

BALAZS
1979

2 of 2

BALAZS - DAILY LOG 1/23/79 - 12/28/79

9 JULY 79
Monday

Big medium size patch of Halophila
by hikipuna dock - very low
tide. Kam collected quantity,
and I fed it to captive greens,
that had not eaten this weekend.

Halophila - 4 of six ate it readily
(largest 2 Tuamotu did not)

Gracilaria - all ate it

Acanthopora - all ate it.

[Tuamotu ate the least of all 3 species]
7/10/79 photos taken of Halophila.

10 July 79
Tuesday

Talked to Silverstein at D.O.W.
office: (202) 659-9510

called
12 July 79
Thursday

(904) 392-1721 - Wayne King Director
Florida State Museum

charge to HIMB-lab.
"In heated debate -
Two issues stated by me:
1.) Reception by conservationists,
as well as adversaries;
2.) Carefully handle Suarez-
Mittig Debate.

ENTER IN
LANAI Book done

13 JULY 79

FRIDAY

Telephone call from Peter Conolly -
2' turtle is still in his freezer -
found washed up on the beach - no
spear holes, evident.

Report that last Tuesday a
Hawaiian man saw ~ 100 2-3"
turtles close to shore (near his
Kuleana) South of old Keo Moku
Village, near Whales Tale sign.

Only "white sand beach" nearby
(to the south) is Star's house -
property (see my aerial photos) (Joe's
old homestead). According to informant,
turtles were seen near a large
turtle. Conolly believes him to be a
reliable witness. Near Whales-Tale
sign there is mainly black sand -
silty mud.

13 JULY 79

FRIDAY

FWA (213) 457-7895

Telephoned me at home about writing
a piece on FFS for the Honolulu
newspapers.

* Streeter request for photos 59
But WHY ID if they are all listed??

18 JULY 79 Talked to Bob Justman who
Wed. said FFS had some vandalism -
see 1979 FFS Book.

19 JULY 79
Thursday Recovered Bellows Torso turtle
(see other book)

SUNDAY
7/22/79

285
26

→ call Silverstein - need minutes/results
of meeting!
→ Carr telephone call topics (904) 466-3231

- * 1. My letter accepting his charge suggestions
in Group
2. 12 JULY meeting - how it went?
Why not Hirth at World Conference?
3. Steven Strong's inquiry?
- * 4. Retain integrity of Group at Shomura
meeting
- * 5. All other at meeting very unacquainted
with turtle biology - and literature -
serious status worldwide of turtles
6. Schuly high rating on proposal
- ? 7. How's Peter (going to act at
this meeting?)
8. Satellite?
- * 9. We need to tell Shomura ^{knowers} JUSTIFY
10. C/S PATIO
11. Hotel ?? Travel - when arrive; overflight
12. Ask opinions
- * 13. Hirth didn't take contract Are we?

Presentation

Short

called
Peter

22 July 77
SUNDAY

Britchard - Oviedo, Florida
(305) 365-6347

- (get) runway built near Chelonia beach in Mexico
- Don Ekberg back in the picture
- "Don't count turtles caught in
"Purse Seines" NMFS
- "98% of ridleys occur within
100 miles of shore" - Britchard

out pennis
purseel

"Clean" juveniles - free of algae
and skin burracles -

WHAT DOES THIS MEAN??

open ocean existence? ^{no} algae
grows on turtles out there?
or it grows, but some eat
it off?

or physiological
mechanism to get rid of it?

→ 947-4082

21 JULY 79 Call from Ed Shyllenberger -
 a Dee Dee Horn of the Drykai
 called SL Park reporting that she
 has ~~to~~ seen a turtle in the
 Ala Wai for the last 4 days.
 Looked over area on 8/1/79 -
 murky water - no turtle seen

23 JULY 79 Talked to Bruce Carlson at
 Monday the Waikiki Aquarium -
 Small "confiscated" hawksbill
 are in bad condition - bitten
 Some have died. Greg ENOS has
 been caring for them.
 Also - a green was donated
 to the aquarium, anonymously -
 was in bathtub in man's
 backyard for ~ 1 year.

Terry Moore was at Canton
 last month - during night dive he
 saw a 3-4' leatherback ~ 5' off
 the bottom - just swam by.
 Corroborated by dive partner.

ENTER IN
 CANTON
 BOOK

25 JULY
 79
 Tuesday

3 JULY
 79

26 JULY 79
 Thursday
Rene Grandperrin SPC Seminar
 (meeting with Slompa afterwards)
 Spigack logging project
 \$2.00 reward for tag + "Advertisement" T-shirt

27 JULY 79
 Today
Rene Grandperrin visited HMB

Notes
for presentation
at Shomura
meeting

→ cultural &
legendary

HAWKSBILL

Small aggregations along the Puna
and Kaula districts of the Big Is.
Nesting - east end of Molo Kai

Punaluu, Kaula, Kanehane,
near Palapana

Very little known - subadult in
Billnet - Kanehane Bay - 3 birds spores

LEATHERBACK

Regular sightings

Waiaha Coast, Kaula, Penguin banks

are killed are swimming 400 lbs.
Albacore boats seeing them 40° at distance
Ship collecting with

'Itinerant'

LOGGERHEAD

In Tiger at Kaula
& Penguin Bank Feb 78

RIDLEY

Kahuku

- Archipelago overview
 - Studies and Results at Breeding colony
 - studies and results in feeding posts
- main's
&
sewards

Introductory Remarks - (slow)

1. Everything I will say, and more, will appear in ^{Document} Synopsis - containing 669 (1/2 completed) literature references dealing with Hawaiian sea turtles
 → will be available through courtesy of Sherman Ewa², E.R.

2. Briefly describe Hawk, leatherback, and uncommon visitors -

→ then go into some detail

Chelonia
 Greens constitute the majority of Hawaii's sea turtles

* → HISTORY OF SEA TURTLE RESEARCH IN HAWAII - Turn to report page then to p 68

I. Overview of Archipelago - Habitat
 - Statistics on chain

II. Breeding

A. Former in majors - LANAI - AT LEAST LOW LEVEL OTHER PLACES

B. FFS - 90% rest on up chain
 Statistics of FFS

~ 55% EAST 35% W-S

BASKING - ALL YEAR - MANY ADULTS RESIDENT

SEASONALITY OF BREEDING

Copulation - ^{can} mid April - June

C. Nesting - 10% - 0
 No. clutches - 40% - 1
 26% - 2
 15% - 3

MIGRATIONS - tag recoveries
 Nest Productivity & Hatchlings

Reproductive Cycles - 2 years - 14
 3 years - 6
 6 years - 1

1973	7%	of tag thus far recovered
1974	2%	
1975	3%	
1976	7%	
1977	25%	

Activities -

- HIMB excursion
- Bellows
- No Shore

- Break in talk
- Identify key slides for information presentation

Eggs $\bar{x} = 104$, 38-145

71% emergence
 6% hatched but dead
 12% partial
 11% no development

INCUBATION $\bar{x} = 64.5$, 54-80
 depth $\bar{x} = 60$, 43-81

GROWTH OF JUVENILE -
 MATURITY -
 / AGING OF BONE MATERIAL

OVERVIEW of

SLIDE → ARCHIPELAGO

2450 km $19^{\circ}N$ $155^{\circ}W$ $28^{\circ}N$ $178^{\circ}W$
 8 main islands - 99% LAND - $16,650 \text{ km}^2$
 1% leeward of NHT - HINWR
 Coastline 1165 km - 96%
 1210 total
 Coastal shelf - 20 F - few kms
 100F in leeward - Bank 16000 km
 Johnston 820 km 18°
 Wake 1550 km 19° $165^{\circ}E$

SLIDE → FFS - Seawater $24-28^{\circ}C$
 90% breeding -
 Remainder to the NW
 35% EAST 35% W-S

SLIDE → BASKING

Most AT FFS - all year round
 residents

Ratio: 1.28 to 1.17 - 1.44
 - color -

SLIDE →

♀ Underwater

Seasonality -

Numbers increase early April -
 Copulation

SLIDE → ♀ NESTER ASHORE
 mid-May
 substrate composition
 Painted number

SLIDE → ♀ LAYING -
 Min - 81 cm
 mean - 92 cm 81 - 106 cm
 mature females

SLIDE → ♀ Returning to water
 most seen 6 clutches 13 days; 11-18 days
 Mean = 2 interesting interval
 40% = 1
 26% = 2
 15% = 3
 10% = 0 - neophyte; eggs in H₂O; shark?
 few charge islands (< 5%).

104 eggs mean 38 - 145 range
 60 cm depth (48 - 74 cm)
 (P < .05 for SIZE OF FEMALE)

40% - 60% success rate per night

SLIDE → East Island
220 nests in 1974

32% same area (50m)
60% same or adjacent
83% same side
Some very specific - 2 laid each
same area
1 laid 6x (1-6 alternate)
5 - 1.5 - 3.5m re-nest

SLIDE → Numbers nesting Bar Graph
(25-30,000 hatchlings)

SLIDE → Migrations Chart ^{LONG} DISTANCE
add two: 1) Oahu → 2) Kauai
At PFS; since 1973
456 - 21 recoveries

1973 - 79%	14 - 2 year
1974 - 29%	6 - 3 year
1975 - 39%	1 - 6 year
INCONEL 1976 - 29%	
→ 1977 - 25%	

SLIDE → ME w/ Nest collapse
 INCUBATION -
 64 DAYS 54-88

SLIDE → RESULTS OF NEST EXCAVATION

71% emergence
 6% hatched but dead
 11% partial
 12% No apparent development

→ $P < .05$ for less emergence as season progresses

SLIDE → ARCHIPELAGO - (Break?)
 Dispersal of hatchlings -
 immatures
 - juveniles 35cm and greater
 Toggling and other studies in
 resident (feeding & resting areas)

SLIDE → Black - following "food table"

+ BONE
 ASING

Turn to Table ⑤ - Growth rates -
 read off rates - and projected years
 TIME - LOCATIONS

STOMURA
NMFS MEETING

31 July 79 TUESDAY

→ Iversen - compilation of Endangered Species amendments
Get from USFWS

Citizen suits - to apply prohibition sections

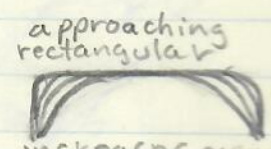
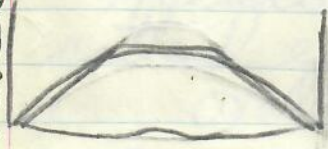
- TT - ^{YAP, TRUK, PONAPE} Federated states of Micronesia
- Palau District
- Marshall
- Commonwealth - N. Mariana - separate 8 Jan 1978

same laws as Guam

* If all domes are the same, ratio is valid.

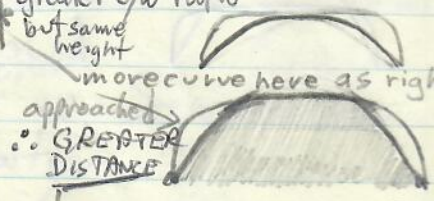


uniform type of dome



approaching rectangular
increases curved measurement

* greater c/w ratio but same height



more curve here as right angle
approached
∴ GREATER DISTANCE
↑ same height

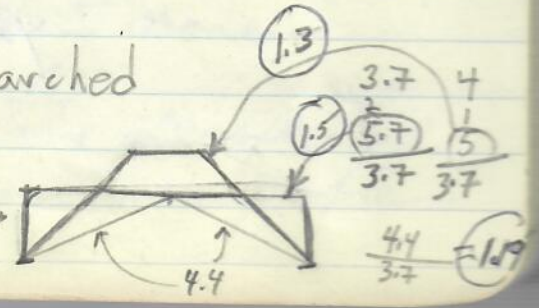
[a curved line is longer than a straight line]
FOR THE SAME STRAIGHT WIDTH, a greater ratio will be present as the extent of "flat top" increases.

height of carapace from marginals.

thickness of carapace - domed
from marginals. - highly arched

NOTE: KRIDLER'S THICKNESS MEASUREMENTS

This is a "steep side"



"SHEAR LINES"ⁿ Hendrickson
suggested looking there for small
turtles.

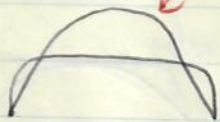
Two different types of water come together? →

1 August
79

Mike
McCoy
information *

FROM MIKE MCCOY
Shark layline fish shallower
than tuna layline.

TAIWAN
Red pajama divers - shells,
clams, corals Taiwan
boats - 6 months long
drifting with equatorial current
about to passage - then North
to current system.



could these two configurations
have the same C/W ratio?
or thicker turtle a smaller
ratio than thinner??
yes - flat top could have a
greater ratio.

SAMOA — BILL Pedro

Tongan fishermen
 4 released from market. jewelry airport?
 → one had mark earrings for themselves
 on left side. From Western Samoa?

Most of beaches occupied —
 not many breeding sites.

Rose Atoll — Survey by Marine Resources —
 150 miles from Tutuila once a month

Hawksbill — common in main islands.

210^{miles} NW Swains — July August

He was there in 1963 — people
 gather eggs.

oval egg — look at through
 sun — tell it would come
 back in 7 days — a green.

→ Elij Gemming owner — Swains

Matai — Chiefs — none.

— Not a long enough time perspective
 to realize they have a problem.

* "Take every turtle and egg" but
 Takes a long time to empty
the pipeline"

Rose Atoll -
 Dick Wass has seen
 nesting. Will arrange for
 me to go Rose Atoll

Presentation by Pritchard

Galapagos. 99% ^{crabs}; 1% Hawk
 Widespread -
 nest on all islands where
 there are beaches

→ 76 ^{one night}
 MAXIMUM Jan - March
 Costa Rica - 11 recoveries
 Central Peru -
 (Long distance recoveries)

Melanesia - leatherbacks -
 little site fifty - black
 beaches

Look in my SPC book for report
 on "was nesting" island
 in South Pacific

Slides by Pritchard of Kemp's project
 & Eschobilla

sprints
 of growth?

Carr

* Photos of comic book from Mexico 77

Resident habitat

- 1) teacup size never seen
- 2) many years ago he caught 8" Stultes sun gill nets - not any more -

12" algae ^{eat} not thalassia - edge of reef

Numbers of recoveries at the ends of each arrow

- The Turtle People - get ^{for} Noumea

[change of Movel during Vietnam wars
Bridge got thinner - as per Carr]

→ Energy ^{BASKING} conserving FFS

catching Juveniles - Erhart - mosquito lagoon
 Limpus - GB reef
 Bermuda - Dr. Frick - also some tag
 Carr - FLORIDA - Cedar Key paper

Public relations campaigns

→ Skin Diver Magazine - pick up at
Hamilton #

- new
if here
please
with
- ① Kajihara & Uetake 1974 ^{abstract sent 8/4/79}
Hermatid and pedicellid of *Paratriton* in
southeast Asia. Jap. J. Herp.
5(3): 48-56
- ✓ ② Kajihara, Uetake, & Takano 1974
egg-laying season of *Paratriton*
in Melanesia
Jap. J. Herp. 5(3): 57-58
- ③ Nishimura & Hara 1967
Stotus Caretta, *Lophochelys* in Jap waters
Acta Herpet. Japan 2: 31-35

request into
wiki
Dr. f.

^{respond to}
 Letter to - ~~sent~~
 → Cooks - Turtle workshop
 come and see me at it
Palmerston - Penryn
 Reply to Fisheries officer

→ Indian fellow's address - ^{sent to} _{Carri}
 Pritchard
 8/4/79

Intermediate size really not known,
 according to Pritchard (size in photo in his MICRONESIA Turtle Book)
 Carri -

Japonica - must go to nest
 name

Hawaii differs from Agasszi

Request into write to Herkes - Burnett

Dr. Erick - Bermuda - turtle net
 and sonic tracking

80

Send →
(2) Ploastron section UNK
humerus section UNK
Femur section UNK

Captive 1414 →
(2) Ploastron
humerus
midway → Ploastron
humerus

Turtle Bones to Tim Smith:

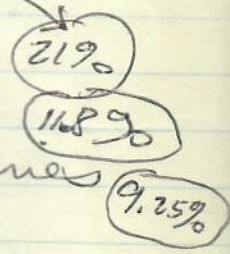
Should send
8 Total
Catch in number?
SEND in
THREE
GLASS
VIALS
VEROX
Bones

P.O. Box 271
La Jolla, California 92038

AS OF 1976:
ARCHIE CARR
TORTUGUERO

12,000 tagged
2,522 seen again
1,412 Remigrants
1,110 distant recoveries

what happened to the other 79%?



REWARD

Measurement of height as per Carr:
"Take thickness and divide into length"

MASSIVE
MASSIVE

3 AUGUST 79
Dinner at our house
Carr, Hirth, Pritchard
and McCoy

August
1979
2017

DISSECTION

Mid June 1979 (see page 53)

3 AUGUST
1979
FRIDAY

HAWAII-KAI mortality found by Justin Rutka

548-2885

Would like
Shell returned

(S) 18 3/8 x 14 3/8

(C) 19 1/2 x 17 1/8

PL 15 1/8

HEAD 2 3/4

TAIL 3 3/4

WEIGHT 32 lbs.

Polysiphonic on skin, heavy amt.

Right front flipper (mid-humerus) - appears damage from fishing line, surface rubbing skin barnacles - on hind quarter (a few)

* Photographs taken ELW

measurement of intestines 25 feet

" " 1st stomach 6"

" " Second section 18" * ambiguous

① 1st stomach sample saved ② 2nd saved

③ + 2-3' down intestine

Gonads (small eggs) saved.

First 1-2' of small intestine mucosa is black (decomposing) - pieces of tissue shedding off.

sent 8/8/79
to Carr:

Self-assigned duties as
Deputy Chairman
IUCN/SSC Marine Turtle Group

1. Provide information to Chairman
(2 other Group members) - include note
(correspondence) "complements of"
2. Make recommendations -
take action through correspondence
(with Chairman's approval)
3. Accept assignments from Chairman
This + others typed out and sent to Carr.

4 AUGUST ^{received}
79 \$893

check no.
000364 BOA
Kailua Beach

→ Manta Corporation

need to
call

Hawaiian Tuna Packers - Puffenberger
vessel ~~ANA~~ - turtle photos
Pursuit 536-4961

mid-September

6 AUG
79

Jim Juvic's contact while in Hilo:
Hilo - Donald Romero
NOHOANA ST.

Sean McKeown - 200-96815

→ Send him the Rekko slide taken at Nihoa

→ Get out digestion reference books.

→ [SEA GRANT PROPOSAL FOR MAJOR IS. FEEDING PASTURE]

Peter Connally - 1-565-6242

charge lab HIMB

office - 565-6688

6 AUGUST

79

Kam picked up turtle at Royal Hawaiian. Present by Peter Connally from Lanai.

from Phil Helfrich

7 August 79
TUESDAY

one tag? 5 August 79 Steve Sunday
2937 tag - Steve Ritterbush
Recovery Report

7 AUG 79
TUESDAY

u
Belows - public side
bad gash - crushed shell
found dead on beach - decomposing
Described as hawksbill - 6-8 years old.
I contacted Sgt. Tubbs - he had heard
of this, but none of his men saw it.
Team surveyed beach this afternoon,
from study area South to new
open beach - no sign of turtle

2937, ^{in PC} 2935, 2936 S-21 1/4 x 16 3/4
tagged 9/14/78 Jetty #1

7 Aug 79
Wey - 537-6311

7 AUG 79
TUESDAY

Photos and Dissected
LANAI Turtle AUGUST 1979 - sent on
 Royal Hawaiian AIR by Peter Connally -
 found June 1979
 (S) $17\frac{1}{4} \times 13\frac{3}{8}$
 (C) $18\frac{1}{4} \times 15\frac{3}{4}$
 PL $13\frac{7}{8}$
 HEAD $7\frac{3}{4}$ " ← ?
 TAIL $3\frac{1}{2}$
 WEIGHT 26 lbs.

Partially decomposed -
 Contents of two stomachs saved.
 Gonads are small - appear to be eggs
 All bones will be extracted and saved -
 also plastron & carapace.

(also this date - cut open and weighed frozen
 stomachs from Bellow's tortoise -
 predominant sponges in 1st stomach;
 only algae in 2nd stomach.)

7 Aug 79

Telephone call from Archie Carr
 in Oregon concerning Tortuguero Park.
 Request sending telegram to Lic. Rigardo
 Cabayo Odio - President - veto Bill -

RCA-539-2521

WJ -

537-6311

8 AUGUST 1979

2051 carapace & plastron photos
 # 19, 20 20EXP.
 + # 1-5 new 20EXP. Roll

* HAWAII-KAI mortality (found by J. Rutka)

FRONT FLIPPERS

total wt. (RFL)	1833.5 g
tissue	1283.0 g
bone + skin	516.0 g

total wt. (LFL)	1911.5 g
tissue	1340.0 g
bone + skin	560.0 g

HIND QUARTER

total wt.	1092.5 g
tissue	241.5 g
bone, tail, skin	843.5 g

also - small pieces of plastic found in stomach contents of this turtle.

2 August
 12:30-1 PM

Names for MONT SEAL BIBLIOGRAPHY

- Shomura
- Coggelshall
- A. Johnson
- C. Fiscus
- K. Ego
- Craven's office
- Navy
- K. Ronald
- Kenyon
- MME
- Clayton Ray
- WWF - D.C.
- DeLong

12 August

12:30-1 PMJustin Rutka in Blue water

floating piece of lumber

about 1 mile out → 20" turtle
floating right under lumber

- Blue Water Marine Lab cruise -

AUGUST
1979 Kam mentioned 10-15 turtle
shells displayed on house
along Lanikai Beach.
Richard
Makua?

Recall - small turtle at SLP
turned in some time ago -
wrapped in fishline - thin
plastron - died but shell
was stolen from freezer.

Legal
AD 536-4302 EXT. 250 [536-4306-07]
Society

Cynthia Thielsen 521-
Suite 1100 3491
130 Merchant Street
Honolulu, HI 96813

8/22/79 - Call from Silverstein

8/23 Call from King - not in -
904-392-1721

21 August

Steve Smith
looked at sample
from W-5

Porolithon - coralline red algae
Turbo shell

coralline algae scoring pieces of coral

porites - Pocillopora

seful { Mollusc fragments (+ snail whole)
 { Coralline algae
 { Foram

→ \$100,000 - R. Shomura - Seattle Team
 call him

Bob Kimsey - article by
WOODWARD on Shearlines

Bill Cooke -
(Edmondson article on
Portunid crabs washing ashore

8/22/79 → Schwenstein Telephoned

Call from Wayne King

→ Pritchard - set up meeting in Mexico with Suarez

→ Toward end

→ 25 September
→ Mexico City

800 228-5151

24 September 79 Western 946-7711

\$476.00

BUY BEFORE
12 Sept. 79

→ PASSPORT

→ TOURIST CARD
PASSPORT

F1562

8:45 AM

4:50 PM

F1637

6:00 PM

10:25 PM

8/24/79 Called

Reynard and -

Division of State Parks
PO Box 621
Hono, HI 96809
Alm 10-31-79

Bill Goetz - Parks Dept.
Project Coordinator

have reprinted

548-7455

ESA - now listed

Should send him:

- ① Bio. Con.
- ② Kahoolawe/Hab
- ③ Hens. and Hab

LAYSAN IS.

Call - 546-5608

(Sat
crosspoint)~~Dan Moulton~~ - Ducksonly
seen6-8 → all the ones saw
1 small 20-21"

leaves wed.

(at NE point)

Eric Knudsen

Maura Naughton

Seabirds

8/24/79

FRIDAY

NIGHT

sent assortment

LUCINDA TRAVIS

1681 East Hawthorne Street

Ontario, CA 91764

Works for PR Division of
Mexican Fisheries Department
- send Cahill article by 2 sept -

Dan Moulton

Univ. Minn.

Dept. Entomology, Fish & Wild.

St Paul, Minn. 55108

ALAN KAM Narrative5 SEPTEMBER 1979 - Survey of BAFS

0800 - enter BAFS and begin observations
at second rock groin (by Sherwood forest)

Tide is low, beginning to rise to high (1200)

Rock groin (Kailua side) predominantly covered
by Ulva while other side appears to be
something else (Sargassum?)

1 hour observation - No turtles sighted

Proceeded to walk to other groin, Beach
heavily used by military amphibians (6-8)

Turtle 'deposits' collected, both fresh
and drier ones = 50-75 count.

Arrived at first study area (cottages).
Water flowing from river mouth exceptionally
green in color, also quite distinct line
of mangrove seed pods in ocean. 1 turtle
observed to right side of groin,
quick breath, dive, eat 40+ lbs, silty
covering of carapace, did not reappear.

2nd turtle sighted in same area - smaller
quick breath and dive. No other turtle
sightings in area, Much baitfish in water.

Algae collected from rocks (10+ types)

Returned to second rock groin, stayed
1/2 hour - nothing sighted, tide rising.

Picked up truck and went back to first
study area. 4 fishermen - not catching fish.

No turtles sighted, Travel to Coconut Is.
to chop algae + turtle deposits. 1400

9/7/79

9/7/79

Call from Dr. Emory
 about Necker P. book. Anthropology Dept.
 at OH is interested in an expedition.

PRITCHARD

→ (305) 365-6347

Mexico

- info

RETURN DATE
RESERVATION

- JET Airport

→ Tom Garnett

- cow TRACT maps

→ Laura
Torgley

→ call again at 9:15

→ Felger

→ Jack Frajier ←

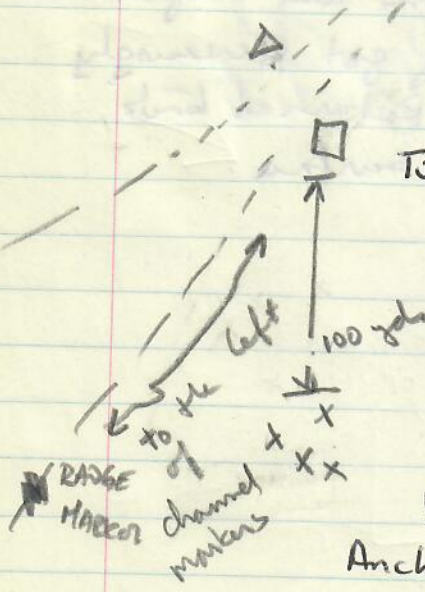
Working on Bone aging -
→ needs to write for newsletterworking
on Charlie Fuss -[Sea Turtle Meat -
CasePritchard will bring back
turtle for I.D.

KAM Survey

10 SEPTEMBER 1979

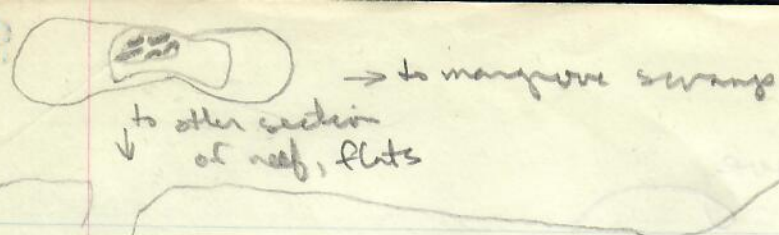
0900 Visit 'Checker Reef' to sample Spyridia and Ahnfeltia on SE portion of reef. There is a lot of Acanthophora + Dictyosphaeria. Picked up some fragile, fine textured algae that look to me to be what I wanted. Proceeded to the north end of the bay to look for the 'cave' by Chinaman's Hat (Mokolii Is.)

MOKOLII IS.

red
topped shaped
booy

While heading to destination observed 3+ turtles floating on the surface, larger size than Kahaloa study area. Turtles tended to stay on the surface longer and then dove. One turtle with barnacles covering carapace $\approx 25''$. Turtles took their time on the surface, bottom-hard 20' deep. Anchored and drifted in area. Proceeded to red booy and to look for cave. 15' deep, hard rock bottom slope, fair visibility no cave. Went to Kahaloa study area.

Anchored on top of reef in center of cave. 1 small turtle immediately popped up by boat near anchor line. Snorkel by



7 25"

boat and see two more turtles swimming away toward ~~shore~~^{shore} direction. Following the reef to shallower water, indicators of turtle habitation became apparent. Porites compressa had been scraped to form smooth ledges and overhangs that turtles could use to rest on the bottom. In the area where the reef is nearest to the surface (warmer waters?) the P.c. was worn into consistent rolling hillocks interspaced with deeper depressions. Proceeding in the direction of open ocean, as the water got deeper and more cloudy, first one turtle (heavily infested w/ barnacles on its carapace) and then another lifted themselves from small depressions and began swimming away. Visibility got increasingly poorer as depth increased. Returned back to boat, no turtles seen on surface.

Sept 79 Carapace & Plastron Weights

Waikiki 7MR Green ♀ - 12 lbs carapace

4 lbs plastron

Kauai Male - (harpooned) 11 lbs carapace

BAFS - male mortally Carapace 8 lbs

plastron 3 lbs

SLP - CI - Hawksbill 10 lbs carapace

IMMATURE MALE 3 lbs plastron

Loggerhead - Carapace 30 lbs

PL 12 lbs

9/20/79 Telephone call from
LESLIE KULOLOLO

researching place names for Ohana-
 raised in area of Puuloai
 and Makana Landing -

Interested in Kahoolawe
 KNOWS RENE SILVA & Charlie Kaau
 outreach worker for -
 Legal Aid Society
 Wailuku, Maui

Set him a copy of my Kahoolawe
 report - also sent copy to
 Jean King on this date -

9/20/79
 Thursday

9/18/79

32N

~~from
 skip~~

Mil
 S

Telephoned
V. Byrd

9/20/79
Thursday (808) 828-1431

They just returned from FFS
on 9/19 - new couple are
now out there -

9/18/79 - Attended Audubon Soc. Meeting
at McCully library -
Maura and Eric from Laysan
seabird study - presentation.
Johnsons also there -
Note photo of Patty w/ seal.
"Saw ~ 6 turtles basking -
a few nesting -"

FIN BACK (SEAN) LATE AUG - EARLY
SEPTEMBER

32°N 177°W Saw a "green" beside
the boat - will be in Honolulu
first week of Oct. 79

from
Skiff
Photos of turtles Pursuit
aboard Barbara
Milwaukee STEVE & Riggsby
Sea Mount

P.O. Box T
Morro Bay, CA

23 Sept - 30 Oct 1979 MEXICO
A. SUAREZ MEETING

4 Oct 79
Thursday

Craig MacDonald reports that
Terry Moore of
the Waikiki Aquarium saw a
hawksbill in lagoon at Kane -
also they saw many Mantarays

5 Oct 79
FRIDAY

Bourke called - reported that
some eggs are in artificial beach, he
thinks. Will excavate later in year.

W. Samoa hawksbill & hogghead
will be moved back to Waikiki
Aquarium.

SLP has hikiif Atoll
green + 5 captive hatched in
their holding tanks

+ POMAikai -
- measures
- photo

* NEED PHOTOS *

GAREN
MORTALITY

Lib. call: algae book DK 575
Jap. book J354

101

6 OCTOBER 1979 Coconut Island 1958

From BARBERS POINT (F+G) - Reported tangled
in gill net - Date unknown.

(S) 74.8 x 57.6

(C) 81.2 x 73.8

PL 56.2 cm

HEAD 11.0

TAIL 20.8

looks like ♀

Skin barnacles, pink coralline on carapace

large TMR from left eye - but not covering pupil.

Photos - Carapace - Plastron - TMR eye
on roll with MEXICO trip.

29' intestine (relatively empty)

2' secondary stomach

1' primary stomach

total

immature ♂ (one - gonad preserved)

Stomachs have moderate fill - but
intestines are light to empty fill.

lots of green fat -

Meat fresh -

will - strip hide; weigh flesh; extract bones;

October 1955
 2 12
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...
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 ...
 ...

10 Oct 79 NMFS

Meeting Richard Shomura, Dave Mackelt, Richard Wehida & ~~Richard Howard~~ Wehida

Budget

- My salary + overhead (NHI + MAIN IS,
- Assistant (?) - consultant I.D.
- Supplies
- TRAVEL -2

KAM - Save from Tigers

see other book 3880 PF 10051

National Geographic Map - "Islands of the Pacific" seen at NMFS - Hawaiian Islands to New Zealand.

for Bill Streeter

Slides -> I.D. manual dorsal

green ?
Hamp ?
Ridley ?

11 Oct 79

- 1) Distribution of Hawaiian ^{Coggeshall} Chelonia report -
- 2) Clean unwound copy for duplication
- 3) Grandperrin copies (of my report)
- 4) Noumea reservations
- 5) Separate Rose Atoll - FWS areas?
- 6) Lead report
- 7) Houston - Wake
- 8) Houston - Gabveston trip

11 Oct 79 ^{No photo 57} Kang caught turtle near
 Thursday Kewelo area - saw several
 others - glassy Bay. TAGS
 3278 3279
 S-60.5_{cm} x 49.3

12 Oct 79
 Friday 3280 captured same area -
 see other book
 S-64.8 x 50.3

Audubon Society

15 Oct 79 Monday Vernon Byrd - Newell's
 Max Shearwater
 note:
 - Car - review NB
 - Movement - No movement

* → Nocturnal Animals not sensitive
 to red end of spectrum
 Are sea turtles?

Got
copy

Hilo
on
Hawaii Tribune-Herald
Feb. 4 1940 "Leather Neck"
from TES/HIMA - photo - article on leather
Hamilton Library

Chuck Burrows - 842-8239
Concerning School Teachers Conference

10-19-79 FRIDAY Landed seal slide to ^{RETURN?} DOE girl -
for film strip

10-21-79 Sunday one-day flight with Justwan
to ~~FFS~~ to get Laura from Easy Riders

from Whittow - [Lt. John Bachman
Wildlife Officer
at Midway]

→ Sat Oct 20 Ceremony at
Waikiki Aquarium - 75 years -

Need to
TAG

Noted captive green in Spark tank
- hole in PC - tethered?

Also, hawkbill about this same size
in same tank. (Hawk from Bq IS. Zoo)

20 Oct Waikiki Aquarium continued -
SATURDAY

Tuamotu
or
Marshall
IS?

4 greens are in seal pool -
on loan from SLP - hatched
in captivity; also, a (5th) was
put in pool that was brought from
reef tank at Waikiki Hotel -
also from SLP. [book 2 juveniles]

Small hawks (confiscated) are on
display - 5 in front, 5 in back -
all very well healed now -
some tags still present.

25 OCT 79
THURSDAY

Mark Suiso - Pacific Beach Hotel
922-1233

from Kim-
wright 10-31-79

Mr. Harry Kami

Chief
Div of Aquatic & Wildlife Resour
Dept of Ag
Govern of Guam
Agana Guam - 96910

31 Oct 79
Wednesday

Telephone:
call from

107

→ Mary Margaret Goodwin
Special Assistant for the
Environment
Office of the DUSN
Room 4074B
Pentagon Wash D.C.

Car call -

- Mary Margaret Goodwin - Under Sec. Navy
- Newsletter - Mrgsowsky
- Salmon nose tag
- Mini meeting in D.C.

31 Oct 79

Wednesday 10:10
21 to 11

904-392-1107 - office
3921250 - call

Post notes
Dorothy Miles visited Christmas Is
in December - see newspaper
article.

1 Nov 79 DAVID

Thursday Crear - 235-6494 ^{Good}

He was at Christmas - 4 years
ago - Artemia project - near
Bay of Wrecks - then
Japanese satellite tracking station
came in - constructed → also hotel
to house personnel.

Has been a copra plantation for
some time. Crear's Gilbertese
assistant told him that tradition
does not allow turtles to be
taken while on the beach.

Gordon Groves, Oceanograph Prof
has Gilbertese wife

also - Richard Sigsbee - 261-4239
(wife Gilbertese) - will be going
to work for Vitosek at
Fanning.

one turtle was taken while Crear was
there - left on its back for 25 days
before being eaten.

Flights to Christmas via NAVEU
Pacific International Distributors
836-0124

Gilbertese (now ~1000) at
Christmas like to catch
seabird eggs - like fishy taste.

November

-S.A.
Jo.

Nov 79

1 November, 79

Barry Brady - Visited Howland and
 Jarvis to exterminate cats -
 Howland - killed 12 altogether -
 + 1 pregnant female -
 JARVIS - numbered in the 100's - but
 no way to kill them (anno missig?)
 BAKER - (4 cats killed?)
 Plan to visit these islands again -
 USCG Bury Tender - 24 hours each -
 in March.

~~Skip~~ - Leatherback - student
 James D. Lazell current MIGRATIONS "DUTT"
 Center for Action on E.S.,
 175 W. Main
 AYER, MASS - 01432

Ranching project Orissa - Karr

7 NOV 79 Eric Knudsen went to Pago Pago
 in early Oct - but boat didn't
 go to Rose - he flew over
 "Otter" - only saw 11 turtles.

110

7 NOV 79

TUESDAY

USAF

Hickam info - 449-2490

449-6367

sent

Colonel Sharran R. Stevenson

1st ABW / CC

H.A.F.B., HONO 96853

Growth
Paper

→ Dave Olsen

- Call Helfrich

DeSilva

Hawaii
Line
Phoenix

TUvalu

→ also 11-14-79 a/b/c

Howard Baker
W.R. A. Spurr
Tobefan
Cook

11-10-79
Saturday

Pritchard - (305) 365-6347

11-18-79
me

- 1) Western Pacific
- 2) McCoy - Pritchard - S. Pacific

[26-31 ^{not in} NOVEMBER 1979 WASHINGTON, D.C.]
4430 32 Olin St.

Dec 4-6, 79

30
Total

11-16-79

11-16-79
Friday

Defenders:

(202) 659-~~9510~~ ^{called} _{collect}

Spoke to Paty Shaver

11-16-79

Called Shaver & Silverstein

11-16-79
Friday

Called Carr -
at Office

904-392-1250

Public Health - 548-2811

→ Call from E. Shallenberger;
3 - (12" 14-16")
greens - Ardy Andersen
restaurant

11-23-79

IN holding tanks
behind Reef Tank

Capture batch at SLP
1976

SL

PL

TAG pt on

- 56.3 cm

45.3

3285

- 46.8 cm

36.2

3286

- 43.7 cm

34.8

3284

- 52.9 cm

-

3287

Marshall Is.
from
Waikiki Aquarium

62.0 cm

-

3288

(Reef
Tanks)

SL 67.1 cm

SL 72.3

Hawk Ponaikai

Green

+ 107 loggerhead
w/ deformed shell

11-23-79

Steve Coles - discussed OTEC - kahelt.
Ed NADA ^{Director} Hook LAB TURTLES
will do environmental survey
of area over next year

11-23-79
FRIDAY

Cleared pool at 54P -
Turtle transferred to holding pool

113

SL

X Hawk 78.9cm ♀ 2978 LFL

X Green 94.8cm ♀ 3282 new

X Green 78.8 ♂ 2985 LFL 2014(?) Blue Right

Hawk 86cm ♀

X Green 78.5cm ♂ 2983 Blue Right

X " 84.6 ♂ 2061^R SL/L

X " 83.8 ♂ 2009 BLUE 2070^{RS}

X " ~107 largest ♀ 2979 L

X " 97.1 ♀ 2987 SL

X " 93.4 ♀ 2982 R

X 78.9 ♂ < 2985 L ~~SL~~
2012 R Blue Tag

X 88.8 ♀ 2071 L

X 79.5 ♂ < 2981 R
2020 Blue Tag L

X ~~Sample~~ 83.5 ♀ 2009 - Blue Tag L
2970 R

+ 1 ♂ 77 loggerhead
w/ deformed shell

11-23-79

87.1cm ♀ 2984 R

Duplicate

92.7

2060 L

2982

85.5 ♀

2062 L

Deformed

loggerhead

♀

X

L. flipper missing

79.8

Loggerhead

3283

new tag #

SLP

Report that 2 pairs engaged in copulations
for 5-10 minutes after being placed
in holding facility.

Also - Parasites exobryonians are present
on some of the turtles. still.

SPC - TURTLE WORKSHOP

(6-18 DECEMBER 1979)

11-23-79 Kewalo facility
FRIDAY

Andy
from Anderson's
Restaurant

115

Seized on Wednesday

TAG NO.

STRAIGHT

CURVED

Photos #8-10 - in water v/w

1) 3289-3290	53.9 X 43.9	57.7 X 51.5
#11-13 tank being refilled 2) 3291-3292	54.5 X 44.7	57.8 X 51.2
3) 3293-3294	45.7 X 35.6	48.2 X 42.0

- yellow and brownish shells -

Captured by a friend of ~~Steve Kaiser~~
SLP - where - how?

Report that advertisement says "see turtles" -

12-28-79 Friday Talked to Miranda son & mother -
indicated that more turtles are present
July - October. Also Americana Hotel (Ala Moana)

*

has saraface decs (like Rainbow ballroom?). He
works with garbage truck driver lives in Honolulu

* need ^{photo} tags - camera - for kam capture

but has caught turtles in Lania Bay - sees
feces on the beach. Caught very large (~4')

turtle - gave saraface to son in law. Has
caught turtles and kept them by house
for awhile - then released them.

*

Miranda mentioned that area where
cross channel comes in San Juan
channel is an area for turtles.
Deep calm area?

Noumea, N.C.

letter address: 6-18 DECEMBER 1979

Dr. Rene Grandperrin
 South Pacific Commission
 P.O. Box D 5
 Noumea Cedex
 New Caledonia

Cable address
 "Southpacom" - Noumea

or telephone - international
 operators

NMFS
 Shomura's office Hono
 Secretary Carol
 946-2181

- 20 exp roll
 - tags/pliers
 - whitlow
 - camera flash

12-21-79 Friday

- released
at Kawelo
site

Tag # 3295 RFL

3296 RFL

(S) 53.3 x 41.7

(C) 57.2 x 52.5

PL 43.0

Head 8.0

Tail 10.2

Weight

~~Photos~~ 7 large
 bands on plaster
 1 on ventral front flippers

25 large
 coralline algae
 many skin bands

51 lbs

Skin barnacle

Lge scale missing near R. tag entry point

(V. shape notch distal end on R. FL)

Pink Coralline

12-21-79
FRIDAY

Called Travian ^{Silverstein} Collect -
(202) 659-9510 not in
talked briefly to
Shila

12-21-79 Carla indicated that 3' turtle is
at Bishop Museum - from
Kahala Beach.

10:55 AM 955-1155 depart GO Gainesville depart
6: 8th 10⁵⁵ PM ↔ 9th Night - 11th 11:30 AM

7:15.66 Miami 438 912
\$427.00 - \$738.
6-365.33
120
485.00 +

MAUDE
Western
Airlines

946-7711 WA #458 490
\$121 845 → 345 → 1040 PM
arrive 604 AM Miami
9th

→ \$592.66
→ \$579.67

12th Sat leave
9:30 PM

13th January (Sunday)

{ 30 December 1979

McGinnis? PL = 29 1/4"
 [15 June 1979] length? - kg 112 = ~90cm SL

call 12-23-79
 (904) 466-3231

"Micanofpie
 city"

- 18
 - 17
 1600
 → \$800.
 → \$800. N.B.T.

Telephone
 List of items to
 discuss with A. Carr

- 1.) Money to Gainesville - 10 Jan Meeting
- 2.) Results of aerial survey
- 3.) Huang - Spring → group members
- 4.) Mortimer?
- 5.) Meylan at 10 Jan.?
- 6.) Mrosovsky - letter to Robert Scott

Carr's office

1-904-392-1250

12/26 - Visited Bishop Museum
 to review turtle exhibit - saw Wayne Gogre
 and wife

12/26/79 called Carr
 Wednesday

→ Talked to Patty Shaver - collect
 → Wayne Kiro called me

- S. Smith - midway
- Kinsey
- Emerfield Facts - Request
- contact for Ehrhart
- Tim Smith

948-

8848

Carol-Pearson

Burback -
- visit
- letter

Turtle - purple squire
sandpaper

- correct Central Pac
- label all material in lab
- UH Dive
- Tag Aquarium turtles
- KAHALA
- letter to McCoy
- Klima - ~~part of tag letters~~
- "Time of the Turtle" - Rudloe

- Lab volume report

Air Blagini - 1-800-227-3000

45 days in advance #367 each way
707 once a week

CO 955-1155 Pago -
Nadi Sydney
Pan Am - 955-9111
United - 547-2211

232.14 x 1
68 x 1
+ 276.05 x 1

Flight 2 8th 5:15

57 WAIT LIST
LAURA
Eastern 255 depart 7AM
Ann Atl 945 AM
East 123 - 10:35 AM

[13th Sunday 7AM
11 AM LA) 8:01 9:15
(193 VA 1:30
505 PM

METRIC

LENGT

millimeter
centimeter
decimeter
meter
decameter
hectometer
kilometer
myriameter

AREA

square centimeter
square meter
are
hectare
sq. kilometer

WEIGH

milligram
centigram
decigram
gram
decagram
hectogram
kilogram
quintal
metric ton

12-31-79

Called ~~V. Byrd~~ about
Synopsis sent to FFS 1-828-1431

METRIC SYSTEM WITH U.S. EQUIVALENTS

METRIC UNIT (1) U.S. EQUIVALENT

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

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

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

METRIC UNIT (1) U.S. EQUIVALENT

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

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

0220018

\$215c