 millimeters

Three dead hatchlings were brought back to the office, measured and kept in the freezer. The three hatchlings averaged 36.7 millimeters (S.D.=1.4). The minimum and maximum lengths were 35.4 and 38.1 millimeters. Their total weights were 12.1, 10.3, and 12.7 grams respectively. The average total weight was 11.7 grams (S.D.=1.2).

The one hatchling with its yolk sac still attached in the plastic bag did not survive. It measured 33.9 mm straight carapace length. Its total weight was 15.0 grams.

Attachment

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

Date: Thu, 8 Oct 1998 14:50:14 -0400
From: skippy@DAR.CCMAIL.compuserve.com
To: "INTERNET:gbalazs@honlab.nmfs.hawaii.edu"
<gbalazs@honlab.nmfs.hawaii.edu>
Subject: Fifth Nest Excavated

*Reduce
Mau
Booth*

George,

We excavated nest five yesterday. We recovered 22 live hatchlings which were released and four dead hatchlings. At the office, I found one hatchling breaking out of its shell in the plastic bag. It was still attached to its yolk sac. It died overnight. The remains are being kept in the freezer.

We estimated about 164 total eggs. It appears to be under her 200 average clutch size.

I took coordinates for the last two nests:
VFW-4 (Fourth Nest) 20° 45' 16N 156° 27' 45W
VFW-5 (Fifth Nest) 20° 45' 13N 156° 27' 46W

I think this concludes this season. We'll be planning a cleanup in the next few months to remove some of the debris in the beach reserve.

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

130 Mahalani Street
Wailuku, Hawaii 96793
Phone # (808) 243-5834
FAX #(808)243-5833
October 8, 1998

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

From: *Sh*
Skippy Hau, Aquatic Biologist

Subject: Excavation of Hawksbill Turtle, Nest Site VFW-5 at Kihei Beach Reserve

Yesterday, we excavated the fifth nest on day 61. Around 17:12, Ms. Hannah Bernard began excavating the nest. Volunteers have been monitoring the nest each evening since emergence.

The first hatchling was found dead near the surface. The top of the nest was located about 11 centimeters from ground level. The diameter of the nest was about 26 centimeters across. The bottom of the nest was about 52 centimeters deep.

We recovered: 22 live hatchlings; 4 dead hatchlings;
111 empty shells (est.)
53 undeveloped & partially developed eggs

164 Total Estimated Eggs

The twenty-two live hatchlings were released after being measured. Excavation was completed at 17:43.

At the office, I found one hatchling trying to break out of its shell in the plastic bag. The hatchling still had its yolk attached. It was kept in a bucket with sand on the bottom. It was found dead in the morning. The nest remains will be kept in the freezer and shipped to the NMFS Honolulu Laboratory for further analysis and final accounting.

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

Hawksbill Turtle Hatchling Measurements October 7, 1998 (VFW-5-98)			
Live Hatchlings		Dead Hatchlings	
Straight Carapace Length (mm)		Straight Carapace Length	
37.1	count=21	35.4	min=35.4
36.5	min=36.5	36.6	max=38.1
38.4	max=40.7	38.1	ave=36.7
40.1	ave=39.1		stdev=1.4
40.7	stdev=1.1		
39.8		Total Weight (g)	count=3
39.1		12.1	min=10.3
38.5		10.3	max=12.7
40.2		12.7	ave=11.7
38.8			stdev=1.2
37.3			
39.6			
39.6			
39.3			
39.1			
39.9			
37.4			
39.6			
40.1			
39.6			
39.6			

BLACK ROCK K15, K16, K17 7/29/93

(13)

Tag Information

Tag Number	Date Tagged	Tag Type	Tag Position
K15	07/29/93	1681	LFL
K16	07/29/93	1681	RFL
K17	07/29/93	1681	LHF

Maui Book

CCL = 46.5 cm

Historical information--

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

- 7/29/93 Mototooi "15" on 2nd lateral. Feeding on *Percniscadia* present in mouth. He traced
- 2/16/94 Sighted by visitor from California. Piece of fishing line trailing from cloaca.
- 6/5/97 Sighted while feeding by Jerry Fuller via John Lindelow (Hornu Project).
- 7/25/98 Sighted by Ursula Keuper-Bennett while SCUBA diving. Propeller slash down the spine

Date: Sun, 06 Dec 1944 07:57:46 -1000
 From: skippy hau@exec.state.hi.us
 To: gbalazs@honlab.nmfs.hawaii.edu
 Subject: Flipper Tag "K-12" on Green Sea Turtle

MAUI Book

Denise - Please Print Historical for files

(Sent to wrong email address - Skippy)
 Aloha,

TIPS

Just wanted to pass on a sighting of a fairly large male green sea turtle with flipper tag number "K-12". This turtle was seen resting under a coral ledge at about 38 feet depth around 9:15am on Sunday, January 23, 2000 off of a Makena, Maui (at a dive site referred to as "Turtle Valley").

The flipper tag was observed on the front right flipper, but none observed on the back right flipper. The left flippers were not observed. There were no tumors observed on the animal, however much of the turtle, including the head and neck, was hidden from view under the ledge. There were also 2 small females and another large male in the immediate area.

If this is of interest to anyone, or if anyone knows who would be interested in such sightings, please pass this on and have them respond so that I may know who to address this info to in the future and hopefully be able to provide more pertinent information as well.

Mahalo nui loa,

Allan Ligon
 (808) 874-3911
 aligon@aol.com

ps: Skippy or Hannah, if George Balaz's e-mail address is incorrect, could you forward this on to him as well? I couldn't locate his address, so just guessed at it. Thanks.

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Date: Sat, 19 Jul 1997 22:25:41 -1000
From: Ursula Keuper-Bennett <howzit@turtles.org>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Another Tag Number and regression stats

Read the
Main
Book

Aloha,

Hope all is well. Interesting things happening over here. My main reason for writing.... Would appreciate an email address for someone at Honlab who has the time to dig up info on a tag number we got today (took us three years to get the thing!) and we'd like to share her "story" for next week's Turtle Trax.

Just FYI... again this year (we never shared this 'hint' with you last year because we just weren't confident) we are getting indications that FP here is losing its steam --at least with the larger turtles. So that's the good news. The bad news is we got turtles who've survived FP but got eyes eaten away or paralyzed flippers that hang uselessly as they swim. The other bad news is the disease is still full blown and lethal in the very young.

We intend on doing a poster on this (photographic FP record of all resighted turtles) for the next Symposium IF they'll let us. In other news...

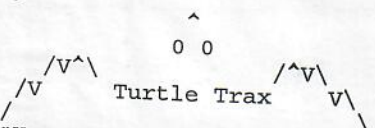
Got confirmation there is a hawksbill at Airport Beach and it swims regularly and happily with divers. We are going to dive there and ID the thing for posterity... do left and right profiles for easy identification. Figure if there was ever a hawksbill voted Most Likely to Develop FP it would be this one --so close to Honokowai...hence a need for excellent macros of the beastie.

Did two tiring dives through full moon current and this swell we've had last two days. Just completed our normal Saturday Trax update. I'm wasted --turning in for the night.

Take care of yourself and aloha

"Front Right, rear left won't work = front right not working --so rear right compensating"

Video - Zeus 1994 flippers & 1995 turtle 23 in 1996 = cleaning behavior



Ursula Keuper-Bennett
Email: howzit@turtles.org
<http://www.turtles.org>

"Uphe 1994"
shown in
video
IN
Cladophera?

"He was one of the last great minstrels of wilderness, singing a song of joy mixed with abiding melancholy, a song that saddened his listeners even as it gave them heart to fight, as he did, against the unthinkable outcome."

--Dr. David Ehrenfeld about Dr. Archie Carr

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Date: Thu, 24 Jul 1997 10:27:08 -1000
From: Ursula Keuper-Bennett <howzit@TURTLES.ORG>
Reply to: Sea Turtle Biology and Conservation <CTURTLE@lists.ufl.edu>
To: CTURTLE@LISTS.UFL.EDU
Subject: Fibropapilloma, Limb Paralysis and other "artifacts"

Aloha FP Researchers,

I am not sure if you already know this (I haven't access to the latest fibropapilloma (FP) papers) but either way I am reporting it here. A few days ago we saw a turtle with two paralyzed limbs (front left flipper and rear right). Fortunately I was able to photograph this turtle's left profile and match it to an animal we've documented in 1996 and 1994.

Also I recall our 1996 video showing a distant shot of a turtle with a similar affliction and now knowing what 1996 photo to match it to I can make a positive ID based on shell markings. But right now I don't know whether we have two turtles like this or just one. I will when I get back to Canada.

I do know for certain this turtle developed the paralysis during its bout with fibropapilloma. Her eye tumours have improved since last year. If you saw her resting on the bottom, you would celebrate her good fortune--until she rises up to swim.

This isn't the first animal to become paralyzed during a bout with FP. Noke (Hawaiian for "to persevere"), a youngster we knew (1992-94) swam with her right rear flipper dangling uselessly the last time we saw her. (She'd lost her right front flipper before we met her...)

For Noke's story see: <http://www.turtles.org/noke.htm>

So. Is there record of paralysis acquired during fibropapilloma illness? (Especially in the Florida population?)

MORE "ARTIFACTS" FROM THIS DISEASE

Presently we have three turtles swimming about with one functioning eye, the other eaten away by FP tumours. (Two have lost their left eye, one the right.)

The one we see regularly has learned to view life through its good eye, turning as we try to photograph its RIGHT side (we've been unsuccessful).

Speaking of eyes, we noticed two/three turtles with body tumours but clear eyes and were baffled because over the years all save one turtle developed FP in the eyes first. But when we checked the turtle profiles against our photographs from other years two were positively identified.

These animals both had more serious FP previously AND eye tumours. For '97 they've retained their body tumours to some extent but the eyes have cleared more rapidly. This might suggest that while turtles in our area get FP in the eyes first, eye tumours might also be the first to clear.

Of course, we don't know whether this can be generalized to conclude that if we see a turtle with tumours but none (little) in the eyes, we are looking at a regression case.

Finally, over the years, we documented a turtle 1991 #10 as tumours grew

16

and finally took out her left eye and completely covered her right. Last year, she experienced no new tumour growth and the old ones appeared shrunken. Small victory over FP considering she was left totally blind bumping into things.

Turtle 91#10 was a regular every year up to last summer. We have yet to see her and believe we won't.

For story see: <http://www.turtles.org/9110.htm>

In a recent Marine Turtle Newsletter front page article, George Balazs, National Marine Fisheries Service (Honolulu Lab) wrote: "The usual outcome for most affected turtles in Hawaii is debilitation over a protracted period, followed by death."

Here, underwater, that is still very much the case, especially for the very young turtles. It appears though something else can be added. For a certain percent (we intend to find that out) of larger turtles, they manage to survive FP but wear permanent "scars", (eaten out eyes, limb paralysis) that can still do them in.

Aloha and best wishes with your research

Date: Fri, 01 Aug 1997 08:20:39 -1000
From: Ursula Keuper-Bennett <howzit@turtles.org>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: You have both paralysis video sequences

*Keo
Marie
Book*

Morning,

re. your paralysis message yesterday I wrote:

>Can send you the clip when we get back to Canada. Mahalo for following up and >making sure I was sure in what I was seeing. Appreciated.

Got to thank you even more. It made me realize I have BOTH sequences in Honu in Crisis. Have a look, after the 38 minute Honu in Crisis I piled an hour's of our best 1996 raw footage.

George the VCR here doesn't have "real time", so you'll be forced to fast forward like I did. But the footage of last year's limb paralysis case is ON there. Easy to find because I have captions --just read or watch a turtle (obvious tumours) swimming with its back to you, two opposing limbs dangling.

And guess what?

This isn't the same turtle as THIS year's! Yessir, we got TWO different turtles with the same affliction and yes, I am sure. This year's paralysis case has a profile match from one in 94 and 96.

We have been without Peter's video the whole summer. We did not get how the 1997 case moved. We've missed a lot of behaviour because Sony is so frigging slow with repairs...lost opportunity.

Three Honokowai paralysis cases. Considering the number of turtles we've seen paralysis is still insignificant and rare.

Getting swells here... diving will be like going through the rinse cycle.

Loved the info re: the jellyfish. Good stuff. Does FP prevalence correspond to high jelly locations?

We're looking at something interesting here. We got over a dozen turtles sleeping together at Pikake House. Most are healthy or represent regression cases, a few others just a light case of FP. This is so different from what we see at the Turtle House. I know it's like observing humans on your local street and then looking around Emergency at a hospital. Still. Why?

Too many questions George. Wishing you a productive day.

All the best

Date: Thu, 31 Jul 1997 16:45:38 -1000
From: Ursula Keuper-Bennett <howzit@turtles.org>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Stuff

*Redding
Maui*

Aloha,

About to go on our third dive. No sir, we were spared the heavy rains. Funny currents today dropped jellyfish on the beach. We knew the honu would be dancing near the surface more interested in eating than getting cleaned so morning dive was a washout.

Afternoon dive yet another regular (Zaphod) showed up. Tumours getting better too. The last four regulars sighted all are improved!

The last year we saw Cladophora re. magnitude of video was 1991.

Email address for Wendy Wiltse (haven't used it in a while) is:

wwiltse@hula.maui.net ← *Wendy*

Didn't hear about the leatherback. Cool!

Right now I am pursuing this groundwater seepage thing in other high FP island nations. Will be formulating a CTURTLE message re. that and other FP related stuff. BTW Wendy should have all the reports for you should you request it.

We're going to grab them too. Right now we are following up on a hunch re. regression and the various fates of turtles with FP.

Now question from me. Nui and Mendelbrot are clean except their largest tumour looks like a shrunken mummified wart. I don't expect these animals to ever get completely rid of this growth. What do scientists call it when it isn't total regression but you think it's as good as it's going to get and certainly the turtles are happy?

All the best

At 05:37 AM 7/31/97 -1000, you wrote:

>Thanks for the response. Did all of that heavy rain on Maui hit
>you-all? Hope not. I recall that one year that it ruined your diving
>for days.
>
>Two questions:
>
>What year did you last see Cladophora to the magnitude that was shown in
>the video you made on this subject?
>
>Do you have an email address for that Maui Watershed Project housed in
>Lahaina? I think the person heading it is named Wendy Wiltse (sp?)
>
>Have a good day of diving. Presume you know all about the leatherback
>that nested on Lanai on the night of 20 July. Right in front of dozens
>of beach/picnic goers. Pretty amazing. The people over there watch and
>protecting the nest don't relish publicity. But maybe something came out
>in the Maui newspapers. I'll travel over there later in the summer.
>

18

Date: Thu 5 Nov 1998 14:54:58 -0500
From: skippy@DAR.CCMAIL.compuserve.com
To: "INTERNET:gbalazs@honlab.nmfs.hawaii.edu"
<gbalazs@honlab.nmfs.hawaii.edu>
Cc: "INTERNET:dellis@honlab.nmfs.hawaii.edu" <dellis@honlab.nmfs.hawaii.edu>
Subject: Re: Temperature data

Send
hooking
report
Reduce

George,

Have turtle researchers started to conduct experiments with transplanted eggs to determine sex ratios of the hatchlings? Using actual temperature data could be extremely helpful in trying to assess sex ratio of nests.

Can you put the temperatures on the same graph scale? Have you focused on ambient air temperature and nest temperature fluctuations or lag? Does wet sand have a different effect on nest temperature? Could the temperature be colder but insulated from temperature variability?

It is interesting to note the increasing temperature through August. I would assume that the temperatures for all areas would peak about August? I guess that the locations, while in about the same area, would be influenced by how far up the beach turtles nest and surrounding vegetation.

The Makena nest was suprisingly very high up the beach, above the water line. She chose where the beach stops inclining and leveled off. Although, there is no vegetation, there is a tree canopy above and old stumps in the sand (Could she have used the stumps similar to her choosing locations near shrubs or the ironwood tree?) I don't know the direction of the sun throughout the winter season. Shading may or may not play a factor in cooling the nest.

Overall, the Kihei nests appear to be in relatively clear areas. What we thought was the location of the nest in vegetation appeared to be her disturbance away from the nest. Hopefully, when we clear the reserve of debris, it will insure that more nests will be layed closer to the makai edge of the reserve.

The "third" nest was located about 30 feet into the beach reserve in thick grassy vegetation. She dug her nest in the grass which caused the most trouble with roots; and lost/dehydrated hatchlings.

The Kealia area is the most susceptible to high tides and waves by being so close to the waterline. I was hoping the perpendicular fencing would be implemented to further stabilize the dune in selected areas and provide more nesting beach. The Kealia project has sort of stalled. I'm thinking about Gene Nitta's idea about old christmas trees. But instead of christmas trees, I'm thinking about placing the cut kiawe and ironwood trees in some areas to gather sand in selected areas. Those trees unlike Christmas pines, may not cause concern by beach walkers.

I thought about your offer of supplies. In addition to the multipurpose shears (or penny cutting scissors), could you get me a pair of bolt cutters? I've seen some large hooks which the ordinary hand pliers or wire cutters cannot cut. The stainless steel ulua hooks are pretty thick.

Last week, I met with Debbie deBord and gave her a pair of scissors to cut away fishing line from turtles. We had a very long discussion. She told me she went diving with Mike Wilson and Sylvia Earle when they went to Kaho'olawe. I explained that I try to stay away from staged media events. We've offered to take Mike Wilson to nearshore areas for him to see first hand the status of resources but he seems to be more interested in listening to divers tell him about their "crisis" situations. Instead of selecting priorities and setting

Snorkeling on Maui

By Jeff Strahn

Each year, millions of people visit Maui. Most of these people, during some part of their stay, spend some time at the beach or snorkeling on one of the beautiful reefs which Maui has to offer. Following are some tips, as well as some suggestions as to where you can find some of the best beaches and snorkeling spots on Maui.

Some of the best tips and advice for snorkeling and surf rely on good judgment. As a rule, snorkeling is usually better in the morning. Afternoon trade winds often disturb the ocean in the Kihei/Wailea areas making surface activities more difficult. However, good snorkeling can be found in the afternoon in the Lahaina/Olowalu area. Check with any good dive shop like Maui Dive Shop for the current conditions in your area. Large surf can be dangerous. As a general rule, surfing and snorkeling do not go together. If you go to a beach and see big waves, you should probably try to find a location with calmer water to snorkel or check with a lifeguard or local expert before entering the water. Most beach accidents occur in the surf zone where the ocean meets the shoreline.

Maui has many excellent beach and snorkeling locations. Some of these locations are remote areas of the Island. As a general rule, it is not advisable to leave valuables in your car in any of these areas. Please do not be fooled into thinking that the trunk of your rental car is a safe location.

Now that we have talked about safety, let's look at some of Maui's outstanding choices for beaches and snorkeling. Our recommendations for Maui's best beach and snorkeling locations are Honolua Bay, Kapalua Bay, Olowalu, Ulua Beach, Ahihi

Bay, La Perouse Bay and Molokini Crater. These areas are all prime locations and represent both West and South Maui. For the clearest water, hop on one of Maui Dive Shop's Jet Boats to Molokini Crater or Lana'i. These charter boats offer comfort and convenience and are each custom designed to meet the needs of snorkelers and divers.

Maui has four marine preserves which means that they are protected allowing you to see fish in a natural state. No hunting or collecting is allowed in these areas and fish feeding is discouraged in order to keep populations in their natural balance. Maui's four marine preserves are Honolua Bay, Ahihi Bay, part of La Perouse Bay and Molokini Crater. For all marine enthusiasts, snorkeling and diving with the endangered Green Sea Turtle is a moment to remember. Afternoon charters from both Kihei and Lahaina allow you to swim with and experience these beautiful creatures.

For more information on these or 20 other snorkeling or beach sites on Maui, stop in to any of Maui Dive Shop's eight locations to pick up your free snorkeling map. This 16-page, full color guide is the Island's most comprehensive guide to beach and snorkel locations. It gives detailed maps and directions to get you to the best spots as well as getting you around the Island. Best of all, it's free. Maui Dive Shop is located in West Maui at Kahana Gateway Shopping Center, Lahaina Cannery Mall, Whalers Village and Honokowai Marketplace. South Maui Stores are located at 1455 South Kihei Road (their outlet store), Azeka Place II Shopping Center in Kihei, Kamaole Shopping Center in Kihei and Wailea Shopping Village.



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Each unique candle sculpture is designed by Maui metal sculptor, Jerry Caires, Jr. Jerry recreates authentic Hawaiian Petroglyphs and Amakuas primarily working with copper-coated steel. Once you light the candle, it will project the sculpture's image on the wall. Imagine a three-foot shadow of a turtle or dolphin dancing by candlelight on your own wall! The perfect gift for you or your favorite candle connoisseur. The candle sculptures are about 6" tall, affordably priced and packed to travel!

Hawaii Petrogift® candle sculptures are available at many fine local shops. While on Maui, please call our Hawaii Petrogifts® hot line at (808) 893-2448 for store locations and craft show dates or to speak with the artist.

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Choices:

Sailing Canoe
Canoe Paddler
Surfer
Gecko
Dolphin
Turtle
Shark
Whale's Tail
Strong Woman
Rainbow Man
The Lovers



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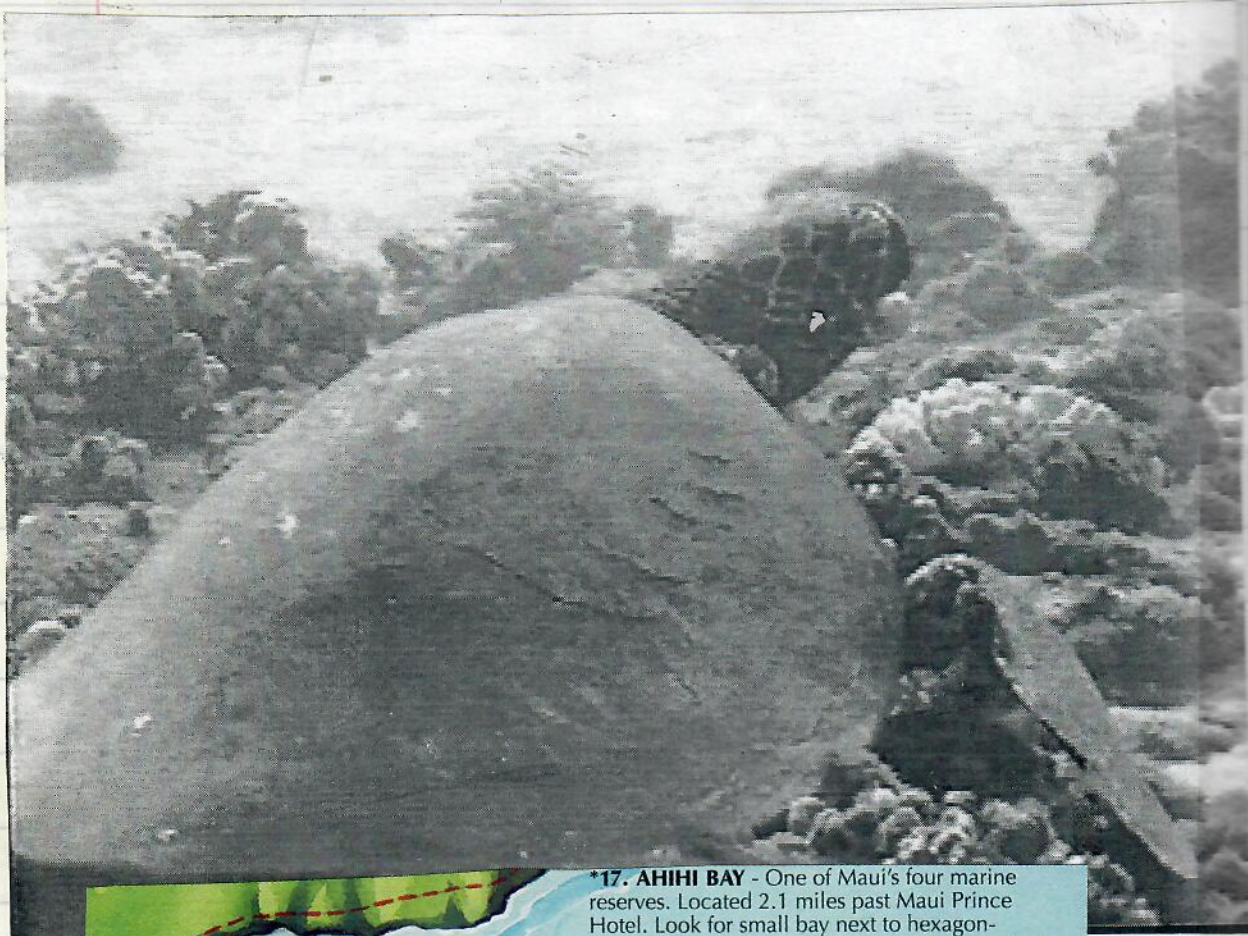
----- Forwarded message -----
Date: Sun, 18 Oct 1998 20:31:50 -0400
From: Ursula Keuper-Bennett <howzit@turtles.org>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Pic 4U

When you're in your office, please check out the image I've provided. I think I know what I'm looking at. Just interested in your confirming This honu was also seen in 97 tumours: not nearly so severe (left mouth tumour a #3 for 98).

It DIDN'T have those five scratches in 97 either....



9880r.jpg



16. MAKENA BEACH - Drive through Makena Resort to Maui Prince Hotel. You will see a large red hill in the distance called "Puu O Lai". Makena Beach extends from the base of this hill south one mile. Paved parking lot on right side of road. One of Maui's most popular beaches. NOT RECOMMENDED FOR SNORKELING, DIVING, OR BOOGIE BOARDING DUE TO LARGE SURF AND STRONG CURRENTS.

***17. AHIHI BAY** - One of Maui's four marine reserves. Located 2.1 miles past Maui Prince Hotel. Look for small bay next to hexagon-shaped house. A second entry location is a short distance down the road. Look to your right for a gravel parking area. No beach facilities. Excellent snorkeling and scuba diving. (see detailed map)

***18. LA PEROUSE** - One of Maui's four marine reserves. Located 2 miles past Ahihi Bay over rugged lava flow. Paved road, no facilities. Excellent snorkeling and scuba diving for experienced divers. WARNING: USE CAUTION ON ENTRIES AND EXITS DUE TO RUGGED COASTLINE. (see detailed map)

----- Forwarded message -----
Date: Tue, 15 Dec 1998 22:04:50 -1000
From: Deborah deBord <dive@maui.net>
To: "'George H. Balazs'" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: RE: Greetings Debbie

Aloha George,

U82

CC 107 am
by Deb

Sorry I've never seen or heard of the Maui Trade Dollar.

Those dates you told me are fine. I'll put them down on my calendar and keep them open for you. Will you be on a boat or will we be beach diving?

It will be much better if we have the use of a boat. There are several dive sites you may want to check out, and getting from one to another will be faster if we can just drive a boat there.

I found another tagged turtle today. There were actually 2 turtles, the biggest turtles, by far, that I've ever seen in 12 years of diving!!!

One was a male with no tags. I couldn't tell what sex the other one was. It was lying on the floor of the swim-thru cave at Pu'u Olai wedged under a ledge. It had a tag on its right front flipper. (#U82). It was lying so still with its head on the bottom that I thought it was dead. I saw the tag and thought I should get the number just to let you know it was dead. I crawled up to it, picked up the tag, turned it over to get the info, and the turtle picked up its head and looked at me like I was soooooo rude to have awakened it. I let go, backed away and swam out of the cave right into the face of the huge male that was trying to go back in.

George, I'm so happy to tell you that NEITHER ONE OF THESE GIGANTIC TURTLES HAD ANY SIGN OF A TUMOR!!! Nothing in their eyes, absolutely clean!! I got big tears in my eyes just seeing them so unbelievably healthy.

I wish I'd had my tape measure with me. My "educated" guess is they were both AT LEAST 36" curved carapace, and I'm being very conservative. I can't imagine it being possible to even catch these turtles to weigh them. You'd need a winch! And I'm not kidding.

Let me know what information you have on U82 will you? I'm extremely curious about this one. The fellow who was diving with me said "That turtle must be a hundred years old!"

I hope to hear from you soon about my "Giant", and I look forward to diving with you next month. Happy, safe holidays.

All the best,

Diver Deb

U82 + K12,13,14

Date: Tue, 29 Dec 1998 13:30:09 -1000
 From: Deborah deBord <dive@maui.net>
 To: 'George Balazs' <gbalazs@honolab.mfms.hawaii.edu>
 Subject: Another Maui giant

Reduce ↗

Hi George,

Just had to send you a note to let you know about a turtle I measured today at 5 Graves. She was 107 cm!!!!!! That's right, 107 cm. curved carapace. I measured her twice. She has no tags, and NO TUMORS!! She has a sort of flat area, dinner plate size, on her shell, just right of center and toward her right shoulder. Her head is as wide as my hand when I spread my fingers apart. How old would you estimate a female that big to be?

She was not as big as U82. Jeez! I wish I'd had my tape measure when I saw her. I am on the boat for the next 4 days, so hopefully I can look for her again at least one day this week. I'll let you know if I see or measure her.

BTW, I re-measured K12,13,14 today. This time I got her curved carapace at 72 cm. Last time I got 74. What would you estimate her age to be?

I look forward to seeing you "next year".

Historical Information for Turtle Tag U82

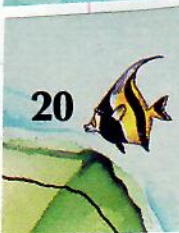
Tag Information:

Tag Number	Date	Tag Type	Tag Position
2692			LFL
5243			RFL
5244			L1
U82	6/6/93	Pw OLX1	LHF
U83	6/6/93		RHF

Date	Type of Encounter	Location:	TumorRank	NestingAct	Straight Carapace Length	Since Last Encounter				Overall			
						Interval		Growth-Rates		Interval		Growth-Rates	
						Month	Year	cm/mon	cm/yr	Month	Year	cm/mon	cm/yr
5/29/90	Nesting	East	0	N	---	---	---	---	---	---	---	---	---
6/13/90	Nesting	East	0	N	---	---	---	---	---	---	---	---	---
6/26/90	Nesting	East	0	C	---	---	---	---	---	---	---	---	---
6/27/90	Nesting	East	0	N	---	---	---	---	---	---	---	---	---
6/28/90	Nesting	East	0	N	---	---	---	---	1	0.1	---	---	---
7/11/90	Nesting	East	0	C	---	---	---	---	1	0.1	---	---	---
7/12/90	Nesting	East	0	N	---	---	---	---	1	0.1	---	---	---
7/25/90	Nesting	East	0	P	---	---	---	---	2	0.2	---	---	---
8/8/90	Nesting	East	0	N	---	---	---	---	36	3	---	---	---
6/6/93	Nesting	East	X	X	96.5	33	2.8	---	---	36	3	---	---
6/7/93	Nesting	East	X	X	96.5	---	---	---	---	36	3	---	---
6/20/93	Nesting	East	X	X	96.5	---	---	---	---	36	3	---	---

21. HO'OKIPA BEACH PARK - Located on Highway 36 just past Paia. Famous as world class windsurfing beach. Picnic tables, showers and restrooms. Not recommended for diving.

22. BALDWIN BEACH - Located on Highway 36 driving toward Paia. Park facilities, family beach, good swimming, beautiful white sand beach, often windy. Not recommended for beginners.



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19. HANA BAY - Snorkel between the pier and the lighthouse. Stay well inshore as the currents can be very powerful outside. Good coral and fish.

20. KEANAE - Located halfway between Paia and Hana on the Hana Highway. Good local fishing spot. Beautiful and picturesque. Not recommended for diving.

Sherri Reeve

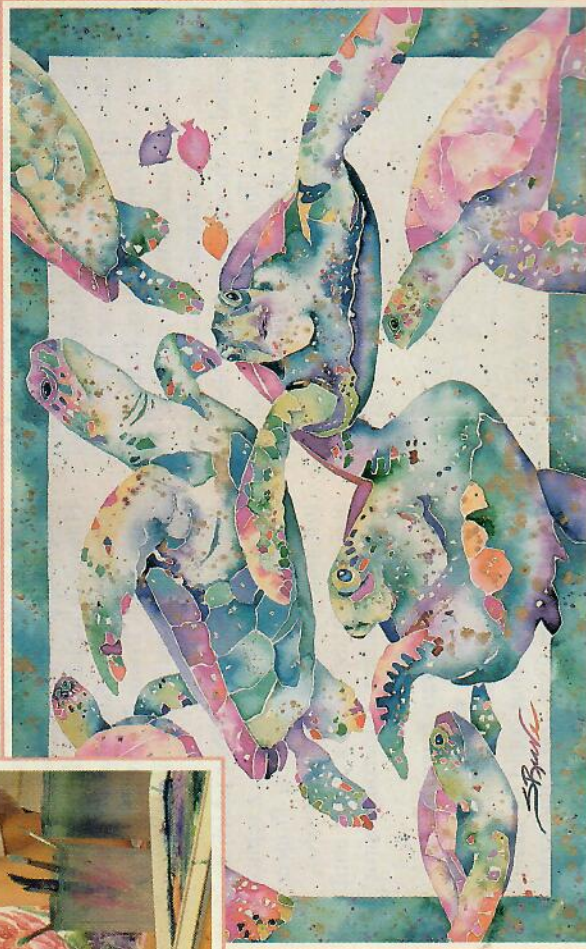
GALLERY & GIFTS

3669 BALDWIN AVENUE • MAKAWAO

96768

Across from Komoda's Bakery

See Page 16 for Map to Makawao



Here's Looking At You

New Limited Edition Print Available in Two Sizes
26" x 40" • \$600 and 21" x 33" • \$400

Come on in
and meet
Sherri
at her new
store.

You are in
for a treat.

Date: Wed, 16 Dec 1998 15:42:34 -1000
 From: Deborah deBord <dive@maui.net>
 To: 'George Balazs' <gbalazs@honlab.nmfs.hawaii.edu>
 Subject: Boat for your trip

Hi George,

I called the company in Kihei that rents boats and I think I may have some good news. I spoke with Mark Gibbs, the owner/operator. He has several options for you. They are as follows:

A 14 ft. inflatable chase boat with a center console and 40 HP outboard. He cannot rent it (no permit), but for a research endeavor he will let you use it. You'd be responsible for gas. If you choose this, he'll arrange for his insurance to cover us on the boat, even tho' no permit for it.

He will rent you any of his other boats for 1/2 price + gas. He has a 24' boat with a Merc/Cruiser I/O, with a 3 step swim-step, and a good amount of deck space. Cost to you would be approx. \$260 + gas for 4-5 hrs. I told him I thought there'd be 4 of us (Skippy?). He says this boat would be OK for up to 6 people.

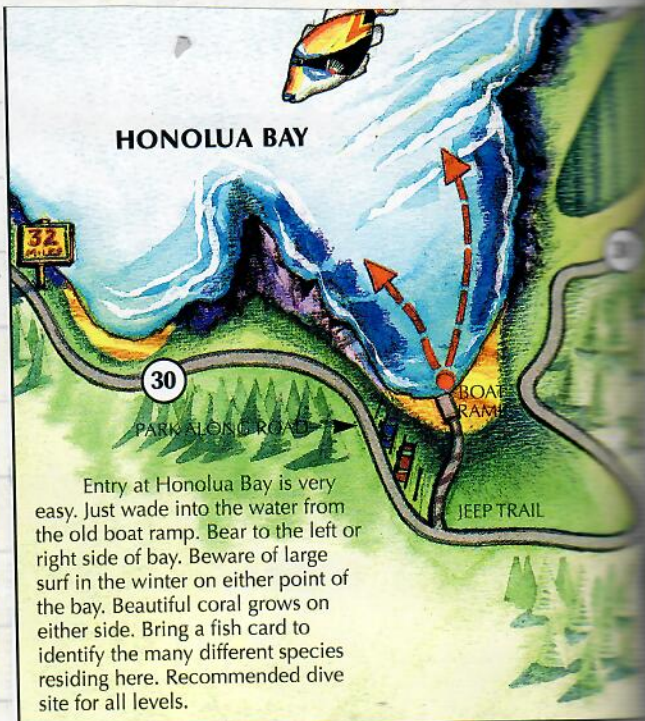
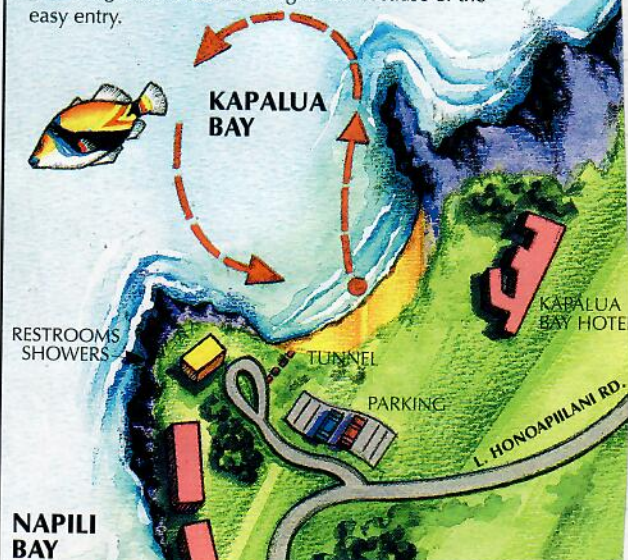
The 24 FT. boat is probably best-suited for any kind of weather, but I don't know your budget. You do have the chase boat option. His other options are more money and I believe not as good for our needs. I don't know what you plan to do exactly. Will you be bringing up turtles to weigh or tag? If so, the inflatable is probably not good.

Let me know if any of this interests you or you could call Mark at (808) 879-3721.

Talk with you soon. Aloha

Debbie

Once you have parked in the public parking lot, proceed through the tunnel next to the showers and restrooms to the beach. The best snorkeling and diving is across the beach on the right. The water in the bay is usually calm and protected, however, there may be strong currents offshore. This area supports a large population of reef fish and is a good location for beginners because of the easy entry.





NEWSWATCH

A3. 12-7-98 HSB Venomous sea snake found along Maui shore

WAILUKU — A sea snake found washed along the north shore of Maui was venomous — but marine biology experts say this kind of ocean snake generally bites to defend itself.

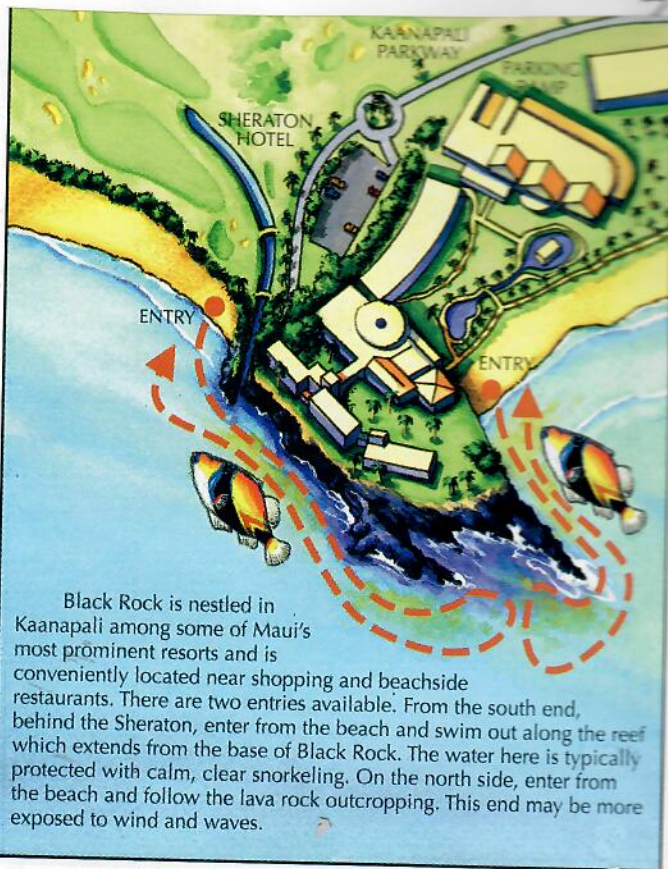
“It’s unlikely someone would be bitten by them,” said Richard E. Young, an oceanography professor at the University of Hawaii.

Young said sea snakes are very rare in Hawaii waters but abundant in waters off Panama and the Indian Ocean, where he saw them gather around a ship he was on at night. “They were attracted to the light,” Young said.

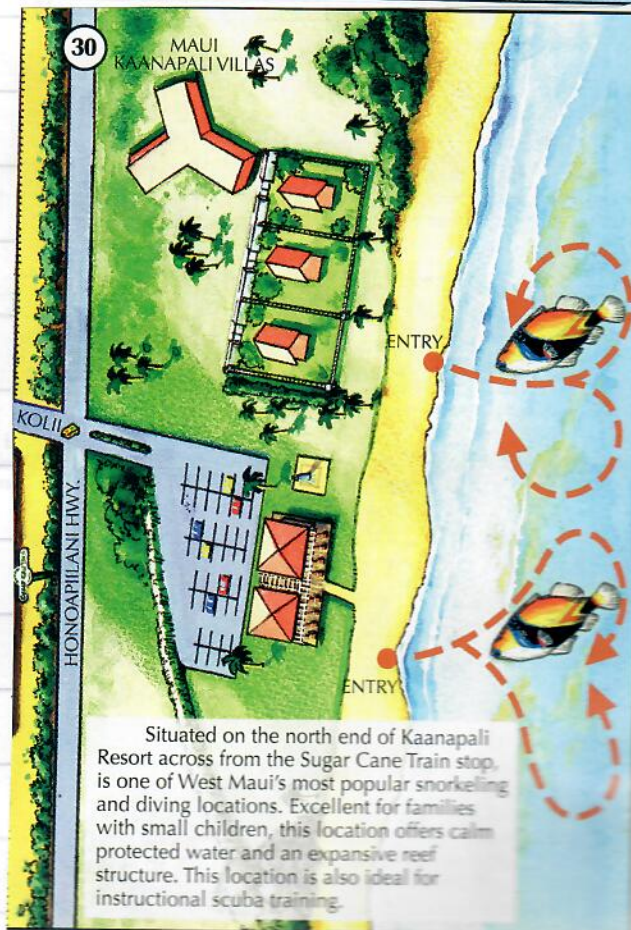
The snake, black with a yellow stripe on its bottom, was found Tuesday morning with its tail bitten off.

It died at the Maui Ocean Center on Friday.

Aharon Miroz, head curator of the center, said a number of fish, including ulua, feed on these snakes. He said the snake seems to have been bitten by a hawksbill turtle.



Black Rock is nestled in Kaanapali among some of Maui’s most prominent resorts and is conveniently located near shopping and beachside restaurants. There are two entries available. From the south end, behind the Sheraton, enter from the beach and swim out along the reef which extends from the base of Black Rock. The water here is typically protected with calm, clear snorkeling. On the north side, enter from the beach and follow the lava rock outcropping. This end may be more exposed to wind and waves.



Situated on the north end of Kaanapali Resort across from the Sugar Cane Train stop, is one of West Maui’s most popular snorkeling and diving locations. Excellent for families with small children, this location offers calm protected water and an expansive reef structure. This location is also ideal for instructional scuba training.

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Date: Fri, 1 Jan 1999 21:27:06 -1000
From: Deborah deBord <dive@maui.net>
To: "'George H. Balazs'" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: RE: Another Maui giant

Reduce

Hi George,

Hauoli Makahiki Ho!

No, I didn't see the article you mentioned. Would love to see it. Skippy told me about the turtle but I don't read the newspaper...too much bad news and you have to pay for it. I watch the news on TV, that way it's FREE bad news!

~~The access to K12 is from shore or boat. It's a long swim from shore, you'd need to be able to get at least an hour of bottom time on a tank to get out there and back, and that's not spending any time out there, just turning around. That's assuming we find her right away and don't have to swim around looking for her~~

~~There are some of the biggest turtles I've ever seen gathering at 5 Graves over the last several weeks. Today I saw the 42 in. one again, and it's a male by the way. I also saw another male about the same size with a huge tumor on the right side of his head and eye, and he seemed to be having trouble with choking. That's the only one of the huge ones with tumors though. There are several others that are nearly as large as "Goliath", all appear to be females. I dove Pu'u Ola'i yesterday and didn't see the big ones there. I kind of think maybe they've moved up to 5 Graves with the other biggies, but I haven't yet seen U82. None of the big ones have tags that I can see.~~

I hate to think that you can't accomplish much while you're here. What a shame. There's so much to be learned along this coastline (Wailea and Makena). The turtle population seems to be exploding in spite of the pressures from pollution and people.

I spoke with Skippy on Thurs. and told him what you'd said about your budget and a boat and he said he'd maybe talk to the DLNR Enforcement guys about their boat, and with Marc Hodges (KIRC) about possibly that vessel being ready for use by then. Keep your fingers crossed and talk to Skippy.

There's so much territory to cover to see these turtles. They're so big, you'd never be able to do anything with them without a boat and they're scattered over 3 or 4 dive sites that are long swims from shore. I'm up for the swim, but I doubt that you and your assistants are. No offense, but I dive every day and I'm used to it. All you'd accomplish would be to see them. I'm happy to take you and show you what I can if that's what we have to do, but I'm still hoping a boat is in your future. I did have a captain volunteer his services in any way you might need. Driving the boat, staying on board to help with whatever, etc.

Anyhow, I'll keep you posted on anything interesting I see. Keep in touch. I look forward to seeing you soon.

Pathology: A Sample of Tumours at Honokowai, 1996

We offer these images to anyone who can make use of them. We hope that someone can shed more light on what exactly these photos reveal about the tumours of these turtles.

Some Examples of GTFP Photographed at Honokowai, July-August 1996

These images were originally taken underwater at Honokowai, Maui, during the summer of 1996.

The icons below are linked to 640x480 JPEGs. If you prefer to review the images as 240x180 GIFs, use our [contact sheet](#) (9 GIFs, 216K).

Caveat: Colours Can Be Misleading

The nature of this medium makes it impossible for us to know exactly how our images will appear on other monitors. Colours can be shifted or missing entirely. The brightness, contrast, colour balance, and gamma of our monitors can vary significantly from yours. **This means that you must not rely on the colours contained in these images, even if you are using a video system that has millions of colours.**



[Hoahale \[1995 Turtle 28\] \(58K JPEG\)](#)

Hoahale shows a new small tumour in the posterior of her left eye. The posterior of the eye is almost always the first place where tumours erupt. We did not see tumours on this turtle in August, 1995, although some early signs were evident.



[Heana \[1996 Turtle 29\] \(66K JPEG\)](#)

Heana shows how a small tumour in the posterior of the eye progresses into two discrete tumours, growing from both corners. From the first small eruption to growth of this size occurs in as little as 10 months.



[Unnamed \[1991 Turtle 10\] \(78K JPEG\)](#)

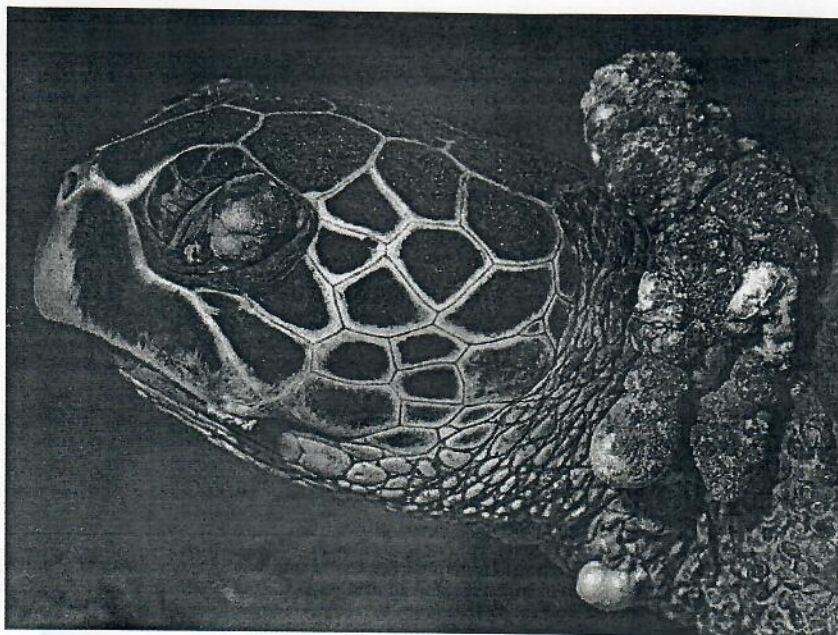
1991 Turtle 10 is blinded. In 1992, her left eye was completely obscured by a golf ball sized tumour. Over the years her left eyeball was eaten away. In 1996, there is only a slit where her eye once was.



[Unidentified \[1996 Turtle 25\] \(36K JPEG\)](#)

We logged this turtle as 1996 Turtle 25 but it is essentially unidentified. It could be an old friend, but we can't tell. We use a turtle's left profile for identification, and hers is completely obscured by a massive tumour and a thick coat of algae. The tumour pulsed gruesomely when this turtle blinked her eye.





Date: Tue, 30 Jun 1998 06:53:41 -1000
 From: Ursula Keuper-Bennett <howzit@turtles.org>
 To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
 Cc: honu@turtles.org
 Subject: Re: data loggers

Reduce

cc'd to Peter

Remember a while back I described my perfect day with you (me xeroxing everything you wrote) by the honlab photocopier with Peter videotaping while you talked story? I said that because I'd concluded you'd never dive at Honokowai again.

You, underwater with the Honokowai honu is THE true perfect day for both Peter and me. The only way to make that better is to try and stay longer (2-3 plus days).

Well the cost of a room in Honolulu for Peter and me could go into yours here at Nohonani you know. Look, not pushing, just suggesting and making certain you are aware we encourage you to stay at Honokowai for as long as you feel inclined.

This site is worthy of your commitment and time George.

Your mention of "first visit" suggests there would be others by Jill and George we'd welcome that.

Outta here. Peter worked the database til past 11 last night and I just didn't have computer access to write up the pm dive "fieldnotes" yet. (Database now takes priority over everything)

 At 09:34 PM 6/29/98 -1000, you wrote:
 >Jill leaves shortly for Florida vacation for two weeks I just found out.
 >She's eager for Honokowai. I suggested to here that for her first visit
 >that I go also, and maybe my divepartner Denise. Will coordinate with
 >you of course as we get closer to Jill's return. Aloha, George

Regression of Green Turtle Fibropapilloma Tumours at Honokowai

The Background

In his 1994 paper, *Fibropapillomatosis of Marine Turtles*, Dr. Larry Herbst wrote:

The duration and course of clinical GTFP (Green Turtle Fibropapillomas) are poorly understood, primarily because individual turtles with fibropapillomas of known duration have not been available for longitudinal studies. A few green turtles have been held in captivity long enough to provide some generalizations about the clinical course of the disease.

Jacobson et al. (Jacobson, E.R., Mansell, R.B., Sundberg, J.P., Hajar, L., Reichmann, M.E., Ehrhart, L.M., Walsh, M., Murru, F., Cutaneous fibropapillomas of green turtles (*Chelonia mydas*), *J. Comp. Pathol.* 101: 39-52) held six immature turtles with multiple cutaneous GTFP in captivity for several months. Some tumors on some animals decreased in size while others increased in some animals when examined 4 months after capture.

Ehrhart et al. maintained three green turtles with GTFP in captivity for approximately 3 months. During that time one animal lost several tumors, a second gained eight new tumors, and the third exhibited no changes. In these holding experiments, the length of time that the animals had the disease prior to capture is unknown. Field mark and recapture studies also indicate a variable clinical course. In these studies recapture rates are generally low and there is no control over the time interval between capture and recapture. For example, of 56 green turtles recaptured in the Indian River, 7% had tumors when first marked but had none at recapture, 14% contracted tumors between first capture and recapture, 38% had lesions both times, while 41% were free of lesions both times. These data, while limited in number, support the conclusions that the clinical course is prolonged and that some individuals may spontaneously recover from disease.

For the most part, tumours in the animals we observe grow worse from year to year. The condition of the turtle steadily decreases. The disease affects juvenile turtles far more profoundly than more mature animals. From the first signs of disease to complete emaciation can take as little as 24 months in youngsters.

We generally do not see adult to sub-adult tumour victims experiencing such an alarming rate of decline. Deterioration until the animal "disappears" is the norm, however.

Indian River studies indicate a regression rate of 7%. That is quite close to the percentage we have found at Honokowai. Of the 30 or so turtles resident to the area, visual evidence of tumours has disappeared completely in 3 turtles. Whether this apparent regression will remain permanent can be determined only by continued observation. Several other Honokowai turtles have shown either little worsening of the tumours, and in some cases there is actual shrinking. It is still too early to include these in regression reports, however.

Tutu [1990 Turtle 5]

BACAS KBH
BACAS
P. 120

32

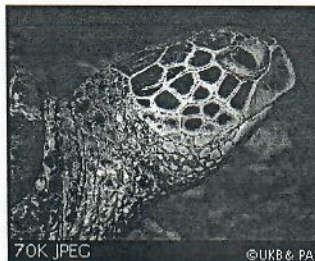


Above is our best example of regression in a free-ranging wild Hawaiian green sea turtle. She carries tags numbered U 521 and U 522. We have known her since 1990. Her name is Tutu, Hawaiian for "grandmother". This is a video image of her in 1990 when we first sighted her. A golfball-sized tumour is clearly visible over her right eye. She had a smaller tumour in her left eye and one growing on her right flipper close by her tag.



In 1991 Tutu nested, presumably at the French Frigate Shoals. Here she is in 1992. Although this is another low quality video image, you can see that her eye tumour seems to be improving.

We do not have a decent photo of her in 1993 or 1994. In 1994, we did not sight her until late August, when she showed up sporting shiny new tags. It was clear she'd returned from another nesting season. Her tumours were not evident in 1994 and we have video to confirm this, but the image is poor so we will spare you.



Instead, we offer this excellent shot of her in 1995. As far as we can tell from visual inspection, she has now been free of tumours for two years. So for Tutu, there is hope.

Estrelita [1992 Turtle 6]

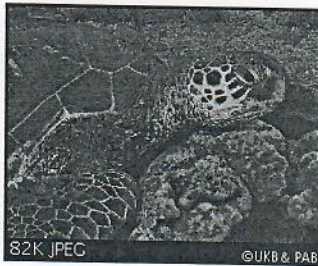


Here is our second example of regression. Estrelita seemed like a good name in 1992, when we first sighted this turtle. Estrelita was the sixth turtle we sighted that year.

We only have low quality video images of Estrelita from 1992, but as you can see, her right profile shows tumours beginning in her eye. Note the posterior tumour is larger, which is consistent with all double eye tumours in our Honokowai population. You can also see a small tumour beginning at the corner of the mouth.



We did not see Estrelita in 1993. In 1994, Estrelita was now a male! His growing tail meant we had a boy named Estrelita. This 1994 picture shows that his eyes were clearing, but tumours grew on his shoulders and armpits. It was cause for worry.

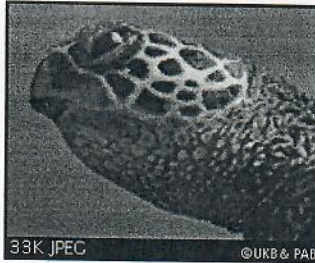


This is Estrelita in 1995. The tumours are gone. His eyes appear to be completely clear. Close

examination of this animal revealed only slight scarring where the tumours once were. Estrelita is the only other animal that seems to have undergone complete regression based upon visual inspection.

In 1996, Estrelita was seen only twice, both times for only a few moments. We did not see evidence of a return of his tumours, but Estrelita has suffered what is most likely a collision with a boat prop. For more information, see the Summer 1996 update of Estrelita's biography.

Goofyfoot [1992 Turtle 7]



The Summer of 1996 has allowed us to add another turtle to our meager list of turtles whose condition has improved. When we first met Goofyfoot in 1992, she sported small incipient tumours in the posterior of both her eyes, as you can see in this 1992 video image. This made her typical of so many other Honokowai turtles, whose first tumours appear invariably in this location.

By 1993, her eye tumours hadn't grown and even looked improved, but a few new small tumours now appeared on her left shoulder and flipper. Although these were no bigger than a medium grape in size, their appearance worried us.

By 1994 all her tumours had shrunken. You had to inspect closely just to see them.

1995 brought even more improvement, with the body tumours completely gone and eye tumours barely noticeable. What was noticeable--and remarkably so--was a shift in Goofyfoot's behaviour from a friendly, confident, tolerant turtle to one who could be described as irritable and assertive.

We also noticed in that year that Goofyfoot's tail appeared longer than in previous years. We began to suspect we had an emerging male on our hands.

1996 proved this to be correct. Goofyfoot showed on July 2nd sporting the long trailing tail of a male sea turtle and no evidence of the tumours he had in previous years. Goofyfoot had clearly prospered. While he was still relatively small in length as far as males go, he certainly had increased in girth.

Date: Sat, 04 Jul 1998 07:56:56 -1000
From: Ursula Keuper-Bennett <howzit@turtles.org>
To: "George H. Balazs" <gbalazs@honlab/hmfs.hawaii.edu>
Subject: Welcome back and U 521 is here

Reduce

Please add to your records that Tutu (U 521) (Honokowai resident since 1990) was sighted yesterday (July 3rd) at the back of reef 2 (Pikake House). The lady apologizes for not making the 25th Anniversary run and sends her very best aloha.

She said you'd understand.

This turns out to be terrific news. Tiamat has a comfort distance of about 2 meters. So to get that tag photo the other day I had to sneak up from behind on her. Thing is when she finally notices me, she gets up and moves elsewhere.

4 of 5

10/6/98 5:10 PM

Tutu isn't like that. I can get as close as I want. Yesterday would have made a TERRIFIC photo. Lying there with her right flipper sticking out and her two tags there clearly visible. Would have made a better photo than Tiamat's (which I sent off to Anne yesterday).

Will make Tutu a photo subject soon's Peter's well enough. Sick as a dog. Didn't dive yesterday (I went with Rob and his two sons) and likely can't today either.

I hope this year's Turtle Independence Day was really the best one ever for you.

Ursula Keuper-Bennett
Email: howzit@turtles.org
http://www.turtles.org

"Take me with you on this journey
Where the boundaries of time are now tossed
Find the answers, ask the questions..."

--Loreena McKennitt
the book of secrets



If you compare this image with the 1992 image above, you can see the remarkable difference in Goofyfoot's eye. We can now confidently add this young male to our list of regression cases and hope his good fortune will continue. He joins several animals whose condition improved while they made the transition to young male. Nui, Hilu, Estrelita and now Goofyfoot are all turtles whose tumours have improved during their puberty.

We don't know if this is significant. We are merely reporting it.



[Sickbay](#)



[Turtle Trax Home Page](#)

Last modified 97/01/25
Send comments or corrections to honu@turtles.org

Date: Sat, 11 Jul 1998 22:50:34 -1000
From: Ursula Kemper-Bennett <howzit@turtles.org>
To: "George H. Balazs" <gbalazs@honolab.nmfs.hawaii.edu>
Subject: Re: N36

Redue

Thought I couldn't touch her either.

I was afraid touching her when you couldn't might violate her. (Kind of the stressful feeling I have when someone does something disrespectful to the Titanic)

At first I only touched her left tire. But I remember after the Titanic researchers actually documented her so thoroughly and (as it turns out) so respectfully, that's what I tried to do with N36.

I knew the plane might not be there next year. But something amazing happened. After my second "tour" round her I found myself not thinking about WHO she is but how BEAUTIFUL she was. And then I just felt this joy that I still can't explain.

Got a goal now. Bought Harry a mousepad with my best photo of N36 for his computer. Shows her right side nose and has the words "N36 A Special DC3". I am sending him my photos and also our Turtle Trax tribute (which we dedicated to him) and am making it my goal to stay in touch with him.

I think it is selfish of me to hope he gets her to fly again. He just doesn't have the money. But maybe he will see the plane through our eyes and try to sell her to someone who might rebuild her instead of pulling her for parts. That is my new goal, George.

And speaking of parts. Those three parts I got from N36 --one of which I will send to you. If N36 finds an owner who will rebuild her those three parts are ours to keep.

Should N36 be sold for parts, we will have been unsuccessful.

We will send you the two parts we have and I request you relinquish yours as well and all three be sent to East Island (or Tern if you think that is more appropriate) and buried in FFS sand.

I am still haunted by the parts we have here. I am not all that sure I should have taken them....

All the best

P.S. Should N36 still be in Honolulu next year at this time, how about all three of us going to see her again? I think a photo with our three FFS jackets and her in the background would be closure for this 25th Anniversary.

At 12:17 PM 7/11/98 -1000, you wrote:
>I'm really happy to hear of your wonderful experience! It was fun and
>sentimental for me also. But I couldn't touch her. And I would never go
>inside.

Redue

Date: Sun, 12 Jul 1998 06:16:15 -1000
From: Ursula Kemper-Bennett <howzit@turtles.org>
To: "George H. Balazs" <gbalazs@honolab.nmfs.hawaii.edu>
Subject: Another Honokowai Tagged female sighted.

Aloha,

For your records, McTaggart (P 765) was resighted July 9th on our AM dive. This time around Honokowai, since March of '93 and you met her in 1994. Three out of four tagged Honokowai honu now accounted for. Only shredder A 849 86111 needs to "surface".

Enjoy your day.

Date: Fri, 22 Aug 1997 00:45:37 -1000
From: Ursula Keuper-Bennett <howzit@TURTLES.ORG>
Reply to: Sea Turtle Biology and Conservation <CTURTLE@lists.ufl.edu>
To: CTURTLE@LISTS.UFL.EDU
Subject: Re: Grappling with Ethics

*Reduce
new
MFM
Book*

Aloha Rose (and others interested in this thread),

You wrote regarding ethical questions:

>Science as you know tends to stay out of these areas,
>even fields such as conservation biology that have been criticized at
>times for being too subjective.

Yes, I know this and that's why I was surprised at the responses I've gotten as a result of my last two posts here.

Specifically, my problem deals with how strongly I have "bonded" to individual sea turtles --some I've known since 1990. In that respect I might have more in common with ethologists or even anthropologists (who've made longitudinal studies of subjects) than sea turtle researchers --and pondered directing my messages elsewhere.

But I got friends here and I think what I needed was friends. I know I have been obsessing on moral/ethical fibropapilloma issues and that is a first time for me. Before it has always been observe, learn, and observe some more.

This may sound outrageous if you are a scientist, but me, I figure I've learned all I need to about fibropapilloma. (Actually it sounds very conceited...)

But it's true.

I know George Balazs' description of it by heart. "The usual outcome for most affected turtles in Hawaii is debilitation over a protracted period, followed by death."

And I roll "protracted" around in my head and he sure summoned the PERFECT word.

The rest I learned from over 700 fibropapilloma dives here. Scientific papers use such phrasing as "appears to cause pain" and I bristle because I KNOW the disease does.

And for the first time ever I am not pondering on how the virus gets transmitted, why this site is a hotspot, why the young get chewed up the quickest and all my other whys --the stuff of science...

I just got a whole lot of "what now's?"

I appreciate your suggestions about philosophy especially the part about alleviating "suffering" because that's what's finally frayed the string on my yo yo.

Here's what gets me pure and simple. I encounter turtles here SO SICK that if they stranded and were brought to NMFS personnel they'd be euthanized. But because they are underwater and away from such merciful expertise, their suffering continues.

So they are still "functioning" of sorts if they haven't stranded yet.

SHAWK new 1/18/98

Date: 11/788 9:02 PM
Sender: gbalazs@honlab.nmfs.hawaii.edu
To: George Balazs
Priority: Normal
Subject: Two honu tag updates please (fwd)

* George H. Balazs, Leader
* Marine Turtle Research Program
* National Marine Fisheries Service
* Honolulu Laboratory
* 2570 Dole Street
* Honolulu, Hawaii 96822-2396 USA
* Tel: (808) 983-5733
* Fax: (808) 983-2902
* Email: gbalazs@honlab.nmfs.hawaii.edu

----- Forwarded message -----
Date: Sat, 07 Nov 1998 15:30:45 -0500
From: Ursula Keuper-Bennett <howzit@turtles.org>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Two honu tag updates please

For the Balazs/Jacobson MTN thing I went back through our 1993 tapes to grab the regressed tumour growing right through Tutu's innermost RFF tag 10562. Tag A 351 is to the right but has no tumour anywhere.

As you pointed out, tumours just naturally grow at the "armpit" location. Just curious if she received 10562 the same time as A 351 (I doubt that). Can tell you she had a tumour growing right through there back in 1990 and that'd make her our earliest tumour case (of a resighted animal).

Just wondering where and when she received her oldest tag is all.

Date: Sat, (23 Aug 1997) 01:19:12 +0200
From: peter@emulc.de
To: CURTLE@LISTS.UFL.EDU
Subject: Re: Grappling with Ethics

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

Dear Ursula...
I feel very strongly moved by your grappling as I have often been confronted with similarly tragic circumstances of creatures from the wild and domestic. As a veterinarian who frequently sees injured wild animals, pet owners requesting euthanasia for animals they bring in, a father who has lost his daughter, and a very close and devoted companion of animals who have succumbed to a variety of painfully debilitating diseases I know far too well what your grappling means. But does one ethically have the right to take the life of another? Or is it our moral responsibility to do so? I can not say.
To alleviate suffering would on the one hand seem to be a noble cause. But on the other hand, how can we ever know for sure (100%) if another life form is truly suffering and wishes euthanasia, without first communicating with it. Communication to such an extent is at present only possible with other human beings. Yet even if it were possible, what is to say that suffering is always to be abolished? What do we do with suffering humans with whom we can communicate? Where does one draw the line? Humans purposefully induce intense suffering on millions of animals every day (for experimental, medical, dietary, and even cosmetic causes). The sensory nervous system of these animals is just as well developed as that of the sea turtles. Have we only an obligation to a few turtles?

Furthermore, though death is a very final thing for the individual involved, one needs also to keep the entire population in mind. Will lots of the sick individual enhance (for instance by removing an infectious source) or impede (for instance decrease in reproductive potential) the survival of the whole population. This should also play a qualified and obligated role in the decision making process. If one feels a problem has always been, I usually do not feel that I am "qualified" enough or even have the right to make the decision to take another life... at least not as easily as some animal "owners" would wish. I know (unlike some fellow scientists) that I can never re-create what nature manages so easily. When in doubt, in the realm of nature, let the nature re-claim what she has given, how and when she is ready to take it back. I'd say our first responsibility lies in fixing the environmental damage and endless suffering which we humans have and continue to create, and preventing the rapidly deteriorating conditions from getting ever worse. This starts with simple things such as diet (not just shrimp), transportation and consumer goods. This should be the first responsibility for any human being.

Peter Zimmer (Tierarzt)
Institut für Tierneurologie
Tierärztliche Tierneuropathologie
Universitätsklinik München, Germany
Institut für Tierneurologie
Universitätsklinik Bern, Switzerland

Certainly your ESA makes it easy for me. Section 403B --it is illegal to kill, harm, harass, buy, kerfuffle... Heck a while back Peter and I wrote all 50 US senators when Bill S768 (that would weaken the ESA) was coming up the tubes. We even carry a photocopy (reduced to size) of 403B around in our wallets permanently --THAT is how much we believe in it.
But 403B does zero for my protracted purple funk.

There are three major influences that guide my conduct underwater with the community of sea turtles we dive with.

One: Section 403B
Two: Everything George Balazs ever sent my way --which can be translated into one neat sentence. It is a PRIVILEGE to dive with Hawaii's sea turtles so conduct yourself accordingly.

Three: The most important thing I ever read from Dr. Jane Goodall. She wrote "I believe the greatest human sin to be cruelty." She went on to explain that cruelty can be something you do to create suffering but also by not acting to alleviate suffering.

Rose, I see PLENTY of suffering but One: because it is your law and Two: I got caught too well, I am stuck on Three.

You are not supposed to judge another until you have walked a mile in his shoes. I recognize that this is what is happening to me here. I am experiencing the moral issues scientists routinely face. I fully appreciate how some like Goodall and Galdikas stopped active research to devote full time to being advocates for their subjects.

And me, I am not required to make decisions that ultimately affect entire populations like people right here on CURTLE do. But I just got a glimpse of the burden moral dilemmas place on them.

I am lucky and grateful to the people who responded to me and helped me out because you really did... mostly in the form of "have you considered this'es".

But one comment was dead on and sent up by someone who's clearly been there. He wrote: "What you are being confronted with is yourself."

And so Rose, I figured something out while I was typing this. Your statement: >Science as you know tends to stay out of these areas,

>seven fields such as conservation biology that have been criticized at >times for being too subjective.

I just concluded Science stays out of these areas because the scientists already know that when they tippy-toe on such landmines what they are being confronted with is themselves...

Thank you again for your help --all who wrote.

^
0 0
/N/ Turtle Trax ^V^
Ursula Keuper-Bennett
Email: howzit@turtles.org
http://www.turtles.org

Date: Sat, 23 Aug 1997 10:18:16 -1000
From: Ursula Keuter-Bennett <howzit@TURTLES.ORG>
Reply To: Sea Turtle Biology and Conservation <CTURTLE@lists.ufl.edu>
To: CTURTLE@LISTS.UFL.EDU
Subject: Re: Grappling with Ethics - the resolution

To: Dr. Zimmer and others following this thread
Dr. Zimmer, you did it. You sent me the key and I now have the answer. The emotion I'd been feeling for much of the summer has been so bad I let our underwater documentation slide (I am embarrassed to the extent), left Peter to take on 100% responsibility for the weekly updates to Turtle Trax and been a rather morose companion him as well.
I knew, regarding moral questions that lots of people face such issues frequently. But you know something? I bet I am one of very few who posed a question and got the answer. (and relief) in just 5 days. Had I posted to CTURTLE back in late July my summer would have been a happier one.
I had a five week old toothache and it took me far too long to get to the dentist.

(I wonder how many others recognized the powerful and elegant answer in your message...)
The revelation you provided is as exciting for me as if I found the sea turtles here playing backgammon and smoking cigars on today's dive. You did this by moving me in and out, from macro images: "Have we only an obligation to a few FP turtles?"
to wide angle: "Furthermore, though death is a very final thing for the individual involved, one needs also to keep the entire population in mind."
to life, the universe and everything: "I'd say our first responsibility lies in fixing the environmental damage and endless suffering which we humans have and continue to create."

It's like when you are navigating the Internet...by fiddling with the URL you easily move around. You can strip it back, expand, and if you suspect a pattern tweak it... and you moving me close and far, in and out made me realize something about this crippling dilemma I (and certainly others) face.
In my last message I wrote:

"There are three major influences that guide my conduct underwater with the community of sea turtles we dive with.
"One: Section 403B
"Two: Info
"Three: The most important thing I ever read from Dr. Jane Goodall. She wrote
"I believe the greatest human sin to be cruelty." She went on to explain that cruelty can be something you do to create suffering but also by not acting to alleviate suffering.

>Rose, I see PLENTY of suffering but One: because it is your law and Two: I >got taught too well, I am stuck on Three.
Here goes...

Section 403B deals with threatened and endangered species (too limiting) plus it is a law (laws require enforcement and what we have here is a moral thing). Dump One: off the guide list.

That leaves Two: and Three:
and it is Three: that has the glaring flaw (glaring now in light of your message to me). I read carefully Dr. Goodall's words on cruelty/suffering but I also read yours:

>But does one ethically have the right to take the life of another? Or is it >our moral responsibility to do so? I can not say.
and then later:

>When in doubt, in the realm of nature, let mother nature re-claim what she >has given, now and when she is ready to take it back.
It proved to me even someone with your experience and compassion "can not say" and that means if you don't act to alleviate suffering that doesn't mean you are cruel. It just means you can not say --you are in doubt. There is no shame in that and come to think of it almost certainly is a good thing because people who are 100% sure are scary packages.
And you have no idea how I felt when I figured this out...and with your message it was REALLY easy! It's always easy when you have the key...thanks for sending it to me.

And I just realized something simplistic and elegant. I can eliminate Three as well from my guide of conduct. All anybody ever needs is TWO: "It is a PRIVILEGE to dive with Hawaii's sea turtles so conduct yourself accordingly."

Only something remarkable happened when I was just left this one. You can tell it is the right one and a truth because you can tweak and fiddle with it all you want but only a truth will expand as you strip it back! Check this out!

Strip back all the way to just one word. PRIVILEGE. A splendid perfect word (and you'll find this really exciting), take it fully in your head and examine it from all angles --the feel and substance of that word.

But here's the amazing part. Turn it 'round and look at the back.
Cool eh? Got to wonder how those extra letters fit there but they do...
RESPONSIBILITY

If you grab onto PRIVILEGE you got RESPONSIBILITY and that's what I meant about stripping back and you got expansion --the Big Picture that you most certainly have.

And there's closure in all this. All you need is sincere appreciation of the word "PRIVILEGE". You got it and you will not kill, harm, harass, bug, or frighten others who share the planet and that makes you incapable

of cruelty even when you can't act on something because aren't sure. The only thing you ever need to be sure about is the word "PRIVILEGE".

Dr. Zimmer, you wrote:
>I know (unlike some fellow scientists) that I can never re-create what nature manages so easily.

Yessir...and speaking of scientists I study them too... I've read Louis Leakey, Richard Leakey, Goodall, Fossey, Galldikas, Archie Carr, I am now working on Carl Sagan.

Whether you work on the sub-atomic level or extend your brains to the limits of the cosmos it is a PRIVILEGE to be a scientist "so conduct yourself accordingly."

'Course sir, you already knew that.

Your words have had extraordinary impact on me. It is only fitting that I close this message with the words of two scientists who knew full well what a PRIVILEGE it was for them to work with their subjects and their legacy makes it clear that they also dedicated themselves to RESPONSIBILITY.

Thank you again Dr. Zimmer and aloha nui loa

Urnsula Keuper-Bennett
Email: howzit@turtles.org
http://www.turtles.org

"If only we could overcome cruelty with compassion we should be well on the way to creating a new and boundless ethic -- one that would respect all living things."

--Dr. Jane Goodall

"For most of the wild things on earth the future must depend upon the conscience of mankind." -- Dr. Archie Carr

Reduce Noise
& Pollution

Date: Tue 01 Sep 1998 10:46:59 -1000
From: Ursula Keuper-Bennett <howzit@turtles.org>
To: "George H. Balazs" <gbalazs@honolab.nmfs.hawaii.edu>
Subject: Important stuff we learned this summer

OK. First off I am typing this from memory so think of this as a snapshot and not a complete picture. I just need to toss this to you --you know how I LOVE planes!

One: Corals here are recovering nicely and some areas are showing impressive growth. 22 regression cases (should be more once we go back to earlier years) and very few serious FP cases might be a reflection of improved conditions or we had a lot of dying the last few years (the latter you pointed out in a recent paper!)

Two: There isn't as much cleaning activity at the Turtle House any more. Not the same "posturing" as in the old days. Overwhelmingly most FP cases are light --unnoticeable from a distance.

New FP cases for 1998 include Kaula (known since 1989), Hoa (known since 1997).

Kaula is the turtle we've known the longest now. Why did it take him so much longer to contract a light "dusting" and Polzbarney (a youngster known since 1995) started showing first FP in '97 --just two years after first sighting? (I don't expect an answer) *you were susceptible*

Three: During the last week we noticed a surprising number of turtle shells just to the north of the Turtle House. Next summer's top priority will be to locate this place and see if it is another Turtle House developing or a resting site like Reef2 is.

Either way we think it is new.

Four: The honu seem to be spreading out over Reef2, the Turtle House and possibly this place to the North. Why?

Five: What makes a turtle (Ho'oulu aka Gotcha) who's shown at the Turtle House for years (and last summer practically every single day) not be sighted ONCE there this year? Always sighted at Reef2 near battery in '98. Why? *TO FP Cost*

As in other years the youngsters seem to get nailed the worst by FP. No regression case is a little guy yet.

Last:

There is no turtle resting regularly in a ledge or puka that does not have one jactator living alongside. Under the ledge where you grabbed Polzbarney are three resident jactators! Honokowai bottom is LITTERED with jactators. Even little Makana has her own jactator.

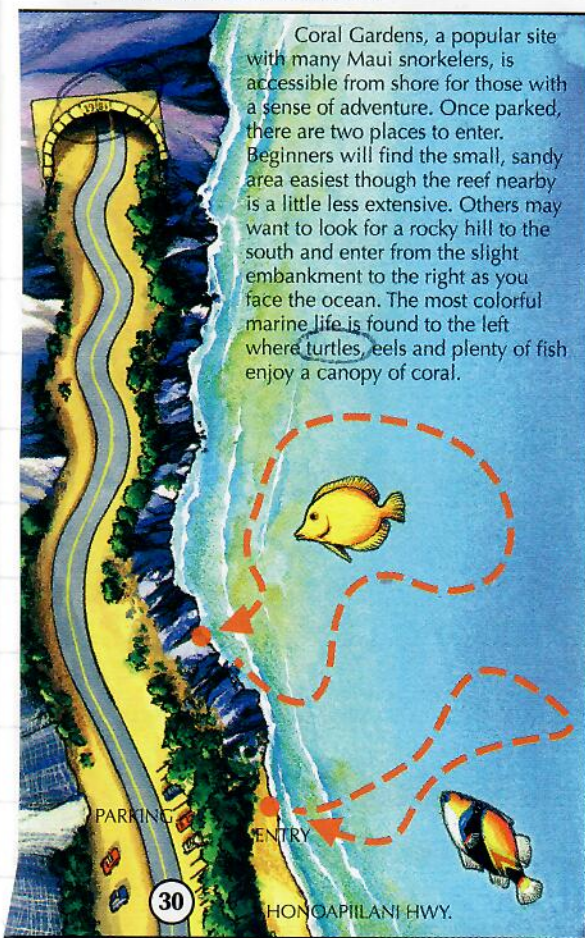
Cute as they are I don't trust the buggers and their role in FP... That's it.

no fish? Aquarium collect fish

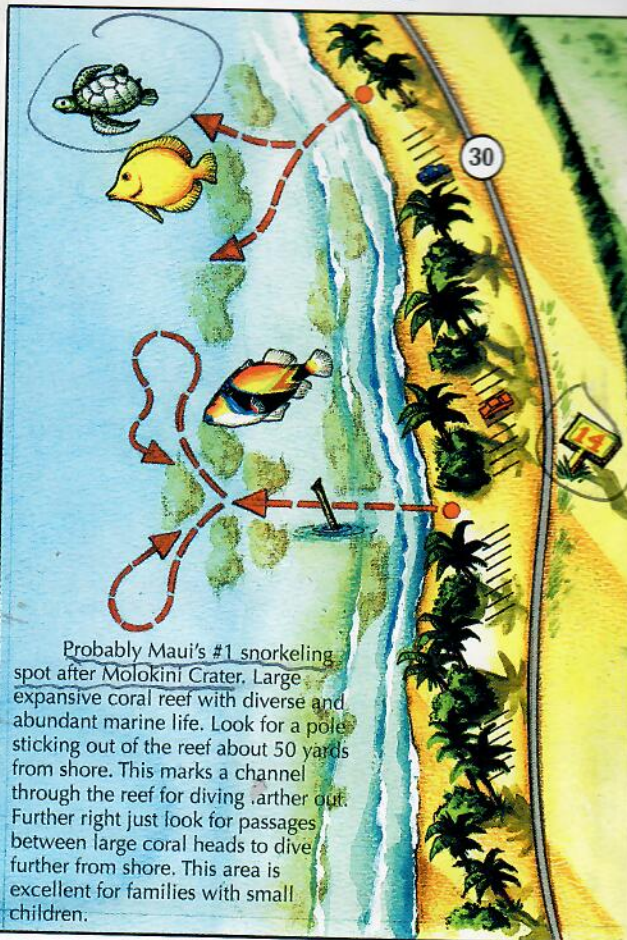
5/11/7

#9 CORAL GARDENS

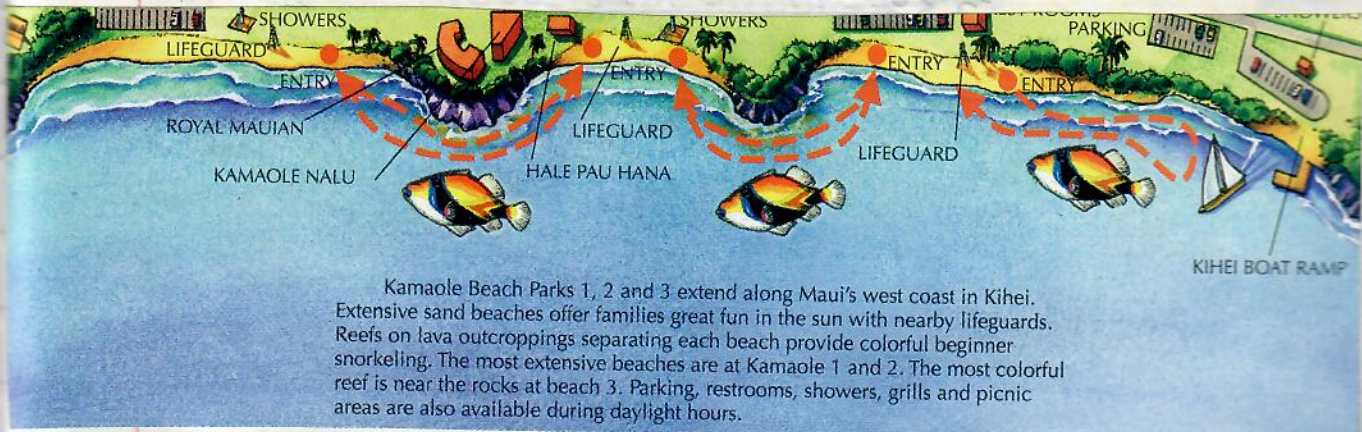
Coral Gardens, a popular site with many Maui snorkelers, is accessible from shore for those with a sense of adventure. Once parked, there are two places to enter. Beginners will find the small, sandy area easiest though the reef nearby is a little less extensive. Others may want to look for a rocky hill to the south and enter from the slight embankment to the right as you face the ocean. The most colorful marine life is found to the left where turtles, eels and plenty of fish enjoy a canopy of coral.



#8 OLOWALU



Probably Maui's #1 snorkeling spot after Molokini Crater. Large expansive coral reef with diverse and abundant marine life. Look for a pole sticking out of the reef about 50 yards from shore. This marks a channel through the reef for diving farther out. Further right just look for passages between large coral heads to dive further from shore. This area is excellent for families with small children.



Kamaole Beach Parks 1, 2 and 3 extend along Maui's west coast in Kihei. Extensive sand beaches offer families great fun in the sun with nearby lifeguards. Reefs on lava outcroppings separating each beach provide colorful beginner snorkeling. The most extensive beaches are at Kamaole 1 and 2. The most colorful reef is near the rocks at beach 3. Parking, restrooms, showers, grills and picnic areas are also available during daylight hours.

JANUARY 99

Tues. wed. Thurs. Friday Saturday

Day	19	20	21	22	23
Rise (R)	7:11am	7:11am	7:11am	7:11am	7:11am
Set (S)	6:13pm	6:14pm	6:14pm	6:15pm	6:16pm
NOON	NOON	NOON	NOON	NOON	NOON
Low (L)	12:33 AM	11:58 AM	11:47 AM	12:47 AM	1:23 AM
High (H)	2:27 PM	6:04 AM	6:42 AM	7:24 AM	8:11 AM
Low (L)	10:58 AM	11:47 AM	1:49 PM	2:31 PM	3:15 PM
High (H)	5:42 AM	6:38 AM	7:43 AM	8:10 AM	8:16 AM

Scuba
MAVA
Waher
4800
Tibook
WAVEC
Diver
for fish
Hawaii
350pm
WA.

Kahuli
Video

Power point
Kahuli
see
power point
discharge
observed

Kahuli
Nokomani
check-in
Arrive

#15 MAKENA LANDING FIVE CAES

WAILEA ALANUI

MAKENA SURE

OLD MAKENA RD

MAKENA BAR

RESTROOM/SHOWERS

PARKING LOT

GRAVE SITE

ENTRY #1

ENTRY #2

sightings of?

Entry #1 is for the more experienced diver. You'll find this area exciting. Entry in front of the grave site area is rocky lava. However, once offshore the area is riddled with caves and coral heads. Turtles are plentiful in this region.

Entry #2-Park at the parking next to showers and restrooms. For the beginner we recommend you enter the small sandy beach area to the right.

Hono Kōwai, MAUI

(43)

1-19-99 Depart 7:25 AM Hana
Tuesday (Makana Coupon) w/ Dennis, met
for Jill Zinzow in Kahului
National Van Rental, to W. MAUI 8:45 AM.

OBJECTIVES: 1) Video as many turtles as possible
and Score TRM for prevalence/severity.

2) Collect SKIN biopsies a) formalin b) alcohol for DNA
c) frozen for virus PCR

NO
TRIP

3) Jill Dealer fish - frozen for guts - me for virus.

4) Dinoflagellate Samples - (not done)

5) Status of Potts Barney TRMS etc.

6) 4800 view and examine transmitter Geopie

7) Kahuku Power Plant

800
32 to 288
ATT

(AA)

TIED
Blue
Polyprop
above.

1230pm

Replaced

Removed

47'

Tues 122323

(181186) 30min

(0498)
ONE HOUR

Turtle
at House

1-19-99

(181194)

Reef 2-30'

Blue Poly

DIVE I

Honokowai

START ~ 12NOON

47^{max} 50min

Tues 2-3ft swell snorkeled gap

found "Turtle House" at 1229 PM.

- one turtle ^{medium} swam right up ^{THREE RINGS} ^{Left + Right}

- one in sideway - right facing out ^{TO PRESENT}
^{Tumor on eye.}

- heavily tumor'd arm-pits posturing - ^{many} surgeon

- Also turtle on top of house - being cleaned

- Menpachi school.

- #498 data logger tied to "keyhole" top of

- Turtle House. Removed old replaced
w/ #18186 in PVC

^{Turtle House}
Dense Saw 7 turtles (didn't count med ones)

I saw 5, 4 tumors. 1-#3^{TS}, 3 #2^{TS}5

- Swam to Reef #1, 2-

Saw left ^{med.} eye #3 tumor covering - being cleaned
photos w/ Nikonos ASA 200

Maybe 5 others seen - all large. Logger 18119-

(hour) Put at 30' depth - under ^{dead} coral pieces.
Blue Polyprop tied above TO LEFT.

1-19-99 AT Ledge on Right when going out, turtle med. right shoulder ^{MR} under ledge. Poltz Barney? It swam out and off. But was there (same one?) when we came back in.

Saw small tumor-free turtle Makana under ledge where it was present in August.

1-19-99 GHB Picked up MARC 6:15 am HAWAII AIRPORT MARC 7-7:30 pm still

ipahului	53	36	<u>Some light still in sky</u> per minute heads up viewed
Power	32	42	
RAWT	45	41	

Chili Mac freeze dryer

1/22/99 Also saw heads commonly up and down view

1-20-99 wed. 6:45 am - 7 am overcast viewed = front of Noho NANI - heads seen Front, South & North parking lot Kanikana Hotel (Pohaku Park)

viewed = no heads seen 7:15 am on the way to Mac Donald for breakfast

GHB, DNE, MR & JZ out on Dive 1 wed. 1/20/99 8:30 am. Goal to search for Zevs' ^{log near here} cave near Pitake House to relieve ^{Chrom logging} crust loggers put out in August. Not found. Saw numerous turtles on bottom in

(A6)
120-99
Wed

Objectives: 1. All video cleaning behavior VHF
2. collect crasses (for gut contents)

^{Tail} ^{March} ^{THIS} ^{just} ^{breaks} ^{from} ^{smooth} ^{me} ^{key} ^{compress}
Poutas Lobata. MARC videoed turtle
for same time as it fed on coral
(limestone) chunks on bottom with
Agaricia on it. "Willowing the wheat"
Chunk collected & sampled (formalin for ID
Dennis Russell).

Found Reef 2 data logger deployed ^{30'} ^{yes} 1/19/99
Video by Marc. I placed a yellow polyprop
to go with blue poly yesterday. A
turtle resting ^{carries} crater next to this one
has an aluminum tag with "3" "B"
electrical tie wrapped to P. lobata.

"TEC's"
Turtle
Resting
Cavity
Habitually
used
Habitat
HUTH

on way in, we checked "boltzberg"
ledge - a turtle there. We
captured it and brought to
apartment for data/sample collection.
WIND 5-10MPH → 10-15MPH Trades

1/20/99 Dive 2 - Goal - to turtle house
out ^{to see} "The Rock" - plaque

1230pm 2-3 ft swell as "wall" occasional see
Look at PB ledge - "60" up in the
resting. * on the way in
at end of dive.


Dive 2 49' 64 min
1230pm - 2:00pm
TATTOO SHOP

Need - Restrain Turtle
w/ skin pens - Surface
and sample tanks.
① Auto immune from fishes eating tumors?
② Physical reduction of tumors by being
"eaten" - excised.

47

1/20/99 Located "The Rock" iron debris
nearby - ^{Smooth BASALT ROCKS} Extensive cleaning on tumored
turtle by Marc and Jill - Longnose
butterfly and Millet seed butterfly
pecking at a tumor.

MARC Located 25th Anniversary plaque GNB
video by Marc of me. Chaired arm to
Iron rod debris.

Deployed DATA logger # 1 hour logging
under The Rock near "coat hanger"
IRON  Blue polyprop
above.

Heed a heavily tumored turtle while
Marc videoed (close of chigger skin burrows
around base of a front flipper).

49' MAX 64 min down time
END of Dive 2 PM.

Noho Pani
669558/RM105

9-930PM 1-20-99

take up
P.P.

(A8)

11/20/99
Power plant
one count SE

54	38
44	52

Counts per minute
of heads seen

- 1 Blue Flipper tag
- 1 metal tag
- print photos

Max and I swam through warm water of power plant - 5-6 white HP 4-5' slabs, "choke turtles" were with tyros, but only a few with large numbers through. When we first went into water, we turned turtle encounter. Digital video. The discharge by wooden steps, and are to left,

of 6AM

Randy Miller

(4)

1/21/99 MAZA Wharf Dive
from Chart house gravel

out ~ 845
roadside

40' for 35 minutes
Sand smooth bottom
Parasail wreck platform

Copper #323
1 hour
up Wilson
wreck wedged in
foam - coral
covers it.
street

ID =
"MW"

12 turtles seen - all large
one ~ 50cm SCL hand captured
Shippy Hau, MR, JME, JZ, Randy Miller formal

2 cleaning stations of Hyatt. per Randy Miller

People
staying
at
Nohonani

George Crockett
1266 McKusick Rd LN N
Stillwater, MN 55082

Sent
Children's
Picture
2 girls

Angela Tyler 1/21/99
Nohonani
3723 L. Honoapiilani #205
Lahaina, Hi. 96761
AATyler@aol.com
808 665-0046

Barbara
Holtzner

emailed
Leah
1/24/99

(50)

approx 1pm - 230pm

S. HAU GB, JZ MR,
DME

DME 2 HONOKOWAI

1/21/99

40 MIN 45 FT.

MARC, DME & JZ. ~~Shelly~~ hauls
S. HAU captured PB under
12-230pm

Put in bath tub in carport, depart
on scuba - to Turtle House
heading - follow long narrow reef
out and out - then to right.
~~We~~ went to The Rock first, Shiff
attempted spearing fish, but more to
note - ^{no} algae cover anywhere. EXCEPT
H. musciformis small bundle w/ ~~sides~~
cans on sand bottom shore side
of Mahara resting ledge.

MALA

1/22/99 11:15am WHAEF4800 Scuba 30min 40

Friday Randy Miller, me M.R.

Loan him my Garmin 1200 GPS - instruction book,

twice 4800 yst seen - perhaps 8 others for
(EXCEPT one juvenile maybe one sampled 1/21 am for SKIN)

all adults or near adults seen laying in
and around iron debris site. Polyurethane
foam present. all Sand bottom.

Estimate 50% turtles had some level of tumors
But need to view Marc's video for better estimate.

None TS=3. worst has #3 Right neck,

When we arrived a metal tagged hind flipper turtle
adult - seen leaving (on Marc's video) - reported to
be a male. Randy took stroke photos of me
Nikonos 20mm lens with turtles

examining for barnacles on skin surfaces.

X → I noted nicks in skin - front shoulders
yellow/white scabbing - breaks in skin due to
fish biting, or? NO sign of skin barnacles
present, or having been present, at these
sites.

Back to shore, returned scuba tanks
to Pacific Dive store (Dickerson Street).

to leeward on sand bottom
on way out to wreck 4800 site.

Need to send

(52)

* need

"A SEA OF TURTLES"

Friday

need - grab photo of Marc's ^{own} digital video of PP discharge

1/22/99 Back to NOHONANI, packed and departed to Kahului. TO Power Plant - Digital

photos. Prints also of PP sign. ~ 2:45 PM

Bright Sun but very windy.

* need - call PP to see about warm water discharge by wooden steps.

AT least 4 turtles seen - one obviously had a tumor (neck?).

3:50 PM depart Hawaiian Air
TO Honolulu.

Longnose Butterflyfish

The Waikiki Aquarium adopted this distinctive fish for its logo because it represents the common appreciation of marine life shared by both Hawaiian and European naturalists.

Both cultures carefully observed this colorful fish and gave it vividly descriptive names. The Hawaiian name draws on analogy and translates as "the yellowed leaf of the wili-wili tree with a prominent snout that is very sharp."

The longnose butterflyfish bears the distinction of being the first Hawaiian marine organism to be collected and named by European scientists. It was collected on Capt. James Cook's third voyage aboard the *Resolution* (1776-1780). The scientific name translates as "forceps-bearing fish with the long rostrum."

But what is commonly referred to as the longnose butterflyfish in Hawai'i is actually two species: the longnose butterflyfish (*Forcipiger longirostris*) and the forcepsfish (*F. flavissimus*). The jaw of the longnose butterflyfish is approximately one-third longer than its relative's.

Both species probe coral branches and reef crevices for small invertebrate prey, but differences in their mouth and teeth indicate different feeding methods. The longnose butterflyfish takes its small prey in one piece, while the forcepsfish tears off pieces of larger prey, taking items such as the tentacles of worms or the tube feet of sea urchins.

On the Kona Coast of the Big Island, snorkelers and divers may observe a dark color morph of the longnose butterflyfish. The all-over black or brown coloration may not be permanent. Apparently the fish can gradually change from its normal yellow color to its dark morph and possibly back again.

The function of the dark morph is unknown. Some researchers suggest it might be better camouflage around the dark basalt rocks of the Big Island's coasts. However, there is yet no experimental evidence to support this idea. Attempts to exhibit the dark morph have been frustrated because, once in captivity, these fish revert to their yellow color scheme.

The longnose butterflyfish has an Indo-Pacific distribution. In Hawai'i, it is largely limited to the southern end of the island chain and is seen mostly around the Big Island and Maui. Its habitat is the deeper waters outside the reef.

You can appreciate this beautiful fish when you visit the Aquarium's Young Reefs: Kona Coast exhibit in Gallery 2, Hawaiian Marine Communities.

The forcepsfish is found throughout the Hawaiian Archipelago and the Pacific and is seen primarily at shallower depths.

A forceps butterflyfish can be seen in the Edge of the Reef exhibit. For more information on longnose butterflyfishes or other butterflyfishes, contact the Education Department (923-9741) to request a Marine Life Profile.

*mount
Jill - which?
species
- about*

54

George Balazs
N.O.A.A.
NMFS
2570 Dole Street
Honolulu, HI 96822-2396
(808) 983-5300

Jan,9, 1999

Randy Miller
P.O. Box 12921
Lahaina, Maui, HI 96761
(808) 661-8054
E-mail: millermermaid@compuserve.com

Re: #4800

Aloha George , enclosed are some prints of #4800 I shot at Mala wharf road street.
She has been there consistently since Nov, 28. I am looking forward to meeting you
and showing you the spot where #4800 is staying. I also have some slides of #4800
you need them.

Aloha and keep me posted when you would like to go diving.

Randy Miller.

Date: Wed, 28 Jul 1999 16:15:27 -0400
From: RANDY MILLER <millmermaid@compuserve.com>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Re: 4800

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

Aloha George
Yes I will be around in August.
Mark Ferrari spotted a turtle with a transmitter on her back at the turtle
condos on April 23 in late afternoon. I assume that was #4800.

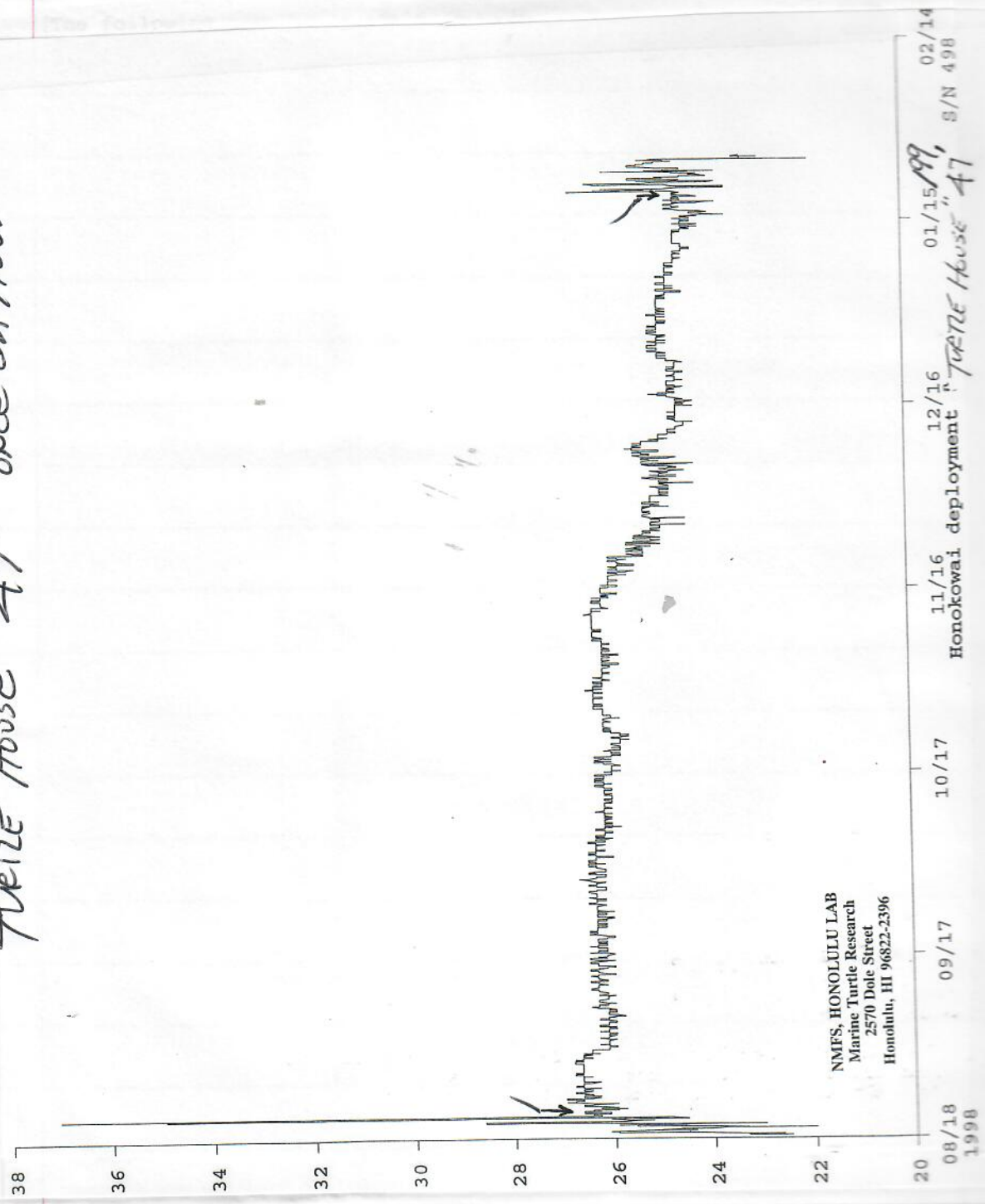
The last report of #4800 was on July 3 by one of the men that lives on his
boat at mala, I will double check that date, and keep looking!!

I would be happy to retrieve the temp tracker and mail it to you if you
would like?

You may want a good excuse to come to Maui! Let me know if you are coming.

I saw Ursula Bennett last week she had some good photos of a Halk's Bill
turtle.

TURTLE HOUSE 47' once on floor



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

08/18 1998
 09/17
 10/17
 11/16 Honokowai deployment "TURTLE HOUSE" 47'
 12/16
 01/15/99
 02/14 S/N 498

56
Date: Tue, 26 Jan 1999 04:22:49 -0500
From: "RANDY. MILLER" <millermermaid@compuserve.com>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Aloha George

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

Aloha George and crew
Thank you for all the info and insight on turtles etc. I have a new way
of observing turtles now!
I went to the turtle condos today monday, no sign of #4800? I hope my
diving there hasn't scared her off! The rest of the turtles seem to be very
tollarrant and curious.
The GPS reading is N 20o 53.534 for the turtle condos.
W156o 41.325

I have been taking with a lady by the name of Cat, she had met or worked
with you somewhere before.
she shoots uw video on a regular basis. Cat has observed some interesting
things behaviours with turtle. I gave her your e mail address, I hope her
info is helpfull.

I have some good photos of you and the turtles, I will send them soon.

Date: Thu, 28 Jan 1999 13:37:07 -1000 (HST)
From: Denise Ellis <dellis@honlab.nmfs.hawaii.edu>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: GPS for Lahaina Chart House

FYI-
20 deg 53.592 min North
156 deg 41.141 min West

Date: Tue, 19 Jan 1999 13:46:42 -0500
From: "RANDY. MILLER" <millermermaid@compuserve.com>
To: GEORGE BALAZS <gbalazs@honlab.nmfs.hawaii.edu>
Subject: #4800 SAYS HI

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

Aloha George,

Thank you for the info, I will be watching for cleaning stations and wrasses! I never paid attention before, I just assumed that turtles got cleaned too.

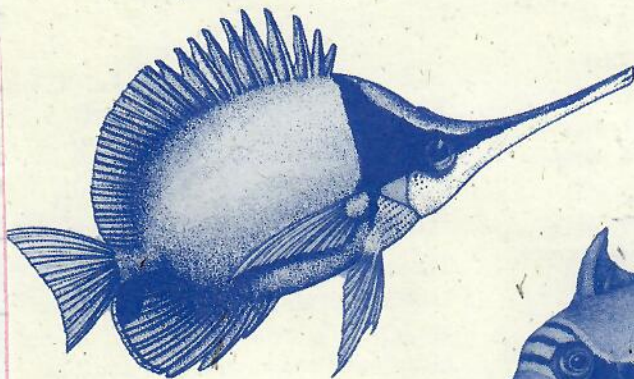
I visited #4800 on Sat16,99 she is doing fine and said to tell you hello.

I am looking forward to meeting you, let me know when your plans firm up. I would like to take you diving, and possibly join you on some of your other adventures.

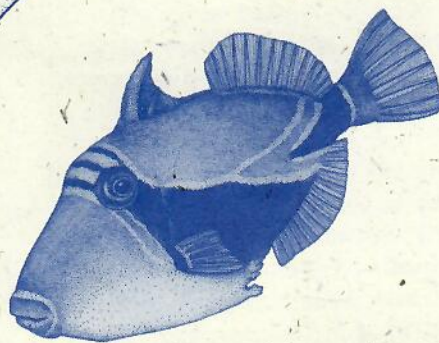
Did you receive the photos of #4800 ok?

Aloha for now
Randy

Which fish has the longest Hawaiian name? The *lau wiliwili nukunuku 'oi 'oi* of course! (23 letters)



My name's longer!



Doesn't bother me!

But the *humuhumu nukunuku ā pua'a* is close - (21 letters).

Date: Mon, 5 Jun 2000 04:41:39 -0400
From: Randy Miller <millermermaid@compuserve.com>
To: GEORGE BALAZS <gbalazs@honlab.nmfs.hawaii.edu>
Subject: #4800

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

Aloha George,
I received a credible report of #4800 sighted off of Mala warf area!!!!
Friday or Saturday. Your temp tracker washed out of its hiding place, wed I
will go hide it back in the foam again.
I trust all is well with you.

Aloha and God Bless

58

Date: Mon, 25 Jan 1999 08:38:02 -1000 (HST)
From: Shawn Murakawa <smurakaw@honlab.nmfs.hawaii.edu>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: SB from Maui turtles

9-17-93, Calvin Ah Loy (DOCARE) via Brooks Tamaye (DLNR-Maui), Baldwin Beach Park, Maui. No tumors. Small patch of SB + normal skin in 10% formalin sent to Dr. Cooke.

These are two other turtles that we collected SB:

4-30-93, Brooks Tamaye (DLNR-Maui), Kahului Bay, Maui. No tumors, shark attack. Tags 8468, 8470, 8471. SB in 10% formalin saved.

10-6-93, Stanley Okamoto (DOCARE-Maui) via Skippy Hau (DLNR-Maui), Baldwin Park (Paia), Maui. Tumors-3. Dense barnacle patch from ventral RHF saved.

----- forwarded message

Date: Sat, 13 Mar 1999 20:04:28 -0500
From: Ursula Keuper-Bennett <howzit@turtles.org>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Report on Marc's Honokowai videotape

Plenty of honu but only 100% certain ID's counted.

13 left profiles (13 individuals)

10 have/had FP (77%) Other three Undetermined since only partial views

8 of 13 are resights (62%)
2 are juveniles (15%)

4 of 10 FP'd honu are regression cases (40%). They include Raphael, 93#2 94#21 and 94#30.

Rather consistent with overall population as related in our paper.

Date: Tue, 27 Apr 1999 17:36:09 -0400
From: RANDY MILLER <millermermaid@compuserve.com>
To: GEORGE BALAZS <gbalazs@honolab.nmfs.hawaii.edu>
Subject: #4800

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

Aloha George
I have been to the condos 3 or 4 times since you were here, with no sightings of #4800.

Mark Ferrari was there on Friday 23 in the late afternoon and spotted a turtle with a transmitter, I assume it is #4800. I am glad to hear she is still around the area!
In the morning of the same day I was diving out there, and met a large female that was very curious and hung around us as we did a dive, actually came in close (1or2 feet) away to check us out, she had two large barnacles on her bottom shell.

Your temp tracker is still in place, most of the cover rocks are gone but is secure.

In May I can begin kyaking again and spend more time at the condos, I can also check with Jonny that lives on a boat in the area to see how often he sees her.

Date: Mon, 15 Mar 1999 08:26:43 -1000
From: losey <losey@zoology.hawaii.edu>
To: gbalazs@honolab.nmfs.hawaii.edu
Cc: Jill Zamzow <zamzow@hawaii.edu>
Subject: promises

Date: Thu, 10 Jun 1999 18:42:45 -0400
From: RANDY MILLER <millermermaid@compuserve.com>
To: GEORGE BALAZS <gbalazs@honolab.nmfs.hawaii.edu>
Subject: aloha

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

aloha George
last sighting of 4800 was last month,
i will let you know if i hear any new news

George:

Jill just gave me the flurry of emails. Since you have made promises to Ursula and since she wants to protect the exclusivity of both the science and the Honokawai site, my group will have no further interaction involving this site. Any data that results from dives and videos made prior to this time will, if we see fit, be used in any scientific publication or presentation that we produce. We will, as is always our custom, give proper reference to persons who supplied materials and information. In reference to interspecific learning with the Honokowai longnose, Ursula need not worry: we did not have and will not have, any intention of publishing on this.

60

Date: Mon, 26 Apr 1999 14:28:05 -1000
From: Deborah deBord <dive@maui.net>
To: 'George Balazs' <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Maui Turtles

Hi George,

Long time no email...

As I was sitting here logging a dive, it occurred to me that I should give you a little update on some turtle stuff. Over the last few months, I've noticed an unusual number of small turtles on several of the reefs I dive. These are some of the smallest turtles I've ever seen in the wild. I haven't been able to measure one, but I'd guess around 18". Not that they're tiny, but they're very much smaller than most of the turtles we usually see in this area. I'm hoping that means this new "litter" will be around for a long time.

It seems that these might be a good source of information for you, since you'd know when they first came to these reefs. If you could get them tagged now, they sure have a lot of growing to do, and none of them have tumors...yet.

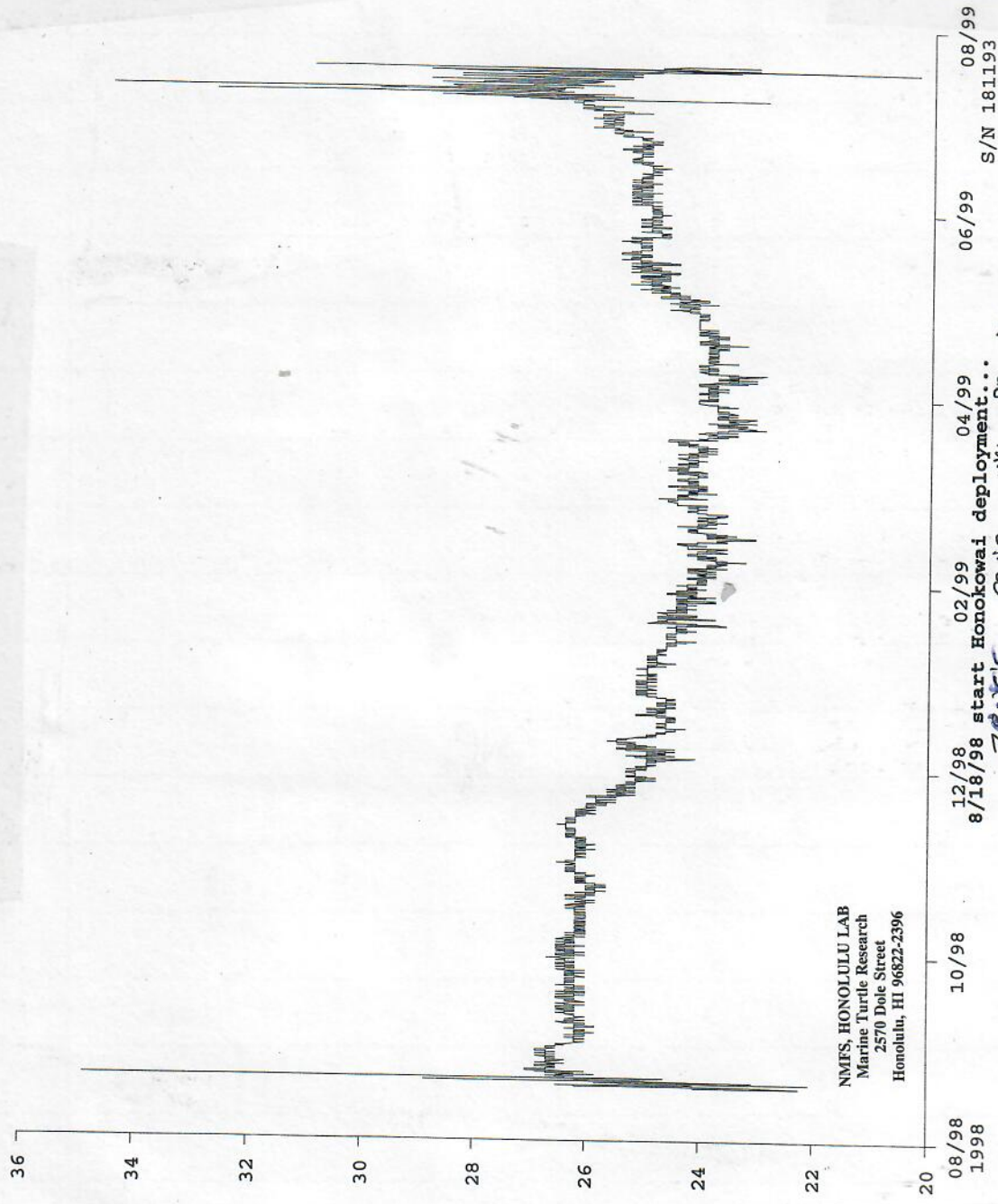
Just a thought. Hope you're doing well. Thanks for the article about the symposium.

Date: Mon, 26 Apr 1999 17:19:41 -1000
From: Deborah deBord <dive@maui.net>
To: "'George H. Balazs'" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: RE: Maui Turtles

Hi George,

I can tell you that there are at least 2, maybe 3 little girls at Uluu Beach. And at least 4 or 5 at 5 Graves/Makena Landing. I saw a couple at Wailea Point, and 1 at Haloa Point. I can't say for sure if they're all different or if I've seen the same ones at different reefs on different days. They're still so small that there's nothing except algae on their shells. No barnacles, tumors, scratches, splits, no marks that I could use to identify them. That's why I thought of the tags.

Hope this helps. Let me know. I'll try to measure one if I get a chance. They're still very wild and won't let anyone near them yet. I hate to make them swim away when they're lying on the bottom, so if they even start to stir, I just back off.



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

12/98 8/18/98 start Honokowai deployment...
 02/99 04/99
 ZEISS CAVE - UK + PR site

06/99 08/99
 S/N 181193

62

----- Forwarded message -----
Date: Wed, 20 Jan 1999 06:46:44 -0500
From: Ursula Keuper-Bennett <howzit@turtles.org>
To: Shawn Murakawa <smurakaw@honlab.nmfs.hawaii.edu>
Subject: Message for Marc

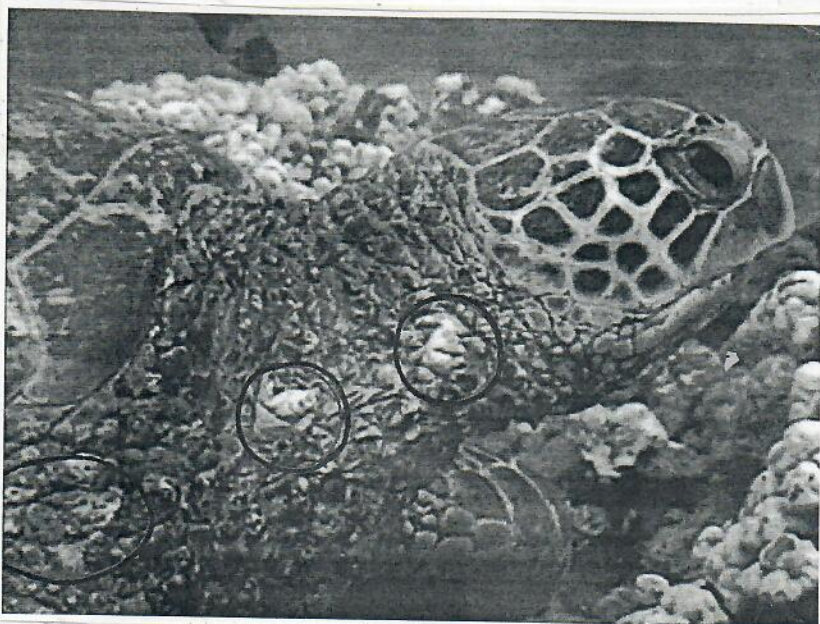
Aloha,

I tried to find the fax number of Nohonani and couldn't quickly (need to get to school and still formulate a message to Marc. I have attached two images of a turtle that if I had ONE dive and ONE question, this is what I'd try to answer.

It is also important for the paper George and us are working on regression.

Here are the two pics.

Hope this will work and get them to him.



K12, K13, K14

Date: Fri, 23 Oct 1998 09:22:26 -1000 (HST)
From: Denise Ellis <dellis@honlab.nmfs.hawaii.edu>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Re: Tagged turtle at Makena

Skippy called to say a turtle was being seen with K-12 on a front flipper, K-13 on LH and K-14 on RH in the 5-graves area of Makena. I asked him who the person was that reported the info and he said she was a dive instructor that did tours in the area but did not give me a name. Skippy wanted to know if this was a turtle you had previously mototooled and where it was tagged. I asked him if the person saw any mototoooling on this turtle and he said no. I asked him when the turtle was seen, and he didn't know but sometime within the last week and regularly by the dive instructor.

On Fri, 23 Oct 1998, George H. Balazs wrote:

> I need the "seen" information as you received it- who from, name of person, exactly what they saw (tag number).

> On Thu, 22 Oct 1998, Denise Ellis wrote:

> Tags K-12, K-13, K-14 (K-11 lost). Tagged 7/28/93 not recovered since.
> Tagged at Makena5, Maui 20 deg. 39'20" N, 156 deg 25'44" W.
> SCL = 41.9 cm
> SCW = 35.1 cm
> notch = 41.6 cm
> CCL = 45.0 cm
> CCW = 40.0 cm
> originally mototooled K11 on both 2nd laterals.
> Seen by the 5-graves dive site in Makena this last week.

FROM ORIGINAL TAGGING FORM

Date: Fri, 23 Oct 1998 22:38:09 -0400
From: skippy@DAR.CCMALL.comuserve.com
To: "INTERNET:gbalazs@honlab.nmfs.hawaii.edu"
Cc: "INTERNET:dellis@honlab.nmfs.hawaii.edu"
Subject: Re[3]: Tagged Turtle

George,

She is a long-time dive instructor and has been able to approach this and other turtles. She reported the tags on this one specific animal. She is able to approach this one and read the tags which I relayed the information to Denise. She does not grab or restrain any of the turtles. (She is one of a handful of instructors that I trust.) This animal is reported near the Five Graves site in Makena. She said it appears healthy; no tumors, no barnacles, etc. Yesterday, she talked with Van when I was out and asked for the dimensions when you tagged it. I just relayed on my email her address that was on Van's note instead of calling.

She has an email address if you'd like to contact her; she can tell you about most turtle's in the area, their location, and their condition. She is very observant. This afternoon, she said she saw the Molokini hawksbill turtle at Reefs End in about 90 to 100 feet of water.

Ms. Debbie deBord email address:
dive@maui.net

Skippy

Skippy, we would be pleased to do so. Can you please relay to me exactly what she reported to you. Did she in fact read each and every one of the three tags (seemingly a difficult task without restraining the turtle)? What other information did she supply? Mahalo, Many thanks, this is an important case. Aloha, Geo.

On Fri, 23 Oct 1998 skippy@DAR.CCMALL.comuserve.com wrote:

> George,

> After Denise gave me some information on the tagged turtle, Debbie DeBord requested more information in writing.

> Could you please send her some information about the tagged turtle (K12;K13;K14) at the following address:

> Ms. Debbie de Bord
> 715 S. Kihei Road #120
> Kihei, HI 96753
> Telephone #(808)879-5949

> I had a talk with her about hooked turtles and a recent turtle tangled with fishing line. They said I had told the dive Company not to touch the turtle which was true but they were also asking permission from me for authorization to capture the turtle. I explained that if the turtle is approachable, the lines could be cut away without capturing the animal.

> I also explained how the hook removal on the Maui Prince was written up by

4
Date: 1/23/99 5:05 PM
Sender: gbalazs@honlab.nmfs.hawaii.edu
To: George Balazs
Priority: Normal
Subject: Reminding you of this June 98 message (fwd)

* George H. Balazs, Leader *
* Marine Turtle Research Program *
* National Marine Fisheries Service *
* SWFSC Honolulu Laboratory *
* 2570 Dole Street *
* Honolulu, Hawaii 96822-2396 USA *
* Tel:(808) 983-5733 *
* Fax:(808) 983-2902 *
* gbalazs@honlab.nmfs.hawaii.edu *

----- Forwarded message -----
Date: Sat, 23 Jan 1999 13:42:22 -0500
From: Ursula Keuper-Bennett <howzit@turtles.org>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Reminding you of this June 98 message

re: us finding a 2 cm growth on Polzbarney in 5 months
strange...considering he has FP.

>Date: Sun, 28 Jun 1998 05:18:53 -1000
>To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
>From: Ursula Keuper-Bennett <howzit@turtles.org>
>Subject: State of the Union

>Saw Polzbarney and goddamn how s/he's GROWN! This isn't
normal
--s/he
>can barely fit under the ledge anymore. Must be all the limu
and
warm
>water (very warm water today).
>
>And you won't believe this but we got LOST! We couldn't find
the
>Turtle House, everything looks so different! Got lost twice
in a
site
>we've dived over a thousand times! All the coral reefs are
green,
>ropey aggressive growths and visibility SUCKS.

Remember how you questioned me about this? Couldn't believe
there'd
be that much of a difference? Polzbarney had put on a major
growth
spurt since we last saw him in 97. Looks like, for now a #2 in
the
glottis isn't slowing him down.

If he's on FP schedule 2000 is likely his last year. 2001 for
sure we
don't see him.

----- Forwarded message -----
Date: Wed, 20 Jan 1999 07:23:53 -0500
From: Ursula Keuper-Bennett <howzit@turtles.org>
To: Shawn Murakawa <smurakaw@honlab.nmfs.hawaii.edu>
Subject: Message for Marc

Aloha Marc,

Remember all that stuff I wrote yesterday about trying to tape
those two males
and all? Yesterday we received a paper from George that has
put those two
issues on the backburner and reminded us of our number one
most important
question.

The paper concluded that turtles who've had FP but improved
still have
compromised immune systems! This fueled debate whether this
was true for real
regression cases (not tumours surgically removed ones) over
several years.

But it reminded me of the number one thing I'd want to know if
I had but one 45
minute dive at Honokowai this week.

Huge question and I hope George would agree.

"Is regression permanent"?

Marc we have a tagged female (U 521) we have known since 1990.
Her tumours
disappeared by 1994 and she's been fine until this summer.
For 1998 she was
throwing large (#2 and mostly 3 sized) white blemishes on neck
and shoulder.
Reminds me of the precursors to a tumour lei.

Keep telling myself if this were FP she'd show in the eyes
first like she did
last time. Only I don't sound very convincing.

If you see a grand lady, appears old as much as she is big,
suspect it's Tutu.

You can swim around all you want so long's you keep your
distance and she feels
you're not interested in her.

When you use stealth you can get easy within 3 to 5 meters. We
recorded
pulsating Clingons on her she let us get that close! The
problem was when we
swung to the front she slowly lifted to leave and what we
recorded was
inconclusive. You have digital so your resolution will be
better.

If you are lucky. If Tutu will let you --hell, if she is
there, you can answer
a critical question here. (By the way, neither Peter and I
think it's FP. We
think it's an early hint of one huge dose of Clingon but
thinking back that)

Date: Wed, 20 Jan 1999 22:32:16 -0500
From: Ursula Keuper-Bennett <howzit@turtles.org>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: (Take Two) Plaque locations and data logger

*Redun
Ma*

65

Going to try using our map. Hope you have one.

See "broken reefs" at F5 and G5? Head for that. See the three X's? Those are our metal landmarks mauka of broken reefs. See the little sideways T on northwest corner of G5 on the map? That's where Plaque One is. We refer to it now as The Gateway. Few kicks makai thereafter and a bit Kapalua and you're at The Rock at G6.

N36 Plaque is at D6. Half darkened circle with #2 beside it although I don't know why there's a #2. Look for a large coral overhang that if you were a large honu you'd love to scratch under. Only thing like it in the area. Plaque tucked under there. Watch for the yellow margin moray I mean it!

OK. Now for data logger. See the Z at C7? That's Zeus's Lair. It consists of two connected turtle tramples. When you face directly makai you'll notice the coral edge/ridge marking the end of Reef2 (shown on map as outside makai edge connected to Z).

Find the highest point and figure about a meter or so Lahaina of that, just dig out the crumpled coral from that outside lip. Tucked it along that edge mauka side. Can't help you more than that.

And glad I don't have to follow those pitiful instructions!

BTW Today, Trax has beaten its March 1998 --275 megs day. Just before 10 we were at 284 and we should see 300 (300 000 000 bytes) by midnight. Fitting you should be at Honokowai when this happened.

Date: Sat, 23 Jan 1999 13:42:22 -0500
From: Ursula Keuper-Bennett <howzit@turtles.org>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Reminding you of this June 98 message

MAV

re: us finding a 2 cm growth on Polzbarney in 5 months strange...considering he has FP.

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>To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
>From: Ursula Keuper-Bennett <howzit@turtles.org>
>Subject: State of the Union

>Saw Polzbarney and goddamn how s/he's GROWN! This isn't normal --s/he
>can barely fit under the ledge anymore. Must be all the limu and warm
>water (very warm water today).
>

>And you won't believe this but we got LOST! We couldn't find the
>Turtle House, everything looks so different! Got lost twice in a site
>we've dived over a thousand times! All the coral reefs are green,
>ropey aggressive growths and visibility SUCKS.

Remember how you questioned me about this? Couldn't believe there'd be that much of a difference? Polzbarney had put on a major growth spurt since we last saw him in 97. Looks like, for now a #2 in the glottis isn't slowing him down.

If he's on FP schedule 2000 is likely his last year. 2001 for sure we don't see him.

66
Date: Sun, 24 Jan 1999 19:00:43 -0500
From: Ursula Keuper-Bennett <howzit@turtles.org>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Cc: honu@turtles.org
Subject: Oops..written but never sent. *Red*

What prompted this? Fears that the Honokowai Honu would become a "field trip" for HPA or a curiosity for The Rich. (Mean no offense to Marc. I like him a lot.)

Oh we've seen kayaks go up and down the coast, yeh. Last summer one stopped and two people snorkelled right over Reef2. No question they were looking at the turtles. We watched the entire time. No frothing of the water to suggest chasing. No diving down. Harmless stuff.

A white wooden boat with about 5 fishermen will place nets all around where Polzbarney lives (last time they really tore up the corals) or work right over the Turtle House. Sometimes near the sand basin makai of Mahinina. They work with one perhaps two in SCUBA. In these situations we watch with binoculars.

Won't enter the ocean when fishers around. More important to watch from lanai. So far nothing large and circular has been plunked into the boat. Good people actually. Are with their nets the entire time.

Our paper is coming GREAT! You should see the magic Peter is working on the GRAPHICS.

At 08:05 AM 1/22/99 -1000, you wrote:

>I'm not sure what prompted this. I guess that hinges on "exact"
>location. You are correct, I won't publish or hand out lat long.
>However, be aware, Skippy asked to go with us on one dive, he's the
>Maui
>State Biologist, I work with him closely so he was invited and indeed
>went
>with us. I doubt he could ever find it again. Also, be aware that
>on
>Wednesday a kyak came from the south and paddled straight to Reef 2,
>anchored and spent time we are sure doing turtle watching from the
>surface. I see no harm in this, in fact that's a major "value" of
>the
>turtles.
>
>We dive with Randy again today. Aloha, Geo.

Date: Mon, 01 Feb 1999 21:20:26 -0500
From: Ursula Keuper-Bennett <howzit@turtles.org>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Re: 1999 Turtle #1 *Red*

Mahalo.

Skid row, all right. Every single honu we ever saw in there was a one-seasoner only. always juveniles --always tumoured. Like revolving doors. Reason I asked is PB's ledge is really the Lahaina side one.

He only started using the Kapalua side last year...and when 1998#1 was there (badly tumour larger turtle) he'd kick out PB. So when PB was in his former ledge we knew the other honu was around.

Very odd feeling for us to enter 1999 Turtles 1 and 2 into database and not actually be sighting them. Also highly rewarding too. I'm glad you are at Honokowai, George.

At 03:56 PM 2/1/99 -1000, you wrote:

>yes same ledge. Hot-bedding it, they are, as they say in the Army
(and
>
>on skid row).