

# BALAZS Loggers

142, 150-152, 160

- MARC RICE HPA - KISA EMAILS

PUAKO = 5/26/98 p. 34 mead

KIHOLLO EMAILS

## COMPOSITION

FULL

KEAWA NUI = 9/23/98 p. 56

KALOKO-HONOKOHANA = 7-28-99 p. 129

KIHOLLO RADICOMETER/RELOCATE = 9-7-99 p. 142

KEOKEO N. KOHALA = 9-7-99 RELOCATE

100 sheets • 200 pages • 100 hojas  
9 3/4 x 7 1/2 in / 24.7 x 19.0 cm  
wide ruled / réglage large / *Magniflami*

1998-1999

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gbalazs@hawaii.mts.hawaii.edu

GEORGE BALAZS (808) 983-5733

KIHOLLO 10-25-99 p. 113

KIHOLLO 12-15-99

T.S.  
P.

PUAKO, KEAWA NUI  
KIHOLLO KALOKE

HONOKOHANA  
KALOKO 10-5-99 p. 156



HONOLULU LABORATORY  
Kiholo NOAA, NMFS  
"14" 2570 Dole Street  
Honolulu, HI 96822-2396  
Released 02/12/20-95



mead

VACANT PAGES - 70

G.H. BALAZS

SQUARE DEAL

KAMAKANI HA 274YB

# SCHEDULE HORAIRE/HORARIO

	1	2	3	4	5	6	7	8
TI HEL HC	LISA DIVE MAKAI							
MONDAY LUNES	>>GPS-Turtle Towers-N-19.40.311/W=156.01.847							
	Turtle Heavens- N=19.40.219/ W=156.01.779							

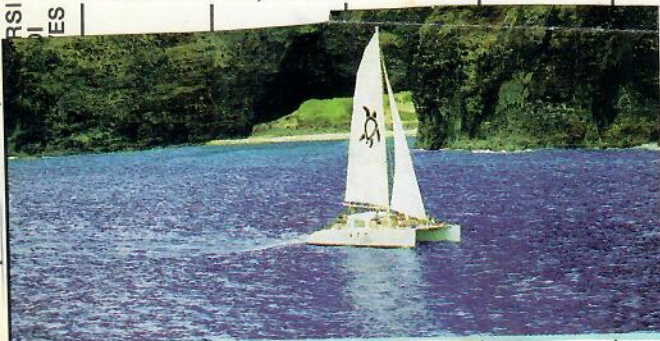
younger tour boat companies, HoloHolo has grown over the past year to one of the top snorkel tour and **whale watch** adventures on the island. Gourmet buffets, wine, beer, tropical juices, and snorkel gear are all complimentary.



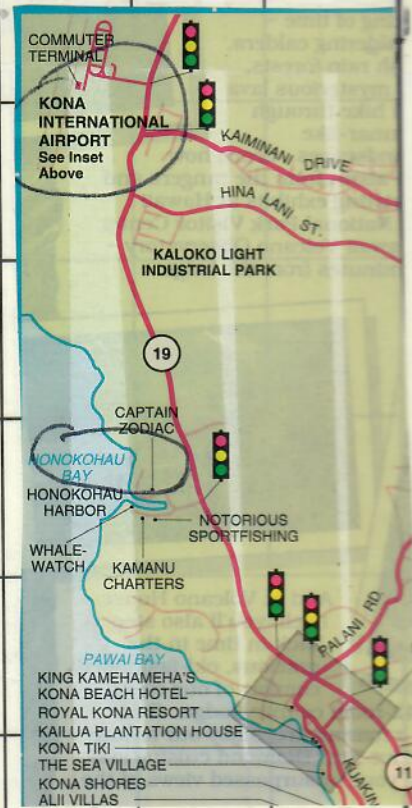
Call **HOLOHOLO CHARTERS** toll free **1 800 848 6130**, or from within Hawaii **1 808 335 0815**.  
JCB Accepted. Se habla Español. [www.holoholocharters.com](http://www.holoholocharters.com)

It's the Pacific Ocean and the tropical trade winds that make Hawaii such a special place, so go for it...

*Sea's the Adventure!*



SATU SAMĒ SABA								
SUNDAY DIMANCHE DOMINGO								





5/26/98 PUAKO p.34  
I Scuba Recaps =

20 captures  
No flipper-tags  
applied - only used  
PITS

9/13/98 Keawa Nui 15 captures - 5 new  
Page = 55 (data)  
p.101

superintendent Now

Retired 9-30-99

July 28, 1999

Geraldine

FRANCIS KUALANI

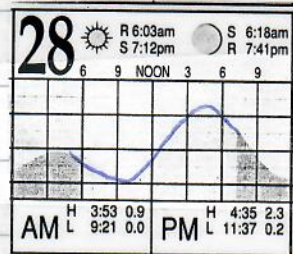
Wednesday

329-6881

328-2326 office

MIKE case

329-8656 home



Mike - ext. 202 S

7/28/99 wed. KoloKO - Honokohau/KITULO  
Page 129-136 SHB/SUETIN HUANG  
GPS page 70

DATA PAGE 10

8-19-99 Keawa Nui 9 captures  
Thursday NARRATIVE = p.140 (8 recaps - 2 net green)  
(6 of 8 were ML releases!)  
(1 new) - hawks bill

- DJAWA YUNUPINGU - NT
- KIRTIS LUKE - Barbados
- NOAH IDECHONG (+ Levi and MELTSINT)
- AISAKE BATI BASTAGA IDECHONG
- NANCY HOFFMAN - Midway
- MIGUEL DONOSO
- SUSAN KAMEI
- ALLISON

PACIFIC ISLANDER VISITORS

Shawn Murakawa - Thierry Work



# DATE UPDATE UPDATE

Honolulu Weekly  
V. 19 No. 28

The family sought relief from the Office of State Planning, the Office of Hawaiian Affairs and members of the state Legislature and Hawaiian congressional delegation, all to no avail. Finally they decided to do things their own way.

"We were tired of having to justify ourselves," Pai said. "Let's shift the burden to them: Who is the Park Service? Why are they here? And who's squatting on whose land?"

The Pairs brought the case to court. They laid claim to the land via the federal doctrine of "aboriginal title," which means, as Native Hawaiian Legal Corporation attorney Arnold Lum explained, "If you're there before the land is patented out, then the person who acquires the patent takes it subject to you being there." But District Court Judge David Ezra ruled against the Pairs, basing his decision on the fact the family didn't apply for a kuleana, or land grant (kuleana also means right or privilege), in the 1800s.

At dawn on Valentine's Day 1997, the Pairs were evicted from their ancestral home. Two Drug Enforcement Agency helicopters, a Coast Guard boat and 50 law enforcement officers targeted the threat: 15 unarmed members of the Pai family. The eviction cost more than \$200,000.

These days, the Pairs live five minutes down the road from their old homestead, returning daily to pray, fish and tend to the sacred sites of their ancestors. They continue to conduct outreach programs at the site, teaching students how to fish, chant, dance hula and care for the burial grounds and medicinal plants.

Pai said he is getting ready for the 1999 World Indigenous Peoples Conference on Education, hosted in Hilo Aug. 1-7. There he plans to educate international visitors about the history, struggle and spirit of the Hawaiian people, using the saga of his own family to illustrate his tale.

"The most important thing that we have learned," said Mahealani, "is that we need to be true to our ancestors and the spirit of pono." —J.K.

## THE PAI 'OHANA

June 11, 1997

11-20 July 99

Several years ago, the Pai 'Ohana challenged the National Park Service for ownership of land along the Kona shoreline, claiming it as Hawaiian homeland. They lost that battle, but they've not gone away. In June 1997, we brought you Naomi Sodeani's award-winning piece on the conflict, "Pai Ohana vs. the USA," honored for excellence by the Society of Professional Journalists. It was a powerful story, laying bare the most basic elements of the Hawaiian struggle for self-determination.

After the Kaloko-Honokohau National Historic Park drew its borders around the Pai ancestral home in November 1978, the Pairs and other native residents of the now-federal land were issued five-year Special Use Permits. They were promised these would be renewed indefinitely — so long as the tenants "complied."

It wasn't long before the inherent flaws of the situation became apparent. While tending to a submerged fish-trap wall that had sustained damage from heavy waves, Mahealani Pai was confronted by a park ranger — Native Hawaiian Francis Kuailani — and told that he must stop vandalizing an archeological site. "It was like a slap in our face, to think we would ever harm a stone," Pai said. The wall is a sacred ancestral spot to the Pairs.

Relations between the Park Service and the Pairs went bad to worse after that, especially as visitor traffic to the beautiful piece of coast increased. With tourists walking through their family members' personal space to the beach, the Pairs found themselves surrounded by g from nudists to hypodermic syringes.



I SEPTEMBER 99

wed.

data pages 80-83

Narrative - p. 142

Needs p. 148

engraved #2 - Kitholo Bishae

KITHOLO

RADIOMETER

+ bits

2 Relocated

from M.L. Bay Club  
to Kitholo  
engraved #3 & 4



Date: Tue, 1 Dec 1998 07:52:30 -1000  
From: Marc Rice <mrice@hpa.edu>  
To: gbalazs@honlab.nmfs.hawaii.edu  
Subject: RE: Acoustic Dataloggers (fwd)

>Date: Tue, 1 Dec 1998 07:39:16 -1000  
>Mime-Version: 1.0  
>To: mrice@hpa.edu  
>From: Marc Rice <mrice@hpa.edu>  
>Subject: RE: Acoustic Dataloggers (fwd)  
>Status:

>Hope this information helps- I think that we have just two animals that we  
>have never recovered - the Punalu'u one and one at Kiholo. There are two  
>units presently deployed at Kiholo.  
>Best,  
>Marc

>TDR / SONIC #  
>95-123 (S28) Puako  
>MK3 (S48) Kiholo  
>96-367 (S447) Kiholo  
>95-124 (S465) Kiholo  
>  
>95-125 (S97) Puako (Same turtle)  
>96-371 (S97) Puako "  
>  
>96-366 (S257) Punalu'u  
>97-245 (S68) Punalu'u  
>96-370 (S248) Kiholo Bay  
>  
>97-244 (S58) Kiholo Bay  
>new tags 11/10/98  
>95-123 (S558) Kiholo Bay (same turtle as 97-244- this tag was originally on  
>Puako #28)  
>  
>  
>Tags in my possession: 97-244 and 96-366 plus three severely worn and  
>unuseable tags.

subsequently recovered  
2/99 Punalu'u  
BUT NO DATA  
RES UTTED FROM IT.

7 Sept 99 TO MAUNA LANI  
TUES DAY / narrative = p. 153 TO KEOKEO  
DATA page =  
MOVED K966 (engraved #3) for  
Release at Keokao Park, Na Kohala

5 OCTOBER 99 HONOKOHU-KAZOKO  
HISTORICAL NATIONAL PARK

LAT. LONG. TUES :  
p. 96 p. 158 NARRATIVE, DATA PAGES p. 87-100 LIST OF STUDENTS  
30 captures (Recoveries = 6) p. 162-9 STUDENTS  
169 p. 171  
Range = SCL 44.4 - 77.9 cm DATA, ME, SHAWN, 13 STUDENTS  
RICE, WATSON, S. BOND  
2 w/ emaciation. Y96; K318; J860; J431; J845 (STAN BOND)  
6135/10634



2

Monday  
26 Wednesday

MARC  
+ ONLY pages 172, 182  
DATA = 188, 192, 193  
(Total recap)

Through Mototool  
48

25 OCTOBER 99 KIHOTO

DATA PAGE = 172 - 186, 102  
P. 187  
P. 113  
NARRATIVE

35 total

(31 Recaptives, 4 new)

P. 115 Student List  
Page 178  
35.8 SCL  
16 lbs

Mototools up to #38. Next is #39.

Mototool #2 was a small earlier kiholo basked,

#3 & 4 were the Marwa Leni biters (from past trips)

~~Start Mototool 49 NARRATIVE = page 4~~

15 DECEMBER 99 Student participants - page 31

Wednesday KIHOTO

objective - (1) obtain deep body Temp. of pond turtles  
(2) " " " lava baskers

DATA PAGES = P. 103, 116-18; 122-124; 132 & 14

P. 159 C

Released  
12-20-99

Kwankui Beach  
Punka oamu



(3)

## OBJECTIVES OF THE NMFS/HPA MARINE TURTLE RESEARCH PROJECT AT KALOKO, SOUTH KONA, HAWAII

**OVERALL:** To ensure the long-term conservation and biological recovery of marine turtles in the Hawaiian Islands and the habitats upon which they depend.

**SPECIFIC OBJECTIVES:**

1. To determine the approximate number of turtles and their size-classes, by species, resident to this location.
2. To determine the types of life-support activities undertaken by the turtles.
3. To ascertain the food sources utilized by the turtles.
4. To calculate growth rates and estimated ages at sexual maturity.
5. To determine adverse impacts to the turtles, both from humans (i.e., fishing nets, rubbish) and from natural factors (i.e., parasites, shark predation).
6. To estimate the recruitment rates of juvenile turtles to the Kaloko population from pelagic habitats.
7. To determine coastal movements and breeding migrations being undertaken by the turtles.
8. To examine the health status of the turtles with regard to the fibropapilloma (tumor) disease affecting other Hawaiian sea turtles.

**METHODOLOGY:** The above objectives will be accomplished by establishing a group of tagged turtles at Kaloko for longterm monitoring to compare with groups of tagged turtles currently under study elsewhere throughout the Hawaiian Islands.

17-15-99 Peninsula, KALOKO  
1305 hrs. TAG - 30.5°C - 20cm mark

Small turtle Sandy - Q696 (LFL) Q697 Tb = Q698 (LH)  
Watson

Medu: TAG 1  
MARC  
Rice turtle 7777 (LH) 7776 (RFL) Tb = 29.4°C 20cm deep

George (RH)  
Watson turtle early - Y284 Tb = 26.9°C 30cm deep

Quinnance  
Jill / R489 (LH) N719 (RFL) N720 (LFL) Tb = 29.3 20cm deep

Notes only see data pages for the above.



4

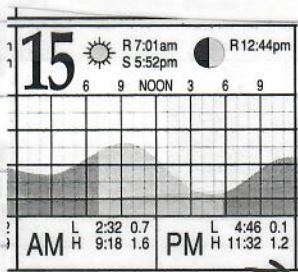
# KITULO

need  
TIDE chart

Flight 80  
Depart alone 5 AM - for 6 AM

15 December 99 AVIS TO KITULO, AREWU  
Wednesday ~ 6:45 AM - George & Sandy Watson

MARC, and Jill Quintance (freshman)  
at Awa1 - watching for turtles - tide slack or  
coming in. Proceed to catch scoop net  
turtles <sup>in or out</sup> and insert flexible probe ~ 20 cm  
for stable temperature.





Date: Fri, 20 Jun 1997 14:52:11 -1000  
From: Marc Rice <mrice@hpa.edu>  
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>  
Subject: Re: Bihini is safe (fwd)

Puako  
Reduce

(5)

George,

I am certainly glad that Pat and I decided not to visit the Congo!

I am just about to head down for another look for the Puako turtle #97. He/it was not around this morning, but the tide was quite low and I didn't expect to see it.

Our travel plans are sketched out below:

6/22	Kona to San Fran
6/26	San Fran to Brussels
6/26	Brussels to Paris
6/27	Pick Laura up at Oissy airport
7/16	Paris to San Fran
7/22	San Fran to Kona

I hope that you have a great trip to Punalu'u and can get the tag back easily. It is a shame to let this guy go as he has been so very cooperative!

Aloha,  
Marc

Date: Sun, 22 Jun 1997 06:55:42 -1000  
From: mrice@hpa.edu  
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>  
Subject: Re: Happy Day.

Puako

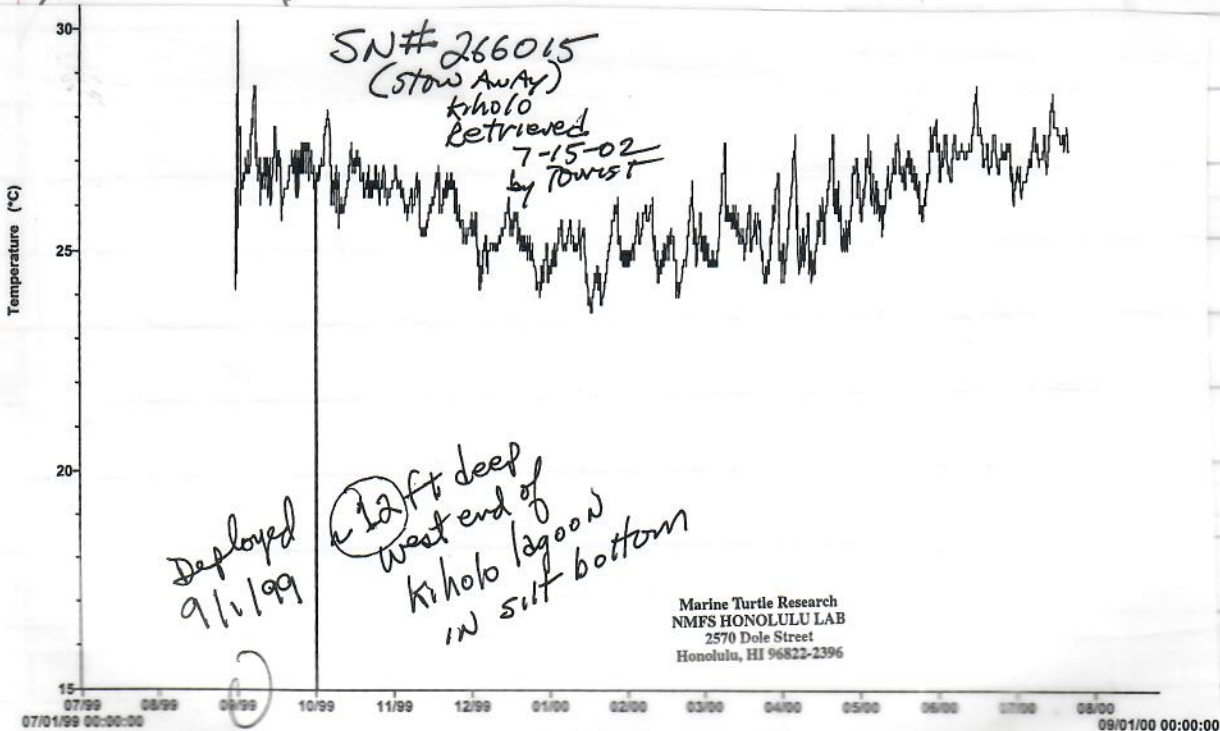
George,

I hope you are having a relaxing weekend. We are cleaning and preparing for our departure this evening. The Puako turtle was elusive again. No luck catching it as it was on the outer reef and the tide was very high. Will get it when I return. You are right, hold up on the hydrophone, receiver, etc. I will work on it when I return.

Thanks for everything and see you toward the end of July....

Best,  
Marc

see page 42  
↓





6

Date: Sun, 27 Jul 1997 23:02:38 -1000  
From: mrice@hpa.edu  
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>  
Subject: Re: Signs (fwd)

Reduce

George,

Thanks for the phone call today. I am very happy that your visitors had a good trip and, undoubtedly, learned a great deal. I know what you mean about figuring out the proper amount of work and play for people coming to visit and learn..... Better to work them to much than not enough???

We did have a very nice drive at Puako today. Both Sandi Watson and I thought that we found the "cave" that was shown in the video--- unfortunately, we were not looking at the same "cave." Regardless, I believe that we were diving in the correct area.

I got a call around 1730 this evening that there was a turtle basking that had a hook in its mouth. Of course, Laura and I jumped in the car and hustled down to number 38 PBR to take a look. When we got there, there was a small turtle basking with 4 people sitting around it- nothing seemed to be bothering it. Anyway, we took a look at the mouth to see if there was anything in it, but there wasn't. It turned out to be a case of people who did not understand that gst's bask (and they lived at Puako). The little critter (~45cm scl) did look slightly underweight (carapace slightly sunken in). There were no apparent injuries or unusual growths, etc. --- a rather normal looking turtle. Once we released in it crawled back in the water and seemed fine. We went through the little education talk with the folks there and they all seemed very happy and relieved. #38 PRB is a little obscure public access, and I haven't placed a sign there yet..... Guess I should!

Puako

Thanks, also for copying me on the Hendricks message. Let me know when you get an evaluation of the Japanese translation of the sign. I am going to order the English version as soon as I can get into contact with the sign company- they haven't been responding lately.....

The recovery of the Punalu'u TDR sounded very interesting and exciting. I don't think we will ever find a more cooperative turtle! I look forward to downloading the info and seeing if the wear on the tag through it off any.

I hope you have a great Monday--

Best,  
Marc

\*\*\*\*\*  
\* Marc R. Rice \*  
\* Assistant Headmaster \*  
\* Hawaii Preparatory Academy \*  
\* Director, Cooperative Sea Turtle Research Program \*  
\* fax: 808 885 8203 \*  
\* P.O. Box 428 \*  
\* Kamuela, Hawaii 96743 \*  
\*\*\*\*\*



Date: Sat, 2 Aug 1997 22:24:08 -1000  
From: mrice@hpa.edu  
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>  
Subject: Re: Phone message

*Reduce*

George,

Sorry to say that we have been down over here for most of the day. Everything seems to be back up and running now.

Airlines: I should probably catch the earliest flight out of Kona on Friday morning so if your travel agent wants s/he can ticket me on the 0630 flight- will that be early enough for our departure? I can catch a cab over to public aviation areas and be there by 0730 or 0800. I don't know about a return flight as I don't know when we will return- as I recall, I should be able to make a late afternoon flight back to the Big Island so you make the call about a reservation.

Some thoughts on food, if you are going to go shopping before Monday morning.

Breakfasts: cereals, powdered milk, breakfast bars, dried fruit (prunes, apricots), powdered eggs, Tang or some powdered fruit drink.

Lunches: trail mix, dehydrated soups, peanut butter crackers, power bars,

Dinners: dehydrated things: soups, saimin, macaroni and cheese, dehydrated dinners like fettucini alfredo, stew, etc. - your choice as you know I will eat almost anything (except raw oysters).

We can also take some canned vegetables, fruit, etc, from Tern Island which would be a nice addition to our larder.

I can't remember about cooking equipment (stoves, utensils, pots, etc.) Should I bring a couple of sets along for us? Let me know what you think we might need. Last time, I think we were a bit short on cooking equipment.

You mention coming over for a turtle but I am not sure which one you mean. I would be, of course, delighted if you were to come over for a visit and some work. I monitored today at 0830 and 1530 hrs but didn't hear or see our friend. *Puko* There were several animals in feeding and ~~everything looked to be normal.~~ Tonight we had a picnic dinner down there, but I didn't take along the hydrophone (stupid). Still, at around 1930 hours there were two animals right in the wave break grazing on a rock. They were high and dry some of the time. They were, it seemed to me, quite alert as they raised their heads up (to look around?) much more frequently than they normally would when feeding.

I will check again tomorrow in the morning, mid-day and evening. #97 is probably somewhere nearby. It might be worth a SCUBA dive if we can't find it in shore. However, I know how much luck we have had finding the tumored turtle! On Monday, I will give it another go- trying at three periods during the day. After that, perhaps you could come over and bring some of your Las Vegas luck with you! We would be bound to capture both turtles then!

Also, I received the box of equipment and unpacked it. Everything seems to be in order and undamaged. The hydrophone with the PVC pipe is indeed an omnidirectional hydrophone. I guess you ordered it at one point- I know we talked about it once. We can certainly give it a try with the USR-90 as it has two input ports (A and B) and can receive from both simultaneously. I wish sonotronics would send a little more instructional materials with their equipment. They just don't do much in the way of instruction manuals, do they!



2  
Date: Mon, 25 Aug 1997 22:21:24 -1000  
From: mrice@hpa.edu  
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>  
Subject: Re: URGENT MESSAGE Re: Turtle Coils /Timers

George,

Thanks for the update on the development of the electromagnets, etc. I sure hope that Larry is able to get everything done and too you on time. Time will tell.

I was able to capture the TDR turtle at Puako today. Capture time was 1603. I caught it using the scoop net and two stupents helped me carry it back to the shore. Using the 12Volt dremel tool I was able to get the whole tag and all of the peripheral fiberglass and resin off. The whole surface is nearly perfectly clean now. The animals was released at 1620 hrs- so we were pretty efficient in getting everything done and the turtle back into the water. The animal looked very healthy and robust and the area under the tag did not show any unusual or irregular growth- it all looked very good.

TAGS:

LFL- Q455  
RFL- Q456

SCL- 65.7  
SCW- 48.5  
CCL- 70.5  
CCW- 63.0

I'll see what data we get out of the tag later in the week when I have a few minutes free time. Our first day of classes is tomorrow so I guess it is time to get back to work.

Marc

Date: Thu, 30 Oct 1997 08:03:57 -1000  
From: Dive Makai Charters <dmakai@comptime.com>  
To: Marc Rice <mrice@hpa.edu>,  
Balazs George <gbalazs@honlab.nmfs.hawaii.edu>  
Subject: TURTLES, TURTLES & MORE TURTLES

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

Good Morning, Gentlemen:

Yesterday another banner day at Turtles! Hovering, I counted 14 in view in the cleaning area, found another 1/2 doz stuffed under ledges, etc. Must have had at least 20. J 486 by its rock AGAIN- moved a foot onto another side of it, tho! Also got close enough to 2 other tags- both LF- 1 was 517 ( cudn't read letter), the other pretty sure ended with 82 if that's any help!

THEN we went to Kaloko- right up off main part of Nat'l Park- saw 4 more. 1 had what appeared to be a split (?) tag in RF flipper- bigger than normal, pale blue, # BA 468 or 488. Traditional tag on LR.

Just does my heart so much good! Have a great day!

Lisa

Aloha,  
Tom Shockley & Lisa Choquette  
Dive Makai Charters-(808)-329-2025 (ph/FAX)  
dmakai@divemakai.com

LISA

5486



Date: Thu, 16 Oct 1997 19:17:37 -1000  
From: Dive Makai Charters <dmakai@comptime.com>  
To: Marc Rice <mrice@hps.edu>,  
Balazs George <gbalazs@honlab.nmfs.hawaii.edu>  
Subject: TIA ( Turtle International Airport) aka Turtle Towers Report

*Redund*  
*USA*

[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]

Hi, George & Marc,

Yea- I'm learning! Figure I can send you both messages at same time! Got both of your greetings today. Thanx!

GREAT day at TIA today ( xcept that my daughter, Kendra, who was with me Wed. Marc, got bitten by a little Yellow Margin with a nasty temper. Ring finger -right hand- hit an artery. Has stitches & an ice pak & will NOT be diving w/ us on Sat.) Had at least 15 individuals, including old friend J486 (LF), who was also there on 10/8. Interesting behavioral note- was at EXACTLY the same spot as on the 8th. I mean, right next to same rock, on same side of it- only difference- was facing South today, North on 8th. Have long suspected each turtle has HIS/HER "chair" at the beauty parlor- have seen turtle leave for air, come back to find someone in the spot, & bully them right out of it. Had 2 other tagged, but tags were SO algae covered, cudn't read!! George, are you SURE I can't put pink & blue & green & yellow, etc. ribbons on them??? They'd look SO cute- just joking. You 2 have 2 come up w/ a way to entice the tangs to clean the TAGS!!!

Almost positive we have 2 baby Hawks down at spot off 50 lava flow I sent map on , George. Will have 2 confirm. Saw 2 on 1 day in different areas- quite positive 1 was a tiny bit bigger than other & differences on shell. As was thrilled 2 see 1 & not expecting 2, was not as observant as I should have been.

Marc- was great meeting you after all these years- CU on Sat.- hope you guys can handle my shorthand- makes my computer NUTS!

Take Care-  
Lisa

-----  
Aloha,  
Tom Shockley & Lisa Choquette  
Dive Makai Charters-(808)-329-2025 (ph/FAX)

Date: Thu, 30 Oct 1997 08:03:57 -1000  
From: Dive Makai Charters <dmakai@comptime.com>  
To: Marc Rice <mrice@hpa.edu>,  
Balazs George <gbalazs@honlab.nmfs.hawaii.edu>  
Subject: TURTLES, TURTLES & MORE TURTLES

*Redund*

[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]

*J486*

Good Morning, Gentlemen:

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Just does my heart so much good! Have a great day!

Lisa

-----  
Aloha,  
Tom Shockley & Lisa Choquette  
Dive Makai Charters-(808)-329-2025 (ph/FAX)  
dmakai@divemakai.com



10

Date: Thu, 13 Nov 1997 21:30:41 -1000  
From: mrice@hpa.edu  
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>  
Subject: Re: Fedex-- inventory

George,

Sure, no problem on the "big stuff." Actually, what we have here are two motors (9 hp and 25 hp) and the Achilles plus trailer. Of course, we have a couple of fence nets, a scoop net, etc. also... I do have three hydrophones, one USR 4 Sonic Receiver, one USR90 Sonic Receiver, One 1000X HP Palmtop computer (DL95). Do you want a specific accounting of the MK5s and the sonic tags? I don't have that in my meager brain right now but can get it tomorrow.

I am sure there are a multitude of other things that belong to you- I will work on getting a list put together.

I just realized that your going to the mainland will put you up against the wall on the Punalu'u trip. Is it still on schedule for Thursday-Friday next? What do you want us to be responsible for? Should we plan on bringing all the materials for the TDR attachment? Do you want to put a sonic tag on this one also? Before you go off to the big city perhaps you could give these things some thought.....

I put two tapes from the Mauna Lani cleaning station and two copies of the total FFS trip in the mail today... I have forwarded a copy of the mauna lani tapes to Jill- I don't think she got very good footage when she was over here!

Hope you have a great trip - look forward to seeing you next week....

Marc

Date: Sun, 16 Nov 1997 21:08:16 -1000  
From: mrice@hpa.edu  
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>  
Subject: Abstract/Kawaihae transect

KAWAIIHAE

Shawn  
TDS  
→ CITY

George,

Thanks for taking the time to call this afternoon. I appreciate your looking over the abstract and giving some valued and valuable comments. I will incorporate them into the present abstract and see if I can fit it into the space provided. If I cannot, I will do some paring and make it fit.

I will try and get the total data for the Kawaihae transect done for you soon. It was quite a day! The turtles seems to be concentrated in more or less the same area and many (probably most) were feeding. When we did the shoreline swim, however, we saw a substantial number of turtles tucked into the rocks resting. Some of them were will back into the breakwater itself. None of the turtles showed any signs of tumors and all looked to be robust and healthy. The one that I saw that had tags was resting at the breakwater (V512, V511). I was very surprised to see a tagged animal and ever more surprised that it let me get close enough to read the tag (which were both fairly clean).

By now you are at the airport so won't get this until tomorrow some time. Hope you had a good flight.

Best,  
Marc

V512, V511 KAWAIIHAE



Date: Mon, 24 Nov 1997 07:59:01 -1000  
From: Marc Rice <mrice@hpa.edu>  
To: Dudley@uhunix1.its.Hawaii.Edu, leonh@hawaii.edu,  
gbalazs@honlab.nmfs.hawaii.edu, gwatson@hpa.edu  
Subject: Revised short abstract

Gentlemen,

Below is a revised short abstract. Mr. Balazs was kind enough to send me some suggested changes and corrections which I have included. If you all would be kind enough to look this over, I would be most appreciative. Please note that we are limited to 250 words (which this already exceeds) so any changes you wish will have to be replacements, not additions. This needs to be submitted to the symposium committee in the next few days.

Thanks,  
Marc

Diving, Basking and Foraging Patterns of a Sub-Adult Green Turtle at Punalu'u, Hawaii

Marc R. Rice, George H. Balazs, Leon Hallacher, Walter Dudley,  
George Watson, Kim Krusell, Brent Larson

**ABSTRACT:** The daily dive patterns, terrestrial basking, and foraging behaviors of a sub-adult green turtle were monitored at Punalu'u Bay, Hawaii for 226 days (11/96-7/97) using a time-depth recorder (TDR) programmed to sample at 1 min intervals. Diving profiles were characterized as resting dives (relatively constant depths for >20 min) and foraging dives (shallow dives <3 m for <10 min). Terrestrial basking behavior was noted as dry periods by the TDR.

Resting dive profiles showed a depth range of 4.0-38.5 m with a mean of 12 m. The mean resting dive was 59 min with a range of 20-117 min. There was a mean of 12 resting dives each day (range 2-25). The turtle spent a mean of 2.8 min on the surface between resting dives (n=84). The number of hours spent each day on resting dives ranged from 1.0-23.3 (mean 12.6 h).

Terrestrial basking behavior occurred on 64 days (81 events) for a total of 176 h or 3.2% of the 226 days monitored. The mean basking interval was 2.2 h with a range of 7 min to 15.8 h.

Foraging behavior occurred in 0-3m of water where the turtle fed extensively on benthic algae. Dive profiles showing typical feeding patterns occurred a mean of 8.9 h per day. The range of time spent foraging was 0-17.8 h per day. 72% of the foraging behavior occurred during the daylight hours (0600-1800 h)."

Marc R. Rice  
Assistant Headmaster  
Director, Cooperative Sea Turtle Research Program  
Hawaii Preparatory Academy  
65-1692 Kohala Mt. Road  
Kamuela, Hawaii 96743



12

Date: Sat, 23 Jan 1904 00:48:42 -1000  
From: Marc Rice <mrice@hpa.edu>  
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>  
Subject: Re: Flipper Tags

Reduce

George,

Thanks for filling me in on the flipper tag decision. I appreciate the heads up...

I went to Kiholo again today to do some water sampling for/with Karen Kline and checked the sonic device - it is working fine. Look forward to talking about the magnetic stuff...

Best,  
Marc

Date: Fri, 29 Jan 1904 20:02:42 -1000  
From: Marc Rice <mrice@hpa.edu>  
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>  
Subject: Re:

Reduce

George,

Thanks again for taking time to help on the paper. I really appreciate your close reading of the content and structure. I have made all the changes.

Need St. H

I walked in to Kiholo yesterday and retrieved the data from the monitoring device. It seems to be working well, although one of the hydrophones may not be working. It has been out for 7 days and has filled about 1/4 of the available memory. I suspect that I can leave it out for 14 days at a time from now on without any problem.

I will be down their camping tonight and will monitor the lagoon to correlate known locations of the turtle(s) with the actual data. I will keep my phone on in case you need anything. I will be back up on Wednesday morning to get everything ready for Thursday. It is a bit windy here, but it is supposed to slacken a bit. Is there anything special that you want in the way of equipment, etc.?

Marc

Date: Thu, 5 Feb 1998 07:40:58 -1000  
From: Marc Rice <mrice@hpa.edu>  
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>  
Subject: Re: TDR's deployed

for Kiholo Boc

Sorry. Maybe I didn't xerox it properly....

Tag # Y13 (LFL) and Y14 (RFL) has TDR # 97-244 and sonic tag # 5-8  
Tag # B983 (LFL) and B984 (RFL) had TDR # 96-370 and sonic tag # 248

Yikes! 10 degrees C..... Bundle up and stay out of the wind is all I can say! Thanks for the map on '98. Glad she has come to rest!

Best,  
Marc



Date: Fri, 20 Feb 1998 22:09:54 -1000  
From: Dive Makai Charters <dmakai@comptime.com>  
To: Marc Rice <mrice@hpa.edu>,  
Balazs George <gbalazs@honlab.nmfs.hawaii.edu>  
Subject: Turtles- What Else!!

[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]

Hi, George & Marc:

There's good news- some REALLY good news! & some disturbing news.

The good- Old friend J486 at Turtles- on the 16th- not by his/her rock  
though. *Feb*

Today, 2/20- a baby HAWKSBILL in the cove just north of Keahole Pt. I  
wasn't close enough to determine that it was a Hawks, but Kendra, my  
daughter, was- & I definitely trust her eyes- better than mine! Never,  
never seen one in that area.

The disturbing news- a client on the boat today went out with Hawaiian  
Divers ( the present outfit in King Kam Hotel) . They have a pretty bad  
rep as it is. Client said divemaster/captain left the boat unattended,  
took them down at turtle, grabbed a turtle & pinned it forcefully to the  
bottom & held it there. For whatever unearthly reason in 1998 I have no  
idea. Do you have any way to run a sting, of sorts? Should I approach the  
owner & talk with him. Awaiting your advice.

It's the first abuse I've heard of in that dive site, which has become  
just such a special place on earth. I've seen people who simply can't  
resist reach out & scratch a turtle who's literally banging them on the  
head- I reprimand, but can't call that abuse. This was outright forceful  
abuse.

Happy about the baby Hawks- that's incredible!!

Warm regards,  
Lisa

-----  
Aloha,  
Tom Shockley & Lisa Choquette  
Dive Makai Charters-(808)-329-2025 (ph/FAX)  
dmakai@divemakai.com

Date: Wed, 11 Mar 1998 20:13:46 -1000  
From: Dive Makai Charters <dmakai@divemakai.com>  
To: Marc Rice <mrice@hpa.edu>,  
Balazs George <gbalazs@honlab.nmfs.hawaii.edu>  
Subject: Turtles, What Else!!

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

We are proud to announce the arrival of a spanking little baby hawksbill  
turtle at Kaiwi Point- t. 1st point north of Kailua town- actually in the  
area called Pawai Bay, off Keahu-Olu Pt., if you're trying to pinpoint it.  
Kendra & Cathi saw it, Ken should have pix- says tiniest she's ever seen-  
shell 10"-12". Seen this morning- looks happy & healthy!! NEVER seen 1 in  
there. Hurray!

Lisa

-----  
Aloha,  
Tom Shockley & Lisa Choquette  
Dive Makai Charters-(808)-329-2025 (ph/FAX)  
dmakai@divemakai.com



(14)  
Date: Sun, 15 Mar 1998 21:51:52 -1000  
From: mrice@hpa.edu  
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>  
Subject: Re: Turtles, What Else!! (fwd)

George,

Some interesting ideas. I will try and digest them a bit and respond. I think that we could do all of them, however. It would certainly be enjoyable to go out and do some diving in search of new little turtles. I think that the Kawaihae surveys would be great to continue. The only reason I haven't done more surveys lately is the rough water. It has been impossible to get anywhere near the water to dive lately. Any thoughts of doing the Kawaihae area some time in the future?

I have been down to Kiholo the last two days and think that we might actually get some data this time. I will return the computer on Monday to continue recording. I will let you know as soon as I have something to talk about! It was interesting that on both days down there, we saw only one turtle- where are they all...???

My boss has asked me to attend a conference in HNL on Friday (4/3). I told him that I had a tagging trip and may not be able to make it. Is there any chance that we might be able to move the trip to the 1st and 2nd (Wed. and Thursday)? Let me know your thoughts.

Hope your weekend is going well.

I will be in the office tomorrow morning until I get the data off the Kiholo Palmtop.

Aloha,  
Marc

Date: Sat, 21 Mar 1998 22:11:34 -1000  
From: mrice@hpa.edu  
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>  
Subject: Puako

No problem with the equipment. I will bring along a bottle for Thierry and one for you as well as some weights. We will bring lunch and drinks along for everyone. It will be wonderful to have your dad along. I will be spending the night down at Kiholo on Tuesday next week to get some direct observations to compare with the remote sensing equipment. I will have my cellular phone on in case you need to contact me.

I will have to look at my calendar at school to see what date would be possible for the algae trip with Jan. I would love to join you folks on this side for some sampling. I will get back to you tomorrow on this.

Sorry, but I didn't retrieve my phone messages today. I will be around tomorrow afternoon if that would be good for you. If not, then perhaps Monday morning would be a possibility. I appreciate your taking the time to go over the paper for me. I am sorry if I gave you the impression that I didn't want you to call my home. That is not the case at all. Please give me a call anytime and we can arrange to talk through the abstract.



Date: Sun, 29 Mar 1998 11:35:25 -1000  
From: Marc Rice <mrice@hpa.edu>  
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>  
Subject: Re: PHOTO-PLOTS: Puako and elsewhere

Reduce

George,

AUSTRALIA  
Thanks for the information on the flights. I understand that you can't make reservations for me. As soon as you have made your reservations, perhaps you could let me know and I will see if I can get the same flights. Yes, it does sound like a wonderful opportunity, and I thank you for including me in your plans. I do want you to know, however, that I hope you will feel completely free to tell me if you think my joining you will be a burden to anyone. I don't want you to feel at all guilty if things just don't work out.

I will bring along the old pit tag reader so that you can take it back with you. The only think wrong with it is that it doesn't hold a charge for very long.

RE: Algal forage- I have been toying with the idea of a long term study of standing crop (or whatever the appropriate measurement would be) measurement using transects in areas where we know turtles are feeding (Kiholo and Puako were the first on my list). If you recall, we talked with Dennis Russel about the possibilities of this type of project when we collected at Puako and Kiholo. It may be that photo quadrats are the way to go, but I don't know if we could do anything quantitative with them. I would think that it might be useful to do both- photodocumentation and sampling for total biomass estimation. Perhaps with this type of data, we could develop some idea of the carrying capacity of both areas. I do need some direction and guidance from someone that knows an appropriate technique (Dennis indicated that it was not a complicated procedure and we should be able to do it with minimum expense). It would also be nice if we were able to identify the algae in the samples (perhaps Dennis has completed his identification key?) Anyhow, I would like very much to do a study along these lines.

Aloha,  
Marc



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CAPTURE DATE: 2/8/98 LOCATION: Kiholo - METHOD OF CAPTURE: hand net capture off Hand Point - 1520-

PERSON RECORDING DATA: Laura Rice/WR

OLD TAGS: RFLY107 LFL Y-108 RHL N73 LHL Q602 PITT TAG # 22DF757E1R

NEW TAGS: 22DF75481R Entry 159

PIT TAG BRACED

OTHER NEW TAGS:

TUMOR SCORE:

STRAIGHT CARAPACE LENGTH: 66.4 WIDTH: 51

NOTCH LENGTH: 66.1 DE: L.O. VB: L.O.

CURVED CARAPACE LENGTH: 71.1 WIDTH: 64.3

HEAD WIDTH:

PPS: YES  NO  SEX: MALE  FEMALE  UNDETERMINED

TAIL LENGTH: TOTAL  CLOACAL

RIGHT FRONT FLIPPER WIDTH:

PLASTRON LENGTH: 53.2

WEIGHT: 88

SAMPLES COLLECTED:

DESCRIPTIVE REMARKS:

TDR tag ground off to inner workings. Will remove assembly & return turtle w/o tag assembly!  
 Tag was removed using the dental (12v) tool & the rest of the fiberglass was left on the scute.  
 We released the animal at 1615 hours.

1903 - Download attempted with TDR -  
 TDR is very eroded & there is metal showing!  
 Download is taking forever - 1:50 per day  
 1st Dnld - 1:54  
 TDR# 96364 - Sonic Tag 447? yes!

HAWAII PREPARATORY ACADEMY

Don't know if I ever sent  
 This data to you -  
 TDR, (96364) Sonic 447  
 96364 / Ka Pohoehoe





CAPTURE DATE: 4/1/98	LOCATION Kiholo Lagoon	METHOD OF CAPTURE Dead turtle
PERSON RECORDING DATA: M. Ricci		

OLD TAGS:

PITT TAG #

PITT TAG BARCODE

NEW TAGS

OTHER NEW TAGS:

FFL

LFL

TUMOR SCORE

STRAIGHT CARAPACE LENGTH  47.6

WIDTH:  37.2

NOTCH LENGTH:  /

DB:  L.O. VB:  L.O.

CURVED CARAPACE LENGTH  /

WIDTH:

HEAD WIDTH:  /

PPS: YES  NO

SEX: MALE  FEMALE  UNDETERMINED

TAIL LENGTH: TOTAL  CLOACAL

RIGHT FRONT FLIPPER WIDTH:

PLASTRON LENGTH:

WEIGHT:

SAMPLES COLLECTED:

DESCRIPTIVE REMARKS:

Carapace & plastron intact all else gone - specimen extremely necrotic  
 Humerus bones attached by totally clean.  
 No apparent cause of death.  
 Both humerus bones removed, but rest of carcas left in place.

Found floating dead at N. end of lagoon off rd. inlet



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CAPTURE DATE: 4-2-98	LOCATION: Kiholo	METHOD OF CAPTURE: Hand captured - Haniel Point Bay
PERSON RECORDING DATA: Elizabeth Horton		

OLD TAGS:	N694 (RFL) N695 (LFL) H-864 (LH)	PITT TAG BAR CODE:	
TUMOR SCORE:		NEW TAGS:	FFL LFL
	PITT TAG # IF430 E1A76	OTHER NEW TAGS:	

STRAIGHT CARAPACE LENGTH:	52.2	WIDTH:	42.2
NOTCH LENGTH:	51.8	DR:	L.O. VB: L.O.
CURVED CARAPACE LENGTH:	55.0	WIDTH:	49.5
HEAD WIDTH:		SEX:	MALE FEMALE UNDETERMINED
PPS: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>			

TAIL LENGTH: TOTAL		CLOACAL	
RIGHT FRONT FLIPPER WIDTH:		SAMPLES COLLECTED:	
PLASTRON LENGTH:	42.7		
WEIGHT:	45		

DESCRIPTIVE REMARKS:



CAPTURE DATE: 4/2/98	LOCATION Kichols - Lagoon	METHOD OF CAPTURE Hand snorhel ~ 0300 hrs.
PERSON RECORDING DATA: E. Davis	SONIC #5-8	

OLD TAGS:	<input type="text"/> <input type="text"/> <input type="text"/>	PITT TAG BARCODE	<input type="text"/>
TUMOR SCORE	<input type="text"/>	NEW TAGS	RFL <input type="text"/> LFL <input type="text"/>
	PITT TAG # 41504A9E6A	OTHER NEW TAGS:	<input type="text"/> <input type="text"/>

STRAIGHT CARAPACE LENGTH	<input type="text" value="68.9"/>	WIDTH:	<input type="text" value="56.3"/>
NOTCH LENGTH:	<input type="text" value="68.8"/>	DB:	<input type="text" value="L.O."/> <input type="text" value="V.B."/> <input type="text" value="L.O."/>
CURVED CARAPACE LENGTH	<input type="text" value="73.9"/>	WIDTH:	<input type="text" value="68.5"/>
HEAD WIDTH:	<input type="text"/>		
PPS:	YES <input type="checkbox"/> NO <input type="checkbox"/>	SEX:	MALE <input type="checkbox"/> FEMALE <input type="checkbox"/> UNDETERMINED <input type="checkbox"/>
TAIL LENGTH:	TOTAL <input type="text"/> CLOACAL <input type="text"/>		
RIGHT FRONT FLIPPER WIDTH:	<input type="text"/>	SAMPLES COLLECTED:	<input type="text"/>
PLASTRON LENGTH:	<input type="text"/>		
WEIGHT:	<input type="text"/>		

DESCRIPTIVE REMARKS:

TDR Tag in good condition. Wear on anterior end of sonic tag (sonic #58) -  
 1<sup>st</sup> Download started at 0740 -  
 Asynchronous reading set to on & it shouldn't be.  
 2<sup>nd</sup> Restarted at 0808 - 923 -  
 File is 724 K - '4/2/98 sonic 5-8 2<sup>nd</sup>'  
 Release at 1125

II PREPARATORY ACADEMY

in for Kichols turtles  
 4/2/98. 6 animals  
 - 1 dead.  
 M. Roman. I. Ka. P. P. P. P. P.



20



CAPTURE DATE: 4-2-98	LOCATION: Kiholo	METHOD OF CAPTURE: Hand captured - Bay off <sup>hind</sup> point
PERSON RECORDING DATA: Liz Horton		

OLD TAGS: N528	PITT TAG BARCODE
TUMOR SCORE	NEW TAGS RFL LFL
PITT TAG # 7F7D227007	OTHER NEW TAGS

STRAIGHT CARAPACE LENGTH: 49	WIDTH: 39.6
NOTCH LENGTH: 48.9	DB: L.O. VB: L.O.
CURVED CARAPACE LENGTH: 52.3	WIDTH: 47.5
HEAD WIDTH:	

PPS: YES  NO

SEX: MALE FEMALE UNDETERMINED

AIL LENGTH: TOTAL	CLOACAL	SAMPLES COLLECTED:
RIGHT FRONT FLIPPER WIDTH:		
LASTRON LENGTH: 40.8		
WEIGHT: 40		

SCRIPTIVE REMARKS:  
left hind healed notch.  
RFI healed notch



CAPTURE DATE:	LOCATION:	METHOD OF CAPTURE:
4-2-18	Kiholo Bay	Hand Capture
PERSON RECORDING DATA: E. Davis		

OLD TAGS:

H 30
H 31
B 954

TUMOR SCORE

PITT TAG # 221A51doB26

PITT TAG BAR CODE

NEW TAGS

RFL

LFL

OTHER NEW TAGS:

STRAIGHT CARAPACE LENGTH: 50.2

NOTCH LENGTH: 50.0

CURVED CARAPACE LENGTH: 53.3

HEAD WIDTH:

WIDTH: 38.6

DB: L.O. VB: L.O.

WIDTH: 47.0

PPS: YES  NO

SEX: MALE FEMALE UNDETERMINED

TAIL LENGTH: TOTAL  CLOACAL

RIGHT FRONT FLIPPER WIDTH:

PLASTRON LENGTH: 40.6

WEIGHT: 40

SAMPLES COLLECTED:

DESCRIPTIVE REMARKS:

Left hind healed notch.  
White nodule on upper right eye lid.



22

CAPTURE DATE:

LOCATION

METHOD OF CAPTURE

4/2/98

Kiholo Bay

Hand capture off Hind Pt.

PERSON RECORDING DATA:

E. David

OLD TAGS:

B260

Y138

Y139

V198

PITT TAG # 1F264A363B

PITT TAG BAR CODE

NEW TAGS

FFL

LFL

OTHER NEW TAGS:

TUMOR SCORE

[Empty box]

STRAIGHT CARAPACE LENGTH

55.0

NOTCH LENGTH:

54.9

CURVED CARAPACE LENGTH

59.0

HEAD WIDTH:

[Empty box]

PPS: YES  NO

WIDTH:

43.6

DB:

L.O.

VB:

L.O.

WIDTH:

51.2

SEX: MALE FEMALE UNDETERMINED

[Empty sex selection boxes]

TAIL LENGTH: TOTAL

[Empty box]

CLOACAL

[Empty box]

RIGHT FRONT FLIPPER WIDTH:

[Empty box]

PLASTRON LENGTH:

44.6

WEIGHT:

50

SAMPLES COLLECTED:

[Empty sample collection box]

DESCRIPTIVE REMARKS:

Soft tissue anterior to RH has a circular area of fibrous tissue ~ 1.5-2.0 cm diameter. Center of area purplish color.

3 slide pictures taken



CAPTURE DATE: 4-2-98	LOCATION Kiholo Lagoon	METHOD OF CAPTURE Scoop Net
PERSON RECORDING DATA: E. DAVIS		

OLD TAGS: H-222 (RFL)	PITT TAG BAR CODE 4150447A4C
TUMOR SCORE	NEW TAGS RFL LFL
PITT TAG #	OTHER NEW TAGS

STRAIGHT CARAPACE LENGTH	46.7
NOTCH LENGTH	46.3
CURVED CARAPACE LENGTH	44.3
HEAD WIDTH	7.9

WIDTH	37.8		
DB	L.O.	VB	L.O.
WIDTH	43.5		

PPS: YES  NO

SEX: MALE  FEMALE  UNDETERMINED

TAIL LENGTH: TOTAL		CLOACAL	
RIGHT FRONT FLIPPER WIDTH			
PLASTRON LENGTH	38.2		
WEIGHT	30		

SAMPLES COLLECTED:

DESCRIPTIVE REMARKS:

Notch in posterior marginal scute (cartilage showing)  
LFL torn notch, partially healed - Tag missing.



24

Date: Fri, 3 Apr 1998 08:32:18 -1000  
From: Marc Rice <mrice@hpa.edu>  
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>  
Subject: Kiholo Trip

KIHOLO

George, I am back in the office this morning, a little tired but undaunted. We had a good trip, but we were only able to capture one of the TDR animals. Will need to return soon for another attempt.

A rundown of what happened:  
APRIL 98 4/1/98

1430 hours arrive at Kiholo  
1530 hours began monitoring for sonic turtles  
no signals heard in bay or in lagoon  
1800 hours sonic 5-8 in lagoon  
1900 hours sonic 2-4-8 in lagoon.  
The tide was extremely high and the water was very murky. The decision was that we would wait until late in the night to dive during low tide.

4/2 198  
0200 hours entire team up and moving over to lagoon area. Sonic group monitoring while dive groups move down the lagoon. About mid-way through the lagoon, Dan Akaboshi sighted 5-8 and I was able to grab it and get it in the tube. We continued the search for 2-4-8 but it was clear by the changing sonic directions that it was moving about the lagoon. After 2 hours we gave up trying to corner it - ~0415 hours. At this time I decided to nip back to camp with the one turtle and let everyone have a hot drink.

0430 hours back at camp  
0530 hours headed back to lagoon entrance to net the exit point and try and get 2-4-8. Unfortunately, the critter had left earlier - bad judgement on my part. We never heard from 2-4-8 again during our stay.

0730 hours began download of data (724 K) seems to have gone well although the download rate is about 1/3 of what it used to be. I have no idea why.

1120 hours TDR tag repaired and sonic 5-8 release

0800-1130 hours teams captured and tagged 5 animals from the bay. One of them was scoop net captured and 4 of them were hand captured on snorkel in the bay. I believe that, had we had the time and energy, we could have captured 15 animals if we wanted to - just for future reference.

1330 hours picked up and left for HPA

I will mail the data sheets for all captured turtle to you today.

DEAD turtle: We found a small turtle floating in a shallow area in the back of the lagoon during the evening observations. Later (0330), during our snorkel dive, I measured it and cut off the humerus bones. The animal was very decomposed and the humerus bones were almost totally devoid of flesh. There was no apparent cause of death - the head was missing but the carapace and plastron did not show any physical trauma. Measurements of small turtle will be sent on a data sheet with the arm bones.

We did note one white nodule on the upper eyelid of one animal, but it appeared smooth, white and solid -

We also noted an area on the skin of one animal that appeared odd in texture and color. Probably nothing but I took some pictures of it. As



I didn't have any biopsy materials nor did I have authorization to take a biopsy, there were none taken. It will be worth looking closely at the animals in the bay next time we are there. The animals that we caught in the bay were very robust looking and appear to be very well fed..

Finally, I would like to be able to go back and try and get 2-4-8 sometime soon. May I do that? I would propose going down one evening and trying to capture the animal- perhaps by boat. Normally, night time activity is not a problem with the public as there is usually no one there. Let me know you thoughts about this.

Best,  
Marc

Marc R. Rice  
Assistant Headmaster  
Leader, Information Technology Group  
Director, Cooperative Sea Turtle Research Program  
Hawaii Preparatory Academy  
65-1692 Kohala Mt. Road  
Kamuela, Hawaii 96743  
phone: 808 881 4004  
fax: 808 881 4003

Date: Sat, 11 Apr 1998 22:15:04 -1000  
From: mrice@hpa.edu  
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>  
Subject: Puako Turtle

*George H. Balazs*  
*Adrian*

George,

Enjoyed working with you folks today. Hope that you were able to get everything that you wanted. I think we were pretty lucky as it turned out.

I wanted to write to you before I forget and mention the tags I read today on one of the turtles at the Puako site.

Tags : LH Q411  
LH Q412

*PUAKO*  
*LAURA and MARC*

It was feeding in the shallows where Laura and I were collecting algae.

Have a nice Sunday and Happy Easter.  
Marc



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Measure of  
Variation  
by Season

Date: Tue, 14 Apr 1998 14:30:00 -1000  
From: Marc Rice <mrice@hpa.edu>  
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>  
Subject: Algae at Puako

PUAKO

George,

I know that you don't have time to read a lot of material, but I thought that I would forward to you some suggestions that a good friend of mine from Moss Landing Marine Lab sent in response to my request. I will continue to involve him as I have questions - He is a phycologist with MLML and a very astute statistician so he might be very helpful.

If I have enough money left in the budget and, if it seems warranted, he may be able to come out for a visit sometime. Is Dennis going to be coming back out to Hawaii anytime soon? Anyhow, know that I am working on the project. The first thing I really need to do is write down exactly what we hope to get out of this little study--- perhaps you could give me your thoughts on this...

Hope the sampling has gone well.  
Marc

2. Sampling turtle food- A bit more difficult to answer. There really is not much written that is not fairly technical, and nothing specific for the algae. This is partly because aside from some general principles as discussed in the reference below, each question and location require specific fine tuning. You might get a copy of the review article:

Andrew, N.L. and Mapstone, B.D. 1987. Sampling and the description of spatial pattern in marine ecology. Oceanography and Marine Biology Annual Reviews 25:39-90.

Covers sampling issues in general and is not extremely technical - by technical I mean largely delving into statistical issues which are the core of any good sampling program.

Essentially what you need to do is:

a. define your sampling area (population) very precisely. Within that area you then need to define what habitats you want to sample (sometimes easier to state what you don't want - in your case for example probably subareas with sand, etc - places where there are never any algae that turtles eat). Or, when you describe the general boundaries of the location (for example, Puako Reef from highest intertidal to X meters deep), you might just define your subpopulation for sampling as only those areas where turtles are known to feed.

b. Sketch these areas on a map.

c. Pick some number of these at random and then place a quadrat in each one picked at random, scrape off the algae, dry it (at about 60 deg.C until get a constant weight), and weigh it. Your sample size will be the total number of quadrats, and you can calculate a mean and variance for each species. If it is just one or two large subareas, then you can pick many randomly located quadrats within each and do the same thing. The trick is to make sure every part of the subpopulation has an equal probability of being sampled (random), that taking one sample does not affect the results from another sample (independent - not a problem with benthic algae), and that you have enough samples to precisely estimate the mean.

d. Enough samples -- one of the easiest ways to figure this out is to plot the mean and some measure of variance (usually standard deviation) against the cumulative sample size for each species, total biomass, etc. you are interested in. As the sample size increases, the mean will stabilize and

the measure of variance should decline and then start to level off. An adequate sample size is around where the variance begins to level off -- indicates that more samples won't be much help in reducing the variance and thus this number of samples would give you a reasonably precise estimate. Problem is that this sample size will vary with each species so if you are going to be looking at a number of different species, most folks focus on estimating this for only those that are most abundant.

e. How big a sampling unit - quadrat or whatever you are going to scrape? This depends on how abundant the algae are. You want to use a quadrat size such that you do not get lots of 0 biomass values -- if the algae are reasonably abundant a 50 x 50 or even 25 x 25 cm quadrat might be fine. You will have trouble capturing some of the scraped turf algae underwater as they may float away especially if there is any surge - some folks put a mesh bag over the quadrat and then stick their hand in and scrape. Can use something like a slurp gun but sort of cumbersome..

Does that all make some sort of sense? Probably not which means you do have to fly me over for some on site training. Actually not a bad idea -- I am around this summer (after June) and would be happy to come over for a few days to work out a sampling program with you. And, it would be fun -- maybe bring Zachary with me. What do you think? Does your turtle grant have any \$ for all or part of a plane ticket or do I need to beg Linda to increase my allowance?

All the best  
Mike



Dining with a Difference - We Care



**DIVE  
MAKAI  
CHARTERS**

POST OFFICE BOX 2955  
KAILUA-KONA, HAWAII 96745  
PHONE & FAX: (808) 329-2025

Att. George Balazs

Capt. Tom Shockley

Capt. Lisa Choquette

7/18/97

Hi, George!!

A BABY Sawbill on 7/16 down near  
An Au canyon!! Shell - 9-10" long -  
looked good & healthy! Cute as a button!

"Turtle Towers" has been incredible -  
last week lowering over the  
"dormitory / beauty parlour" counted 14  
lying around - somewhat "stacked" on  
another - only 1 with tags (couldn't  
read). Does my heart an enormous  
amount of good!! Didn't count those  
tucked under ledges, etc!! Must have  
been 20 in there altogether!

Much Aloha,  
Lisa

P.S. 7/23/97 -  
Rt. Rear - J 426 -  
pretty sure - @ turtles







Diving with a Difference - We Care



**DIVE  
MAKAI  
CHARTERS**

POST OFFICE BOX 2955  
KAILUA-KONA, HAWAII 96745  
PHONE & FAX: (808) 329-2025

Att: George Balaya  
Reduce

Capt. Tom Stockley

Capt. Lisa Choquette

8/5/97

Hi, George:

Left Front # J486

@ Turtles today - along  
w/ umpteen others! Sooo  
amazing!

Lisa



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Date: Mon, 7 Sep 1998 19:51:28 -1000  
From: Dive Makai Charters <dmakai@divemakai.com>  
To: Marc Rice <mrice@hpa.edu>,  
George Balazs <gbalazs@honlab.nmfs.hawaii.edu>  
Subject: Turtles, What else??

~~2/3/98~~ → GB  
OCT 5 1998

[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]

R508

Hi, George & Marc:

Lots & lots of turtles! Ken, at Turtle Towers yesterday at the cleaning sight counted 17 in view. We had well over a dozen at T. Heavens today

Sat. 9/5 at TT-R508-RR.

One w/ blue tags- couldn't read #

Today @ T. Heavens- RF & LF both began w/ H2- could not read rest.

"Stubby"- the turtle missing right hind flipper (actually has a stub) was home & looking well!

"Crack" - the 1 w/ the horrible crack in its shell is almost healed.

B88 has been sighted AGAIN in past 2 weeks- don't have exact date- @ T.T

That's it for now- it's sooo wonderful- TURTLES EVERYWHERE!!

Have a good-  
Lisa

-----  
Aloha,  
Tom Shockley & Lisa Choquette  
Dive Makai Charters-(808)-329-2025 (ph/FAX)  
dmakai@divemakai.com

9-1-98  
fick middle date here

*"If someone tells me not to hang out with a certain person, I'm not going to listen to what they have to say until I can make that decision for myself."*

this year, having made the transition from Maryknoll to MPI for her first year of high school. After learning this fact, my first question is for Allison's opinion of the differences between the two schools, and her favorite aspect of Mid-Pacific Institute.

"I definitely like the social aspect that Mid-Pac offers," she supplies. "Maryknoll was small and everyone basically hung out in their own groups.

and bad characteristic in her opinion, Allison believes that her willingness to make friends with everyone can definitely be considered one of her better attributes. She makes it a point to avoid labeling people prematurely, before she has the reasons for doing so.

"If someone tells me not to hang out with a certain person, I'm not going to listen to what they have to say until I can make that decision for myself," she

"I'm very water-oriented," she comments. "I especially love surfing." She also says that shopping and spending time with friends are activities that you will generally see her doing on the weekends.

You name it, Allison wants to accomplish it. She is hoping to study law and eventually become a lawyer (she hasn't decided between defense and prosecution yet) after graduating from Harvard. In 15 years, she hopes that she will still be able to get along with just

"I also want to be rich and famous," she exclaims, the same vivacity lighting up her face once more. With that kind of motivation, it looks like she's already



*Underclassman Profile*

# Allison Carkin

## There's Just Something About Allison

*Story and photograph  
by Pamela Edwards*

**A**LLISON CARKIN JOGS UP THE PATH LEADING TO THE KAWAIAHA'O COURTYARD, HER BROWN PONY-TAIL BOUNCING WITH EACH STEP.

"Sorry I'm late," chirps the 14-year-old freshman. "I had to stay after for my science class," she explains, flashing me an apologetic smile. Even though it's the first time we've met, she instantly puts me at ease with those two simple sentences.

In that brief narration of my first meeting with her, Allison's personality can very effectively be summarized to someone unfamiliar with her. She is one of those rare people in this world who has the ability to make a complete stranger feel absolutely relaxed around her. Through her sincere words and kindly face, she's the type of person who you would feel privileged to have as a friend.

Dressed in a white collared shirt and blue-flowered board shorts, Allison is attractive but doesn't appear to be trying too hard at it. She has the kind of effortless beauty that lets you know that she doesn't take herself too seriously. Allison is new to Mid-Pacific Institute

Mid-Pac is a lot larger, so you can bounce around and meet lots of different people."

I then asked what she believes are her best and worst qualities.

"My name means 'truthful one,' so I'm really honest with people," Allison replies. "It

declares, reinforcing my first impression of her.

Allison proceeds to tell me more details of her life, the enthusiastic spark never leaving her brown eyes. Born Allison Mina Carkin on September 28, 1985, she is the only child of Susan Kamei and Mark Carkin. She cites her mother as the person who



has had the most profound impact on her life. Allison comments that her mother has been extremely supportive of every decision she has ever had to make.

When asked what she enjoys doing in her free time, Allison explains her love of swimming and her involvement with Aulea, a swim team outside of school that she has participated in for the past six

years. It can be a good thing, but it can also be a bad thing, because sometimes people don't want to hear the truth." Although honesty is both a good



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See p. 159  
Kiholo "14" moto tool  
Release ash 12-20-99  
Kawakui Beach Park

### LIVE TURTLE EXAMINATION RECORD

Date: 1/13/99  
Turtle ID: KIHLO HAWAII "14"  
Comments: Having trouble getting under water  
WT 16.0 lbs

#### PHYSICAL EXAM

Head and neck: normal

Mouth: normal

Eyes: normal

Front flippers: normal

Shell: normal

Plastron: normal

Rear flippers: R rear not moving well  
seems to be frozen

Tail: normal

BODY CONDITION: good

#### SAMPLES TAKEN

PCV  T.P.   
CBC  Chemistries   
Others X-RAYS - (L) #239

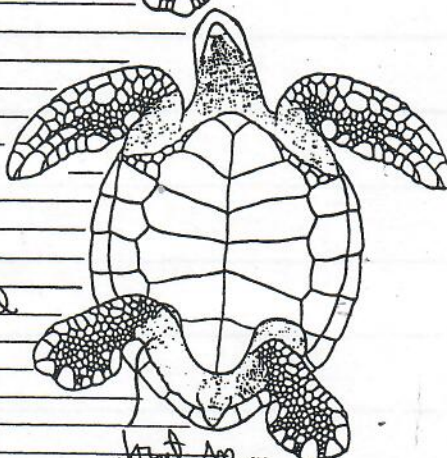
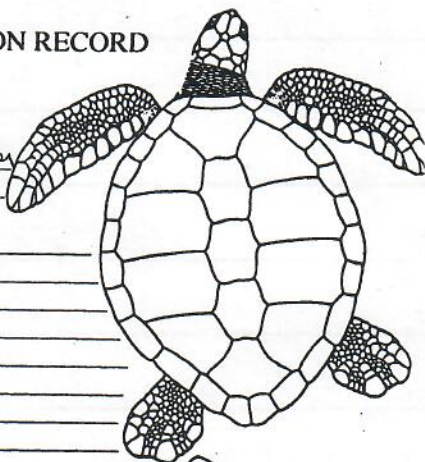
#### APPROXIMATE TUMOR SIZE CATEGORIES:

- #1 = DETECTABLE PATCH TO 1CM DIAMETER
- #2 = >1CM TO 4CM
- #3 = >4CM TO 10CM
- #4 = >10CM

RECOMMENDATIONS: hold for x rays - body, lungs  
near legs - see report

Signed: Robert A. Mours, DVM

MAKAI ANIMAL CLINIC, 420 Uluniu Street, Kailua, HI 96734



Joint seems frozen & small





**MEDICAL HISTORY - CLINICAL RECORD**

①

OWNER NAME <b>Kiholo Hawaii 11/3/99</b>		ADDRESS		TELEPHONE		
PATIENT NAME		SPECIES	BREED	SEX	COLOR AND MARKINGS	
ALTERED YES NO	BIRTH DATE	SPECIAL INFORMATION <b>floats!</b>		LAB	X-RAY	
DATE	PROB NO	BM	UR	AP	TP	DESCRIPTION
11/4/99						<p>X-Ray Body + AP Lungs + rear legs <i>no work</i></p> <p>A) appears to have large gas bowel loop on (R) side. <i>in</i></p> <p>AP Lungs - mostly normal</p> <p>R rear leg - knee joint seems smaller &amp; non-uniform - RADs indicate smaller joint esp distal femur - ?</p> <p>A) GI gas frozen distal femoral joint</p> <p>P. CBC chem sent to IDEX Start on Baytril 36 mg q 8hr (4X) IM - <u>Suspense 3</u></p> <p><u>evaluate in tank before additional</u></p> <p><i>RMY</i></p>

Date: Tue, 23 Nov 1999 07:39:04 -1000  
 From: Marc Rice <mrice@hpa.edu>  
 To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>  
 Subject: Re: Resin on numbers

Thanks for the news on 14. When we sent 14 over to HNL the numbers were very clear and the resin was not cloudy.. interesting. The comments that have been made to me by glass people (those that do a lot of resin work) is that when you apply resin to a damp surface you often get the cloudy appearance. I really don't know what happened because some of them are just fine while others are cloudy. We were down there yesterday and were able to read all but one of the numbers we saw.. the problem with that one is the algae growing on the shell more than the cloudiness. I'll send you a summary of what we found yesterday.. I wanted to get there and check the temperatures out in the pond and do the salinity thing.. average surface temp around 23 C and bottom temp around 26 C.

Thanks for sending the copy of the punalu'u paper.

At 09:14 PM 11/22/99 -1000, you wrote:

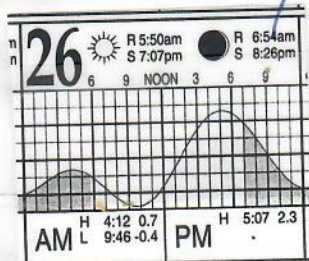
- >
- >Marc, I examined 14 today in the tank at our KRF. Still (resumed)
- >floating slightly high in the rear. Eats very well though. We have no
- >idea what the problem is, what caused it. Injectable antibiotic treatment
- >is over. Bob says "Well, we just have to hold it and watch it, sometimes
- >these things get better on their own." Great, huh? Not.
- >
- >I noticed the resin coat is really cloudy now, almost to the point of
- >making the numbers unreadable. How about at Kiholo, same problem? I know
- >that even when we released them right away there was a "fog" where resin
- >applied. But, for the ones at Midway, I'd don't recall anything like
- >that, they seemed crystal clear. Same for others at nesting beaches
- >we've and I've done. Any idea what caused it? Aloha, George
- >



(34)

MAY 98

Puako



Blood for Tiw.  
Immunology Study.

5-26-98 5:25 AM TO KONA w/Tiwoek  
TUESday ARRIVE Puako Ramp 7 AM -

depart 7:30 AM - Marc, George Watson  
Sandy Watson, Glynnis Nakai, + 3 students  
Scuba ~ 8:15 AM - 9:15 AM, 2 teams.  
13' BW used to pick up turtles.  
20 captured - only one dive. 18 Blood  
Many turtles look flatish plastron - insufficient -  
Depart ALOHA 3 PM FL.

Several turtles had very large PPS's.  
Last 2-3 turtles injected LFF pit  
proximal to distal.



SEA TURTLE TAGGING FORM

1

CAPTURE DATE, LOCATION AND METHOD:

PUAKO HAND SCUBA 5/2/09  
PERSON RECORDING DATA: Glynis N.

OLD TAGS:

[Empty boxes for old tags]

NEW TAGS: RFL

407D44285E

LPL



TUMOR SCORE

0

OTHER NEW TAGS:

[Empty boxes for other new tags]

STRAIGHT CARAPACE-LENGTH:

~~43.3~~ 43.3

WIDTH:

~~36.1~~ 36.1

NOTCH LENGTH:

43.1

DB:

L.O.

VB:

L.O.

CURVED CARAPACE LENGTH:

46.0

WIDTH:

41.0

HEAD WIDTH:

7.1

SEX: MALE, FEMALE OR UNDETERMINED

[Empty box for sex]

PPS: YES OR NO OR NE

Yes

TAIL LENGTH: T

11.0

C

8.0

RIGHT FRONT FLIPPER WIDTH:

[Empty box for flipper width]

SAMPLES COLLECTED:

PLASTRON LENGTH:

34.4

Hb - 8cc (TW)

WEIGHT:

26

1cc UA

DESCRIPTIVE REMARKS:

8cc Blood for Terry Work immunology

Study

Sham repeat this for other Turtles, as applicable.

plasma for banking by TW







SEA TURTLE TAGGING FORM

(3)

CAPTURE DATE, LOCATION AND METHOD:

PUAKO HAND SCUBA

5/26/98

PERSON RECORDING DATA: G. NAKAI

OLD TAGS:

RFL R835

LFL R834

TUMOR SCORE

LH K319

RH R836

0

7F7D227D7E

NEW TAGS: RFL

LFL

OTHER NEW TAGS:

STRAIGHT CARAPACE-LENGTH:

58.6

WIDTH:

45.5

NOTCH LENGTH:

58.6

DB:

L.O.

VB:

L.O.

CURVED CARAPACE LENGTH:

62.0

WIDTH:

55.0

HEAD WIDTH:

NOT TAKEN

SEX: MALE, FEMALE OR UNDETERMINED

PPS: YES OR NO OR NE

TAIL LENGTH:

T

NOT TAKEN

C

RIGHT FRONT FLIPPER WIDTH:

SAMPLES COLLECTED:

PLASTRON LENGTH:

NOT TAKEN

~~Hb 8cc (TW)~~

WEIGHT:

Not taken

for blood for TW

DESCRIPTIVE REMARKS:

Plasma for banking




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SEA TURTLE TAGGING FORM

CAPTURE DATE, LOCATION AND METHOD:

Puako HAND SCUBA	5/26/98
PERSON RECORDING DATA: G. NAKAI	

OLD TAGS:	<input type="text"/>	NEW TAGS: RFL	407D306E1F
	<input type="text"/>	LFL	
TUMOR SCORE	<input type="text"/>	OTHER NEW TAGS:	<input type="text"/>
<input type="text" value="0"/>	<input type="text"/>		<input type="text"/>

STRAIGHT CARAPACE-LENGTH:  WIDTH:

NOTCH LENGTH:  DB:  L.O.:  VB:

CURVED CARAPACE LENGTH:  WIDTH:

HEAD WIDTH:  SEX: MALE, FEMALE OR UNDETERMINED

PPS: YES OR NO OR NE

TAIL LENGTH: T  C

RIGHT FRONT FLIPPER WIDTH:  SAMPLES COLLECTED:

PLASTRON LENGTH:

WEIGHT:  LARGE PIT TAG WOUND, RBC  
 DESCRIPTIVE REMARKS:

*Please see for banking*



SEA TURTLE TAGGING FORM

5

CAPTURE DATE, LOCATION AND METHOD:

PUAKO HAND SCUBA

5/26/98

PERSON RECORDING DATA: G. NAKAI

OLD TAGS:

409D22383D

NEW TAGS: RFL


LFL

TUMOR SCORE

0
---

OTHER NEW TAGS:


STRAIGHT CARAPACE-LENGTH:

50.9

WIDTH:

42.1

NOTCH LENGTH:

50.3

DB:

L.O.

VB:

L.O.

CURVED CARAPACE LENGTH:

55.0

WIDTH:

49.0

HEAD WIDTH:

7.7

SEX: MALE, FEMALE OR UNDETERMINED

PPS: YES OR NO OR NE

Yes

TAIL LENGTH:

T 12.0

C

8.0

RIGHT FRONT FLIPPER WIDTH:

SAMPLES COLLECTED:

PLASTRON LENGTH:

40.0

~~HB~~

WEIGHT:

39

DESCRIPTIVE REMARKS:



(6) (40)

CAPTURE DATE, LOCATION AND METHOD:

PUAKO HAND SCUBA

PERSON RECORDING DATA: G. NAKAI

OLD TAGS:

RFL	R774
LFL	R775
LH	K332
RH	R776

TUMOR  
SCORE

0

NEW TAGS: RFL

LFL

OTHER  
NEW  
TAGS:

7F7P591D46

STRAIGHT CARAPACE-LENGTH:

54.9

NOTCH LENGTH:

54.8

DB:

CURVED CARAPACE LENGTH:

58.0

HEAD WIDTH:

9.0

SEX:

PPS: YES OR NO OR NE

Yes

TAIL LENGTH:

T

11.5

C

8.5

RIGHT FRONT FLIPPER WIDTH:

PLASTRON LENGTH:

45.9

WEIGHT:

53.

DESCRIPTIVE REMARKS:

Dark shell, RBC, THE STRAP

Plasma for  
analysis by TW



## SEA TURTLE TAGGING FORM

①

CAPTURE DATE, LOCATION AND METHOD:

PUAKO HAND SCUBA

5/26/98

PERSON RECORDING DATA: G. NAKAI

OLD TAGS:

RFL K679

NEW TAGS: RFL

LFL K680

LFL

TUMOR  
SCORE

LH K681

OTHER  
NEW  
TAGS:

407D998034

0

STRAIGHT CARAPACE-LENGTH:

55.3

WIDTH:

42.9

NOTCH LENGTH:

55.1

DB:

L.O.

VB:

L.O.

CURVED CARAPACE LENGTH:

59.0

WIDTH:

52.0

HEAD WIDTH:

9.2

SEX: MALE, FEMALE OR  
UNDETERMINED

PPS: YES OR NO OR NE

Yes

TAIL LENGTH:

T

14.5

C

10.0

RIGHT FRONT FLIPPER WIDTH:

SAMPLES COLLECTED:

PLASTRON LENGTH:

44.9

~~Hb 8cc (TW)~~

WEIGHT:

50

3.0 cc LIQ

8cc blood for

DESCRIPTIVE REMARKS:

flat plastron

c.c. 1

TW

plasma for analysis  
by TW



SEA TURTLE TAGGING FORM

(8) 42

CAPTURE DATE, LOCATION AND METHOD:

PUAKO HAND SEMBA

5/26/98

PERSON RECORDING DATA: G. NAKAI

OLD TAGS:

RFL N622

NEW TAGS: RFL

LFL N623

LFL

TUMOR SCORE

RLH N621

OTHER NEW TAGS:



R35 ~~R35~~ Z238

4104061A13 Dorsal plate of tag broken & missing

STRAIGHT CARAPACE-LENGTH:

66.0

WIDTH:

51.4

NOTCH LENGTH:

65.9

DB:

L.O.

VB:

CURVED CARAPACE LENGTH:

71.0

WIDTH:

65.0

HEAD WIDTH:

9.9

SEX: MALE, FEMALE OR UNDETERMINED

PPS: YES OR NO OR NE

Yes

TAIL LENGTH:

T

17.0

C

12.0

RIGHT FRONT FLIPPER WIDTH:

SAMPLES COLLECTED

PLASTRON LENGTH:

51.9

4.3cc LIQ

WEIGHT:

86.0

8cc blood for

DESCRIPTIVE REMARKS:

Flat plastron; HUGE PPS

plasma for backup by TW



## SEA TURTLE TAGGING FORM

(9)

CAPTURE DATE, LOCATION AND METHOD:

PUAKO HAND SCUBA

5/26/98

PERSON RECORDING DATA: G. NAKAI

OLD TAGS:

RFL Q507

NEW TAGS: RFL

LFL Q508

LFL

TUMOR  
SCORE

RH Q510

OTHER  
NEW  
TAGS:

0

LH Q509

221A677F2D

STRAIGHT CARAPACE-LENGTH:

60.0

WIDTH:

44.9

NOTCH LENGTH:

59.9

DB:

L.O.

VB:

L.O.

CURVED CARAPACE LENGTH:

64.0

WIDTH:

57.0

HEAD WIDTH:

8.8

SEX: MALE, FEMALE OR  
UNDETERMINED

PPS: YES OR NO OR NE

Yes

TAIL LENGTH: T

13.5

C

9.0

RIGHT FRONT FLIPPER WIDTH:

SAMPLES COLLECTED:

PLASTRON LENGTH:

48.5

~~HB~~ 8 cc (juv) <sup>Blood</sup>

WEIGHT:

58.0

3.6 cc LIQ <sup>for m</sup>

DESCRIPTIVE REMARKS:

flat plastron, large PPS

plastron for  
bank by JW



10

44

## SEA TURTLE TAGGING FORM

CAPTURE DATE, LOCATION AND METHOD:

PUAKO HAND SCUBA

5/26/98

PERSON RECORDING DATA: G. NAKAI

OLD TAGS:

RFL Q570

NEW TAGS: RFL

TUMOR  
SCORE~~RFL~~ Q569

LFL

~~RFL~~ ~~Q~~OTHER  
NEW  
TAGS:

4104223A/B

STRAIGHT CARAPACE-LENGTH:

53.1

WIDTH:

42.6

NOTCH LENGTH:

52.6

DB:

L.O.

VB:

L.S.

CURVED CARAPACE LENGTH:

57.5

WIDTH:

50.0

HEAD WIDTH:

8.4

SEX: MALE, FEMALE OR  
UNDETERMINED

PPS: YES OR NO OR NE

Yes

TAIL LENGTH:

T

13.5

C

9.0

RIGHT FRONT FLIPPER WIDTH:

SAMPLES COLLECTED:

PLASTRON LENGTH:

42.5

No BCC ~~etc~~

WEIGHT:

46.0

blood for  
TW immunology etc

DESCRIPTIVE REMARKS:

Plasma for  
bank by TW



## CAPTURE DATE, LOCATION AND METHOD:

PUAKO HAND SCUBA

5/26/98

PERSON RECORDING DATA: G. NAKAI

OLD TAGS:

RFL B9172

NEW TAGS: RFL

LFL B 171

LFL

TUMOR  
SCORE

RH B 174

OTHER  
NEW  
TAGS:

0

LH B 173

1F2A714204

STRAIGHT CARAPACE-LENGTH:

55.6

WIDTH:

43.9

NOTCH LENGTH:

55.4

DB:

L.O.

VB:

L.O.

CURVED CARAPACE LENGTH:

59.0

WIDTH:

51.0

HEAD WIDTH:

8.8

SEX: MALE, FEMALE OR  
UNDETERMINED

PPS: YES OR NO OR NE

Yes

TAIL LENGTH: T

13.5

C

9.5

RIGHT FRONT FLIPPER WIDTH:

SAMPLES COLLECTED:

PLASTRON LENGTH:

44.7

~~Hb 6 cc (TW)~~

3.0 cc LIQ

WEIGHT:

52.0

8cc blood for TW only

3cm x 1/2cm

DESCRIPTIVE REMARKS:

right anterior plastron - GASH

banky plasma for TW



12 46

SEA TURTLE TAGGING FORM

CAPTURE DATE, LOCATION AND METHOD:

PUAKO HAND SCUBA 5/26/98  
PERSON RECORDING DATA: G. NAKAI

OLD TAGS: [ ] NEW TAGS: RFL 407D017C3A  
TUMOR SCORE [0] OTHER NEW TAGS: [ ]  
LFL [ ]  
dit tag LFL inserted prox to distal

STRAIGHT CARAPACE-LENGTH: 48.6 WIDTH: 36.9

NOTCH LENGTH: 48.6 DB: [ ] L.O. [ ] VB: [ ]

CURVED CARAPACE LENGTH: 52.5 WIDTH: 44.0

HEAD WIDTH: 8.2 SEX: MALE, FEMALE OR UNDETERMINED [ ]

PPS: YES OR NO OR NE yes

TAIL LENGTH: T 10.0 C 7.0

RIGHT FRONT FLIPPER WIDTH: [ ] SAMPLES COLLECTED

PLASTRON LENGTH: 39.3 Hb ~~8 cc (m)~~ 1.7 cc LIQ

WEIGHT: 33 8cc blood for TW

DESCRIPTIVE REMARKS: cocoa-brown carapace

Plasma for analysis by TW



CAPTURE DATE, LOCATION AND METHOD:

PUAKO HAND SCUBA	5/26/98
PERSON RECORDING DATA: G. NAKAI	

OLD TAGS:	<input type="text"/>	NEW TAGS: RFL	<input type="text"/>
	<input type="text"/>	LFL	<input type="text"/>
TUMOR SCORE	<input type="text"/>	OTHER NEW TAGS:	<input type="text"/>
<input type="text" value="0"/>	<input type="text"/>		<input type="text"/>

409D334F4C

STRAIGHT CARAPACE-LENGTH:  WIDTH:

NOTCH LENGTH:  DB:  L.O. VB:

CURVED CARAPACE LENGTH:  WIDTH:

HEAD WIDTH:  SEX: MALE, FEMALE OR UNDETERMINED

PPS: YES OR NO OR NE

TAIL LENGTH: T  C

RIGHT FRONT FLIPPER WIDTH:  SAMPLES COLLECTED:

PLASTRON LENGTH:  ~~Hb 8cc (TW)~~  
8cc blood for

WEIGHT:  TW:

DESCRIPTIVE REMARKS:

plasma for bank by TW



14

48

SEA TURTLE TAGGING FORM

CAPTURE DATE, LOCATION AND METHOD:

Puako Hand Scuba	5/26/98
PERSON RECORDING DATA: G. NAKAI	

OLD TAGS:	LFL Q769	NEW TAGS: RFL	
	RFL Q770	LFL	
TUMOR SCORE	LH Q771	OTHER NEW TAGS:	
<input type="checkbox"/> 0			

41505E4859

STRAIGHT CARAPACE-LENGTH:  WIDTH:

NOTCH LENGTH:  DB:  VB:

CURVED CARAPACE LENGTH:  WIDTH:

HEAD WIDTH:  SEX:  MALE,  FEMALE OR  UNDETERMINED

PPS: YES OR NO OR NE

TAIL LENGTH: T  C

RIGHT FRONT FLIPPER WIDTH:  SAMPLES COLLECTED

PLASTRON LENGTH:  *110 8 cc blood for T*

WEIGHT:

DESCRIPTIVE REMARKS:

Jelly in mouth - food?

Plasma for bandy by GW



## CAPTURE DATE, LOCATION AND METHOD:

PUAKO HAND SCUBA

5/26/98

PERSON RECORDING DATA: G. NAKAI

## OLD TAGS:

RFL R768

LFL R769

RH R770

LH K325

## NEW TAGS: RFL

LFL

## TUMOR SCORE

0

## OTHER NEW TAGS:

407DID7172

## STRAIGHT CARAPACE-LENGTH:

54.5

## WIDTH:

41.4

## NOTCH LENGTH:

54.3

## DB:

L.O.

## VB:

L.O.

## CURVED CARAPACE LENGTH:

58.0

## WIDTH:

50.5

## HEAD WIDTH:

8.6

SEX: MALE, FEMALE OR UNDETERMINED

## PPS: YES OR NO OR NE

Yes

## TAIL LENGTH: T

13.0

## C

9.5

## RIGHT FRONT FLIPPER WIDTH:

## SAMPLES COLLECTED:

## PLASTRON LENGTH:

42.1

~~Hb sec (TW)~~

## WEIGHT:

46

8cc blood  
for TW

## DESCRIPTIVE REMARKS:

2nd pit tag (not) found; presumed missing.

PIT TAG  
loss  
plasma for  
TW



SEA TURTLE TAGGING FORM

16 50

CAPTURE DATE, LOCATION AND METHOD:

PUAKO HAND SCUBA 5/26/98

PERSON RECORDING DATA: G. NAKAI

OLD TAGS: RFL Q878 NEW TAGS: RFL

LFL Q879 LFL

TUMOR SCORE LH Q880 OTHER NEW TAGS:

1

41307E677A

STRAIGHT CARAPACE-LENGTH:  WIDTH:

NOTCH LENGTH:  DB:  L.O.  VB:

CURVED CARAPACE LENGTH:  WIDTH:

HEAD WIDTH:  SEX: MALE, FEMALE OR UNDETERMINED

PPS: YES OR NO OR NE

TAIL LENGTH: T  C

RIGHT FRONT FLIPPER WIDTH:  SAMPLES COLLECTED

PLASTRON LENGTH:  ~~116 cc (TW)~~

WEIGHT:

DESCRIPTIVE REMARKS:

Left eye missing

Plasma for banking by TW



SEA TURTLE TAGGING FORM

17

CAPTURE DATE, LOCATION AND METHOD:

PUAKO HAND SCUBA 5/26/98  
 PERSON RECORDING DATA: G. NAKAI

OLD TAGS:   
 TUMOR SCORE:  NEW TAGS: RFL   
LFL   
 OTHER NEW TAGS:

STRAIGHT CARAPACE-LENGTH:  WIDTH:

NOTCH LENGTH:  DB:  L.O. VB:

CURVED CARAPACE LENGTH:  WIDTH:

HEAD WIDTH:  SEX: MALE, FEMALE OR UNDETERMINED

PPS: YES OR NO OR NE

TAIL LENGTH: T  C

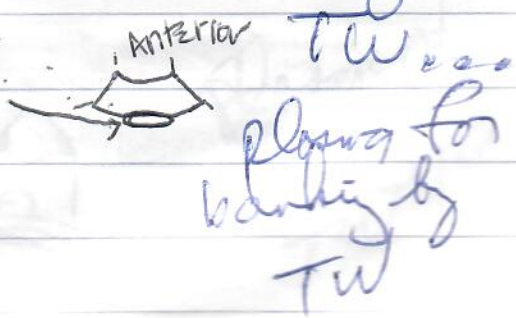
RIGHT FRONT FLIPPER WIDTH:  SAMPLES COLLECTED:

PLASTRON LENGTH:

WEIGHT:

DESCRIPTIVE REMARKS: flat plastron

Small oval scale in post-central.  
 red filament algal in mouth





18 52

SEA TURTLE TAGGING FORM

CAPTURE DATE, LOCATION AND METHOD:

PUAKO HAND SCUBA	5/26/98
PERSON RECORDING DATA: G. NAKAI	

OLD TAGS:	<input type="text"/>	NEW TAGS: RFL	<input type="text"/>
	<input type="text"/>	LFL	<input type="text"/>
TUMOR SCORE	<input type="text"/>	OTHER NEW TAGS:	<input type="text"/>
<input checked="" type="checkbox"/>	409D504315		<input type="text"/>

STRAIGHT CARAPACE-LENGTH:  WIDTH:

NOTCH LENGTH:  DB:  VB:

CURVED CARAPACE LENGTH:  WIDTH:

HEAD WIDTH:  SEX: MALE, FEMALE OR UNDETERMINED

PPS: YES OR NO OR NE

TAIL LENGTH: T  C

RIGHT FRONT FLIPPER WIDTH:  SAMPLES COLLECTED:

PLASTRON LENGTH:


WEIGHT:

DESCRIPTIVE REMARKS:



CAPTURE DATE, LOCATION AND METHOD:

PUAKO HAND SCUBA 5/26/98  
 PERSON RECORDING DATA: G. NAKAI

OLD TAGS:   
 TUMOR SCORE:   0  
 NEW TAGS: RFL   
 LFL   
 OTHER NEW TAGS:   


STRAIGHT CARAPACE-LENGTH:  WIDTH:

NOTCH LENGTH:  DB:  L.O. VB:

CURVED CARAPACE LENGTH:  WIDTH:

HEAD WIDTH:  SEX:

PPS: YES OR NO OR NE

TAIL LENGTH: T  C

RIGHT FRONT FLIPPER WIDTH:  SAMPLES COLLECTED:

PLASTRON LENGTH:

WEIGHT:

DESCRIPTIVE REMARKS:

old dent/head crushed dorsal head  
 2 amphipods in mouth



Plasma for  
 analysis by  
 TW



SEA TURTLE TAGGING FORM

(20) (54)

END  
PWA

CAPTURE DATE, LOCATION AND METHOD:

PUAKO HAND SCUBA

5/26/98

PERSON RECORDING DATA: G. NAKAI

OLD TAGS:

RFL Q568  
RH Q567  
4104122771

NEW TAGS: RFL

LFL

TUMOR SCORE

ⓐ

OTHER NEW TAGS:

STRAIGHT CARAPACE-LENGTH:

48.9

WIDTH:

39.4

NOTCH LENGTH:

48.7

DB:

Ⓟ

L.O.

VB:

Ⓟ

L.O.

CURVED CARAPACE LENGTH:

53.0

WIDTH:

47.0

HEAD WIDTH:

7.9

SEX:

MALE, FEMALE OR UNDETERMINED

PPS: YES OR NO OR NE

Yes

TAIL LENGTH:

T

11.0

C

7.5

RIGHT FRONT FLIPPER WIDTH:

SAMPLES COLLECTED

PLASTRON LENGTH:

39.4

~~Hb-8cc (m)~~

WEIGHT:

35

1.7 cc LIQ

8 cc blood for

DESCRIPTIVE REMARKS:

flat plastron

TCA

Abundance of PCA.

LH 1/3 amputated & healed

Plastron for bands by TW



## SEA TURTLE TAGGING FORM

CAPTURE DATE, LOCATION AND METHOD:

9/23/98

Keawo Nui, ~~Keawo Nui~~ Net Capture

ISLAND OF HAWAII

PERSON RECORDING DATA:

Erica Davis

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

OLD TAGS:

K966 (LFL)

NEW TAGS: RFL

11478 (RFL)

Pit LFL

413B652A7B

TUMOR  
SCORE

0

OTHER  
NEW  
TAGS:

Pit LHL

411C683709

STRAIGHT CARAPACE-LENGTH:

43.9

WIDTH:

37.7

SNOUT LENGTH:

43.7

DB:

0

L.O.

VB:

0

L.O.

CURVED CARAPACE LENGTH:

46.5

WIDTH:

41.5

HEAD WIDTH:

\*7.5

SEX: MALE, FEMALE OR  
UNDETERMINED

0

SCARS: YES OR NO OR NE

Y

TAIL LENGTH:

T

10

C

6.5

RIGHT FRONT FLIPPER WIDTH:

8.2

SAMPLES COLLECTED:

CARRON LENGTH:

35.8

Blood taken for

WEIGHT:

27.0

plasma banking. 6ml

DESCRIPTIVE REMARKS:

1.0ml LIQ /

Dre mel "1" / white paint  
6 Centrals. Small between 4<sup>th</sup> and 5<sup>th</sup>  
~~5~~ - old pit tag not found.



56

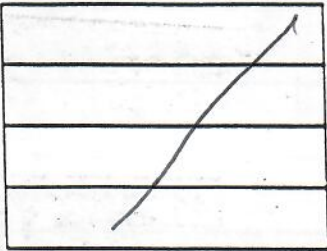
SEA TURTLE TAGGING FORM

2

CAPTURE DATE, LOCATION AND METHOD:

Keawa Nui, ~~Maui~~, Net capture. 9/23/18

PERSON RECORDING DATA: E. DAVIS

OLD TAGS:   
TUMOR SCORE  
0

NEW TAGS: RFL  
Pitt LFL 411C5C4360  
OTHER NEW TAGS: L#L Pitt 41494D0B60

STRAIGHT CARAPACE-LENGTH: 40.5 WIDTH: 33.2

NOTCH LENGTH: 40.2 DB: 0 L.O. VB: 0 L.O.

CURVED CARAPACE LENGTH: 43.0 WIDTH: 38.0

HEAD WIDTH: 6.5 SEX: MALE, FEMALE OR UNDETERMINED U

PPS: YES OR NO OR NE Y

TAIL LENGTH: T 8.0 C 5.0

RIGHT FRONT FLIPPER WIDTH: 7.1 SAMPLES COLLECTED

PLASTRON LENGTH: 32.2 Blood taken for plasma banking. 6ml

WEIGHT: 19.0

DESCRIPTIVE REMARKS: 1.0ml LIQ.

2, 3 & 4 on R scale all E and healed.  
Dremel "2" / white paint



## SEA TURTLE TAGGING FORM

3

CAPTURE DATE, LOCATION AND METHOD:

Keawa Nui, ~~Alamae Lani~~

Net 9/23/98

PERSON RECORDING DATA: E. Davis

OLD TAGS:

TUMOR  
SCORE

0

NEW TAGS: RFL

P.H LFL

OTHER  
NEW  
TAGS:LHL ~~RFL~~ P.H

411F2E5F2C



414B686A41

STRAIGHT CARAPACE-LENGTH:

44.5

WIDTH:

36.1

NOTCH LENGTH:

43.9

DB:

0

L.O.

VB:

0

L.O.

CURVED CARAPACE LENGTH:

47.5

WIDTH:

42.0

HEAD WIDTH:

6.9

SEX: MALE, FEMALE OR  
UNDETERMINED

U

PPS: YES OR NO OR NE

Y

TAIL LENGTH: T

10.0

C

6.5

RIGHT FRONT FLIPPER WIDTH:

7.3

SAMPLES COLLECTED:

PLASTRON LENGTH:

35.5

Blood taken

WEIGHT:

25.0

for plasma banking 6 ml.

DESCRIPTIVE REMARKS:

1.0 ml LIQ

Dremel "3" / white paint



(A)

(58)

SEA TURTLE TAGGING FORM

CAPTURE DATE, LOCATION AND METHOD:

09-23-08 KEAWA NUI, HAWAII NET

PERSON RECORDING DATA: E. DAVIS

OLD TAGS: [ ] NEW TAGS: RFL  
 TUMOR SCORE: [0] OTHER NEW TAGS: LHF P#  
 [ ] P# LFL 411F241434  
 [ ] 411C6A7139

STRAIGHT CARAPACE-LENGTH: 51.1 WIDTH: 40.4  
 NOTCH LENGTH: 50.8 DB: 0 L.O. VB: 0 L.O.  
 CURVED CARAPACE LENGTH: 55.0 WIDTH: 48.5

HEAD WIDTH: 8.5 SEX: MALE, FEMALE OR UNDETERMINED U  
 PPS: YES OR NO OR NE Y

TAIL LENGTH: T 9.5 C 6.5

RIGHT FRONT FLIPPER WIDTH: 8.9 SAMPLES COLLECTED:

PLASTRON LENGTH: 41.4 Blood taken for plasma banking. 6ml

WEIGHT: 40.0  
 DESCRIPTIVE REMARKS: 2.3 ml LIQ

Dremel 4 / white paint tag slots 2" diameter  
 Dremel 2 / white paint tag slots 2" diameter



## SEA TURTLE TAGGING FORM

5

CAPTURE DATE, LOCATION AND METHOD:

Keawo Nui; 9/23/18

Net Captured

PERSON RECORDING DATA: E. Davis

OLD TAGS:

V 707 (RFL)

R 2-3

NEW TAGS: RFL

TUMOR  
SCORE

Pit ↓ (LFL)

LFL

407C76130A

OTHER  
NEW  
TAGS:

411C66403C

Pit LHF

STRAIGHT CARAPACE-LENGTH:

43.6

WIDTH:

35.4

NOTCH LENGTH:

43.2

DB:

0

L.O.

VB:

0

L.O.

CURVED CARAPACE LENGTH:

46.5

WIDTH:

41.5

HEAD WIDTH:

6.9

SEX: MALE, FEMALE OR  
UNDETERMINED

U

PPS: YES OR NO OR NE

Y

TAIL LENGTH:

T

9.5

C

8

RIGHT FRONT FLIPPER WIDTH:

7.1

SAMPLES COLLECTED:

PLASTRON LENGTH:

35.7

Blood taken for

plasma banking. 6ml.

WEIGHT:

25.0

DESCRIPTIVE REMARKS:

1.0 ml LIQ

Dye mel 5 / white paint



60

SEA TURTLE TAGGING FORM

6

CAPTURE DATE, LOCATION AND METHOD:

Keana Nui, ~~Mauka~~ 9/23/98

PERSON RECORDING DATA: E. Davis

OLD TAGS: P.H. # 41504E5072  
4133 RFL  
TUMOR SCORE 4132 LFL  
0

NEW TAGS: RFL  
LFL

OTHER NEW TAGS: P.H. # LHF  
411F26542A

STRAIGHT CARAPACE-LENGTH: 49.5 WIDTH: 37.9

NOTCH LENGTH: 49.5 DB: 0 L.O. VB: 0 L.O.

CURVED CARAPACE LENGTH: 54.0 WIDTH: 45.5

HEAD WIDTH: 8.1 SEX: MALE, FEMALE OR UNDETERMINED U

PPS: YES OR NO OR NE Y

TAIL LENGTH: T 9.5 C 6.5

RIGHT FRONT FLIPPER WIDTH: 8.7 SAMPLES COLLECTED

PLASTRON LENGTH: 41.9 Blood taken for plasma banking Gal

WEIGHT: 39.0

DESCRIPTIVE REMARKS:

Pre mel 6/ white paint



## SEA TURTLE TAGGING FORM

7

CAPTURE DATE, LOCATION AND METHOD:

Kauai Ke Kawa Noi 9/23/98

PERSON RECORDING DATA: E. DAVIS

OLD TAGS:

N894 LFL

NEW TAGS: RFL

N893 RFL

LFL

TUMOR  
SCORE

N895 RHF

OTHER  
NEW  
TAGS:

0

(LFL)

411F190769

Pit

IF275201674

LHF



STRAIGHT CARAPACE-LENGTH:

53.4

WIDTH:

41.2

NOTCH LENGTH:

53.3

DB:

0

L.O.

VB:

0

L.O.

CURVED CARAPACE LENGTH:

57.0

WIDTH:

49.5

HEAD WIDTH:

8.7

SEX: MALE, FEMALE OR  
UNDETERMINED

U

PPS: YES OR NO OR NE

Y

TAIL LENGTH:

T

10.5

c

6.5

RIGHT FRONT FLIPPER WIDTH:

8.9

SAMPLES COLLECTED:

PLASTRON LENGTH:

43.7

Blood taken for

Plasma Barking 6ml

WEIGHT:

47.0

DESCRIPTIVE REMARKS:

2.3 ml LIQ

Dye mel 7 / white paint



Expendage (62)

SEA TURTLE TAGGING FORM

(8)

CAPTURE DATE, LOCATION AND METHOD:

Keawa Noi, 9/23/98

PERSON RECORDING DATA: E. Davis

OLD TAGS:

K756	LFL
K757	RFL
K759	RHF
K758	LHF

NEW TAGS: RFL

LFL

TUMOR SCORE

0

OTHER NEW TAGS:

pit LHF



411C656741

Pit IF273A067A

STRAIGHT CARAPACE-LENGTH:

49.4

WIDTH:

39.6

NOTCH LENGTH:

49.2

DB:

0 L.O.

VB:

0

CURVED CARAPACE LENGTH:

52.5

WIDTH:

46.0

HEAD WIDTH:

8.2

SEX: MALE, FEMALE OR UNDETERMINED

U

PPS: YES OR NO OR NE

Y

TAIL LENGTH:

T 10

C

6.5

RIGHT FRONT FLIPPER WIDTH:

8.3

SAMPLES COLLECTED

PLASTRON LENGTH:

41.2

Blood taken for plasma banking. Good

WEIGHT:

37

DESCRIPTIVE REMARKS:

1.7 ml LTQ

Dre mel 8 / white paint



## SEA TURTLE TAGGING FORM

9

CAPTURE DATE, LOCATION AND METHOD:

Keawa Nui 9/23/98

PERSON RECORDING DATA: E. Davis/Kisk.

OLD TAGS:


NEW TAGS: RFL



411F377F00

P-X LFL

TUMOR  
SCORE

6

OTHER  
NEW  
TAGS:

LHA



411F180C2C

STRAIGHT CARAPACE-LENGTH:

47.4

WIDTH:

38.9

NOTCH LENGTH:

47.1

DB:

0

L.O.

VB:

0

L.O.

CURVED CARAPACE LENGTH:

49.9

WIDTH:

46.5

HEAD WIDTH:

7.9

SEX: MALE, FEMALE OR  
UNDETERMINED

✓

PPS: YES OR NO OR NE

Y

TAIL LENGTH:

T

10

C

6.8

RIGHT FRONT FLIPPER WIDTH:

8.2

SAMPLES COLLECTED:

PLASTRON LENGTH:

38.1

Blood taken for  
plasma tests

WEIGHT:

34.0

DESCRIPTIVE REMARKS:

Dye mel 9/white paint

1.7 mL LQ



64

SEA TURTLE TAGGING FORM

10

CAPTURE DATE, LOCATION AND METHOD:

Keana Nui 9/23/98 hand/scuba

PERSON RECORDING DATA: E. Davis/K.K.

OLD TAGS: pit IF272B7E11(LFL) NEW TAGS: RFL

TUMOR SCORE 0 RHF K91 LFL

RFL K89 OTHER NEW TAGS: pit LHF

~~IF272B7E11(LFL)~~

411E7E6364

STRAIGHT CARAPACE-LENGTH: 60.2 WIDTH: 45.9

NOTCH LENGTH: 59.6 DB: 0 L.O. VB: 0

CURVED CARAPACE LENGTH: 82.3 WIDTH: 56.6

HEAD WIDTH: 9.5 SEX: MALE, FEMALE OR UNDETERMINED U

PPS: YES OR NO OR NE Y

TAIL LENGTH: T 15.5 C 10.8

RIGHT FRONT FLIPPER WIDTH: 11.3 SAMPLES COLLECTED

PLASTRON LENGTH: 48.5 blood taken for plasma test

WEIGHT: 62.0

DESCRIPTIVE REMARKS: LFL healed notch 3.6 mL LFO Dre mel 10/white paint



## SEA TURTLE TAGGING FORM

(11)

CAPTURE DATE, LOCATION AND METHOD:

Keawone Nui 9/23/98

hand/Scuba

PERSON RECORDING DATA: E. Davis/K.K.

OLD TAGS:

IF26476EQ6(LFL)

NEW TAGS: RFL

K740 LFL

LFL

TUMOR  
SCORE

H152 RFL

OTHER  
NEW  
TAGS:

0

H153 LHF

LHF

411F304744

J29 RHF



STRAIGHT CARAPACE-LENGTH:

52.2

WIDTH:

41.5

NOTCH LENGTH:

52.1

DB:

0 L.O.

VB:

0 L.O.

CURVED CARAPACE LENGTH:

55.2

WIDTH:

48.0

HEAD WIDTH:

8.6

SEX: MALE, FEMALE OR  
UNDETERMINED

U

PPS: YES OR NO OR NE

Y

TAIL LENGTH:

T

10.0

C

6.8

RIGHT FRONT FLIPPER WIDTH:

10.0

SAMPLES COLLECTED:

PLASTRON LENGTH:

~~42.9~~ 42.9

No blood taken

WEIGHT:

41.0

DESCRIPTIVE REMARKS:

Dre mel 11/white paint

2.3 ml LIA



## SEA TURTLE TAGGING FORM

66

12

CAPTURE DATE, LOCATION AND METHOD:

Keawa Noi, 9/23/98

hand/scuba

PERSON RECORDING DATA: E. DAVIS

OLD TAGS:

K749	RHF
K748	LHF
K746	LFL
K744	RFL

NEW TAGS: RFL

LFL

TUMOR SCORE

0

OTHER NEW TAGS:

LHF  
RFL

414B231C2E

Pit IF26474232(LFL)

STRAIGHT CARAPACE-LENGTH:

55.0

WIDTH:

43.6

NOTCH LENGTH:

54.5

DB:

0

L.O.

VB:

0

L.O.

CURVED CARAPACE LENGTH:

58.8

WIDTH:

51.6

HEAD WIDTH:

9.7

SEX: MALE, FEMALE OR UNDETERMINED

V

PPS: YES OR NO OR NE

Y

TAIL LENGTH:

T

12.5

C

8

RIGHT FRONT FLIPPER WIDTH:

10.0

SAMPLES COLLECTED:

PLASTRON LENGTH:

44.5

blood taken for

WEIGHT:

49.0

Plasma test.

DESCRIPTIVE REMARKS:

Dye mel 12/ white paint

has LG



SEA TURTLE TAGGING FORM

13

CAPTURE DATE, LOCATION AND METHOD:

Keana Nui 9/23/98 hand/scuba  
 PERSON RECORDING DATA: E. Davis

OLD TAGS:

IF27446F07 (LFL)  
 LHF J24  
 LFL J23  
 RHF K751  
 RFL J22

NEW TAGS: RFL

LFL

TUMOR SCORE

0

OTHER NEW TAGS:

RFL

41487A3F67

STRAIGHT CARAPACE-LENGTH:

58.7

WIDTH:

43.1

NOTCH LENGTH:

58.4

DB:

0 L.O.

VB:

0 L.O.

CURVED CARAPACE LENGTH:

62.2

WIDTH:

53.1

HEAD WIDTH:

9.1

SEX: MALE, FEMALE OR UNDETERMINED

U

PPS: YES OR NO OR NE

Y

TAIL LENGTH:

T 15.0

C

10.0

RIGHT FRONT FLIPPER WIDTH:

10.9

SAMPLES COLLECTED:

PLASTRON LENGTH:

46.2

blood taken for plasma tests

WEIGHT:

61

DESCRIPTIVE REMARKS:

\* note holes on plastron

Dremel 13/ white paint

3.0 ml CIA

Rathike gland enlarged.