

BALAZS

1977-1979

KAU - JANUARY 1978

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GEORGE H. BALAZS**

- 10/5/77 - 10/9/77 LANAI pages 2-17
wednesday - Sunday
- 1/19/78 - 1/27/78 HAWAII-KAU COAST pages 22-56
Thursday - Friday Long Term Recoveries pages 50, 30
- 6/30/78 - 7/2/78 HILO - KONA LECTURES pages 60-68
Friday - Sunday
- 5/78 McOMBER LANAI (MORTALITY) JUVENILE RECOVERY . . . page 15
- 8/4/78 - 8/7/78 MAUI, MOLOKAI, LANAI LECTURES . . . pages 73-87
Friday - Monday
- Post Mortems of 1/19/78 KAU mortalities - pages 90 -

- 10/10/78 AMARAL/LANAI GI TRACT EXAMINATION page 98
(MORTALITY)
- 10/79 LANAI MORTALITY AND INFORMATION FROM PETER CONNALLY page 101-103
- 1/25/78 ELMER ANNA INTERVIEW TAG 602 page 19

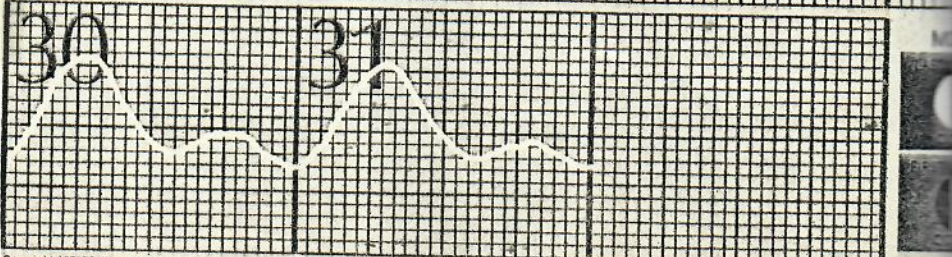
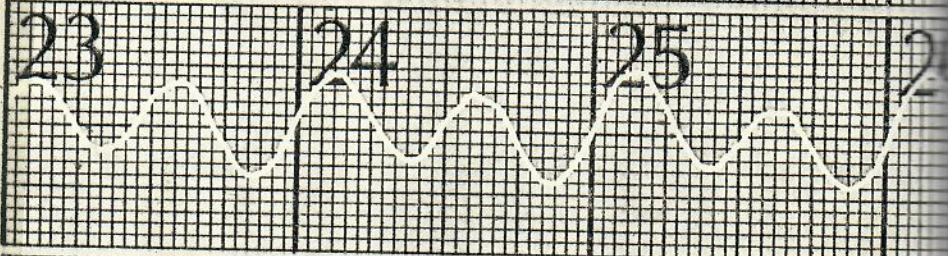
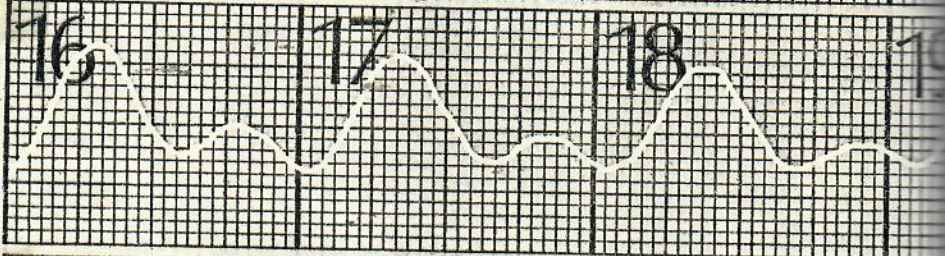
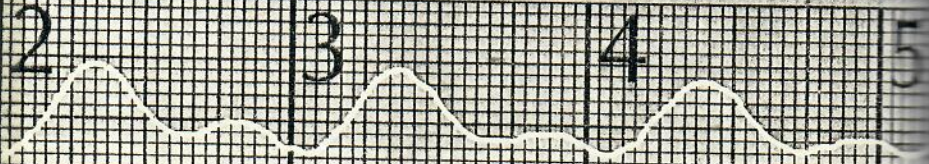
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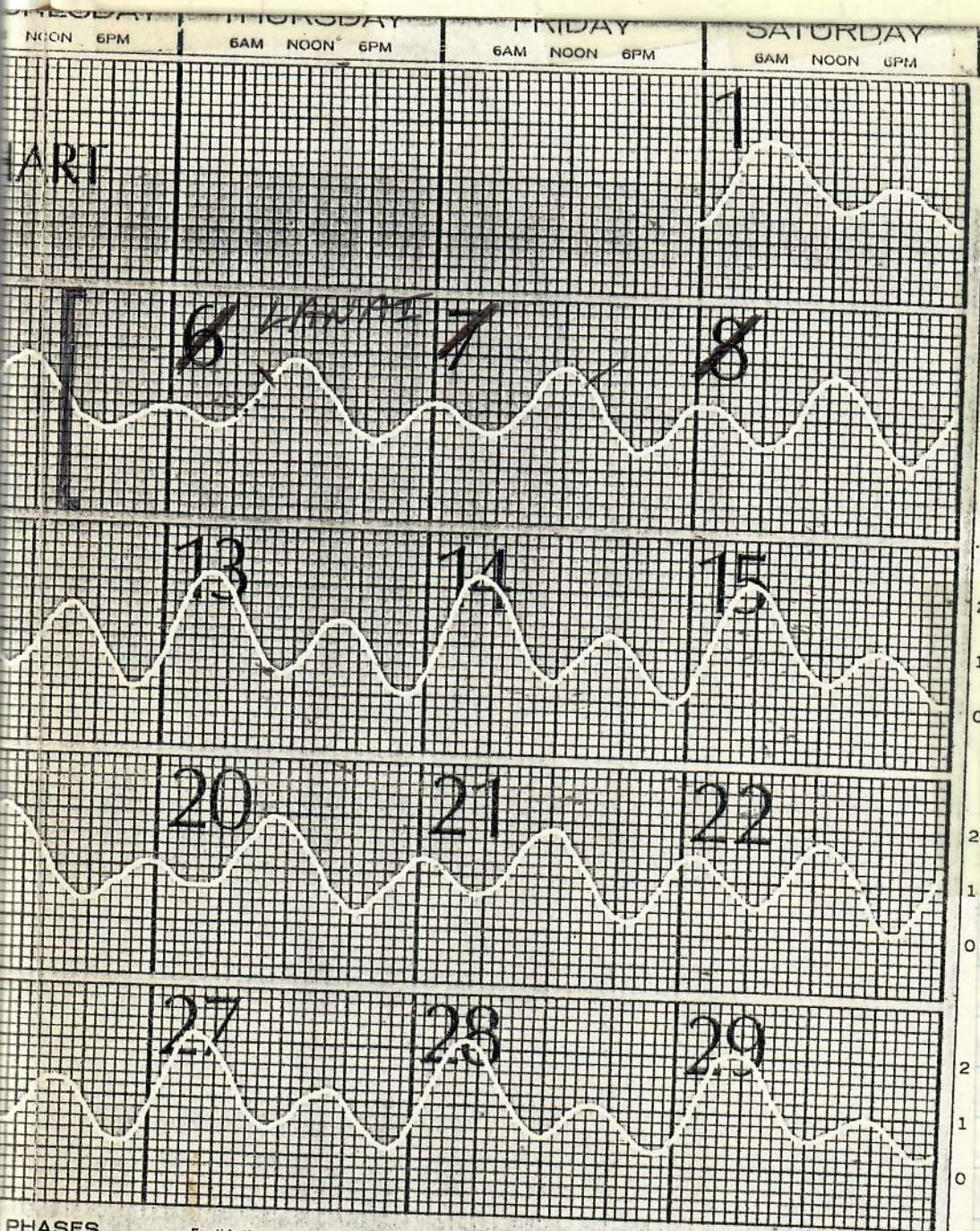
6AM NOON 6PM

6AM NOON 6PM

6AM NOON 6PM

OCTOBER 1977 TIDE





PHASES

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	58	HONUAPO, HAWAII	-0	24
KANEOHE BAY, OAHU	-1	35	MAHUKONA, HAWAII	-0	24
LAIE, OAHU	-1	48	KEALAKEKUA BAY, HAWAII	-0	16
WAIANAE, OAHU	+0	16			
WAIMANALO, OAHU	-1	15			



2 LANAI 10/5-10/9

October

10/5/77

WEDNESDAY

DEPART flight 506 HA for Lanai at 2:20 PM

via Kahului - Assistant - John Tullis

Met by Ron McOmber at airport - to

Ron's house - discuss turtles - to

Robert and Dorothy ^{SUNYAN} Amoral - talk turtle - Boobie

home for 10 days - reported turtles off

Aina Haina, Oahu. Grabbed big turtle with

white head & different colored shell.

Boobie has been diving 3 stores

and "slide" - at slide reports that

king Kohu grows - saw a turtle in

there recently.

Last week was kona weather - calm

at north shore - Shipwreck Beach -

John reports seeing turtle heads popping

up at dawn while setting surround

net near cement barge. ACCESS BY YAMADA TRAIL

Big turtle shell in Ron's house had

dark green ^{lime} in stomach - saw it in

cave 5 times over one year - toward

north side. Actually, three caves 10-40'

apart. Male, shell noted to be slightly

tapered.

Ron indicates that perhaps two turtles

per month are illegally taken - It may

be possible to get stomach contents -

other parts from these animals -

Usually it is gutted out at capture site.

10/5/77
Wed-

Ron has caught 15-20 Tiger sharks using buoy at K. Pau Harbor - none had turtle parts in stomach. Items mentioned include deer, goat, whole lobsters, grays (that got hooked on bait). 14 foot Tiger caught last week - 52 nearly ready pups inside - in yellow fluid, motionless - very active when sacs broken.
Dinner at Ron's House - watched MtstH and WITCH on TV. - Cold night to me.

10/6/77
Thursday

BTNOTE - Shallow water seems to extend considerable distance off Kahului airport, MAUI.
refer to father info. by Rene Sylvia 8/78

Got up about 6:30 AM - Good Breakfast at Lanai Lodge - Ron knows of channel at North Shore where net might be used effectively - He also mentioned the upolu Pt - ^{BIG ISLAND} near airstrip & many turtles along coastline - Should make dive trip there.

- Mid-Pacific Divers from Lahaina runs tours to Lanai - should ask about turtle sighting.

Ron can take out 2 week period between now and May (start of Pineapple season).
About 9 AM I drove Ron's jeep to Shipwreck beach to end of road past Federation Camp - three fellows going

10/6/77
Thursday

out spear fishing. Trades blowing - 10-20kph.
Reef comes in close, deeper channel noted.
W-NE coast of Lanai - reef area reminds
me of condition at EASTERN, Midway.

Big rocks noted along shore - erosion.
Acanthopora, Laurencia and Turbinaria noted
along shoreline. Beachrock ^{SITE} may be good for setting net.
Question - where - when are turtles feeding?

Windward sides of islands are used ^{here} to?

1) greater safety 2) food 3) shelter

Is such habitation an adaptation, event?

Photos # 1-4 taken of Moloai/Kahiki Channel

At 12 noon, came back to town and
left with SCUBA gear with John for Kamalafan.
Boobie and friend ^{TOM JAPANIL} coming back in, saw no
turtles. Proceeded in McKEE boat

toward three stones. John showed me
first Bay from K. Bay where Ron let 3 turtles go - 2 others at Bay - 5 TOTAL
to South - all others let go at 3 stones. HELP OVERNIGHT

2426 ^{THROUGH} 2450 TAG NOS. - TO RON McCOMBER
+ ^{NEW} Pliers + Calipers + Tape (No) (he will use some flex tape)

~2PM + Tagging summary

DIVE ONE - at three stones -

lots of coral cover, caves with sand
bottoms, dove between needles, water
clear but John reports frequent dirty water.
Very little algae - and most is flat, red
filaments - clump type.

10/6/77
Thursday

Ron still has
some old TAGS
AND PLIERS

white powder
(eye?) ins.
for drying

10/6/77
Thursday

John reports that he caught turtle by cave on way to three stores - in close feeding(?) - shallow - I could not see any algae from the boat.

Note that many of the turtles tagged by Ron were caught on night dives. John says that one turtle he went after at night ran into bottom, bumped into things (blinded by light).

DIVE TWO

Further down, at one store. Same as previous, but seems like fewer caves. Observed cave with ^{black} sand bottom with scallop tracks of approx. 20" turtle.

URPAIL'S capture?

"white powder"
(eye?) inside
for drying?

Two green ^{turtle} shells in Ron's garage -
1. Black (like captive) - CL-21"; SL-19 5/8"
2. MORE YELLOWISH WITH STREAKS - ^{release} CL-26 1/2"; SL-24 3/8"
+ 2 small in house.

curved not
taken - probably
distorted in drying.

10/7/77
FRIDAY

Morning trip to Manele - photo of
 conservation sign ^{sign} - girl doing research of
 porpoise - project Johna and Harai Company.
 she has seen one turtle at White
 Manele, two by buoy at Manele Harbor -
 photo of black.

On return drove up to black boulders
 and observed - photographed turtle petroglyphs -
 "FUCK" written on boulder close by - also, some
 appear to have big chips out from impact.
 Met John and left for K. Pau -

DIVE THREE

off first big slide; on Big Boomer -
 Saw turtle in shore ventilating on surface -
 short time later it swam up to
 boat - estimate 15" medium light
 color - slowly swam away.

John saw a second turtle ^{juv} about 20" -
 saw it twice - got within three feet.
 Lot of boulders on bottom in this area,
 coral cover patchy, lots of reef fish.
 Bobbie reports lime koku growing close to
 shore in this area.

10/7/77
FRIDAY

10/7/77
FRIDAY

Before dive three we motored all the way to Kanolu Bay - a calm protected area is present just before point. Limestone growing on rock at Bay - but noted before! noted shark fin rock with noddy terns sitting on one side. Took a few photos of cliffs - John mentioned that red and white tailed tropic birds may nest in cliff face.

DIVE FOUR

First bay south from K. Pau. ~15' reef that drops off in steps to 90' maximum. Many big caves. John reports that some turtles were caught here on night dive. I saw ~5' white tip shark lying on bottom near cave entrance. Collected piece of coral from roof of cave. → later turned over to Hal Jokin for I.D. identified as: Genus - Leptoseris "grows in dark, deep places"

* see Motteler
HONJAUULA
POINT

10/7/77 Met Albert Morita, at Fish and Game Office -
FRIDAY he mentioned that ^{name with Honjau in it noted for N. Shore} topographic map of Lanai exists - said most turtles are at Pohakuloa Pt. also that
585-5262 TOM URPANIL ^{251 FRASER AV} is the only person using permit system - one taken earlier this year at Federation Camp - more recent one a week ago - listed 38 1/4" described as rear part of shell (and part of hind limb) missing. Caught with (SCUBA) at Keomuku.

NO
FREE DIVE

- Needs - 1. ^{NOT TAKEN} Photos of Ron's Shells 4 small, BIG ON WALL OF
2. Sol ^{KUO} ~~popuiki~~ ^{50 years old} tried to find turtle stone god - said probably covered by vegetation - near sand dune
3. Talk to TOM URPANIL, JR., see result - where ^(MAMI) shell, other parts are ^(throw away in gate)
4. Talk to Peter Connally

NOTES - 8 years ago Ron was with Milton ^{Holmes} off Keomuku - got 13 medium sized turtles diving.

ATRETHIQUE -
Hook in neck with sailing hook -
then reel in from boat.

Evening dinner at Lanai Lodge with Robert, Dorothy, Bobbie and Diane.

10/8/77 7-00 8AM breakfast with John, Ron, Phil's.
 SATURDAY and Peter Connally - received copied
 letter from Nature Conservancy - interest
 in Polihua and
 Peter indicated concern about ^{*}gill
 nets being set Keomuku - they are
 there when net is pulled in - small
 turtles caught inside. Person gets to keep
 turtle - apparently they
 can't legally take it away
 TO Northeast shore

DIVE FIVE

"Fence line" channel - skin
 dive only - slightly out of trades -
 not very windy - shallow on the
 way out - collect - green flat alga,
 ② Asparagohus, ③ Laurencia,
 ④ Amansia, ⑤ Turbivana,
 John saw one ~ 18" turtle swimming
 in sand channel

10 LANAI

IMPORTANT NEEDS -

- (11) Charter Boobie ~~NO~~
- (12) Toy in wood ^{2 1/2 x 2 1/2} blocks for release

- (1) FIX O-RING LEAK
- (2) DECOMP METER
- (3) OCTOPUS REGULATOR **
- (4) ZODIAC
- (5) PORTABLE COMPRESSOR - FILTERS
- (6) UPOLOU

(7) Sand anchors for net

(8) X-RAY LAMINA

(9) TOPO MAP OF GOLF LANAI

letter? (10) Consider assist from LANAI company ^{NO need}

10/8/77 SATURDAY

10/8/77

DIVE SIX -

SATURDAY

SEAGRASS FINDING

Alaga Chimu Kohu, ⁽²⁾⁽³⁾ two Caulerpos
 (1) Halophiles in clumps in close sand patches -
 Before Federation Camp, deep channel going out - silt in water (silt covering dead coral) center of channel 32' deep. Many sheltered areas on each side.

John saw ~ 18" turtle about 5' from channel edge, resting on sand/silt bottom. Moved off when he approached - Shortly thereafter he saw another turtle - believed to be different.

Visited "Bird Man petroglyphs" at end of road past Federation camp - photos - painted sign "DONOT DEFACE" - Wax in some etchings - some boulders partially broken -

Afternoon -

Visited Ceramic sculpture at Lanai school gym, previous done by Kay Mord - Davidson who visited with me some time ago.
 Talked to Tom ^{DEPART} at Lodge - when kona weather comes - many people go to Shipwreck - Keomua for ~~Keomua~~ other fish. - Weather is Protection
 Tom caughtaptive release - 1 top small - about 2 miles past cement badge outside reef - toward Awalua - with four other turtles - one about 90lbs left first quickly,

10/8/77
SATURDAY

other three snappers left thereafter -
last one stayed - Tom caught -
(thought at time it was sick)

Didn't look at stomach ("bad stuff!")

Skinner? ^{ANSWER} (NO) - plenty muscle - ^{looked good} tasted

Concerning 38 1/4" turtle taken at Keomyku -
night (dive - skin - found about

150 yards offshore - partially under shelter,
grabbed - dark green in stomach -

→ Report that Big turtles lay in sand
on bottom outside of reef directly
off Keomyku Village.

→ Report that there are ledges outside of
barge where turtles stay - sand at times
of Kona Weather.

→ Report putting golf ball on end of
spear - hitting in head going circles,
then going straight. → as per Arnold Howard's description

→ Report slow motion when awoken

→ Aquarium release turtle caught by McOmber was skinned
Note that Albert Britz wants to get
next turtle shell from Tommy to
decorate Fish and Game office.

Evening dinner with Ron, Phyllis, John
at Lodge.

12 LANAI

TITLE - Leatherback in Hawaii

met at Hopalong St. Diver meeting
and Sealair - Hickam

10/9/77
SUNDAY

Concerning compressor

MILT GOLART

444 LUNALILO HOME RD.

395-7920

10/9/77
SUNDAY

~11:30

Morning breakfast at Lodge with Phyllis
and Ron.
TO K. P. Harbor with John at ~8:30 AM

DIVE SEVEN

~9 AM Three Stones - silty - Tide low
and just starting to come up.
Looked in some holes/caves but no
turtles.

Next - Spin dive by ^{above water sea} cave where John previously
caught turtle - about one bay
harbor side of Three Stones.
No algae seen along ledge - only a few
Opiki!

photos of Three Stones

4456

10/9/77
SUNDAYDIVE EIGHT

at second big bay this (K. Pau) side of
Three Stones. Lots of cave ledge habitat,
but no turtles seen. Chondrichus alga
noted.

Very shortly thereafter motor quit and John
had to hike for assistance -

~ 2:15 PM two fellows ^{from Oahu} in boat arrived
and loaned us a 6hp - They had
been diving at Haleolono, Molokai and
had seen four turtles - potted one -
rode one - John got further info (?)

Concluding statement on West Coast Lanai
dives - Including food requirements - an
abundance of habitat, but few turtles.
No evidence of turtles from SLP released
by SeaFlite.

→ Note - ask Connally / Moita to call me
if important turtle event.

* Use his truck for tagging.
→ Cross check FD records for high catch areas.

Met ^{Richard} Mr. Moita at airport.

4:45 PM DEPARTED

HA 57 for Honolulu via Molokai
Noted 1/2 moon shaped bay away before Polihua -
black sand present (?)

10/9/77 In comparison to Molokai - West Lanai, has a very narrow, shelf area where water is shallow.

7/3/78
Monday

1/4/78 Call from Peter Connally indicating that Bobby Amaral caught 35" turtle → should be tagged and released by Ron McAmber.

1/5/78 ^{written} Note from Connally indicating that Bill Gearon, Al and him saw 2 large greens "mating" off Tala Hi; Lanai at 10 AM NOV 23, 1977.

↑ check location on chart

5/3/78

Have permits with them "just in case"

Peter Connally visited lab. Reports that ~10 people on Lanai have gotten permits - however few gotten. One man said turtles are too big. Report that Bobby Amaral hurt his black brinjia turtle. Connally showed me places on Lanai map where he has seen turtles. Still find some dead every so often, presumably from gill nets. Mentioned Kimu Bone (Sargassum?)

5/30/78

McAmber called - he will be bring over dead, scared juveniles that he found on beach at Lanai - will arrive 6/1/78 Thursday.

6/1/78

Phyllis delivered turtle Kim that was found dead on the beach - Approx date:
LOCATION:

7/3/78
Monday

Thawed out Mcomber juvenile recovery -

S-16³/₈ x 13¹/₈

C-17¹/₄ x 15³/₈

HEAD - 2¹/₂"

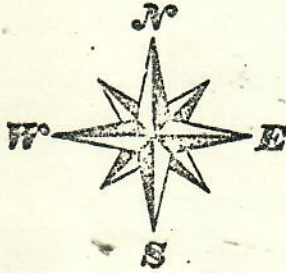
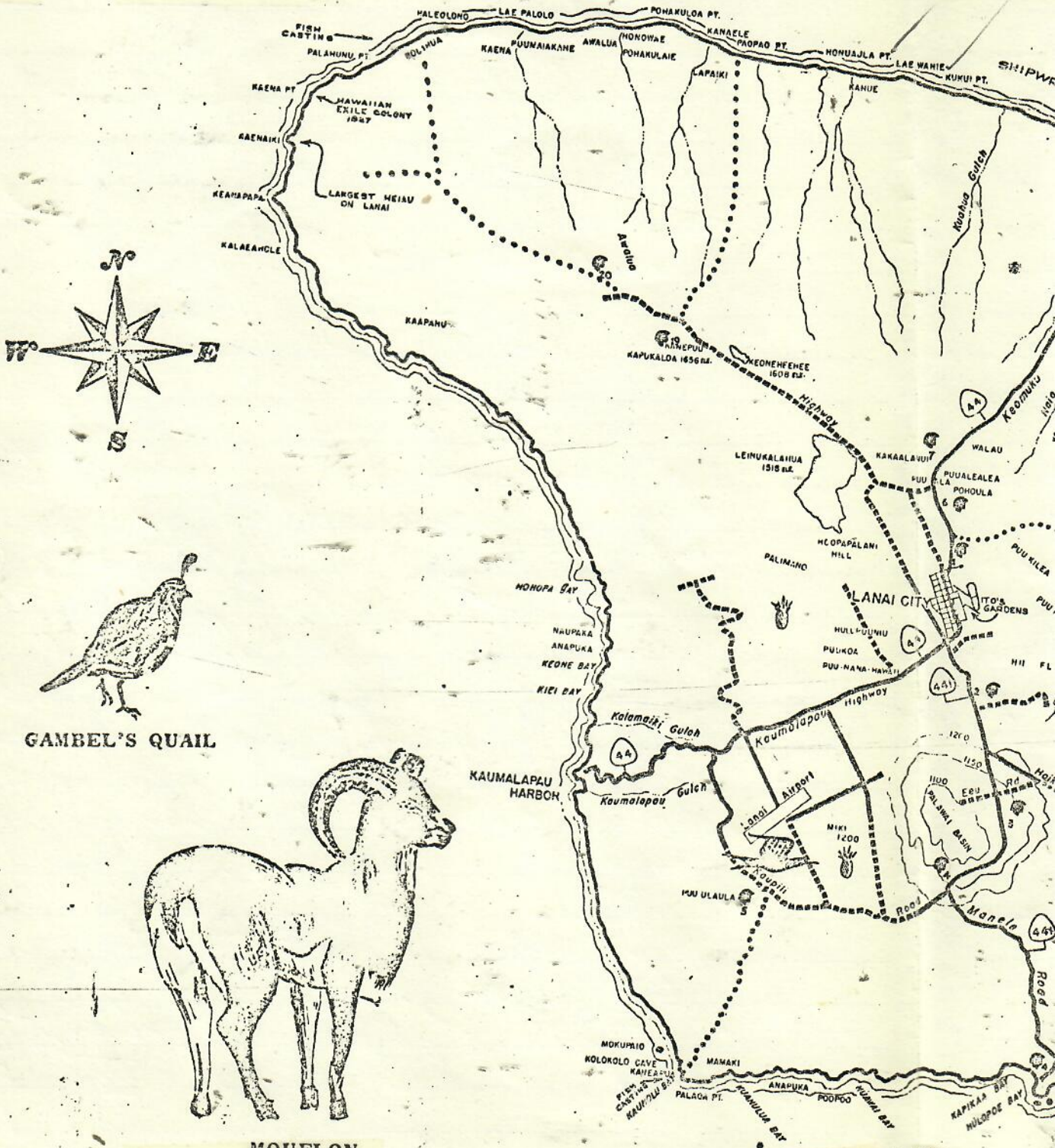
TAIL - 3¹/₈

PL - 13¹/₈

Right eye missing and bloody - may have been speared. Photos taken #13-16 - same roll as R2 Big Island lecture trip. Also, hole (spear) adjacent to RIGHT limb/shoulder. Turtle did not appear spoiled. Dissection (removal of plastron) also indicated relatively fresh. G.I. excised and ^{food} material collected from several sections. Lowest fecal material rinsed - seemed to contain lots of animal material. Animal material picked from stomach contents (for I.D. by Bill Cooke).

Turtle cleaned and preserved ^{dried} with head and hind limbs attached.

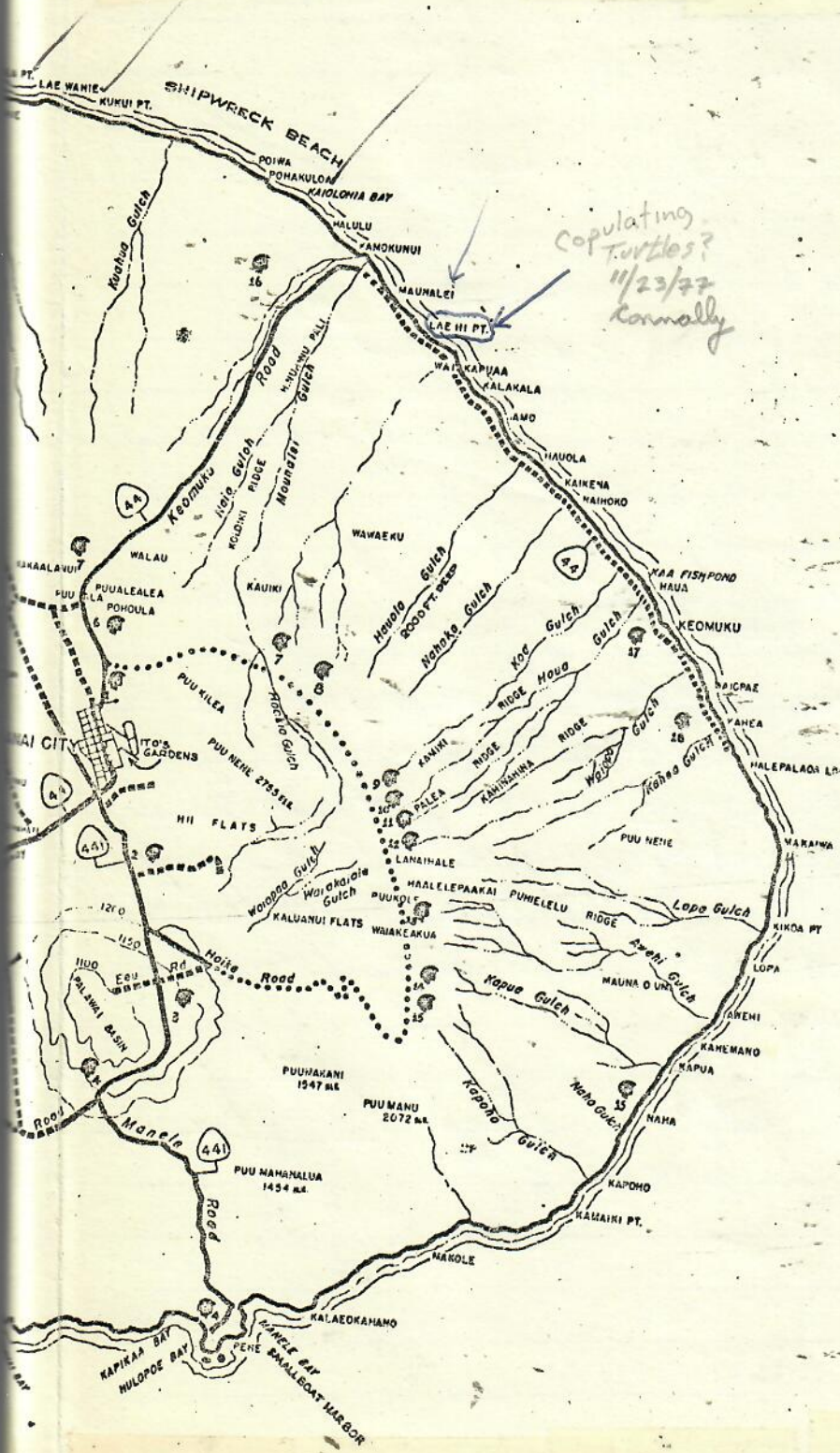
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GAMBEL'S QUAIL

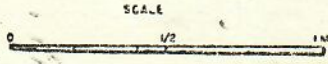


MOUFLON

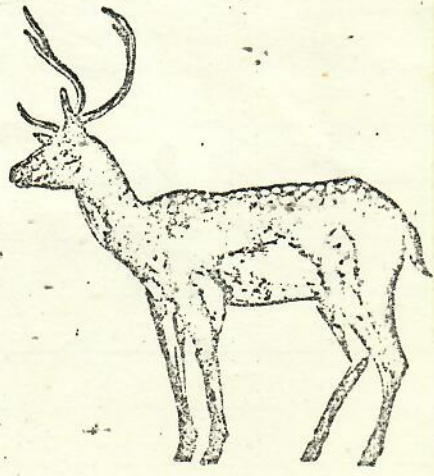


LANAI
 Land Area - 139 sq. mi.

- HIGHWAY ROUTE MARKERS
- ⊙ H.V.B. WARRIOR MARKERS
- PAVED ROAD
- - - UNPAVED ROAD
- JEEP TRAIL



RIO GRANDE TURKEY



AXIS DEER

Mcomber larvae juvenile recovery -
Labeling of algae samples

MCOMB	1	5/78	ESOPHAGUS & STOMACH
MCOMB	2	5/78	1st 12" of 'small-intestine
MCOMB	3	5/78	samples from bulges extending approx 75% along intestines
MCOMB	4	5/78	LARGE INTESTINE JUST BEFORE CLOACA - STRAINED MATERIAL

1-4 to be sent to Russell

Sample of #1 and #4 sent to B. Cooke.
Returned 2/9/78 - listed as "algae and debris" - no animals

8/6/78 Note - while on Lanai for lecture, I was informed that
Ron found turtle at water's edge (IW) at
AWAHUA. When turning it over, he noted no
decomposition - appeared very fresh "Good enough
to eat." He only noted hole in shoulder -
thought may have led to death from this
spear(?) injury.

Cannally thought he found Halophis
growing off of Pōlihuā.

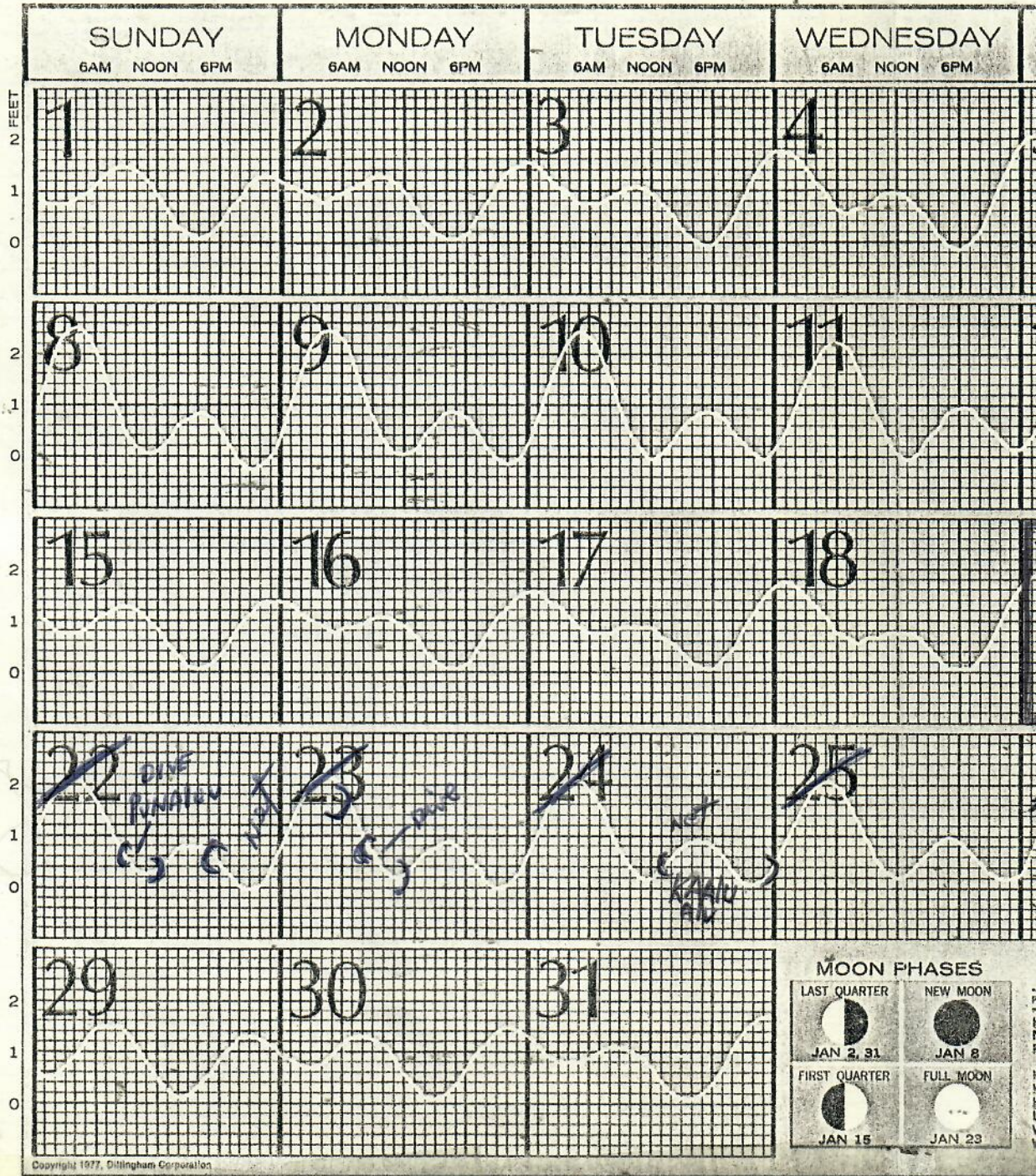
Rec
 Juvenile tag 602 tagged at Kiholo 14 May 1973
 - letter in file from Elmer Auna, Box 748, Honoka'a 3 June 76

Rose Auna, Honokaa 775-0809
 1/25/78 talked to Elmer - caught turtle at ~~Kiholo~~ Kiholo with a
 throw net ("over 100 lb's"), tore up net. Stomach contained
 red lima - shell not saved - saw others with tags.

earlier letter 14 April 1974 Edward Murty - NAVA instructor
 General Delivery - Kapaau 96755
 Rec - tag 61? originally tagged May 1973 Kiholo

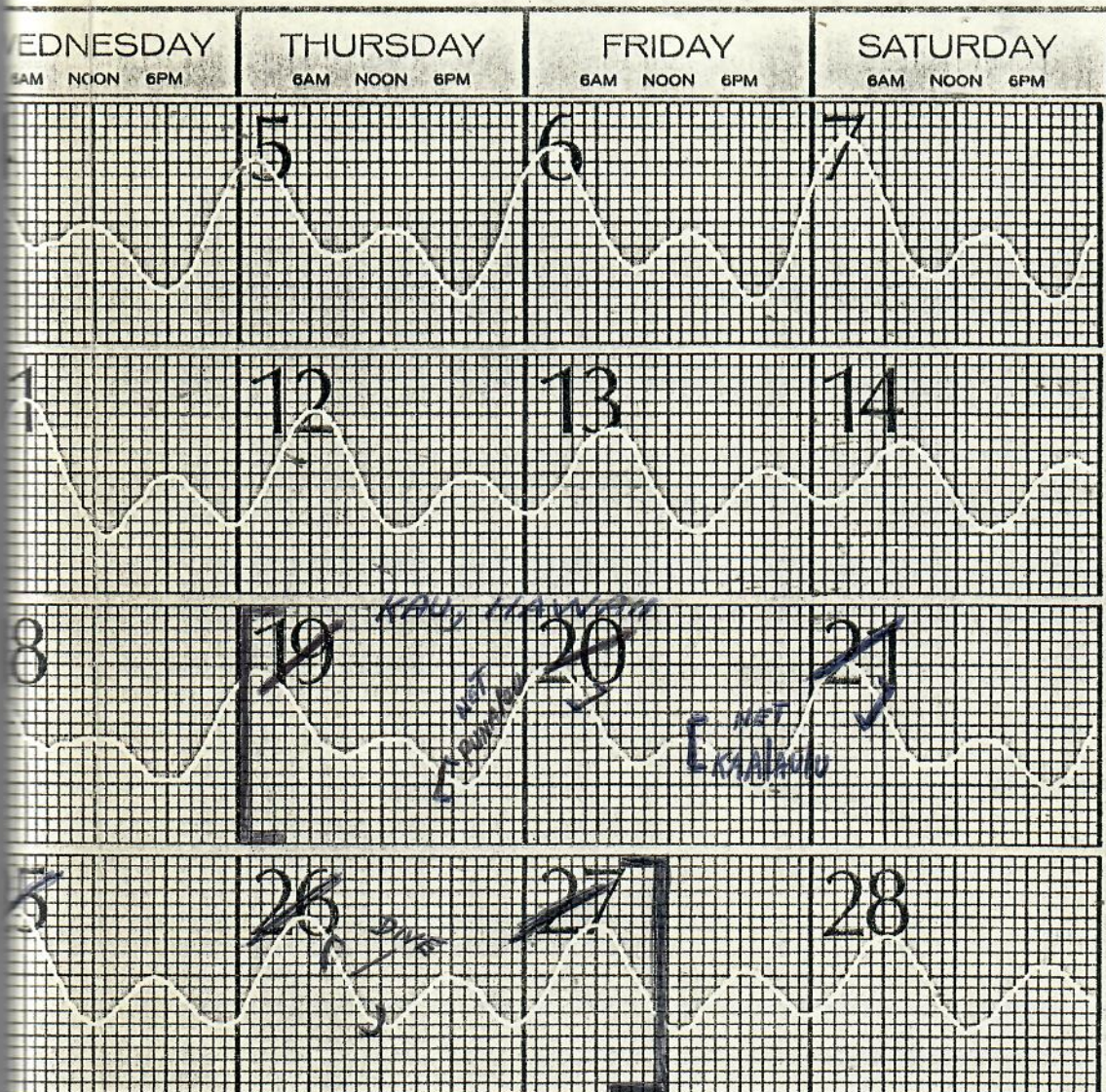
Also - note that letter was received from Elmer
 on 9/11/73 about capture on 9/9/73
 of turtle tag 605 at Kiholo
 (tag sent to me). This record appeared in
 my BIO CONS publication.

JANUARY 1978 TIDE



1978 TIDE CHART

UNIVERSITY OF HAWAII
 Hawaii Institute of Marine Biology
 Coconut Island • P. O. Box 1346 • Kaneohe, Hawaii 96744



MOON PHASES



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

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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	-1	15			
WAIMANALO, OAHU	-1	15			



Dillingham

KAU, HAWAII

DATE	WEATHER
19 JAN Thurs	Punaluu - Volcano - Hilo clean - sunny - strong trades
20 JAN Fri	Punaluu - Kaulaahu → Trades very strong - still clear sky - rough seas
21 JAN SAT	Kaulaahu - Punaluu → Trades strong - sea rough cloudy all over afternoon calm
22 JAN Sun	Punaluu → Wind calm - Hot - sunny - very few clouds
23 JAN	
24 JAN	strong trades most of day - less at night - Kaulaahu seawater 24°C
25 Jan	Sunny - moderate trades
26 Jan	clear, calm during morning - cloudy some trades, light rain during the afternoon - N-NW reported coming up
27 Jan Friday	(clear skies) - moderate/strong trades (in channels)

19 JANUARY 1978
Thursday

FILLING ALL AQUATIC NEEDS

Woody's Aquatic Service
382 Kamehameha Avenue
Hilo, Hawaii 96720

COMPLETE PRO SHOP

Water Skiing • Skin and Scuba Diving • Rentals
Search and Salvage • Boat Dives • Air Fills • Instructions

SHOP (808) 961-6171

Report from Mr. Howard that last couple months have been long good

Total Compressor time this expedition - 4 hours 20 min.

Items we forgot to take - (1) Sign (2)

6:20 AM

19 JANUARY 1978
 Thursday Depart for Hilo, Aloha Airlines - 17 pieces
 of baggage - excess charge \$24.00 each way -
 Passenger fare \$48 RT -

• Used mileage for Kam -

Arrived in Hilo ~ 7:15, Dr. Helfrich
 and associate on airplane.

Rented Pinto wagon from All Island
 Company for \$19.50 per day.

Loaded gear in wagon, had breakfast,
 proceeded to Woody's Dive shop at 9 AM
 to fill 4 tanks. Purchased aircard
 10 fills for \$10.00. Should send turtle sighting
 forms to this shop. Proceeded to
 Volcanoe house, for coffee. Visited art gallery.
 Proceeded to Punaluu. Unloaded gear at
 Mr. Howard's - arrival at ~ 11:45 AM.

Had lunch, then proceeded out
 trail toward TURTLE BAY -

Took a trail closer to shoreline; and
 visited two bays, not previously
 seen. One had bleached white bones
 - part of carapace sitting on rock.
 Second Bay had sloping area from South.
 Saw one feeding juvenile at Turtle Bay,
 and one at Bay before.

At Turtle Bay we found one medium
 size remains, and two small
 covered together. Recovered dried

Report from Mr. Howard that last
 couple months have been long good
 weather ever, - calm seas, fishing possible.

19 JAN 78

Thursday

Stomach/intestinal algal contents - saved.
 Mr. Howard indicated that when he "hooked" turtles (with lamb's poles), he did not take hind quarters or flippers.
 Notes that "bays" are cuts into lava shoreline.

Mr. Howard reports that during long period of calms - before and after holidays - Jews in took turtles - also problem still exists of boys with .22 rifle shoot for fun - do not retrieve.

Howard suggests that number of breaths taken by feeding turtle is dependent on how deep it must go.

At next Bay past Turtle Bay - observed 5-6 turtles - occasionally surfacing. Noted that turtles were exhaling air slightly before reaching the surface. Also Howard reports that when a big wave rolls in, turtle is thereafter more likely to come to the surface to breathe.

Report of event which occurred in October 77
 "at ^(Black) Kamehame Sand beach area, Howard saw a turtle on its back from this boat offshore. Old Filipino man walked in from Punalua, found

19 JAN 78

Thursday

20 Jan
 Net in
 N/2/30 78

20 JAN

19 JAN 78
Thursday

overturned turtle to be large -
couldn't upright. - too large, heavy.
Information on later events was
faded, unknown.

Analyses - turtle may have been
nester, who fell off bank.
(or) turned over ^{white} nesting by
poacher (or) caught offshore
and brought to beach and turned over.

2 Nylon
Net in
~ 12/30 Total

TWO SECTIONS of NYLON NET set in Punaluu
Bay from shore at ~ 5 PM

check again at ~ 9 PM - nothing -
Clear night with light winds inside -

I checked net alone at ~ 5:15 AM -

At least two turtles visible -

Returned about 5:45 AM - out
with tube from concrete ramp -

with light, observed three turtles
in net, ^(one) appeared dead.

M I
20 JAN

Brought out two nets to beach

and took dead turtle to Mr. Howard's -
Recorded data for live two on beach →

26 KAU

20 JAN 78 PUNALUU Bay, Hawaii
FRIDAY

2367 LFL ① S - $26\frac{5}{8}$ x $22\frac{3}{8}$

2368 RFL
2369^{RF} C - $28\frac{1}{4}$ x 27

PL - $21\frac{1}{2}$ "

HEAD - 4"

TAIL - $4\frac{1}{4}$ "

WEIGHT - 94 lbs

^{skin}
Many barnacles ventral hind quarters and shoulder
area - between neck and limbs. sample taken.
Dark shell with white "scum" hard
adhesion. 1st Lat right antenna has
 $\sim \frac{1}{2}$ " strip of clean shell (new growth?)
 $\frac{1}{4}$ - $\frac{1}{2}$ ^{clean} between each lateral.

appeared tired when released.

1/26/78 Recovered off Niho Cove in hole - SCUBA - strong swimmer
see page 52 -

20 JAN 78
FRIDAY

2370 RFL

2371 LFL

2372 RFL

20 JAN 78
FRIDAY

Punalu'u Bay, Hawaii

2370 RFL

2371 LFL

2372^{RF}

(2)

S- $26\frac{1}{2} \times 21\frac{3}{4}$

C- $28\frac{1}{4} \times 27$

PL- $21\frac{1}{2}$

HEAD- $4\frac{1}{8}$

TAIL- $5\frac{5}{8}$

(possible male?)

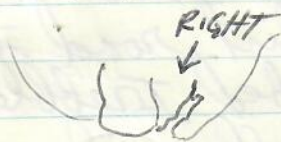
WEIGHT- 108 lbs

Many skin barnacles like previous capture - sample collected. Polysiphonous on dorsal neck - scraped sample saved. Notches in edge of shell as follows:

10th Lateral Right



PC's



10th marginal left

11th

Dark shell, but slightly lighter than first one.

20 JAN 78
FRIDAY

TO Kaalaulu at 11 AM, after walk out to Bay before Turtle Bay - photos of me with poached turtle remains.

Arrive at Kaalaulu, at site by old wood house, across from cattle ramp. At 1 PM, observed 2-3 turtles feeding in calmer section, inland. Completed setting nets, 2 nylon, 1 cotton, at ~ 1:45 PM.

Wind blowing hard, took a nap until ~ 4:30 PM - Wind strong. Moved campsite to old house - Sunset at ~ 6 PM - Dark ~ 7 PM. Checked net all night long, alternated with ham - floats visible, very good out to first two nets. After every 1 1/2 hours. 3/4 moon all night, till ~ 4:30 AM, at which time, moonset.

- notes: Howard indicates that turtles used to come ⁱⁿ in ^{daytime} in ^{the} ^{area} in ^{the} ^{area} years ago, when only dirt road to area. Also, he described Treble Net - large mesh outside, small inside - can catch big fish and small fish. Also, described that lobster nets laid at Kaalaulu tangled up small turtles frequently.

SATURDAY
21 JAN 78

M2

M3

3 sections
total 16 1/2

SATURDAY
21 JAN 78

When Alan checked at 6:15^{AM} he reported three turtles in net.

~ 6:45 AM we swam out along net -
M2 first small turtle seen was dead.

Also ^{dead} seen in beginning of second net.

M3 Six total - one other was very fatigued.

Two dead one's flippers were wound in net considerably, also around neck. Net snagged considerably along bottom - coral, rock rubble.

Tag data following pages →

3 sections -
Total 16 1/2 hours

5/12/79

IDEP

Check Tide

STAGE by MONTH

As possible

FACTOR IN MORTALITY -
(ie net snag)

30 KAU

SATURDAY
21 JAN 78

Kaalulu - end of third net

RECAPTURE

2145

2146

+
Newly

2373^{RF}

TAGS LOOK EXCELLENT

8 months

15 days

S - 21³/₄ x 17¹/₄

S + 1³/₄ ; + 1¹/₄

SL = .2058" .52 cm

C - 23¹/₄ x 21⁵/₈

C + 1³/₄ ; + 1⁵/₈

PL - 17⁵/₈

PL - + 1¹/₂

TAIL - 5" TAIL - + 1¹/₄

HEAD - 3¹/₄"

WEIGHT - 56 lbs

weight - +20 lbs

A few skin barnacles anterior/posterior
ventrol,
dark shell - / clean - / no polysiphonia

ORIGINAL TAGGING - Kaalulu - LOCATION 2 (same as above)
5/6/77 S - 20 x 16

C - 21¹/₂ x 20

PL - 16¹/₈

wt - 36

TAIL - 3³/₄

Second Recap on 9/5/78

SATURDAY
21 JAN 78

2505

2506

2507

SATURDAY
21 JAN 78

Koolau

2505 RFL

S - $20\frac{5}{8} \times 17\frac{1}{4}$

2506 LFL

C - $22 \times 20\frac{1}{4}$

2507^{LF}

PL - $16\frac{1}{4}$

TAIL - $4\frac{7}{8}$

HEAD - $3\frac{1}{4}$

weight - 48

A few skin barnacles anterior/posterior
ventral.

Dark shell - clean - no polysiphonia

32 KAU

SATURDAY
21 JAN 78

Kaalaulu

2508 LFL

S - $19\frac{1}{4}$ x $15\frac{1}{4}$

2509 RFL

C - $20\frac{5}{8}$ x $18\frac{1}{4}$

PL - $15\frac{1}{4}$

TAIL - $3\frac{5}{8}$

HEAD - $3\frac{1}{8}$

WEIGHT - 37 lbs

Old mouth injury - healed cut in right upper jaw.
A few skin barnacles anterior/posterior ventral.
Dark shell/clean/no polysiphonia

9/2/78

SATURDAY

+ fog

2887

SATURDAY
21 JAN 78

Kaalaulu

2510LFL

S- $21\frac{1}{4} \times 17\frac{1}{8}$
+ $1\frac{1}{8}$

2511RFL

C- $22\frac{7}{8} \times 20\frac{1}{2}$ 7 months
12 daysPL- $16\frac{1}{2}$
+ 1TAIL- $5\frac{3}{8}$ HEAD- $3\frac{1}{4}$

WEIGHT not taken

Very weak - needed artificial respiration -
(possible near mortality)

Many skin burrows anterior/posterior ventral

Dark/clean/no polysiphonia

active when released.

9/2/78

SATURDAY

+ TAG

2887

Recovered in nets at Kaalaulu - Muki Cow

location - S- $22\frac{3}{8} \times 18\frac{1}{4}$ PL- $17\frac{1}{2}$ C- $24\frac{1}{4} \times 22\frac{3}{8}$ TAIL- $5\frac{3}{4}$ HEAD- $3\frac{3}{8}$

63lbs

SATURDAY
21 JAN 78

~ 9 AM had breakfast, took two photos by house, loaded gear and departed for Puuoluu. Rested at Kawa's until ~ 12 noon.

Notes: Subdivisions on ocean side of highways opened up many coast areas due to bulldozers making roads in lava fields - often operator did it on his own.

Departed for "Oceanview" - "to the sea drive" just Kona side of Kona Garden Estates (Asam - 3 acres).

Down graded lava road, noted side road top Asam property on left. Picturessque lava flows. Quite a ways down road we made a right turn to poor graded road which doubled back some and proceeded to ocean - Black sand cove on right with hill cone - two photos taken - second by small "fisherman" shrine up high.

From our vantage point, noted two juveniles feeding. Followed trail back (marked with coral stones on each side) - observed ocean from left side - lava rocks - north dense growth of Amansia in blow-hole like rock areas.

SATURDAY
21 JAN

SATURDAY
21 JAN 78

In debris, can, paper, et. at this site
also found jaw-bone of juvenile -
Returned to main road, and proceeded
seaward, reached ocean - 2nd site is more
toward South Point. Opipi shells also
at this site. Mr. Howard indicated that
slot-cut (South Point side of rock point
with old Ulua pool on it) is frequented by
feeding turtles. I saw a juvenile of
South Point side of side - near where
car was parked.

NOTE: Santos used live Manini on
hook while fishing for ulua at
Kaialanui - caught ^{BIG} turtle by accident?
(srogged as it passed by) or
turtle swallowed?

NOTE: only some turtles butchered have
yellow fat - usually ^{is further} big, but
occasionally medium size. All others,
green fat.

note: Mr. Howard recalls a [TAM] family
that used to harpoon turtles from
larger boat - had block and tackle.
(Kaheke Bay)

22 JAN 78 Last night at Howard's house - up ~ 6:30 AM -
 readied for SCUBA - transported boat, engine,
 gear to Penahua ramp. out in water
 by 9 AM

TOTAL NO.
OBSERVED - 2

DIVE 1 - to left, going out, of
 Penahua - short distance.
 ~ 40' water - current/surf is strong
 in close to shore.

Saw one small juvenile as soon as we
 went into water. Later during dive
 Alan found small juvenile in ~ 40'
 in hole sideways.

Togged - measured as follows:

2512 LFL (3) S - $16\frac{1}{2}$ x $12\frac{7}{8}$
 2513 RFL

C - $17\frac{3}{8}$ x $14\frac{7}{8}$

P.L. - $13\frac{1}{8}$

TAIL - $2\frac{7}{8}$

HEAD - $2\frac{5}{8}$

Weight - $21\frac{1}{2}$ lbs

only a few skin barnacles present,
 Released from inside Penahua Bay.

TOTAL NUMBER OBSERVED - (3)

22 JAN 78

Sunday

DIVE 2 To right of Lualaba entrance toward Nirole - Far less surge, but waves inshore.

observed one medium size juvenile swimming, noted algae covered logs. Saw 2 other smaller juveniles sitting motionless on or near polites finger coral. Missed both of them. Returned to landing and out of water by ~ 11:30 AM.

12:00 noon - ~ 3:30 PM Filled 4 SCUBA tanks, patched turtle nets. (Howard, ITO, KAM). Walked to Lualaba Beach twice - nice water, some swell - many tourists from buses.

5 PM

TOTAL Time -
14 hours

Set two cotton sections in Lualaba Bay - monitored all night long - two 1 hour shifts - slept in Piroto on beach.

23 JAN 78

MONDAY

Took nets out ~ 7 AM - no turtles - shortly thereafter, launched Avon for SCUBA dives - calm seas, no wind.

DIVE 3

TOTAL NUMBER OBSERVED - (5)

off Nirole Cove - ~ 30-50' water, Saw three turtles ^{swimming} shortly after entering water - 2 juveniles, 1 bigger juvenile (one of these had TAG) -

38 KN (NOTE - CONSIDER stimulus that triggers breathing when head bursts out of water.) REFLECTION?

(DIVE 3 CONT.)

23 JAN 78

Monday

During last part of dive I saw a dirty carapace, medium size juvenile laying on bottom in ~ 50'. I dove directly down on him - did not move until just before I reached him.

Turtle caught on this dive - first seen completely in hole in large coral head. Eyes open looking at me. Beyond my reach, so I used short powerhead to probe him - he lifted up and swam out right at me, at which time I grabbed one flipper at humerus - swam it back to Avon.

Data on following page →

23 JAN 78

2514 L

2515 R

2516 LF

23 JAN 78 Nihoa Cove (or South Punaluu Bay)

2514 LFL (4)

2515 RFL through existing hole, possible old tag site.

2516 ~~LFL~~

S - $22\frac{1}{2}$ x $17\frac{3}{4}$

C - 24 x $22\frac{1}{8}$

PL - $17\frac{3}{4}$

TAIL - $4\frac{5}{8}$

HEAD - $3\frac{3}{4}$

Moderate number of skin barnacles
posterior - anterior ventral:

Monofilament line (10 lb test) wrapped
around right shoulder - humerus.
Cut deep into hide - some muscle
exposed - photos ^(CR0112) taken close-up
with tag number showing. Also
photos of whole turtle on cement slab -

23 JAN 78

Total No. observed - (2)

DIVE 4

Motored all the way to Kamehame - but wind was blowing there. Returned along coastline to just outside Turtle Bay. Saw two turtles (small juveniles) in ~50' water resting on porites fringes coral which was surrounding very large coral head.

out of water by noon - returned to house, ate, filled tanks.

24 JAN 78

TUESDAY

Full night's sleep - white caps offshore at 7 AM, therefore went to Johnson's Pool (NO TURTLES) and Horseshoe (NO TURTLES - very strong current).

Readied gear during morning for an overnight stay at Kaalaula Bay -

BACK NOTE

Nelson Santos and Miles ~~is~~ visited during afternoon of 23 January. Miles indicated that Pond with inlet by painted church at Kalapana has big turtles in it. Catch them with a NOOSE.

see P19

During morning of 24 January I called Auna^m Horokaa at 775-0809. Her son caught turtle at Kiholo Bay (Elmer). Lives with her.

24 JAN 78
TUESDAY

TOTAL Time - 10 hrs

Total Time - 5 hours

24 JAN 78
TUESDAY

• Mr. Howard indicated that Vector Control man (Japanese - clean cut) from State came to set out rat bait at Punaluu restaurant on 22 January - told story about University people setting nets at Kihoko 4 years ago - caught too many - left some to die. (possibility of mortalities after we left?)

Called Mrs. Itfue Ishimaru, in charge of Aspen Institute for Humanistic Studies at Tel. P.O. Box 85, Pahala, 96777. charge \$50 per day and \$20 for each cleaning or per day charge free if you rent 1.10 condo apartments.

Called Mrs. Plummer - condos are \$44 per day for one bedroom - can sleep 3 each. Aug 19-28 is now booked solid.

TOTAL Time - 10 hours

TO KAAHALU - set two gotton sections in front of wood shack at ~ 12 noon. Set 2 nylon sections in smooth rock bottom area to the South of Mukailow (Keawe Tree) at ~ 1 PM.

Total Time - 5 hours

At this latter site we saw 3-4 feeding near rocks of shore - seem to have disappeared after setting net. Surf rolling in. Also saw very large

CONTINUED Page 43

KAV 42

* Ford motor company book (5 years back) -
when you buy a Ford they send it to you.
All Fords at Cayman - descriptive article.

24 Jan 78

TUESDAY

Manta near shore - dove on crack,
ledge to right of net - no turtles
sleeping here (checked this site during last
expedition). "Mantas are good for nothing"
Set Howard's lobster net near dark in Munklow
Bay.
Note about lobster nets - no laws about
mesh size or length (no smaller than 2"
mesh). Also no laws about where set,
width. Lobster nets are usually red -
set along bottom, do not reach surface.

Note - Tidal waves as hazards to
nesting turtles (eggs and adults)
and feeding individuals. (consider FFS
effect from 19⁵¹7⁵¹ wave; also Indonesian
wave/photo).
1947-9 debris line (keawe) from tidal
wave is approximately 300-400 yards up.
1976 wave only a short distance,
comparatively speaking.

Mr. Howard caught turtles before when
he set lobster nets at Munklow.

Note ecological reason^(?) for turtles feeding
at specific times (early morning, late
afternoon) in some areas. Is this an
adaptive response to humans?
"Turtles are shy"

24 JAN
TUESDAY

From
page 4.

24 JAN 78

TUESDAY

one big turtle found dried out at kaalaulu by Howard and Santos after (some time) 1976 wave. other people found fresh - Same day as wave, people rush to beach to pick up fish, turtle. Lele (Lualuu woman) - house washed away - she found two turtles ashore - returned to ocean.

Howard put two in pond - saw one about two months later floating in Bay - looked disoriented - saw tracks on beach, therefore assumed it crawled out of pond.

4/2/78 see notes from Howard Takata about 1946 wave

Howard caught turtle at kaalaulu with throw net, cut guts open and found bojasse - came from milk running at Honuafon. Sold shell for \$25.00 at shop - sold many this way.

From page 41

→ kaalaulu net continuation -
 4 PM - turtle head seen ~ 50 yards off of end of cotton nets. Head(s) seen to right of nylon nets. Kaur reported "with 10 feet" at 6 PM
 5:30 PM Swam out along cotton nets - untangled from bottom - no turtles.
 At 6:00 PM (Sunset) took out nylon nets - by waves - no turtles - some entanglement on smooth bottom rocks.

44KAN

•UH - FG vehicles?
check w/Helrich

24 JAN
78
Tuesday

8 PM - 9 PM, checked ^{remaining} cotton nets with jeep spot light - no turtles apparent - no floaters down, or unusual. Swam out along net at 9 PM - found ^{SMALL} turtle at 1/3 distance of first net - tangled in middle - almost or dead - net tangled in rocks along bottom. Removed net from water about 10 PM. Cut turtle loose and attempted to resuscitate, by pumping breast plate; mouth to mouth; tand tire pump. Hard to open glottis - need small hose to insert - open. Question - is on back the correct position for resuscitation? - what about prying mouth open - glottis. Check National Canner's circular.

DEAD COWS -
STARVING
CALF

PHOTOS

~10:30 PM Went diving in shallow, calmer areas of Mukiou, where Howard reported seeing turtles sleeping on bottom, slow-motion when waking up - film over eyes. We checked cracks/ledges, but found no turtles.

• Seawater offshore Kaalaulu - 24°C; 23.5°C inshore
Slept through night in old house. Brought in lobster net, lots of limu entangled. Departed Kaalaulu about 9 AM -

Oahu, N. shore

25 JAN
78
WEDNESDAY

stopped at Parker Ranch office in Naalehu Tel. 929-7411, talked to Joan (nice, part Hawaiian lady) - she mentioned seeing turtles feeding at Kanehame.

Mr. Howard and Alan talked to man in hardware store next door. He reports large ("400 lb") turtle at Kamilo - key to gate at dairy.

Miscellaneous notes:

- Honuapo / Punaluu - whales along coast, saw last week.

- Varathane nets - four on (not presently on cotton)

- "Kill fish"

- Turtles "but" gill nets

- Check Honu place names on Hawaii map - Pu Honu - McBride

- Possibility of turtles swimming closer to bottom at this time of the year
∴ caught low in net

- Mr. Howard tried feeding "loose" lime to turtles - passed right by, wouldn't eat.

→ Waialea, Oahu, good for turtles →
previous a Boy's Industrial Farm

Oahu, N. shore
Animal Science
Farm?

46 KAU

*

Now
Camp
Arthur

25 JAN
WED.

Howard (cont)
 25 JAN 78
 WEDNESDAY
 Dillingham Airfield - to end of Boy
 Scout camp - deep rut, coming in
 (like North Sarai) - big turtles present.
 Next best site - Kahuku

- Do turtles "see" net at night.

Howard caught several in net during late afternoon at Kaalaulu - on two occasions.

Perhaps turtles can "see" net during the day, but not at night.

Transiting most frequently occurs early morning and late afternoon (between pastures and rest sites?). Therefore most apt to get caught at these times.

Part of travel important?

(three hooks)
 Chinaman's Hooks - three prong -
 Howard strung cable across turtle bay,
 also Kaalaulu and Johnson's pond to
 rock island. For Uua(?), but snagged
 turtles through eye, head, flippers.
 Turtle going after bait? or snagged accidentally?

Old man Kato's house was where we put nets out in front of old shack at Kaalaulu. He once caught big turtle on hook - took a mule to drag it up.

25 JAN 78

WED.

Late morning and afternoon spent cleaning and straightening nets - cleared lobster nets - frozen large red lima sample.

Discussed new turtle nets - I have new netting, 8' x 300' barging, 18" mesh. EBISUZAKI K. LTD.

92 Kalarianale Hilo, 935-8081 has line needed (1/4") considered 5' wide net, light leads.

3 PM went to Kaua on jeep trail from Punaluu - many old Hawaiian house sites and heaue. Waves pounding into Black ^{and rock} Bay, noted. Horses and windmill. photos of coast and jeep (Roll 2). Found 222 shell - Howard reports shooting of turtles - also at Turtle Bay.

Saw a large turtle surface offshore - Feed on big boulders on bottom. Freshwater ponds behind Black sand/rock beach.

4:30 PM Walked out to Turtle Bay along coastline. saw ^{5 PM} small turtle feeding in second "cut." Notes that waves do not carry turtles very far when they roll in - turtles have low resistance / small surface area. at 5:10 PM saw two turtles feeding in Turtle Bay - note that Turtle Bay is actually a small cut inside a larger bay.

25 JAN 78 Uncovered medium to large size juvenile buried under same pile which I uncovered last trip - This is perhaps 2 months old - carapace, ^{head} plastron, limb bones all seem to be present. - samples taken [5 "pens" long] (~25" curved)
 Also found two carapace and plastrons (small) and one small head in same spot.
 At separate spot, found a medium to large juvenile head alone.

25 JAN
WEDNESD

2517

2518

2519

At 8 PM went to Johnson's pool -
 Tide going low, nearly large moon rising -
 Caught juveniles listed on following page →

Recovered (poached?) turtle parts measurements -

1. Two small carapaces and plastrons - TURTLE BAY - buried - ^{ROCK} - Straight carapace lengths - 15"; 15 1/4" - Head from one of these two - 2 3/8" [Brought one carapace and head/mandible to Honolulu] Remainder discarded.
2. Head/mandible from TURTLE BAY (by itself) - 3 3/4" [Brought to Honolulu]
3. Remains of almost entire turtle under rock at TURTLE BAY - buried turtles at this same site excavated during last KAU trip. Saved head, mandible, misc. limb bones and a few plates.
4. Complete pelvic girdle, scapula process, plate and precentral bone from Kaalualu
5. Broken carapace - bent dehydrated plastron - "Chain Place".

6. Dried stomach sample specimens - Rock at Turtle Bay

25 JAN 78
WEDNESDAY

Johnson's Pool - Alan Kam pulled out from
under a ledge, ocean-side.

2517 RFL

S - $20\frac{1}{8}$ x $15\frac{5}{8}$

2518^{RF}

(5)

C - $21\frac{1}{4}$ x $18\frac{7}{8}$

2519 LFL

PL - $16\frac{1}{2}$

TAIL - 4"

HEAD - $3\frac{3}{8}$ "

weight - 45 lbs
Small hole/rotch on edge of flippers -
fish bite?

Many Healed scratch marks on edges of
flippers -
Skin barnacles anterior and posterior
ventral.

Small sample of Pterocaulidia taken
from stomach - not retained.

Dark, ^{some} speckled skin - skin

50KAW

25 JAN 78 ~ 8:45 AM Horseshoe - resting on bottom
Wednesday (me)

17 months
15 days

S - $22\frac{1}{8}$ x $17\frac{3}{4}$
S - $+3\frac{3}{8}$; $+2\frac{3}{4}$

C - $23\frac{1}{2}$ x 21
C - $+3$; $+3$

SL = .1928 .489 cm

PREVIOUS

PL - $17\frac{5}{8}$

1851 LFL ← corrosion
TAG (off)

MODEL ✓

weight - 58 lbs

2520 LFL through the existing, headed ^{double} tag hole.

2521 RFL (b)
2522 RF UNCOVER ✓

TAIL - $4\frac{1}{8}$ " TAIL - $+1\frac{1}{8}$
HEAD - $3\frac{1}{2}$ "

headed notch between 9th & 10th margin Right in seam.

Dark speckled shell - clean

original tagging data - NE Turtle Bay - 30' depth

8/10/76

S - $18\frac{3}{4}$ x 15

TAIL - 3"

C - $20\frac{1}{2}$ x 18

9/14/76 Throw net - Howard Luncheon - no measurement data taken

25 JAN 78 ~ 8:45 Horseshoe - resting on bottom

Wed

(me)

Recov. 2/19/84 - NET - PUNALOU

2523 RFL

(7)

S - $15 \frac{3}{8}$ X $12 \frac{7}{8}$
 39.0 cm 32.7
 65.5 $73 \text{ mo} = 0.363$

2524 LFL

C - $16 \frac{1}{4}$ X $14 \frac{7}{8}$

PL - $12 \frac{1}{4}$

TAIL - 3

HEAD - $2 \frac{1}{2}$ "

weight - 20 lbs

94 lbs

+ 74 lbs

Some very light, clear spots in shell -
 rest brown (dark brown)

Sampled stomach - small amount of
Pterocladia, fresh - sample not retained.

26 JAN 8:20^{AM} depart for SCUBA aboard Avon - calm sea
78 no wind.

Thursday

DIVE 5 clear water

TOTAL
NUMBER
SEEN - 3

Just outside and to the right of Punaluu channel. ~45' sloping bottom leading up to big cliff - boulders with coral formation. This is the approximate site of my very first dive off this coastline.

During dive I saw a sand coral formation onto medium size juvenile *Turbo* shell, but it seemed absent sitting on bottom, and swam off quickly. Clean shell. Later in dive saw adult or almost adult (female?) rise from bottom and swim away (~60' water). Heason saw me (us) approach. Alan saw one small juvenile swimming.

DIVE 6 clear water off Horseshoe - approximate sites of dives 2 and 3.

TOTAL
NUMBER
SEEN - 2

Swimming -

hole/ledge -

captured -

Found turtle 2367-8-9 back in depression head mostly inward - in ~35' water. This turtle caught by net in Punaluu on 20 January 1978 (see p26). Very shy swimmer - net burns around flipper is apparent, but healing. Second turtle found head in, in hole, ~30'; data on following page.

seas, 26 JAN 78 Offshore of "Horseshoe" - Niue

2374 LFL

2375 RFL (8) S - $23\frac{1}{4}$ x $18\frac{3}{8}$

2525^{LF} C - $24\frac{3}{4}$ x $22\frac{1}{2}$

PL - $18\frac{5}{8}$


TAIL - $5\frac{1}{2}$

HEAD - $3\frac{5}{8}$

WEIGHT - 69 lbs

Skin parrots anterior and posterior
ventral - some on hind limbs - samples
collected - Alga

Right PC - 

11th way and left PC - 

Swam with this turtle just under the surface,
and watched it exhale just before head burst through surface
I could control breathing. Also noted "neck stretch".

54KAV

26 JAN
78
Thursday

Both turtles brought back to ramp -
photos taken on end of roll 2.
Many tourists around from buses -
much interest.

27 JAN
FRIDAY

photos of Moraeae
roll 2

Back at house about 12:30 PM - light
rain started - called Joan - Parkey Ranch
only one key (?) to have home Gate: out now.

Packed and loaded gear during afternoon

At ~ 8 PM went to Johnson's pool for
dive - no moon, depending (long of the two
daily high tides), about half out. Rough
water, waves from N-NW swells generated
from storm up north - according to weather
forecast, swells just starting to arrive at this
time. Alan saw one juvenile swimming
free in pool - none under ledges.

Proceeded with Mr. Howard to Horseshoe
water, not as rough at this site. No
turtles seen.

Proceeded to Lunaluu Bay, entered water
in front of Bathhouse. Searched for hole with
ledge that Mr. Howard described as hosting
resting turtles. We were unable to find
this site. I fasted over freshwater spring
further offshore. No turtles seen.

Returned to house

27 JAN 78 UP about 7:45 AM - packed dive gear and

27 JAN 78
FRIDAY

frozen turtles. Departed Lualaba ~ 6:30 AM -
Mr. Howard took in some of the gear in Jeanette's
new Plymouth station wagon.
Arrived at airport at ~ 7:45 AM - experienced
difficulty with Aloha air baggage agent over excessive
baggage - he indicated that motor, box, raft,
net box would have to be taken to freight
terminal - not acceptable as "baggage". I
indicated that material came from Honolulu on
Aloha, and that return was prepaid. I talked
to Sam (?), Customer Service representative - he
said that if it was prepaid - no problems, original
agent was difficult - not helpful.

Back Notes - Mr. Howard indicated that Jeanette
told him that rock enclosure by
Turtle Bay was used to hold turtles
by Hawaiians (?)

10:40 AM - over South Maui - saw stone walls and
recalled newscast about Heiau discovery
by helicopter pilot - investigation is needed
concerning petroglyph aspects.

Departed for Honolulu Aloha flight 391
(via Kona, Kahului), at ~ 9:50 AM - (late)

- I called Patricia Kellogg from Hilo Airport
concerning Elliot - Blair National Geo article.

56 KAW

27 JAN 78 Land in Honolulu at 11:20 AM.
FRIDAY All gear to Lab, picked up by Edwin in
State truck - 1:00 P.M.

— Brief Data Summary of Expedition —

CAPTURES, with SCUBA — 4 (1 ^{short term} recap from net)

CAPTURES, with MASK & FINS — 3 (1 long term recap)

CAPTURES, with NET — 10 (1 long term recap)

OF THOSE — MORTALITIES — 4

Long Term Recoveries — 2

Short Term Recoveries — 1

Total captures — 17

Total different captures — 16

Total different live captures and releases — 12

Brief Summary of Hawkbill nesting reports from
A.L. Howard - las of 8/30/78

- ~ 4/10/78 Howard took green at turtle bay area -
 ~ 4/20/78 - 1 inch ^{at high tide by rough water sign}
 8/2/78 - Reported green came out Hilo side of
 lei stand - almost crawled over a man's legs -
 turned on back
 8/5 Hawk at horseshoe crawled out and was
 captured for a period by resident
 < 8/5 - tracks under Pabbey's house
 < 8/5 opihī picker reported nesting attempts at Kamehame
 < 8/28 another nesting attempt
 see pages 8-9 following book
 for revised dates/notes

60 HILO LECTURE

30 JUNE

1978 DEPART Honolulu Aloha Airlines at ~0610h
Friday for HILO - MAP - WAIKIKI AQUARIUM LECTURES

Arrive 0655h. Met by Howard TAKAI
Alan Kam - knows (me) Del Dykes (SCUBA IN)
(Peace Corps - Malaysia - TT - Saipan)

CHARLIE SUPE - Chief of Enforcement DFG

Breakfast at Dick's -

Photos

Drive out to Kalapana to check on
Hatchlings that were found in pond - near
ocean - Family that collected them from pond
lives in Hilo - Two brought to Howard -
Possibly 5 total in pond.

Stopped at Nat. Parks Reg. Center -
K. Roberts - Ranger.

Drove out Nat. Parks road along cliffs

Report of 1946 Tidal wave home movies
Hilo showed turtle washed ashore.

Shipman estate - caretaker - Blackburn

Puu LOA - petroglyph fields

Drove out road to Cape which
follows coastline. Saw two black sand
beaches from cliff - house top right.
~~Boat ramp~~ - Boat ramp - several houses

ISAAC HALE BEACH PARK

Report from informant now living on Maui that
aggregation of turtles seen off Mokone
beach park - during Feb - March
(8/4/78)

30 June
Feb 1978

Photo (Howard) office

~1:00

tel 935-59
home 9
and photos -
call
any available
in prints

30 June 78

FRIDAY

KIMO TABOE - Nature Conservancy

TO KAPOHO VACATIONLAND Estates -

Pools of water - ponds - also offshore
7-12' deep pockets with live coral growth -Turtles could sleep in these.
Reported that some people have kept
turtles in these.Kapoho beach lots - Kimura's
house - salt water ponds - Private
Oceanarium ^{Turtles}. Potential for project study
area. Inside KAPOHO St. ofObserved tower ^{light} at Cape Kumukahi.

~1:00 PM TO Lelani Park - Howard's office

Tel - 935-3830

Home - 935-4319

RICHARDSON'S OCEAN STUDY CENTER

2349 Kalananohe St. 96720

Send photos -
call
Money available
for Prints?Met secretary Pat who has
knowledge of and is interested in
petroglyphs. Went on field tour
with J. Violet Hansen at Piau -
toward Kamame Pt. She saw a
large lizard petroglyph.Met Miles Niri who dives/studies
at Kimura coast line. Has seen
turtles in close. Blue during early
morning 7-10 AM.Saw poorly stuffed juvenile hawk
in display case - donated by
Hilo resident. Noted trunk seal
drawing on cards by Petroglyph Press.Pete Hendricko -
Home - 885-4453
office - 322-2577Oh
PRES-
KATA
INS.)near
pond
nd -cliffs,
es,
shore.up
ses.

30 JUNE 78

FRIDAY

Hawk may be of local origin.
 Noted pressed of alga in display
Ahnfelia concinna - collected Hilo
 intertidal "9/77".

Howard transmitted to me that "2 baby
 turtles were donated by (young fellow)
 EARL KUBO
 403 Kahili Street
 Hilo, Hawaii 96720
 tel - 935-9936

should
 write

Caught Sept. 11, 1977 Kalapana pond -

They were kept at the Ocean Center in
 an aquarium for approximately one month -
 fed chopped fish (ahi) - looked
 healthy, fat and strong. Were dark
 brown in color. Released of facility.

A Samoan lady is reported to
 have caught three others - may have
 in home pond by ocean center.

Howard narrated "uncoordination" of
 hatchling to grass food - aid to
 dive down very far.

Met Miles Niri - has been diving
 at Kimura Oceanarium coast.

Had sandwich at Kems and proceeded

30 JUNE

FRIDAY

10 JULY

SATURDAY

959-7224

30 JUNE 78

FRIDAY

to Lanawa Zoo. Director's name

HAL FISHER

- saw

hawkbill in glass aquarium (no on display)
 Workmen - Morris; Foreman Nobria;
 Photos taken of turtle in tank - my reflection.
 Saw tiger cubs. Report turtle is now
 2 1/2 years old. Water changed once a week -
 fed chopped smelt and beef.
 Turtle is moderately emaciated.

Checked into HILO Hotel

Lecture at 7 PM at Community college.

Approximately 54 in attendance.

Carl Gleyton - older lady Baldwin - Mulls -
 went well.

Drinks afterwards - ^{KK TEI RESTAURANT} Del Dykes
 reports that Ocean Life Park?
 caught green and placed in tank -
 summer 1971 or 72 - eggs were
 deposited in tank - subsequently butchered
 and eaten. Contact ERNEST J. BODNER.

Also Leatherback nested on San Juan
 beach - was killed by kids -
 Division of FG employee DONALD ERDMAN
 knows about case.

1 JULY 78

SATURDAY

At ~ 1030 AM proceeded to residence
 reported to have turtles in ponds -
 1389 Kalanano'le St.
 "GARCIA"

1 JULY 78
SAT

Talked to son Robert (sbw). There are two shallow ponds in front of house - well shaded by tree - silt bottom - shallow - riffs and falls with tide. Two turtles (greens) in each - very black shell and skin and head. Small one ~ 15" shell - photo taken while hauled out. Largest ~ 19". Dorsally some minor loose plates and necrotic - scared areas on scales of head. No major injuries. Son reported that turtles were caught in Hilo Bay - have been in captivity ~ 5 yrs. - they have lived there 7 yrs. Are fed "break" and food scraps. Last year people came from "Hilo College" took turtles out and looked at them.

Need to know:

1. Approx. size at Capture
2. Color
3. Capture location
4. Length in captivity.

Inspection of plastron of one of larger turtles revealed moderately sunken in plastron. Small Mullet are also in larger pond, bait fish, and poss. some native prawns as we observed a floating molt.

photos

1 JULY
SATUR

My App. Mammals, etc.
 may have damaged boxes
 along this coastline

there
 1 JULY 78 observed turtle feed on floating 2"
 SATURDAY particles. also saw small turtle
 foraging between two rocks on the
 bottom.

July 1978 Hurricane FICO
 may have damaged houses
 along this coastline

Proceeded to Mr. Kimura's. Informed
 that turtles are common off Kapaeha
 house. Saw large ray with "HORNS"
 inside reef. Entire area sunk a lot
 4920 after eruption - stone fishpond
 walls are now underwater. Mangroves
 are relatively recent. He will rent
 for \$20 day.

How many beds? Linen? etc?
 Turtles he has held in the past
 were caught in nets. Area has
 sunk since 1976 eruption.

~ Approx. 1930's he remembers small
 sand cove on Coconut Island. had
 eggs w/ ^{small} turtles. Dug up. Sand
~~all~~ gone or covered with rubble
 from 1946 wave. Breakwater
 present but fixed/extended considerably
 after 1946.

He ran a fish market since ~1940;
 Retired now.

Checked out of Hotel and proceeded to

need - Lite pointer for slides
 - "Calendar" of field expeditions
 - Kam - library references

1 JULY 78 Waiimea via Hamakua Coast. From scenic
 SATURDAY loopout I noted discolored (silty) water
 inside Hilo Bay / breakwater. Can you
 walk out on breakwater?

Noted very silty water close to shore ~ 10 miles
 out of Hilo - along cliffs.

Visited until ~ 3:30 PM at Warren Rollins
 house.

Proceeded through Waiimea (noted Museum) and
 down to Kawaihae Harbor. Saw two
 small turtles close to shore, between
 outside long breakwater and short breakwater
 the other side of which several sailboats
 were anchored. Noted that offshore the

wind blows very hard with whitecaps - air
 mattress being whipped along. This was
 the case further along also in Puako
 region. Closer to shore there is some

calm. Noted what appeared to be a
 relatively new boat ramp at Puako. Noted
 two access areas to water in Puako, as
 well as several ponds in people's yards

TO Kona Sunset Motel ~ \$16.00

Gave talk at Kona Surf Conference room
 ~ 60 people (~ 20 tourists). Very well received.

Should include 1) migration chart 2) G.I. chart (get better one)
 3) include Kure Rat and Laysan

Met a Dr. John Cushman - Santa Barbara; he
 will be on sabbatical w/ UH Genetics Department - will
 contact me.

2 JULY 78
 SUNDAY

~ 11:30

with it!

2 July 78
SUNDAY

Howard has caught two "sunfish" at 40-50 F using opelin for bait; sunfish have a small mouth; this species is very silvery.

called
4/22/78

Report from Howard that, a few days before I called to leave on mainland trip, he went down to beach in the morning and found tracks and two excavations by "Danger - roughwater" sign. He dug at both sites, but found no eggs. Could not see any tracks leading back to ocean - small vehicle tracks were nearby - possibility exists in Howard's mind that turtle was taken by people.

Howard reports that a few days ago he possibly saw tracks on Kamehame beach.

Parker Ranch is to give up this area soon. Howard said his big (42"?) turtle casting was made two days past turtle bay - said someone must have taken shell - and something (dogs) dropped off remains.

TO HILO (~55 miles) at 3:30 PM -

Depart Aloha F895 at 5:55 PM - Spogall dinner \$2.50

Note - letter to FG?

Howard recalled that he had never seen a turtle in Pearl Harbor.

7/9/78

Hal Fisher will bring small hawkbill to Honolulu - to be picked up by Chris Yamashita.



TELEPHONE 553-5926

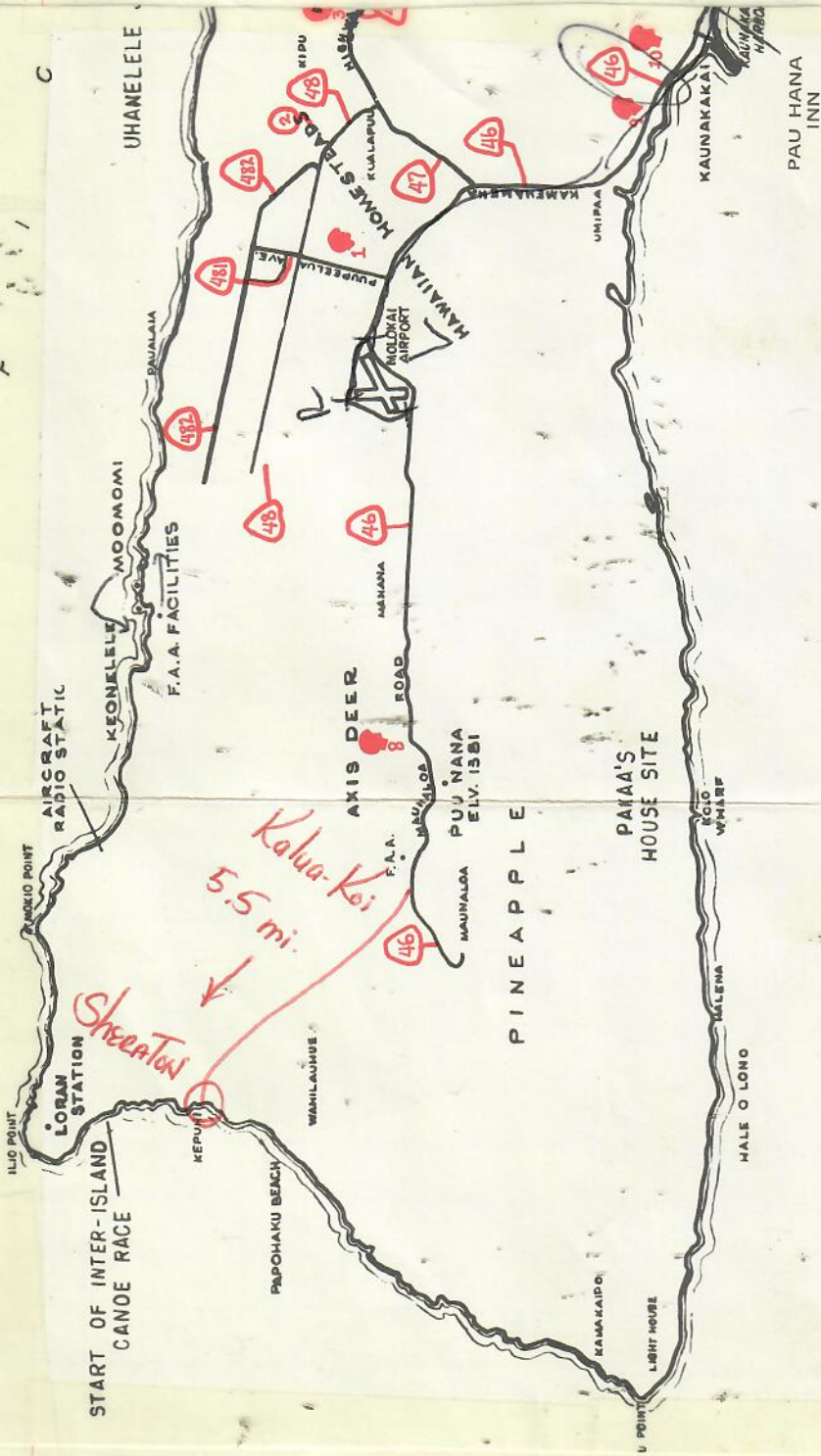
8/3/78

Prior to departure notes -
 " Fred Bicoy - head of Maui Economic opportunity program knows of beach where turtles nest on Molokai. Report father - Petronello Bicoy - knowledgeable fishermen on Maui - should call Ed. Smith > Kahoolawe
 Reese Silva
 Inez Ashdown
 Kampo Gaf - beach

→ JIM BROCKER
 PRESIDENT

DOWNTOWN KAUNAKAKAI
 P. O. BOX 576
 KAUNAKAKAI, MOLOKAI 96748
 TELEPHONE 553-5926

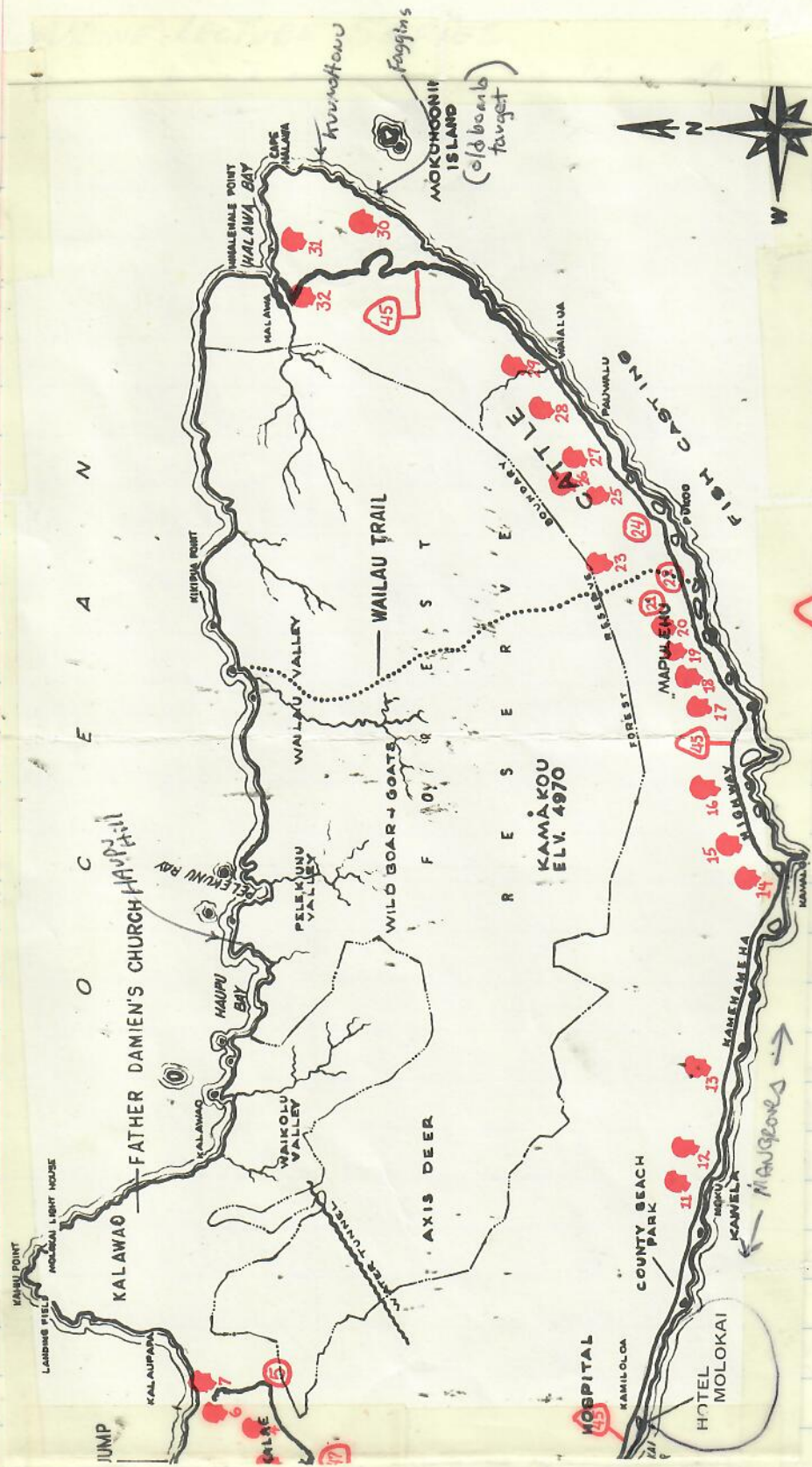
- Memo
 - Sightings
 - I.D cards



dba MOLOKAI AIRPORT TAXI
MOLOKAI TRANSPORTATION ASSOCIATES, INC.
 dba MOLOKAI ISLAND U-DRIVE
 P. O. BOX 218
 HOOLEHUA, MOLOKAI, HAWAII 96729
 Phone: 567-6590

Approximate distances from Kaunakakai to:

Airport	8 miles
Mapulehu	15 miles
Kualapuu	6 miles
Pukoo	16 miles
Kalae	7 miles
Wailua	20 miles
Kawela	6 miles
Kamaloc	10 miles
Halawa	28 miles



4 August
1978
FRIDAY

Depart HA ~ 2:25 PM for Maui -
took off on Reef Runway - turned to right
and passed right (over) corner of runway
and surplus vessel that has been
anchored offshore. No traffic observed - water
looked calm and somewhat clear.

In Kahului, stayed at Hukilau Hotel -
ate dinner at Woolworth's restaurant -
Maui Mall shopping center.

Noted fairly large quantity of Ulva
washed up on ^{sand} beach in front of
Hotels - this is inside of Kahului
Harbor (breakwater).

Gave talk at room 12-A Maui Community
College, between 7:30-9 PM. Books Takaraka
affiliated - George Krzysek visiting.

Approximately 40 people in attendance -
report that PR article appeared in last
week's MAUI NEWS.

Rene Sylva + friend who knows Alvarza
in attendance - also Martha Hovelson.
Talk seemed well accepted. 2777 S. Kihei Rd.
879-2880
Afterwards went to McDonald's and
talked about turtles:

1) Sylva used to gill net fish in bays
of Kahoolawe that face Maui + Pepee's Cove
and others. Never went specifically for
turtles, but caught medium size on one
occasion. He has no specific knowledge
of turtles for this location - no nesting info.

Sylvia, continued

4 Aug 78
FRIDAY

- 2.) Contents of turtle guts were removed to use guts in ^(for) food.
- 3.) Some people say that smaller size turtles are "sweeter tasting" - 50-100 lbs. Sylvia says not much meat on these compared to bigger ones;
- 4.) Caught mostly big ones during years of catching - It was rare to catch a male;
- 5.) August and Sept. are the best months - however, sharks and rays are also present at this time;
- 6.) Tiger sharks in turtle net may have been due to attraction of turtles caught in net. Spiny caught right near where turtles were taken;
- 7.) Sylvia lives in Paja beach house - 25 years ago turtles could be caught by setting net from shore - now (in subsequent years) it was necessary to go further offshore - he used 22' skiff. Also net was very large mesh (72") and 20' deep.
- 8.) Several bays along Paja side (Hanaoho?) that have red eggs, but turtles - those that don't have turtles.

4 August 78
Friday

- Sylva, continued

9.) Report of one area have lots of Codium - reported to be very seasonal.

10.) Sylva is a botanist - works at botanical garden at Maui Zoo (with Eddy Smith) - would like seeds of *Pritchardia remota*.

10.) When an area get rough, turtles move into an area. He interprets this as an adaptation for protection against people. I mentioned accelerated growth

of algae outside Kahului and Keig breakwaters.

Need to get out all of his old letters and review information.
Added NOTE - MR. KATHALINAI AT HANA works for National Parks Service - knowledgeable of Turtle - uses hook and line - Sylva may know.

WAIUHA BAY near Hana may be feeding site for turtles.

(MAUI) is name of Pond in MAUI - Lohy - WAI - HANA
From Muller - "Pa Horu" - a point or beach South of Hana Gap.

Brooks expressed concern about 20 mile controlled area around Laysan - lobster management plan already finalized.

Committed - or lose credibility -

Take Avon - 25hp - nets - camping gear to Sylva's house

I promised to call him 579-9616 a few day after August 11th - Kam's return.

address
(379 Keler hoku)

5 August 78
SATURDAY
Called Inez Ashdown at ~ 10:30 AM
at 244-0557 (born 1900) Lived
on Kahoolawe with her father from 1916-1941.

Two sand bays at Suherd
1- ~~Hanokanaia~~ (porpoise protects the
carrying whales) ? Hana kana ena

1- ~~Honukanaia~~ - turtle Hona kana ena

Knows of W. seagull - burial - turtle name.
She never actually saw turtles resting -
too busy herding goats

On Lanai, she heard of turtles resting
at PAOMAI.

On Maui - seen 46 butchered turtles (glad
at one time - go past Honolulu - small
bay Kapua (as you go into this bay).
Talked about Honokahao, just into
Kapua - small bay of Kapua. Old fishpond
in the area. Condominium now in area.

Ashdown's ^{+ cowhand} lived at ~~Kahe~~ Kuheia Bay Gulch - Bay
Water storage reduced tanks - there and
at ~~Ahupe~~ Ahupe Gulch.

She suggested that I contact - Frank Apina - a
fisherman who now lives at Kihai;
George Martine - live at
Sunaneia;
Alice & Wally Kululoi - father recently died

5 Aug 78
SATURDAY

but he knew all about turtles;
 She also suggested that I look up Thom's
 account of locations of fishing shrimps ~~at~~
 She mentioned something about a fishpond in
 Hana.

Also Ahii Bay now protected - some people
 said that this took away their food - she
 said no, most of those who subsisted are
 now dead. i.e. Sam Pa.

Ashlyn seemed to have an excellent memory for
 old things - very articulate - is trying to
 publish a booklet through Johnny Holt.
 Refuses to go back to Kahoolawe.

Departed for Molokai on Royal Hawaiian
 at 1130 AM. - arrive ~ 1140. took one
 photo of rocky islet at SE side of Molokai; flew
 down North shore and noted bays; campers off
 powerboat were in one; second large one had large
 catamaran anchored offshore.
 Rented car at airport and drove to
 Hotel Molokai - checked in and then departed
 to Halawa Beach.

noted mangroves abundant in places along
 the coastline. Stopped at Palakipi and noted
 turtles ~ 50 yards from shore - channel exists
 offshore - several of the large fishponds look
 in good condition. George Murphy ranch

5 AUG 78

SATURDAY

named PUU-O-HOKU. Rainfall obviously greater at this end of island. Report of lots of freshwater filter into ocean along Molokai's South shore. At Halawa river-beach-valley (several photos), river beds into beach sandbar present - lots of driftwood litter on beach - sand sample taken. Several boats moored. Campers present.

Returned to hotel; called Lin; napped for one hour; ate at Dairy Queen -

talk at Molokai School - about

25 people present - some tourists -

Presently include - George Peabody & wife (?)

- Clarence and Hilary Chubb

- Joan Aidem

- Dr. Newman, M.D.

- Mr. & Mrs. Tropp - controller at Airport -
ONLY 2 MONTHS ON ISLAND

- Anthropology authority - name?

afterwards, went to Chow's for
Hiliko'i juice and cake.

Information summarized as follows:

1. Faggin Beach, small white sand located on ^(Below ranch) land managed by Molokai Ranch reports that turtle's nest
2. Nesting possibly also at Kawainui - an island connecting into a fishpond

MFA contact -
Heber Faggin

5 Aug 78
SAT.

just past Smith-Bronte landing site.

3. Just past Kama'ehu'iaf - Waiparua - report that many turtle skeletons were on the beach - in offshore water ~ 35' deep turtles were "gaffed" while sleeping next to boulders. Turtles always full of lipos-like limu - the kind Nenu' feed on.
4. Technique of catching turtles as per Clarence, who went with top molokai killer, some years ago, consisted of anchoring skiff some distance from sleeping turtle, one man (or two hold rope at proper distance) and man with "gaff" swims up over rock and hooks turtle.
5. Does like to ~~sell~~ fish - only trade use for family
From Joan Aidem -

Bird and turtle bones were found deep in an eroded sand dune at Moomomi - evidence of a fire was present. Also, recently dead whole turtle was found at base of cliff. Crawled there in an attempt to nest (?) - More info needed from her on this subject.

ch 6 August
SUNDAY

Breakfast at hotel - to airport - telephoned Joan at 553-5641 - She reports that

6 AUG 78
SUNDAY

presumed. // more recently dead turtle bones
found at base of dunes at Kapani Point
(near Moompuni). She said that few
people go there to dive - therefore I thought
turtle got there trying to nest.

Questions: Do Fish and Game personnel ever attend
lectures?

11:45 AM Depart Molokai - Royal Hawaiian Cessna (210?)

Should contact Le Roy Molina concerning
1969 Halawa beach hawksbill nestings,
and possibly more recent ones that
have been suggested as occurring.

Send booklet - publication Bio. Cons. ->

Agreed to take one
diving at turtle locations.
↓

WHOLESALE _____ RETAIL _____ RENTALS

C & H SALES and RENTALS

P.O. Box 726 KAUNAKAKAI, HI 96748

TELEPHONE 553-5585

CLARENCE G. CHOW
PRESIDENT

- wife

HILARY G. CHOW
VICE-PRESIDENT

(8 kids total) - two in ^{pre-}dentistry; one ^{pre-}vet; building
a new house; raised ^{pre-}hatched Clarence once caught
~ 500 lbs turtle off of Kahaluu - tied it up.

6 August
1978
SUNDAY

In flight over N Lanai - Shipwreck beach, to Polihua, observed silt-turbid streaks along shoreline - strong trades blowing.

Talked to Richard Morita - former Lanai and Molokai FG warden.

He indicated -

1. 10 years ago people came from Maui regularly to take turtles - both for meat and shell, commercially. Liked to take small turtles for shell - sell for ~\$25 - more readily marketed than big ones for ~\$125.
2. Morita used to take turtles in nearshore waters off of Nanulei - 3-4 at a time sleeping, in cave; also seen feeding; they used to take a piece of net and surround turtles close to shore - cook in imu.
 "Turtles need to be dressed properly. - most people, including Hawaiians, no longer know how to do this. His technique is as follows:
 - a.) Butcher at beach and rinse meat in saltwater
 - b.) when butchering, be sure to cut around four glands (two by shoulders, one each side) - if these are cut in to bad smell will result which adversely affects taste of meat.
 Renjke Glands? what about Gall(?) as per Cayman info - by heart?
 - c.) Remove GI. tract - give to Philipinos who like to prefer eat it.

16 August
78
Sunday

d) remove fat from underside of gupper shell - he doesn't like taste of this; however, state that some people might;

e) put meat back in shell and cook in

Imu;
f) Meat is hung up until quivering stops.

Note that ^{front} muscles at joint just outside of body were cut to stop movement of limbs - prevent struggling.

Other places reported by R. Morita where turtles were seen

1. Shipwreck beach offshore (used to see many heads - now few)
2. Some off of Keomuku

Morita feels that all taking of turtles should stop - Doesn't believe statements that Hawaiian need turtle for food. No doubt in his mind that fewer are now present.

In afternoon, I walked over to Lanai School to photograph ceramic works by Kay Mura-Davidson that contains sea turtles. Tel. 565-6055.
Later proceeded to Ananias, to talk to Dorothy and Diane - they're feeling exist. due to Connally/Bobby affair with large turtle taken

without a permit.

6 August 78

SHE recommended seeing Stan Kekikawa at C.S.
SUNDAY WO about furniture discount.

Dinner^{at lodge} with Peter Connolly and wife Marie
He reported that archaeologists Rob
Hammond and Farley Watanabe were at
Kuloke Beach area (White Manele) a few
weeks ago - they saw a ~3' turtle offshore.

Talk took place at Lanai Library auditorium -
extremely well equipped. ~15 people present -
7 tourists. Norman people on island
not allowed to attend.

Ron discussed hard feelings concerning
aggregation fishing buoy ~10 miles off Lanai.
Markets reported to wait for big catch from
off it, would not take snappers from other
people taken closer to shore. ARTICLE in HAWAII
FISHING NEWS - APRIL 78, V2 N4.

Noted on bulletin board near post office -
"permit needed to take marine mammals -
by fishing gear entanglement, etc."
Apply to NMFS.

Connolly note on Kahoolawe - seen ^{Big} turtles
in bays of two deep valleys of South
shore - water is deep very close to shore.

TURTLE TAGGINGS MADE BY RON McOMBER
 (COPIED FROM SHEET RECEIVED 8/6/78)
 IN FILE

<u>DATE</u>	<u>TAG NO</u>	<u>MEASUREMENT</u>	<u>COMMENTS</u>
AUG. 8/6/77	1704	19 x 16	
AUG. 8/18/77	1193	18 x 16	CAUGHT - 1 STONE RELEASED - K-PAU
SEPT. 9/8/77	1703	19 x 16½	CAUGHT - 1 STONE RELEASED - K-PAU
NOV. 11/14/77	2426	18 x 15	Released K-PAU
JAN 1/4/78	2427	38 x 35	MALE - 214 lbs RELEASED BOAT HARBOR MANELE
JUNE 6/5/78	2428	17½ x 15½	Left of K-PAU - cage K-PAU HARBOR-RELEASED

7 August 78

Monday

Breakfast at Lodge - whistle blows at 4:30 AM and 6 AM.
 Rain. Drove to K-Pau harbor - no rain - talked
 to Robert and Ron. Robert reports that Japanese
 man who ^{came} to Lanai to train truck drivers has
 ~ 65' boat that he plans to take to
 Seeward Islands to lay linen lobster
 nets - pull up to retrieve, don't worry about
 tearing as they are cheap to mend.

Boat has been to K-Pau harbor on
 several occasions - Robert will find out
 name of boat and/or man: _____

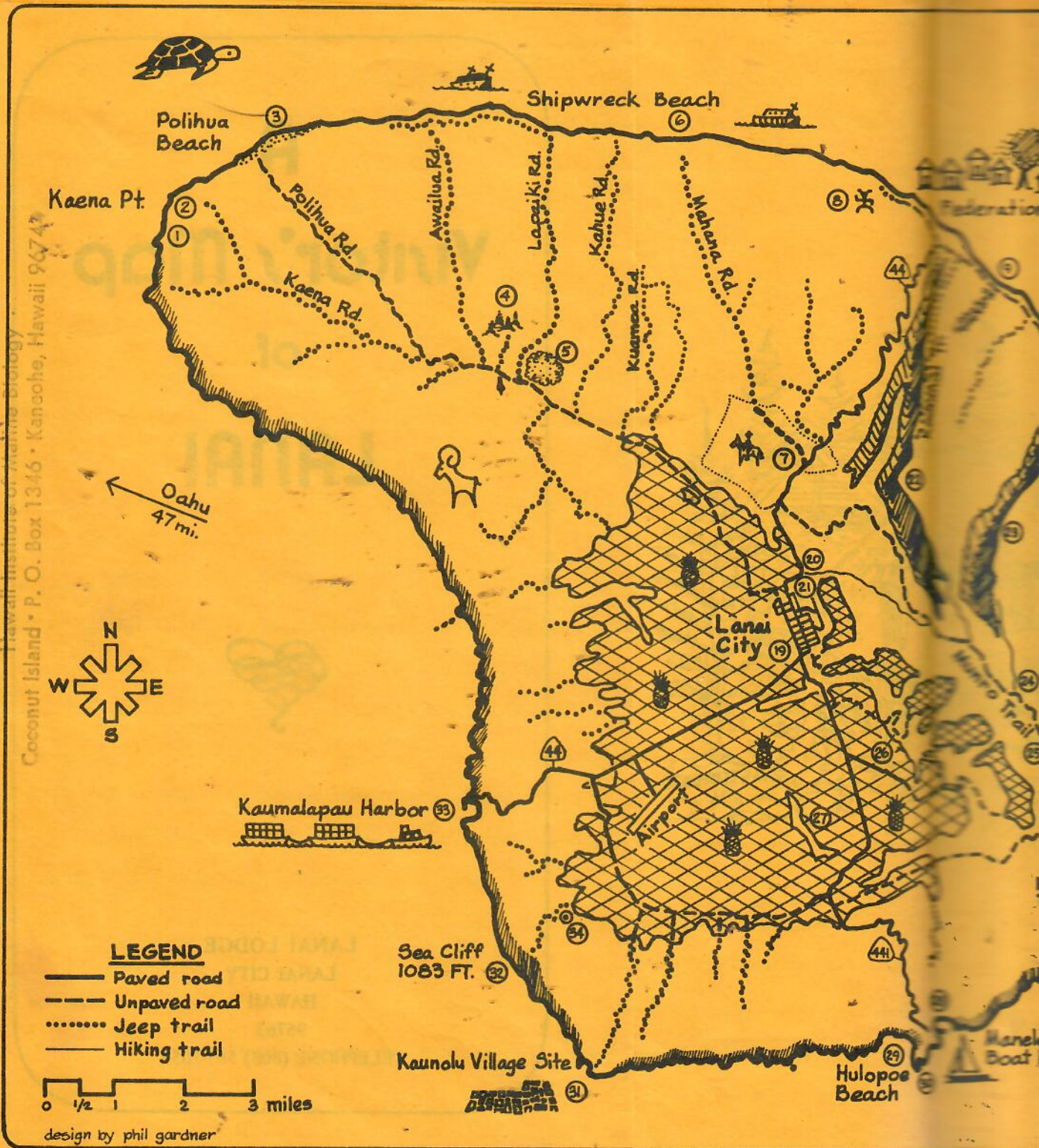
Richard Tamashiro's ~~son~~ son reports
 that father (67 years old) was a cabin
 boy (in his teens) on an inter-island(?)
 vessel that went to French Frigate
 Shoals.

Connally indicated that he and Albert
 would like to have a supply of tugs and
 pliers.

Dorothy drove me to airport - depart
 RHAS Cessna twin 402A at 12:30 AM
 for direct flight to Honolulu.

Arrive Honolulu, noted medium size
 juvenile ~ 200 yds off SW side of
 reef runway in ~ 20' water.

1 AM
 very hard
 to determine
 size



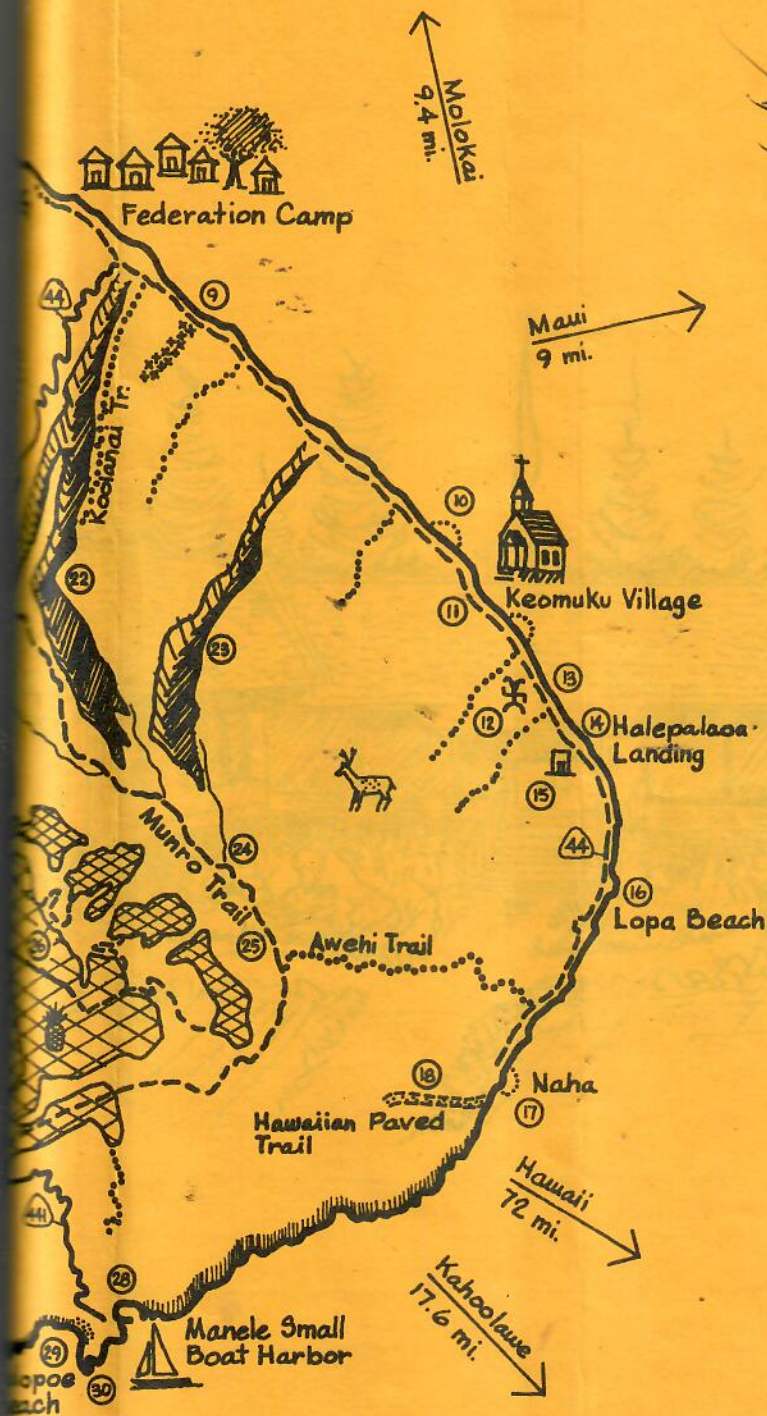
Island of Lanai

- PLACES OF INTEREST**
- ① Largest heiau on Lanai
 - ② 1837 exile colony for women
 - ③ Old breeding grounds of sea turtles
 - ④ Garden of the gods.
 - ⑤ Native dry land forest
 - ⑥ Beachcombing
 - ⑦ Riding club horse pastures
 - ⑧ Bird man of Lanai petroglyphs
 - ⑨ Coral ridge
 - ⑩ Hawaiian fish ponds
 - ⑪ Church, coconut grove, abandoned bldgs
 - ⑫ Maunaloa Sugar Co. site until 1901
 - ⑬ Kahua Heiau petroglyphs
 - ⑭ Japanese Monument
 - ⑮ Old landing used for shipping sugar cane
 - ⑯ Ruins of concrete building
 - ⑰ Beachcombing
 - ⑱ Hawaiian fish pond, house ruins
 - ⑲ Stone masonry trail paved by ancient Hawaiians
 - ⑳ Lanai Lodge
 - ㉑ Koala Park, photo history Dole Plantation
 - ㉒ Golf course, 9 holes free to the public
 - ㉓ Maunaloa Gulch. Island water supply is pumped from here. Closed to the public.
 - ㉔ Hauola Gulch. Over 2000 ft. deep.
 - ㉕ Lanaihale 3370 ft. elevation
 - ㉖ Munro Trail. Views of 5 islands
 - ㉗ Luaihua Petroglyphs
 - ㉘ Palawai Basin. Volcanic crater. Site of Lanai Mormon Colony 1861 to 1864.
 - ㉙ Public park, boat launching ramp and slips.
 - ㉚ Swimming, snorkeling, surfing, white sand beach.
 - ㉛ Sweetheart Rock. Hawaiian bird shrine.
 - ㉜ Historic landmark. Hawaiian village and Halulu Heiau used by King Kamehameha I
 - ㉝ Highest sea cliff on Lanai
 - ㉞ Commercial boat harbor
 - ㉟ FAA. OMNI radio
 - ㊱ Dole Pineapple plantation



PLACES OF INTEREST

- ① Largest heiau on Lanai
- ② 1837 exile colony for women
- ③ Old breeding grounds of sea turtles
- ④ Garden of the gods.
- ⑤ Native dry land forest
- ⑥ Beachcombing
- ⑦ Riding club horse pastures
- ⑧ Bird man of Lanai petroglyphs
- ⑨ Coral ridge
- ⑩ Hawaiian fish ponds
- ⑪ Church, coconut grove, abandoned bldgs. Maunalei Sugar Co. site until 1901
- ⑫ Kahea Heiau petroglyphs
- ⑬ Japanese Monument
- ⑭ Old landing used for shipping sugar cane
- ⑮ Ruins of concrete building
- ⑯ Beachcombing
- ⑰ Hawaiian fish pond, house ruins
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- ㉟ Dole Pineapple plantation



Island of Lanai

- TURTLE dissection from KAU 1/19/78 EXPEDITION -
 conducted 8/29/78 ^{at CI lab} NET MORTALITY
 Thawed and photoed - ASA 25 - by calipers

(S-39.4cm)

S- $15\frac{1}{2}$ x $12\frac{3}{4}$

C- $16\frac{1}{2}$ x $14\frac{5}{8}$

HEAD- $2\frac{1}{2}$

TAIL- $2\frac{7}{8}$

PL- $12\frac{1}{2}$

Weight - 19 lbs (spring scale) = 8.64 kg.

(match book found in mouth - used for resuscitation).

Small calcareous - on posterior of carapace.

Removal of plastron and internal organs revealed thick layer of fat on underside of carapace $\frac{1}{4}$ " thick. Fat layers on hind quarters and internal pocket above flippers 1" thick.

From exist of first stomach to end of G.I. tract measured 18".

Photos of 1st and 2nd stomach compartments with bright red alga Pterocladia -

Stomachs full, but intestine for some distance afterwards completely empty - then pockets (bulges) of bleached-out alga (pterocladia) thereafter - progressing to the consistency of feces.

Contents of 1st and 2nd stomach compartments preserved in one sample jar. Also, preserved several pockets of bleached-out alga found lower in ~~the~~ intestine.

should collect fresh pterocladia for drying and nutritional analyses -

(already collected 1/19/78 ex)

WEIGHTS -

Heart -	81g		
Liver -	327		
Kidneys -	63		
Lungs -	115		
FAT (internal, underside of carapace & hind)	-	433g	
Plastron -	526		
Carapace -	890		
Head & neck -	581		
RF quarter -	942	Trimmed flesh -	671g 71.2%
LF quarter -	949	Trimmed flesh -	736g 77.6%
Hind quarters -	660	Trimmed flesh -	184g 27.9%
			1591 ^{kg} 18.4% flesh

G.I. (stomach + intestines + contents)	-	1412g	
Intestines (minus contents)	-	1081 313	
Contents of intestines	-	735	
Stomachs (1st & 2nd) (minus contents)	-	98	
Contents of stomachs	-	176	

Noted on ventral surfaces of kidneys tissue structures that may be gonads - viewed under microscope - sampled preserved in formalin in small vial.

All major bones, carapace/PL cleaned and retained.

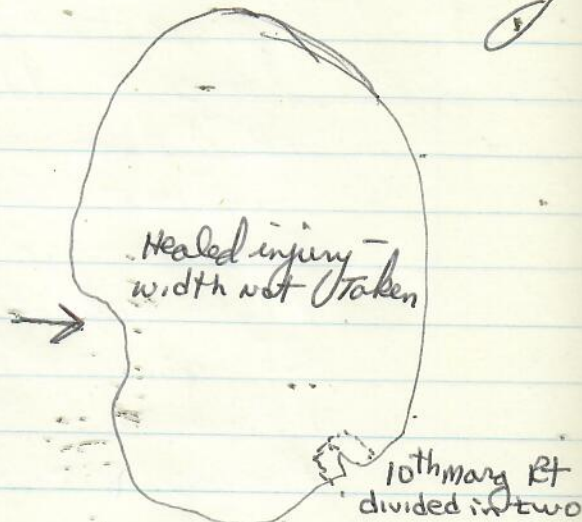
②

- Turtle dissection from Kau 7/19/78 expedition
 conducted 9/11/78 and 10/17/78 (by Kam) -
 Photos taken - Ranaia net mortality.

S - $20 \frac{5}{8}$ C - $22 \frac{3}{8}$ HEAD - $3 \frac{1}{8}$ TAIL - $5 \frac{3}{8}$

PL -

Weight - 48 lbs =
 21.8 kg



skin barnacles present (small diameter); PL has
 small indentation "pock" marks.

WEIGHTS -

HEART - > 903

LIVER -

KIDNEYS - NT

LUNGS - NT

FAT -

818 from carapace only

PLASTON - 1208

CARAPACE 3168 w/FAT ; 2350 w/o FAT

HEAD & NECK - 1553

RF quarter - 2899 Trimmed Flesh - 1840 63.5%

LF quarter - 3106 Trimmed Flesh - 2049 66%

Hindquarters - 2384 Trimmed Flesh - 932 39.1

4821 kg =

22%
flesh

GI (stomach + intestines + contents) - 5326g

Intestines (minus contents) -

Contents of intestines -

Stomachs (1st & 2nd) (minus contents) -

Contents of Stomachs -

All major bone, carapace/ph cleaned and retained.

ADULT FEMALE - AMARAL
MORTALITY

12 Dec 78 Examined and dissected GI-organs of
 " 38 inch" turtle captured by Bobby
 Amaral - reported to me by Peter J
 Connally on 10 OCTOBER 78. Picked up
 from Philly's McOmber by Kam on
 11 Dec 78. Frozen solid!

TOTAL WEIGHT - 26 lbs hanging scale
 included heart, ova, kidney, one lobe
 of liver; gall bladder (green sac - fluid
 on liver), lungs, pieces of
 yellow and green fat (fat of each
 retained), GI tract (may not be full
 length).

HEART WEIGHT - 240 grams

DIAMETER OF TRACHEA - 21 mm

INTESTINES LENGTH, from Second STOMACH - 26'

WEIGHT OF THIS ↑ LENGTH - 16 lbs

LENGTH OF FIRST STOMACH - 12"

LENGTH OF SECOND STOMACH - 21"

WEIGHT OF FIRST AND SECOND STOMACHES - 4.5

EMPTY ↑ - 2 lbs

Note that stomach and GI were not
 very full.

Yellow fat associated with mesenteries,
 heart and stomach.

FIRST STOMACH - Halophifa,
 Sargassum(?), red filaments,
 non-filament line, jellyfish(?)

SECOND stomach - some plastic and algae
 samples saved from each of the
 above.

Stomachs preserved in large jars.

Bisected intestines and found many
 plastic bags - however, "boluses" appear
 to be passing without causing
 harm.

Questions - Date and location of capture

- Activity of turtle

- tags ?

- injuries, weak ? condition ?

Letter subsequently sent - but ~~no~~ response -
 Amoral killed in traffic accident on Lanai June 1979.

ORIGINAL call from Connally about this turtle
received on 6/13/79

101

13 July 79 Telephone call from Peter Connally
Friday indicating that ~ 2' turtle he picked up on
beach is still in freezer. This was found washed
up on beach - no spear holes evident.

He reports that last Tuesday a
Hawaiian man, saw ~ 100 23" turtles
close to shore (near his kuleana) south
of old Keopuka Village - near "whales tale"
sign. The only white sand beach
nearby ^(to the south) is Star's house. Goes off
property - see my aerial photos. Report
that white sand extends for about
one mile to the south. According to
informant, ^{small} turtles were seen near
large turtle. Connally believes him
to be a reliable witness. Near
Whales tale sign, there is mainly
black sand - silty mud.

6 AUGUST 79 Kam picked up Connally's turtle
at Royal Hawaiian - \$7 freight charge.

Dissection and measurements on following
page -

Connally - OFFICE 565-6688
HOME 565-6242

1979 CONNALLY LANAI RECOVERY

7 AUG 1979 DISSECTION - Photos w/EZLW using
BRONZE CALIPERS FOR SIZE REFERENCE.
C/RATIO - 1.18

S - $17\frac{1}{4}$ x $13\frac{3}{8}$
43.8 cm 34.0

C - $18\frac{1}{4}$ x $15\frac{3}{4}$
46.4 cm 40 cm

PL - $13\frac{7}{8}$ (35.2 cm)

HEAD -

TAIL - $3\frac{1}{2}$ (8.9 cm)

Animal shows mild flaking,
decomposition of skin, No external
signs of injuries that may have
caused death. WEIGHT - 26 lbs
(11.8 kg)

Contents of two stomach sections
saved - appears to be mostly
Pterocladia.
Small Gonads present - appears to be eggs.

GI tract is thin & fragile - from
decomposition. No internal signs of
abnormalities -

Analysis: Possible drowning - net mortality (?)

All bones, plastron and carapace will be cleaned and retained.

Turtle sent
 forger - Royal
 Hawaiian
 Aug 79

P.O. Box 318
 Lanai City, HI 97873

Dear George,

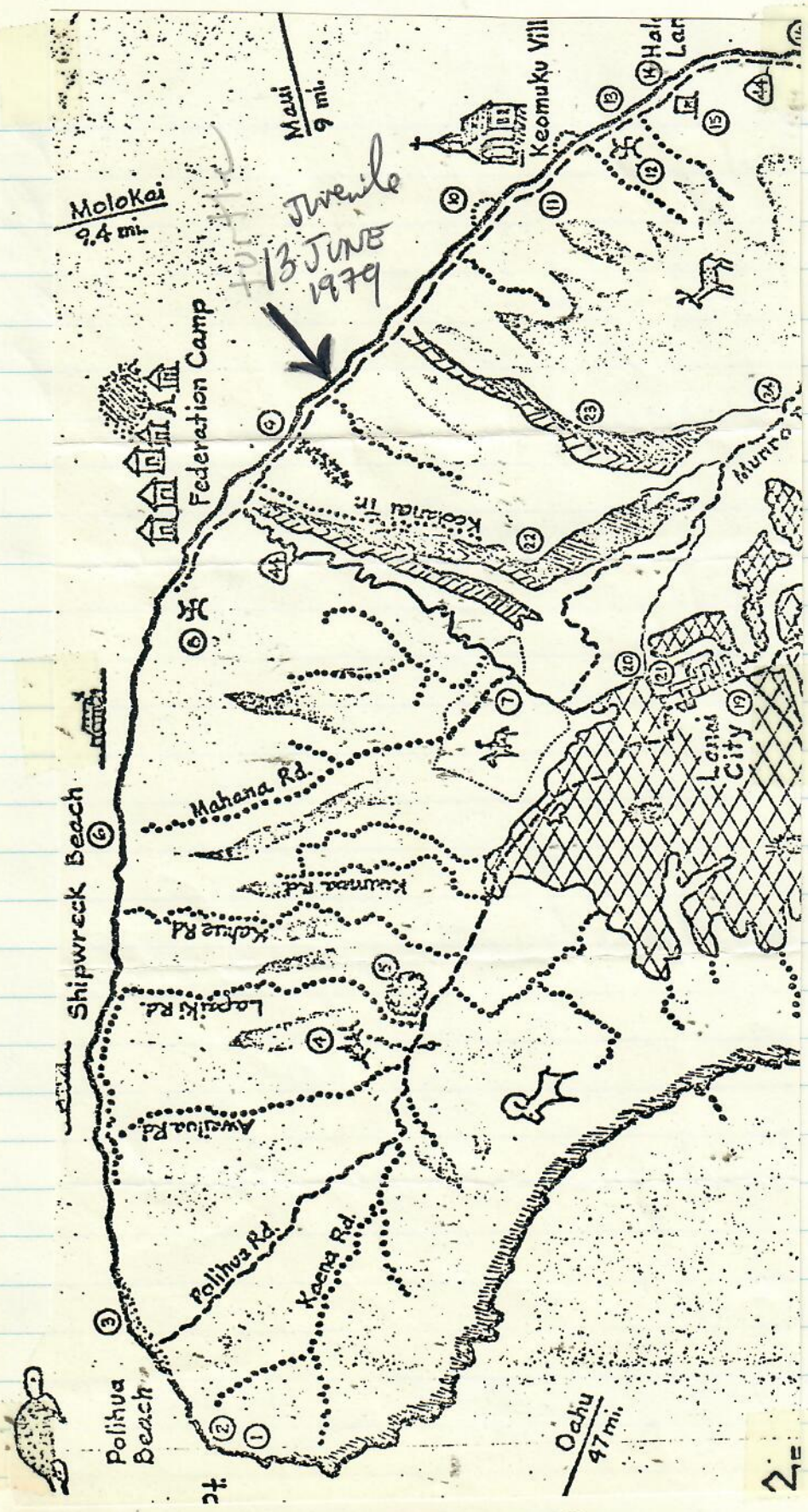
Thankx for the neat imblems. Yes, a letter of some sort to Maurice Matsuzaki, Hnl office, Div Conservation & Resource Enforcement, would be most helpful in enabling us to continue to get involved in such projects. You might state that we have done this in the past with the approval of previous division heads and hope that this cooperation can continue.

The turtle was found on it's back at the high wash of the waves on June 13, 1979 at 8:00 am. Location noted on attached map. Beach is a mud beach composed mostly of run off from nearby eroded areas. Many brackish water seeps along the beach in this area. Inside the beach which ends at the high tide level was a small growth of Ipomea-Pohuehue. Then Keawe growth densely till ca 800'. Between the beach and the fringe reef there is a lot of silting and dead coral. But in some places there are pockets of healthy coral growths. Fishlife is abundant all over this area.

Good luck in your work and hope to see you soone.

Aloha,

Pete G.
 Peter Connally



NE

8-24-81

Telephone call from Peter
Connally - speared turtle
confiscated at Hauola (before
Keomuku) - measured 27"
straight carapace - weighed ~ 75 lbs.

2532

tagged and released at
Hulopoe Bay.

See Savai Folder for map
and other information.

PHOTO LOG

<u>ROLL NO.</u>	<u>DATE</u>	<u>DESCRIPTION</u>
#1 - 2 copies of L.A. Return from Midway	8/5/78	Molokai - HALAWA VALLEY BEACH
	8/6	LANAI - Ceramic turtle at school; Large MANTIS of POK.

LIBRARY OF
GEORGE H. BALAZS

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