

Dear George

call
Howard
and
Wright

Sept 17, 1976

I was most gratified to learn that someone other than a few of the local divers had a serious and positive interest in our beautiful turtles. I feel relatively certain that we will be talking about the hawks-bill, many of which have become diving companions of ours at different times.

In regards to your hopefully, upcoming visit Mr. Jon Orr has graciously made lodgings available at the head of the beach where we discovered the nesting sites. You will find him and his wife Ann the most engaging and I'm sure your stay will be rewarding irrespective of a possible hatching.

You are fortunate in that usually during this time of year the normally rough seas calm quite a bit. It is usually one of our prime diving seasons. Unfortunately for me I have a damaged 8th nerve which preclude any diving beyond 15 ft for me. Consequently finding a Scuba partner may prove difficult - personally I would proceed alone as the water is most

961-9311

364

② hospitable during flat spells.

(Dr.) Jim Rutherford, our oceanographic staff at present has expressed interest in joining you but I think he is still going through culture shock as he has just arrived from 4 years of research on invertebrates at Bodega Bay. It would be nice to get him involved. Though he did not volunteer his service as a contact liaison it would probably be our best bet. From the airport I'd suggest you call his office or the office of the Marine Option Program at Hilo College. Sorry I don't know either ext.

For My School - M W F

10:00 - 11:00 - LS 22 - Jim Rutherford

11:00 - 1:00 - Cafe - lunch study - I usually sit in a corner alone.

1:00 - 2:00 HWS Ethnobotany - Auntie Edith who would be glad to help us out

2:00 - 3:00 CH 5 - Arturo DR. J. DOWNS who would probably not be bothered

pan study - cafe till about 4:30

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More

Page 3

Sept 14, 76

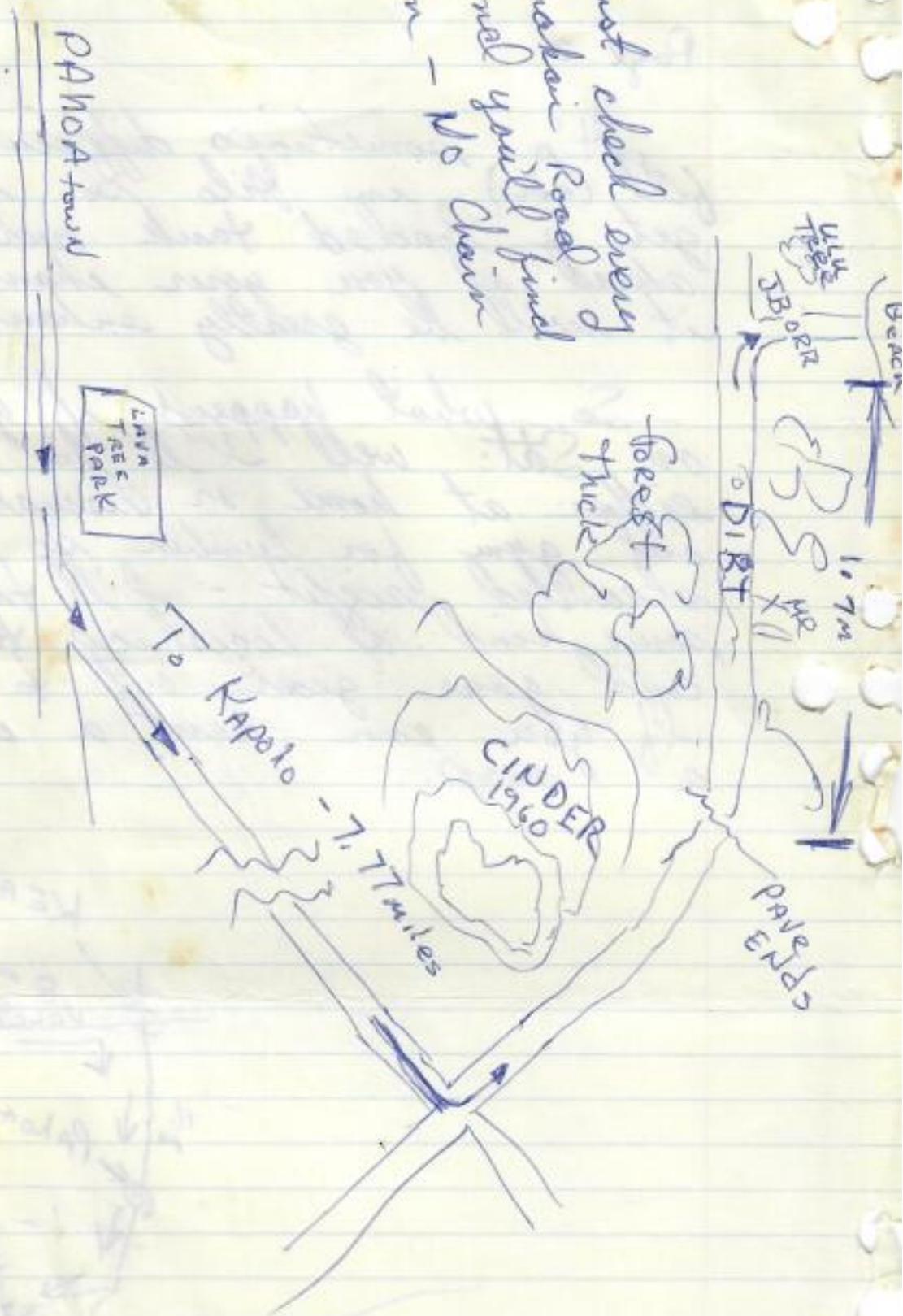
It's sometimes difficult to get a fill (air) in Hilo so if you can get a loaded tank over on going Bros. ahead of you your chance of using it will be greatly enhanced.

So what happens if you arrive on Sat: well I'll be working either at home or dismantling an old gym for lumber so your stranded right. - I'll try to arrange some kind of logistics to get you and your gear out to the country. If you can rent a car here's a map.



See over

Just check every
makai Road
and you'll find
Jon - No Chair



Well, George I'll see if I can
help ~~you~~ work out the logistics
a little better, and give you a call
if anything happens.

Tom, Annette & I are anxiously
awaiting your arrival

Aloha

Rich
Richard Carroll

Box 850

Pahoa, Hi, 96778

SEA

COCONUT TREES

SAND

MAN MADE
POND

HIGHWAY

HARRY K. BROWN
PARK

PAVILION

HEIAU

POND

X
NEST

STONE WALL

POND

J.B.Orr
Box 14
Pahoa, Hawaii

Nov.13,1976

Mr. George Balazs
Hawaii Institute of Marine Biology
P.O.Box 1346
Kaneohe, Hawaii

Dear George:

A female Hawksbill turtle nested on the beach at Kahuwai in front of our house on the night of Aug.23,1976. Kahuwai is about $2\frac{1}{2}$ miles towards Hilo from Kumukahi Point on the Big Island.

The nest was situated in a grove of Beach Heliotrope trees and was shaded at all times except early morning. The nest was dug in black sand to a depth of 18", below which lies hard packed soil and Aa lava.

On Sept. 23 the nest was excavated in your presence and determined to contain fertile eggs, the top of which were about 10" below the surface. Sand was carefully replaced over the eggs and the location marked. Two other locations were also excavated, one made on July 4 and the other on Aug.1. These were determined to be false nestings.

On Sept.24 a wire cage with 1" mesh was constructed around and over the nest to prevent mongooses from digging up the eggs. About Oct.20 an additional cage of $\frac{1}{4}$ " mesh wire was placed inside the 1" mesh wire to prevent newly hatched turtles from emerging.

The following observations were made from Oct.
30 to Nov.12.

Date	Time	Turtle Number	Remarks
Oct.30	8:30 A.M.		Nest depressed 6" Diam. by 2" deep.
" 31	4:00 P.M.		" " " 11" Diam. by 3" deep
" "	9:30 P.M.	#1	Emerged and reached water 40 yds. away in 17 min.
Nov.1	10:20 P.M.	#2 & 3	Emerged and reached water in 10½ Min. Length, head to tail, 2 3/4".
" 2	5:00 A.M.	#4, 5 & 6	Emerged after midnight. Lacked orien- tation and needed help to reach water.
" "	7:20 P.M.	#7-26	Emerged. Length of one, head to tail, 3".
" "	9:00 P.M.	#27	Emerged.
" "	10:55 P.M.	#28-38	Emerged.
Nov.3	6:20 A.M.	#39 & 40	Emerged between 1:30 AM and 6:00 AM.
" "	4:45 P.M.	#41, 42 & 43	Emerged between 10:00 AM and 4:45 PM. Length of shell 1 5/8", 1 5/8" & 1 3/4".
" "	6:45 P.M.	#44, 45 & 46	Emerged. Length of shell 1 3/4", 1 3/4" and 1 3/4".
Nov.4	1:00 P.M.	#47	Emerged. Length head to tail 2 3/4". Length of shell 1 5/8".
" "	3:30 P.M.	#48	Emerged. Length 1 5/8". Was washed back 13 times by waves. Estimate it travell- ed 300 yds to reach water.
" "	7:00 P.M.	#49 & 50	Emerged. Length 1 5/8".
" "	10:10 P.M.	#51	Emerged.

Date	Time	Turtle Number	Remarks
Nov. 5	5:15 AM	#52	Emerged between 11 PM-5 AM. Would not go towards water.
" 7	11:00 AM	#53	Excavated nest 4" down. Uncovered turtle and recovered nest.
" "	4:00 PM	#54 & 55	Emerged. Length 1 5/8" & 1 3/4".
" 8	6:00 AM	#56	Emerged between midnight & 6 AM. Very weak. Could not crawl towards water. Carried to waves but was twice washed back. Would make no response to crawl. Would dip head down and lay front flippers along back in emergence position. Returned to cage over nest.
" "	9:45 AM		#56 was by now very active and made way to water unaided.
" "	9:45 AM		
Nov. 10	10:00 AM	#57	Excavated trench 2 ft. Diam by 5" wide by 6" deep around nest. Uncovered turtle. Refilled trench.
" 11	7:30 AM	#58	Emerged between 10:30 PM and 7 AM.
" 11	11:00 AM		Excavated nest because of heavy surf warnings. Feared remaining turtles might drown or be washed out.
" "	" "	#59	Uncovered 7" below surface, 3" below bottom of depression.
" "	" "	#60 - 63	Uncovered 9" below surface.
" "	" "	#60 - 63	" " 12-13" below surface.
" "	" "	#64, 65	Length 1 5/8".
" "	" "	#66 - 75	Uncovered at 12"-14" below surface.
" "	" "	#76 - 79	Length 1 1/2 - 1 3/4".
" "	" "		Uncovered at 14"-15". Some of these were still emerging from shells. All of the last 21 made their way actively into water.
" "	" "	#80	Half in shell. Appeared to move at first, but dead in 1/2 Hr. Put in formalin.
" "	" "		Uncovered 2 dead turtles at 14". Put in formalin.
" "	3:30 PM	#81 - 89	Uncovered at 14". 6 of these made way to water. 3 washed back many times and died.
" "	" "	#90	Head just emerging. Let him be.
Nov. 12	7:00 AM		#90 dead. Put in formalin.
" "	3:30 PM	#91 - 95	Uncovered at 15". Very feeble. 2 made way to water. 3 died.

Excavated remainder of nest to bottom at 18" below surface.
A horrible mess. Sorted out approximately 54 dead turtles and 16
unhatched shells, most of which were squashed.

Total Count

Live turtles reaching sea	87
Died on way to sea	7
Dead in nest	57
Unhatched eggs	17
Eggs broken and examined	* 2

Total	170
Percent surviving	51%

I cannot account for the large number of dead turtles found at the bottom of the nest. 4 or 5 flat white worms about $\frac{1}{8}$ " long were observed while excavating on Nov.7. None of these were observed however when excavating on Nov.12. Most of the dead turtles were still partially in their shells and were in a bad state of decay. None of the bodies were dessicated or appeared partially eaten by insects such as flies or beetles. I saw no evidence of ants. It was a bad smelling, moist, mess.

At least 4 of the turtles which died on the way to the water were examined and found to have imperfect ventral shells with wrinkles on them. Some of these were unable to move a front or hind flipper where the wrinkled ventral apparently affected developement of the flipper.

Please, may I have your comments on what we did?

Sincerely,

A handwritten signature in dark ink, appearing to be 'John', written in a cursive style.





NEST OCT. 31 SHOWING WIRE
CAGES + DEPRESSION.



BEACH BELOW NEST AT KAUWAI



NOV 1973



J.B.Orr
Box 14
Pahoa, Hawaii

Dec.9,1976

Mr. George Balazs
Hawaii Institute of Marine Biology
P.O.Box 1346
Kaneohe, Hawaii

Dear George:

Thanks for your letter of Nov.16 and the enclosure. On the 20th of Nov. I dug up the nest once more. I remembered having difficulty sorting out and counting the number of dead turtles and the thought occurred to me "Why didn't I just count the number of shells". That is turtle shells, not egg shells. I also wanted to test your suggestion that the nest had been flooded out by rain.

I sifted several shovel fulls of sand from the nest through $\frac{1}{4}$ inch mesh screening. I found one turtle with shell and three remains without shell. I therefore conclude that many of the dead turtles were imperfectly formed and had not developed shells. I should have noticed this before.

I excavated the nest to the bottom and poured a bucket of water into it. The water disappeared in 25 sec. I do not recall any hard rains during the hatching period, and I therefore conclude that the turtles did not drown because of poor drainage.

Best regards,

P.S. I gave Rick the specimens in formalin to send over to. He said last night he had not done so but promised to send them this week.

J.B.Orr
Box 14
Pahoa, Hawaii 96778

KAKULWAI

March 5, 1978

Dr. George H. Balazs
Hawaii Institute of Marine Biology
University of Hawaii
P.O. Box 1346
Coconut Island, Kaneohe, Hawaii 96744

Dear George:

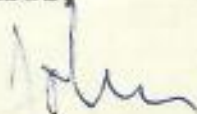
I saw Rick Carrol the other day, and he told me he had seen a Hawksbill turtle nest last September at Kalapana. He said the nest was collapsed and most of the turtles had left when he saw it. The surprising thing was that the nest was 150-200 yards from the sea and across a paved highway from it. The location was at Harry K. Brown Park where on the mauka side of the road there is a heiau and a salt water pond. He said the nest was on the mauka side of the pond and that the baby turtles were going into the pond.

I visited the location yesterday and could find no sand where Rick said the nest was. I saw him again today, and he insists that there was sand there when he saw the nest. I am enclosing a sketch, drawn from memory, of the location.

Another friend of mine was by Saturday, who told me he had seen a seal on our beach last November. I couldn't believe him, but his story was that he had been sunbathing on the left side of the beach behind a rock from the sea. He had been reading and napping for some time. He raised up and behold on the other side of the rock lay a seal also sunbathing. He approached to within six feet of the animal before it waddled quite rapidly into the water and disappeared. He said it was over six feet long and he estimated would weigh 400 lbs. I showed him your pictures of Monk seals and he said that was exactly what the animal looked like, but that his had a round spot about the size of a silver dollar on its back that looked like a scar. I asked why he had not reported it to me at the time, and he said that the seal was gone before he could find me and that he had left for the mainland the next day.

I looked for turtle tracks every morning on our beach from July 1st to Sept. 30th last summer but saw nothing.

Best regards,



JOHN B. ORR
P.O. Box 14
Pahoa, Hawaii 96778
June 19, 1980

Dr. George H. Balazs
Hawaii Institute of Marine Biology
University of Hawaii
P.O.Box 1346
Coconut Island, Kaneohe, Hawaii 96744

Dear George:

I thought you would be interested to hear that on June 14 I found turtle tracks on our beach leading from the shore to the cliffs where she dug a nesting hole but did not fill it back in. From there she wandered along the bottom of the cliff and returned to the sea. (This was about the sight of the second false nesting of 1976.

This time I had sense enough to take pictures of the tracks and will send them to you when they are developed.

Best regards,





JOHN B. ORR
P.O. Box 14
Pahoa, Hawaii 96778

July 1, 1980

Dr. George H. Balazs
Hawaii Institute of Marine Biology
University of Hawaii
P.O. Box 1346
Coconut Island, Kaneohe, Hawaii 96744

Dear George:

I am enclosing pictures of the turtle tracks on our beach on June 14. The white object in one of them is a 1 foot rule. I ran out of film when I came to take pictures of the false nest; so switched to another camera. That camera unfortunately had no film in it and I got nothing.

Yours,

A handwritten signature in blue ink, appearing to read 'John', with a long horizontal flourish extending to the right.

JOHN B. ORR
P.O. Box 14
Pahoa, Hawaii 96778
Feb. 22, 1980

Mr. George H. Balazs
Hawaii Institute of Marine Biology
P.O. Box 1346
Coconut Island
Kaneohe, Hawaii 96744

Dear George:

No, we have neither seen nor heard of any nesting activity of turtles on this part of the island in the last three years.

Having read Archie Carr's book I fully expected turtle nesting on our beach last year. The article on your recent World Conference is most enlightening. I had no idea Carr's report was based on only 12% of his tagged females.

Annette sends her aloha.

Yours,

A handwritten signature in blue ink, appearing to be "John", written in a cursive style.

JOHN B. ORR
P.O. Box 14
Pahoa, Hawaii 96778
Aug.18,1981

Mr. George Balazs
NOAA
National Marine Fisheries Service
P.O. Box 3830
Honolulu, Hawaii 96812

Dear George:

Thank you for the Sea Turtle Fact Sheet. We found this very interesting.

We have not seen any turtle tracks on our beach yet this year. Since she came up but left no eggs last year, I am not expecting her this one. But will keep looking.

Yours,

A handwritten signature in blue ink, appearing to be "John", with a long horizontal flourish extending to the right.

JOHN B. ORR
P.O. Box 14
Pahoa, Hawaii 96778

July 21, 1982

Mr. George Balass
Hawaii Institute of Marine Biology
P.O. Box 1346
Kaneohe, Hawaii

Dear George:

You may remember that we hatched some Hawksbill turtles here at Kahuwai in 1976. You may have a report on this in your files.

In 1980 the turtle returned and made a false nest but did not lay any eggs.

On July 3rd of this year she returned to the beach and late in the afternoon of that day I was informed by two small boys that she was stuck in the rocks. The day had been rainy and I had not visited the beach. On going down I discovered that she had made what appeared to me to be a false nest. On returning to the water she attempted to go between two ledges that stick up from the sand well back from the high tide line. The opening was too narrow for her to pass through and she had become stuck half way. We were able to pass a rope around her and pull her back from between the ledges and she rapidly made her way to the water apparently unharmed. The rainy day may have been beneficial in that she did not lie in the hot sun all day.

I am enclosing some pictures of her. One of them shows me trying to keep up with her with my handkerchief stretched out above her to indicate the length of her shell. The handkerchief measured 33 inches in length and was about the same length as the shell. Two of us lifted her and I would guess that she weighed about 150 lbs. This is only a guess. Her tracks measured 25 to 28 inches in ~~XXXXXX~~ width.

I will keep you informed of any further developments.

Yours,

P.S. Saw you on the telly.



Good Fight, Bad Fish!

This happened some weeks back. My friend Perry Dane and I were diving outside Kammies surf spot near Sunset Beach on the north shore of O'ahu. We were first planning to dive outside Sunset, but the water was too merky there because of about a 3-foot swell; so we decided to dive outside Kammies, the only clear spot around.

Anyhow, Perry was using twin 50s tanks and I went free breath. The water was about 25 to 30 feet deep, and we dove for about two hours. Perry shot a bunch of ahoiholes, menpachi, and 'aweoweo, like that; and I shot a couple of good-sized palani and a few other fish. Perry was about out of air and we were kinda tired and talking about swimming in when all of a sudden we both saw this big kahala flashing its mouth open and shut and acting like it didn't know what fish to choose from the bunch on Perry's stringer that was about half way down his 30-plus-foot floater line.

We both went down for the kahala with our three-pronged Hawaiian spears. Perry went a little faster, but I think he was too excited, and he just missed the fish. Then I shot it and hit it in and next to the eye. I grabbed its head soon after I hit it and started struggling to the top with it. When I got to the surface, it was kicking so hard I could hardly hold it. I told Perry to shoot it. He did a couple of times, but the fish was still kicking so much that Perry was almost spearing me.

Then this weird thing happened. My floater line for my stringer of fish was clipped on to my weight belt, but it was wrapping around us again and again as the kahala kicked us around in circles. I told Perry to hang on to the fish's head so I could take out my knife that had shifted around to the back of me on my weight belt. So Perry grabbed the fish's head, and I got out my knife and started hacking away at the fish behind its eyes. It mellowed out real fast after that. Then I had to unwind the floater cord that had wrapped a bunch of times kinda tight around Perry's neck and me. But we were really stoked and brought the kahala in.

When we came in, we thought of selling the kahala, because we could of used the money and we already had a bunch of smaller fish to eat. So we went close by to a market where we sell fish sometimes. But they didn't want to buy it. But they weighed it for us; it was 30 pounds.

Then we called a fish market to ask if they wanted to buy it. But they told us that they don't buy kahala and that most kahala have a disease that makes people sick. They told me to call the United Fishing Agency, the fish auction place. I did, and this guy there told me that the disease is called ciguatera, and it affects your nervous system and makes you think something cold is hot, and vice versa. He also told me that the University used to have people to test the kahala, but President Reagan cut the program off. So he said he'd recommend we give some of the kahala to a cat or dog, then watch to see if it would get sick, instead of us eating it first.

So that's what we did. I gave some to my mom's cat, twice, and she got sick both times. So we used the fish for fertilizer.

A friend told me most of the disease is in the kahala's head, and the disease is mostly in kahala over 20 pounds and affects them mostly in the summer months when the type of plankton that they eat, which causes the disease, is most abundant. Another friend told me he heard a lady's husband died from eating a kahala (I don't know if this is true). But I was glad to find out about these diseased kahala, and I hope this article helps some other people to be aware of kahala, so they don't get sick.

Too bad that kahala put up such a good fight and looked so good, but was a bad fish.

Aloha, Sincerely,

John Orr

Hale'iua, O'ahu

1982

OCTOBER 1982



July 31, 1984

George Balaya

P.O. Box 3830

Honolulu, HI 96812

Dear George,

I first heard about turtle tracks around the 15th of July. A friend of a friend claimed that he had seen the turtle come up in broad daylight and lay her eggs and, since he is fond of his booze, I discounted the story - as far as I know they nest at night. On the 17th I saw one clear track and a hole that was so close to the water's edge that it is now obliterated. On the 23rd in the evening a friend photographed the one visible track. On the morning of the 24th there were many new tracks and 10 holes were dug. It would seem, since there has been no activity since that she either laid the night of the 23rd or has abandoned

the right site.

I wasn't here the last time this happened (1976) so I really don't know what to look for as a possible nesting site. My dad is currently on the mainland & won't be back until Sept. 3rd.

If, in the meantime you would like to look at the beach you are more than welcome to come here. I have extra beds & can put you up.

We have many beach-goers and I'm afraid we have 100 human & dog track for every one turtle track.

The 10 holes are still pretty clear.

Let me know if I can be of any further help.

Sincerely yours,

Penny

Penelope O. Brown

Box 14

Pahoa, Hawaii 96778

8-25-84

DEAR GEORGE,

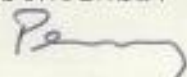
I MUST HAVE MIS-UNDERSTOOD YOU RE YOUR DEPARTURE FROM HILO HOTEL. I THOUGHT YOU WERE TO BE THERE UNTIL NOON TODAY. THE GIRL INSISTS THAT YOU CHECKED OUT YESTERDAY. A SHAME, SINCE SHE WAS BACK AGAIN LAST NIGHT. I RIGGED A LINE AROUND THE AREA WE LOOKED AT AS LIKELY LAST NIGHT (8-24-84) AT 6:00 P.M. THIS MORNING I WENT DOWN AT 5:45 A.M. AND FOUND A NEW TRACK (AN UP ONE) AND THREE NEW HOLES. ONE IS QUITE DEEP AND THERE IS A SIZEABLE MOUND. THEY ARE WELL TO THE LEFT OF THE RUBBER TIRE WHICH IS PICTURED IN MY FIRST MAP. MY SECOND MAP INCLUDES THE TIRE AND THE NEW HOLES. UNLESS I'VE GONE CRACKERS, I'M SURE THOSE HOLES ON MAP # 2 WERE NOT THERE WHEN YOU WERE HERE OR WHEN I RIGGED THE STRING.

I HAVE PUT UP SIGNS QUOTING " DR. BALAZS " SINCE I ASSUME THAT IS YOUR PROPER TITLE. IF IT ISN'T, I JUST PROMOTED YOU!

EVERYONE SO FAR HAS BEEN QUITE COOPERATIVE. I CERTAINLY WOULD APPRECIATE ANY LITERATURE, PARTICULARLY HANDOUTS, THAT YOU COULD SEND. AFTER A MONTH OF "POLICING" THE BEACH, I CAN'T SAY I ENVY THAT PART OF YOUR JOB- STILL, IT COULD BE WORSE- YOU COULD BE STATIONED IN BALI!

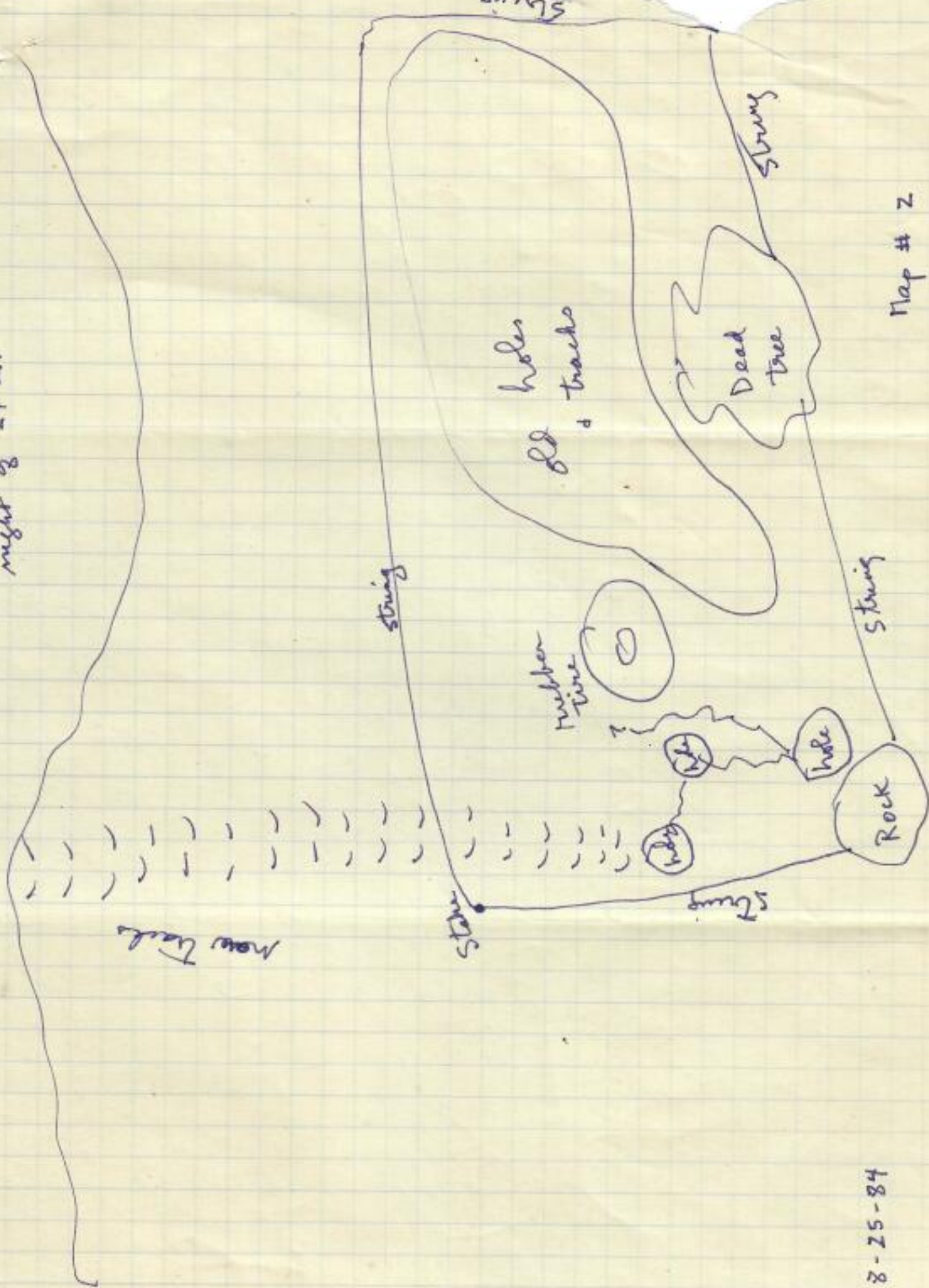
THANK YOU VERY MUCH FOR COMING DOWN AND FOR YOUR PATIENT EXPLANATIONS TO JACKSON AND ME. AFTER I FLUNKED SANDBOX AND CLAY, I WISH SOMEONE HAD SHOWN ME A TURTLE- I THINK THEY'RE A LOT MORE INTERESTING THAN PSYCHOLOGY!

SINCERELY YOURS,



PENELOPE O. BROWN

water - surf was high
night of 24th.



8-25-84

Map # 2

Drawn 7-26

New Tracks appeared (night of 7-23-84)

water

Amos

Tracks

ben
fine



Start looking
Sept 17th

Map #1

holes = tracks (also ~~holes~~)

Dead Tree

815

8-28

noon

84

George,

I just mailed a letter to you this morning telling you that the turtle came up again last Friday night (8-24-84) and has made 3 new holes (one rather deep) to the left of the rubber tire.

In talking to Diana I discovered that you were coming over tonight and therefore wouldn't get the new info while you're here.

Feel free to come take another look - if I'm not home, carry on.

Best,

Penny

(Orr's Beach)

JOHN B. ORR
P.O. Box 14
Pahoa, Hawaii 96778
Oct.1,1984

Dear George:

The UH MOP group helped carry 3400 pounds! : of fine sand down to the beach for the "hatchling turtle detector" and it was a hot sunny day.

Unfortunately we have had a good deal of rain since then and the sand remains wet so that I am fearfull that the tracks will not show up as well as I had hoped.

On Sept. 29 I found a bit of what looked like turtle egg shell on the path of fine sand. I compared this with an egg shell from the 1976 hatching.

	<u>1976 shell</u>	<u>Sept.29 shell</u>
Thickness	0.006 "	0.007"
Lighter flame	non-inflammable chars	non-inflammable chars

Penny says they tasted the same and had the same texture when chewed. There were no other signs of hatchlings. On Sept. 30 we erected a barrier of roofing paper seven inches high stuck up in the sand around the nests and just outside the path of fine sand. This should prevent the hatchlings from escaping, but we have caught none so far. It is about time for the July 24 eggs to hatch, but perhaps I was wrong in my identification of egg shell.

The July 12 tracks were on the far left of the beach and since then a lot of the sand has been washed away from there. However I inspected this every morning and saw no signs of eroded out eggs. The July 17 tracks wre very near the water and I doubt if any nest was made at that time. I am betting on the Aug.17, 25 and 28 nests since these would correspond to the dates in 1976.

I think an article for the local paper a good one. I ran into the editor the other day and he seemed interested. Can you give me information on other known Hawks Bill nestings on the islands and where they occurred?

I'll keep you informed.

Yours,



JOHN B. ORR
P.O. Box 14
Pahoa, Hawaii 96778
Nov. 8, 1984

Mr. George H. Balazs
National Marine Fisheries Service
P.O. Box 3830
Honolulu, Hi. 96812

Dear George:

We still have no signs of hatchling turtles on the beach at Kahuwai. It is now 72 days since the last visitation on August 28th of an adult female turtle.

If you remember the beach is divided into two unequal parts by a rock promontory. Tracks were found on the smaller, left hand, side on July 12 and Aug. 8. No attempt was made to build a barrier around these possible nests. Heavy surf from the North took out most of the sand from this side of the beach in late Sept. The beach was examined each morning for signs of turtle eggs which might have been washed out by the surf.

The right hand side of the beach was visited by one or more turtles on July 17 and 24 and again on Aug. 17, 25 and 28. This area was enclosed with a fine sand path on Sept. 22. The fine sand was washed out by heavy surf about Oct. 1, and was replaced with a roofing paper barrier six inches high. This was washed out on Oct. 6, 7 and 8, but was replaced on Oct. 9. The roofing paper was again washed out on Nov. 3 and replaced on the 4th. At that time 3/4 of the nesting area was washed over and as much as 3 inches of new sand may have been placed over the nests.

The area has been carefully monitored twice a day since Sept. 22 and no signs of depredation by mongooses or other animals or humans has been seen. However bits of shell-like material were picked up on the beach from Sept. 22 to Oct. 1. These may have been from a nest on the left hand side which was washed out by the surf. I am sending these on to you with an egg shell from the 1976 nesting for comparison and possible identification. The charring in places is due to flame tests which I performed.

Yours,



JOHN B. ORR
P.O. Box 14
Pahoa, Hawaii 96778
June 6, 1986

Mr. George H. Balazs
National Marine Fisheries Service
P.O. Box 3830
Honolulu, Hi. 96812

Dear George:

Thank you very much for the certificate for conserving turtles. I have attached this to the larger chart describing sea turtles which hangs on the front door of my house. I just celebrated my 75th birthday and this is the second award I have recieved since turning 75. They much appreciated by an old man.

Starting July 1st we will keep a watch for turtle tracks on the beach and let you know if anything turns up.

Best regards,

A handwritten signature in blue ink, appearing to be 'John', with a long horizontal line extending to the right.