

22-29 JULY 1981

KAALUALU - PUNALUU - KONA
G.H. BALAZS

KONA
OLIVE RIDGEY

HILO/KONA MAP LECTURES & KIHOLO

14-30 OCTOBER 1980

BOOK II
3-8 MARCH 1981

KIHOLO, HAWAII

G.H. BALAZS

1980-1981

KIHOLO-PUNALUU
KAALUALU

KIHOLO, ISLAND OF HAWAII - 14-20 OCTOBER 1980 pages 2-2
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KAALUA(U) - PUNALUU - KONA OLIVE RIDLEY
22-29 ~~JULY~~ 1981 p 74-
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BIG ISLAND INFORMATION PICNIC
FROM LANCE CHERBY, 23 MARCH 1981 . . . p 68-69

TA



COMPOSITION BOOK

9 3/4 IN. x 7 1/2 IN. (24.8 cm x 19 cm)

AVAILABLE AS:

- No. 09-9130 (1130) 60 SHEETS COLLEGE RULED & MARGIN
- No. 09-9132 (1130-P) 60 SHEETS COLLEGE RULED & MARGIN
- No. 09-9134 (1143-X) 100 SHEETS COLLEGE RULED & MARGIN
- No. 09-9132 (1130-P) NUMBERED PAGES

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G. H. BALAZS

HAWAII INSTITUTE OF MARINE BIOLOGY

TEL. 247-6631 (COLLECT)

Tagging Summary

Captures; SL Range - 39.6 - 66.9 cm

Mean -

23 CAPTURES (22 NET; 1 by HAND)

19 different turtles, of which
8 are recoveries of 7 month duration

As follows:

10.)	42.3 - 44.1	0.257
2.)	42.9 - 46.0	0.442 cm/mo
3.)	47.6 - 49.6	0.285
14.)	49.4 - 53.0	0.514
19.)	51.2 - 53.4	0.314
17.)	51.6 - 53.6	0.286
22.)	59.5 - 61.0	0.214
18.)	62.0 - 63.0	0.142

	CAPTURES	10/80 STRAIGHT LENGTH	3/80 STRAIGHT LENGTH	7 mos. cm INCREASE	cm/month
	1. 3476, 77	51.4	—		
	* 2. 3315, 16	46.0	42.9	3.1	0.442
	* 3. 3319, 20	49.6	47.6	2.0	0.285
	4. 3478-80	58.5	—		
	5. 3481-82	44.2	—		
	6. 3485, 86	46.0	—		
	7. 3483, 84	39.6	—		
	8. 3487, 88	57.9	—		
	9. 3489, 90	64.0	—		
	* 10. 3313, 14	44.1	42.3	1.8	0.257
	11. 3478-80	(short-term recapture)			
	12. 3492, 93	66.9	—		
Rec #10 HPA	13. 3494, 95	44.9 ^{62.0}	—		
	* 14. 3317, 18	53.0	49.4	3.6	0.514
	15. 3496, 97	52.9	—		
	16. 3315, 16	(short-term recapture)			
	* 17. 3303, 04	53.6	51.6	2.0	0.286
	* 18. 3311, 12 (& 3498 new)	63.0	62.0	1.0	0.142
	* 19. 3306, 05	53.4	51.2	2.2	0.314
	20. 3489-91	(short-term recapture)			
	21. 3499-3501	57.8	—		
	* 22. 3297, 98	61.0	59.5 ^{1.5}		0.214
	23. 3487, 88	(short-term recapture)			

4 ⑧

Recaptured
HPA #6 3-1-89

16 October 1980
Thursday

net capture - Pond - 10:30 AM

Added Y-109
Y-110

SL-70.4
92.5 lbs

3487LFL

S- 57.9 x 44.3

3488R
Through
2nd scale

C- 62.0 x 52.5

PL- 45.1

HEAD - 8.6

TAIL - 12 cm

WT - 56 lbs

Stomach sampled:

Skin barnacles

R & G algae

LFL - slightly short

Burrowing barnacle removed from plastron - destroyed

⑨ Recaptured in net 10/19 ~ 11 PM -
Released ~ 9 AM 10/20 - noted yellowish-white color
of plastron, compared to orangish color of 22

(9)

5

16 OCTOBER 1980

~ 11:30 PM

Thursday

HAND capture - Pond
under ledge on Mauka side
(shallow) - warm water

3489 LFL

S- 64.0 x 50.0

3490
2nd scale

3491 RFL C- 67.4 x 59.8

PL - 53.4

HEAD - 9.5

TAIL - 13.3

WT - 80 lbs

Stomach sampled red filaments
Skin barnacles
R & G algae on plastron

Photo #8

After release, this turtle may have
gone back into pond - around or
under net.

10/18 Recaptured 4:30 AM - released pond side

6
⑩

17 OCTOBER 1980

FRIDAY

0030

NET CAPTURE - POND

RECAPTURE

3314 RFL

S- 44.1 x 35.8

^{3/21/80} 42.3

3313 LFL

Both tags
expanded
more

C- 47.0 x 42.0

PL- 35.8

HEAD- 7.4

TAIL- 8.2

WT- 29 lbs

- Skin barnacles
- Stomach sampled - red filaments
 - Small amounts of R & G algae on plastron

Scum on carapace

Tattered hind flippers - healed
Photos # 9, 10, 11 (Shutter release wouldn't depress)
photos # 12, 13 - tattered hind

⑪ Tags 3478, 3479, 3480 Recaptured in nets 10/17 1:30A

(12)

17 OCTOBER NET CAPTURE - POND
~3:30 AM

3492 LFL S-66.9 x 49.6

3493 RFL C-71.1 x 61.0

PL - 52.7 cm

HEAD - 10.1

TAIL - 14.5

WT - 83 lbs

Stomach sampled -
Small amount R & G algae on plastion
2 ^{Discarded} Burrowing barnacles removed from plastion
Small patches of pink coralline algae
Eroded, or peeled, areas on plastion
photos # 14-15

8

⑬

Recovered HPA #10 - ^{P.72} APRIL 1990

17 October 1980

~ 6:30 AM Pond-net

FRIDAY

3494 RPL S-44.9 x 36.8
 62.0 48.9

3495 Left C-47.2 x 42.2
 2nd scale 65.5 47.2

PL - 34.3 48.2
 HEAD - 7.0 9.3
 TAIL - 7.8 11.5

WEIGHT: 25 lbs
 67.5 lbs

- Small amount of R & G algae on plastron
- "scalloped" marginal
- scum
- skin barnacles
- looks "thin"
- Stomach sampled - red filaments

(14)

9

17 October 1980

~ 6:30 AM Pond-NET

FRIDAY

TAG
RECOVERY

S - 53.0 x 40.6

3/21/80 49.4

3317 RFL

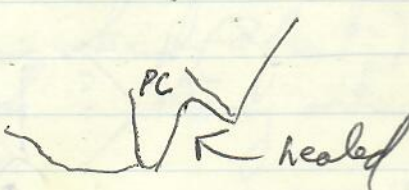
C - 56.2 x 50.0

3318 LFL

Both expanded
more

PL - 42.9
HEAD - 8.0
TAIL - 11.5 cm

WT - ~~4~~ 5 lbs

- Stomach sampled red filaments + molluscs(?)
 - Thick patches of red alga on neck
 - Very few (1-2) skin barnacles
 - Dark yellow/orangish areas to plastron
 - Scum on carapace
- Photos #16, 15
#18 shows net & palmgrove
- 

10 (15)

17 October 1980
FRIDAY

net capture - Pond ~6PM

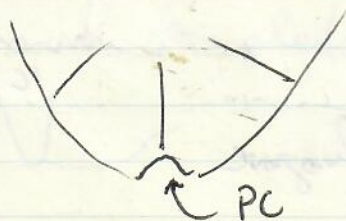
3496 LFL S - 52.9 x 41.8

3497R C - 56.3 x 51.2
2nd SCALE

PL - 42.8
HEAD - 8.3
TAIL - 10.8 cm

Wt. - 51 lbs

- Stomach sampled - a few filaments
- Skin barnacles
- Small amounts of R & G algae on pleastron



(16)

3315, 3316 Recapture 10/17/80 5:30 PM - Released - 10/18/80
char

(17)

11

17 OCTOBER 1980

6:30 PM

FRIDAY

net capture - Pond

TAG
RECAPTURE

3303 S - 53.6 x 41.9
3/18/8 - 51.6

3304

C - 57.3 x 50.0

PL - 41.4

HEAD - 8.3

TAIL - 11.5 cm

WT - 45 lbs

Nothing obtained from stomach sampling

Healed pieces missing from hind (2 front)
flippers - puffer fish? Many other
with similar type injuries.

- Released at beach, swam into net. 8 AM 10/18

Released again outside entrance with ~~38~~ 3482
captured ~ 5 AM 10/18

12

(18)

17 October 1980
FRIDAYnet capture - Pond
~ 6:30 PMTAG^{RE} CAPTURE

S - 63.0

x

48.4

3/21/80 - 62.0

3311 RFL

3312 LFL

C - 66.7

x

58.1

3498R

2nd scale

(new tag)

PL - 48.3

HEAD - 9.5

TAIL - 15.5

- Small stomach sample collected WT. - 70 lbs
- 3 burrowing barnacles destroyed
- Skin barnacles
- R & G on plastron
- Scale-like "knob" (small) above left eye
- Red algae (poly. ? & coralline) on tags of recovers.
- Small holes through end of RFL (2) & RHL
- PC's peeling
- Photos with campsite
- Released 9AM 10/18 - SWAM into net - Released outside channel

(19)

13

18 OCTOBER 1980
SATURDAY

NET CAPTURE - POND
~ 12:30 AM

RECAPTURE

3306
LFL

S - 53.4 x 43.6

3305
RFL

3/28/80 - 51.2

C - 57.0 x 52.0

PL - 43.1

HEAD - 8.5

TAIL - 11.7

No stomach sample

Wt. - 51 lbs

Skin barnacles

Red & Green algae on Plastron

Scum on carapace + green algae

Burrowing barnacles - collected

Photos of carapace #25

- Photos of two girls by turtles, #26-27

Released outside channel ~ 10:30 AM

(20)

3489, 3490, 3491 recaptured ~ 4:30 AM 10/18 -
RELEASED POND SIDE OF NET

17 OCTOBER 1980

FRIDAY (NARRATIVE CONTINUED FROM OTHER
GRAY BOOK - PAGE 109)

HOT AND SUNNY ALL DAY -
CAMPEES ARRIVED in late afternoon.

Eagle ray in net during evening -
~~was~~ Cut barb off and U
it escaped, back into pond.

18 OCTOBER 1980
SATURDAY

Cloudy, shaded morning.

Photos of two girls interested in turtles:

Lehua Ah Nee

Box 288

Holualoa, HI 96725

Kim Mitchell

10

P.O. Box 1257

KAILUA-KONA 96740

Seawater temperatures recorded by
Kam ~ 10 AM:

Surface, at net, where captures made - 26.5°C

Bottom (~5') " " " " - 26.5°C

Outside channel entrance, Makai - Surface - 26.8°C
" " " " - bottom - 27.2°C

Kam saw a school of surgeon fish (Pahani) inside pond at dropoff where net is laid - ~14" 2lbs size; Is this what has been nipping flippers of turtles?

18 OCTOBER 1980
SATURDAY

Noted 2-3 gravel or black sand, palm beaches to the south. one this side of neat palm grove, one on the other side. Are any of these suitable for hawksbill nesting?

Noted small depression on "campsite" black sand beach - but doubt if it was turtle excavation.

During twilight 5-6 Filipinos came into campsite one with rifle. No flash lights - came in across lava flow planning to lay gill nets. One younger man mentioned seeing Manta in pond.

Seemed familiar with area. Claimed they don't catch turtles. Departed after ~30 minutes.

- NEED letters to me from Hines & all other property owners asking assistance in the establishment of some sort of marine sanctuary for pond. ^{seems} Very important to turtles - gill nets across entrance are not in their best interests.

- Note - lots of silt apparent leaves ponds - nets are covered with silt.

Need List For Future Trips -

- EXTRA PROPANE
- chairs
- eggs - Pancake mix - syrup - Sears burner stove
- Spice Assortment
- teflon or other skillet ^{call}
- helicopter charter - KONA Surf - ^{need to} call travel agent
- Ellis "history" - Journey around Hawaii
- W.C. Handy - Native Planters of Hawaii
- Peeled chili's
- .22
- Star scope

Hayes Questions Tel. 882-7094

- Presence of red or other algae in shallows of Puako?
- Cooperators living along shoreline? site for netting
- Knowledge of turtles being taken?
- Copy of reports

(21)

18 OCTOBER 1980

~ 6:30 PM
Pond - net

3499
RFL

3500 S - 57.8 x 45.4

2nd^{LFL} scale

3501 LFL

C - 61.3 cm x 53.8 cm

PL - 47.1

HEAD - 8.9

TAIL - 11.5

- Released 10/19 ~ 9 AM - Swam into net - WT - 59 lbs
photos taken at end of roll; ore with Kam
#30-38

- 10-12 dead, healed burrowing barnacles - some at sides of Rjinkes (2) pores (?)
- Many skin barnacles
- Small amounts of red & green algae PL
- LFLimb healed V notch (old tag?)

(3rd scale)

(4th)

- Small healed hole through end of LFL - Photo taken.
#28-29

19 OCT 1980
SUNDAY

Drove out about ~10:30 AM, cars around gate - people wanting to get in.
Called Jim from Kawaihāe. "Drove to Puako - noted beach & road reserves" (DNR) signs.
Returned to Kihō about 1 PM.
Alan had swim around pond recording temperatures.
At the very end of pond, underwater temperature of 28.5°C - surface freshwater is 27.5°C , but trades blowing today caused some mixing of fresh and seawater layers.

20 OCTOBER 1980

MONDAY

Took net out of the water at ~8:00 AM -

packed all gear to car - departed Kihō about 12:15 PM.

Drove to Hives house in Kailua to return key. Cole has relatives that spent honeymoon at Kaalaolu Bay - shot turtle for breakfast. -

Stopped at Huggos and spoke to lunch chief, night bus boy, lunch waitress.

Budge Ruddled (?) visitor at HINDS - worked for operation led by POT - owns house at Pūhāhāhā (Puako region) - now seeing turtles

(22)

21

19 OCTOBER 1980 ~ 6:15 PM

TAG
RECOVERY

NET CAPTURE - POND

3297 LFL S - 61.0 x 45.8
 3/19/80 59.5

3298 RFL C - 64.4 x 54.3

PL - 48.8

HEAD - 8.9

TAIL - 16.0

Weight - 62 lbs

- Stomach sampled
- Many skin barnacles - most removed
- One burrowing barnacle removed from PL
- Tattered but healed hind flippers
- R & G algae on plastron
- Left ^{upper} beak injured

Photos by Kam of me and this turtle
in inter tube - note orangish
color to plastron.

20 OCTOBER 1980 MONDAY

Depart Kona on Hawaiian Airlines
flight 407 at 3:35 PM.

Flight - 407

[Faint, illegible handwritten notes, possibly bleed-through from the reverse side of the page.]

KIHOLO

OCTOBER

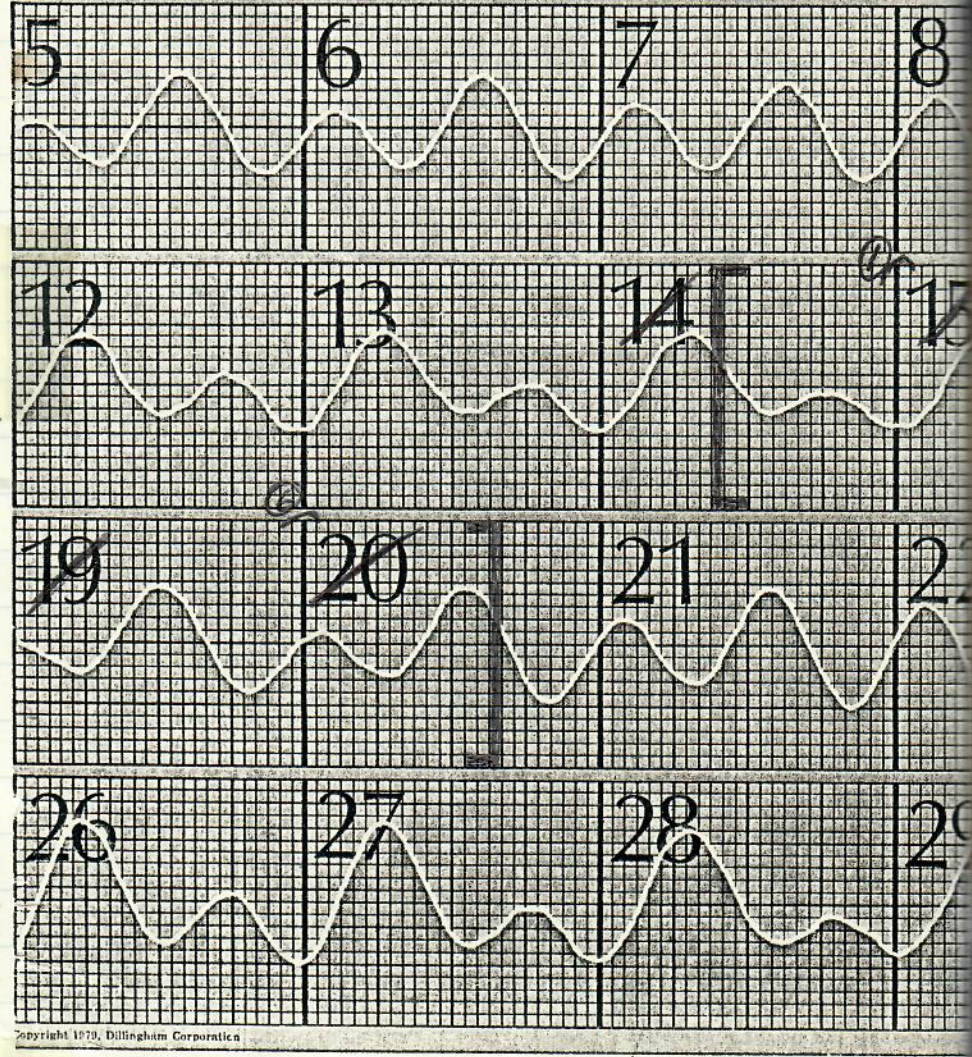
SUNDAY 6AM NOON 6PM	MONDAY 6AM NOON 6PM	TUESDAY 6AM NOON 6PM
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MOON PHASES

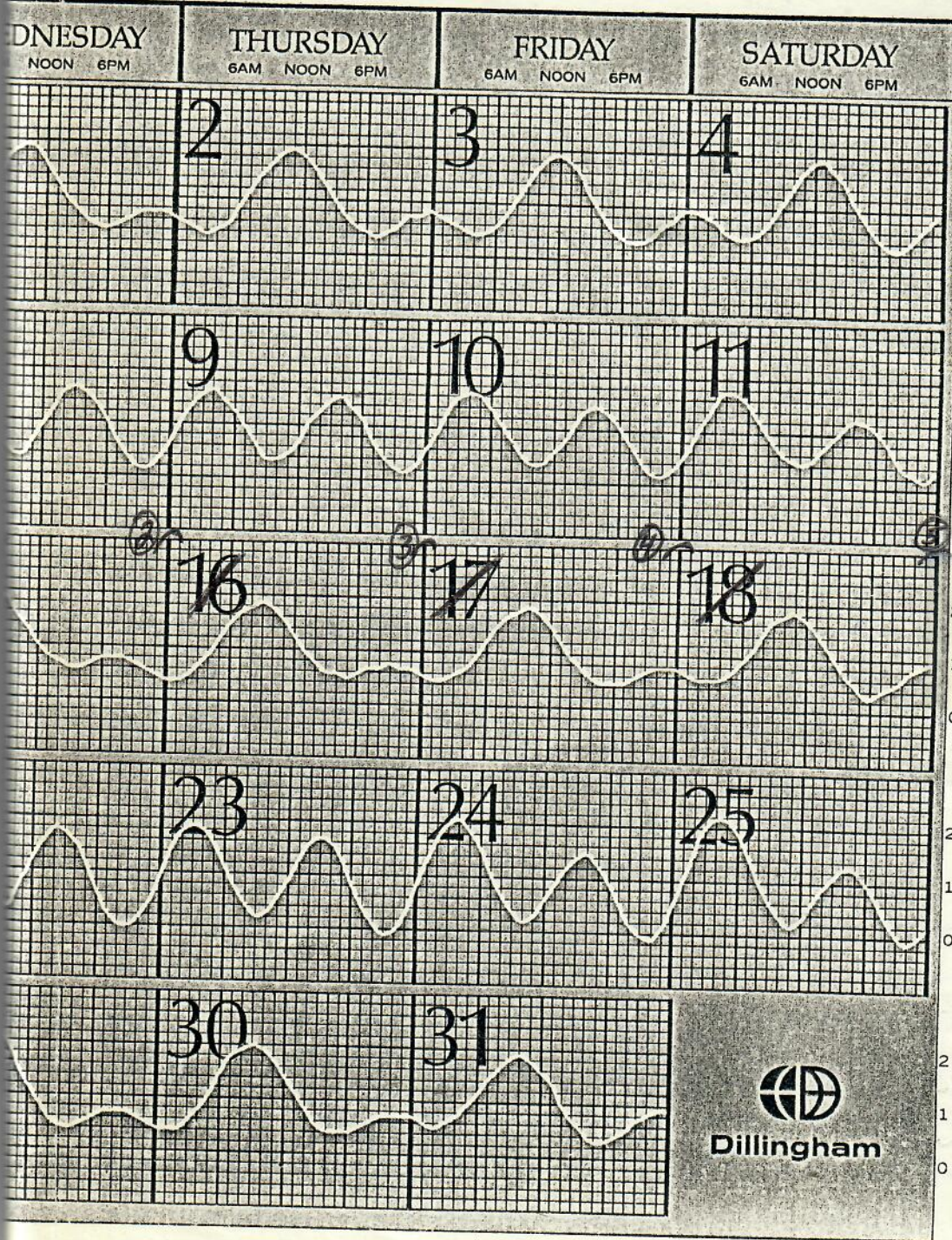
NEW MOON OCT 8	FIRST QUARTER OCT 16
FULL MOON OCT 23	LAST QUARTER OCT 30

For tide time at following places, add or subtract from Honolulu time.

PORTS	Hrs.	Mins.	PORTS	Hrs.	Mins.
HANAIEI BAY, KAUAI	-1	40	KAUNAKAKAI, MOLOKAI	-0	09
NAWILIWILI BAY, KAUAI	-0	32	KAHULUI, MAUI	-1	48
PORT ALLEN, KAUAI	-0	32	KIHEI, MAALAEA BAY, MAUI	-0	14
HALEIWA, OAHU	-1	36	HILO, HAWAII	-0	59
HANAUMA BAY, OAHU	-0	55	HONUAPO, HAWAII	-0	24
KANEOHE BAY, OAHU	-1	35	MAHUKONA, HAWAII	-0	24
LAIE, OAHU	-1	48	KEALAKEKUA BAY, HAWAII	-0	16
WAIANAIE, OAHU	+0	16			
WAIMANALO, OAHU	-1	15			



980 TIDE CHART



HILO - KONA MAP-NWHI LECTURES

Reservation Schedule - HAWAIIAN AIRLINES
 HILO HAWAIIAN #22 3 March 1981 FI 312 Depart HONO 11:40 AM
 KONA BAY #26 4 March FI 307 " KONA 10:42 AM
 KAM 5 March FI 308 Depart HONO 6 AM
 8 March FI 557 " KONA 3:20 PM
 PO 143058 #108 - \$90 w/CARD ; \$70 EXCESS BAGS

3 MARCH 81 TUESDAY Depart Honolulu on HA at 11:40 AM -
 Stop at Maui at ~ 12 NOON;
 Arrive at Hilo about 1 PM. Picked up by
 Tropical Rentacar (12.95 per day) - Drove to
 Hilo Hotel - commercial rate \$14.00 night -
 Drove out Kalaniana'ole Street to see Howard
 Takata - met Noreen. Howard mentioned
 that a fisherman Brown says he sees
 Great whites. "Shank for food" fishing is
 being carried out in Kona.
 The Fisherman restaurant is closed
 for renovation. Stopped and saw
3 turtles in ponds in front of private
 residence. Two smaller ones in one
 small, shallow pond - one seems to be
 floating high. The larger turtle is in
 larger pond - I watched it swim
 slowly. Still looks emaciated. Very plucky.
 "Notch" in margin (~8-9th) on right
 side, but probably not man-made. Turtle

3 MARCH, 1981

TUESDAY

Browsed at the surface - also foraged around under branches and other bottom debris (algae?).

Aboard indicated that Cooper was the only fisherman that complained about loss of beach whale in Hilo a few months ago.

A Waikiki Aquarium Docent program has operated here for several years - Les Matsuura involved - also local Junior League.

Drove to UH-Hilo Campus Center Auditorium at about 7 PM - set up and distributed hand-out. Talked to Mulls - 1.) Gill sick - may not continue in Honomaliu case 2.) Tilly testimony sent to Shallenberger - he told her to write it 3.) EIS ^{testimony} on boxes was cross coordinated w/ Shallenberger 4.) Dege's letter was sitting with Ralph for a long time

Talk went well - ~ 90+ people present - evaluation sheets used.

After talk I met girl from W. Samoa married and living in Hilo. also local family with 2 young boys - oldest (interested in turtle) (gave him a copy of my booklet). Saw DeDykes, Bud Doty informed that turtle bite baited hook when fishing in Hilo Bay

Discussions with Howard Takata at
 KKTEI - Alike Cooper; possibility of giving
 "assembly" talks on turtles to
 elementary schools -

Howard was a Peace Corps trainer in
 W. Samoa for 5 months in 1970 -

If I return he would like

MOSOOI SEEDS

Canarium odoratum

4 MARCH 81

WEDNESDAY

Walt Dudley - group of
 class at Puako. research

Pete Herdicks Assistant - "KELEN"

Wes Kanetaki - "A Relative Turtle" Honolulu
 #30 262-9878

Street in Hilo - UH campus "LANIKAULA"

Need to check with Nat. Park Personnel
 about hawkbill nesting at Kaimu B.S.B.

4 MARCH 1981 " O' Kaula I dream of you
 WEDNESDAY Memories are dreams to me
 since you left our lovely,
 lovely

Shores

When the dew drops kiss
 the ocean mist fell
 and the rainbows fill the sky
 'my heart does yearn
 for your return

I love you for ever more -
 O' Kaula

I dream of you
 Dreams will now
 come true somehow
 Kaula soon with me in Paradise
 " " " " " "

" Together with this song, inspired by
 my brother's new book "Kaula" and
 composed by Sol Bright at the
 crater's edge on the occasion of
 Madame Pele's last eruption - with
 lyrical aid by Lei Nuihana,
 Jean Tucker and Lloyd Pruett "

4 March 1981 Visited briefly with Bud Doty at
 WEDNESDAY Kau Sugar - 928-8424

Visited with Jeannette Howard at her gift
 shop - she sees turtles at times during
 the day.

No nesting this past year. Need to
 check bright lights from restaurant.
 Jeannette's shop was broken in to
 a few days ago. Need to send her
 another calendar and photo.

"Joe's" last name is ENRICO, ENRIA
 or ENRIO - from cement slab.

Visited Horseshoe by waves - rough.
 Proceeded past sign indicating construction
 of phase II Sea Mountain Condominiums,
 around South Point Wharf
 on to Kailua Kona.

Depart
 2:30 PM

Noted "Stans fish" in
 Honanau.

Arrived at Kona Bay Hotel
 about 4 PM - \$26 night + tax.

Tel.
 324-1295
 TIDE CHART

Dressed for lecture and went to
 Robert Hild's house to get gate key
 for Kiholo. Ate a light dinner
 at Jose's Mexican Food.

Arrived at Kona Surf for no-host
 cocktail party at 6:45 PM. Met

4 MARCH 81
WEDNESDAY

Older Man who lives on Maui caught a turtle sleeping in a hole - brought it into his boat - let it go and it swam right back into the hole. (size ~ 22"). A kona man and turtle stay will away from people - learn this quickly.

Herbes and wife - managers of Hotel. Chris Newbert & Cordy Statley & attended - probably about 125 + people present. Informed by "Captain Jack" that a Don Campbell brought in a turtle tangled in a "cargo net" - this boat is the Hanahou - 46'. Jack also mentioned the large turtle caught by Leslie. Following Jimmy talk Pete and I discussed the merits of designating the Ponds at Kiholo as Marine Sanctuaries. He could think of no objections - doesn't believe that many people fish there. However, he did refer reading or hearing about Kiholo being designated in some long range master plan as a Park. I should check State Parks Department for clarification.

5 March 81 - Got up ~ 6:30 AM - and ~ 7 AM
Thursday proceeded to kona airport to pick up Alan Kam with field gear. Returned to Hotel to repack - then checked out and had breakfast at McDonalds. Shopped at Foodland - made telephone calls to Bud Doty and airlines. Got Scuba tanks filled - I visited King Kaim Hotel - Sells Trading Post's shop with Pitcairn carved

5 March 81
Wednesday

turtle. Sales woman in shop, Doris,
Tel 325-7502, showed me photographs of
carvings done by her Marquesan son-in-law
named Rario (Tel 325-5416). Photos
included 2 sea turtles, each with a
different intricate design in the carapace.
Carves to order.

Drove to airport where I checked in the
Tropical rental car, and checked out a
Roberts Nazy Station wagon for \$17.95 per
day. Telephoned Helen about my
suitcase - Turn left a only stop flight
in Kailua - go about 1 mile - (Hualalai
(newly paved) ^{TO HUALALAI} - right on Kakaia ~~(Hualalai)~~)

House is on the left - newly varnished -
they have an orange land spruces -
Tel. 329-4293 (worked KVR ~ 4 1/2 years)

Telephoned for Byron Ayoso at
Kona Village Resort ^{Built 1964} (KVR) made arrangements
with receptionist to visit there.

Proceeded to KVR - 2 1/2 miles off main
highway. ^{They} Met Byron ^(Beach Captain) and associate -
KVR has ^{fresh} water ~~with~~ spring entering into
the ocean at southern end of cove (across
from beach bar). Some Gelidium growing
intertidally at point - in area where Byron
indicated he seeing turtles close to shore.

Jackie Robinson (friend of Mike Lay)
took us out in Raddon glass-bottom
boat - mostly shallow with lots of cracks
2:30

5 MARCH 81
Thursday

and ledges. She sees most turtles on the surface. Very difficult to approach close. Noted red buoy where Jackie (and girl named Bambi) will take guests on night dive. Bambi sees turtle sleeping off northern point on night dives.

Discussed possibility of staying at night dive and stay turtles, and to present natural history talks to guests.

Need to write letter to FRED DUER

Byron mentioned that ^{E/amer} Anna was a caretaker at Kiholo. ^{General Manager}
NO knowledge of "MURTY"

Departed K.I.R. about 1:30 PM - to Kiholo. Transported all gear to regular campsite - several people (town present - but departed across lava flow. Young couple camping farther to pond area.

Note - Pete Hendricks mentioned occurrence of "goat round-up" during the late 1940's - possibly explaining the large number of bones and horns found by Alan during Oct 1980 trip to Kiholo.

NET IN:

5:30 PM

laid 3 sections of net across pond - far end tied to rock lined up with approximately 4th coconut tree.

KITHOLO

43

5 MARCH 81 First capture made at 6:55 PM - almost
Thursday completely dark. Second capture at ~7:30 PM.
TOOK 2-hour shifts starting at
10 PM - - till 6:30 AM, No other
captures.

30-30 shell casing found in sand (not recent);

6 MARCH 81 Worked up turtles during the morning
FRIDAY (pages 45 & 47) and released them into
the bay by walking across the gravel
island. Two men surf casting (for Ulua)
and throwing netting indicated that they
saw a Large Turtle seaward off the
point (size determined by size of head seen).
Also it was stated that about 5 years
ago a "gardner" drown in pond and
was never found; belongings were found on
shoreline rocks.

At about 10:30 AM I put on Saubageas
and Alan guided me from inner tube
at surface (with attached line) back and forth
across the pond. Greatest depth found was
~12 feet (low tide). Bottom consists of
silty-mud (muck) and lava rock flow
projecting out. Rocks closer to
surface in center host algal growth,
(red) sample collected, but covered
with thin layer of silt. This shows
that there is a desirable food in the
pond for green turtles.

① RECAPTURE

Thursday

5 MARCH 81 6:55 PM - Pond net capture - splashed alot when caught in net.

3303 LFL } inscribed:
"reward"
3304 RFL } Tel. 395-6409"

S - 54.7 x 42.7

C - 58.7 x 50.6

PLASTRON - 42.1 cm

HEAD - 8.4 cm

TAIL - 13 cm

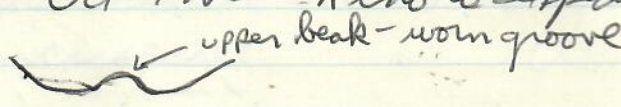
Photos - #1, 2

Weight - 48 lbs

- Small food sample obtained from stomach - small pieces.

Tags have a small amount of red (& green) algae growing in etched "reward" and stamped numbers.

Hinds - and to a lesser extent fronts, have small "bitten" areas - as photoed during Oct 1980 Kiholo expedition



Scratch marks, anterior to posterior, all over carapace - (sleeping under ledges?)
(Scute injury only)

Healed spot on second central scute.
Very small amount of red alga on skin, green on carapace; a few skin barnacles.

② 7.5 years 10.2 SCL = 1.36 cm/yr

47

5 MARCH 1981 7:30 PM net-pond
Thursday S - 42.4 cm x 33.8
Net floats down - head never seen at the surface; MOTIONLESS with approached in the water, would have drawn NET? if left in

C - 45.0 cm x 41.1

3526 LFL

PLASTRON - 33.5 cm

3527 RFL

HEAD - 6.8

TAIL - 8.0

WEIGHT - 24 lbs.

7.7 yr. interval

3526, 3527

Recaptured 10/26/88 HPA #5
added Y-15.

52.6 cm SL
weight = 41.5 lbs

Many small skin barnacles -

Right flap ^{algae} produced blood-bleeding
Heavy scum on carapace

Recent injury - piece missing from upper beak.
Red juice from nares - mouth -
Stomach pumping rot carried out.

Photo - #3.

6 MARCH 81
FRIDAY

Pond net - ~ 3:45 PM

S - 50.6 * 39.8

3319 RFL

3320 LFL

} C - 54 cm * 47.5 cm

"Tel. 395-6409" inscribed

PLASTRON - 41.0 cm

HEAD - 7.9

TAIL - 11.2 WEIGHT ~~46~~ lbs

- Polysiphonia (red algae) on dorsal neck
- Carapace slightly slimy with algae
- Several healed pieces out of hinds
- Green algae on each side plastron
- Small numbers of skin barnacles
- ^{small} Eroded notch in seam between 10-11th marginals on each side
- Photos of stomach sampling & algae

6 MARCH 81
FRIDAY

The layer of fresh water at the surface only seemed to extend down about 3 feet. Just inside the net the temperature was 24.5° C. At about the half-way distance the temperature at the bottom was 26° C. The consistently deepest areas ^{SURFACE - 23.3° C} were at the very inward end of the pond - regularly 10-12 feet. In this area I grabbed a bottom sample that seemed to consist mostly of shells (interspersed with mud) - sample retained possibly for Alison Kay or Lisa Gow. Also in this area I pushed the powerhead into the mud full length extending to my forearm. Tip may have penetrated between layers lava rock. While surveying the bottoms back and forth I continually probed ahead and to each side of my path to scare up or encounter turtles (or rays). No contact was made, as evidenced by Alan not seeing turtles at the surface while I was underwater. At about the half-way point, a turtle was seen at the surface while both of us were at the surface over shallower rock area. Several breaths were taken - when swam to get closer it could not

6 MARCH 81

FRIDAY

be found.

Snagged gillnet (2 1/2" mesh) found on bottom.
Portions pulled up and covered with rocks.

→ NEED -

Graph size increase of Kihob recoveries
by time; also indicate number of captures
and recoveries - post on office wall.

→ Xerox 1/2-page handout describing turtle
catching and tagging;

→ "Implications of recruitment due to
growth rates in a green turtle
population" (Journal article title)

One capture made at 3:45 AM (Page 49 -)

Two turtle captures made (during twilight
and after dark) - 2 hour shifts again
throughout the night - no other turtles!

NOTE - that silty bottom of pond and
freshwater outflow may create
conditions to attract turtles to area -
"plume" of silty, partly fresh water going
offshore.

④ RECAPTURE

53

6 MARCH 81 6:45 PM Pond-net
Friday

3297 LFL) "Reward
3298 RFL) Tel. 395-6409" inscribed - algae in inscriptions

S - 62.0 cm x 45.9

C - 65.5 cm x 55.6

PLASTRON - 49.5 cm

HEAD - 9.5 cm

TAIL - 15.3 cm

WEIGHT - 67 lbs

- Big skin barns in tail area
- green alga on each side of plastron
- healed pieces out of 4 flippers -
- Scum on scapulae
- Stomach pumped - slime tissue in mouth; black extensive stain on tongue and horny portions of mouth. Red foath coming from mouth. Sample retained from stomach.

Released on 3/7, at ~ 7:30 AM into Kiboko Bay
No photos taken - fishermen on adjacent distance ledge.

⑤ RECAPTURE

55

6 MARCH 81 8:45 PM Pond - NET
FRIDAY

3312 EFL ^{"Tel 395-6409"}

3311 RFL S - 63.2 x 48.6

3498 ^{2nd largest}
RIGHT

C - 67.1 x 58.5

PLASTRON - 48.1

HEAD - 9.2

TAIL - 16.1

WEIGHT - 70 lbs

- Green alga on each side of plastron
- healed hole in right distal front flipper -
healed pieces (bites) out of flouts & hinds
- Scum on carapace
- Skin barns by tail
- knob above left eye

Stomach sample taken.

Released 3/7 into Kiholo Bay at ~ 7:30 AM
No photos taken

7 MARCH 81
SATURDAY

Donavan

Donagan(?)

Doris McDowney (?) purchased land
3 acres at coconut grove to the South -
will be building "dome" houses.
Reported that she want ^(Park created in the area)
^(Convention)
Real Estate picnic gathering at Porteus
house - perhaps 50+ people.

Kobeashi returned from Kauai, where
he was visiting his ^{kihi's} ^{wanted to}
set ^{up} ^{gill} ^{net} ^{across} ^{channel} - ^{got} ^{holes} ^{when} ^{he} ^{did} ^{it} ^{before}.
At ~ 10 AM, Alan went scuba diving
within and outside of Kiholo Bay. No
lobsters or turtles seen. Algae
collections made - deepest spot in survey
area was 15 feet. Goatfish seen. Portus lobata present.

At ~ 3:45 PM a small turtle was
seen on channel entrance side of net -
about 3 feet from net. Earlier 1-2
turtles were seen inside the pond.

Small boat "Audrey" with 3 local guys
dropped off gear at peninsula coconut
grove in the morning and left
to apparently go fishing. They returned
about 3:30 PM - motored over end of net -
sailed around for a short time and
landed boat at second sand beach inside
pond.

At about 1 PM I walked over to

(CONTINUED PAGE 63)

7 MARCH 81
SATURDAY

6 PM - Pond-net

3481 LFL S - 45.3 x 36.2

3482 RFL


C - 49.5 x 42.6

PLASTRON - 36.2

HEAD - 7.3

TAIL - 8.7

WEIGHT - 30165

- Shiny algae on carapace
- RFFD 1st large scale  - healed slit
- R & G algae on plastrons
- Small skin barns
- healed "bites" on hind flippers
- Very sharp claws
- Red alga on tags
- Released 15 minutes after capture, out S channel into Bay.

(7)

61

~10PM Pond - HAND capture under Ledge

3528LFL S - 67.8 cm x 51.4

3529RFL

3530LFL C - 73.0 x 64.0
2ND
SCALE

PLASTRON - 54.1

HEAD - 9.3

TAIL - 17.0 WEIGHT: 94 lbs

- Dark carapace with yellow blotches
- ^{healed} Bite pieces missing from hind flippers
- Slimy algae on carapace
- Skin barnacles

Released from black-sand campsite beach
at about 11:30 P.M.

7 MARCH 81 sludge gate. Bay area, to survey algal
SATURDAY growth (exposed on intertidal flat). Growth
looks the same, or possibly even more abundant,
than in October.

Two turtles were captured during the evening - a small one (recapture) at 6 PM, and (a large one hard-captured in pond at ~10 PM (see pages 59 & 61).

TOTAL HOURS NET IN WATER: 5 3/4 HOURS

At about 9 PM we swam to the end of the pond on the ocean side, and swam back inspecting all edges with dive lights. At about the 1/4 mark I found a large turtle way up under a ledge - perhaps at the point where the freshwater lens (cold) changes to saltwater (warmer). Turtle did not fight all that much, considering its size. No other turtles seen, but perhaps 10-15 large mullet were approached very close - seemed to be blinded by light. A few of them bumped into rocks while trying to flee. We also used caution with dive lights, particularly while above surface, due to large number of needle fish that jumped. At ~11 PM we pulled net out and gathered it up (low tide).

This new moon present at sunset -- 9 PM on 7 MARCH - PREVIOUS 2 night had no moon.

8 MARCH 81 UP ~ 7:30, packed all gear and carried
 SUNDAY to car. Took a bath in out flow
 / fresh water of sluice gate.

Talked to Kobe and gave him my
 address and telephone numbers to
 transmit any tag numbers or other turtle
 information. Kobe mentioned he knows
 Elmer Auna - he comes down to Kiholo
 alot to throw-net, particularly for
 Haululu fish.

Departed Kiholo about 11 AM; Proceeded
 to Honokahau Harbor - but could not
 locate Hanohau vessel.

Drove to Kelen and Rick's house to
 pick up my suitcase of slides.

Friend of theirs surfs at Kiholo
 regularly; also he surfs at HONOHI
 and sees very big turtles regularly.
 This site is one mile north of
 Hilo - through the Ahae subdivision.
 (near bridge).

Ate lunch at MacDonalds; Returned gate
 to Mr. Hind. Returned rental car
 and departed on Hawaiian Airlines
 3:30 PM flight direct to Honolulu.
 Arrive ~ 4:10 PM.

CAPTURES	^{10/80} STRAIGHT LENGTH	^{3/81} STRAIGHT LENGTH	^{~ 5 month} cm INCREASE	cm/mo	
1. 3303, 3304	53.6	54.7	1.1	.220	.286
2. 3526, 3527	^{new} capture	42.4			
3. 3319, 3320	49.6	50.6	1.0	.200	.286
4. 3297, 3298	61.0	62.0	1.0	.200	.214
5. 3311, 3312, 3498	63.0	63.2	0.3	.060	.142
6. 3481, 3482	44.2	45.3	1.1	.220	-
7. 3528, 3529, 3530	^{new} capture	67.8			

CAPTURE (6 net; 1 hand)

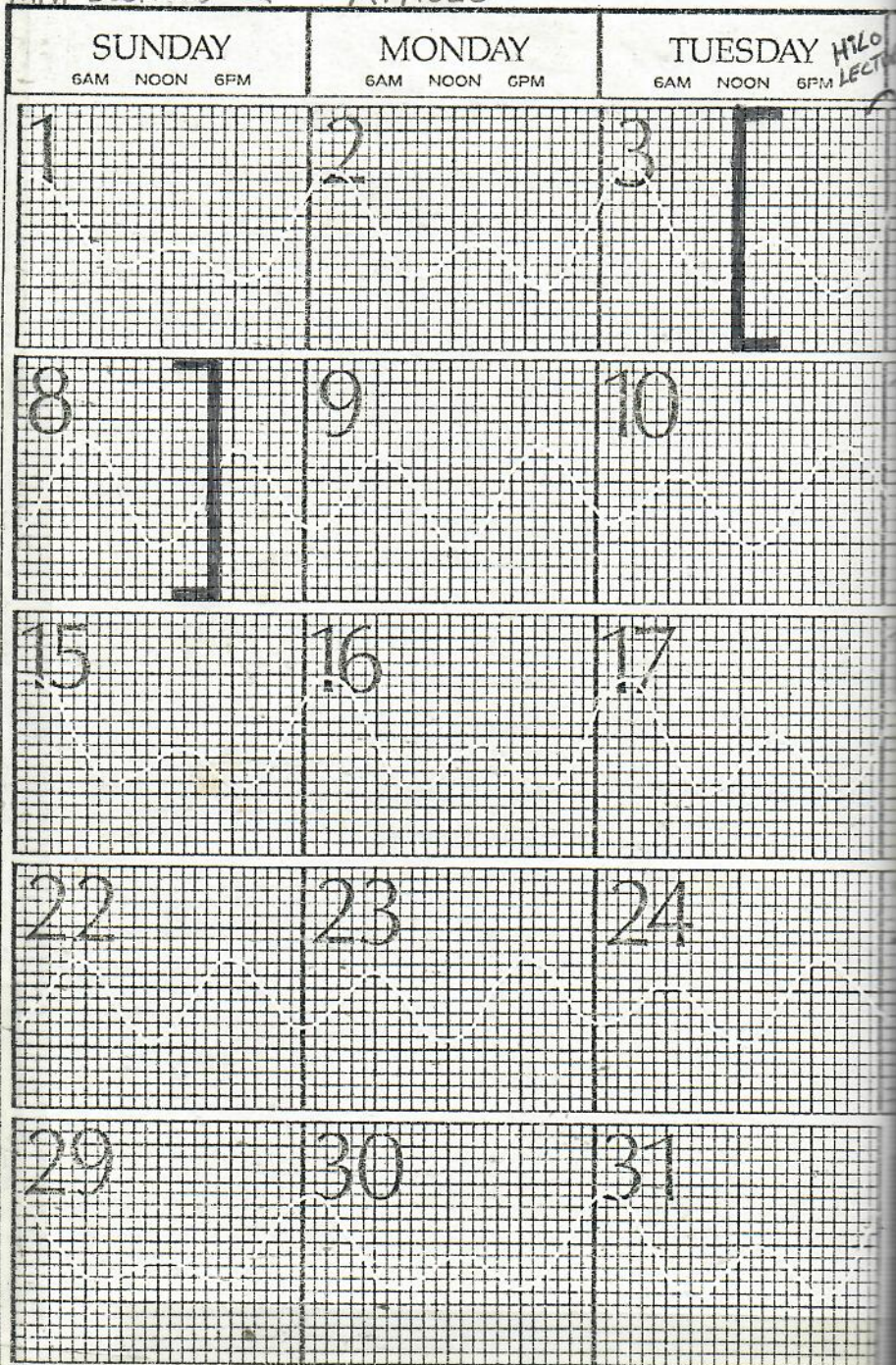
7 different turtles, of which 5 are recaptures. 4 were originally tagged in March 1980 and recaptured in October 1980. 1 was originally tagged in October 1980.

- SOME CONCLUSIONS -

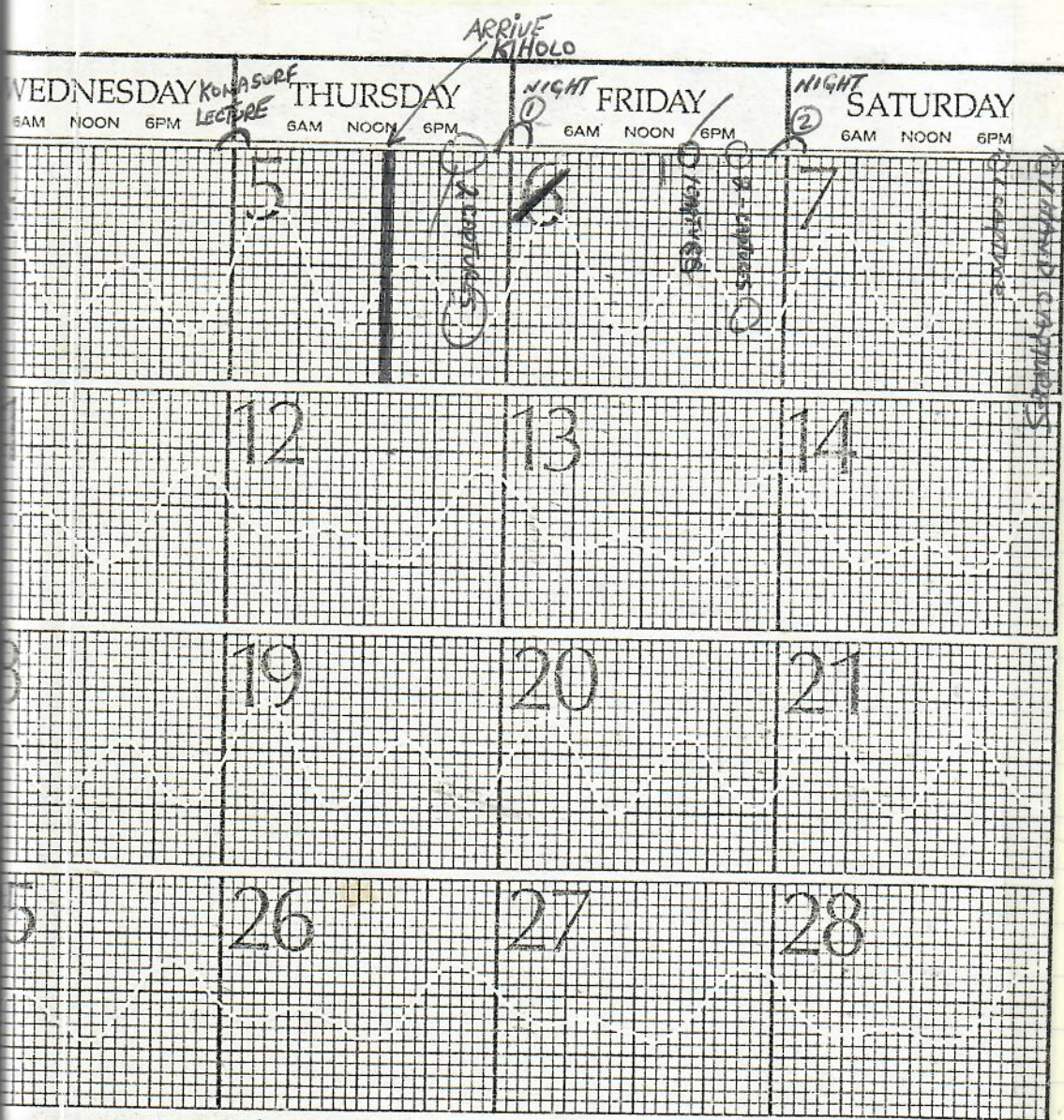
1. Kiholo aggregation probably not very large - i.e. 7 CAPTURES - 5 of which are tag recoveries
2. No evidence found for "hibernation" in Pond; possibly low temperatures from fresh water are responsible for slower growth than at Kalvalu and Punaluu - where the don't apparently sleep in cold water
3. Importance of KAHOLO needs to be brought to the attention of Bureaucrats.
4. Pond maximum depth is only 12 feet.

MARCH 1981

MAP Lectures & KIHolo



whaling vessel MARC



MOON PHASES

	
MAR 6	MAR 12
	
MAR 20	MAR 26

For tide time at following places, add or subtract from Honolulu time.

PORTS	Hrs.	Mins.	PORTS	Hrs.	Mins.
HANAIE BAY, KAUAI	-1	40	KAUNAKAKAI, MOLOKAI	-0	09
NAWILIWILI BAY, KAUAI	-0	32	KAHULUI, MAUI	-1	48
PORT ALLEN, KAUAI	-0	32	KIHEI, MAALAEA BAY, MAUI	-0	14
HALEIWA, OAHU	-1	36	HILO, HAWAII	-0	59
HANAUMA BAY, OAHU	-0	55	HONUAPO, HAWAII	-0	24
KANEHOE BAY, OAHU	-1	35	MAHUKONA, HAWAII	-0	24
LAIE, OAHU	-1	48	KEALAKEKUA BAY, HAWAII	-0	16
WAIANA, OAHU	+0	16			
WAIMANALO, OAHU	-1	15			

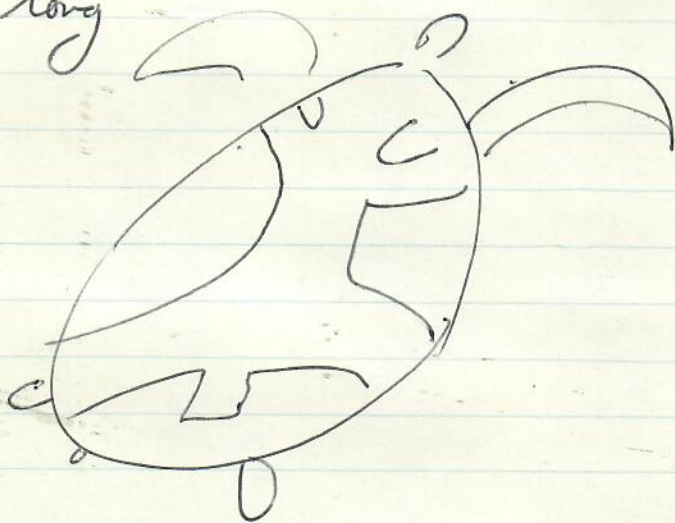
Dillingham

Note - from BP Bishop Museum

Rubbing of sea turtle petroglyph from
Hihina Pali - Big Is.

N-10 Block in Atlas of Hawaii
Hihina Pali Rd & Trail -
Volcanoes Nat. Park

~10" long



PERMIT TO

Kiholo

DATE

Nov. 3rd 1981

PERMISSION IS HEREBY GRANTED TO

George Balez

& party

TO

camp

WITHIN THE AREA DESCRIBED BELOW

ON Nov. 4th until his project

is completed.
SUBJECT TO THE FOLLOWING

RESTRICTIONS

No hunting

DESCRIPTION OF AREA

Kiholo Camp Area

IT IS EXPRESSLY UNDERSTOOD THAT THE HIND FAMILY WILL NOT BE LIABLE FOR ANY LOSS OF PROPERTY, ACCIDENT OR INJURY SUSTAINED WHILE APPLICANT IS IN THE ABOVE DESCRIBED AREA.

AREA USED TO BE CLEARED OF ALL RUBBISH BEFORE LEAVING.

I AGREE TO THE ABOVE CONDITIONS

[Signature]
Signature of Applicant

APPROVED BY

Lotie

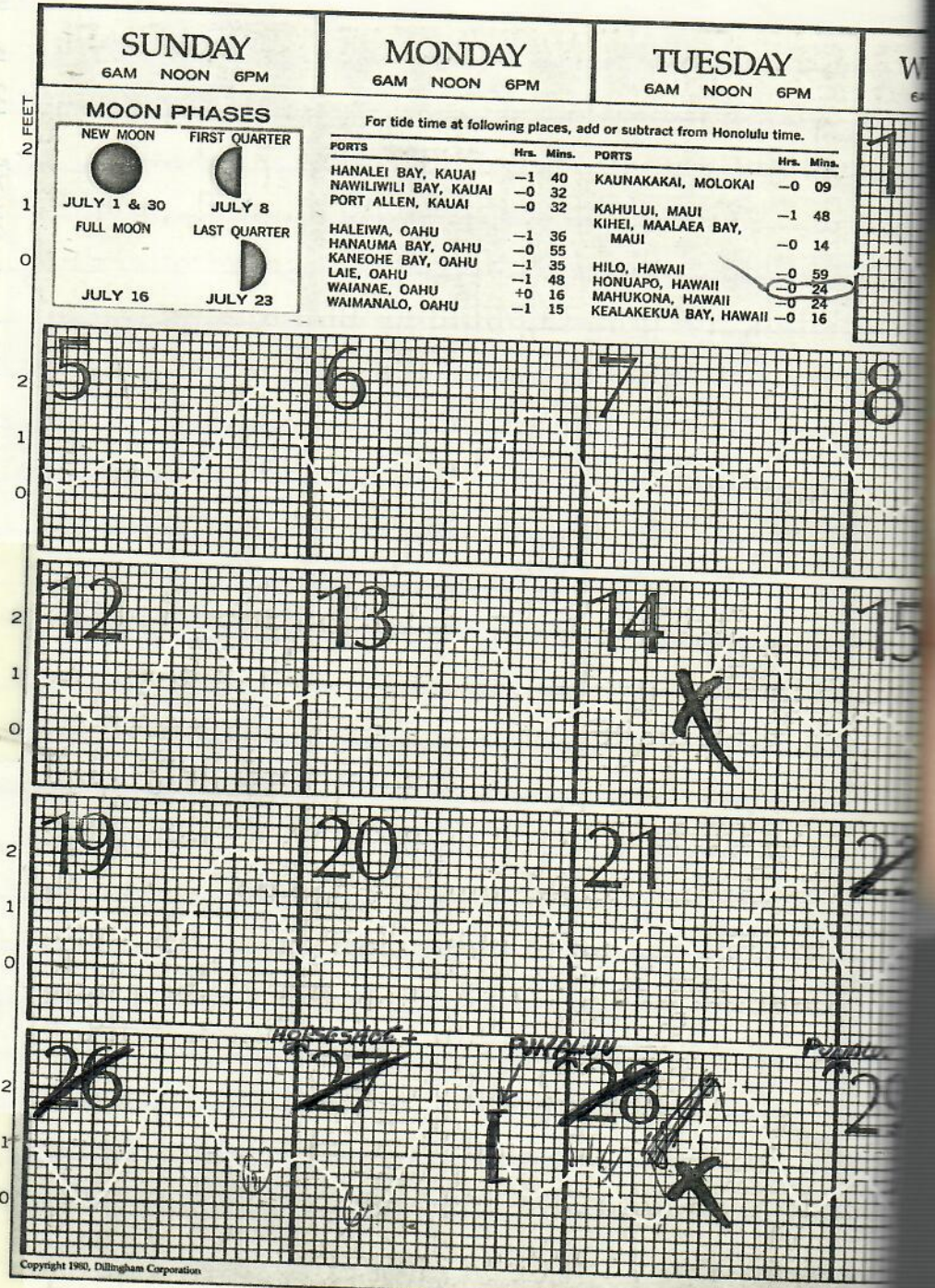
Dr. Balez will be studying the Green Turtle
Please help him in any way you can.

23 March 1981 Picnic at Queens Surf Park -

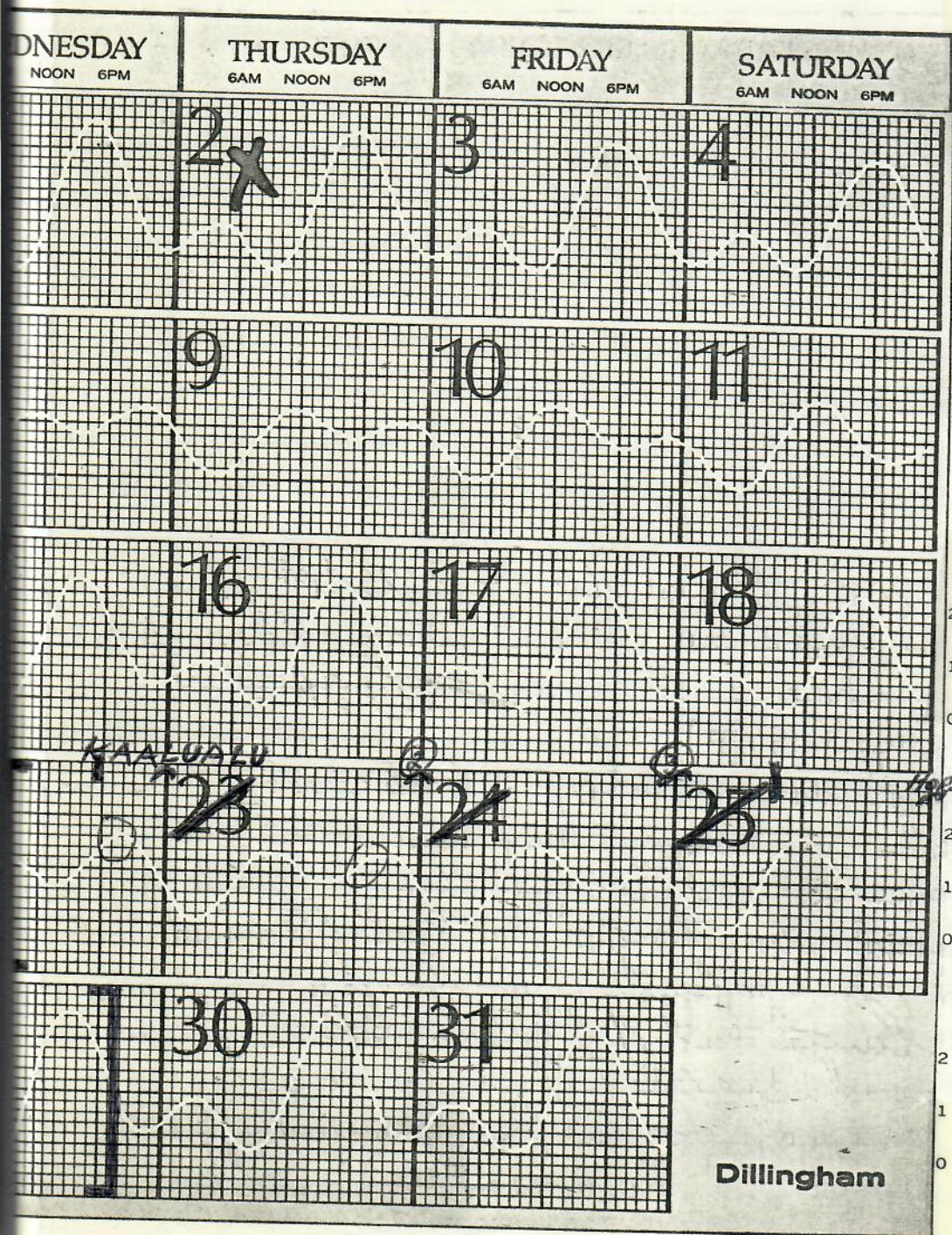
Information from Lance Cherry:

1. No knowledge of turtles having been taken since he has been in Kona;
2. Saw lots of turtle in ~10' water of Kaalualu Bay;
3. Aggregation of 20" turtles around a 30' spot just outside of Honolulu small boat harbor;
4. He found a turtle tangled in a "cargo" net - possibly turtles are attracted to such things to eat crabs, etc.
5. Birfield sees turtles while surfing at Kahaaluu Beach Park

JULY 1981



... and the coral island consisting of 400 acres (0.7 square miles).
 Neva Shoal, named for the Russian exploring vessel that ran aground
 on it in 1805, extends for 65 square miles around the island.



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p.
n.

[Faint handwritten notes at the bottom of the page]

to

Gilmartin - ^{home} 235-5312

Bill Graham - Mana Kea Beach Hotel

22 JULY 81 DEPART HONOLULU ~ 8:15 AM -
 WEDNESDAY Alan, Dad & Me. Flew along the
 north shore of Molokai - stopped at
 Kahului 8:45 AM -
 Arrived in Hilo ~ 9:30 AM
 Rented a large Chevy Van at
 Harpers - \$28 per day.
 Proceeded to Lang's for 6V batteries -
 then to Safeway for food.
 Ate lunch at MacDonalds -
 telephoned DOCAPE office to report
 our presence for turtle research.
 Proceeded to Kaaliua, with
 a short stop at the Volcano House
 Two sections of net set off of old
 house at ~ 5:30 PM. Turtle seen in area.

22 JULY Monitored net throughout the night -
 WEDNESDAY swam along it (a ~ 8 PM) - bottom
 not caught - inside ^{~25' of} net's width has
 been reduced ~~to~~ to get over
 shallow area. Note that Pterocladia
 grows almost exclusively only on intertidal
 rocks.
 To monitor, we used 12V beam plugged into
 cigarette lighter, and 6V dive light
 from rocky shoreline at a down-wind
 vantage point.

23 July Turtle seen splashing in net - 2nd
 Thursday section at ~ 4:15 AM - found to be
 adult female - estimate > 90 cm SCL.
 Too large to get into tube, therefore
 flipper were tied back to tube and I
 returned to shore to get tags and pliers,
 5484 - 5488.

No old tags or distinguishing
 characteristics present - clean shell.

Four tags applied - one each on
 first and second large scales of
 flippers. one tag lost (number
 unknown, apparently lost in the ocean.

A few minutes following release she
 swam back into net - in a South Pt.
 direction. When I released her, she
 gave me a short ride - again toward South Pt.

78 KAAUAI

①

23 JULY 81 ~ 4:15 AM
Thursday
54840

ADULT FEMALE -

tagged in net - Then released

5485

5486

5487

5488

Recapture site - ? MAP

Photos ?

Decomposition ?

5485 & 5487 sent with letter on 10/13/83
reports that turtle was found dead ^{in July} washed ashore at
South Point "dead because of a bullet shot in the head
and another spot penetrating in the neck."

Second turtle caught ~ 4:45 AM -
in first section - water shallow
enough to stand up in. Tag
recovery 2510/FL - RFL tag apparently
pulled out. We brought her (?) by
tube up onto rock point -
first light present.

Data on following page:

②
Recovery, 23 July 81 - 4:45 AM

2510 (FL (dangling) in healed hole - tag numbers coated with reg calcareous

5489 R ^{2nd} scale - Fresh cut present in flap region - tag pulled out (?)
(new) Also, this region and 1st scale has healed injury.

5490 L ^{2nd} scale
(new)

2030 RF - Between scale (in webb) - number up.
BLACK PLASTIC FERRING
(new)

S - 73.0 cm x 58.3

PL - 56.9

HEAD - 9.8

Fairly fresh gash in 2nd scute Right
- possibly from spear.
- Edge of 4-5 marginals left
injured but healed.

SEAWATER AT 10PM - 26.0°C

23 JULY

Thursday About 1PM something (presumably a turtle) swam into the net forming a "V" - apparently turned and swam in the opposite direction - freeing itself - believe that I saw a glipper break the surface.

At about 6PM I saw the head of a small turtle break the surface ~ 25' to the left of net - heading out.

At about 10:30PM I swam along the net - had to free it in one small site where it was snagged on the bottom. Monitored net in ^{3 hour} shifts throughout the night -

24 JULY
FRIDAY

no turtles - first faint light at ~ 4:45PM.

At about 9PM, I swam along the net and freed it from the bottom where it was caught in 2 places.

Ate macaroni and cheese w/ freeze-dried chicken and green beans.

At ~ 11:30 PM departed with dad to hike to Kamio and Kaluaohone points. Campers (2 couples in 2 cars) have been on the opposite side of bay - arrived just after we did on Wednesday.

During hike I noted lots

As per
Miwete
in
Wohimu

24 JULY 81 Naupaka vegetation - white coral
 FRIDAY sand present - but in most areas
 basalt rock are abundant along the
 beach front. Bulldozer has
 piled up lava across the roadways.
 Camp sites with lots of trash are
 nevertheless present - apparently there
 are other trails from the main
 highway leading into this area.

Between Kamio and Kaluaohone Pts
 (apparently) there is a heavy concentration
 of beach litter - consisting of plastics,
 rods, trawl nets, line snags, propane
 bottle, tires w/ rims, etc. Photo
 taken. At Kaluaohone Point, there
 is a home-made table and chairs
 with considerable surrounding trash.
 Returned to van about 2 PM.

ALAN KAM walked to Maiki-Cow
 and found 2 excised plestron -
 one in a tree - ~18" turtle
 ~24"

Dad found a dried up turtle semi-
 buried with lava rocks in the area
 behind the van. No head or
 scapulas present - Humeri has
 knife cuts.

Collected an assortment of bones
 to save.

3 more vehicles arrived and drove to point.
 At ~ 9:20 PM Alan and dad walked
 to Maiki-Cow to snorkel
 for sleeping turtles in depressions.

24 JULY 81

FRIDAY

They returned at 10:30 AM - reported rough - no turtles seen.

25 JULY

SATURDAY

At ~ 2 AM, inside section of net found to be down - inspection found large ^{spotted} ray. Shot with long stick in belly - lots of blood and tissue particles in water. Left ray in net and watched floats closely until first light about 5 AM.

At ~ 5:30 AM I saw a turtle to the left of the net.

TOTAL
HOURS
OF NET
FISHING:

63

Ray taken from net at ~ 8:30 AM - still alive. Net removed from the water - all gear packed up by 10:15 AM

Turned around at Mauniki-Cow South Point side due to signs that said "Hawaiian Homes Land - No Trespassing"

Drove the 9 miles back up road to Wiohina and proceeded to S. Point road - then 12 miles down narrow paved (and in places, rough) road to South Point -

Noted apparently abandoned South Point Air Force Station.

25 JULY 81

SATURDAY

Drove to Kaulana ramp - 2-3 photos taken.

Returned Naalehu to buy groceries, and then to Punaluu - Drove to Horseshoe area, and two adjacent ponds - Set up camp by Horseshoe.

Met Adrian ^{AKAU} ~~AKAU~~ (Mason?) a chemistry and physics school teacher at Pahoa High School - sampling nearby with wife and two children. He used to catch turtles, when it was legal - has set gillnet in Horseshoe - caught a small turtle. Caught at 85 lbs turtle by hand in "pond" and a 55 lb turtle in Punaluu Bay. He is impressed with the "turtle farm" in Florida - would like to see one set up in Kau, or in the islands northwest of Kauai. Will be a good way to produce protein. Adrian said that the Kau people wanted the ramp at Kaulana because they knew that Hilo fishermen would be afraid to use it - water is too rough between Kaulana and South Point.

At ~10 PM we checked the

25 JULY 81
 SATURDAY Horseshoe, but waves/tide were too high and rough.

26 JULY 81 Went into Horseshoe at ~ 5 PM -
 SUNDAY first light present - Saw ~ 3 small turtles of approximately the same size. Alan caught one that was under a ledge - DATA AS FOLLOWS:

③

5491 LF^{2nd} scale ① S-36.0 x 30.4

5492 RF^{2nd} scale C-38.4 x 35.9

WEIGHT - 15 lbs

PL - 29.5 cm

HEAD - 6.0

Small areas of pink coralline on shell.
 Portions of right hind flipper missing but healed.

26 JULY 81
SUNDAY

Went ^{foot} to check Johnson's and
next pond - no turtles seen.
Returned about 7-7:30 AM.
One pond has silted-in quite a
bit from runoff.

Tried to start van again - called
owner in Hilo.

Walked around Punaluu Bay - lots
of people present - beachgoers -
weekend lifeguard present.
Make-shift shelter built near boat
ramp for picnic.

Janette reports that turtles have been
taken in Punaluu - also at Turtle
Bay. Especially around graduation
time.

At ~ 2 PM, ^{highest tide} Alan and I walked out
to Turtle Bay - taking the ocean
trail. 2-3 small turtles noted along
the way - and 2 larger turtles near
the surface further offshore.
Discussed "Punaluu Edias". At
Turtle Bay we saw 3 turtles feeding
on the rocks. Uncovered burial
areas and found the remains of 3,
possibly four turtles. Largest
was about 28" - carapace spine

26 JULY 81

~~SUN DAY~~

Jeanette reports that
 some gill nets are being
 set overnight -

2nd Vm arrive
 from HILO
 from HILO

had been cut out to preserve shell. However, it was decomposing - scute fallen off.

I collected 2 skulls and humeri.

Returned from hike at ~ 2:30 PM.

Ralph and others hauling in gill net from Punaluu

Caught 3 Wenee.

At ~ 5:30 PM we dove Horseshoe-water coming over reef - lots of white water. No turtles seen.

A.C. Howard & Jeanette arrived.

He reports that last summer a turtle dug 3 pits under Nausaka right where we were standing.

Turtle crawled over large rocks to return to the sea. From a boat, he has seen digs at Kamehame - (this summer?). Still believes that

Kamehame Cindercone would make a good nesting sanctuary - shove it over with a bulldozer - owned by Brewes?

Howard states that "treble" nets are being used more frequently - a turtle's head can get stuck in them - this needs to be investigated. Howard also stated that 3 digs "false" nests were made under Nausaka right near Horseshoe.

27 JULY 81

MON DAY

Dove Horseshoe at ~ 4:30 AM -

I caught a sleeping turtle at

④

27 JULY 81
MONDAY

4:40 AM -

Data as follows:

5493 LR

②

S - 48.2 x 38.0

5494 R^{2ND} SCALE

C - 51.5 x 45.4

PL - 38.7

WT - 32 lbs

HEAD - 7.7

TAIL - 11.2

Ok on shell, except for squarish patch of green algae in the centers of each carapace scute.

Drove in next two ponds, but no turtles seen. Johnson's pond is silted in from flood waters that came down the river bed and silted in one of the backish-water ponds.

All gear switched to new van and we departed for Naalehu for

27 JULY 81 breakfast a restaurant -
 MONDAY visited farm supply store that
 sells Allper tags - \$14.50 per 25 for \$
 4.95 for ~~25~~ 250!

MIKE
 HO DA, →
 GROUNDS
 MANAGER -
 SET TURTLE
 NETS WITH
 AIKA
 COOPER AT
 KAALUALU

Shopped for groceries at supermarket.
 Returned to Nihoa Cove ^{"CONVENIENCE STOP"} - golf course
 and set up ^(white AMUR in ponds) nets - mending where
 necessary. Laid two sections in
 Punahū Bay at about 5:30 PM
 Seawater - 24.5°C surface
 25.5°C bottom
 19.5°C freshwater kids pool
 by boat ramp

"HAUMANA"
 PROGRAM - LANCE LAURE - brought small aluminum boat.
 - SISTER - "DEWANIE" ^{with BOB KINZIE} works at Coconut Is.
 Girlfriend - mother - kids slept on beach
 all night.

Lance indicated that he has recently
 seen a very large turtle in deep (area
 near ramp) while night diving. Also,
 he knows that people shot turtles
 from low cliffs at Manki-Cow (kaalualu)
 using .30 - .06 - after shooting they
 swim out and get it while it's
 floating.

NET TWISTED - TANGLED AT 10 PM - BUT NO TURTLE SEEN.
 Net captures made at 10:50 PM; 12 midnight;
 1:30 AM 7/28; 3 AM 7/28.

Van parked under tree by ramp - 12V light
 in cigarette outlet used with binoculars to
 check net at 15-30 minute intervals. NO
 signs of old tags.

Data as follows:

PUNALUU Bay (1st)

27 JULY 81 10:50 PM

⑤

S - 78.7 cm x 59.4

5495 RFL

③

C - 83.6 x 73.2

5496 R^{2nd} Scale

5497 CFL

2036 BLK Fearing

plastic - webbing between 3-4th scales

(MARLIN SPIKE USED TO PUNCH THROUGH)

PC - 62.1

HEAD - 11.2

TAIL - 30.5 (MALE)

Burrowing barns in plastron & carapace -
 samples saved; All seen were dug out.
 many skin barns. Front of upper beak worn,
 apparently from feeding on rocks.
 Transported toward channel entrance in
 tube and released.

90

⑥

PUNALUU BAY (2nd)

27 JULY 81

12 MIDNIGHT

5498R (4) S-73.1 x 59.9

5499R

C-78.0 x 73.0

5500 L

2025 BLUE FEARING PLASTIC

(Between webbing of 3-4th scales)

PL- 59.4

HEAD - 10.1

TAIL - 14.5

- Burrowing barns in plastron only - REMOVED/destroyed

- front of upper beak worn

⑦

PUNALUI BAY (3rd)

28 JULY 81 1:30 AM
TUESDAY

5501 R S- 68.1 x 55.2

5502 R ⑤

C- 73.6 68.5

5503 L

5504 L

PL- 54.6

HEAD - 10.0

TAIL - 13.2

Recovered 1/9/84 net at Punaluu

S- 75.3 x 61.8
WEIGHT - 148 lbs.- BURROWING BARNs in plastron and carapace -
Removed/destroyed

- front of upper beak worn

⑧

PUNALUU BAY (4th capture)

28 JULY 81 3AM

TUESDAY

5505 R S- 75.8cm x NT

5506 R ⑥ C- 82.0 x 81.2

5507 L

PL- 59.2

5508 L HEAD- 10.7

TAIL- 18.0

Flipper Width- 13.0cm

- Thick ANTERIOR EDGE OF RIGHT HIND FLIPPER is partly missing (∴ deformed) but healed.
- Burrowing barns (on) plastron only - removed/destroyed.
- EDGE OF carapace (marginal scutes) are scalloped.
- This turtle judged to be the heaviest of the 4 captured 7/27 - 7/28.

28 JULY 81 Took net out of the water at
TUESDAY ~ 8 AM. Drove to shaded area at
Ninole Cove Park where we ate
Freeze-Dried Mexican Omelett breakfast
and bread.

Walked with Dad up to Heiau sites
that overlook Punaluu coastline.

Returned to van and slept for
a few hours.

Drove to cattle gate entrance to
Kawa property and black sand
beach. Dad let us off to hike in
due to presence of numerous "NO
PARKING" signs along the highway,
presumably due to flooding hazard.

Several photos taken of black sand
areas where hawkbill nesting could
take place. Lots of drift wood washed
up along beach. Fresh water ponds backing
area. Horses in area - also
Hawaiian stone structures (Heaunua?).

Very pleasant tract of land bordered
by more recent lava flow.

3 PM Returned to ramp at Punaluu
following net preparation at golf
course site.

Took Dad on hike out to Turtle
Bay. No turtles seen in Bay
or other inlets where feeding

28 JULY 81

TUESDAY

frequently takes place. Note that specific Turtle Bay site is actually an inlet within a far larger "Bay". Should check map in my office. On our way back, we saw 2 turtles out a ways in this larger "bay" area. Fairly large waves were rolling in and some water was turbid - stirred up. As per Howard's comments, this sea condition may account for the scarcity of turtles.

Set nets at same site in Purakan Bay at about 5 PM.

Waves occasionally breaking white water along floats of net.

Only capture of the night was made at ~ 1:30 AM 29 JULY - Very large female - estimated at 90cm breeding size. No evidence of tags or old tag sites. Tagged in ~~at~~ tube while in the sea by net.

⑨ (x)
5509
5510
5511
5512

Applied to L & R Flaps & 2nd scales

Released toward channel entrance.

HOUR OF NET
FISHING (PONAALUU) = 17

29 JULY 81 Nets taken from the water at ~ 7 AM.

WEDNESDAY Drove to Punaluu Pavilion where we packed all gear for departure. Telephoned Howard Tapata - 935-3830 and Pete Hendricks - 329-6767

JOE Secretaries took messages -
ENRIOV
ENRIGV(05)

Drove to Hilo - Stopped at Safeway to buy rubber slippers. Gassed up at Shell - \$19.35 for ~ 3/4 tank at \$2.9 per liter.

Ate lunch at MacDonalds. Returned van to Harper's and was driven by personnel to airport (for Kam and Dad's departure at 1:15 PM direct to Honolulu). I was then dropped off at Hele-on County bus station for 1:30 PM departure to Kailua-Kona.

Fish under net that were caught?

Peter Hoogs - charter boat operator of wife - WILLA "Pamela" - Mailing address P.O. Box 345, Kailua 96740
Tel: 329-1525
Tel: 329-3600

Found in "current-line" - net had crabs and goose-neck barnis growing on it

Found a turtle tangled in a green trawl net 4-5¹⁵⁵ off Kona
Date:
Location:

Bought aboard and kept in baitwell. Fed akeu and limu - believed to have been eaten. Telephoned Bruce Carlson at the Waikiki Aquarium -

29 JULY 81 Bruce telephoned Linda to
WEDNESDAY pass the message to me.

I arrived in Kona at ~4:30
and walked to the weigh-in dock
of the Billfish Tournament -
Peter Hogg's 47916 sailfish was
being weighed - Dick Buck, Julie,
John Naughton, Gene ^{Pete Hogg's} Niffel,
Rick Brigg and others were
in the area.

We then proceeded to motor around to
Honokohau small boat harbor -
Turtle, seen to be an Olive Ridley,
was taken from bait well.

Seems tame, but also vigorous.
I first had it laid on its back
on the deck, but it flapping it
injured the ends of each front
flipper and bled. It was then
turned on its belly, where it stayed
reasonably calm.

Measurements as follows:

C - 78.5 x 84.5

5513 RFL

OLIVE RIDLEY

5514 L ^{2nd} SCALE

End of right front flipper curled up
slightly, but healed.

29 July 81 Indented hole in 4th lateral right
 WEDNESDAY ^{size} - healed. Goose neck barnacle
 growing in hole. No other fouling growth
 apparent. Did Peter clean turtle? -
 Left hind flipper is $\sim 1/2$ missing, but
 healed. Plastron is moderately
 sunken in appear, compared to green, but
 normal from what I saw of olive
 ridleys in Mexico.

Plate counts - 5 laterals on each side
 6 centrals, but 4th
 one is split in two - both
 being half size.

Apparent injuries only include one cut
 in marginal on left side - posterior area;
 and two cuts in marginal on right
 anterior side, over right front flippers.

Video tape was taken of turtle -
 I took ~ 12 photos of turtle on deck,
 and Peter and local crew member
 getting ready to throw turtle into the
 ocean.

Turtle released $\sim 5:15$ PM, $\sim 3/4$ mile
 from shore. "Belly-flopped" but immediately
 dove to $\sim 5'$ and swam into current
 aiming predominantly out to sea
 (general South-point direction).

Turtle surface ~ 2 times and
 continued swimming beneath the

29 JULY 81

WED.

surface, leaving a "wake"

At Honohāhau we were met by Naughton et al. & Dick Wass.

Viewed video tape.

Naughton and Villa had been to Kaula and seen 3 turtles feeding right in the present harbor (close to shore).

John et al. drove me to Keahole Pt. Hawaiian air for departure at 8 PM, Flight 607
Arrived in Honolulu ~ 8:35 PM

Backnotes:

1. Peter Hoogs reports that turtles are seen while diving at "pinrock" to the right of Honohāhau Harbor when motoring out.

Also a long 30' ledge exists by "Cedars" (clump of iron-wood trees), between Kaimi Point and Keahole Pt. light. Access can be obtained through Energy Lab (see Pete Herdricks).

A telephone call to thank Bruce Carlson indicated that Peter told him, people wanted to eat turtle when it was first taken.

OTHER BACKNOTES -

1. Pyralum Restaurant profits go to Aspen Institute
2. Light on restaurant is now "yellowish" - not aimed directly at bay, but reported to be the type that can swivel.
3. Considers proposal letter to Brewer about Zodiac idea
4. Proposal letter concerning Sanctuary Signs
5. House lots/condos will be built above Howard's house
6. Howard catches 20lb yellow fin Tuna while bottom fishing; Wahod while trolling.

KAUAI



95710
11/11/11

11/11/11

11/11/11

11/11/11

[Faint, illegible handwriting in blue ink covering the bottom half of the page]

Before getting on bus in Hilo, I visited the NAUTILUS DIVE CENTER and talked to Susan A. Backman, Manager & Certified Instructor.

382 KAMEHAMEHA AVE
HILO 96720
Tel. 935-6939

She has lived on Hawaii for 7 years has never been checked by wardens for undersized lobsters, or anything else.

She had this shop for one year. Stated that there are only two officers on the island - both devoted to "Game".

She said that (Hawaiian people) will keep taking turtles unless someone slaps them with a \$20,000 fine. They have been taking turtles for 100 years - who is there to tell them to stop.

"Crossnets" are being used (i.e. cross off, or block a bay) that also catch turtles.

If "meat" "look old", one of the wardens assumes it was a net pill and does not issue a citation. She recently

set a net north of Hilo and
 incidentally caught turtle.
 She doesn't believe in throwing good
 meat (turtle) away when it is dead.
 Turtles are seen sleeping at night
 in ledge area just past the
 sewage treatment plant, Hilo.

948-7880
 18 MAY 1982 A John Wiltshire, working on his
 Phd Thesis in "Geological Oceanography",
 saw 6-8 2' turtles from shallow
 out to 50' depth at Keauai
 (Shipman Estate) coral reef. on
 dive with Walt Dudley. Turbid
 from freshwater mixing in close.

22-29 JULY 1981
TAGGING SUMMARY

CAPTURES	LOCATION	STRAIGHT LENGTH	(34 months 21 days)	(7 months 12 days)	STRAIGHT LENGTH	STRAIGHT LENGTH
			9/2/78	1/21/78		
1. 5484-5488	KAALUALU net	>90cm				
RECAPTURE 2. 2510, 5489-90	" "	73.0	(c.467cm/mo)	(c.381cm/mo)	56.8	54.0
3. 5491, 5492	HORSESHOE (hand)	36.0				
4. 5493, 5494	" (hand)	48.2				
5. 5495-97, 2036BK	PUNALUU BAY net	78.7				
6. 5498-5500, 2025Blue	" "	73.1				
7. 5501-5504	" "	68.1				
8. 5505-5508	" "	75.8				
9. 5509-5512	" "	>90cm				
10. 5513-14	KAILUAKONA	olive RIDLEY			78.5 curved	

KAALUALU - 63 hours of netting - 2 Turtles
 PUNALUU - 31.5 hours of netting - 5 Turtles

July 23, 1981

5484-5488

PL-56.9

HEAD-9.8

TAIL-17.8

2510

LEFT

PIECE +
MISSING
RIGHT

5489-RIGHT.

5490 LEFT SECOND
SCALE2030-RIGHT BLACK
PLASTIC

#1 x

July 27, '81

10:50 P.M.

HEAD - 11.2

P.L. - 62.1

TAIL - 30.5

RIGHT FLIP - 5495

" " - 5496

LEFT FLIP - 5497

" " 2036 BLACK PLASTIC

LENGTH - 78.7

WIDTH - 59.4

CURVE 83.6

73.2

KAAHU, HAWAII

K. M. M. M.

measured wings 4 + 5 Left

on RIGHT (LATERAL)
GASH on 2nd PLATE

58.3 WIDTH

73 - LENGTH

108

#1

x

JULY 27, '81 10:50 PM

HEAD - 11.2

P. h. - 62.1

TAIL - 30.5

RIGHT FLIP - 5495

JULY 26, '81

5:15 A.M.

109

PL - 29.5

HEAD - 6.0

LENGTH - 36.0

WIDTH - 30.4

CURVE LENGTH - 38.4

" WIDTH - 35.9

RIGHT HIND FLIPPER MISSING

WEIGHT - 15 lbs.

5491 - LEFT.

5492 - RIGHT.

#1

#2 x JULY 27 12 MIDNIGHT

RIGHT - 5498 - 5499

LEFT - 5500 - 2025 BLUE PLASTIC

P.L. - 59.4

HEAD - 10.1

TAIL - 14.5

LENGTH - 73.1

WIDTH - 59.9

CURVE L. 78.0

" W. 73.0

JULY 28 1:30 A.M.

③

HEAD — 10.0

P.L. — 54.6

TAIL — 13.2

R. FLIPPER — 5501-5502

L. " — 5503-5504

LENGTH — 68.1

WIDTH — 55.2

CURVE LENGTH — 73.6

" WIDTH — 68.5

④ JULY 28 3:00 A.M.

HEAD — 10.7

P.L. — 59.2

TAIL — 18.0

R. FLIPPER — 5505-5506

L. FLIPPER — 5507-5508

LENGTH — 75.8

WIDTH —

CURVE LENGTH — 82.0

" WIDTH — 81.2

FLIP. WIDTH — 13.0

DEFORMED R. HING FLIP.

SCALLOP: —

7/27/81 4:40 A.

P.L. - 38.7

HEAD - 7.7

LENGTH - 48.2

WIDTH - 38.0

TAIL - ~~4.2~~CURVE LENGTH - ~~51.5~~" WIDTH - ~~45.4~~WEIGHT - ~~32 lbs.~~

LEFT FLIPPER - 5493

RIGHT " - 5494 SCALE

METRIC SYSTEM WITH U.S. EQUIVALENTS

METRIC UNIT (1) U.S. EQUIVALENT

WEIGHT

milligram	mg	0.015 grains
centigram	cg	0.154 grains
decigram	dg	1.1543 grains
gram	g	0.035 ounces
decagram	Dg	0.353 ounces
hectogram	hg	3.527 ounces
kilogram	kg	2.2046 pounds
quintal		220.46 pounds
metric ton		1.1 tons

LENGTH

millimeter	mm	0.04 inches
centimeter	cm	0.39 inches
decimeter	dm	3.94 inches
meter	m	39.37 inches
decameter	Dm	32.81 feet
hectometer	hm	109.36 yards
kilometer	km	0.62 miles
myriameter		6.2 miles

VOLUME

cubic centimeter	cm ³	0.061 cubic inches
cubic decimeter	dm ³	0.0353 cubic feet
cubic meter	m ³	1.31 cubic yards
cubic decameter	Dm ³	13.10 cubic yards

METRIC UNIT (1) U.S. EQUIVALENT

AREA

square centimeter	cm ²	0.155 sq. inches
square meter	m ²	1.196 sq. yards
are	a	119.60 sq. yards
hectare	ha	2.47 acres
sq. kilometer	km ²	0.3861 sq. miles

CAPACITY, CUBIC

milliliter	ml	0.06 cubic inches
centiliter	cl	0.6 cubic inches
deciliter	dl	6.1 cubic inches
liter	l	61.02 cubic inches
decaliter	Dl	0.35 cubic feet
hectoliter	hl	3.53 cubic feet
kiloliter		1.31 cubic yards

CAPACITY, DRY

deciliter	dl	0.18 pints
liter	l	0.908 quarts
decaliter	Dl	1.14 pecks
hectoliter	h	2.84 bushels

CAPACITY, LIQUID

milliliter		0.27 fluidrams
centiliter		0.338 fluidounces
deciliter		0.21 pints
liter		1.057 quarts
decaliter		2.64 gallons

08779H
\$2550