3 of 3

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TURTLES SET FREE

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COURTESY OF THE MAUI OCEAN CENTER

A team of turtle experts and volunteers from the National Marine Fisheries Service, Hawaii Wildlife Fund, Sea Life Park, NOAA, Island Marine Institute and Maui Ocean Center curatorial staff gathered Wednesday to release six green sea turtles into the ocean.

Customer Printout

-- Pulse Periods are in mSeconds. (BPM = 60000/nSec. ie. 5000 mSec. = 12 BPM)

Final Test Data: Final Test Date: 2002.02.21

CTN #	Designed Freq.	Actual Freq.	Pulse Width	ID Pulse Period	Active Period 1	Active Period 2	Inactive Period	Shutdown
494102A	148.080	148.080	20		800			OK
494103A	148.260	148.260	20		800			OK
494104A	148.220	148.221	20		800			OK

Date: Sun, 10 Mar 2002 14:51:52 -1000
From: George H. Balazs <gbalazs@honlab.nmfs.hawaii.edu>
To: William Devick <william_s_devick@exec.state.hi.us>,
Skippy Hau <skippy_hau@exec.state.hi.us>,
Russell Sparks <russell_t_sparks@exec.state.hi.us>,
Richard Sixberry <Richard_L_Sixberry@exec.state.hi.us>,
DOCARE Randy Awo <puhipaka@hotmail.com>
Cc: Wayne-SLP <slpwayne@aol.com>, Bill Gilmartin <willyswoodworks@yahoo.com>,
Thierry Work DVM <thierry_work@usgs.gov>,
MOC John Gorman <JJJ88888@aol.com>, MOC Hannah Bernard <wild@aloha.net>,
Brian Joseph DVM <PhinneyPin@aol.com>,
Robert Morris <morrisr005@hawaii.rr.com>,
Bob Morris DVM <makaiclinic@earthlink.net>,
Sea Life Park Hawaii <slpanimalprogram@aol.com>,
Gregg Levine DVM <GLevineDVM@aol.com>
Subject: Release of 6 Sea Life Park green turtles from the Maui Ocean Center on Wednesday March 13th

I'm writing to confirm that I will be significantly involved in the release of six captive-hatched, captive-reared sub-adult green turtles from Sea Life Park currently on display at the Maui Ocean Center. Comprehensive veterinary exams have been carried out on these animals and all are in good health and suitable for release.

In cooperation with Sea Life Park and the Maui Ocean Center, I will ensure that the six turtles will be double-PIT tagged (for positive long-term ID), basic measurements recorded, and temporary harmless markings placed on the shell for easy visual recognition by divers and other ocean watchers. These marks, -white letters and numbers, should last for a year. In addition, my program will place small VHF radio transmitters on two of the turtles that will then be tracked from shore using radio receivers and directional antennas during coming days, weeks, and months. The persons doing this work will be a consortium of individuals from the Hawaii Wildlife Fund and the Maui Ocean Center, under the overall guidance of Bill Gilmartin.

The turtles will be released from shore at about noon on Wednesday near (but not in) the Ahihi Kinau Preserve. The turtles are not expected to take up residency at their release site. In other releases of Sea Life Park captive turtles, some of the animals have moved 10's-to-100's of kilometers from where they were let go. Radio-tracking on Maui is hoped to shed light on this subject in real-time via the shoreline monitoring.

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FOR IMMEDIATE RELEASE

Contact: Christy Churchill
Public Relations Man
Telephone: 808.270.7064
Facsimile: 808.270.7070
Email: pr@mauioceancenter.com

Maui Ocean Center Sends Green Sea Turtles Home to the Ocean

March 14, 2002— MA'ALAEA, MAUI, HI— Yesterday was Independence Day for Maui Ocean Center's 6 green sea turtles that have called the Hawaiian Aquarium "home" for the past four years. The male and 5 female turtles were released to the open ocean off of South Maui on Wednesday afternoon under the direction of George H. Balazs, zoologist and marine turtle specialist for the National Marine Fisheries Service Honolulu Laboratory and Bill Gilmartin of Hawaii Wildlife Fund. A team of turtle experts and volunteers from the National Marine Fisheries Service, Hawaii Wildlife Fund, Sea Life Park, NOAA, Island Marine Institute and Maui Ocean curatorial staff gathered to assist in the turtle's transition from the aquarium to the sea.

All of the green sea turtles on display at Maui Ocean Center are part of Sea Life Park's Green Sea Turtle Educational Loan Program, designed to educate people about this threatened species. The turtles were hatched at Sea Life Park and sent to approved facilities across the state acting as ambassadors of their kind. After a few years, the turtles are returned to the wild.

George Balazs, National Marine Fisheries Service Honolulu Laboratory and Gregg Levine, Sea Life Park veterinarian, spent Wednesday morning examining each of the 6 turtles prior to their release. "All of the turtles are in great shape! They are healthy and ready to live the life of a turtle in open waters," said George Balazs. Balazs and Gilmartin attached radio transmitters to 2 of the green sea turtles so the traveling patterns and selected residence for these turtles can be tracked. Hawaii Wildlife Fund and Maui Ocean Center volunteers will be tracking the turtles for the next few days to monitor their transition to the wild.

Hannah Bernard, Maui Ocean Center's director of education, was out in the water as the turtles were being released from shore. "I am so happy to see how well all of the turtles adapted to their new world the second they reached the ocean. They just spread their wings and they were gone." According to George Balazs, "after a few days, the turtles will select a place in the ocean that will be their home and it would be a big surprise if they wandered very far from that place. Turtles are creatures of habit."

Greg Levine, DVM of Sea Life Park, has been Maui Ocean Center's turtle doctor for the last 2 years. "These turtles are really robust and healthy. Everything went really well today. The turtles showed every sign of a smooth transition to open waters." said Levine. The green sea turtle ambassador program will continue at Maui Ocean Center. The Hawaiian Aquarium is expecting a new arrival of baby turtles within the next few weeks from Sea Life Park.

The Maui Ocean Center is centrally located in oceanfront Ma'alaea within minutes of all major resort areas. Aptly named "The Hawaiian Aquarium," this state-of-the-art marine park is the only facility in the world dedicated to preserving and sharing the beauty and wonder of Hawaii's indigenous and endemic marine life. For more information, please visit www.mauioceancenter.com or call (808) 270-7000.

MAUI OCEAN CENTER
Dedicated to the preservation and conservation of Hawaii's unique undersea world.
192 Ma'alaea Road • Ma'alaea, Maui, Hawaii 96793
Phone 808.270.7000 • Fax 808.270.7070 • Email: marketing@mauioceancenter.com

Date: Sat, 16 Mar 2002 19:54:24 -0800 (PST)
From: CHERYL KING <shezking@yahoo.com>
To: gbalazs@honlab.nmfs.hawaii.edu, Bill Gilmartin <will
JJJ88888@aol.com, GLevineDVM@aol.com, hanna@mauioce
Subject: #8221 & #3

George,
We tracked from Pu'u O'lai (the southernmost hill, which covers Big Beach down to Ahihi and Little Beach area) yesterday for almost 3 hours and did pick up #8221 steadily. Using the directional antennae, the location appeared to be somewhere between Little Beach and Molokini. We are planning on returning tomorrow to the northernmost hill, which covers Little Beach and the Makena-Kihei coastline.

I got a call from a friend today who saw #3 swimming in the northern waters off of Pu'u O'lai ("Turtle Town"), "looking normal". So, at least one has been spotted!

That's the latest that I'm aware of- I'll keep everyone updated.

Date: Tue, 19 Mar 2002 22:45:07 -0800 (PST)
From: CHERYL KING <shezking@yahoo.com>
To: gbalazs@honlab.nmfs.hawaii.edu, hannah@mauioceancenter.com,
GLevineDVM@AOL.com, slpanimalprogram@AOL.com, JJJ88888@AOL.com,
willyswoodworks@yahoo.com
Subject: Tuesday, March 19 tracking update

No good news to report. We tracked from the northern pu'u of Pu'u O'lai early this morning for 3 hours and did not hear from either turtle. Our position faced Molokini, the Wailea, Kihei coastline, as well as part of Big Beach to Ahihi Kinau. We were originally going to track from the center pu'u, facing more towards Little Beach, hoping to pick up "Wahine" again. But it was just too windy (maybe even for the chosen hill), so focusing on the more sheltered coastlines was our best bet.

A couple of the HAM radio operators listened from the winery upcountry (which is practically right above Big Beach) from 12:00-3:00 with no luck.

So, we know where they "aren't"...

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Date: Wed, 20 Mar 2002 07:14:20 -0800 (PST)
From: Bill Gilmartin <willyswoodworks@yahoo.com>
To: CHERYL KING <shezking@yahoo.com>, gbalazs@honlab.nmfs
hannah@mauioceancenter.com
Subject: Re: a possible problem...

Cheryl and all: Yes, correct for our paper purposes:
8220=8221

..and you are correct on your assignment of transmitters to turtles below: it was the lower serial # transmitter that went to the male which is freq 8260. 8221 to the "female". Your mention of serial #'s below jogged my memory and it was lower serial # matched with lower carapace #, not lower frequency. So, hopefully, all confusion on this is resolved?
---Bill

--- CHERYL KING <shezking@yahoo.com> wrote:
> Okay, it looks like we have a little confusion
> here...
> I've been going off of the Actual Freq #s, not the
> Designed Freq #s, according to that sheet.
> Therefore,
> the two #s I've been tracking have been #8221 &
> #8260
> (I hope this is correct!!).
>
> George, I think we were on the same page except I
> thought that your "#8220" should have been "#8260",
> because there isn't a #8220 (#8260 and #8221 only by
> the Actual Freq #s), and you wrote that "Wahine" was
> #8221. I accidentally typed "#8620" instead of
> "#8260" by mistake (static-induced dyslexia), so I
> thought that maybe you might have too. Does that
> make
> any sense?? So, this is what I have been going by:
>
>
> 494103A: Designed freq #8260, Actual freq #8260
> (tracking #) = "Kane" (#5), released second
>
>
> 494104A: Designed freq #8220, Actual freq
> #8221(tracking #)= "Wahine" (#6), released first
>
> But, this doesn't match with Bill's memory of the
> assigned frequency #s, so... Now I'm confused
> again.

ALL OK

BUT

Date: Thu, 21 Mar 2002 02:13:45 -0800 (PST)
From: CHERYL KING <shezking@yahoo.com>
To: gbalazs@honlab.nmfs.hawaii.edu, hannah@mauioceancente
GLevineDVM@AOL.com, slpanimalprogram@AOL.com, JJJ888
willyswoodworks@yahoo.com, rip7tide@hotmail.com
Subject: Wed, March 20 tracking update

The wind continues to wreak havoc on our site choices...
This morning we tracked for three hours from the dump/recycling center, between Olowalu and Lahaina (up on the top of the landfill). Kinda far down the coast, but this site covered a large area and the conditions were perfect. But, no luck.

Nobody will be tracking Thursday, March 21, but it will continue on Friday. Also, Hannah will be going to Kahoolawe Friday, tracking all of the way.

Today marks the one week "anniversary" of the release!

Aloha,
Cheryl King

Date: Wed, 27 Mar 2002 17:17:45 -1000
From: Hannah Bernard <hannah@mauioceancenter.com>
To: George H. Balazs <gbalazs@honlab.nmfs.hawaii.edu>, GLevineDVM@AOL.com,
jarman@aloha.net, Cheryl King <shezking@yahoo.com>, JJJ88888@AOL.com,
Slpanimalprogram@AOL.com, christy churchill <pr@mauioceancenter.com>
Subject: Re: tracking update

[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 kakou,
Alastair (a MOC naturalist and long-time monk seal watch volunteer) was tracking the turtles for the last few days from Menehune Shores' rooftop (in Kihei - overlooking Ma'alaea Bay), Kahului Bay and today in front of MOC with a couple of junior naturalists. He feels solidly that there is no signal in Ma'alaea Bay, but may have picked up Wahine's signal in Kahului Bay today. He or one of us will try Kahului Bay again tomorrow!
Aloha pumehana,
Hannah

Date: Thu, 28 Mar 2002 02:30:09 EST
From: Rip7tide@aol.com
To: gbalazs@honlab.nmfs.hawaii.edu
Subject: Re: turtle tracking

[Part 1, Text/PLAIN 9 lines.]
[Unable to print this part.]

George,
I received the dummy transmitter and those papers today, thanks. I also picked up a faint signal off of Kahalui Harbor for about twenty seconds (8221, the female turtle) and then lost it. Possibly because of the increasing wind and seas. I am going try to find a higher spot, waihee side tomorrow early in the morning or go back to the harbor if that doesn't work out.
aloha,
alastair

Date: Wed, 27 Mar 2002 04:44:43 EST
From: Rip7tide@aol.com
To: gbalazs@honlab.nmfs.hawaii.edu
Cc: willyswoodworks@yahoo.com
Subject: Re: turtle tracking

Podum

[Part 1, Text/PLAIN 13 lines.]
[Unable to print this part.]

George,

The searching continues, I put in about three hours on top of the Menehunie Shores Hotel to eliminate the Maalaea coast line that had been obscured from our other tracking locations. I will give Kahalui Harbor a try tomorrow but would also like to give the hill above little beach another try since that is where we last got a signal and haven't tracked their with optimal conditions since. I will also talk to the people at the ocean center about putting an ad in the paper or at least notifying local dive companies to keep there eyes open. Thanks for the information that you sent. I will you keep you updated on my progress.

aloha

Date: Sat, 23 Mar 2002 07:59:14 -1000
From: George H. Balazs <gbalazs@honlab.nmfs.hawaii.edu>
To: CHERYL KING <shezking@yahoo.com>
Cc: Greg Levine <GLevineDVM@aol.com>, Hannah Bernard <wild@aloha.net>,
Bill Gilmartin <willyswoodworks@yahoo.com>, John Gorman <JJJ88888@ao
Alastair Hebard <rip7tide@aol.com>
Subject: Re: Friday, March 22 tracking update

[The following text is in the "X-UNKNOWN" character set.]
[Your display is set for the "US-ASCII" character set.]
[Some characters may be displayed incorrectly.]

Thanks, Cheryl, what an amazing effort, my hat is off and head bowed to all of you.

Here's my next suggestion. Listen at perhaps the hottest spot for green turtles on Maui-- Kahului Bay. Yes opposite side of the island, but sufficient time has easily gone by for them (or one of them) to have gotten there. As a comparison, one of the SLP greens released pelagic by us with a satellite tag 18 miles north of Oahu ended up in DiamondHead coastal waters (and more recently in Portlock just down the road from my home. Aloha, George


```
****************************************
*        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    *
****************************************
```


"Fire in the Turtle House: The Green Sea Turtle and the Fate of the Ocean"
<http://www.publicaffairsbooks.com/books/fire.html>

On Sat, 23 Mar 2002, CHERYL KING wrote:

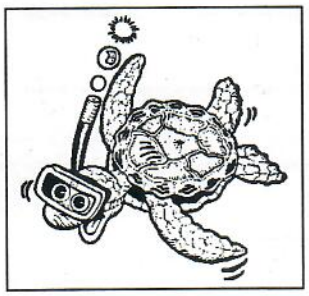
> Today we tracked for three hours at the "Scenic
> Point/Lookout" on the Pali (as you're leaving Maalaea,
> heading toward Lahaina). The perfect conditions
> (finally!) didn't help any- still no signal. We plan
> on trying one more site closer to Maalaea, and that
> will cover that whole area pretty thoroughly.
>
> And Hannah tracked all the way out to Kahoolawe today,
> but didn't hear anything either.
>
> We'll be hiking way past La Perouse Bay (to the
> southeast) this weekend, tracking all the way.
>
> Wish us luck!
> Cheryl King

Date: Sun, 24 Mar 2002 20:49:58 -0800 (PST)
From: CHERYL KING <shezking@yahoo.com>
To: Greg Levine <GLevineDVM@aol.com>,
George Balazs <gbalazs@honlab.nmfs.hawaii.edu>,
Hannah Bernard <wild@aloha.net>,
Bill Gilmartin <willyswoodworks@yahoo.com>, John
Alastair Hebard <rip7tide@aol.com>
Subject: Sunday, March 24 tracking update

After trekking through the lava fields, ~3 miles past La Perouse Bay ("the end of the road" past Makena), we still didn't pick up a signal. We didn't sit and listen for too long in any one area so we definitely could've missed them, but we tried.

Obviously there is a lot of water to cover out there! Unfortunately, I am leaving for grad school this Tuesday, so this is my last tracking update until I return in July. Tracking will continue, headed by Alastair Hebard (rip7tide@aol.com), so please include him in all pertinent info transfer. I will still be helping from a distance, so keep me posted with everything as well!

For the records, the release site GPS location:
20 37'25N
156 26'24W



Monday, June 17, 2002
6:00 p.m.
at the
Hawaiian Islands Humpback Whale
National Marine Sanctuary
726 South Kīhei Road.

Hawaiian Sea Turtles

You are cordially invited to attend a free lecture about one of the great survivors from the age of dinosaurs - sea turtles. This is your opportunity to find out the latest information on Hawai'i's green sea turtles and more importantly learn what you can do as part of the Maui professional diving community to help ensure their survival.

George Balazs, Marine Turtle Research program leader for the National Marine Fisheries Service, will present information on the Hawaiian green sea and hawksbill turtles including the latest facts about the green sea turtles nesting on Maui and a comparison of the rate of tumor incidence on Maui versus the neighbor islands. He will also present hands-on information that Maui divers can use to help educate other divers and visitors to our island waters. He will offer guidance on what to do when finding a sea turtle tangled in fishing line or with a fishing hook in its mouth and who to call when an injured or beached turtle is found along Maui's coastline.

For additional information, please call Pauline Severns at 891-193

Date: Sun, 31 Mar 2002 22:42:02 -1000
From: George H. Balazs <gbalazs@honlab.nmfs.hawaii.edu>
To: Rip7tide@aol.com
Cc: Bill Gilmartin <willyswoodworks@yahoo.com>, hannah@mauioceancenter.com,
Karl Stolmeier <karl@mauioceancenter.com>,
Gregg Levine <GLevineDVM@aol.com>, Bill Gilmartin <jarman@aloha.net>,
CHERYL KING <shezking@yahoo.com>, John Gorman <JJJ88888@aol.com>,
Sea Life Park Hawaii <Slpanimalprogram@aol.com>,
Christy Churchill <pr@mauioceancenter.com>
Subject: Re: sunday tracking up date

Yikes, what a story, what Perserverance and Endurance!

This does seem strange, very much so. I'd say it very very improbable for the same turtle to be in Kahalui then over off of Olowalu. Might there be some spurious signals mimicing our real thing? The faint short-term nature of them makes me wonder even more. Bill, what's the story on things like this, any precedences to go on? Aloha, George

PS
Clearly Alstair's considerable efforts need to be augmented by others, hopefully others can step forward to help, I had understand that MOC was going to me be making material contributions of personnel and time to this effort, I hope this will still be possible.

On Mon, 1 Apr 2002 Rip7tide@aol.com wrote:

> Here is the play by play:
> Wednesday 28th - tracked out of Kahului Harbor and picked up a faint signal
> for less then twenty seconds and then lost it.
> Thursday the 29th-attempted from Waiehu golf coarse, no signal.
> Friday - Went back to the harbor and got a faint signal right off the bat and
> the lost it again.
> Saturday= stormy weather = no tracking
> Sunday-tried off of the Olowalu land fill on my way towards Lahaina and
> picked up the same signal from Wednesday and Friday for about two hours.
> Their was never enough surface time to get a directional. Then I got locked
> inside the dump for an additional hour and had to call the police to let me
> out.
> Every time I have picked up a signal it has been off of the female
> turtle (8221) still no luck with the male.
>
> Aloha,
> Alastair

Date: Tue, 2 Apr 2002 02:37:16 EST
From: Rip7tide@aol.com
To: willyswoodworks@yahoo.com
Cc: gbalazs@honlab.nmfs.hawaii.edu
Subject: Re: sunday tracking up date

[Part 1, Text/PLAIN 12 lines.]
[Unable to print this part.]

Thank you all for the input.
I also have had doubts about the signal I heard in Kahului, but it had such similar periodicity and sound that I felt that I could not discount it. I had listened to the dummy transmitter inbetween the two incidents and their really was not a difference in the sound or period. What sets it off as questionable is that it never came back, and the second time I waited around at least three hours after I first heard it. If by some freak of nature it was our turtle, is it possible for it to cover that kind of distance in 48 hours, or does the simple fact that I got a reoccurring definite signal in Olowalu completely rule out that possibility.

aloha,
Alastair

Date: Mon, 1 Apr 2002 08:18:21 -0800 (PST)
From: Bill Gilmartin <willyswoodworks@yahoo.com>
To: George H. Balazs <gbalazs@honlab.nmfs.hawaii.edu>, Rip7tide@aol.com
Cc: Bill Gilmartin <willyswoodworks@yahoo.com>, hannah@mauioceancenter.com,
Karl Stolmeier <karl@mauioceancenter.com>,
Gregg Levine <GLevineDVM@aol.com>, Bill Gilmartin <jarman@aloha.net>,
CHERYL KING <shezking@yahoo.com>, John Gorman <JJJ88888@aol.com>,
Sea Life Park Hawaii <Slpanimalprogram@aol.com>,
Christy Churchill <pr@mauioceancenter.com>
Subject: Re: sunday tracking up date

Reduce

Thanks for your continuing effort Alastair. As George suggested, the signal you are hearing on both sides of the island and then only for 20 sec and no more is not the turtle. I can't speculate on what the source may be, but i suggest giving up on the idea that it may be one of the turtles. It's a good idea to listen to the dummy transmitter that George sent you before each listening session -- use it to check out your antenna/receiver setup and to refresh your memory on exactly what the signal from the turtle should sound like in signal transmission/break intervals.

If you've not yet done this, please get a good map of the island (I'll reimburse you) and begin indicating where you/Cheryl have listened to date and update this each time you go out - note sea conditions also. Continue to expand your coverage of the Maui coastline with a focus on getting the receiving antenna high and covering as much coast as possible from each site selected.

More help from others would be a great benefit to the effort to locate these turtles.

Mahalo again for your help with this. --Bill

--- "George H. Balazs"
<gbalazs@honlab.nmfs.hawaii.edu> wrote:
> Yikes, what a story, what Perserverance and
> Endurance!
>
> This does seem strange, very much so. I'd say it
> very very improbable
> for the same turtle to be in Kahalui then over off
> of Olowalu. Might
> there be some spurious signals mimicing our real
> thing? The faint
> short-term nature of them makes me wonder even more.
> Bill, what's the
> story on things like this, any precedences to go on?
> Aloha, George
>
> PS
> Clearly Alstair's considerable efforts need to be
> augmented by others,
> hopefully others can step forward to help, I had
> understand that MOC
> was going to me be making material contributions of
> personnel and time

Date: Fri, 5 Apr 2002 03:53:34 EST
From: Rip7tide@aol.com
To: willyswoodworks@yahoo.com, GLevineDVM@aol.com, jarman@aloha.net, shezking@yahoo.com, JJJ88888@aol.com, Slpanimalprogram@aol.com, pr@mauioceancenter.com, gbalazs@honlab.nmfs.hawaii.edu
Subject: Thursday april 4th tracking update

[Part 1, Text/PLAIN 8 lines.]
[Unable to print this part.]

Reduce VHF MOC

Monday I tried Honoulua Bay, Tuesday Pu'uoli the middle hill above little beach, and Wednesday off of the lookout at hookipa beach park. No signal on all three accounts. Hannah is taking some gear out towards Hana tomorrow. I personally think that they are in Miami attending the turtle conference, keeping tabs on all the scientists or at least that is what the static told me.

aloha,
Alastair

Date: Tue, 9 Apr 2002 03:32:26 EDT
From: Rip7tide@aol.com
To: willyswoodworks@yahoo.com, GLevineDVM@aol.com, jarman@aloha.net, shezking@yahoo.com, JJJ88888@aol.com, Slpanimalprogram@aol.com, pr@mauioceancenter.com, gbalazs@honlab.nmfs.hawaii.edu
Subject: tracking update for April 8th

[Part 1, Text/PLAIN 16 lines.]
[Unable to print this part.]

Reduce VHF

So I guess the turtles are not in Miami, well Hannah tried out of Maalaea on the MOC boat and had no luck on Friday. Humming bird took a receiver out to Hana over the weekend, I am not sure what days he tracked but the word is no signal. The Monthly Naturalist and curatorial employee meeting for MOC was today so hopefully there will be some more help on the way. Although the meeting was so long that by the end of it the only interest was in going home. I also tracked off of the point at Olowalu this afternoon and got no signal. I would like to try more of the coast line on the Lahaina side towards Napili but have also been thinking of some spots on the North side. Anywhere seems fair game by now and any suggestions would be appreciated. The latest theory is that turtles with transmitters on there back are shunned by their peers and spend their time far off shore beyond the reach of radio antennas

aloha,
Alastair

Date: Fri, 31 May 2002 04:26:34 EDT
From: Rip7tide@aol.com
To: gbalazs@honlab.nmfs.hawaii.edu, willyswoodworks@yahoo.com, shezking@yahoo.com, wild@aloha.net
Subject: Thursday tracking

Reduce

[Part 1, Text/PLAIN 5 lines.]
[Unable to print this part.]

I tracked from the Menehune Shores Hotel which covered the Maalaea harbor waters. I didn't spend as much time there as I would have liked and it was pretty windy so, I will probably go back just to make sure I did not miss any turtles.

Alastair

Date: Tue, 9 Apr 2002 23:23:00 -0700 (PDT)
From: CHERYL KING <shezking@yahoo.com>
To: Rip7tide@aol.com, SLPanimalprogram@aol.com,
Greg Levine <GLevineDVM@aol.com>,
George Balazs <gbalazs@honlab.nmfs.hawaii.edu>,
Hannah Bernard <wild@aloha.net>,
Bill Gilmartin <willyswoodworks@yahoo.com>, John G
Subject: Re: tracking update for April 8th

Alastair,
Here are some good spots on the Lahaina side:
*Lahaina Shores (505 Front St)
*the Post Office/Police Station/Concert hill
*any of the Kaanapali hotels (If you can get access to the Hyatt's roof, the southernmost hotel, then you don't have to do the Post Office hill.)
*the airport- gravel parking lot (Be sure to clear it with security first and get ready to hear some crazy alien interference!!)
*You can use your map and systematically go from one hotel/condo to another, covering the coastline from Kaanapali to Napili.

Let me know if you have any questions- good luck and thanks for your great effort!!!

Aloha,
Cheryl

--- Rip7tide@aol.com wrote:
> So I guess the turtles are not in Miami, well Hannah
> tried out of Maalaea on
> the MOC boat and had no luck on Friday. Humming
> bird took a receiver out to
> Hana over the weekend, I am not sure what days he
> tracked but the word is no
> signal. The Monthly Naturalist and curatorial
> employee meeting for MOC was
> today so hopefully there will be some more help on
> the way. Although the
> meeting was so long that by the end of it the only
> interest was in going
> home. I also tracked off of the point at Olowalu
> this afternoon and got no
> signal. I would like to try more of the coast line
> on the Lahaina side
> towards Napili but have also been thinking of some
> spots on the North side.
> Anywhere seems fair game by now and any suggestions
> would be appreciated.
> The latest theory is that turtles with transmitters
> on there back are shunned
> by their peers and spend their time far off shore
> beyond the reach of radio
> antennas

Date: Thu, 11 Apr 2002 12:57:46 EDT
From: Rip7tide@aol.com
To: willyswoodworks@yahoo.com, hannah@mauioceancenter.com, GLevineDVM@aol.com,
jarman@aloha.net, shezking@yahoo.com, JJJ88888@aol.com,
Slpanimalprogram@aol.com, pr@mauioceancenter.com,
gbalazs@honlab.nmfs.hawaii.edu
Subject: turtles

[Part 1, Text/PLAIN 12 lines.]
[Unable to print this part.]

I gave the dump between olowalu and Lahaina on last try on Tuesday to see if I could pick up the same signal as before. No luck, I am pretty sure that the last signal I got there was our turtle but a week has gone by since then. I am going camping to help pull out pine starts choking out the native forest so the tracking effort should continue Friday afternoon thru the weekend where I hope to try some of the spots that Cheryl, recommended, Lahaina side. I did manage to talk to the Ham radio people so hopefully they will have a go at it. It was also mentioned that our whip antennas are to long and that if we shorten them up we would increase the gain for the frequencies that we are tracking. Any thoughts on this???. Bill has mentioned possible going to the CoastGuard and giving them our numbers to see it they would help. What are the whole frequency #'s?

Date: Fri, 19 Apr 2002 04:26:11 EDT
From: Rip7tide@aol.com
To: willyswoodworks@yahoo.com, hannah@mauioceancenter.com, GLevineDVM@aol.com,
jarman@aloha.net, shezking@yahoo.com, JJJ88888@aol.com,
Slpanimalprogram@aol.com, pr@mauioceancenter.com,
gbalazs@honlab.nmfs.hawaii.edu
Subject: thursday april 18th tracking update

[Part 1, Text/PLAIN 9 lines.]
[Unable to print this part.]

No turtles yet. Tuesday, I tracked from the parking lot of the West side airport. Today I met with Larry, a part time naturalist at the ocean center and tried one last time at the Kahului Harbor. I will be on the mainland from the 26th of April to the 6th of May during which I will leave a set of gear with Larry who said he could help cover some of the coastline on the Haiku/Paia side while I'm gone. The search continues..

5690 6th nesting ST-14+
TAKEN BY ME with caliper
SCL = 91.2 cm
Antenna all look excellent

8/8/02 ~1300am Beach person reported
Thursday turtle crawled by him and brushed his leg. We went to wall area and found 5690 digging on mound in pebble area along stone wall on side of house. Walked up to her and made her turn around - she did not startle. She crawled back to dark area in front of stone wall and proceeded to dig - body pit etc. through entire nesting procedure. Digital Video + many photos.
Finished up ~5am - light in sky.

TIDBIT INTO EGGS when ½ laid =

8/8 slept a couple of hours then went back to site with Mr. Sasaki and 26 year old granddaughter CHRISTIN Sasaki Forensic person with Sheriff's department Spokane WA. Put stakes and caution tape around site talked to people - this area used for

Ideas for Maui w/ landskey Arthur 159

- Snorkel Maui Prince - collect algae
- Aloelos - sightings + movement
- Power plant
- Scuba/vide/show to them
- Retrive TDRS
- Check w Aihee ag zin
- 5690

8/8/02 AM surf board lessons. Called Thurs voice mail Glynnis, and talked to Slippy. Mailed "Warning" sign to Mr. Sasaki for 6th west side.

Departed 12 noon back to Honolulu.

8/7/02 Wednesday Dive Honokowai to deploy 3 TDRs - Turtle "landed" next to me 35' while putting on ankleT "5164" CCL 106cm - I read RFL tag "5340" 1981 FFS. Other TAGS 3795 (1981), A223, G108, U683, W76 + 2 PITS 1999 FROM TDRS Nested 2001

"MIRACLE ON MAUI"

6th nesting of the Season

21.009 N 156.665 W

Interesting Location

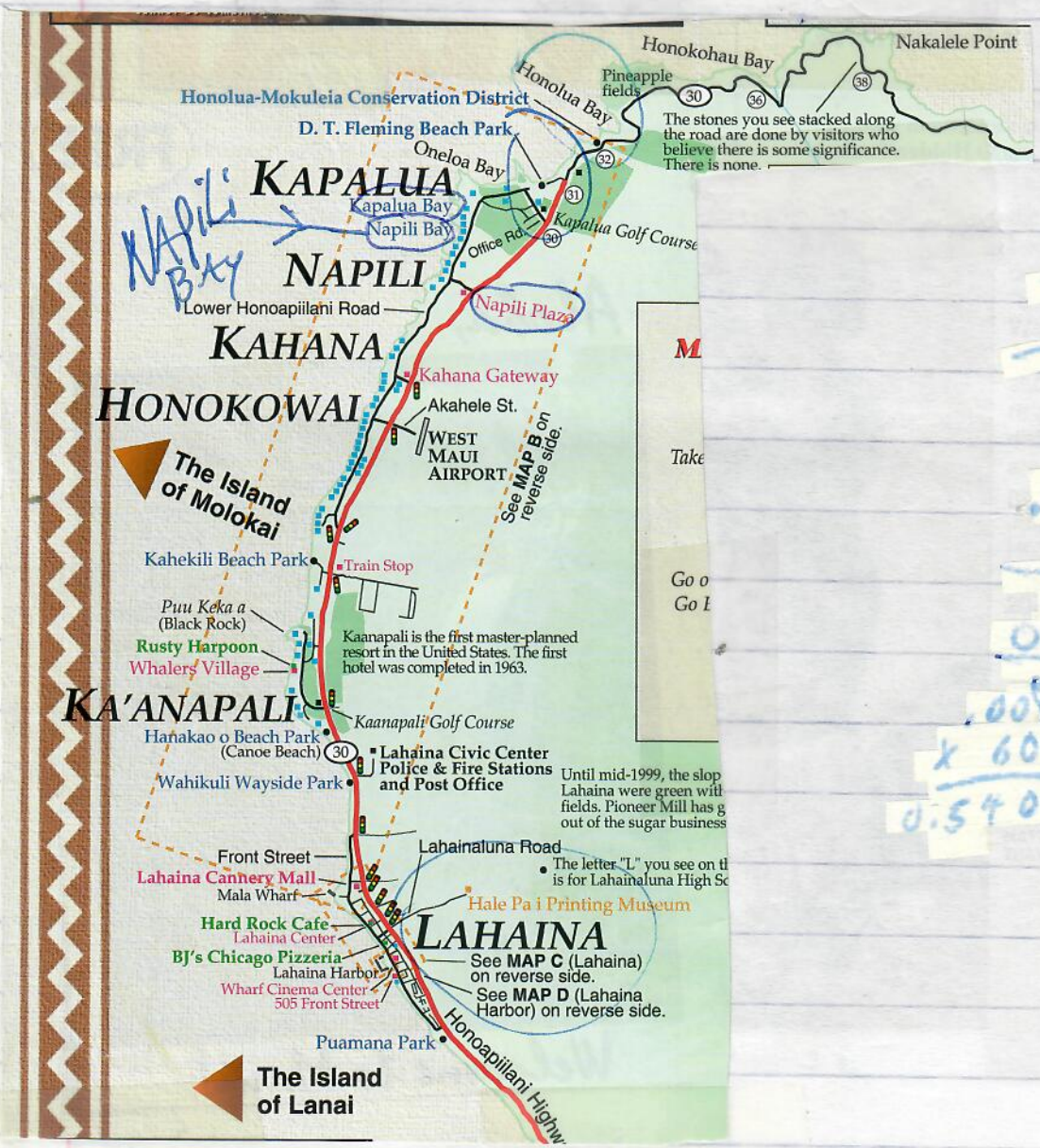
156° 40' — quite a ways off shore to west (it real)

161

0.54

40'

```
04809 Date : 17.08.02 17:17:18 LC : 2 IQ : 58
Lat1 : 21.009N Lon1 : 156.665W Lat2 : 24.118N Lon2 : 170.216W
Nb mes : 011 Nb mes>-120dB : 000 Best level : -126 dB
Pass duration : 629s NOPC : 4
Calcul freq : 401 650636.8 Hz Altitude : 0 m
163 248 356 57
00 00
```



.054
60
0.0
54
54

.054
60
0.0
054
0.540

.054
x 60
0.540

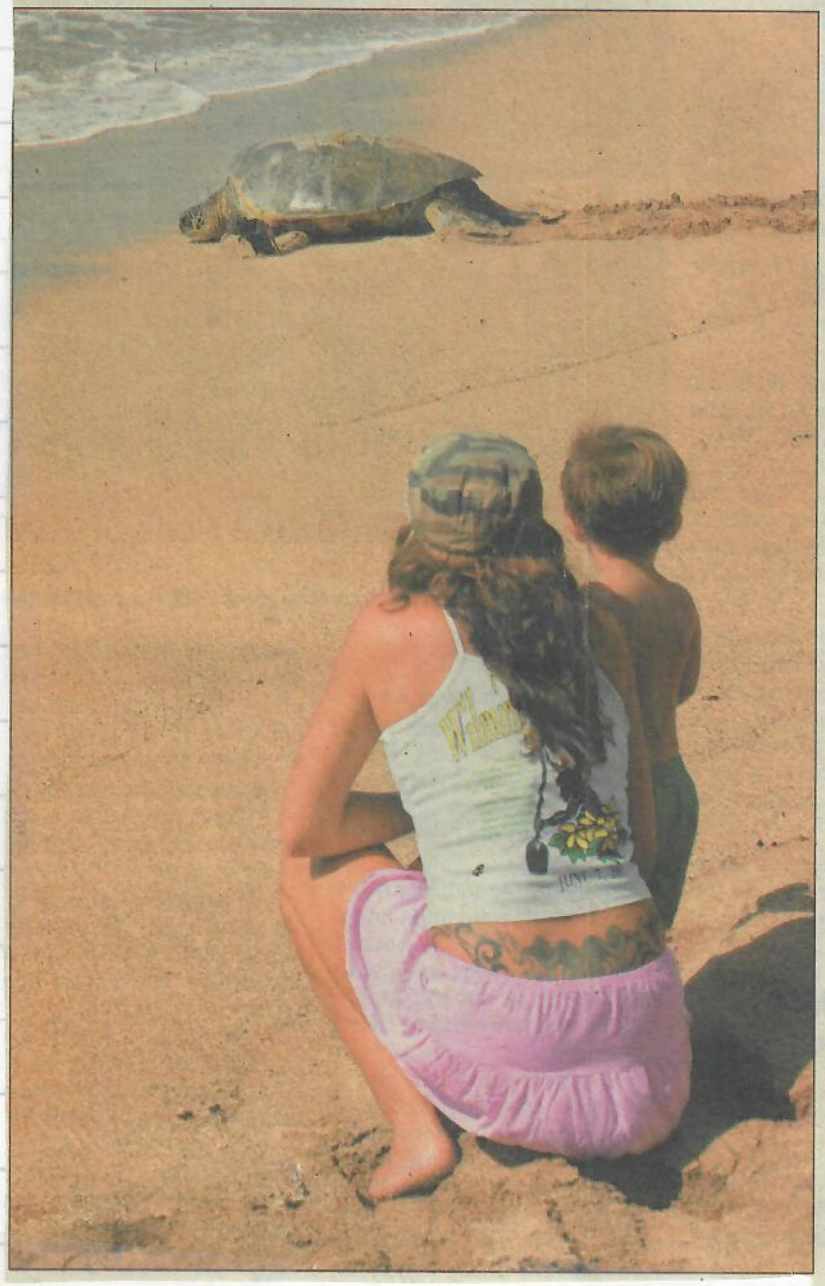
162

Pl. 561 Hawaiian Lead "Chicago" opening next week Diamondhead Theatre, 9/6/02

Katie Leiva katie.leiva@phoenix.edu

163

Heading out after hanging out



A large green sea turtle makes its way back to the ocean after hauling out Friday afternoon at the Kahana beach called "S-Turns." Watching the nature show from a respectful distance are Kahana resident Jenna Holladay and 20-month-old son Tevainui.

The Maui News
MATTHEW THAYER photo

2-24-08

The Maui News
Maui's Newspaper Since 1900
Sunday September 1, 2002

Fertile turtle continues to nest

Group helps guide hatchlings to the sea

By HARRY EAGAR
Staff Writer

LAHAINA — About 30 people were gathered in the canoe hale at Kamehameha Iki Park two weeks ago for an informal discussion of Hawaiian culture.

McCarty

Just after it got fully dark on Aug. 21, the sand on the beach started erupting baby green sea turtles, who, misguided by the light, started heading inland.

Fortunately, one of the participants, Richard McCarty of Kaanapali, who is a Maui representative to the advisory council of the Hawaiian Islands Humpback Whale National Marine Sanctuary, knew who to call.

Then he and his friends cleared away beach morning glory for the little turtles, shooed them into the ocean and helped out a few who had gotten themselves entangled.

Skippy Hau of the Aquatic Resources Division of the Department of Land and Natural Resources and Glynnis Nakai of the Kealia Pond National Wildlife Sanctuary arrived to excavate the nest, boost out stragglers and collect information.

This is getting to be a busy summer for Hau and Nakai. The nest that hatched Aug. 21 was the third that Turtle 5690 laid. She is up to seven now and gives every sign of being ready to dig an eighth nest somewhere in Lahaina this week.

"Nothing surprises me anymore with this turtle," says George Balazs, who released 5690 back to the wild as a yearling more than two decades ago.

Balazs says it was symbolically appropriate for nest No. 3 to interrupt a meeting on Hawaiian culture. Sea turtles are as old as any aspect of Hawaii. "They were here when the first migrants arrived."

Green sea turtles have been around a lot longer than any of these islands, and genetic studies indicate that they have been isolated from other green turtle populations for a long time.

Although they were hunted to low numbers up to the 1970s, their numbers have rebounded since gaining protection. Snorkelers and divers often see them in the water.

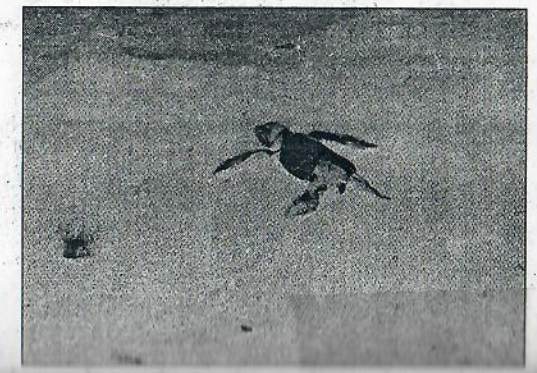
But until two years ago, encounters between turtles and people on the land were almost unheard of on Maui. It was then that Turtle 5690 dug a nest next to a hotel in Lahaina.

This year, she has dug seven along a

See TURTLE
on Page A5

The Maui News / AMANDA COWAN photo

When green sea turtle hatchlings began to pop out of the sand on the beach at one end of the Lahaina Shores condominium complex, General Manager Carol Koepke agreed to redirect the security lighting that could attract young turtles toward the light and away from the ocean. The beach has been established as a nesting grounds for Turtle 5690, released to the wild 20 years ago after being raised at Sea Life Park on Oahu.



The last of 60 baby green sea turtles to be helped from a nest on a Lahaina beach makes its way to the ocean after being rescued by wildlife specialists Skippy Hau and Glynnis Nakai.

State Aquatic Resources Division photo

State Aquatic Resources Division photo

The last of 60 baby green sea turtles to be helped from a Lahaina beach makes its way to the ocean with an assist from federal wildlife specialist Glynnis Nakai (second from right) and an audience of volunteers who kept watch over the nests in the sand this summer. The volunteers kept the nests safe, but only specialists with permits, like Nakai, are allowed to handle animals protected by the Endangered Species Act.

9/1/02 The Maui News

Turtle

Continued from Page A1

stretch of beach from Kamehameha Iki Park to just beyond Lahaina Shores.

Although nesting turtles normally seek out darkness, 5690 has sometimes ignored electric lights. In one case, she unconcernedly went about her business despite Samoan fire knife dancers performing a few yards away.

But then, 5690 spent her first year with humans. Balazs says perhaps that has something to do with how easily she fits in on a highly developed tourist beach.

Her presence on Maui is the result of an experiment in identification.

John Hendrickson, a researcher at the University of Arizona, and his wife, Lupe, had developed a biotag for lizards. Called autografting, it involved transplanting a piece of light skin into a dark area of the animal.

Hawaii turtle researchers wondered if it would work with turtles. Balazs was asked to supply a couple of hundred newly hatched turtles, which he collected at French Frigate Shoals, where almost all green sea turtle nesting in the Hawaiian Islands happens nowadays.

Hendrickson then swapped plugs of light bottom shell and dark upper shell. Different patterns were used to differentiate between individuals.

A control group was left unmarked, to see whether the operation had any effect on mortality in the altered turtles. Turtle 5690 was a control, she was not grafted, but when released she did get a metal tag.

The turtles were raised for a year at Sea Life Park, and then Balazs was given the task of getting them back into the ocean.

The experiment was not intended to see whether raising one-ounce babies to dinner-plate size would improve their chances of reaching maturity and reproducing.

That was an unexpected bonus when 5690 showed up on Maui.

Not one of the other 175 turtles has been identified since release, though Balazs feels sure some probably returned to French Frigate Shoals. It was extraordinary that 5690's tag stayed attached for two decades.

It is gone now, beaten off by her flailing flippers as she digs her nests. But today, she has permanent electronic tags implanted in her legs and a temporary radio transmitter glued to her back.

Although it was never intended to see whether head-starting would be a good management tool, 5690 has opened the question. Among turtle biologists, it is a controversial topic.

Balazs tends to think that, done right, it can be a good idea. Whether it is also an economic proposition remains an open question.

It might be a good idea in Samoa or Tahiti, where turtle populations have crashed, he says.

Head-starting a turtle is difficult. "It's an expensive thing to do. It takes a lot of labor, a lot of food."

The turtles nip each other, they share skin infections. Sometimes turtle nurseries can become "a death camp."

"Raising turtles is a bear," says Balazs.

That's why some specialists think it causes too much wastage of a threatened species. "It's a highly controversial idea."

However, 5690 is a powerful turtle-making machine.

In her third nest this year, there were 60 fertile eggs (and some infertile ones). McCarty says he learned that all 60 made it to the ocean.

Fifty-nine did it with help from McCarty and his friends. Nakai and Hau found one laggard in the nest.

Hau notes that he and Nakai have permits to handle turtles. Otherwise, people are supposed to leave them alone.

But that's not to say that people cannot be helpful, and ever since 5690 started visiting Lahaina, a lot of people have gone out of their way to help her.

Balazs cites, for example, Carol Koepke, general manager at Lahaina Shores, who redirected security lighting so it would not interfere with either 5690 or her hatchlings.

"We're happy and delighted to help," she says.

Balazs and Hau are now trying to arrange to get lighting toned down or switched off during the early part of October, when two of 5690's nests, Nos. 6 and 7, are due to hatch out.

Floyd Miyazono, county parks director, said Thursday that he would check a spotlight at Kamehameha Iki, the one that worries Balazs the most, and would cooperate.

And there is one more immediate concern. It looks as if 5690 is heading back to nest an eighth time.

Seven nestings in one season is the most observed in the Hawaiian Islands.

The satellite tracking shows that after each nesting, 5690 swims up to the Honolua-Kapalua area. Once she swam halfway to Lanai, but for the most part she sticks close to shore.

The latest report Thursday showed her swimming south past Napili, which is the kind of behavior that preceded earlier nestings. Whether she nests again this season, the eggs she has laid and will likely lay in years to come could lead to more green sea turtle nestings in the main Hawaiian Islands.

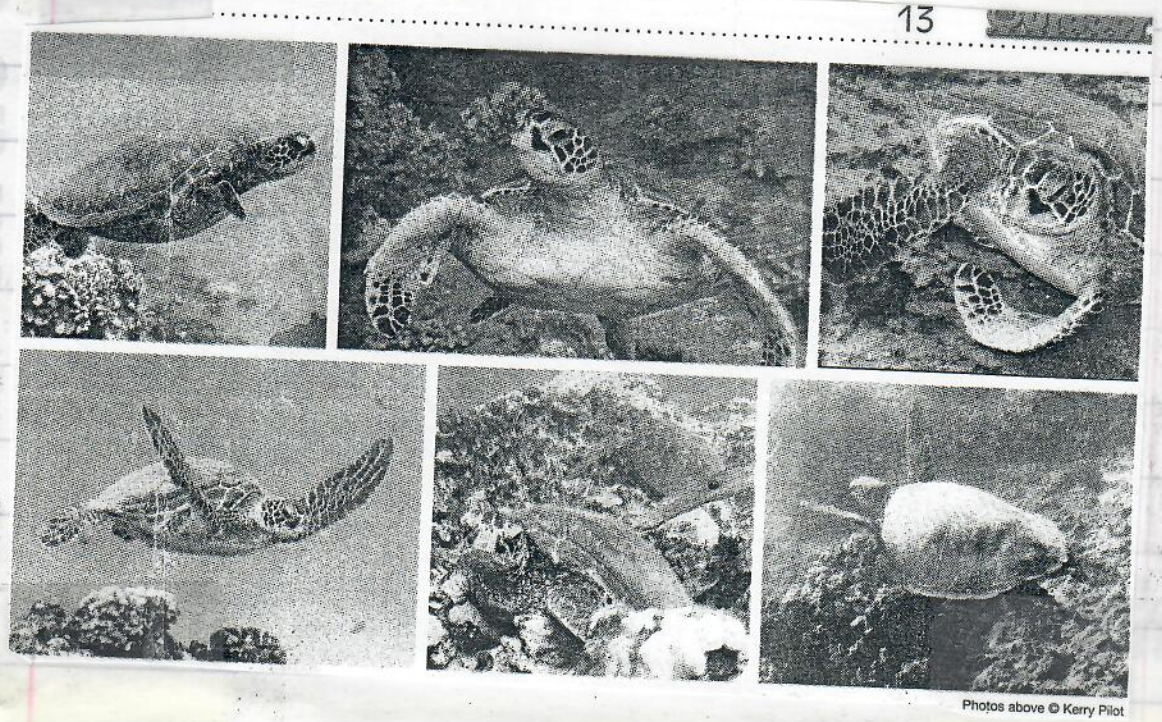
"Fast forward 20 years, when the turtles those young people helped come back to nest themselves," Balazs says.

Pass on the peas, please. Help protect Hawaii's reef ecosystems: don't feed our reef fish.

Photo © G. Balazs

▲ Mother turtle "5690" hard at work covering up her egg-nest, while being watched over by federal sea turtle biologist George Balazs.

Protecting OUR HONU



Photos above © Kerry Pilot

Maui's first documented nesting green sea turtle is back... again!

Discover

One night, on a beach in Maui's bustling harbor town of Lahaina, a 200-pound female green turtle pulled herself up on to the sand. Away from the water's edge, she sculpted a smooth hole – a nest – into which she carefully laid 76 leathery golf-ball sized eggs.

On that summer night in 2000, the nesting turtle made history, becoming the first documented green turtle in modern times known to nest on Maui.

Her historic effort was reported to the Hawaii Marine Turtle Research Program of the National Marine Fisheries Service (NMFS). Led by zoologist and acclaimed turtle researcher George Balazs, the Marine Turtle Research Program encourages citizens, vacationers and county, state and federal agencies to help serve as its eyes and ears around Hawaii's shoreline. Specifically, the turtle program asks that people report all cases of turtles that are nesting – or that are stranded, injured or entangled with fishing line.

Green, hawksbill and leatherback sea turtles are all found in Hawaii, but green turtles – called *honu* in Hawaiian – are the most common. Once hunted throughout Hawaii, the green turtles are making a steady comeback since 1978, when they were protected under the U.S. Endangered Species Act. It is now illegal to harass, harm, pursue, hunt, shoot, wound, trap, kill, capture or collect sea turtles in Hawaii.

Green turtles weigh up to 500 pounds. They are named for their green body fat, tinted by the marine plants they eat. The turtles grow slowly, usually taking 25 years to reach sexual maturity. Their shells are dark brown, with dappled and radiating streaks of green, gold and tan, which help the turtles camouflage themselves against undersea corals and rock.

Long distance wayfarers

About 90 percent of Hawaii's green turtles migrate to the largely unpopulated Northwestern Hawaiian Islands (NWHI) to mate and nest. Males make the trip every year or two; females every two to three years. The journey is about 1,200 miles roundtrip. The majority of the nesting takes place on a cluster of tiny islets within the NWHI known as French Frigate Shoals.

The hatchlings that emerge from the nests crawl towards the ocean, attempting to avoid becoming prey to crabs and sometimes birds. In the sea, they drift on the currents, dining on fish eggs and soft invertebrates like jellyfish and barnacles attached to floating objects. After several years, they settle into nearshore "pastures" of algae and *limu*, and reef areas. Upon reaching sexual maturity, the cycle begins anew, with the turtles returning to their natal beaches – their places of birth – to nest.

Clearly, Maui's first nesting green turtle did not fit the typical migratory patterns when she dug her nest in Lahaina. She returned to the same Lahaina beach three other times in 2000 to nest. Naturalist Mary Jane Grady examined her during her second nesting attempt, and noted that a small metal tag with the number "5690" was attached to the turtle's front flipper.

- To report a nesting, stranded or injured sea turtle on Maui from Maalaea to Makena (Kihei), call: 278-3775 (pager). For all other areas of Maui, call 893-3172 and 893-3050 (both are pagers).
- For suspected law enforcement violations, such as killing, harming, or harassing a turtle please call the Law Enforcement Branch of National Marine Fisheries Service: at 984-8110 or 800-853-1964.
- Learn more! Visit www.turtles.org. Pick up a free turtle fact sheet at Pacific Whale Foundation's Stores and Marine Resource Centers at 143 Dickenson St., Lahaina, and at the Harbor Shops of Maalaea or at www.pacificwhale.org.

Turtle 5690 nests for fifth time, surprises observers

Whether she's done for year, will remain nearby are unknown

By HARRY EAGAR
Staff Writer

LAHAINA – Turtle 5690 surprised her human network by returning to Lahaina to nest a fifth time Wednesday night.

The latest nest is almost on top of her first nest of this season, whose eggs have all hatched.

Turtle 5690 is regular as a clock, returning to a beach just south of Lahaina Shores every two weeks to dig a hole and lay eggs. On July 10-11, researchers put a satellite tracker on her back and were quite sure that four nestings would be her full program for this year.

Glynnis Nakai of Kealia Pond National Wildlife Refuge and Skippy Hau of the state Department of Land and Natural Resources visited the first nest Wednesday. Most of the eggs laid in May had hatched. Nakai and Hau excavated the nest to help stragglers out and collect eggshells for study.

But they did not stick around to see if she would come back again. Neighbors found her tracks, made later that night.

George Balazs of the National Marine Fisheries Service, the leader of the Hawaii turtle recovery force, said he was "delighted" to be proved wrong about 5690's nesting program.

Balazs was on Molokai, so he would have missed the latest nesting anyway, but he said that "if we knew everything there was to know about green sea turtles, we could close the book."

He added, "This is one of the major reasons why we continue our research and put satellite transmitters on sea turtles – to learn more about their movement and behavior. We learn something different each time."

Since greens are a threatened species in Hawaii (and in many other places as well), knowledge of their behavior is useful in trying to protect the population.

In fact, 5690 was part of an experiment begun in 1980 to see if "head-starting" baby turtles by rearing them in ponds would increase their chance of getting big enough to reproduce. Turtle 5690 is the only one of the group known to have reproduced.

She nested three or probably four times on Maui in 2000, leading researchers to expect her to stop after four landings this year. Now they are not sure whether to expect a sixth visit.

"She's very site-specific," says Nakai. Although no green was known to nest on Maui for the past half-century, Nakai says it is understandable why she picks the spot she does, though it is very close to a tall building. Her nest sites are dug in front of a private house, and while lights can bother turtles, "it's very dark" just there.

One of the questions to be answered by the tracker is where the turtle goes when she is not breeding.

The first two weeks of tracking showed her sticking close to Lahaina. But it turns out that was just foraging while preparing for another nesting. Only later will the tracker show what part of the ocean she calls "home."

The tracker showed that between her fourth and fifth nestings, she traveled a total of 37 miles. The farthest she got from her nests was 12 miles to the north, near Oneloa Bay, the isolated beach area between Kapalua Bay and Honokahua Bay.

It took her eight days to reach Oneloa but only 13 hours to return to Lahaina once she decided to nest. During that dash, she was motoring at 1 mph.

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The Maui News

Turtles part of marine mysteries

It seems that green sea turtles are no more predictable than the stock market. Or at least one green, tagged in 1981 as "5690," is not.

Turtle 5690 is the only one of her kind known to be nesting on Maui. In 2000, she came ashore three or four times. When she had nested a further four times this year, researchers figured she was through for the season.

But Turtle 5690 has a strong work ethic to go with a strong desire to reproduce – digging those nests with flippers is not easy. She returned this week to bury a fifth clutch of eggs in the sand of a Lahaina beach.

Now, the question is, will she come back again?

Events this year remind us how little we understand about the creatures that live in the ocean that surrounds us.

In January, a California man was bitten by a shark at Olowalu, leading to a proposal, still under development, for permanent shark-warning signs in that area. It would be a first for Hawaii when they go up.

Then in March, sharks attacked and killed a newborn humpback whale with tourists looking on from Kaanapali Beach, a reminder that sharks can go anywhere.

Over the past month or so, there has been a lively debate about whether it is better to have maximum or minimum size limits on caught fish, if the goal is to get good reproduction.

And last week, Turtle 5690 proved that turtles cannot be taken for granted either.

Among the things we still don't know: What happened to 5690's classmates? How far does she go from her nesting beach when she is not breeding? How has she escaped infection with fibropapilloma virus, a disease that cannot be proved to have existed in Hawaii before the mid-1950s but which now attacks a large fraction of Hawaii's green sea turtles?

Assuming she avoids viruses and sharks, Turtle 5690 may have many lessons yet to teach.

PJ

July 26, 2002

Maui News FRIDAY July 26, 2002

Tagged turtle has stuck to West Maui

Radio transmitter shows creature keeping nearby

By HARRY EAGAR
Staff Writer

LAHAINA – So far, Turtle 5690 is looking like "truly a 'Maui Girl,' " according to researcher George Balazs, who attached a satellite tracker to the female green sea turtle on July 11.

Turtle 5690 is the only confirmed green to have nested on Maui in half a century. She has now nested in two seasons, but it is a mystery where she went in between.

The satellite tracker shows she hung around Lahaina town for a few days after completing her fourth and final nest of this season.

But on July 16, she started moving. On that day, she swam north for a while, then changed course and was located later that same day off Manawaipueo Gulch, on the east side of Papalaua County Beach Park but not quite to the pali tunnel area.

By the next day, she was as far north as the Kapalua area, where she has stayed since. Her northern limit has been roughly Honokahua.

She has not ventured far offshore, presumably staying near the algae she feeds on.

Turtles are unpredictable as to ranges. Balazs said earlier he could not predict whether she would take off on a "great journey" or a little one.

Recently, it has been a little one, although in her lifetime Turtle 5690 has gotten around.

Balazs collected her as a baby at French Frigate Shoals. She was "head-started" at Sea Life Park on Oahu until she and more than 100 classmates were released at various points around the islands.

See TURTLE on Page A5

Green sea turtle 5690 nested the night of July 10-11 just south of Lahaina Shores, where a satellite tracker was attached to her back. Since then, when she surfaces a geographical positioning system signal tells researchers her location. For two weeks, the tracking showed her moving along the West Maui coastline as far north as Honokahua and as far south as Manawaipueo Gulch. The map data was provided by George Balazs of the National Marine Fisheries Service.

NMFS/Cherry King photo
National Marine Fisheries Service marine biologist George Balazs inspects Turtle 5690 in Lahaina earlier this month.

Turtle

Continued from Page A1

Turtle 5690 was set loose two decades ago at Hilo. She was then about the size of a dinner plate.

The experiment was intended to determine whether pen-raising turtles would give individuals of the threatened species a better chance of maturing and reproducing.

Baby turtles are favorite foods of marine and bird predators.

How much advantage head-starting offered is unclear. Of all the plate-size youngsters set loose, only 5690 has ever been identified again, from a tag that amazingly was still attached after all these years. It was spotted in 2000 when 5690 came ashore to dig a nest near Lahaina Shores Beach Resort.

By the time 5690 was nesting again this season, Maui's turtle trackers were ready. They missed a couple of chances, but fortunately she came ashore four times.

On the last trip, a team of researchers was ready with a [illegible] pound satellite tracker, a [illegible] pen and fiberglass resin and [illegible] to attach the tracker to her shell. The device that sends a signal to an overhead satellite when the turtle surfaces should be good for [illegible] seven months, and may be signaling for as long as a year.

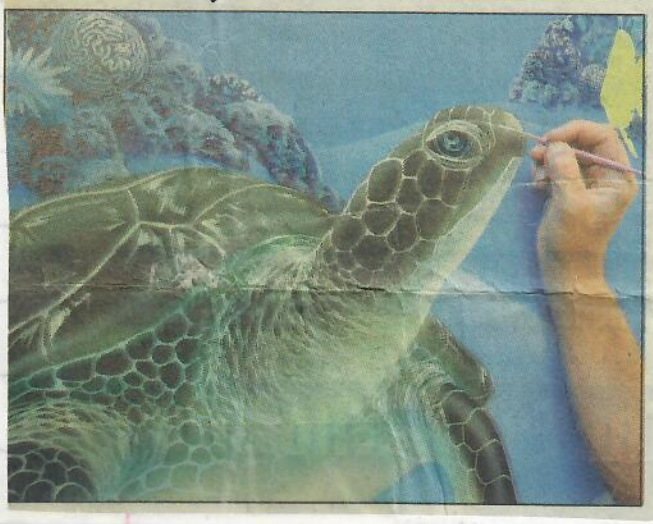
Balazs was pretty sure the July 11 nest would be the last, and [illegible] two weeks have passed without another attempt, he is now certain that she is through laying eggs for this year.

It is too early to say for sure, but it may "turn out she lives year-round in Maui coastal waters," he says.

View to the right in front of Wohonani, Honokowai 171

KAHANA overlook, view to left
toward LANAI

Mural tribute to an old friend nears completion

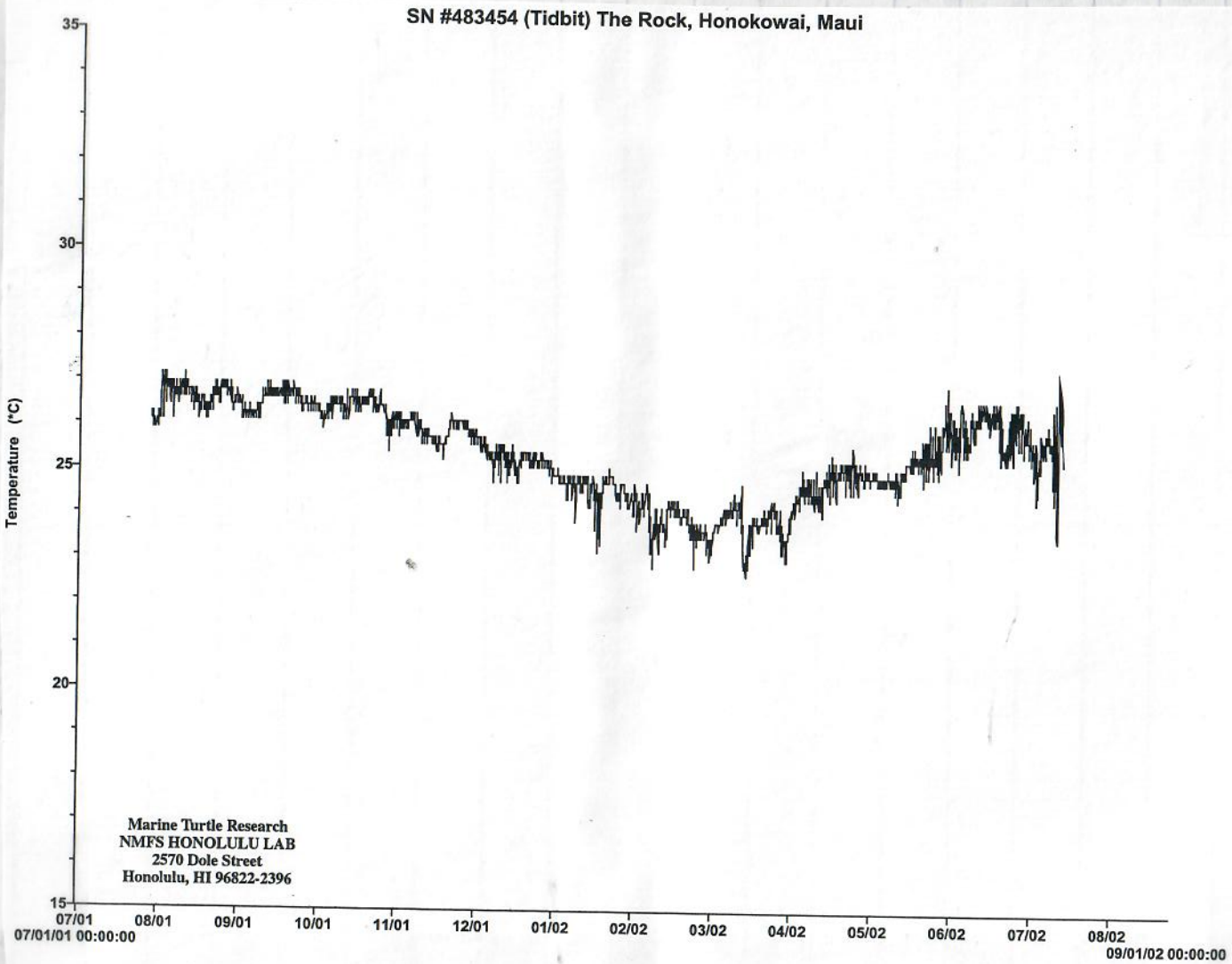


The Maui News / MATTHEW THAYER photos

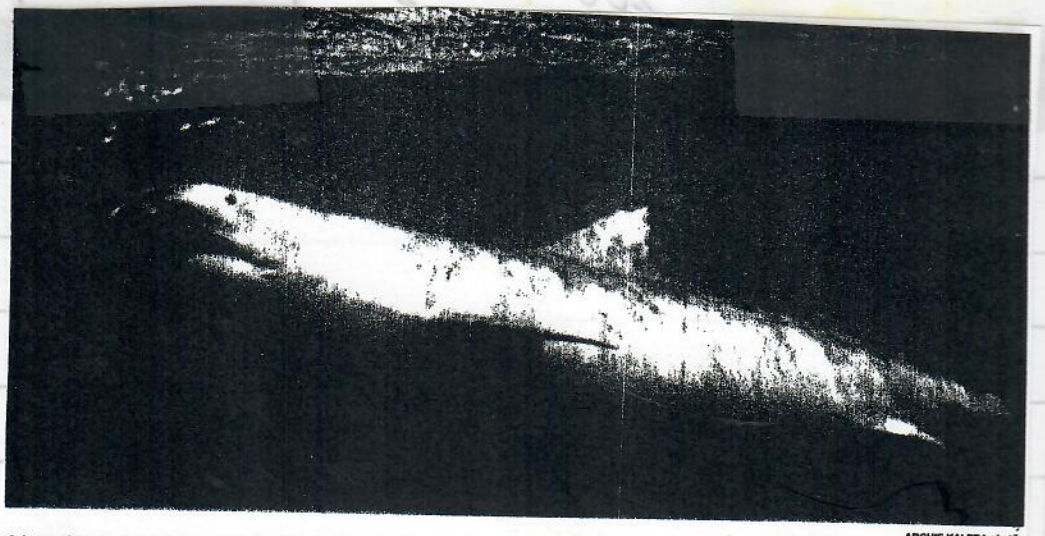
Maui artist Dale Zarrella paid tribute to an old friend Wednesday by painting her portrait as part of a 120-square-foot mural he is wrapping up at Borders Books Music & Cafe in Kahului. Zarrella was working on a likeness of a green sea turtle named Kim, who used to live in a Big Island fishpond until she was killed by an intruder's spear earlier this year. For years Zarrella traveled to the Big Island once a month to clean and care for Kim and two other "rescued" turtles that lived in the private fishpond near Hilo. Kim was brought to the pond as a young turtle when several youngsters found her after she had been shot with a spear and left for dead on a Big Island beach. Two other turtles arrived under similar circumstances. The property owners received special permission to care for the turtles, which are a threatened species. Zarrella said after seven weeks of work, the mural commissioned by the Maui Ocean Center is almost finished.

5690 6-12-02 AM

5690 6-12-02 AM



2002 See p 187-188 177

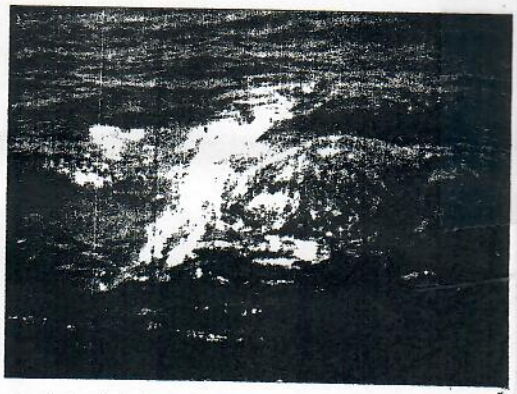


ARCHIE KALEPA photo

A large tiger shark, estimated at more than 20 feet long, was feeding on a dead sea turtle about a half-mile off Kahana in West Maui Thursday morning. While state conservation officers and Maui lifeguards warned people in the water of the feeding shark, no beaches were closed as the shark focused on what it does best: cleaning up a large carcass in the ocean. Tiger sharks regularly include turtles in their diets although they are known to eat virtually anything, from slow-swimming puffer fish to other sharks to garbage. They also are suspects in most of the recent attacks on humans in Hawaii waters.

Large tiger shark spotted feeding off West Maui

By LILA FUJIMOTO
Staff Writer



KAHANA — Oceangoers were reminded to be aware of their surroundings after a large tiger shark was seen feeding on a dead sea turtle Thursday off Kahana.

"This is the biggest shark I ever saw, and I've seen a lot of sharks," said Maui County lifeguard Capt. Archie Kalepa, who used a personal watercraft to get within about a foot of the creature.

"I would say it was 22 feet long. Guaranteed."

Kalepa and state Department of Land and Natural Resources officers responded to the area after a tour sailboat from the Hyatt Regency Maui Resort reported seeing the shark Thursday morning.

When he arrived, Kalepa said the shark was about 400 yards offshore and munching on the remains of the turtle as the carcass drifted toward the shore. But the turtle, followed by the shark, then started drifting out to sea until they were about a half-mile offshore, Kalepa said.

DLNR officers decided the beach didn't need to be closed, but they and lifeguards warned swimmers and kayakers within a two-mile radius of the shark's location.

Kalepa, who oversees county beach lifeguard operations in West Maui, said about one shark sighting a week has been reported in the Lahaina area during the summer breeding season. Most of the sightings have been of smaller sharks, some close to shore, Kalepa said.

"This past month, we've had reports every day at Launiupoko," he said.

The sharks seen at Launiupoko are probably black tip or gray reef sharks," said Russell Sparks, education specialist for the aquatic resources division of the state Department of Land and Natural Resources.

"These are small reef sharks that probably pose little or no risk to people," Sparks said.

While two shark attacks were reported off Maui waters last year, the only two incidents reported this year were at beaches off Oahu, Sparks said.

On March 23, a shark bit the left hand of a bodyboarder off Sandy Beach. On April 11, a surfer at Ewa Beach reported being cut on his left hand, possibly by a shark.

Sparks said it wasn't surprising that the tiger shark was seen off Kahana because of the presence of the turtle carcass attracting the shark to the area.

A year and a half ago, large tiger sharks were drawn to the ocean between Molokini and Kahoolawe to feed on a large dead whale, Sparks said.

"That's kind of their role," he said. "If there's a dead carcass of anything, there's probably tiger sharks that are drawn in."

To reduce the risk of a shark attack, oceangoers should stay away from dead animals in the water and avoid swimming near people who are fishing or spearfishing, Sparks said.

"People shouldn't be terrified of the water, but should be aware," he said. "If there's a dead carcass or dead fish that might draw a shark, maybe you shouldn't go."

Other safety tips include staying out of the water at dawn, dusk and night when some sharks move close to shore to feed, and avoiding murky waters, harbor entrances and areas near stream mouths, channels or steep drop-offs.

Experts also recommend that people who have open wounds or are bleeding stay out of the water because sharks can detect blood in very small concentrations.

People should also avoid wearing high-contrast clothing or shiny jewelry and refrain from excessive splashing that attracts sharks. Erratic activity of fish or turtles may be a clue to the presence of a shark.

If a shark is sighted, it's recommended that swimmers leave the water quickly and calmly and avoid provoking or harassing a shark.

When he approached the shark in the murky water off Kahana on Thursday, Kalepa said the shark was circling the carcass of the turtle, which had none of its flippers.

"He wasn't afraid of anything," Kalepa said.

Sparks credited lifeguards and DLNR officers for keeping an eye on the shark's activities Thursday and keeping people out of danger.

"The county lifeguards really do go above and beyond a lot of times in getting out there, monitoring the situation and helping keep people aware," he said.

West Maui

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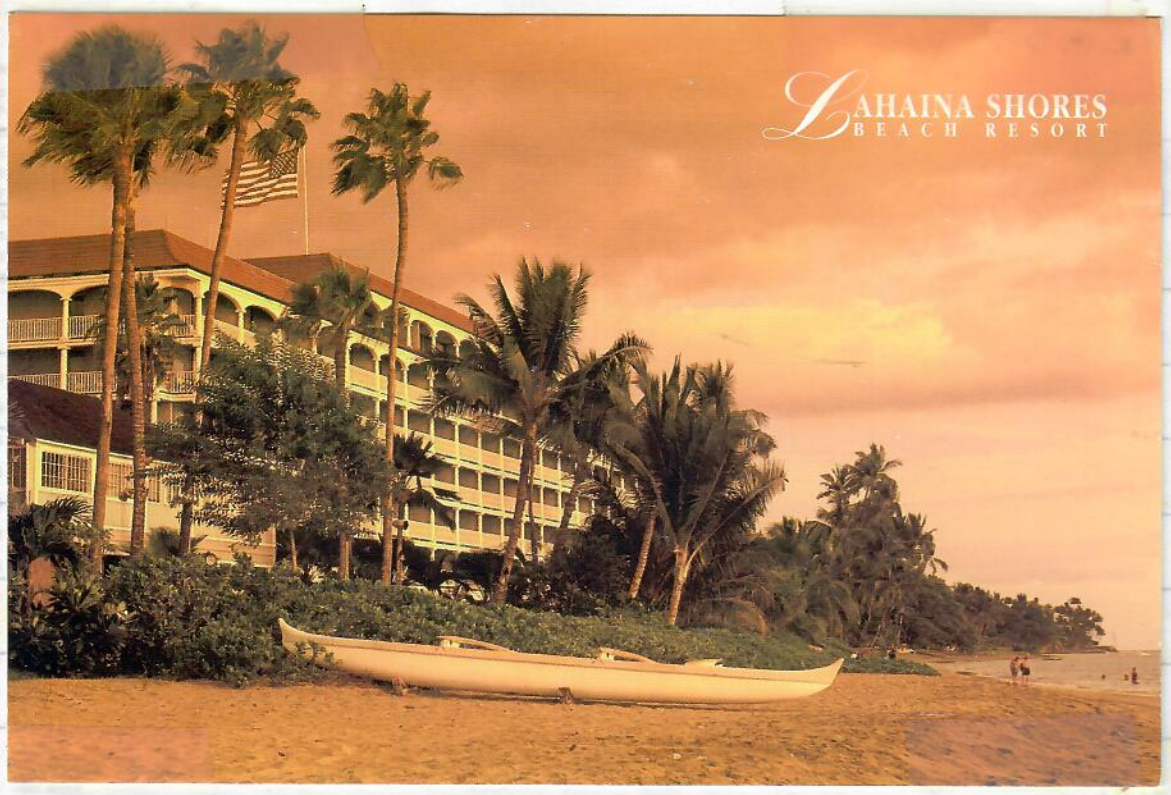

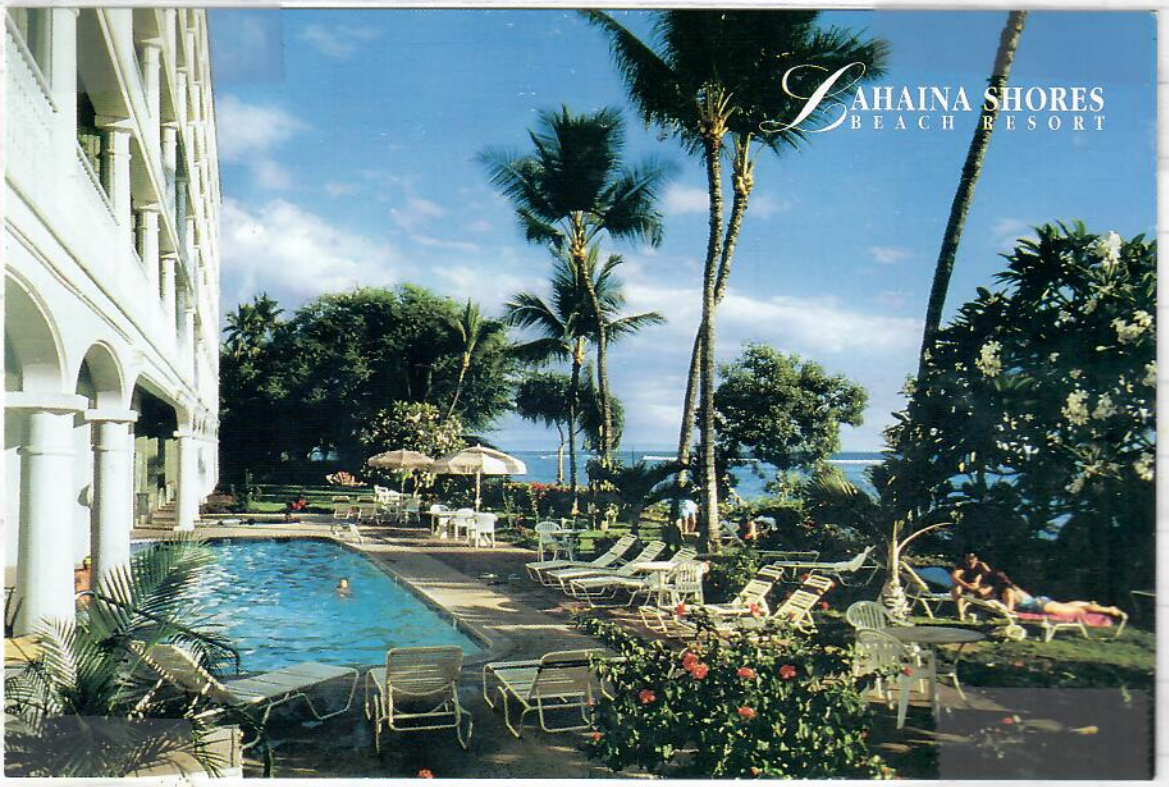

Date: Tue, 11 Dec 2001 23:58:48 -0800 (PST)
From: CHERYL KING <shezking@yahoo.com>
To: George Balazs <gbalazs@honlab.nmfs.hawaii.edu>
Subject: #4800

Shaun - 2 Resightings. Already in TDPS? Yes. If not, please enter. Also give me historicals. Geo.

George,
Unfortunately, I have not been able to search for her recently. The last time was Nov. 13, and there was no sign of her... A friend of mine did spot her from a boat about a week and a half ago. She was in the general vicinity of the drainage pipe, as usual. So, she's still around!

MAUI 11/7/01

I've been meaning to write to you regarding a tagged honu I saw at Olowalu on Nov. 7. While she was swimming, I saw that she had a tag on both front flippers, but she then wedged the right side of her body under a coral head. I was able to read her left front flipper tag: H238. She was down ~20 feet at a cleaning station with 6 other turtles. I can get you the exact GPS (I was on a boat) and whatever other details you need, just let me know.

MAUI 2001

A co-worker saw a turtle with a "235S" (he thinks) painted on the back of it at Olowalu as well (same location as H238). But this was on October 19. He wasn't sure if it had tags, but I'm wondering if this is the same turtle? The numbers are pretty similar, and he wasn't completely sure of the numbers, because they were starting to rub off. I didn't notice any remnants, so they might have rubbed completely off by the time I saw her to read the tag (?). This is why I haven't told you about this yet, I wanted to see it for myself so I could give you a solid report... But it doesn't look like that is going to happen (I go there very rarely as it is). You would know whether or not H238 nested this year and was painted, or if we're talking about 2 different turtles. Keep me informed when you get the chance!

I'm dusting off my snowboard and headin' to the mountains for Christmas. Happy Holidays to you too!!

Cheryl

Historical Information for Turtle Tag H238

Tag Information:

Tag Number	Date	Tag Type	Tag Position
H238	4/21/92	I681	LFL
H239	4/21/92	I681	RFL

H238 H239

Date	Type of Encounter	Location: (Kiholo)	TumorRank:	NestingAct:	Curved Carapace	Since Last Encounter Interval Month	Since Last Encounter Interval Year	Since Last Encounter Growth-Rates cm/mo	Since Last Encounter Growth-Rates cm/yr	Overall Interval Month	Overall Interval Year	Overall Growth-Rates cm/mo	Overall Growth-Rates cm/yr
4/21/92	Near Shore	Hawaii, Kiholo	0	-	58.5	---	---	---	---	---	---	---	---
11/7/01	Near Shore	Maui, Olowalu	0	-	---	114.0	9.5	---	---	114.0	9.5	---	---

Historical Information for Turtle Tag H238

Tag Information:

Tag Number	Date	Tag Type	Tag Position
H238	4/21/92	I681	LFL
H239	4/21/92	I681	RFL

Date	Type of Encounter	Location:	TumorRank:	NestingAct:	Weight	Since Last Encounter Interval Month	Since Last Encounter Interval Year	Since Last Encounter Growth-Rates lbs/mo	Since Last Encounter Growth-Rates lbs/yr	Overall Interval Month	Overall Interval Year	Overall Growth-Rates lbs/mo	Overall Growth-Rates lbs/yr
4/21/92	Near Shore	Hawaii, Kiholo	0	-	52.0	---	---	---	---	---	---	---	---
11/7/01	Near Shore	Maui, Olowalu	0	-	---	114.0	9.5	---	---	114.0	9.5	---	---

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Historical Information for Turtle Tag 3152

EAST

Mototool 2355 235-S

Tag Information:

Tag Number	Date	Tag Type	Tag Position
127C	5/30/97		RHF
3152	6/21/79	I681	RFL
3153	6/27/79	I681	LFL
3203	6/21/79	I681	LFL
42434F2275	6/26/01	PIT	RHF
4250004164	6/15/01	PIT	LHF
F818	6/5/93		LHF
F819	6/5/93		RHF
W503	7/29/89	I681	L34

						Since Last Encounter				Overall			
						Interval		Growth-Rates		Interval		Growth-Rates	
Date	Type of Encounter	Location:	TumorRank:	NestingAct:	Straight Carapace	Month	Year	cm/mo	cm/yr	Month	Year	cm/mo	cm/yr
6/21/79	Nesting	East	0	N	90.5	---	---	---	---	---	---	---	---
6/27/79	Nesting	East	0	N	---	---	---	---	---	---	---	---	---
6/15/85	Nesting	East	0	C	---	71.0	5.9	---	---	71.0	5.9	---	---
6/16/85	Near Shore	East, Area 3	0	-	---	---	---	---	---	71.0	5.9	---	---
6/16/85	Nesting	East	0	N	---	---	---	---	---	71.0	5.9	---	---
6/18/85	Near Shore	East, SEP	0	-	---	---	---	---	---	71.0	5.9	---	---
6/19/85	Near Shore	East, SEP	0	-	---	---	---	---	---	71.0	5.9	---	---
6/20/85	Near Shore	East, SEP	0	-	---	---	---	---	---	71.0	5.9	---	---
6/21/85	Near Shore	East, SEP	0	-	---	---	---	---	---	72.0	6.0	---	---
6/24/85	Near Shore	East, SEP	0	-	---	---	---	---	---	72.0	6.0	---	---
6/25/85	Near Shore	East, SEP	0	-	---	---	---	---	---	72.0	6.0	---	---
6/27/85	Nesting	East	0	N	---	---	---	---	---	72.0	6.0	---	---
6/28/85	Nesting	East	0	C	---	---	---	---	---	72.0	6.0	---	---
6/28/85	Near Shore	East, SEP	0	-	---	---	---	---	---	72.0	6.0	---	---
6/29/85	Nesting	East	0	N	---	---	---	---	---	72.0	6.0	---	---
6/30/85	Near Shore	East, Area 4	0	-	---	---	---	---	---	72.0	6.0	---	---
6/30/85	Nesting	East	0	N	---	---	---	---	---	72.0	6.0	---	---

3/5/02 12:56:31 PM

Historical Information for Turtle Tag H238

Tag Information:

Tag Number	Date	Tag Type	Tag Position
H238	4/21/92	I681	LFL
H239	4/21/92	I681	RFL

						Since Last Encounter				Overall			
						Interval		Growth-Rates		Interval		Growth-Rates	
Date	Type of Encounter	Location:	TumorRank:	NestingAct:	Straight Carapace	Month	Year	cm/mo	cm/yr	Month	Year	cm/mo	cm/yr
4/21/92	Near Shore	Hawaii, Kiholo	0	-	55.3	---	---	---	---	---	---	---	---
11/7/01	Near Shore	Maui, Olowalu	0	-	---	114.0	9.5	---	---	114.0	9.5	---	---

Date	Type of Encounter	Location:	TumorRank:	NestingAct:	Straight Carapace	Since Last Encounter Interval Month	Since Last Encounter Interval Year	Since Last Encounter Growth-Rates cm/mo	Since Last Encounter Growth-Rates cm/yr	Overall Interval Month	Overall Interval Year	Overall Growth-Rates cm/mo	Overall Growth-Rates cm/yr
7/8/85	Near Shore	East	0	-	---	---	---	---	---	72.0	6.0	---	---
7/9/85	Near Shore	East	0	-	---	---	---	---	---	72.0	6.0	---	---
7/10/85	Near Shore	East	0	-	---	---	---	---	---	72.0	6.0	---	---
7/15/85	Near Shore	East	0	-	---	---	---	---	---	72.0	6.0	---	---
7/16/85	Near Shore	East	0	-	---	---	---	---	---	72.0	6.0	---	---
5/26/89	Nesting	East	0	C	---	46.0	3.8	---	---	119.0	9.9	---	---
5/26/89	Nesting	East	0	C	---	---	---	---	---	119.0	9.9	---	---
5/27/89	Nesting	East	0	X	---	---	---	---	---	119.0	9.9	---	---
5/28/89	Nesting	East	0	N	---	---	---	---	---	119.0	9.9	---	---
5/28/89	Nesting	East	0	N	---	---	---	---	---	119.0	9.9	---	---
6/8/89	Nesting	East	0	C	---	---	---	---	---	119.0	9.9	---	---
6/8/89	Nesting	East	0	C	---	---	---	---	---	119.0	9.9	---	---
6/9/89	Nesting	East	0	X	---	---	---	---	---	119.0	9.9	---	---
6/9/89	Nesting	East	0	X	---	---	---	---	---	119.0	9.9	---	---
6/10/89	Nesting	East	0	P	---	---	---	---	---	119.0	9.9	---	---
6/10/89	Nesting	East	0	P	---	---	---	---	---	119.0	9.9	---	---
6/22/89	Nesting	East	0	X	---	---	---	---	---	120.0	10.0	---	---
6/22/89	Nesting	East	0	X	---	---	---	---	---	120.0	10.0	---	---
6/23/89	Nesting	East	0	N	---	---	---	---	---	120.0	10.0	---	---
6/23/89	Nesting	East	0	N	---	---	---	---	---	120.0	10.0	---	---
7/4/89	Nesting	East	0	N	---	---	---	---	---	120.0	10.0	---	---
7/4/89	Nesting	East	0	N	---	---	---	---	---	120.0	10.0	---	---
7/16/89	Nesting	East	0	C	---	---	---	---	---	120.0	10.0	---	---
7/16/89	Nesting	East	0	C	---	---	---	---	---	120.0	10.0	---	---
7/17/89	Nesting	East	0	X	---	---	---	---	---	120.0	10.0	---	---

Date	Type of Encounter	Location:	TumorRank:	NestingAct:	Straight Carapace	Since Last Encounter Interval Month	Since Last Encounter Interval Year	Since Last Encounter Growth-Rates cm/mo	Since Last Encounter Growth-Rates cm/yr	Overall Interval Month	Overall Interval Year	Overall Growth-Rates cm/mo	Overall Growth-Rates cm/yr
7/17/89	Nesting	East	0	X	---	---	---	---	---	120.0	10.0	---	---
7/28/89	Nesting	East	0	C	---	---	---	---	---	121.0	10.1	---	---
7/28/89	Nesting	East	0	C	---	---	---	---	---	121.0	10.1	---	---
7/29/89	Nesting	East	0	P	---	---	---	---	---	121.0	10.1	---	---
7/29/89	Nesting	East	0	P	---	---	---	---	---	121.0	10.1	---	---
8/11/89	Nesting	East	0	P	---	---	---	---	---	121.0	10.1	---	---
8/11/89	Nesting	East	0	P	---	---	---	---	---	121.0	10.1	---	---
6/5/93	Nesting	East	0	C	91.5	45.0	3.8	---	---	167.0	13.9	0.0	---
6/16/93	Nesting	East	0	X	91.5	---	---	---	---	167.0	13.9	0.0	---
6/17/93	Nesting	East	0	P	91.5	---	---	---	---	167.0	13.9	0.0	---
6/28/93	Nesting	East	0	X	91.5	---	---	---	---	168.0	14.0	0.0	---
6/29/93	Nesting	East	0	X	91.5	---	---	---	---	168.0	14.0	0.0	---
5/30/97	Nesting	East	0	N	92.0	47.0	3.9	0.0	0.1	215.0	17.9	0.0	---
6/12/97	Nesting	East	0	C	92.0	---	---	---	---	215.0	17.9	0.0	---
6/13/97	Nesting	East	0	M	92.0	---	---	---	---	215.0	17.9	0.0	---
6/15/01	Nesting	East	0	X	---	48.0	4.0	---	---	263.0	21.9	---	---
6/26/01	Nesting	East	0	N	---	---	---	---	---	264.0	22.0	---	---
10/19/01	Near Shore	Maui, Olowalu	0	-	---	3.0	0.3	---	---	267.0	22.3	---	---

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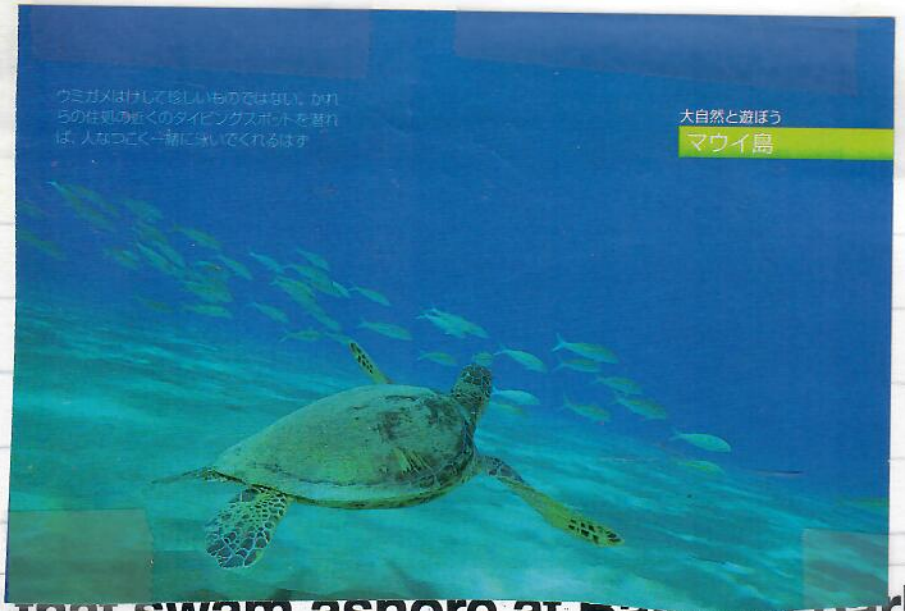


Turtle that swam ashore at Baldwin park dies

11/15/01

By HARRY EAGAR
Staff Writer

PAIA — The large green sea turtle that gained the concerned attention of beachgoers at Baldwin Beach Park two Sundays ago died following surgery in Honolulu.

Externally, the turtle, which was approaching full size at 150 pounds, had appeared to be OK.

There were no indications of entangling lines or of the fibropapilloma tumors that are ravaging green sea turtles in Hawaii and throughout the world.

Donna Brown, part of a network of volunteers who look after turtles on Maui, said, "A lot of stranded turtles have big tumors. This one didn't look that bad."

But when the turtle was still resting on the beach Monday morning, Nov. 5, turtle watchers became concerned and had it flown to Oahu.

There veterinarian Robert Morris of Makai Animal Clinic found internal tumors. Although a long, difficult surgery was attempted, the turtle died a few hours later.

George Balazs of the National Marine Fisheries Service, the state's turtle maven, said afterward, "It shows once again how damned deadly, and unpredictable, this TurtleTumorTragedy disease can be for a great many turtles."

Green sea turtles haul out to bask in Hawaii, which is not normal behavior in other parts of the world, but more usually in the Northwest Hawaiian Islands, where they mate.

A sea turtle lies motionless on the sand after beaching itself near the lifeguard tower at Baldwin Beach Park on Nov. 4. A day later, the turtle was flown to Honolulu, where it died hours after surgery. The turtle had internal tumors.

The Maui News file photo

The Maui News A3

People like Brown on Maui always hope when a turtle hauls out here that it is a promising sign, that it shows how the animals are returning to their old grounds, now that they have been under federal protection for decades.

But there is also a fear that the turtle is hauling out because of fibropapilloma, a mysterious disease that affects a large fraction of local turtles.

How and why the tumors spread is uncertain. They do not directly kill, but they can interfere with feeding or movement and lead to death.

The turtle that crawled up on Baldwin Beach on Nov. 4 seemed lethargic, but a lifeguard who inspected it could find no obvious signs of trouble, so it was left alone.

The next morning, according to Brown, the turtle was still there. Not a good sign.

In an e-mail to island turtle volunteers, Balazs wrote, "Cases like this serve to emphasize that often, when a sick turtle strands, it's usually at the latter leg of the deterioration process of illness. . . . We simply can't know in advance, until proper evaluations and diagnostics are conducted."

Morris, an experienced turtle doctor, did a full clinical evaluation Nov. 5 and 6 and discovered a large, complex "pancake" tumor on the tongue blocking the epiglottis.

The turtle was emaciated, "likely the result of the poor animal not being able to eat or swallow for many months," wrote Balazs.

Although often sick turtles are put to sleep, Morris decided to intervene in this case, because there were so few other, external tumors.

In surgery lasting an hour Saturday, Morris attempted to remove enough of the tumor to allow something like normal breathing. The turtle died about three hours later.

"The case had a sad outcome," wrote Balazs, "but not completely unexpected . . .

"Often, when a sick turtle strands, it's usually at the latter leg of the deterioration process of illness."

But "a number of our live stranded turtle do indeed benefit from intervention and become better and are eventually returned back into the wild."

The National Marine Fisheries Service, which is charged with protecting the endangered animals, pays for their treatment and has a rehab center on Oahu.

Turtle

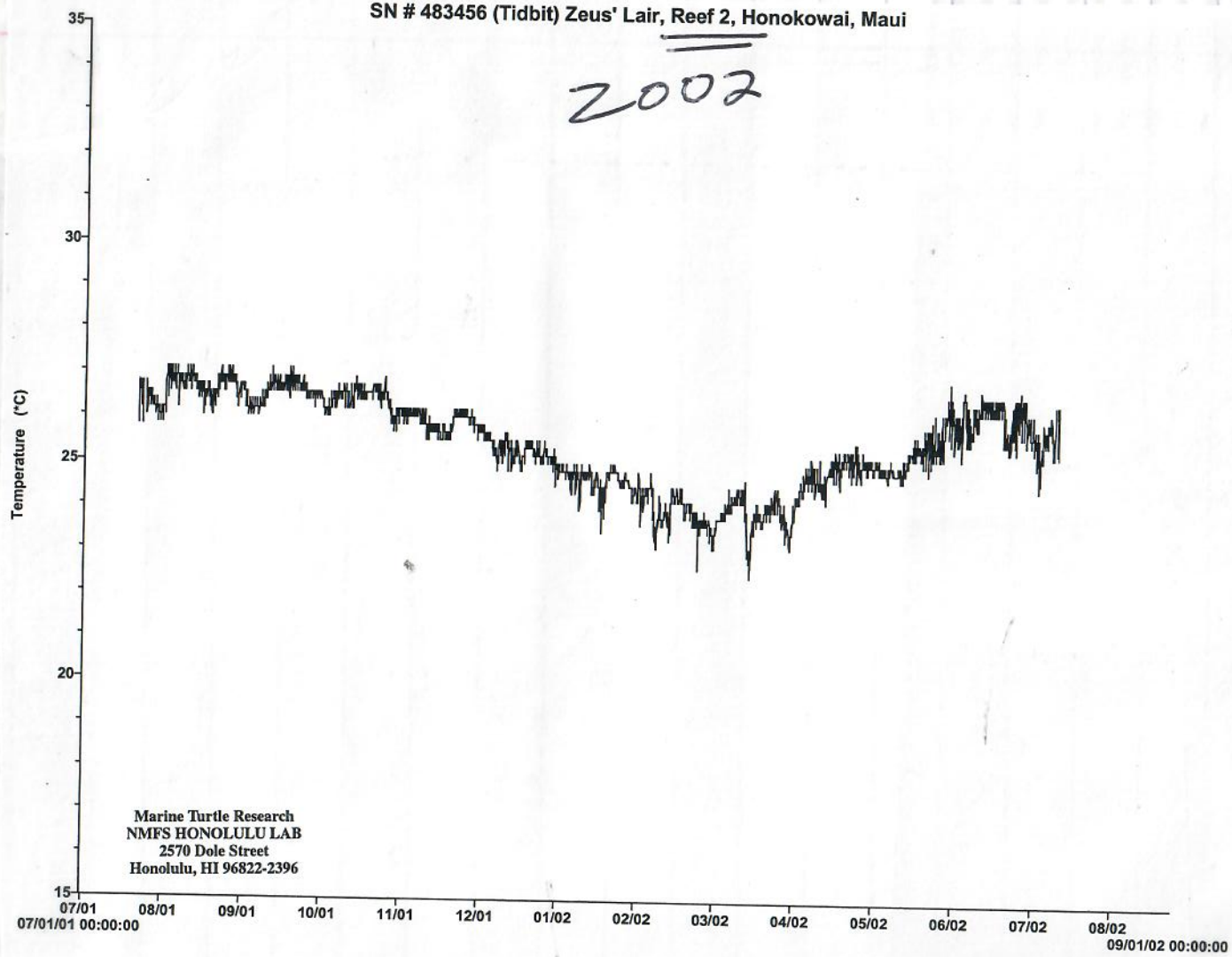
Continued from Page A1

listed in the preceeding paragraphs, or call the Law Enforcement Branch of the National Marine Fisheries Service in Honolulu toll free at (800) 853-1964.

Brown said there have been two reports of beached turtles on Maui in the past two weeks. In each case, the animals were showing tumors.

Both animals were sent to Honolulu, where one was beyond saving, while the other remains under observation.

The tumors, whose exact cause remains uncertain, do not directly kill green sea turtles, but they can interfere with vision or eating and indirectly weaken or kill the animals.


SN # 483456 (Tidbit) Zeus' Lair, Reef 2, Honokowai, Maui
2002
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35
30
25
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Marine Turtle Research
NMFS HONOLULU LAB
2570 Dole Street
Honolulu, HI 96822-2396

2002

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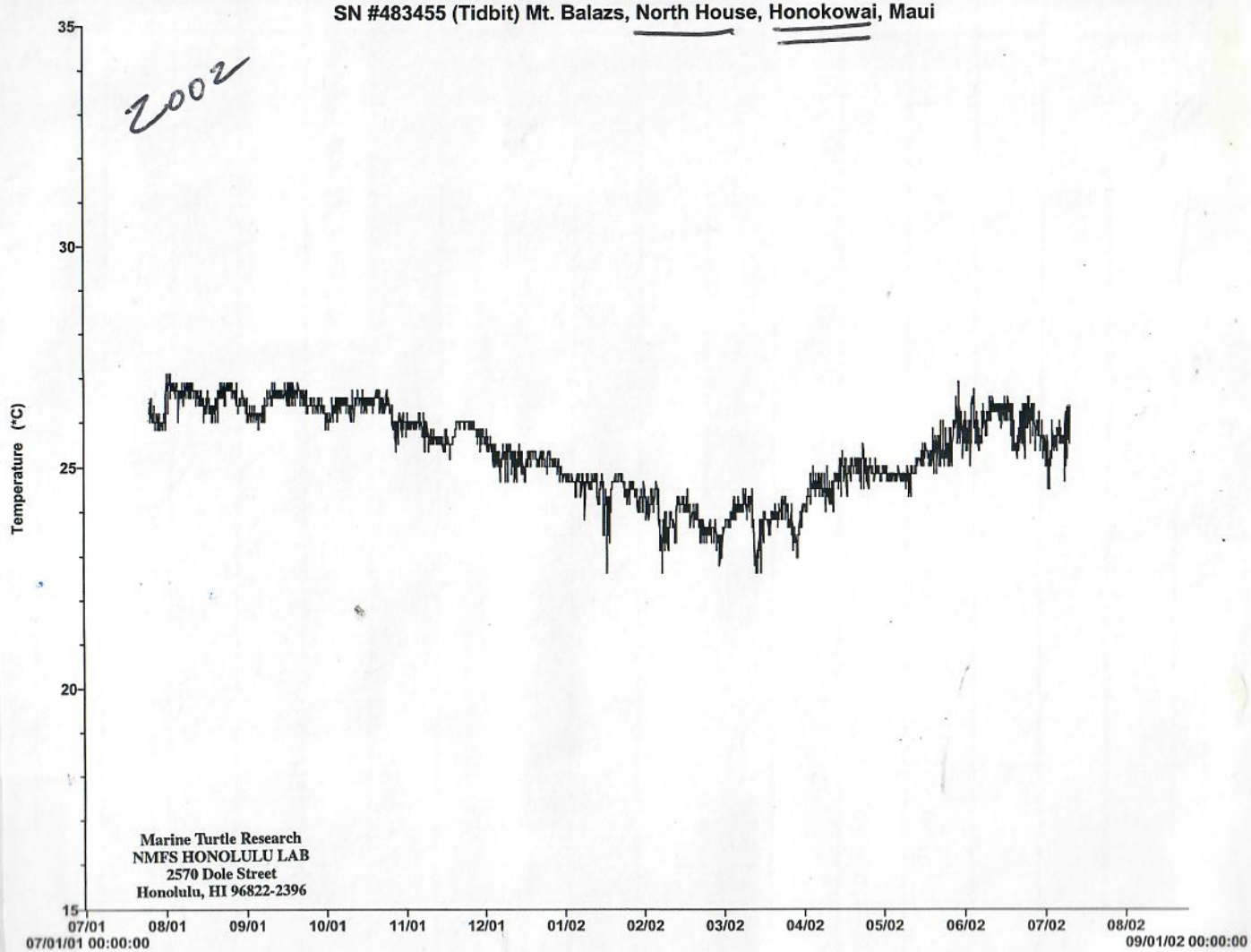
2002



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

see p. 177

2002

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Maui_HoomaluBay_May01_JohnHyde_CM_forag1.jpg

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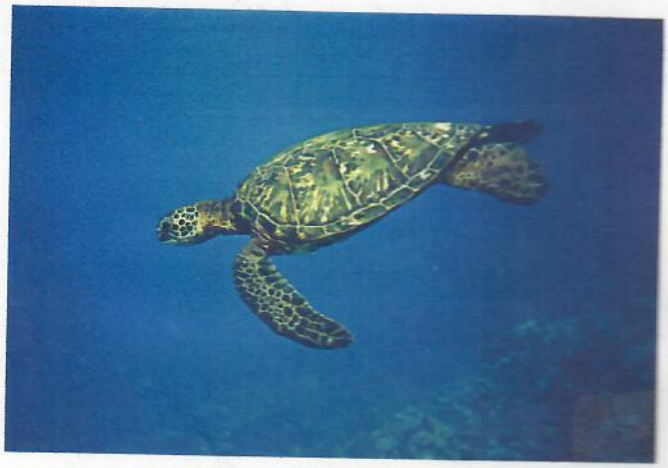

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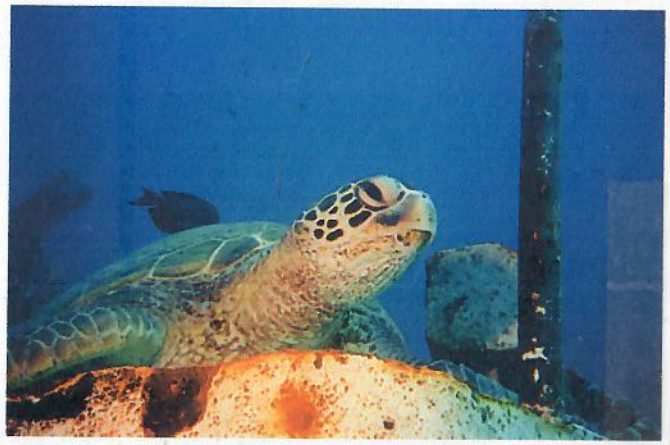
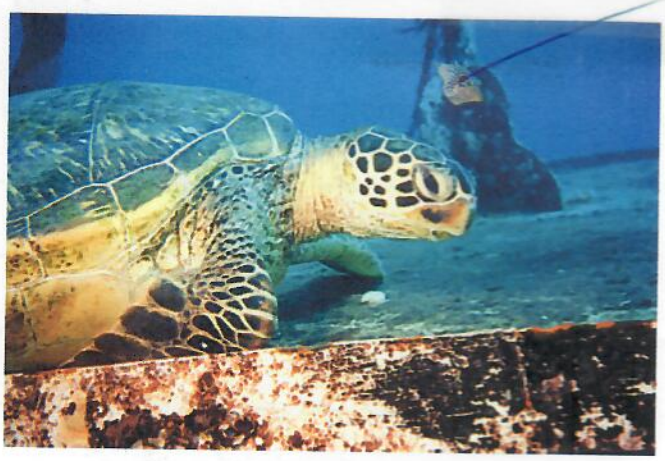
Maui_Kihei_May01_JohnHyde_CM_onSandbyTireReef



Maui_Kihei_May01_JohnHyde_CM_onWreck.jpg

Maui_Kihei_May01_JohnHyde_CMhead_onWrekwKole



Maui_Kihei_May01_JohnHyde_CMrtprfl_onWrekwTob

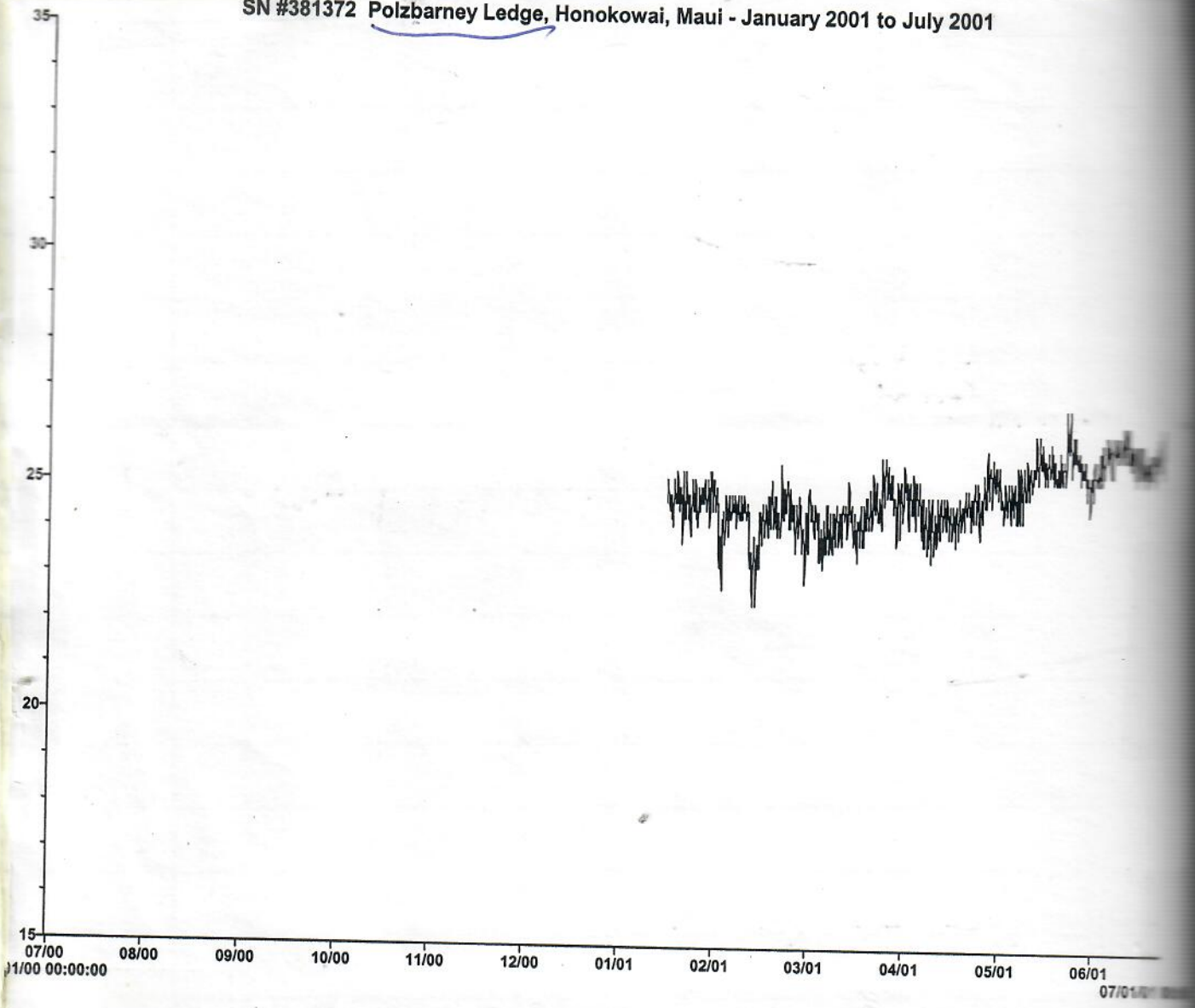
Maui_HoomaluBay_May01_JohnHyde_CM_leavinforag

Maui_HoomaluBay_May01_JohnHyde_CM_smlFP_LF

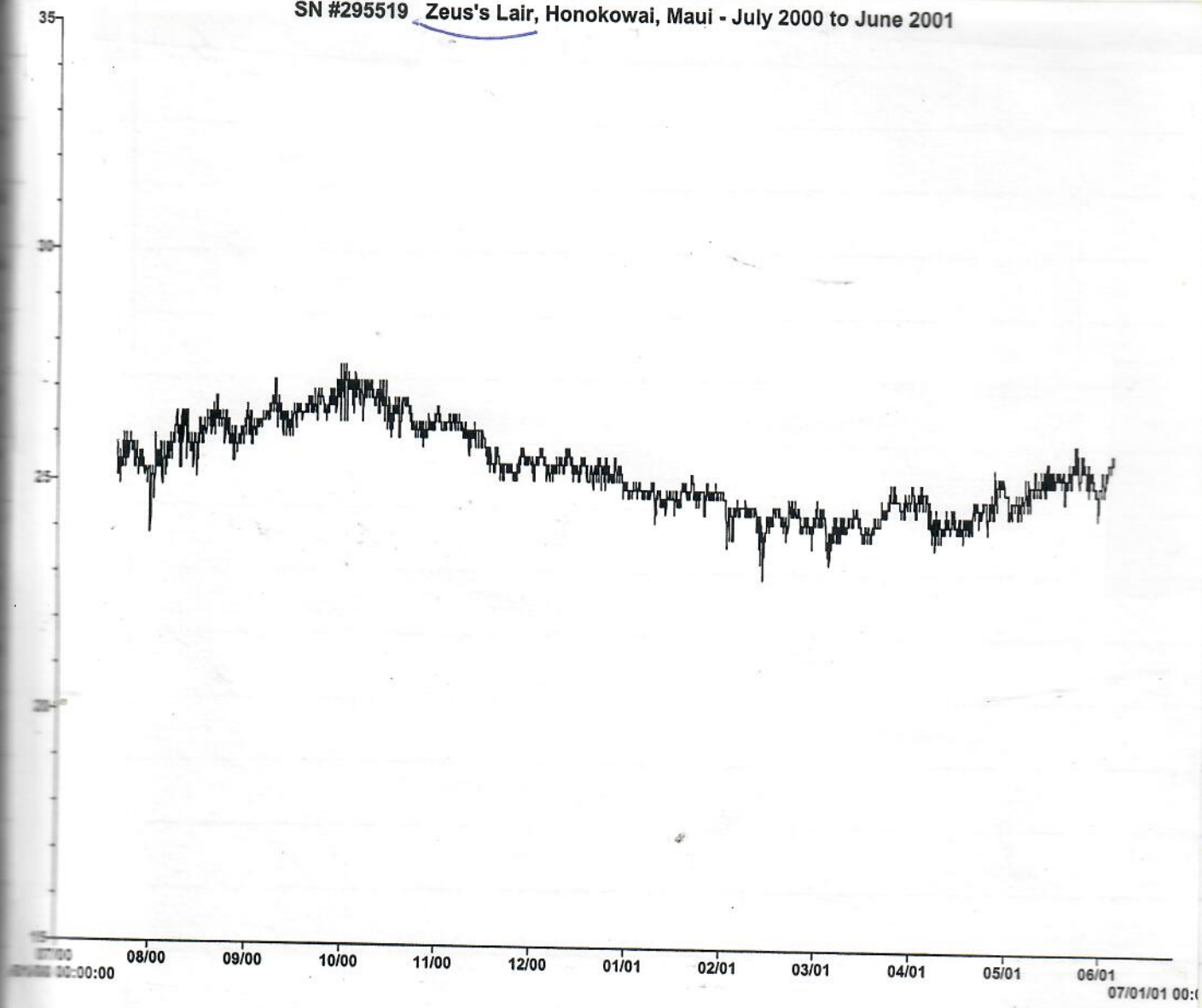
Maui_HoomaluBay_May01_JohnHyde_CM_smlFP_LF

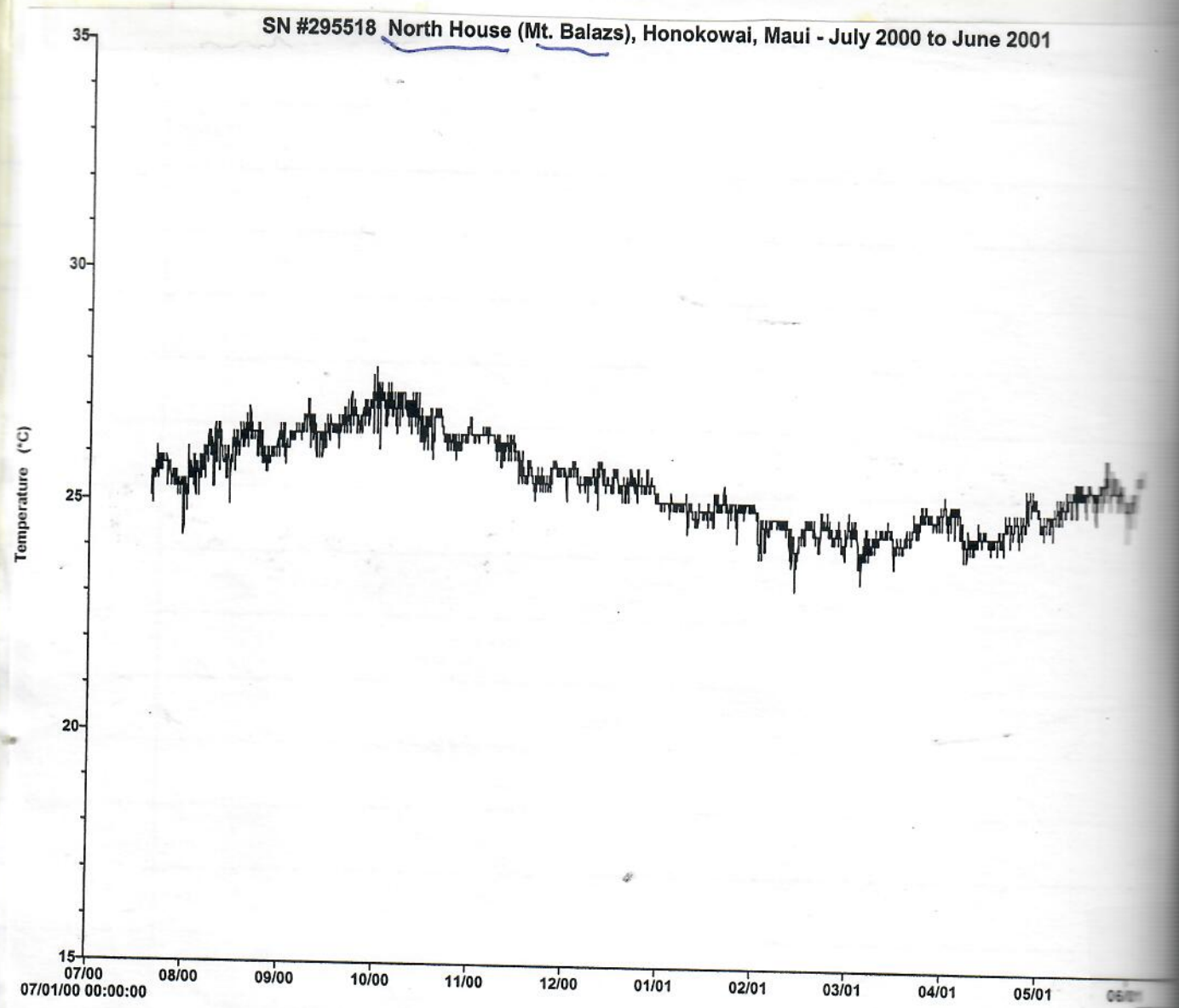
Maui_HoomaluBay_May01_JohnHyde_CM_wFP_Lftpr

SN #381372 Polzbarney Ledge, Honokowai, Maui - January 2001 to July 2001

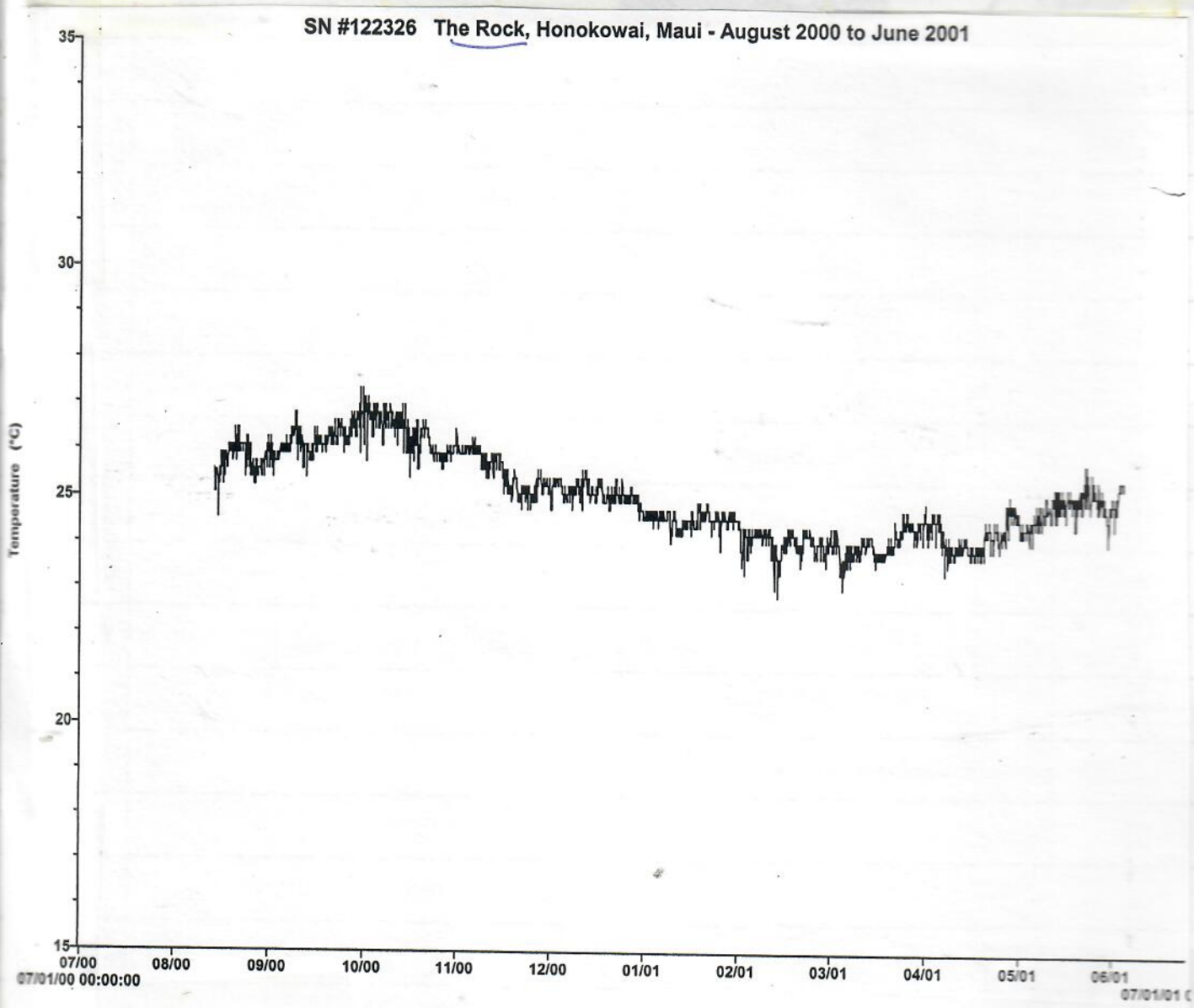


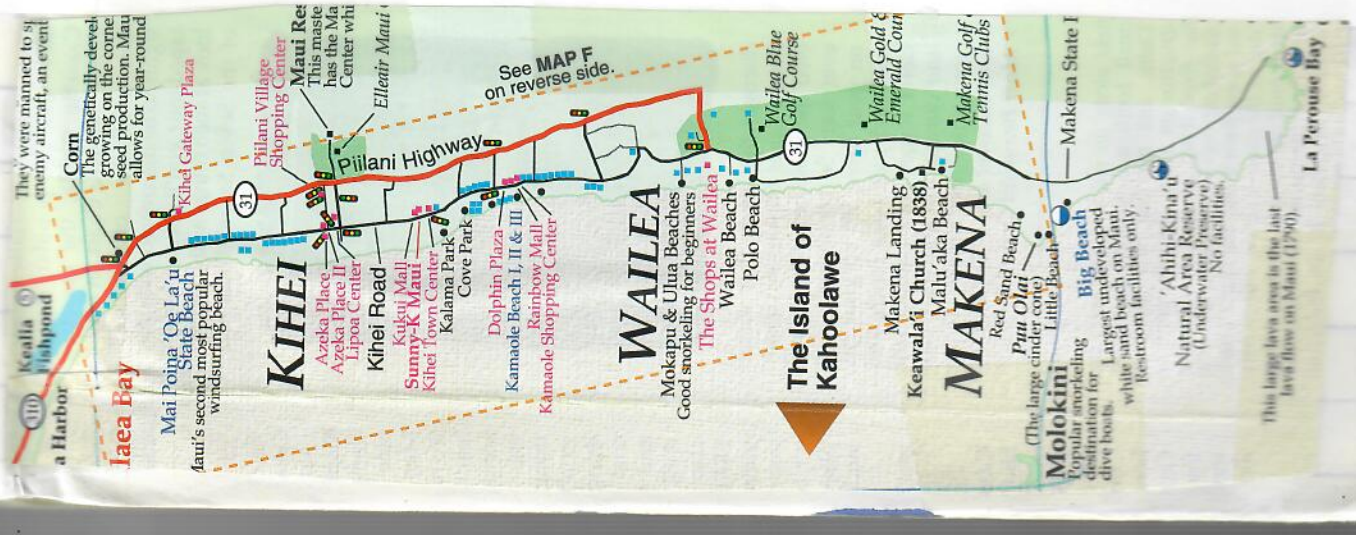
SN #295519 Zeus's Lair, Honokowai, Maui - July 2000 to June 2001

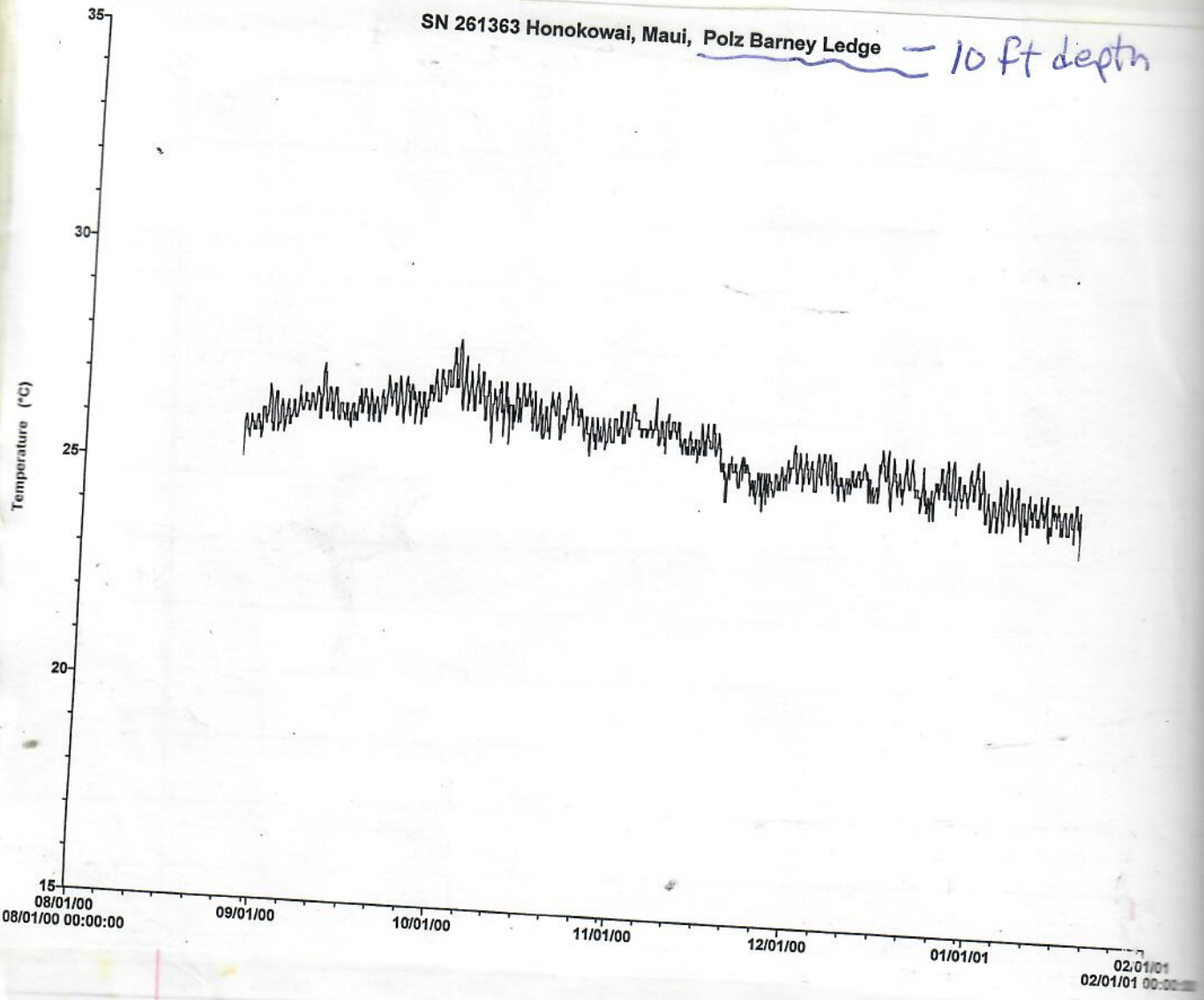



SN #295518 North House (Mt. Balazs), Honokowai, Maui - July 2000 to June 2001
Temperature (°C)
35
30
25
20
15
07/00
07/01/00 00:00:00
08/00
09/00
10/00
11/00
12/00
01/01
02/01
03/01
04/01
05/01

195


SN #122326 The Rock, Honokowai, Maui - August 2000 to June 2001
Temperature (°C)
35
30
25
20
15
07/00
08/00
09/00
10/00
11/00
12/00
01/01
02/01
03/01
04/01
05/01
06/01
07/01/00 00:00:00
07/01/01


They were manned to s
enemy aircraft, an event
Corn
The genetically devel
growing on the corne
seed production. Mau
allows for year-round
Kealia
Fishpond
a Harbor
Iaea Bay
Kihei Gateway Plaza
Mai Poina 'Oe La'u
State Beach
Maui's second most popular
windsurfing beach.
Piilani Village
Shopping Center
Maui Re
This maste
has the Ma
Center whi
Elleair Maui
See MAP F
on reverse side.
Piilani Highway
KIHEI
Azeka Place
Azeka Place II
Lipoa Center
Kihei Road
Kukui Mall
Sunny-K Maui
Kihei Town Center
Kalama Park
Cove Park
Dolphin Plaza
Kamaole Beach I, II & III
Rainbow Mall
Kamaole Shopping Center
WAILEA
Mokapu & Ulua Beaches
Good snorkeling for beginners
The Shops at Wailea
Wailea Beach
Polo Beach
Wailea Blue
Golf Course
The Island of
Kahoolawe
Wailea Gold
Emerald Cou
Makena Landing
Keawala'i Church (1838)
Malu'aka Beach
Makena Golf
Tennis Clubs
MAKENA
Red Sand Beach
Puu Olai
(The large cinder cone)
Little Beach
Molokini
Popular snorkeling
destination for
dive boats.
Big Beach
Largest undeveloped
white sand beach on Maui.
Restroom facilities only.
Makena State
'Ahihi-Kina'u
Natural Area Reserve
(Underwater Preserve)
No facilities.
This large lava area is the last
lava flow on Maui (1790).
La Perouse Bay


SN 261363 Honokowai, Maui, Polz Barney Ledge
– 10 ft depth
Temperature (°C)
35
30
25
20
15
08/01/00
08/01/00 00:00:00
09/01/00
10/01/00
11/01/00
12/01/00
01/01/01
02/01/01
02/01/01 00:00:00

Hawaiian Honu

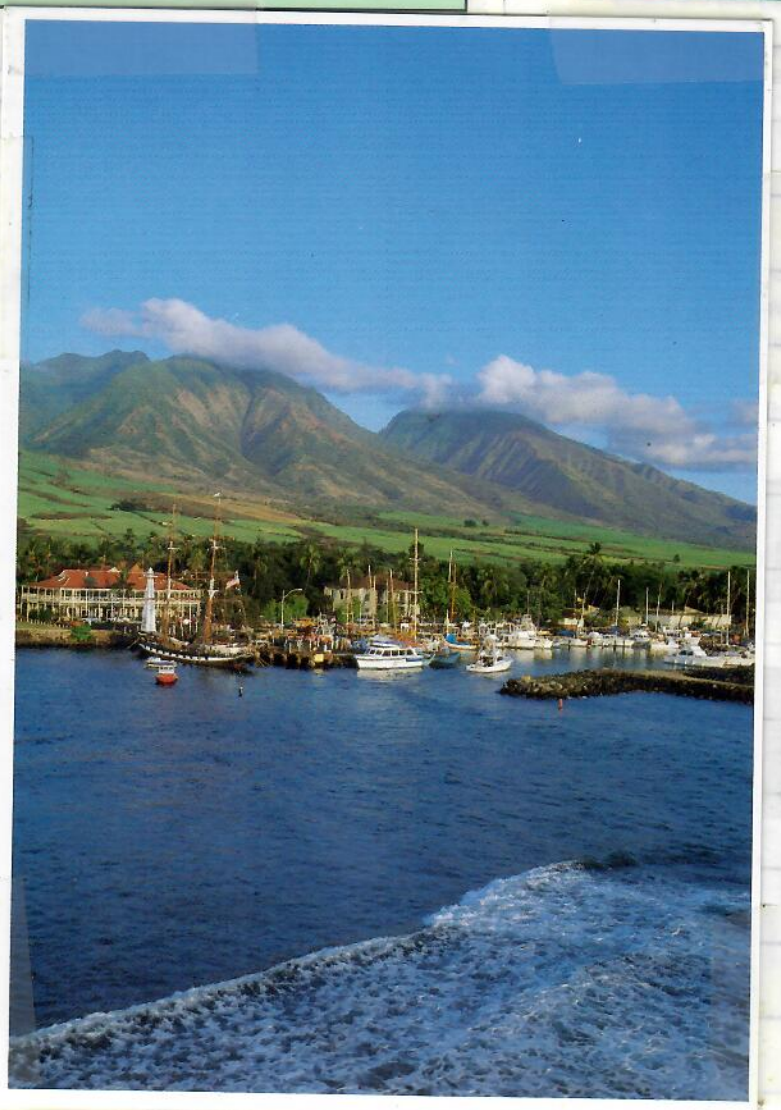
Honu is the Hawaiian word for green sea turtle. You're likely to see these docile marine reptiles while snorkeling on Maui. Please treat them with respect and don't harass marine life by following too closely. This charming honu, crafted of sterling silver, has an eye-catching shell of blue and green enamel. The pendant is about one-inch long and one-inch wide. It comes with a sterling silver 18-inch box chain for $49. Get it at Pacific Whale Foundation's Resource Center and Stores at Maalaea Harbor Village, 249-8977, and 143 Dickenson St., Lahaina, 667-7447. Open 9 a.m.-9 p.m. daily. You can also shop online at www.pacificwhale.org.

MILES & MINUTES

Average times are indicated. Avoid heavy traffic between the hours of 6-8:30 a.m. and 3:30-6 p.m.

DISTANCE FROM KAHULUI AIRPORT

DESTINATION	VIA HWY.	MILES/MIN
Haleakala	37, 377, 378	37/2 hrs.
Hana	36	52/3 hrs.
Iao Valley	380, 32	7.5/20
Kaanapali	380, 30	29/45
Kapalua	380, 30	35/60
Kihei	380	9/25
Lahaina	380, 30	25/35
Maalaea	380, 30	13/20
Makena	380, 311, 31	19/40
Napili	380, 30	35/50
Wailea	380, 311, 31	17/30
Wailuku	380, 32	6/15



Date: Wed, 28 Aug 2002 10:56:48 -1000
From: Ursula Keuper-Bennett <howzit@turtles.org>
To: George H. Balazs <gbalazs@honlab.nmfs.hawaii.edu>,
Peter Bennett <honu@turtles.org>
Subject: Re: Forwarded mail....

We were just there. That's the Lahaina side of Kapalua Bay. Right at the point.

Our read is 20.99870N and 156.66676W.

The LC1s are both on the south side of Napili Bay. She's hanging around the same area for now.

ug 2002 00:15:21 EDT
em@aol.com
@honlab.nmfs.hawaii.edu
Subject: Re: May I have the mailing address

His address at my sister's is:

c/o Ruth Conklin
E. 12026 25th Ave
Spokane, WA 99206

BOB KAYSER photo

A pair of green sea turtles cavorting off D.T. Fleming Beach Park leaves much to the imagination; but it isn't really clear if theirs is a mating ritual or a couple of teenage non-Ninja turtles just practicing, according to marine biologist George Balazs.

Sea turtle sighting a sign of the season

Marine researcher: 'It's just hormones'

By HARRY EAGAR
Staff Writer

KAPALUA – Canadian snowbirds Bob and Alexandra Kayser recently captured an uncommon sight on camera off D.T. Fleming Beach Park – a pair of green sea turtles apparently mating at the surface.

Unless it was two confused boy turtles.

While not unique, good observations of green turtles mating are infrequent, said George Balazs, leader of the Marine Turtle Research Program at the Pacific Islands Fisheries Science Center of the National Marine Fisheries Service in Honolulu.

'The female is completely in control of whether mating occurs or not.'

– Julie Booth and James Peters, co-authors in Animal Behavior report

Balazs was excited to learn of such a sighting around Kapalua, because that is the area where Maui's most famous individual turtle, Maui Girl (aka 5690), hangs out during the nonbreeding season.

Since she regularly has dug nests in Lahaina in even-numbered years, Balazs is hoping that, "if she is still alive," she may do so again this year.

Almost all green sea turtles in Hawaii travel to French Frigate Shoals to mate, but there is a small but growing population of turtles that nest here and, probably, also mate here.

Hawaiian monk seals get the attention, Balazs said, but "Maui is a very fascinating and exciting place for sea turtles."

If turtles are going to start mating in Maui waters, it could get exciting for snorkelers and divers, too. During breeding season – right now – "the males get a little wacky," Balazs says.

They will attempt to mount "any large object" in the water, including divers, according to one of the few scientific observations of green sea turtle mating.

That was done by Julie Booth in 1972 in Australia, and she learned that an amorous male can be fended off by adopting the same stance as a "not tonight, dear, I have a headache" female turtle: She stands erect in the water and splays out her limbs.

Really amorous males may have to be bitten – not by divers, but by lady turtles. Old males usually have plenty

See TURTLES
on Page A5

Turtles

Continued from Page A1

of scars on their heads from turndowns.

"The female is completely in control of whether mating occurs or not," wrote Booth and co-author James Peters in their paper in Animal Behavior.

If a female sea turtle can't scare the male off, or shake him off, she can always crawl up on the beach.

The male has a somewhat tenuous grip on even a receptive female. He uses his claws to grasp her shell, and a recently mated female often shows scratch marks and bloody wounds from her tryst, which can take more than six hours.

In the courtship process, females can pick and choose their partners. They typically choose several different males. Rarely does a male get to mate with more than one female, apparently.

It's possible, according to the Caribbean Conservation Corp./ Sea Turtle Survival League, that by having several fathers, the eggs in one nest could have a better overall survival chance, due to genetic diversity.

Balazs said that just because a pair of turtles are getting cuddly in the water, as the Kaysers' pictures show, that does not prove sex is happening. Males will mount each other too.

Booth observed mating at the surface but also underwater and on the bottom of the bay at Fairfax Island in Australia.

Unless the Kaysers did it, no one is known to have observed Maui Girl mating, and although other turtles also are nesting around West Maui, that turtle, or those turtles, haven't been observed.

Skippy Hau of the state Division of Aquatic Resources and Glynnis Nakai of the federal Kealia Pond National Wildlife Sanctuary have counted and excavated nests around Waihee-Waiehu, but not much is known about that.

Maui Girl, on the other hand, comes right up in the tourist zone and has been photographed returning to the sea after digging a nest near Lahaina Shores.

She nests about half a dozen times in a good year.

More recently, said Balazs, she has moved a little bit north, nesting near Kamehameha Iki Park. He is a little concerned that the beach naupaka is growing out seaward there, which could reduce the nesting area.

He also worries about lights during nesting season – May to October or thereabouts, but in past even-numbered years, Lahaina businesses have cooperated in shielding lights that could lure the emerging babies in the wrong direction.

The hatchlings rely on the moon to orient themselves for the dangerous journey from the sand to the sea.

Balazs also recommends that swimmers and divers practice safe interspecies relationships and "be a little careful" when in the water with male green sea turtles at this time of year. The creatures can't help themselves.

"It's the hormones."

■ *Harry Eagar can be reached at heagar@mauinews.com.*

BALAZS

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