

1206-1302

2072-2074

FIRST INCOME

681's at FFS

p. 74-75

1976

1976

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KURE
FFS

Juvenile Taggings p. 65

BASKOE Taggings p. 73

BASKOE TAG Recoveries p. 79

JANUARY 1976
MARCH 1976

APRIL 1976
MAY 1976
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KURE - MARCH 1976

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TEL 247-6631 946-1760

EXP. No. EXPEDITIONS COVERED IN THIS BOOK

	KURE Atoll -	March 8-9, 76 -	pages 5-7	
14	- FFS	-(Whittow)	April 8-19, 76 -	pages 9-16
15	- FFS	-(FINCH NGS)	May 7-13, 76 -	pages 17-23
16	- FFS	-	June 28 7, 1976 -	pages 25-35
			July 12 (air national guard)	
17	- FFS	-	November 18-23, 76 -	pages 40-44
	(FFS	-	MARCH 31, 1977 -	pages 46-47
	(FFS	-	Jan 13, 1977 -	pages 45-46

} NO EXP. NOS.



NO. 1130

COMPOSITION BOOK

FAINT RULED WITH MARGIN

120 PAGES • 9½ x 7½ IN.

No. 1130-P Has Numbered Pages

S. E. & M. VERNON CO., ELIZABETH, N.J. 07208
DIV. OF THE MEAD CORPORATION

3/11/76 FFS Turtle from shark - pages 8-9

3/29/76 Lisianski DEAD Turtle - page 16

7/12/76 Nicklin chart of Tern (N) - page 37

7/20/76 Wake recovery page 38

10/21/76 FFS CG Tiger page 40

12/3/76 no. 1616 found on beach page 44

MONK SEAL CENSUS . . . Page 93
 MONK TAG RECOV. " 101
 PIT COUNTS
 Number of turtles per night page 61
 Juvenile Turtle Taggings page 65
 Adult Turtle Taggings page 73
 TURTLE Recoveries page 79
 Turtle Basking census page 85
 Weather page 111
 GAS LOG page 109
 Photo logs page 119

Douglass S. Hertz
 22 E. 38th Street
 Reading, PA 19606
 - Father-Roger

U.S. C. G. Academy
 Admissions office
 New London, Conn.
 06320

7/11/76 TAG 1289 - door step plank - front of tent
 7/11/76 TAG 1271 - 1st log before round log - S side
 7/10/76 TAG 1288 ON ROUND LOG
 Taken off in June 79
 one of these removed by ARN HEGGERS

LIBRARY OF
 GEORGE H. BAKER

MONDAY
3/8/76
0730

KURE Atoll TRIP

Depart HC130 Barber's Point for Kure Atoll
on Board -

Capt Lesperance, Ed Shallenberger, John Naughton,
Carli "Breese", Lyle Nelson, Warden Roll,
David Woodside, Henry Okamoto, Mr. Baba

Around East and South end of Nihoa -

- 8 whales - Shallenberger says he saw one
sea turtle; TO Nihoa (poor photo, flew
directly over); TO Necker (from N side);
TO FFS in at Gin - LGin (Shallenberger
says he saw 4 large turtles at surface);
up to East, W-S, Tern (very wet runway);
TO Gardner Pinnacles but got rough ∴ not
observed; TO Ma'ro Reef (patterns similar
to areas of FFS); TO Laysan and
circled - some seals but no turtles noted;
TO Lisianski (NEVA Shoal apparent?);
TO Pearl and Hermes Reef - Piecely
over Southeast ∴ no photo, photos
of 2 others - possibly oil on beaches
TO Midway (no photos); TO Kure (said 15 -
25 seals)
over busted up wreck - land.

>1300 Laysan w/busted wing - 767-46394

Old dead albatross - 737-93083

Walked along E shore Green Island (dense
Scrub) Saw ~ 8 turtles - lots of
Man-O-War washed up on beach -
went swimming at 3 locations

Jan 6, 1973 SB IS

The Shipwreck Isle of Kure
by Russard Pay Apple

old
news
articles

May 10, 1965 SB IS

KURE

May 5, 1965 ADH

(Feb 20, 1976 SBM

Wounded ship at Kure

MEP

3/9/76

>1300
cont

and saw nice coral, lots of tame
fish (Parrot fish, Kala, etc), 4 turtles,
one turtle actually eating Manowar
as they blew in!
Tar globules along beach - West side,
one seal with recent pup,
3-4 other seals up high in to
vegetation apparently to get out of
wind.

Sea Water Temperature - 21.3°C

$21.0^{\circ}\text{C} = 69.8^{\circ}\text{F}$

Toxin Antidote - ?

Tire tracks on beach.

~25 seals on Sand Island (includes 6 pups)
13 " Green IS (" 1 pup)

1300

MEDIC - GREG MARTIN
U.S.G.C. LORAN STATION
BOX 36
FPO SAN FRANCISCO 96614

3/9/76 Certified Diver - TINY
Walked around island with Warren
and Kyle - took bird pictures and
collected bird bands. Saw polynesian
rats (small).
1300 Depart to Honolulu, land ~ 2030
Barbers Point.

- | | |
|-----------|-----------|
| 587-85592 | 737-93164 |
| 767-46273 | 697-22401 |
| 737-98784 | 767-47754 |
| 737-45685 | 767-47593 |
| 737-45963 | 737-93437 |
| 737-95338 | 737-47420 |
| 737-98740 | 767-49936 |
| 767-47746 | 737-96574 |
| 737-93083 | 767-49393 |
| 767-46394 | 737-90706 |
| 767-52534 | 767-47765 |
| 767-52758 | 767-46278 |
| 767-54722 | 767-46266 |
| 767-47841 | 767-47675 |

total = 28

Thurs
3/11/76

Phone patch with Tom Marquette,
told about catching 10 foot
shark with whole turtle
(juvenile) in stomach -
He needs aluminum 3 part
Hawaiian sling - Charles \$25-26.00

3/15/76

Picked up frozen turtle from
shark stomach. CG man going
home for compense indicated that
30 large turtles (?) were seen
on W-S about 7 weeks ago,
right after I left. Few present
on Trig. Could he be talking
about juveniles in the water?
CG caught/speared sharks by
W-S.

3/17/76

Visited EASY RIDER just prior to
departure on Monk Seal study - met with
Captain, KARL KENYON, Bob DeLong,
Fiscus, Zeilermaker et al
Captain indicated he had caught
green on hook of long line (1000') -
Fishes twice monthly Necker area,
does not see Turtle or seals.

- post script -

Subsequently spent 2 days at FFS - Banded
Birds, went diving for lobster, dug up seals
but still rotten,

SATURDAY
3/20/76

Dissected Turtle from Shark stomach -
Weighs $30\frac{1}{4}$ lbs; Straight carapace $19\frac{3}{8} \times 14\frac{5}{8}$
Curved Carapace $20\frac{1}{2} \times 18$
Shell - Brown gold radiated; Photos taken.
No external injuries except small
puncture wounds on dorsal ventral
shoulder-flipper area. Stomach and
intestines full of algae - intestines
appear "twisted". Algae I.D. -

4/8/76
Thursday
0836

Depart FAA for FFS w/ Bob Ferguson, Casey
Whitton, a new ET, and one inspector.
Pilots Bill Hyatt and Tom Rose - Engineer
Johnny.

0920

Barking sands for fuel. Gasman and
Civilian fireman both separately indicated
that Seabee - underwater diving teams
were here working, marking bottom.
Whale sighted immediately after take-off
from Barking sands.
Consider Monk Seal in Barking Sands area.

1130-45

overflight all Islands
New C.O. Dale Houder
check on Ikelite cases for Tom. Casey
Whitton wants to spend day on Trig Is.
My plan is to base camp on W-S, and from
there work East and Trig, as appropriate. Place
Emphasis on capturing juveniles and determining
incidence and activities of adult ♂ and ♀.

Thurs evening
4/8/76

Recall that on May 1, 1973 Dave Olsen reported 20+ males on W-S, but only a few females. Considered possibility of resident winter dormant population.

4/9/76
FRIDAY

Strong trade winds - Hauled boat - shaft mechanism frozen (fired); took Causey whittle to Trig ~ 1000h, proceeded to Whale-Skate - scoop netted juveniles until 1300h, set up campsite on W-S, photographed birds. Report that 2-3000 tern eggs a day were broken on Tern Is. Colony now down by bears, on eggs. W-S has terns on eggs, several small colonies. No terns rotes on Trig - must be due to lack of vegetation. Sunset ~ 7:15 PM

4/10/sat

Tern colonies of W-S appear to keep seals from center of island. Some ghost crabs noted on 0300 survey. Turtle inquiries, abnormalities may stimulate basking. To Round, East to count seals, photograph birds and net ~~the~~ turtles. No basking turtles. To Tern to get gas and fish calipers.

1000

Recruitment must equal attrition to have stability. Terns on East Island already have some chicks. LAID 3/10/76

Note - Togs on juveniles have growth algae (soft and coralline) whereas togs on adults always appear clean; - is this due to depth frequented?

Concerning meeting with Navy - if all points have been clarified to congressional delegation, ~~why~~ why is a meeting necessary? To papers expense. Point to as fulfillment of ^{obligations} such as meeting with fishermen? Issue public relations statement to press? Imply that turtles have been assessed when in fact they haven't? Whale sighted 4/8/76 just off barking sands; Seabee divers already doing work.

4/11 Sun.

Showers during early morning hours. Photographed tropic bird head, gray back tern on W-S. Motor missing so proceeded to Tern and replaced plugs with L4J. To Taig for seal and turtle count. Photographed black, curved beaked shearwater or petrel nesting on large white egg under ^{and Red-footed Boobies} scavola. To W/S, no luck catching juvenile turtles - rain showers. Consider sending Berger Hawaiian Birdlife book to Coast Guard Station. Basking on these overcast days could produce a heat loss from convection; - Black turtles absorb more radiant heat.

Most important finding this expedition -
"RESIDENCY"

SUNDAY
4/11/76

If resident population exists as suspected, turtles tagged from Sept through March should not be recovered in long distance migrations.

Just as some turtles wedge under ledges to rest, some turtles may bask for same purposes. Prevents tossing around from surge.

Question: What are the weather conditions on a day when many turtles are basking? Consider - wind, temperature, swell, sky conditions, time of month or moon phase or tide level.

If no thermal disadvantage, why not bask?

Look for "rings" on juveniles and adults.

Frigate chase boobies and shearwater at sunset.

Message to tell.

Turtles do not haul out to bask on Tern Island

Send Monk Seal article to C.O.

Start counting seals in molt?

The World Wide Church of God - "The truth about Easter"
Pasadena, Calif 91123 KSL Salt Lake City

Japan signed truce Sept 2, 1945

McArthur resigned April 11, 1951

No bugs noted. BFB seen with only one egg - close to water.

APRIL

4/12/76

MONDAY

0730 to Tern to pick up Dr. Whitton -
 returned to W-5 0930. Caught
 juvenile turtles in West Cove; to East,
 several male boskers on sand point,
 and SEP. Copulating pair in SEP cove. Back
 to W-5 to pick up Dr. Whitton, returned
 to Tern (2 Buoy tenders present) for dinner,
 to Trig - many boskers (8-10).
 Apparently, influx for breeding season
 goes directly to East, as to Trig
 and whale-skate. What about Gin &
 Little Gin?

*

→ Consider 456, 469 us wild life Honor - one extensive
 corrosion, the other - little.

Why black Hawaiian monk seals, white northern
 Harp seals?

again - retention of fat for protection from shark bite?

Data to be presented in juvenile tagging-growth paper:
 Length vs weight (formula - FIGURE).
 Curved-straight (or visa versa) ratio
 Black and white photo of juvenile - or color plates
 showing variation.

Discuss color change - from hatchling - mottling found
 in wild.

Incidence of smaller or larger turtles during
 each expedition.

Total mean, range, S.D.; Food of juveniles;
 Places where they feed; Basking; shell fouling;
 injuries, chased by sharking; BEHAVIOR heading(?)

Comparison with growth of turtles by tide
shack; Higher protein - faster growth(?)
CARNIVORS grow faster than herbivores.

Tag corrosion; problems of tagging juveniles;
Problems of Midway taggings. Some standard
measure of Rate of Growth, e.g. per month, 6 months.

Diagram to show tagging sites(?)

4/13 Tuesday
Photographed during the morning; caught juveniles
in cove early afternoon; To Shark Island -
one basking male (tag 1200 - Shark has large
chunks of coral, hard lagoon bottom, not comfortable
for basking turtles - seals (?). Are coral chunks
present at all times? TO Tern Island -
dinner - To Trig, many basking turtles, 1915 - radio
won't work, returned to Tern for the night.

1130 → 28°C dry coral sand, 27°C moist sand waters
edge, 26°C very shallow water 2-3", 25°C 8-12",
24°C > 12".

Two baskers on W-S, 1 male, 1 female (small)
seen last year - one front limb partially
missing - turned up PC's.

Both straight and curved measurements
of juveniles has error of marginal location.

4/14
WEDNESDAY

Depart Tern ~ 0930 with Dr. Whitton for
Whale-shale - left him on W-S while I
caught turtles in cove, and went to East
to caught juveniles (3), - then proceeded to
Trig for census of basking turtles. Returned
to Tern for the night to find that plane
will not arrive until 4/19 MONDAY

Thursday
4/15

4/16
FRIDAY

4/17
SAT.
1000

4/18
Sunday

Sooty Tern bands - Tern IS.

993-28350 993-24708 993-28350
 923-51036 863-22667 923-21279 993-24893

Check Carr's paper on growth after maturity
 and Caldwell's paper on small turtles
 found in the Pacific.

Note: French Frigate Shoals is an "old folk's
 home" for turtles (?)

Thursday
 4/15

Stayed on Tern Island all day and
 photographed birds. Phone patch to Linty

4/16
 FRIDAY

New tern colony on East - KH6SP-KH6IR9 PICT
 many older eggs hatched -
 out about 1200 rain showers, WSW wind,
 to EAST to catch small turtles, to W-S,
 to Trig - back to Tern.
 Phone patch to home.

4/17

SAT.
 1000

Launched boat, to EAST, GIN-LGIN, EAST,
 W-S, TRIG and back to Tern. Note:
 organize juveniles' ^{growth} data by size, small-
 to large. Consider occurrence
 of smaller turtles during any particular
 expedition.

4/18
 SUNDAY

TO W-S, Round, Lakerouse Peninsula
 (saw one small turtle), East (to catch turtles)
 W-S, Trig, W-S and back to
 Tern with Dr. Whitlow. Hauled out
 whales about 1630.
 Ideal cable ties # 41-629.

4/19
Monday

Depart FFS 1430 with CG Bryan Robertson, Mr. Lum of CG Engineering, Causey Whitlow, George "Union" and Bill Hyatt. Auto Pilot went out coming up.
Wall Street Journal, April 16, 76 page 4
"RCA Service Co., a division of RCA Corp. received a \$5.9 million Navy contract to operate the Atlantic Undersea Test and Evaluation Center"

5/7/76
FRIDAY
0845

~1220

4/25/76*

NOTE: Pits, excavations, etc. from each nesting season are entirely obliterated by the next season.

1700

5/4/76

Had meeting with Sekora, Blair and two associates about forthcoming FFS trip

Information communicated to me by Sekora this date:
tuttle

size?

"T258 recovered from dead and decaying turtle on Lisianski Island March 29, 76 above high tide mark, SW bench, facing into sea and partially buried in the sand." originally tagged May 30, 1973

5/8/76
Sat.

Lisianski Is. Adult ♂ 36.1 ^{9.7} x 27.2 ^{6.1} straight
Turtle 302 ♂ SPL 12.7 ^{32.3}

6234

for 392

??

Thick 6.2 15.7
SL 15.9 ^{40.4} SW 12.8 ^{32.5}
CL 16.5 ^{41.9} SW 14.75 ^{34.5}

EAST, FFS July 13, 1970
No measurements, no sex taken
as per Krider letter 10/5/76

Midway 3/16/68

5/6/76 Took Emmett Fench to FAA for FFS N-36

5/7/76
FRIDAY
0845

Depart FAA special flight with Sekora, Blain, Flip and Steve (NGS) - Norm is aircraft commander and British agent new fellow copilot. NGS equipment aboard.

~1220

arrive, photos from NE of WS and Tern. Hot, almost glassy calm.

Moved into quarters, rearranged my gear - special flight will occur on 5/25 for John Elliot NGS.

1700

Sekora talked to CG men about new restrictions 1. Boat is not for recreation 2. Fish outside refuge boundary 3. coral and shells diving, from adjacent waters of Tern 4. 'possibly' glass ball collections from other islands, by request, between Oct and April.

5/8/76
Sat.

Hot, calm - out with 3 NGS to La Perouse (Fairy Tern fell into water), L Bin ashore (few seals, no pups or turtles noted), East offshore (many small sharks, 4-5 small turtles apparent), to Round-Mullet, to W-S behind, W-S, saw one pair copulating turtles, to Trig, to Tern.

Cromwell visible about 1200 in Shoals.

After dinner had taped discussion with Stanley Hara, T.C. Yin

Points - 1. Brogged about appropriating 50K this year and 50K last year for NHI Assessment study. 2. Accused Sekora

and myself of being "defensive" 4. Hara said this was only the beginning. 5. Jim expressed interest to Blair about capabilities of CG on Fern Is. 6. Asked Sekora to let F&G "fisheries" biologists to go where they want to. 7. Possibility of using PFS for recreation - some statement to the effect that a few people are now using area for recreation. 8. Jim said Nat. Geo. is opinionated 9. at Eastland meeting, Sekora said Takata alluded to vast resources of NHI. 10. Blair mentioned that NHI waters are last unexploited chunk of ocean near a large population center.

5/9/76
Sunday

Hot, calm. out with Blair - Flip in 14' Avon. TO W-S back side - photos of copulating turtles and seal w/pup. Motored to outer area near reef, saw 2 turtles, 2 seals short distance, but thereafter none. Found reef ledge with schools of blue and gray sturgeon fish.

~1600

Took Hawaii Is State Wildlife Biologist John Giffin on tour of W-S.

~1600

Jon Giffin
P.O. Box 74

Kamuela, Hawaii 96743

5/10
Monday

out in morning with Sekora, Finch to W-S and Trig Casshore. Finch indicated whale

much narrower, didn't "dish in" on surface of ground. - previously many Tropic birds. Sooty appear about 1/2 g down, whereas hatching just starting on Tern. Finch was never on Trig before, always posted by. Saw 2 Tiger Sharks by Trig. Found large hunk of oil on W-S. Fisheries Biologists in whaler off W-S (150'?) included Kenney Yuen, Henry Okamoto, K. Ego and others (?). Yuen said **EGO** was on 1950 Laysan trip with Brock.

*
 During afternoon NGS and Sekora boarded ship for trip to Laysan. Captain, Engineer et al. of Cronwell came ashore for beer. Captain indicated trip last November 1975 led by Paul Sturaker was 6 wks long - looked at drop off areas in NHT waters, not Refuge. This cruise, however, was assigned to State F&G. Starting next Sept, ship will be in NHT waters for one year, for 6 wk + cruises as ordered by Shomura.

~1600

Everyone left for ship. To W-S, Trig. Upon return to Tern found 8 crew + F&G drinking beer. Shuster overheard Hara say "Palmer won this time, but things will be different next time". Dale Hower later said he mentioned Sekora restrictions to Hara. Indication is that F&G found few fish

at Bin Islands where station was set up night of 5/8. Six lobsters at W-S; some reef fish. Ego said they saw school of ~800 weke (where?).
 Misting Rain - Cromwell depart

Late afternoon

5/11/76

Tuesday
0900

TO La Perouse w/ Finch - no fish, motor running bad. Saw where 5" shell fired from Tern hitlock. TO East along West reef - no fish - Finch said training aircraft shot at schools of large Manta Rays - 20 min on East was fired at Base Is. Fed, guts of Ulua caught right off East to Shark - little interest noted. TO Round-Mullet (created havoc with wildlife on Mullet) TO backside of W-S for underwater photos. TO Tern.

1600

out by myself to East - photos
 Two pits noted (recent), possibly one good

5/12/76

Wednesday

0930

Finch, Hower, myself in FWS whaler, John Shuster, Gomez, Haffeyne + 3 others to East to put up plaque and poem/photos in box. About one hour after arrival CG men depart for Tern. Finch and I stayed until ~ 1300 h. Found parts of weapons carried (same as old CG truck). Finch used to spray surf with 50 cal machine gun.

5/13/76
Thurs.

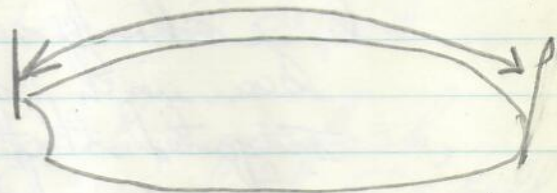
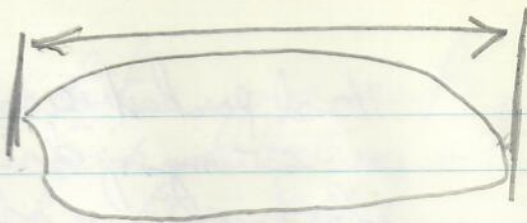
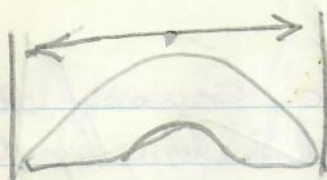
Hard packed coral road, etc. caused by constant use - men driving around in truck. No bait schools or Umoi seen. Copulating pair seen in East Cove with ~6 ♂ around. Possibly large shark seen in area, later ♀ of pair seen with part of front flipper bitten off. Migrated that wood poles on East along with ground wire for each was never used. To W-S, caught 4 small turtles with Finch's help. ~1600h to try, dark rain showers moving in - 9 baskets seen. To Tern, haul out whales for Finch's talk - presentation of meter w/ plaque, plaque, and plastic sealed proclamation.

5/13/76
Thurs.

Up early to photograph birds in morning light. **Depart** 1400 with Burt, other CG man, Finch. Finch took us out to dinner before departure on VA for LA.

Dr. David Au or Gary Friedrichsen
% Ruben Lasker
Scriffs, NMFS
San Diego
concerning green turtle sightings on
Cromwell cruise

Notes - estimated 1" different in curved and straight length of juveniles.



Juvenile Growth

"straightening" of shell length could conceivably lessen a previous curved measurement, but not lessen (to the contrary, increase) a straight line measurement.

a unit ratio (.1 or .01) is equivalent to what measurement in thickness?

Curve at posterior
contributes to curved
measurement.

letter/p
8/2

letter/p
8/24
red

letter/p
8/2
ans
11/1

letter/p
8/2
ans

5/17/

Contacts to be made - courtesy Bob F. KH6ABH
FFS:

letter/photo
8/24/76

Russell R. Spalding
2924 Juniper Street
San Mateo, Calif 94403
on Tern Island with Bendis 1962-3
- "CG men were not allowed to see certain areas"

letter/photo
8/24/76
sent
died

Harold D. Spriggs KH6CX
Creston, Iowa 217 Myrtle Street
- Formerly USN "sure lonely on that
chunk of sand. I know!!"

letter/photo
8/24/76
answer
11/10/76

Jerry M. Lentz WB490D
1002 Wilder Ave.
Aberdeen, N.C. 28315
"Stationed FFS Aug 66 to Aug 67"

letter/photo
8/29/76
answer
received

Earl H. Adams WB5INW
4623 Harging Moss Road
Jackson, Miss 39206

many appear to be
Sooty terns (CWB)

5/17/76

In old picture received from Fritch,
note on back said
"This is a vague idea how
many "gooney birds" are nesting on a
nearby Is., which is about 800 feet
long by 150 feet wide..."
(WHALE IS.) 1946

5/26/76 Sekora returned from FFS yesterday afternoon. Indicated that only 2 basking turtles were seen during 48 hour stay on Laysan Island.

(Also one night spent on W-S and/or East, only one new turtle nest seen.)

6/6/76 Phone patch from Scotty (Chief O'NEIL) through KH6 JBK - Reports South wind and swell - collected 2400 gal water, some Sooty terns killed. Seat on FWS whaler out, need 2 battery for exposure meter 640 Yoshica TL ELECTRO. Shark cage at La Perouse.

Little turtle activity reported - no tracks seen on beaches - no nights spent on other islands by N65. ^{Elliot} ~~Elliot~~ → one night dive and that's all.

only two grays caught (1 Tern, 1 La Perouse). No Tigers.

6/8/76 Phone call from Dennis Russell - I.D. of alga from glass ball at French Frigate Shoals - Codium taylori not previously reported from Hawaii *

6/10/76 Radio message transmitted by Ramsay to Sekora from FFS C.O. - 17 nesting attempts on East, 7 successful; 10 W-S successful. Dead decomposing seal found

cont.
6/10/76
LITTLE ISLANDS
FRIDAY
6/25/76
6/26/76
6/28 MON

cont.
Litt. Heale
6/10/76

found on W-S. John Elliot out this date, reports bad weather, heavy rains 40kt winds during past week. Also Norm pilot reports limiting of 2 showers a week because of low water supply.

FR. DAY
6/25/76

C.O. Hower and BMC O'Neily to Honolulu.

6/26/76

Drinks at Halekoa with 6 personnel.

6/28 MON

Depart FAA 0850 with repaired outboard motor and 4 CG civilian employees. To be a direct flight - Norm - pilot; Chris - copilot. This trip it is important to collect temperature data on basking turtles, newly emerged and nesting turtles.

Note: Need to determine ① ^{Friday Sat - East} number of nights (dates) N&S spent on other Islands ② ^{2 EAST 1 WS Kently} number daytimes spent on other Island ③ ^{W.S.} close shore work with boat (what Islands?)

- CONTACT Causey Whittow upon RETURN

④ TAG NUMBERS ^{NONE}

Pilot Norm indicated sighting of plate size turtle in surf at Ala Mana - also a number of turtles off Lanikai inside of reef.

* Need update summary of Reg 36 permits - reports since last visit by Chau.

Windspeed at Tern Is. - 12 knots

1150

Landed Tern Island - installed motor, readied B.W. - I was put up in first

continued

6/28 Monday class quarters - 2 white buckets gone, sponge mattress cut in half.

1800 To EAST - Schooner tent and NGS
John Pop tent in area 12. Many frigates,
Shuster reports frigates swooping
down and eating small sooty tern chicks
on Tern Is. ~~lots~~ terns ^{seen} on East with
juvenile plumage. Goosies also feathered -
some haysan still have fuzz.
Moved Schooner tent to west point
end of island.

* Amazingly little nesting activity
evident. Nits present in area (17(34)
area 12 (2-3) areas 4-6 (10-12)
and sand point (5-10). It is reported
that heavy rains have occurred -
statement made that 20,000 gal collected
on Tern over past month. Perhaps these
rains have masked nesting signs.
Doubtful.

NGS reports seeing turtles "sleeping"
under coral ledges around Tern I
When motoring Tern → East, 1 small, 1 medium
size turtle seen in shoal areas.

Photos taken of W-5 and TRIG (sand island
solidly attached to main).

6/28 Monday

6/29 Tue

TO
LGIN-6

6/30

TO W-5
and
Trig

JULY

7/1/76

Thursday

- 6/28 Monday Sand point on East is very short. Exact tent site of 1975 is much closer to shore-drop off of North side
- 6/29 Tues
TO
LGIN-GIN Bkiwt photos on East, walked ground. Glass bottles from old CG station, not recently broken by CG as suggested by NGS. old note - Norm pilot seemed to think that new steel girders had been installed on Tern Is (early 70s) near tide gauge.
- 6/30
TO W-5
and
Trig Heart beat taken of dry basking seal (close to water) on Whale Skate, -96 per minute observed 10 breaths in a row, inhale with slow exhale. Observed cleaner fish and manipi (?) picking at juvenile tagged TW turtles - photos. Tribulus vine growing on Trig. also some new green Scaveola.
- JULY
7/1/76
Thursday Regular log flight was cancelled due to engine repair. Notes - Need to compare utilized nesting area of Sarawak Islands with islands of French Frigate Shoals. For Reproductive Ecology paper, need to include discussion of activity during inter-nesting interval. Reference and correct Amerson 1971. Indicate that basking aspects will be analyzed and discussed in depth in a separate paper.
Were iron stakes on patch reefs during 1945-6 Emmett Finch stay?
It appears that Sooty Terns were early this season - all chicks are now fledged and

Determine dive areas covered by NGS.

7/1 Thurs readily flying. Miscellaneous daytime observations indicate that definite "yawns" occur at times - could this be to equalize pressure? A male (TC 2) seemed to "chase" thick black female up on beach to bask. Loud voice sounds while lying close to basking turtle did not seem to stimulate "eye lid" response (good indicator). Several breaths noted during 15 minute period, however, was this influenced by my presence?

Many basking turtles have wave wash falling on third quarters. Taking into consideration heat gain from thermal conductivity/radiant energy, and heat loss from wind/convection and evaporation, is the net result a heat gain, heat loss or maintenance of ambient sea water temperature?

* Need to check bronze calipers against aluminum - Also cross check with plexiglas set.

1800h Nat. Geo. reported diving off end of Tern Is. and seeing "lots" of turtles under coral ledges with "cleaner" activity taking place.

* Idea for another booklet - Hawaii's Northwestern Is.

1. Aerials (recent and old)
2. Historical Aspects (as per DEFENDERS) ^{Photos} check Bishop Museum & FNCH
3. Need more Midway and Tern Is. material.
4. Include Kauai

FRIDAY
7/2 02

100

2000
7/3
070

FRIDAY

7/2 0200

Notes: What should I be seeing this 1976 in the way of previously tagged turtles? Possibilities: ① Returns after 3 years absence (1973) HIMB and FWS tags ② Returns after 2 years absence (1974) HIMB tags ③ Returns longer than 3 years absence, 4 years (1972), 5 years (1971), 6 years (1970) - some of these seasons had intensive heavy ^{several islets?} FFS tagging of baskers.

^{Possible} Reason for not see^{ing} returns on East Is. from 1 and 2 of above -

- ① East Island tagged turtles could now be nesting on other islands ⁽¹⁹⁷⁶⁾
 - ② 1973 and 1974 other island turtles (mostly untagged) could now be nesting on East Island.
 - ③ Turtles from 1973 are on a longer than 3 year cycle
 - ④ Tags fell off
 - ⑤ Turtles are nesting someplace else other than FFS
 - ⑥ ^{many} Turtles only nest once ^{same}
 - ⑦ High mortality due to unknown factors.
- Absence of FWS tags from 1970-1972 narrows possibilities to ^(longer than 4, for 6 years) 3, 4, 5, 6 or 7.

1000

To Tern Is. for 35mm film and supplies. Returned to East ~ 1715 - radio call indicated that CG 16 whale is missing.

Apparently flew into water off trail due to weight from accumulating rainwater.

Bob Ferguson requested that I return to help in search and standby if large boat assistance needed.

2000

Proceeded for Trig for night.

7/3

0700

Returned to Tern, and, with Carlson aboard, searched for ~ 3 hours in Shark Is. area for CG boat. Blair reluctant to allow use

7/3 Sat of his 25hp for standby boat (14' whaler).
 1500 OCG C-130 from Kube returning to Honolulu, circled
 for 15 minutes to look for boat. No luck.

7/7/76
 Wednesday

1630 Returned to East.
 * Elif and Bates little hole report two types of
 cleaning activity - mainly for algae "cleavers", for
 parasites. Two turtles seen with blue tags -
 thought to be males. ^{2002 and 2004?}
^{breeders on Trig}

7/4 Sun Basking turtles seen during summer months
 on Trig and Whale-Skate seem to be made
 of mixed population - ① breeders present for
 the season and ② residents.

7/5 Mon On East. Turtles as adults live an established
 routine life committing short distances from "sleeping"
 areas to feeding areas. This daily (or semi-daily)
 behavioral activity is broken by the desire to
 travel long distances for reproduction. The time
 spent before adulthood consists of numerous movements
 over long distances ^{over a long time span} too complex to recall.

7/6 Tues TO WS, Dive and photograph, to Trig just offshore,
 to Tern, stayed for dinner - Return to EAST.

* Note - Adult male Boskers often seem to be
 fatigued - not easily disturbed.

DATA COMPUTATIONS NEEDED -

1. CSW RATIO for MALES - stats F test w female data?
2. Length, width (curved-straight) for males
3. KRILLER'S weight-measurement data for each sex

puffer
 The Turt
 biting
 out

* SEPARATE data book needed to record separately each
 juvenile.

* accomplished

Have CB checked out -
water tight chest for whaler -
loaded gas in new motors -

7/7/76

Wednesday

Slept until ~ 1100h. Tried to scoop net turtles from boat - no luck. No abundant at East. 70 W-S. Only 2 or 3 juveniles seen off W-S, although tide was high. Are juveniles scarce due to aggressive sharks (not many apparent) or some environmental/climatic factor? Food??

① Food ② Shelter ③ Sex Prime motivations in animals life.

* Notes on Basking - Behavior while basking serves to regulate temperature. ① Distance above wave wash - on ^{season} off moist sand ② Hindquarters - limbs in wave wash ③ Throwing sand over carapace ④ Male (particularly) and females curling tail into sand

Bob Ferguson reports 3-4 (?) white vessels (Fishing type?) north of Tern Island - one reversed course - reported to district.

For 7/6, a slick of fuel oil (diesel?) ~~seen~~ a short distance off East ~ 50 yards wide, 1/2 mile long, moving slowly to West, out toward La Perouse.

What would account/cause squashing of size 68/ tag on distal flipper of juvenile? Cleaner fish? other juveniles? Adults?

puffer fish?
The turtle
biting its
own tag?

Determine method of measuring crushing power of turtle's jaws.

Concerning copulation scars on females - turtles that mated in April (or earlier) may not be expected to

Field notes/ideas are for naught if not
consulted at later dates!

wed.
7/7/76 ^{note}

have such visible signs.

Note for Mizovsky - small pop-tent at over end
of Island, bronze machinery in area 7-8 and my
tent all present ^{5/10/76} ~~still~~ ^{SP} but turtles have
not necessarily focused on these objects for nesting.

Given the number of tog recoveries each season and,
considering the number of togs put on in previous ^(for most)
seasons (both HMB and FWS), the breeding cycle ¹ must
be longer than 3-6 years.

or else - togs are falling off and puncture healing
or adult mortality after first breeding is
high, and recruitment is high (at
least higher than mortality as there are
more untogged females on beach than togged).

* A tally of number of females togged at FFS each
season is urgently needed in order to help
understand this important problem.

For reproductive biology paper Herdickson's 1969 comment
about Hawaiian *Chelonia* population being exploited to
point near extinction (or similar) with coming of
Cook needed correction - This probably
suitable only for Pacific Science(?).

7/8

Stayed on East all day photographing birds.

Note that each side of EAST IS. have
entirely different offshore characteristics -
SW - fringing reef that is bare at lower
low water (distance to breaking waves -)

7/8

7/9

7/10 0015

7/10/400

7/8 NE side has deep easy access approach, except for some coral patches. ^{Tide affects approach on one side - negative effect on other side.}

* Why would a turtle cross fringing SW reef with energy expenditure, when it could easily ascend NE side?

7/9 Between 1930 and 2300 h, seal pup born S side of East. First noted mother only this afternoon - new arrival to island, lots of green on fur.

Flip Nicklin reports that with fuller moon turtles will not let divers approach them.

7/10 0015 Another new adult pregnant seal (scars?) noted on East.

* A summary is needed of the number of long term recoveries per season (broken down ^{and bask vs. nesting} to original years of tag) vs. total number observed per season. A problem will be the differentiation of "resident" taggings and migratory breeding taggings. Complicating factors to consider are whether each turtle was tagged while basking or nesting (what is true status?) and whether each turtle was recovered while basking or nesting.

Seal nursing takes place at all times during the night. all seals crawl up very high (some into vegetation) at night.

7/10 1400 TAG NO. 1288, on Round log - EAST Island TO whale-skate - checked basking turtles for tags - took photos of birds in flight. BUOY TENDER "BUTTONWOOD" arrived at FFS with Chief Scotty O'Neil, Dale Hawes C.O. and Dallas Grady, Temporary medic.

7/11 1930

2300

7/12 Monday

7/10 1700 TO Tern. at 1830 dove with Flip Nicklin off North side of island. Saw landing craft wreck and sight when blue tog male starts sleep. Flip proceed above to coral head closer to tide shock where many juveniles are reported to be "cleaned" and sleep.

Purchased sleeping bag \$10.00, powerhead \$60.00 and scuba pro mask \$18.00 from NGS, Nicklin. Stayed on Tern overnight. Walked down beach once at ~midnight, one track up down at eastern end of south beach.

7/11 SUN Got up at ~0700, had breakfast, walked to other end of island and photographed Terns and chicks. Also white and chick-feeding. Proceeded to W-S, underwater photos. TO East - caught one Kawa Kawa and one Ulua (for shark line). Shark observations summary: 7/9 Tiger shark seen eating black gooney off area 12 at approx 0630h. Shark line set late afternoon 7/9 using dead gooney. 7/10 early morning - Tiger shark seen chasing Laysan gooney - missed. Did not take line. 7/10 filleted Ulua I put on hook. 7/11 found head only of gray reef shark. 7/11 baited hook with fresh caught whole ulua.

7/16/76

* Ask Emmett Finch about stakes (iron) on coral heads.

→ TAG 1271 - 1st log before round log - south side

→ TAG 1289 - Door step plank - in front of tent

7/11 1930 Turtle ♀ observed coming out on end of sand point - passing over to south side.

2300 New seal pup born area 7

Heavy rain - wind all night. Packed up camp after first light - returned to Fern IS.

7/12 Monday Depart 1330 on air National Guard Carabou with NBS people. Buoy tender departed early afternoon

^{SUN} 7/11 for Laysan Island to intercept Japanese fishing vessels reported 5 miles off shore.

Dallas Grady in to replace Doc. at 1500^h 7/11 reported seeing juvenile turtle being "cleaned"

at boiler (20' deep this side of sunken landing craft). Also reports seeing this behavior around major islands.

Returned to Hickam Air Force Base - National Guard area about 1815. Palmer met plane with large Coast Guard truck to pick up NBS equipment.

7/16/76

IMPORTANT NOTES - It is possible that some turtles "corrode" tags faster than other individuals - consider T209. This may be due to location, posture inhabited, food consumed, ^{and/or} unknown body chemistry factors.

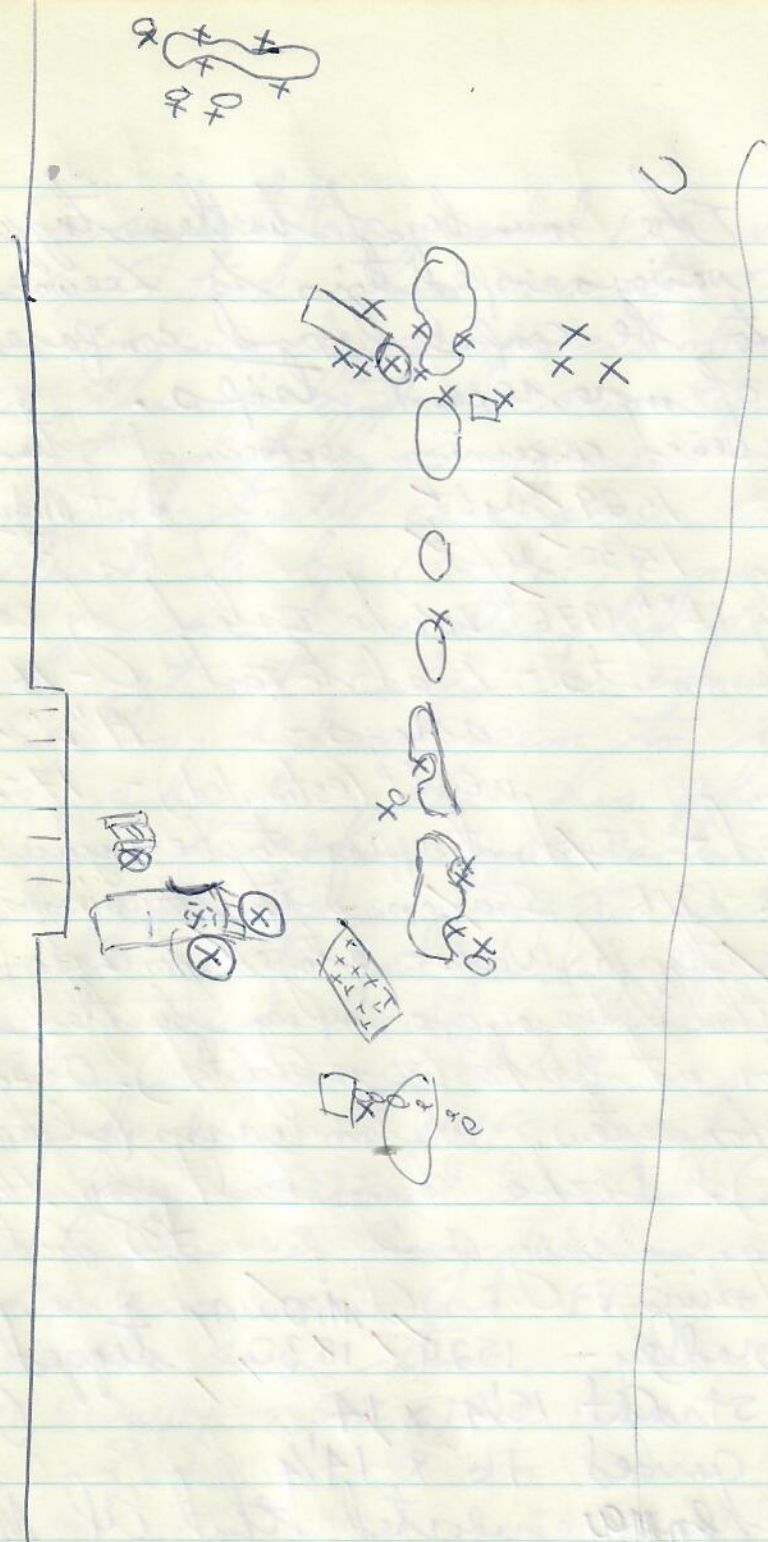
also consider possibility that some adult turtles that "seem" to be resident to FFS may periodically migrate to some other location (PH?) for reproduction. This leads back to your previous idea of migration ^{possibly} being carried out for physiological well-being purposes.

Bates Littlehales
National Geographic
Washington, D.C., 20036

Elip Nicklin
1020 Granada
San Diego, Cal 92109
Tel (714) 272-1120

DIVING LOCKER
348 E. GRAND AVE
ESCONDIDO, CA 92036

Underwater photography
and safety dives



♀ + + +
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♀ ♀

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10777

7/16/76 cont - Notes - The numbers of turtles tagged/observed during various expeditions to Leeward Islands need to be compiled and compared with those of more recent trips.

Thurs
8/12 -
8/20/76
Friday

7/20/76 Call received concerning recovery of turtle

1529 sight

1530 - left

left at Midway
May 1975

on July 12th, 1976 Wake Island by scoop net.
measurements - Head to tail 16"
across - 14 1/2"

weight (estimated) - 17-20 lbs

Released - Did not appear to be injured or sick.

Tel 262-8916 Seaman with Hawaiian Tug and Barge. Passed through Wake - stayed for 2 days.

Reports that there are many turtles in Harbor at Wake (10-15 sighted). Also many(?) taken for stew. Water warm (like now in Honolulu). Docks being built by Hawaiian Dredging. Navy-Army present. Lots of sport diving.

22 APR 2002

From Bradley - 1529, 1830, tagged January 4, 1976 / straight 15 1/4 x 14 curved 16 x 14 1/4

MIDWAY

8/26-9/4/76
10/21/76

8/12 Dan Cherny reported that Al Manya caught turtle 1485 in net at Fihio Kalani Park, May 31, 76 - He is a worker at weather station, Hilo, A. R. Port - 2' green released.

Thurs

8/12 -

Friday

8/20/76

Causey Whitlow visited FFS via C-130 -
 CG took him over to Trig for
 one (or two) days of seal observations.
 On this island he saw turtle "craters" -
 but hatchlings apparent; observed
 adult turtle carcass in shallow water.
 Head, limbs (tail(?)) missing. approx.
 12' shark attempted for some time
 to get at ^(I have photo) carcass. Too shallow.
 Seals did not seem to take notice
 of shark. He has photo of carcass.
 In telephone conversation of 9/7/76 Tues
 he indicated wanting to write proposal
 with me to get funding for thermoregulatory
 work. Need per diem, radiometer.
 Admiral gave talk to men on Tern Is.
 Spoke down on NMFS report. Men were
 unhappy about not being able to visit other
 islands. 2 Bury tenders and two 95'
 cutters were at FFS + 35 women
 at the same time.

8/26-9/4/76 TO MIDWAY - SEE OTHER BOOK

10/21/76

Phone patch to Dale Hower via
 Com Sta Honolulu (653-5342) concerning
 possible dangers in use and defect
 cartridges of McNair quick load
 bang stick. They are now active
 on MARS net, 10AM each day.
 Brent reports 2 turtles at stick shock (as of 10/7/76)

I have photos showing belly bitten out
 (cont) They caught Tigershark yesterday - 11 1/2' long
 10/21/76 used Bait for bait. Stomach of Tiger
 was bitten out.
 (Brent of 10/7 reports CG saw 5 hatchling
 going down beach. also a dried up
 one found by trash dump - carried by
 dogs, birds, or crawled there?)

FRIDAY
 11/19

NOVEMBER TO BARBER'S POINT NAS w/ Alan Kam for
 11/18/76 C-130 flight to FFS - flight delay to 2/1200
 Thursday ate breakfast at Navy Cafeteria - saw building
 "KAI DIVERS"

Depart ~ 1330 -> to intersecting at high
 altitude, drop to 500', to Nihoa (rain
 showers) - didn't see Necker, to
 FFS via W-S, Trig (vegetation).
 At Tern informed that last week large
 waves came onto runway, undermined
 sea wall, etc. ~~There~~ Trash up
 on island. Walked ~~around~~ around island - much
 erosion around iron sheet on both side.
 out ~ 2200 to photograph bonin Petrels in antenna
 field.

11/20/76
 SATURDAY

11/19/76
 FRIDAY

Morning - readied boat - Need: ① New Gas Cans ② Fuel
 line ③ Fitting for steering cable ④ Tent
 ~1430 TO Trig - As on Tern, Albatross are present - informed
 that they arrived ~ 2 weeks ago - some already
 have eggs - Trig has more vegetation - sand island
 present - sand sheet to south of main island.

~1/


FRIDAY

11/19 Trig continued:

Many seals in large group to East end w/2 basking turtles.

TO WHALE - Skate, set up tent - many ^{black} footed albatross; Seal w/pup not more than 2 weeks old. Cluster of 9 SA this year pups at southern end - not with bigger seals. No big scavola on W-S. Water feels warm.

Female basker observed on Trig with abnormal plate counts - 5 laterals on left and right;

6 centrals →  small

Question -

Why do turtles bask in the same locations?;

Sections of beach?

Use Helicopter USG to aerial survey remote areas of FFS at rest of chain - Check with Lt. Ramsey.

11/20/76 ~1000 Saw large Tiger shark come in very close in cove. Spent morning photographing birds in flight, etc. Light wind, sunny sky, but not hot.

~1300 Looked for small turtles in front of W-S (Cove) Saw ^{only} two, but unable to properly approach. ~1400 to East. Sand point is in "twisted" shape. Many black footed - do they arrive before Laysan? Round log is back in area 13. [Surveyed from boat Round and Mullet before going to East] East, look dry, not much green vegetation. Shearwater chicks are nearly full grown - only some "fuzz".

Sat
11/20/76 (CONT.) Notes: Need sighting form for FF, MARCUS, LANTON,
NIIHAW/kauai.

Masked booby seen to feed juvenile after it is flying.
Notes - Fair industry interview on KTHVH - Resident in
N.Y. - # 280M - 1971U 1975 # 725M charge occurred by
starting #1M advertising campaign - Buyers are 17-250gl.

Hedid radio KEX Oregon (Portland?) 1200Kc.
Consider correlation of stage of tide and
number of juveniles caught for each expedition.
NO BASKERS ON EAST DURING MOST OF
NON-BREEDING MONTHS, ∴ DIFFICULT TO
DETERMINE WHICH BASKERS ON TRIG/W-S
ARE MIGRANT BREEDER DURING BREED SEASON.
NO SUCH DIFFICULTY FOR EAST, ASSUME ALL
ARE MIGRANTS.

11/21
SUNDAY TOOK photos on W-S during AM. Not much
good light. ~1130 motored to cove to
Tern. Rain - misty weather moved in until
~1430. Made up shark line using anchors,
saw Dale's photos of last Tiger Shark.
Returned to W-S via Tig, fished all
the way, caught small white Ulua in W-S Cove.
Brought back movie camera.

UNIT Effort summary looking for/catching juvenile
turtles - 11/19^{W-S} - 30 minutes ^{saw 1} 11/20^{W-S} - 45 minutes - saw 2
EAST - ~45 minutes - saw 2 11/21^{W-S} - 45 minutes saw 0
out about ~2200h, found what I believe to be Bulwer
Petrels on Whale bend.

11/22
Monday Up at ~0730, set anchor-type shark line w/white
ulua for bait. Photos of birds during morning

11/22/76
MONDAY

~1730
♀

11/22/76
MONDAY

hours. at ~ 0815 saw Tiger shark in cove - possibly two(?). at 1100h observed Black-footed lay egg. Happened very quickly. Male right there. Both "talked" to egg for short time (photos), then female sat down for incubation. Male in attendance (for how long?). ~ 0030 in boat - no juvenile turtles seen - depart for Bin-L Bin on a somewhat direct course.

"Thunderous" waves rolling in at both of these islands. Water turbid for considerable distance to West. Is this how these islands are formed? To Lakerouse Pinnacles. Big waves rolling over Little Lakerouse. Photos. Water Turbid. TO EAST Island via break in West Reef. Waves rolling in along NW shore. TO W-S return. Some wave action in cove.

Caught ^{54" MALE} shark (Gray?). Stomach contained tail portion of bait (two stakes?) and what appears to be digested tentacles of octopus/squid. Same as regurgitation noted yesterday from juvenile seal.

(?) also many top worms in seal spewing. Movie 8mm of basking turtles and sleeping seals.

~ 1730

♀♂

Two male boskey on beach, one with tail ~ 3/4 off within past two months - offshore a copulating pair observed - appeared to be sustained - at surface for ~ 10 minutes - photos with Telephoto. Male looked on appeared to have very light colored (greenish) shell.

NOTE: Purpose of my FFS work is to establish baseline data which will

MONDAY
11/22

permit determination of future population trends. Such definitive information was needed long ago. Author concludes that, based on population numbers alone, the turtles of FFS are "endangered" by every definition of the word. If FFS is sole colonial breeding site providing recruitment to Hawaiian population, then Hawaiian

Thursday
1/13/77

Tuesday
11/23

Chelonia population is also "endangered".
~0300 Noted Tennis Court Lights signal - CB notification that C-130 will come at ~1100 11/23.

~0700

Got up for photos and two rolls of 8mm movie. Wind/swell out of Westerly. ~0915 a ~~booby~~ turtle came out - 9592 male. Broke camp, returned to Tern.

DEPART

22 APR 2002

C-130 arrived at ~1215. Departure delayed ~1400-1430 due to #4 engine problem (note - landed - take off from East direct - killed one Jayson on landing). About 60 miles from Nihoa sighted orange/black fishing boat "Tamaru Maru" (Hondolun?). East Nihoa one tanker underway. Landed at Lihue to pick up CB vehicle - depart for Honolulu ~1720.

Shark Island reported to be not present

12/13/76

1414

Call from George Ramsey relaying message that FFS CG found turtle 1616 washed up on beach at Tern Island - dead. In plastic bag and frozen.

Thursday
1/13/77

+ civilian employees
 Ramsey aboard, ^{CMDR VANSOY} NAVIGATOR
 DEPART BARBER'S POINT AIR STATION for **FFS**-
 TO NAI'A they low level fishery patrol-
 low over Nihoa [big waves rolling in].
 Long line vessel north of Nihoa - line
 (set perhaps 5 miles long). Low over
 Necker [WA photos taken]. North of
 FFS saw ~ 2 ^{GREEN TURBID WATER EXTENDED} whales. TO
 GARDNER PINNACLES [WA Photos]. TO
 LAYSAN, low level flight around - [WA
 Photos] - (before Laysan - right over Maro
 Reef - dog leg to pronounced "S" reef -
 some coral rubble seen out of water.
 Some areas within are well protected,
 possibly good anchorage if you can get
 inside. Saw two fishing vessels
 (Japan and/or Korean) on way back from
 Laysan. Landed at **FFS** - Ramsey,
 other local leader and tower into receiving.
 Civilian employees moved into FW quarters
 for 3 weeks or longer. Informed that
 Jerry Murdock's 3 year old daughter died -
 he went home. Downs (tall fellow)
 wants turtle T-shirt. LAVINE found
 turtle (he will enter 2 months) along
 South beach. Clark will take sea
 water temperatures. BMC, O'Neal going
 home next week. About one week
 ago wave washed what was fixed
 as rampbill over seawall by
 iron wood no. 2 sign. Report form in file.

cont. I pick up small turtle basking just
 1/13/77 above waves on South Beach of
 Thursday Tern Is. TW 11th mark right for log -
 measured and released.

Brought back frozen turtle found by
 hapene (captive release). Also CB
 units, long handled sponges, and pmp HMB motor.
 Depart FFS - (land from east, look off
 from east) - went slightly N of East
 Island - higher level - return to
 Barber's Point about 8:30 PM. Drive
 Rodely to Honolulu International Airport.

3/31/77 Depart USCG C-130 Barber's Point
 Thursday for FFS - 8:25 AM -
 LCDR Hendricksen - Pilot ^{sgnd} book
 Davis - Co pilot

also aboard is TV and radio news crew,
 PR people for CG and McDonalds -

Clark is returning after 21 days absence -
 also new CO, Mr. Bankster, going out

Depart ~ 2:15 PM - several passes over Tern -
 pass over all others - Karl Kenyon made seal
 counts - I looked for turtles -
 Request from Chief Connor for me to check
 * into "Turtle Club" - also for photos.

Thursday
 3/31/77
 cont.

4/29/77

Thursday
3/31/77
cont's

MARK FURZON ^{- T-shirt} of FWS person has been collected turtle data, along with seals - reports that ♂ turtle #948, on W-5 9 March 77, 1221 on Trip 28 March. Has charts showing seal locations at each two week survey. No indication of nesting reported - Karl says he saw Shayk's bill (clear shell) by tide shack - he will check picture. *

McDonald's Customer Relations representatives on flight - in photos - Vera Lang (Ughjawa); La Kerne R. Hatch (Alamoana, King, Waikeiki); Mary McDougall (Pillingham); Paula Lum (Kareoke)

4/29 (Friday) 1977 Call from Brent Giezentanner, just returned from Midway - Easy Rider's trip (departed Hono ~ April 5). Very strong wind at P.H. gathered inside 4/16 - 4/18 70kt winds - ashore on SE Island, base camp 4/19 - 4/24/77 - Saw 13 turtles, 9 at one time, basking on beach - some with tags (USFW KAILUA) but could not read number - upside down - also saw some small turtles - in the water - They caught ~32 sharks - apparently 4 were Tigers - one had blaps of 6 turtles also, there was shell of 20" turtle - all material preserved.

Brent (cont.)

4/29

(cont)

Earlier in month at Necker they saw
4 large turtles basking. Also counted
about 42 seals. Report that
couple on Laysan are doing fine.

Didn't have much time on Lisianski -
couldn't find ^{the} bones (previous reported by
Fred Zeilermaker - to be recovered)

4/28-4/29 Curt Haney into Honolulu - reported
that new Midway regulations are now
in effect - also that Easy Rider - Kimble,
XO and wife will go to PH for
salvage attempt.

Pit Counts

DATE	IS EAST	2 (good)
5/11		
6/28/76	FAST	25-30 mostly s shore of IS nearly all maximum observable - very intact
6/29	L. GIN	4-5 along W bank - none in center of IS,
6/29	GIN	none observable
6/30	W-S	43 (26 on Whale end)
6/30	TRIG	20
7/9 Friday	TRIG	very few new pits present

no observed
 " 2+ (?) ESTIMATED "

of those,
 Successful
 " 2 estimated " →

NO DAYS	NIGHT/AM TO/FR	DATE
1	6/28 - 6/29	6/28 - 6/29
2	6/29 - 6/30	6/29 - 6/30
3	6/30 - 7/1	6/30 - 7/1
4	7/1 - 7/2	7/1 - 7/2
5	7/2 - 7/3	7/2 - 7/3
6	7/3 - 7/4	7/3 - 7/4
7	7/4 - 7/5	7/4 - 7/5
8	7/5 - 7/6	7/5 - 7/6
9	7/6 - 7/7	7/6 - 7/7
10	7/7 - 7/8	7/7 - 7/8
11	7/8 - 7/9	7/8 - 7/9
12	7/9 - 7/10	7/9 - 7/10
13	7/10 - 7/11	7/10 - 7/11
14	7/11 - 7/12	7/11 - 7/12

Computation made for JAN
 11/16/92

24 Turtles in 13 NIGHTS) ?

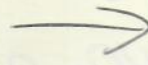
1976 NUMBERS OF ♀ TURTLES PER NIGHT 61

NO DAYS	Night AM to AM DATE	NO. OBSERVED	New OBSERVED	of those -		Island
				NO. SUCCESSFUL		
1	6/28 - 6/29/76 Monday	4	4	3		East
2	6/29 - 6/30	2	2	1		East
3	6/30 - 7/1	1	1	0		East
4	7/1 - 7/2	5	5	2		East
5	7/2 - 7/3	1	1	0		Trig
→ 6	7/2 - 7/3	2	2	2		East
7	7/3 - 7/4 Sat Sun	3	3	1		East
8	7/4 - 7/5	5	5	4		East
9	7/5 - 7/6	3	3	1		EAST
10	7/6 - 7/7	5	5	3		EAST
11	7/7 - 7/8 Wed Thur	6	6	4	000	EAST
12	7/8 - 7/9 Fri	4	4	3	000	EAST
13	7/9 - 7/10 SAT.	1	1	0		EAST
	7/10 - 7/11 Sun	1	1	0		
14	7/11 - 7/12 Full Moon Mon	4	4	3		TERN IS. EAST

next day observation at EAST revealed possibly only one successful nesting



Recomputed
for JAW 11/16/92



PM TO A
DATE

6/28-6/29

6/29-6/30

6/30-7/1

7/1-7/2

7/2-7/3

7/3-7/4

7/4-7/5

7/5-7/6

7/6-7/7

7/7-7/8

7/8-7/9

7/9-7/10

7/10-7/11

7/11-7/12

1976 NUMBER OF NESTING TURTLES 63
 PER NIGHT - EAST ISLAND

PM TO AM
DATE

TOTAL NO. OBSERVED

NEWLY OBSERVED

6/28-6/29/76	4	4
6/29-6/30	2	1
6/30-7/1	1	1
7/1-7/2	5	1
7/2-7/3	2	1
7/3-7/4	3	1
7/4-7/5	5	5
7/5-7/6	3	1
7/6-7/7	5	2
7/7-7/8	6	3
7/8-7/9	4	3
7/9-7/10	1	0
7/10-7/11	— NO COVERAGE —	
7/11-7/12	4	1

13 NIGHT
COVERAGE

24 TOTAL

JUVENILE TURTLE TAGGINGS

APR 2002

DATE	TAG NOS.	CURVED	STRAIGHT	WT.	IS.	REMARKS
4/9/76 ^{Friday}	(1758 ^{LF} , 1759 ^{RFL}) (227 ^M TW MAR. 11 th marginal)	20 1/2 x 18 1/2 52.1	19 1/2 x 15 3/8 47.0	36 1/2 lbs 49.5 / 39.1	-	W-S
4/9	(1757 ^{LF}) (226 ^M TW MAR.)	21 1/8 x 19 53.7	19 7/8 x 16 48.3	39 lbs 50.5 / 40.6	-	W-S
4/9	(1760 ^{RF}) (228 ^M TW MAR.)	18 x 16 45.7	16 7/8 x 13 7/8 40.6	- 42.9 / 35.2	-	W-S
4/9	(1761 ^{LF} , 1762 ^{RFL}) (229 ^M TW MAR.)	20 1/8 x 17 1/4 51.1	19 x 14 3/4 43.8	- 40.3 / 37.5	-	W-S
4/9	(1763 ^{LF} , 1764 ^{RF}) (230 ^M TW MAR.)	21 x 19 1/2 53.3	20 x 16 3/4 49.5	- 50.8 / 42.5	-	W-S looks like a captive color
4/9	(1765 ^{LF} , 1766 ^{RFL}) (233 ^M TW MAR.)	19 7/8 x 17 1/2 50.5	18 3/4 x 15 1/4 44.4	- 47.6 / 38.7	-	W-S
4/9	(1767 ^{LF} , 1768 ^{RFL}) (234 ^M TW MAR.)	18 3/8 x 16 1/8 46.7	17 3/4 x 14 41.0	- 45.1 / 35.6	-	W-S
4/9	(1769 ^{LF} , 1770 ^{RFL}) (236 ^M TW MAR.)	20 1/2 x 19 52.1	19 5/8 x 16 1/8 48.3	- 49.8 / 41.8	-	W-S
4/9	(1771 ^{LF} , 1772 ^{RFL}) (237 ^M TW MAR.)	18 3/8 x 17 46.7	17 1/2 x 14 1/2 43.2	- 44.4 / 36.8	-	W-S
4/9	(1773 ^{LF} , 1774 ^{RFL}) (238 ^M TW MAR.)	17 1/4 x 15 3/8 43.8	16 5/8 x 13 1/2 39.1	- 42.2 / 34.3	-	W-S
4/10 Sat	(1776 ^{LF} , 1777 ^{RFL}) (242 ^M TW MAR. small hole in 10 th margin)	18 3/4 x 16 1/2 47.6	17 7/8 x 14 1/8 41.9	- 45.4 / 35.9	-	W-S
4/12 Mon	(1778 ^{LF} , 1779 ^{RFL}) (245 ^M TW MAR.)	19 3/4 x 17 5/8 50.2	18 7/8 x 15 1/4 44.8	- 47.4 / 38.7	-	W-S
4/12	(1780 ^{LF} , 1781 ^{RFL}) (246 ^M TW MAR.)	19 7/8 x 18 50.5	18 3/4 x 15 3/8 45.7	- 47.6 / 39.1	-	W-S
4/12	(1782 ^{LF} , 252 ^M RF) (251 ^M TW MAR.)	17 1/8 x 16 1/4 43.5	16 3/8 x 14 41.3	- 41.6 / 35.6	-	W-S

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JUVENILE TAGGINGS (CONT.)

DATE	TAG NOS.	CURVED	STRAIGHT	WT	IS. REMARKS	DATE
4/12 ^{MON}	(1783 ^{LF} , 253 ^{RFL}) (244 ^{TWMAR})	16 1/2 x 14 1/2 41.9 / 30.8	15 3/4 x 12 1/4 40.0 / 31.1		W-S	4/17/77
4/12	(1784 ^{LF} , 1785 ^{RFL}) (247 ^{TWMAR})	20 1/2 x 18 3/4 52.1 / 47.6	19 3/4 x 16 50.2 / 40.6		W-S	4/18
4/12	(1786 ^{LF} , 254 ^{RFL}) (249 ^{TWMAR})	15 1/2 x 14 1/2 39.4 / 30.8	14 7/8 x 12 1/2 37.8 / 31.8		W-S	4/18
4/12	(1787 ^{LF} , 1788 ^{RFL}) (248 ^{TWMAR})	18 x 16 1/8 45.7 / 41.8	17 x 13 3/8 43.2 / 34.0		W-S	4/18
4/13 ^{Tues}	(1792 ^{LF} , 1793 ^{RFL}) (255 ^{TWMAR})	19 5/8 x 17 7/8 49.8 / 45.4	18 5/8 x 15 3/8 47.3 / 39.1		W-S	4/18
4/13	(1794 ^{LF} , 1795 ^{RFL}) (259 ^{TWMAR})	17 3/8 x 16 1/4 44.1 / 41.3	16 5/8 x 13 5/8 42.2 / 34.6		W-S	5/11/77
4/13	(1796 ^{LF} , 1797 ^{RFL}) (261 ^{TWMAR})	18 7/8 x 17 1/8 47.9 / 43.5	18 x 15 45.7 / 38.1		W-S	5/12
4/14 ^{wed}	(1804 ^{RF} , 1805 ^{LFL}) (262 ^{TWMAR})	19 3/8 x 17 1/4 49.2 / 43.8	18 3/8 x 14 5/8 46.7 / 37.1		W-S	6/29/76
4/14	(1807 ^{RF} , 1808 ^{LFL}) (264 ^{TWMAR})	20 3/8 x 18 3/4 51.6 / 47.6	19 1/2 x 15 3/4 49.5 / 40.0		W-S	5/13/77
4/14	(1809 ^{LF} , 266 ^{TWMAR})	16 5/8 x 15 1/8 42.2 / 38.4	15 7/8 x 12 7/8 40.3 / 32.7		W-S	5/13/77
4/14	(1810 ^{LF} , 269 ^{TWMAR})	16 3/4 x 14 3/4 42.5 / 37.5	16 1/8 x 13 41.0 / 33.0		EAST	5/13/77
4/14	(1811 ^{LF} , 271 ^{LFL}) (268 ^{TWMAR})	17 3/8 x 15 3/8 44.1 / 39.1	16 5/8 x 13 1/2 42.2 / 34.3		EAST	
4/14	2002 Blue plastic (Good shape) Small tog on TW squashed				MALE 1/2 TAIL BASK TRIG	
Should be in RECOVERY table page 79						
4/17 ^{Sat}	(1812 ^{LF} , 1813 ^{RFL}) (276 ^{TWMAR})	18 5/8 x 15 1/8 47.3 / 38.4	20 x 17 1/8 50.8 / 45.4		EAST	

JUVENILE TURTLE TAGGINGS (CONT.)

MARKS	DATE	TAG NOS	CURVED	STRAIGHT	WT	IS-REMARKS
✓	4/17/76	1814 ^{LF} , 1815 ^{RFL} (280 ^M TW MAR)	17 ³ / ₈ x 16 44.1 / 40.6	16 ³ / ₈ x 13 ³ / ₄ 41.6 / 34.9	---	W-S 3 distinct edges in LAMINAE
S	4/18	1816 ^{LFL} (282 ^M TW MAR)	16 ³ / ₄ x 15 42.5 / 39.1 SKIN NECK BARNACLES	16 x 13 ¹ / ₈ 40.6 / 33.3	---	EAST
W-S	4/18	1817 ^{LF} , 1818 ^{RFL} (285 ^M TW MAR (new))	18 x 15 ⁷ / ₈ 45.7 / 40.3	17 ¹ / ₈ x 13 ¹ / ₄ 43.5 / 33.7	---	EAST
W-S	4/18	1819 ^{LF} , 1820 ^{RFL} (284 ^M TW MAR (new))	17 ⁵ / ₈ x 15 ¹ / ₂ 44.8 / 39.4	16 ³ / ₄ x 13 ¹ / ₂ 42.5 / 34.0	---	EAST
W-S	4/18	1821 ^{LF} , 1822 ^{RFL} (286 ^M TW MAR)	20 ³ / ₈ x 18 ¹ / ₂ 51.8 / 47.0	19 ¹ / ₈ x 15 ⁵ / ₈ 48.6 / 38.4	---	W-S
W-S						
W-S	5/11/76	1723 ^{LFL} , 600 ^{RFL} (522 ^M FI, 523 ^M FL)	19 x 17 ⁵ / ₈ 48.3 / 44.8	17 ⁷ / ₈ x 14 ⁹ / ₁₆ 45.4 / 37.0	---	EAST
W-S	5/12	522 ^M FI, 523 ^M FL	17 x 16 43.2 / 40.6	16 ¹ / ₄ x 13 ⁵ / ₈ 41.3 / 34.6	---	W-S
W-S						
W-S	6/29/76	1835 ^{RFL} <i>Orange ear tags</i>	18 ¹ / ₈ x 16 ¹ / ₄ 46.0 / 41.3	17 ¹ / ₄ x 14 ¹ / ₈ 43.8 / 35.9	251bs	EAST
W-S						
W-S	1/13/77	(11 things right drill hole - large Tie wrap)	16 ³ / ₄ x 14 ³ / ₄ 42.5 / 37.5	15 ³ / ₄ x 12 ³ / ₄ 40.0 / 32.4	---	Black Tern Photos Grow RINGS?
EAST						
EAST						
EAST						
(R16)						
EAST						

Juvenile Turtle taggings (cont.)

<u>DATE</u>	<u>TAG NOS.</u>	<u>CURVED</u>	<u>STRAIGHT</u>	<u>WT</u>	<u>IS.</u> <u>REMARKS</u>	<u>DATE</u>
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Juvenile Turtle Taggings (CONT.)

IS.
MARKS

DATE

TAG NOS.

CURVED

STraight WT.

IS.
REMARKS

1208-BAD TAG

ADULT ^{BASKIN} TURTLE TAGGINGS

25 APR 2002

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DATE	TAG NOS.	CURVED	STRAIGHT	IS. -	REMARKS
4/10/76 ^{SAT} 1600	1206 ^{RF}	2/31781 TEEN-NEST Rec'd. by Schulmeister	ENT. NO. 149 FEMALE	BASK TRIG	Adult female ♀
4/10/1600	1210 ^{RF}	-	MALE	BASK TRIG	♂ tail 1/2 off
4/10/1600	1207 ^{RF}	-	MALE	BASK TRIG	♂ BLACK
4/10/1600	1209 ^{RF} , 1211 ^{RFL}	2 DIOLEFLAP plastic		BASK TRIG	♀
4/10/1800	1212 ^{LF}	male short tail not injured		BASK W-S	♂
4/10/1800	1213 ^{LF}		FEMALE	BASK W-S	♀
4/11/1430 ^{SUN}	1215 ^{RFL}		MALE	BASK TRIG	♂
4/12/1216 ^{MONDAY}	1216		MALE	BASK EAST	sandpoint
4/12/1217	1217		MALE	BASK EAST	sandpoint
4/12/1218	1218 ^{RFL}		MALE	BASK EAST	SEP
4/12/1219	1219 ^{LF}		FEMALE	BASK EAST	SEP
4/12/76	1220 ^{MALE}			BASK TRIG	
4/12/76	1221 ^{FEMALE}			BASK TRIG	
Two adults tagged, but one of the tags lost in SAND. (3/28/77) Rec'd by MAX RIJZOV BASK TRIG					
4/13/1226 ^{Tues}	1226 ^{LF}			BASK TRIG	Female
4/13/1227	1227		MALE	BASK TRIG	
4/13/1228	1228		FEMALE	BASK TRIG	
4/13/1229	1229		FEMALE	BASK TRIG	
4/13/1230	1230		SEX (NOT UNK (DET))	BASK TRIG	
4/13/1231	1231		FEMALE	BASK TRIG	
4/13/1232	1232		FEMALE	BASK TRIG	
4/13/1233, 1234	1233, 1234	(not on good)		FEMALE	BASK TRIG
4/13/1236	1236		FEMALE	BASK TRIG	
4/13/1237 ^{RF} , 1799 ^{LFL}	1237 ^{RF} , 1799 ^{LFL}		C 30 x 26 ³ / ₄ 70.2 / 67.9	FEMALE?	BASK TRIG
4/13/1238 ^{RF} , 1800 ^{LFL}	1238 ^{RF} , 1800 ^{LFL}		C 28 x 28 ¹ / ₄ 71.1 / 71.8	FEMALE?	BASK TRIG
4/13/1801 ^{FL} , 1802 ^{FL} , 1803 ^{LFL}	1801 ^{FL} , 1802 ^{FL} , 1803 ^{LFL}		C 30 ¹ / ₄ x 27 ³ / ₄ 76.8 / 70.5	FEMALE?	BASK TRIG
Black coloration photos of plastic/carpose					

74 TAG 266 Good
25 APR 2002

ADULT TURTLE TAGGINGS (cont.)

DATE	TAG NOS.	CURVED	STRAIGHT	IS - REMARKS	DATE
4/14/76	1239 LFL		SMALL FEMALE	BASK TRIG	4/19/76
4/14	1240 LFL		FEMALE	BASK TRIG	4/20/76
4/14	1241 F		MALE	BASK TRIG	//////
4/14	1243 LFL		MALE	BASK W-S	
4/14	1244 LFL		MALE	BASK W-S	
4/16	1242 RF		FEMALE	BASK TRIG	
4/17 ^{sat}	1245 RFL	LARGE - LFL missing but well healed possibly not on photos	MALE	BASK GIN	
4/17 ^{4/18}	1246 LFL	good TRMS on tail	FEMALE	copulating W-S	
4/17 ^{6/9/80}	1247 LFL		small FEMALE	BASK TRIG	
4/18	1248 LFL		FEMALE	BASK W-S	
4/18	1249 LFL		FEMALE	BASK W-S	
////////////////////					
5/10/76	1250 RF		MALE	BASK W-S	
5/10	1251 RFL, 1252 RF		FEMALE	BASK W-S	
5/10	1253		FEMALE	BASK TRIG	
5/10	1254		FEMALE	BASK TRIG	
5/10	1255 LFL	Big and Bik	FEMALE	BASK STRIG ^{OUT}	
5/11	1256		FEMALE	BASK MOLLER	
5/11	1257 RFL		MALE	BASK EAST	
5/11	1258 RF		FEMALE	BASK EAST	
5/11	1259 LFL		MALE	BASK EAST	
////////////////////					
6/29/76	1265 LFL	without TC	FEMALE	BASK GIN	
7/6/76	1282 LFL	91.5 x 38 x 36 91.4 x 36 x 29 74.0 x 34 x 33 83.5 x 26 67.3 x 26 1/2 Black RFL PART MISS	MALE	BASK EAST	
7/6	1283 LFL, 1284 RFL	Black (twinn)	MALE	BASK EAST	
7/9 Friday	1305 RFL	(not locked properly)	FEMALE	BASK TRIG	
7/9	1302		FEMALE	BASK TRIG	
////////////////////					
11/19	2072 LFL	INCORREL	MALE	BASK W-S	

ADULT TURTLE TAGGINGS (cont)

25 APR 2002

DATE	TAG NOS	CURVED	STRAIGHT	IS - REMARKS
11/19/76	2073L ^{INCONEL}			BASK W-S
11/20/76	2074LFL ^{INCONEL}	♀ RF 1/2 miss	curled PC tail Freshly off	SMALL MALE BASK W-S NEW POINT BASK W-S carapace has extensive old scratches.

~~W-S~~
~~W-S~~
~~TRIG~~
~~FIN~~
~~W-S~~
~~TRIG~~
~~W-S~~
~~W-S~~
~~W-S~~
~~TRIG~~
~~TRIG~~
~~TRIG~~
~~TRIG~~
~~W-S~~
~~EAST~~
~~EAST~~
~~EAST~~
~~FIN~~
~~EAST~~
~~EAST~~
~~TRIG~~
~~TRIG~~
~~W-S~~

TW = electrical plastic Tie wrap

25 APR 2002

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TURTLE RECOVERIES

Red Pen ORIGINAL DATA

DATE	TAG NOS	CURVED-STRAIGHT	WT	ORIGINAL DATA	REC. LOG
4/9/76	1635 ^{LF} , 1634 ^{RFL} 232 ^{TW} MAR (new TAG) 169 ^{TWR} M	22 1/2 x 19 1/2 21 1/8 x 16 1/4 57.2 - 49.5 - 53.7 - 41.3			W-S
4/9	1687 ^{RF} , 1688 ^{RFL} 235 ^{TW} MAR (new)	18 3/4 x 16 1/2 18 x 14 1/4 47.6 - 41.9 - 45.7 - 36.2			W-S
4/9	1637 ^{LF} , 1638 ^{RF} 1639 ^{RFL} , 239 ^{TW} MAR (new)	22 x 19 5/8 17 1/8 x 14 1/8 21 1/8 55.9 - 49.8 - 43.5 - 53.7		very end of front flippers off, but healed ends of front flipper off - healed	W-S
4/10	(old 702) 5L bark release	30 1/2	28 3/4 x 22 3/4	77.5 - 73.0 - 57.8	Basking RFL off W-S
4/10 sat	583, (584 OFF) 582M, 1775 ^{RF} , 240 ^{TW} MAR New	18 x 16 1/8	17 1/4 x 14	45.7 - 41.0 - 43.8 - 35.6	EAST
4/10	1711 ^{LF} , 161 ^{TW} M ^{LF} 241 ^{TW} MAR (new)	21 x 18 1/4	20 1/8 x 16	53.3 - 40.4 - 51.1 - 40.6	EAST
4/11 sun	747 short tailed male 1214 ^{LF} (new) (PC)				BASK TRIG
4/10 sat	945 ^{RF} , 947 ^{LF} (PC) 3 female				BASK TRIG
4/11/76	1806 940 ^{RF} adult male tail 1/2 off				BASK W-S
4/12/76	1948 ^{RF} adult male				BASK N Point W-S
4/12/76	1776, 1777, 242 ^M				already captured this expedition - 4/10/76 W-S
4/12	1640 ^{RF} , 1641 ^{RFL} 1642 ^{LF} , 243 ^{TW} MAR (new)	21 x 18 3/8 20 x 15 1/4 53.3 - 40.7 - 50.8 - 38.7		pieces of (or tubbin' in) sargassum in mouth	W-S
4/12	1131, 1093	FEMALE			BASK TRIG
4/12	1196 ^{RF}	FEMALE			BASK TRIG
4/12	302 ^{RF} US WILDLIFE HONOLULU (OFF) 1223 ^{LF} , 1789 ^{RF} (new)	MALE			BASK TRIG

Old record 3-10-68
Stades F C 34-40.4cm
unlikely from exp

25 APR 2002

TURTLE RECOVERIES (CONT.)

DATE	TAG NOS.	CURVED-STRAIGHT	WT.	ORIGINAL DATA	REC. LOC.	DATE	
4/12/76	469 ^{FW} RFL	US WILDLIFE Honolulu (OFF)	MALE	FFS 3/14/67 ♀ C 35x33 1/2	BASK TRIG	4/14/76	
	(1790 RFL; 1791 LFL (new))						
4/12	456 ^{FW} FL	US WILDLIFE Honolulu (OFF) (Not Locked)	MALE (smaller)	FFS 3/13/67 C 33x30 1/2	BASK W-	4/14	
	(1224 RFL (new))			TRIA			
4/12	1160 ^{RF}		MALE		BASK W-	4/14	
4/13 Tues	1646 ^{RF}	1647 LFL	18 3/8 x 17	17 5/8 x 14		W-S 4/14	
	(257 ^M TW MAR (new))		40.9	43.2	44.8	35.6	
4/13	1716 ^{LF}	186 ^R RFL 185 ^R HMO	18 x 15 3/8	17 1/8 x 13 1/4		W-S 4/14	
	(256 ^M TW MAR (new))		45.7	39.1	43.5	33.7	
4/13	1730 ^{RF}	155 ^M TW ^{LF}	17 1/8 x 15 1/8	16 3/8 x 13 1/8		W-S 4/14	
	(258 ^M TW MAR (new))		43.5	38.4	41.6	33.3	
4/13	1663 ^{RFL}	180 ^{TW} LF	1662 LFL	2 1/4 x 19 1/2	20 7/8 x 16 3/4	W-S 4/16	
	(260 ^{TW} MAR (new))			55.2	49.5	53.0	42.5
4/13	1200 ^{LF}		male	basket		Share 4/16	
4/13	1206 ^{RF}				BASK TRIG	4/16	
4/13	947			already captured this expedition 4/11	BASK TRIG	4/17 Sat	
4/13	962		FEMALE		BASK TRIG	4/17 Sat	
4/13	1196		FEMALE	already captured this expedition 11/12	BASK TRIG	4/17 Sat	
4/13	1719		TW + Bluetag FEMALE		BASK TRIG	4/17	
4/13	632		LFL T30 ² USW (OFF) KAILUA		BASK TRIG	4/17	
	1798		RFL (new)	1235 ^{RF} (new)		4/17	
4/13	1221		FEMALE		BASK TRIG	4/17	
4/13	1039		FEMALE		BASK TRIG	4/17	
4/13	Small ♀, turned up Pcs, front limb part miss.				BASK W-S	4/17	
4/14	1634		1635	already captured this expedition	W-		
4/14	1716 ^{LF}		186 ^{RFL}	" " " "	W-	4/17	
4/14	1783 ^{LF}		257 ^{RFL}	" " " "	W-		

ICI 1973 season Nest EAST

442

4/16 Fri

4/16

4/16 Sat

4/17

4/17 Sat

4/17

4/17

4/17

4/17

4/17

4/17

4/17

4/17

TURTLE RECOVERIES (CONT.)

25 APR 2002

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REC. LOC.	DATE	TAG NOS.	CURVED-STRAIGHT	WT.	ORIGINAL DATA	REC. LOC.
TRIG	4/14 ^{Wed}	(503 ^{LF} , 1806 ^{RF})	17 ³ / ₈ x 15 ¹ / ₈	16 ³ / ₄ x 13 ⁵ / ₈	44.1 / 38.4 / 42.5 / 34.6	W-S
AS					pink coraline on shell	
KW-S	4/14	(1736 ^{RF} , 163 ^{TW} LF)	18 ¹ / ₈ x 16 ⁵ / ₈	17 ¹ / ₈ x 14 ¹ / ₈	43.2 / 40.4 / 43.5 / 35.9	W-S
		265 ^{TW} MAR (new)	photos Dall			
KW-S	4/14	(1735 ^{RF} , 162 ^{TW} LF)	18 ⁵ / ₈ x 16 ⁷ / ₈	17 ³ / ₄ x 14 ⁵ / ₈	47.3 / 42.9 / 45.1 / 37.1	W-S
			photos 2, 5			
W-S	4/14	(1732 ^{LF} , 157 ^{TW} RF)	18 ¹ / ₄ x 15 ³ / ₄	17 ¹ / ₈ x 13 ⁷ / ₈	46.4 / 40.0 / 43.5 / 35.2	W-S
		267 ^{TW} MAR	photos 11, 17			
W-S	4/14	(1629 ^{LF} , 270 ^{TW} MAR)	17 ¹ / ₂ x 16	16 ⁵ / ₈ x 13 ³ / ₄	44.5 / 40.4 / 42.2 / 34.9	EAST
		272 ^{LF} (new)	5th + central			
W-S	4/14	1212	already capt. this expedition	4/10/76	W-S	MAZE BASK
	4/16 ^{Friday}	1711	241 ^{TW} MAR	4/10/76	EAST	EAST
W-S	4/16	(1623 ^{RF} , 1624 ^{LF})	15 ³ / ₈ x 13 ⁵ / ₈	14 ⁵ / ₈ x 12 ¹ / ₈	39.1 / 34.6 / 37.1 / 30.8	EAST
		273 ^{TW} MAR (new)				
Bark	4/16	(1731 ^{RF} , 274 ^{TW} MAR (new))	17 ¹ / ₂ x 15 ⁷ / ₈	16 ⁵ / ₈ x 13 ⁷ / ₈	44.5 / 40.3 / 42.2 / 35.2	W-S
TRIG	4/16	1227	MALE	4/13/76		BASK TRIG
SK TRIG	4/17 ^{Sat}	(1627 ^{LF} , 434 ^{RF})	1628 ^{RF}	17 x 15 ³ / ₈	16 x 13 ³ / ₈	EAST
			277 ^{TW} MAR	16 ¹ / ₂ x 15 ¹ / ₄	15 ¹ / ₄ x 13 ¹ / ₄	26/74 EAST
SK TRIG	4/17 ^{Sat}	(516 ^{RF} , 275 ^{TW} MAR)	16 ¹ / ₈ x 14 ⁷ / ₈	15 ¹ / ₂ x 13	41.0 / 37.8 / 39.4 / 33.0	EAST
		278 ^{RF} (new)	15 ¹ / ₄ x 14 ¹ / ₄	14 ¹ / ₄ x 12 ¹ / ₄	38.7 / 36.2 / 36.2	2/19/75 EAST
SK TRIG	4/17	1787	Already captured this expedition	4/12/76	W-S	W-S
SK TRIG	4/17	1776		4/10/76	W-S	W-S
SK TRIG	4/17 ^{Sat}	(1666, 1667)	20 ³ / ₄ x 18 ³ / ₄	19 ⁵ / ₈ x 16	52.7 / 47.6 / 49.8 / 40.6	W-S
BASK TRIG		279 ^{TW} MAR (new)				
W-S	4/17 ^{MON}	(413 ^M FL, 414 ^M FL)	21 ¹ / ₄ x 20 ³ / ₈	20 ¹ / ₄ x 16 ³ / ₄	54.0 / 51.8 / 51.4 / 42.5	W-S
W-S		1729 ^{RF} , 154 ^M , 281 ^{TW} MAR (new)				2/8/74 W-S
W-S	4/17	(2004 Plastic (white numbers fading))				MALE BASK TRIG
W-S		184 ^{TW} LF				

26 APR 2002

Turtle Recoveries (cont.)

DATE	TAG NOS.	CURVED - Straight	wt.	ORIG DATA	REC LOC	DATE		
4/17/76	1616 RFL	18 1/2 x 17 1/4	47.0	43.8	43.8	37.0	TEMP	5/11/76
4/18	594 LFL, 595 RFL	17 3/4 x 16 1/2	45.1	41.9	43.2	35.6	EAST	5/11
4/18	283 TW MAR (New)	17 1/2 x 16	43.2	40.6			EAST	
4/18	1623 RF, 1624 LFL	15 3/8 x 13 3/4	39.1	34.9	37.1	30.8	EAST	5/11
4/18	273 TW MAR	measure check	expedition		4/14/76			
4/18	1778	already captured					W-S	5/12
4/18	1761	this expedition	4/9/76	4/12/76			W-S	
4/18	1220	LF hearing scar on tail	4/12/76	TRIG	MALE BASK	TRIG		5/12
4/18	1244		4/14/76	W-S	FEMALE BASK	W-S		
4/18	930				MALE BASK	W-S		5/12
4/18	1615	S 20 1/4 x 16	61.4	40.0	54.3	47.0	TEMP	
4/18	147	RF						
5/7/76	1227				BASKING	TRIG		5/29/76
5/8/76	1739 RF	17 3/4 x 15 3/8	45.1	39.1	42.5	33.7	BASKING	TRIG
5/8/76	1634, 1635						scum on back	5/11
5/10	1739 again							
5/10	1634 again							
5/10	985	US Wildlife Honor			5/18/76	LG in BASKING F	BASKING FEMALE	W-S
5/10	1243	LF			4/14/76	BASK W-S	BASKING MALE	W-S
5/10	1120	LF					BASKING ?	TRIG
5/10	1226	942			4/13/76	BASK TRIG	BASKING FEMALE	TRIG
5/10	1230				4/13/76	BASK TRIG	BASKING MALE	TRIG
5/10	1215				4/11/76	BASK TRIG	BASKING MALE	TRIG
5/10	945						BASKING FEMALE	TRIG

Turtle Recoveries (cont.)

83

REC. LOC.	DATE	TAG NOS.	CURVED-STRAIGHT	WT.	ORIG. DATA	REC. LOC.
UM	5/11/76	(1731 ^{RF} , 274 ^M) TwMAR	17 1/2 x 15 7/8 44.5 - 40.3	16 5/8 x 13 1/16 42.2 - 35.1	2.5 APR 2002	W-S
AST	5/11	(1637 ^{LF} , 1638 ^{RF}) 239 TwMAR	22 1/8 x 20 56.2 - 50.8	21 1/8 x 16 1/16 53.7 - 40.8	check attem Is, 4/9/76	W-S
AST	5/11	(1716 ^{LF} , 256 ^M) TwMAR	18 x 15 5/8 45.7 - 39.7	17 x 13 1/4 43.2 - 33.7		W-S
W-S	5/12	(1744 ^{LF} , 1745 ^{LF}) 174 TwMAR	23 1/2 x 20 1/2 59.7 - 52.1	22 5/16 x 16 1/2 56.7 - 41.9		W-S
W-S	5/12	(413 ^{RF} , 1729 ^{RF}) 154 TwMAR, 281 TwMAR	21 3/8 x 20 1/4 54.3 - 49.5	20 1/4 x 16 3/4 51.4 - 43.8		W-S
W-S	5/12	(1804 ^{LF} , 262 ^M) TwMAR	19 1/2 x 17 1/4 44.5 - 43.8	18 5/8 x 14 5/8 46.5 - 37.1		W-S
To page 108 other book						
HEREAFTER ONLY LISTS JUVENILE RECOVERIES						
W-S	6/29/76	(1631 ^{RF} , 1632 ^{LF}) TwMAR	16 1/8 x 14 1/4 41.0 - 36.2	15 3/8 x 12 39.1 - 30.5		EAST
W-S	6/30	(1775 ^{RF} , 583 ^M) 20 TwMAR	18 x 16 45.7 - 40.6	17 1/4 x 13 7/8 43.8 - 35.2		EAST
W-S	7/1	(1817 ^{LF} , 1818 ^{RF}) TwMAR	18 x 15 5/8 45.7 - 39.7	17 x 13 1/8 43.2 - 33.3		EAST
W-S	7/3	(1810 ^{LF} , 269 ^M) TwMAR	16 5/8 x 14 5/8 42.2 - 37.1	16 1/8 x 12 7/8 41.0 - 32.7	Aluminum and Bron 28	EAST
W-S	7/6	(1716 ^{RF} , 186 ^{RF} , 256 ^M) TwMAR	18 x 15 1/2 45.7 - 39.4	17 1/4 x 13 3/8 43.8 - 34.0	RF2	W-S
W-S	7/6	(1660 ^{LF} , 1659 ^{LF}) 1824 (view), 420 ^{RF}	18 5/8 x 16 1/2 47.3 - 41.9	17 1/4 x 14 3/8 43.8 - 36.5		EAST
W-S	7/7 Wed	(1739 ^{RF} , 166 ^{LF}) TwMAR	17 5/8 x 15 3/8 44.8 - 39.1	16 3/4 x 13 1/4 42.5 - 33.7		W-S
all wounds on hind flipper now healed.						

BASKING TURTLE CENSUS

REC
LOC↑ TO Page 116
T109-111
BOOK

DATE/TIME	ISLAND	BASKING				OFFSHORE			
		M	F	I	TOTAL	M	F	I	TOTAL
4/8/76 1145 aerial	W-S	-	-	4	4	-	-	-	-
4/8 " aerial	TRIG	-	-	7	7	-	-	-	-
4/9 Friday 1330	W-S	1	1		2	1	W shore ♀	1	2
4/10 Sat 0300	W-S			1	1				
				1	1				
4/10 1600	TRIG	2	4	-	6				
4/10 1800	W-S	-	2	-	2				
4/10 1200	EAST			←	Nothing				→
4/11 1430	TRIG	2	-	-	2				
4/12 Monday 1600	EAST	4	1	-	5		1	copulating pair	SEP
4/12 1900	TRIG	5	5	1	11				
4/12 1930	W-S	2	-	-	2				
4/13 1000	W-S	1	1	0	2				
4/13 1900	TRIG	3	19	1	23				
4/14 WED 1700	TRIG	3	-	-	3				
4/14 1730	W-S	2	2	2	6				
4/16 1700	TRIG	1	1	0	2				
4/16 1400	EAST	0	2	0	2				
4/17 1200	LG IN				0				
4/17 1300	GIN	1	0	0	1				
4/17 1500	W-S	←		nothing	→	0	1	1	♀ west shore 2 photos
4/17 1700	TRIG	1	1	0	2				
4/17 1200	EAST			0		0	0	2	2
4/18 1300	EAST	0	0	1	1	0	0	1	1
4/18 1930	W-S	-	-	10	10				
4/18 1530	TRIG	-	-	8	8				

5/7/76 Vogt reported a few baskers previously seen on Tern

5/8 1300 W-S

none apparent

5/8 1640

- - 12 12

BASKING TURTLES

DATE/TIME	ISLAND	BASKING				TOTAL	OFFSHORE				DATE/TIME
		M	F	I			M	F	I	TOTAL	
5/10/76	1800 W-S	4	2	-		6					7/7/76
5/10	1900 TRIG	2	5	1		8					7/7
5/11	1630 EAST	2	2 SEP 1 NEP			5			5	5	7/7
5/11	1200 Mullet	1	1	-		2					7/8 Thursday
5/11	1400 TRIG	-	-	6		6					7/8
5/12	1100 EAST	-	-	8		8					7/9 Florida
5/12	early afternoon W-S	-	-	5		5					7/9
5/12	late afternoon TRIG	-	-	9		9					7/9 AFTN
//											
6/28/76	1845 EAST	0	7 ^{3 NEP} 4 ^{SEP}	0		7				0	7/10
6/28	2350 East	2	SEP	0		2					7/10 10
6/29	1000 East	-	-	-		-					7/10 12
6/29	~1600 "										7/10 15
6/29	1500-1530 L. GIN and GIN	1				1					7/11 12
6/29	1900 EAST		4 ^{2 NEP} 2 ^{SEP}			4			1 ^{TC}	2	7/11 SUN 15
6/30	1300 W-S	0	1	0		1			1	0	7/11 15
6/30	1500 TRIG	-	-	6	probably add ♀	6					7/19/76 15
6/30	1845 EAST	1 ^{SEP}	6 ^{1 SEP} 4 ^{NEP}	-		7					7/19 17
7/1/76	1330 EAST	1 ^{male}	5 ^{1 male/2} 1 ^{NEP}	0		6			2	-	7/20 133
7/1	1800 EAST	0	4 ^{2 NEP} 1 ^{SEP}	0		4					7/20 164
7/2	2000 TRIG	-	-	6		6					7/20 164
7/3	0130 ^{east} TRIG	1 (new) 1 (imputed)	1 (fresh)	2 (from original 6)		6					7/21 160
7/4	Sun 1400 EAST	1	7 ^{probably all ♀}	3		8			3	3	7/21 175
7/4	1900 EAST	1	3	0		4					7/22 150
7/4	2230 EAST	1 ^{same male}	0	0		1					7/22 175
7/5	Mon 1730 EAST		2 ^{TC3}	7 ^(♀?)		9					7/23 177
7/6	Tues 1300 W-S	0	2	0		2			1	-	7/23 177
7/6	1400 TRIG	0	5	0		5			1	1	7/23 177
7/7	2230 EAST	2 ^{SEP}	0	0		2					7/23 177

BASKING TURTLES

TOTAL	DATE/TIME	Island	BASKING				OFFSHORE			
			M	F	I	Total	M	F	I	Total
	7/7/76 ^{WED} 1500	W-S	0	2	0	2	-	-	-	-
	7/7	400 EAST	1	2 ^{TC 14 NEP}	0	3	-	-	-	-
5	7/7	1900 EAST	0	3 ^{TC 8, 14 NEP}	1	4	-	-	-	-
	7/8 Thursday	1830 EAST	1	6 ^{TC 10, 3}	0	7	-	-	-	-
	7/8	1950 EAST	Sunset			-	-	seen coming over SW reef		
	7/9 Friday	1600 TRIG	2 ^(1 with miss, LFL)	6	-	8	-	2	1	1
	7/9	1900 EAST	0	3 ^{TC 14 NEP}	2	5	-	-	-	-
	7/9	Late Afternoon W-S	-	-	5	5	Reported by J. BLAIR			
11	7/10	0015 EAST	same one	1 ^{SEP}	1 ^{TC 14 NEP}	0	2	-	-	-
0	7/10	0315 EAST	same one	1 ^{SEP}	0	0	1	-	-	-
	7/10	1000 EAST	same one	1	0	0	1	-	-	-
	7/10	1200 EAST	0	3 ^{TC 3 SEP}	1 ^{TC UNK}	4	-	-	-	-
	7/10	1500 W-S	1	1	7	9	-	-	-	-
1	7/11	1200 W-S	0	3	0	3	-	-	-	-
2	7/11 ^{SUN}	1530 EAST	2	8	2	12	-	-	-	-
// // // // //										
-	"/19/76	1500 TRIG	0	2 ^{1 - around plate count}	0	2	0	0	0	0
-	"/19	1700 W-S	3	1 ^{RF 1/2}	0	4	0	0	0	0
3	"/20	1330 Round mullet EAST	0	0	0	0	-	-	-	-
-	"/20	1645 W-S	0	1 ^{RF 1/2}	0	1	1300h	1	0	0
3	"/21	1600 TRIG	0	1	0	1	-	-	-	-
	"/21	1715 W-S	0	0	0	0	-	-	-	-
3	"/22	1500 EAST	0	0	0	0	-	-	-	-
	"/22	1730 W-S	2	0	0	2	Copulating pair + poss. lone other			
// // // // // WAVES // // // // //										
-	1/13/77	Term	-	-	1	1	Juvenile on South beach			
2	3/31/77	denial Shark	-	-	1	1	-	-	-	-
2	3/31/77	" Trig	?	?	?	?	-	-	-	-

BASKING TURTLES

DATE/TIME	ISLAND	BASK				OFFSHORE			
		M	F	I	TOTAL	M	F	I	TOTAL
3/31 ^{9:30}	W-S	-	-	2	2	-	-	2	2
3/31 "	EAST				0	possible a few off SP-EAST			
3/31 "	GIN	-	-	2	2				
3/31 "	LGIN	-	-	1	1				
3/31 "	DIS				0				

MONK SEAL CENSUS

DATE/TIME	ISLAND	Adult	SA	PUP	SWP	LYP	PREG
4/8/76	Disappearing	= 36 ;	LGIN = 8 ;	GIN = 7 ;	East = 11		
4/9	Round-Mullet	= 6 ;	W-S = 22	TRIG = 20	TERN = 1	TOTAL = 111	
4/9 Friday 1330	W-S	27	23	4	4	2	6
4/10 sat 0300	W-S	13	1	4	4	-	4
4/10 1000	Round	19	0	11	11	0	6
4/10 1100	EAST	14	9	8	8	6	1
4/11 1430	TRIG	27	17	2	one about 2 ^{to} wean	0	2
4/11 sun 1700	W-S	27	22	4	4	0	6
4/12 Mon 0600	W-S	25	8 (1 pup recently)	3	3	0	4

Starting this census, # seals in molt will be noted in (x).

4/16	EAST	17	8	11	11	3	3
4/17 Little GIN 1200		5	5	1	0	1	1
4/17 1300 GIN		7	4	0	0	2	0

5/11/76 1700	EAST	15	5	17	1 w/ bloody nostril	0	0
--------------	------	----	---	----	---------------------	---	---

6/28/76 1845	EAST	23 (4m)	9 (4m)	24	12	0	0
6/29 1500	LGIN	3	1	1			
6/29 1530	GIN	5	3	1			
6/30 1300	W-S	25	21 (4m)	9	4	0	0
6/30 1500	TRIG	2 (1m)	3	2	0		
7/7/76 wed 1700	ROUND	9 (1m)	0	17	5 (40K)	0	0
7/9 Friday 1600	TRIG	6	1	2			

11/19/76 1500	TRIG	31 (3m)	9	0	1 TYP	0	2
11/20/76 1330	ROUND	2	1	0	0	1	4m
11/20 1330	MULLET	4	3	0	0	1	4m
11/20 1430	EAST	4 (2m)	8 (1m)	0	0	2	1 TYP
11/20 1645	W-S	21 (1m)	36	1-2 was old	1	6	8 TYP

MONK SEAL CENSUS

DATE/TIME	ISLAND	ADULT	SA	PUP	SWP	LYP	PREG	SEE/TIME
11/20 2130	W-S	13 ^(1 pair)	14	1	1			
11/21 1715	W-S	15 ^(3M)	25	1	1	6 ^(CITYP)	1?	

MONK SEAL TAG RECOVERIES

DATE	TAG NO.	STAGE	LOCATION	REMARKS
4/9/76	A788	A	W-S	
"	A771	A	W-S	
"	A1029	SA	W-S	
"	A8	A	W-S	with new pup
"	212	A	W-S	with new pup
"	A914	SA	W-S	LARGER seal lying 1300- along side 0300+ with new PUP
4/10 sat	Seal w/ long back scar and belly scar		Round	
4/10	775	SA	EAST	
4/10	A761	SA	EAST	7/10/71-Nihoa in molt
4/10	A1032	SA	TRIG	
4/10	A698	Adult	TRIG	
4/11	Face Bite	SA	W-S	
4/12 Monday	1034	SA	EAST	
4/12	1028	SA	EAST	
4/16	1098	SA	EAST	
4/16	761	A	EAST	
4/17	A923	SA	LG IN	
4/17	914	SA	W-S	in molt
// // // // //				
5/11/76	775	SA	EAST	
5/11	683	A	EAST	Small w/pup
// // // // //				
6/28/76	A775	SA	EAST	newly molt
6/28	907	A	EAST	
6/29	698	A	EAST	
6/30	old face bite	SA	W-S	looks good - bigger
7/1	A965	SA	East	newly molt
7/3	A757	SA	EAST	
7/4	A683	Full size A	EAST	appears to be with a male

GASOLINE-OIL LOG

	GAS - 6 gal each	oil - 1 pint each
4/8/76	3	1
4/10	2	2
4/11	1	1
4/12	2	2
4/13-4/14	2	2
4/16	2	2
4/17	2	2
4/18	2	2
Total	$\frac{2}{16} \times 6 \text{ gal} = 96 \text{ gallons}$	$\frac{2}{14}$

		oil all national geographic
6/28/76	3	3
7/2	2	2
7/3	2	2
7/6	1	1
7/9	2	2
7/11	1	1
	$\frac{1}{11} \times 6 = 66 \text{ gal}$	11

11/19	3	3 FWS
11/21	1	1 FWS
	$\frac{1}{4} \times 6 = 24 \text{ gal}$	

To Book
↑ TC 35-62

Date	SEA WATER °C	IS	GENERAL	DATE
2/1/76	24.1	Tern	Cold windy	4/10/7
2/3	23.9	"	" "	4/11 08
2/6	23.8	"	" "	4/11
2/9	24.0	"	" "	4/12 Mond
2/12	24.0	"	" "	4/16
2/14	25.1	"	Windy - high surf	4/17 Sat
2/17	24.6	"	Windy - warm	4/18
2/20	25.0	"	warm	4/25/7
2/22	24.8	"	warm - little wind	4/28
2/25	24.6	"	warm - no wind	5/1
2/27	24.5	"	" " "	5/4
3/1	24.2	"	Windy high surf	5/7
3/4	24.8	"	warm	5/10
3/7	24.0	"	Windy cold	5/15/7
3/10	24.1	"	Windy cold	5/18
3/13	24.5	"	Windy	5/21
3/16	24.5	"	Breezy	5/24
3/19	24.8	"	Sunny	5/27
3/23	24.7	"	Sunny	5/30
3/28	24.2	"	Breezy - chilly	6/13/76
3/31	24.1	"	Windy	6/15
4/3	23.6	"	Windy cold	6/18
4/6	24.3	"	Windy	6/22
4/8	24.5	"	Warm breezy	6/25

all of above taken between 1400-1600 by
Mike Carlson

CLIMATIC INFORMATION

DATE	SEA WATER	ISLAND	GENERAL
4/10/76 ¹⁸⁰⁰	23°C	W-S	STRONG ENE - HEAVY OVERCAST
4/11 0800		FFS	E to SE ^{with gusts} 2 kts - RAIN showers
4/11	23°C	W-S	Same - strong winds
4/12 ^{monday}	24°C	W-S	clouds clearing, sun, wind down some
4/16	—	FFS	WSW Rain showers cool - to N
4/17 ^{sat}	—	FFS	Calm, cool, heavy overcast - showers
4/18	—	FFS	partly sunny, generally light winds some showers, cool
4/25/76	23.9	Tern	
4/28	24.3	Tern	Warm
5/1	24.6	Tern	Warm
5/4	24.8	Tern	Warm EX WARM
5/7	25.0	Tern	Hot
5/10	25.3	Tern	(cool) warm misty
5/15/76	25°	"	windy - overcast
5/18	25.5	"	Warm - windy
5/21	24.8	"	cool - breezy
5/24	25.2	"	—
5/27	25.8	"	—
5/30	Thermometer broken		
6/13/76	26.8	"	hot - sunny
6/15	26.9	"	hot - sunny
6/18	(75.0°F)	"	hot - sunny
6/22	(76.5°F) 26.4	"	hot - sunny
6/25	(76.0°F) 26.4	"	hot - sunny
6/29	(77°F) 26.9	"	hot - sunny
7/2	(76.5°F) 26.4	"	Warm sunny
7/5	(77°) 26.9	"	Warm
7/9	(77°) 26.9	"	Warm
7/12	(76.5°) (26.4°C)	"	Warm Sunny

CARLSON

23.8

25.1

Carlson

yellow Therm.

CLIMATIC

Telethermometer → 26.0°C
 Glass Thermometer → 26.2°C

DATE	SEAWATER	Island	GENERAL	DATE
6/28/76	-	FFS	~ 12kt clear sunny	8/26/76
6/29 <i>N=7 26.9</i>	26.8°C	EAST	light-moderate trades clear sunny	8/30
6/30	27.8°C	"	AM - Heavy rain showers - moderate trades also some during PM	9/5
7/1	-	EAST - stronger trades	- cloudy but sunny	9/11
7/3	27°C	strong trades	- cloudy but sunny	9/19
7/4	26.5°C Telethermometer	few rain squalls in AM hours	strong trades	9/25 <i>N=5</i>
7/5	-	Sunny - moderate-strong Trades	S swell (?)	9/30
7/6/76	26.5°C	Sunny but one or two big rain showers -	seems like some S-SW swell	10/14
7/7	26.5°C W-S	Sunny - some clouds lighter, but moderate trades	Good Rain just about every night	10/10
7/8 Thurs	26°C EAST	Sunny with clouds -	strong trades choppy seas	10/14 <i>N=7</i>
7/9 Friday	26°C "	Very strong trades - seas rough	very strong trades	10/20
7/10 Saturday	-	very strong trades	Trades still strong but down some -	10/26
7/11 Sunday	-	Full MOON	heavy rain - some strong wind all night	10/29
7/12 Monday	-	-	-	10/31
<hr/>				
11/19 Friday	-	-	cool but not cold, part overcast, N-NE wind - moderate	
11/20 Sat	-	-	light winds, reasonably calm seas - sun	
11/21 SUN	-	-	Misty Rain, little sun, light wind, calm seas	
11/22 Mon	25.5°C W-S	SUNRISE about 0730	clear Skys, sun, light wind - W-NW swell.	
11/23 Tues	-	-	Morning - sunny, but West swell and wind.	
<hr/>				
7/16/76	26.5	TERN	Bucket of water scooped out by tide	
7/20/76	26.5	"		
7/24	27.0	"		
8/2/76	26.5	"		
8/6 <i>N=7 26.4</i>	26.5	"		
8/11	26.0	"		
8/13	26.5	"		
8/20	27.0	"		

CLIMATIC

<u>DATE</u>	<u>SEAWATER</u>	<u>ISLAND</u>	<u>GENERAL</u>
8/26/76	26.0 °C	TERN	
8/30	26.0	"	
9/5	26.0	"	
9/11	25.5	"	
9/19	26.0	"	
9/25	25.0	"	
9/30	25.0	"	
10/4	24.5	"	
10/10	24.0	"	
10/14	24.0	"	
10/20	24.5	"	
10/26	23.5	"	
10/29	25.0	"	
10/31	24.0	"	

10 Clark recording attached to Hower letter in files

Photographs to be taken -

1. Gooney's in water; jumping off the ground for flight
 - W-5 ✓ 2. Grayback juvenile
 - ✓ 3. Sooty juvenile being fed by parent
 - ? 4. Boobies in flight; Shearwaters in flight
 - NONE ✓ 5. Half grown Tropicbird MIDWAY
 - ✓ 6. Closeups of Seal faces
 8. Birds and vegetation areas 1-17, 2-16
- Mating albatross - courtship - BFA in flight/landing
Shearwater young

Photo Log Notes

- Roll 1 Fujichrome 36 exp^{EL} Aerial W-S, Trig PL, to # 22 w/telephoto PL
(late afternoon, evening light), 6/29 #23-36 8-9 AM
- Roll 2 KR64-36 EL #1-20, 6/29 9-10 AM, #23-36 Tern on seal turtle shearwater
BASKER over, returning, 33-36 AM tel
- Roll 3 EH-36 Nikonos - To 28 aheady, 6/30 W-S Fish - Turtles seal pup
- Roll 4 EH 36 Nikonos - 6/30 W-S Turtles; 7/6 8-11 AM 7/11 W-S 7/12 EAST
1300-1400 1300-1400
- Roll 5 KR36 EL 7/3 TEL seal pup, young albatross, 7/4 AM Tropicbirds - Also 55 mm
pm turtle return = shearwater
- Roll 6 KR36 EL 7/4 > 1300h Boobies, Tern feeding chick, Gooney, Gray Boobies, close of
1060 TAG
- Roll 7 KR36 EL 7/5 AM TC9 covering - first blue 5.6-8.0 than red 4-5.6 - variable to end of roll.
7/5 AM area! covering - first blue 5.6-8.0 (core mistake) 4-5.6 on blue; 13/100h noddy chicks
Micro lens?
- Roll 8 KR36 EL 7/6 Tele seal by TC3; group of boobies NE Pw/seal; noddy
7/6 young Boobie W-S; Gooney taking off; nesting turtles
TC 15 and 17 on red erroneously?
- Roll 9 KR36 EL 7/7 #1-3 Gooney (light meter imperative) removed film and put
back in - removed 7 appeared to be Oka #4-6 Noddy Terns; 7/8 AM Turtles, TC 20
Gooney bird on s.i.; seal on s.i.; noddies on s.i. (micro)
- Roll 10 KR36 EL Tele 7/8/76 birds in flight; LAYSAN; 7/8 AM Turtles, TC 20
Gooney w/seal pup.
- Roll 11 KR36 EL 7/10 7/10 Birds in flight on East and W-S; Sooty Terns; chick on Tern Is.
- Roll 12 KR36 EL 7/11 - Micro Nikonos - White Tern; chick Tern Is. to #20. East Is.
Turtles, misc. Micro Nikonos
- Roll 13 KR36 EL 7/11 - T209 and TC 4; Taken from Tern in Karabou
-
- Roll 1 1/18 KR36 EL aerials of close up of Nihou, W-S; of Ruddy; Petrels; 1/19 albatross
ws
- Roll 2 KR36 EL 1/20 Mostly 24mm of albatross
- Roll 3 KR36 EL 1/20 Telephone birds in flight; Albatross faces
ws
- Roll 4 KR36 EL To about 16 all PL on East (young shearwater, Plover; # 1/21 W-S
Trensture)
- Roll 5 KR36 EL 1/22 - W-S
- Roll 6 25ASA-20 EX 1/22 - W-S
- Roll 7 25ASA-20 EX 1/22 W-S
- Roll 8 25ASA-20 EX 1/22 LAPEROUSE - EAST IS 24mm; 1/23 Birds on W S early morning
- Roll 9 KR36-36ex 1/23 - W-S Bulwer Petrel

Photo Log Notes

Roll 1 $\frac{6}{9}$ BIK WT PX 36EX^{FT2} - Tel - most at 250 .5PL 12-1 PM
 Roll 2 $\frac{6}{9}$ BIK WT PX 20EX^{FT2} all with Telephoto^{VOPT} - PL 1-3 PM
 Roll 3 $\frac{7}{9}$ BIK WT EL PX 36EX^{TC 72} Nesting, birds, miscellaneous Tel
 Roll 4 $\frac{7}{11}$ BIK WT Nikonmat - $\frac{7}{12}$ ^{T209} TC 4 sun up - EAST IS.

Roll 1 FTN PX 36 $\frac{1}{21}$ W-S Birds; $\frac{1}{22}$ - EAST IS
 24mm

APRIL 8-19 EXPEDITION
Juveniles Summary

	captured	of those - recoveries
4/9/76	13 w-s	3 w-s
4/10	(2 EAST 1 w-s)	2 EAST
4/12	9 w-s	2 w-s (one caught 4/10/76)
4/13	7 w-s	4 w-s
4/14	(10 w-s 3 EAST)	7 w-s (three caught this expedition) 1 EAST 4/9; 4/13; 4/12/76
sub total	41	15
4/16	2 EAST 1 w-s	2 (one caught 4/10/76) 1
4/17	3 EAST 5 w-s	2 4 (one 4/12; one 4/10)
4/18	5 EAST 3 w-s	2 (one 4/16) 2 (one 4/9; one 4/12)
Total	<u>54</u>	<u>22</u>

MAY 7-13, 1976 EXPEDITION

5/8	2 w-s	2
5/10	2 w-s	2 same 2 as 5/8!
5/11	1 EAST 3 w-s	3 w-s
5/12	4 w-s	3
	<u>10</u>	<u>8</u>

JULY 12

June 28 - , 76 EXPEDITION

LIBRARY OF
GEORGE H. BALAZS

	<u>Captured</u>	<u>of those-recoveries</u>
6/29/76	2 EAST	1 EAST
6/30	1 EAST	1 EAST
7/1	1 EAST	1 EAST
7/3	1 EAST	1 EAST
7/6	(1) 1 EAST 1 W-S	1 EAST 1 W-S
7/7	1 W-S	1 W-S
TOTAL-	<u>8</u>	<u>7</u>

NOV 18-23 1976 EXPEDITION

NONE

\$1.00

G