

G.H. BALAZS

FRENCH FRIGATE SIBOALS
1982 EXP. 30
"DECIDE SEASON"
5-26 JUNE

GEORGE H. BALAZS
BOOK 2

(808)395-6409

NARRATIVE (5-26 JUNE 1982) EXPED. 30

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JUVENILE TURTLE TAGGINGS & RECOVERIES ^{TERN EAST TERN} 3, 23, 33

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NUMBER OF FEMALES PER NIGHT
(PERCENT LONG TERM AND MULTIPLE RECOVERIES) p. 102

MAP OF W-S p 68

MAP OF GIN

MAPS OF EAST p64-65

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TURTLES RECOVERED OR TAGGED BASKING
ON EAST, BUT NEVER SEEN NESTING



FRONT FLIPPER WIDTH (NAIL DIGIT SCALE TO 6TH SCALE POSTERIOR) p. 74
COMPOSITION BOOK

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

NUMBER OF NESTERS SEEN EACH NIGHT DURING STUDY PERIOD (BAR GRAPH) p. 100

AVAILABLE AS:

- No. 09-9130 (1130) 60 SHEETS COLLEGE RULED & MARGIN
- No. 09-9132 (1130-P) 60 SHEETS COLLEGE RULED & MARGIN
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1982

46 TAG recoveries
of East nesters

1

N=111 TOTAL
During monitoring
period

Some tag numbers that will be useful
to know while in the field:

Kahala Hilton Releases:

5459, 60, 3682, 2039 B/K Fearing

5461-62, 3683, 2040

CONT. #209 5463-64, 3684

5479-80, 3685, 2041

3531-34 (12/17/81)

5602-5773 SLP captive reared releases

KAM - TAKEN TO CAYSAN 5876-5950; 6276 - 6350 LISIANSKI
JULY 1982

HENDERSON - TAKEN TO LISIANSKI 5826-5875 (5855-5875)
USED at P&H

3726, 5107-08 JAN 81 SLP Release (largest female)

Tags sent to Tern via Ed Shallenberger - early April 82

5976-6050 - 75 +

3535-3550 16 +

3686-3700 15 + = 106 total

Tags taken to Tern 5 JUNE 82 EXP. 30 - 6051-6350 (300)
6451-6550 (100); 3351-3450 (100)

Tags sent to J. Andre 5-14-82 5471-5475 (5)

6351-6375 (25)

Tags applied during EXP. 29 (14-15 April) - 4951-4953

5777-5787

TAG NOS. APPLIED EXP. 30: 5976-6274

26 JUL - 2002

5 JUNE 82. Depart 6:30am - Bob Justman's
 SATURDAY Beechcraft 18 - People aboard - Craig
 MacDonald, STAN; Theresa, Jim Parrish,
 Glenn

Hot, humid, lots of low clouds.
 Landed at Lihue for 45 minutes - breakfast,
 Headwinds by Nihoa; ^{Saw motor sailer - TIDE outside}
^{shark IS. TOWING DINGY AND OUTRIGGERS}
^{OUT FISHINGS FROM MAUI.}
 Arrive FFSJ - Tern - 11am; cloudy,
 calm, humid. Birds resting
 at ^{North} west end of runway and many
 other areas. Had to go around
 once. Justman complained - will J. Andie correct the
 problem?

Worked all day unpacking and organizing
 food and gear.

At 6:30 pm I caught a juvenile
 along the north sea wall using a
hoop net. No previous tags
 or evidence of grafts -

5976 / LFLCurved length - 44.0cm5977 / 2nd scale Right -

(No. 221)

6/5/82 ~ 7pm Walked along south
 SATURDAY beach - counted about 19 digs.

Tern Island turtle log entry by Ruth
 says that first 9 pits were dug
 on Tern between 4-9 May.

When Ruth first went to East
 and W-S on 6 May 82, there
 were already digs present.

Walked South beach at ~ 10:30pm -
 one set of tracks, 2 pits -
 couldn't really tell if one was
 "good".

Note - birds, vegetation growth
 and seals make it very
 hard to survey this
 beach for nesting turtles.

Note - For overall 10-year study:
 Full coverage/saturation tagging
 on East is very valuable
 because telemetry study
 at Trig-W-S ^{TERN COMPLEX} showed little
 movement. However, movement
 could be taking between Gin
 complex and East.

6 JUNE 82. up - Sam - worked on data
 SUNDAY books; Read from Misallette.
 ~ 10am, walked along north sea
 wall - low tide - nothing seen.

Important notes to consider: (venture forth)

- 1.) Added caution to ^(venture forth) forage is exercised in leewards - due to greater threat of predation from tigers - therefore, growth rates are slower (suggested by Craig MacDonald for lobsters at FFS) feed less \therefore grow less. (But full G.I.s seen?) "ignore"
- 2.) "Discard" questionable tags from data
- 3.) Write short note on 90 tag ^{MTN} loss using different numbers of tags.
- 4.) Mention ticks as hazard to turtle research
- 5.) Higher predation hazard swimming between TRIG/w-s and EAST Complex? What about East to Gin Islands?
- 6.) Decrease of juveniles on East Reef (and West W-S) may possibly be due to decrease in sooty tern colonies that may serve to fertilize the algae.

Volunteer worker^{chip} reports 2 dead
pups previously found on W-S.
20 mothers w/pups on east. 10 weaned.
16 May - 25-30 baskets at SE point. ∴ 30 pups
70 TWT

6 Jun
Burd

6 JUNE 82 Depart Tern ~ 1:50 pm.

arrive Trig 2:15 pm -

15 baskets counted along shoreline
while motoring in. Only ~ 23 digs/
pits counted total. 10 at elevated
west end. 13 in the center area.
Two separate schools of large sharks
seen in shallows of south shore
Very little vegetation except Messersch.

Note - Doubt if Shomura, or anyone else,
appreciates (realizes) the difficulties/
hardships involved in ^{nesting} tagging at
East, FFS.

"It isn't a holiday!"

Ticks, Chiggers, staying up at night, strain
on muscles, Bruises, discomfort, Time away
~~from~~ from family, work weekends

Arrived at W-S about 3 pm.

Tagged baskets & counted digs.
Noted plastic ribbons being tied
to net/line snarls.

Noted some salmon/squid monofilament
net snarled in with trawl netting.

7 Jun
Mo

7

6 June Sunday Saw dead black pup washing in surf near mother. Also saw afterbirth in water.

Arrived at East ~ 4 pm -
Upload all gear - ^{light} wind, out of the west - black squall and rain showers arrived - rained while setting up the dome tent. Stopped by ~ 6:30 pm. Walked around island - pits seem few, and mostly confined to the rim beach tops of the island. Lots of tracks on SP. No digs in inland areas of A 3 - 7; 8-13.

Found a somewhat fresh piece of tubular tissue inland. Believed to be piece of intestine from young monk seal brought there by a frigate. Or could it be seabird (albatross) intestine? ^{However, albatrosses young have not yet started leaving the island.}
Slept from ~ 8:30 - 10 pm, when I walked island for nesters. Also at 2 and 5 am sleeping in between.

7 June 82 UP about 9 am - very hot -
Monday no wind - nylon tent heats up quick! Read Book of Tobit in Holy Bible - Asked Jesus to

NOTE - Regs for NWRs that mention overflights

7 June 82
Monday

chip reports of earlier 173 over East in May - Justinian 106 saw one over East 200 - this past year.

(watch over our family.)
Worked on data books. 1981 Tag recoveries computing tag losses see also 1980 books
L-3 flew over East at 12:30 pm
Fast 3 numbers of ID looked like 455
Roasted all afternoon - slept some.
Glossy calm.

Walked to SE of and around island at 5:30 pm. Noted some albatross castings.
Seems like fewer Laysan Albatross this year - need to count like last year. "Slab" area is well vegetated with Chenopodium
Many seals with pups - nesting turtles undoubtedly acclimate them somewhat to "disturbance".

Note - Turtles bask more than "89%" of the time on East?
89% includes night & day - perhaps it should be recomputed to show just daytime hours (?)

Slept from ~ 8 - 9:30 pm; then checks at 10:30 pm, 12:30 am 5am - about 1/2 h each
List tips on how to detect nesting (for slide lectures)
1. dark soil on surface.

Bju
TUV

written
Proposa
Report
files a
of 6/8

6/83 -
If you th
this may
been bad,
note
1983

8 June 82 *Read from Wisdom of Solomon & Sirach.
 Tues.

John Andre still hasn't had radio contact with Gaysan or Lisianski. At about 11am I motored to Tern - stopped for a short time to talk to Craig working 1/2 mile down East Reef. They have caught lobsters tagged last year. Counted seal on Bare, Round and Mullet (latter barely there!). AT Tern I showered. John Andre then informed me that Chip would be staying with me on East for next two weeks. Jerry Ludwig told them this sounded like a good idea. Chip apparently came up with the idea to "study" mothers & pups. (What is his background, as a volunteer?) permit? I told John

- 1) This is first I have heard about it. Bill apparently does not know - - Rob may know. He just came back from trip.
- 2) Added impacted of second person on island to all wildlife needs to be considered.

6/83 -
 If you thought
 this may have
 been bad,
 note
 1983

John mentioned that during May 3 people stayed on East for 2 weeks. Also people camped on W-S. (Reports?)
 "Not concerned with permits out here"

Questions:

1. Permit system should be a 2-way

Written
 Proposal?
 Report
 files as
 of 6/83??

GAIL
 &
 Chip,
 I believe

8 June 82
Tues.

street. I spell out to FWS what I need to do and will be doing; FWS needs to tell me in advance what & who will be interacting with my work - study area. Does not permit "reserve" a block of time on study site to do what is necessary?

More camping in turtle habitat. Lights. How many at one time can study Tat East?

If it can be done elsewhere, do it elsewhere. Or at another time? (ie before came) Are mother/pups already being studied ^{or after} elsewhere? Cisarsht & Kayson?

John "instructed" me to take him. There was no asking if I wanted to, or if it would interfere with my work.

John mentioned "safety" of 2 people on island.

My East tagging work is predicated on a certain level of disturbance. Add more people, and scales may be tipped.

8 June 82
Tues

Note that Bill wouldn't take Frans (photographer) with us ^{14-15 APRIL} because ~~it~~ he wasn't covered under his permit. Is ~~Ethiopia~~?

So - most salient points

1. Wasn't informed in advance - wasn't even asked if it would mesh with my work
2. What is his study plan? what is he doing out in this critical habitat that is so essential? (like turtle work) As a "volunteer"
3. Added impact on island. My study predicated on a certain level of disturbance. How many can work on east at one time?
4. Permits - approvals he is working under?

* 5. Not particularly interested in learning how to study turtles - and this is exactly what FWS needs, and I can offer for training!

6. Block of time reserved at East for my study. If the mother-pup work is indeed critical, then it should have been done before, or after, my field work. Presents one more "unknown" factor by interjecting another person/camp (voluntarily) into the turtle nesting habitat. If you allow more and more workers on East at one time / or w/o sec 7 / how do you justify not allowing fishermen?

7. Is East suppose to be a place where "volunteers" go alone to learn about work seal work?

8. Am I responsible for his actions / SAFETY ^{real life} while on East?

NOTE - Read special Tern Is. Rules, + "Policy memo" (posted on Tern)
Mentions "Bovafit" of Research to HENWIK - This is a "Research Natural Area" - See my copies
* CREDENTIALS?

Consider Whitlow's interest in Mother-Pups, a restriction to Trig(?) where none occur, but hidden observation points are possible?
Is it now "O.K." for seals to see you?

8 June 82 Returned directly to East at - 4:45pm.
TUESDAY walked to SEP and took 1-50' roll 8mm film just of baskets. Then tagged as many as I could-see data table. Gathered up line and net scraps for removal from island. Ruth informed me that Bill is having her mark scraps. She is pulling them up high! Right into turtle nesting habitat.

9 JUNE 82 Took several rolls of movie film
Wednesday of TG 14. She rested right next to the tent - didn't seem bothered by me at all. - finished ~ 10:15am

Took until about 11am moving the two dome tents and campsite to near metal stakes of boat anchorage. Rigged awning using steel pipe and fiberglass pole of bang stick. Looks good! Read from Sufyanna and Macrahees in Holy Bible.

Loaded net scraps in boat that I gathered from the island.

Contemplated the patterns and attitudes of wildlife usage - For instance, many people in Hawaii probably see nothing wrong with taking sea turtles. However,

9 JUN
Wedne

OR
JAN
MAC

9 JUNE 82 Wednesday seabirds, which were traditionally used by Hawaiians, are ^{apparently} ~~never~~ considered for taking. Also, monk seals (the King shot one at Nihoa, or Hilo (?)) taken for food and oil. Considers also the various other marine mammals - porpoise, humpback and other whales. Also, Hawaiian forest birds that were heavily used to make feather ropes. What about Nene? Was it eaten? And owl? Need to check Kalakaua to see which of these animals were "kapu". The above birds and mammal might constitute a source of revenue for Hawaii if exploited at "sustainable" levels. Seabirds egg for oriental population. Make Seeward's ^{Refuges} "economically valuable" to the people of Hawaii. Review article in Natural Wildlife about "wildebeest stew" - African wildlife usage and conservation. Also see MTN by George Hughes. "Sea turtles & Antelops"

OR
DAVID
MACU

Considers the above points for a short dissertation on the above, perhaps obviously ~~trav~~ "touring in check" for newspapers or other publications.

9 June 82
Wednesday

Contemplate the "turtle tag".
Where it's been, what it's
seen (if it could "see"), the
encounters it's experienced.
Consider a short write-up on
this subject through the "eyes"
of a tag, as told by the tag.
From my hand, when applied,
back to my hand, when reread.

10
Thurs

(An) Unusual tag recovery (shows value of double tagging)
note for MTN! - written 6/11-6/12/82

10 June 82
Thursday

Read from Jeremiah (the prophet
who foretold of the destruction of
Jerusalem by Babbloia - 538 B.C.)
Motored to Tern about 11am.
Washed cloths. Tried calling Honolulu
FWS & AAFS & Kilaeua - I couldn't
get through. Ate lunch of fish at
~ 2 pm. Returned to East with
Chip at about 4:30 pm. He set up
camp in same area circled by
concrete chunks (used in May).
At Tern I noted a good turtle
nest under western-most fuel tank
laid ~ 2 nights ago.

done
ATM

Done by
wetherell

10 June 82 In Honolulu, I need to obtain Thursday John Gravings' address to send him a turtle ID poster and post cards.

Yesterday afternoon near high tide, I saw a 12-14" juvenile foraging on East Reef. (in distress)

John Hodge mentioned that on Wednesday night, Alan Tam asked for "broumes" to be air dropped when talking over the radio to his friends.

DATA STORAGE NEEDS

done
ANNEX 1. Put "data sheets" tag recovery information on computer disc (Waikiki Aquarium?). Can this be used to "call" all data entered for a certain tag number?.

2. Do the same for growth data (?)

done by
wetherall 3. Have Karen Björndal analyze survivorship data?

11 June 82
Friday
(no meat)

Check Beardsley notes to find name of microscopic "chigger".
at 10:30 am - read from Proverbs.
Called Tern to see about making contact with Gail for radio talk with Lin & Christian. Wrote up data.

At ~ 5 am I saw TC21 in extensive digging (cover-up?) right next to a mother and pup in Area 8. Many of the SWP seem to haul out at night right in the area 4-6 turtle resting rim of island.

No evidence of fresh shark bites have yet been seen during this trip.

~ 2 pm an ~ 18" juvenile was seen ~ 20 m of boat anchorage.

Question - How many ♀ turtles tagged in a breeding season can be accounted for now?
i.e. 1973 batch - then add up all recoveries during following 10 years. Construct flow charts for each year.
Such as.

1973	1974	1975	1976	etc.
Total tagged =	→	"	"	"
Total recovered up to 1982 =				
Composition (year & location & circumstances)				

"Survivorship curves" as per Bjørndal?

119

12 JUL
SATUR

11 June 82

Chip observed a SWP in A5-6 most of the day - used a folding chair set up slightly inland.
 A molting seal has been hauled up into the middle of the island in A4. - "Babbles" a lot at night - was there for at least part of the time during the heat of day.

Need - Photo of "slab" area and count of wildlife.

12 June 82

UP - 9:15 am - too warm to sleep - SATURDAY no breeze. USCG is suppose to overfly Cayson & Cisianski today for Cairdrop & make contact with people. Haven't heard from either island since last Wednesday night.

Read from "Book of Micah".
 At ~ 11:15 am I noticed to Tern. Chip is now "observing" from SP. Walking back & forth in this area probably restrains turtles from basking. On one occasion as I was leaving, he walked right next to a basker and it went back into the water.

12 June 82

Saturday - Last night a mother with pup were once again right near a resting turtle. The mother (and pup?) vocalized when the turtle started crawling.

Returned to East \sim 5pm - talked to Craig ^{MacDorred} who was getting ready to set traps south of Round Reef. He mentioned that the small file fish occurs in cycles of \sim every 10 years.

Close lightning ^{occurred} during the night, but no rain.

At 5pm survey of SNEP, very few baskets were present. Was chip walk in the area whiled was at Tern? Due to SW being moderately up?

Note that not many turtles were out to nest 6/12-6/13 (7 total, of which 4 new - lowest numbers yet). Was this due to lightning during "no moon"?

13 June
Sun

13 June 82

Sunday. TC 59 was found to have a rusted iron spear head imbedded in 3rd central right. From detachable harpoon, such as Alan Kam saw used at Kakaeriu reef on east Kawai?

Note - that there are numerous glass bottles/jars on top of, and within, the island.

Possible impacts of second workers on East during my turtle monitoring

1. ^{physical} presence of ^{camp} site in ^{nesting} habitat
2. Light at night, both in & out of tent ("in" still illuminates from outside)
- * 3. Continual presence of person on / or behind beach crest all day long
4. Walking too close to basking turtles
5. Walking unknowingly on buried egg clutch site - developing egg -
Some are shallower than others.

13 June 82
Sunday

- 3pm Saw the very small juvenile on East Reef.

"Strange Encounters with Turtles"

1. Nester beached at night on East with line snarled around neck with trailing float.
2. Nesters caught in copper and ^{ground} electrical insulated wire on East.
3. Nester on Trig caught in a piece of trawl net.
4. Dead Male at East, that was later found to have lead shot in pectoral muscle.
5. Nester on East with rusting spear head in carapace.
6. Juvenile at Bellows with (plastic) ↔

← portion of jar ^{tight} around its neck.

7. Juvenile at Lisianski with large "crystal" ^{deposit} in its eye.
8. Juvenile at Puuvaluu, ^{Hawaii} with monofilament cut into muscle of front flipper.
9. Juvenile at Puuvaluu with fishhook imbedded in pectoral muscle.
10. Adult guts from Lanai with lots of plastic bags all through it.
11. Nestor that "stood upright" in bronze machinery on East -; old bones found here too.

13-14 June Very slow night for
 SUN. - ~~MON.~~ turtles - but no
 lightning - only light winds - clear.

Up about 9am

Read from _____,
 wrote data.

Departed for Tern at ~ 11am.

At Tern, I reviewed some
 papers in the "work seal file".
 Note the following -

Minutes from H. monk seal recovery team
 Cover letters from Nitta to Loggesshall
 ↓

- | | | | |
|-------------------|---|--|-----|
| 1. June 17, 1980 | - | minutes
April 26-27, 1980
Honolulu | 313 |
| 2. Oct 1, 1980 | - | August 8-10, 80
La Jolla | 313 |
| 3. March 23, 1981 | [also memo
to monk seal file
RS dated 10/16/80] | Sept. 25-27, 80
Honolulu | |
| 4. May 7, 1981 | | Draft Dec 10-12, 80
Honolulu | |

↓ designation of
 (noted 1.50-mile
 area to be avoided).
 Didn't I originally
 propose this?

MISC.: "Report on Hawaiian monk seals tagged during 1963 by the
 Central Pac. Ocean Biol. Surv. Program." "All animals were roped & physically restrained"

26 JUL 2002

14 June 82 ^{Monday} Returned to East at ~ 5 pm.
 Tried to call Fin and Christian through Bill Gilmartin at NMFS. Poor, or no, signal strength. Talked to Maura & Jerry Ludwig intermittently -
 TERN - () KOJ 638
 Honolulu FWS KOJ 609
 NMFS KWL 38

Upon return to East, I found a tagged juvenile basking right below the tent.

Data as follows:

Recovery (no. 220)
 3136 RFL
 S - 47.8 / x 37.8
 3135 LFL
 C - 50.5 / x 45.5
 PL - 37.9 cm

Healthy looking - a vigorous fighter!
 Brownish color.

6/4/81 measurement of same turtle at SP:

S - 45.2 / x 35.9

PL - 36.9

This turtle has gotten into a successful life style.

∴ increase of 2.6 cm!
 or .216 cm/month

14 June 82
Monday

Note - I suspect that the blue Lucite is not staying on as good as the white!
(But TC10 looks great on 6/15!)

Wildlife count in former Cement Slab Area -

- 1 - Masked booby chick - large-fuzz
- 4 - Black footed albatross young
- 3 - Laysan albatross young
- 13 - Frigates (various ^{young} stages)
- 18 - Noddies on eggs
- 2 - Shearwater burrows
- 1 - turtle dig - looks good

Lots of tall *Chenopodium* - tallest on island. why?
Seabirds concentrating there for nesting?

15
TUESDAY

6-13

15 June 82 Chip and I motored to Tern
 TUESDAY. out ~ 9:30am for plane arrival
 with R. Shallenbergh, Bart Frello
 Channel 9 TV News. Got mail
 from home, including food goodies and
 father's day present (prayer book & small
 crucifix).

I returned to East at ~ 3pm. ;
 team followed about 30 minutes later.
 Footage taken of me tagging basking
 males - also walking along beach
 and looking through binoculars according
 painted numbers.

Other news spots are to be
 1.) Luth - seals; 2.) John - seabirds
 3.) Rob - Tern overview

They departed about 5:30 - 6pm,
 after I had a talk with Rob about
 that "5-year" review meeting.

[6-13 "Albatross" ^{discarded} land recovery - decomposing
 carcass on East Island - "757-38785"]

Weaned seal pup in good shape on S.P.
 seen to have "milky" and somewhat
 closed right eye.

16 June 82
Wednesday

Need to assemble "folder" showing ~10 views of representative Hawaiian greens (+ Hawk & leatherback?) at several life stages: ① hatchling ② post-hatchling with black ventral ③ return to white ventral ④ ~18" juveniles ⑤ subadult ⑥ Adult a) Female b) Male

Airplane left about 2 pm.

I have been noting lots of copulations by Eagle Rays in the nearshore waters of East.

Chenopodium and most other vegetation greatly reduced all over East. Many (most!) bare soil areas. Is this partly due to absence of Sooty Tern flocks? Also W-S & Trig? Is this also related to the decrease, or near disappearance, of foraging juveniles at the adjacent reef areas?

16
Wed

17
Thu

16 June 82 ~ 5pm rescued a young black
Wednesday footed albatross whose leg was
swarled in fine copper wire in Area 8.

Note - Thus far, no tag recoveries have
been made from Exped. 29 which
tagged — turtles at Trig & W-S.

Tagging turtles is like Las Vegas
gambling - put so many tags
on - I hope to get some back!

17 June 82 Informed by John Andre over
Thursday the radio that Rob said
plane of 25 June may be 2 days
late to accomodate Hoffman & Gifwartin.

No one (again!) had the
courtesy to ask my view - however,
Craig Macdonald was asked (he took
a neutral view).

Note that there is no real
need to stay here at east
larger than 24th. In fact
it may be harmful -
ii. If not needed critically, then
don't stay. Objective (for seals
and other wildlife) is to stay the
least time possible, but still fulfil turtle objectives.

17 June 1982

Thursday

Departed for W-S at ~ 1pm
after a 45min rain shower. Arrive ~ 1:30pm

Many digs seen in central
area of island. Tagged and
counted "baskers (and seals)" for about
1 hour. Noted that there
appear to be females here that
are much larger than those usually
seen at East Island.

This is also my impression for
past years, now that I think about
it.

Many "house flies" seen on some
seals - huge swarms <sup>Not seen like this at
FS in earlier years.</sup>
No TC's painted numbers seen
on any of the W-S baskers.

Motored from W-S to Tern where I
spent the afternoon until ~ 3pm
when I returned to East.

Chip is waiting to talk to Bill
before returning to East with me.

18 June 1982

Friday (no meet)

Up ~ 10am - Stayed
on East all day.
Read the Bible -
Hebrews

Christian I love you! ^{Signed}
your Dad

June 18, 82
Friday

Consider ^{coverage} - problem imposed by "lots of late arrivals" - or scattered - out of nesting season - vs - a peak.

June 19, 82 Motor to Tern at about 60 am.
Saturday Heard conversations on SA channel between vessel "Betty Ann", near Maro Reef and USCG. Captain injured 2 - Air Force plane sent and 3 paramedic sent down.

Returned to East ~ 5:30 pm -
Bob Ferguson unable to do phone patch with Lin because his dinner company was about to arrive!
Tomorrow evening.

Painted stencil sign in green as pyramid - "Property of US Coast Guard"

Early this morning at first light,
I saw the first tiges this season - - eating young albatross off Area 9.

19 June 82 Recall article by Pritchard in MTN
 Saturday about possible harm of turning creatures
 on their backs. However, I consider
 that sea turtles have "evolved" in
 the sea - are not locked into
 a horizontal locomotion. Sea
 turtles "stand on end" during
 copulation - see & Parsons -
 also I have seen turtles get
 turned right over during copulation
 (film taken overea off New Caledonia).
 But not subject to full force of gravity when in the water.

Need - Photo albums that contain
 Long's "photo essays" on key topics -
 i.e. - 1) Hawaiian green morphology
 2) Genesis of East Is. junk
 All loose photos of turtle work

UP ~ 9 am

20 June 82 Read the ^{Sunday} Misalette and
 Sunday Bible in the morning.
 Arrived at Tera about 12 noon.
 Easy Rider departure now delayed
 2 days or more from date of June 20th.

At 4:45^{pm}, I saw a double
 tagged small juvenile foraging close
 to the north sea wall. Double
 tags indicated it was not one of the
 captive releases. My net was on

20 Jun
 Sunday

Jun
 Mon

20 June 82 East Island. Turtle was feeding
 Sunday between the rubble substrate of
 the bottom. Periodically the turtle
 would make very quick movements,
 as if taking live prey.

Chip reports that during May he
 saw mother seals grasping (with
 one flipper) the backs of turtles
 in shallows at SEP and being
 pulled around. He saw
 this happen with 3 different
 mothers. Interpreted as "play".
 Usually lasted only a minute
 or so, but was repeated
 often. Turtles would swim
 away (out), and then come
 back in.

Returned to East about 7pm -
 Call Mother & Father via Bob
 Ferguson.

June 21, 82 Found abandoned new-born
 Monday seal in Area 3.
 Observed adult with body bitten
 back - skin and blubber removed.
 Four photos taken.

At 2 pm I motored to W-S. Tugged
 turtles and looked for mother seal

21 June 82
Monday

with dead pup that could be used as an adoptive parent. None found.
Hauled several net scraps back to top of large log.

Motor to Tern, arriving ~ 3pm.
Informed that Sheila is on Nihoa - put there by Ed Shallenberger - reportedly for 3 days or so. Does she have a radio?

John reports that he talked to Ciszewski last night. They ran their AC generator right into radio, bypassing DC.

Talked to Lin and Christian at 5:30pm through Bob Ferguson.

Returned with Chip (Bob transmitted approval) to East at ~ 6:30pm - trade winds up. Seal pup not found.

Backnote - Several days ago, Ruth Ittner sold a cowrie found on the beach at Kure for \$100 to Stan.

Anchor light seen this night in the direction of Disappearing - later found to be Ed Shallenberger.

At midnight low tide, Craig and other went out on the reef to look for lobsters.

Reported that Easy Riders will now leave

22 June
TUESDAY

23 June
WEDNESDAY

(No. 2)

283

283

26 JUL 2002

22 JUNE 1982 - Honolulu on Wednesday morning 6-23.
TUESDAY

Woke up about 9am - TC 94 covering up nest in area 16. Several photos taken. Stayed on East all day. Read from Book of Genesis.

In the afternoon 4:30 pm, Craig and lobster people towed the FWSJ boat to East Island because the stern had filled with water while at anchor. They got it running again and left at ~ 5:30 pm for Tern.

Plies around campsite are very bad.

23 June 82

WEDNESDAY

Up ~ 9am; at 6am there were about 5 turtles still (no. 222) out nesting.

Motor to Tern at about 11:30am.

Juvenile caught with scoop net near North seawall at Tern - at ~ 1600h

2835 RFL

Curved 48.4 cm x 42.9

2836 LFL

Lots of red algae on tags; also some coralline growth. Turtle has green algae on plastron - red on skin - and slimy silt on carapace.

23 June 82 Had lobster & steak dinner
Wednesday with Craig and others; Returned
to East at ~ 7 pm.

24 June 82 Stayed on east all day
Thursday
Passing rain & wind squalls during the
night -

25 June 82

Friday

Broke camp with Chip at ~ 10-11 am;
Returned to Fern and reassembled
all gear.

Moved to Trig and W-5' for
tagging 1530h - 1630h.

Talked to easy fides at Necker, and
John Henderson at Gisianski.

John reports that 7-8
"diggings" have been recorded,
with ~ 3 pits each time.
Not much time has been available
to devote to sea turtle work.

Frigates seen nesting on Trig -

"Repopulation of Sooty Tern Colonies
within French Frigate Shoals"

6/2
Saturday

6/26
 Saturday
 Justman's plane to Laysan & return for
 filming by people on ER / Bill.
 Depart Tern ~ 6:30 pm.
 Arrive Honolulu ~ 10:15 pm - a
 direct flight.

Notes:

Chip Deutsch
 273 Applied Sciences
 Univ. of California
 Santa Cruz CA 95064
 (408) 429-04026
 Home - (408) 335-2537

John Doment
 Bog Brook Cove
 Bog 267
 Cutler, Me - 04626
 aboard R Charter -
 - photographer

Consider - "Percent basking time" by
telemetry as a multiplicative
factor to determine total
number of turtles present.

Continued TCS
from Book 1

Date/
6/19
6/25

TAGS - 6195 ~~RFC~~
6196 ~~C2nd Seale~~

~~TC~~ - 91

26 JUL 2002

<u>Date/Time</u>	<u>Area</u>	<u>Activity</u>	<u>Remarks</u>
6/19/82	8	N-Lay	TRF
6/25 ^{1530k} Friday	TRIG	Basking	Green paint peeled and faded - ^{TMR} ventral but ventral TMR seen.

92-TC ✓

26 JUL 2002

NO. 186

TAGS-^x 3602 LFL (RECOVERY)

3603 + RFL

6209 2nd Scale

? NO. 17

S - 92.5 ✓

C -

Date/Time

Area

Activity

Remarks

D/T

6/18 Friday 2330 Jh.

13 ✓

N ✓

6/19 S

6/19 Sat 0600 h

4 ✓

N-Lay

6/19

key)

TAGS - * ~~3139 RFL~~ (Recovery) ~~TC - 93~~

~~316 RFL~~
~~6208 2nd Scale~~
~~6209 R 2nd Scale~~

26 JUL 2002

? NO. 174

S - 95.3

C -

D/T	Area	Act.	Remarks
6/19 sat ^{0230h}	7	N - KAY LAY	ISK
6/19 sat ²³³⁰		N LAY	

94-TC //

26 JUL 2002

TAGS - 6200RFL

6248 LFL

6148

S-

Date/Time

6/18/82 2330 Sat

Area

S.P.

A.
N

6/22 0630 Tues

16

N-LAY

C-

Remarks

Carapace wet - TC
not sprayed

sprayed while 94

Finished up at
about 10 am -
several photos
taken on Roll 4

D/T

6/19

6/19

6/20

6/24

TAGS- *2804 (Recovery)

~~TC~~ - 95

NO. 167

~~6000~~
~~6210~~

26 JUL 2002

S - 90.8

C -

<u>D/T</u>	<u>Area</u>	<u>Activity</u>
6/19 ¹⁸³⁹ Sat	7	N
6/19 ²³³⁰ Sat	12	N
6/20 ²²³⁰ SUN	4	N
6/24 ^{1500h} Thurs	9	BASKING

Remarks
Sun still up!
~~Barn~~ on 2nd marg left.

6/24
A
4

96-TC ✓

05 AUG 2002

TAGS- 6212 ✓ RFL
6213 ✓ LFL
6214 ✓ 2nd Scale

Prev

S-

C-

Date/Time

Area

A.

R.

D/T

6/19/82 ²³⁰⁰ sat.

6 ✓

N-Lay

carapace wet -
but TC sprayed
white paint

6/19/82

6/20/82

Rec. 6/13/86 EAST-N

TAGS - 3612 ~~RFL~~ (Recovery) TC - 97
2221 2222 ~~RFL~~

Previous Recoveries No. 89

621522nd scale; 6227R25nd

05 AUG 2002

S - 93.4 (93.7)

C -

D/T

Area

A.

Remarks

6/19/82 ^{2300h} Sat.

7

N

2222 close to edge

6/20 ²²³⁰ SUN

1

N - LAy

918-TC

05 AUG 2002

NO. 175

TAGS-^{OFF}3155 LFL (RECOVERY)
6216 RFL

Previous
Recovery

S- 92.2

C-

D/T

Area

Activity

Remarks

D/T

6/19 Sat 2330

5

N

3155 imbedded in
TMRs on LFL

6/20

6/20 Sunday

3

N-LAY

UNREMOVABLE -
difficult to unlock &
remove.

6/24

Large TMR on left jaw.
Also TMR right eye.

TC 98 not sprayed
because of wet
carapace.



ey)

TAGS - 3634 L 3rd Scale

TC-99

Previous Recoveries NO. 90

2246 LFC

(RECOVERY)

05 AUG 2002

3645 RFC

18129

S - 94.5 cm

C -

D/T

AREA

A.

R.

6/20/82 ⁰⁴⁰⁰ SUN
6/24 ¹⁵⁰⁰ THURS.

10
SEP

N
BASKING

R 2nd Scale is
torn out - old tag?

ts
in
-
jaw.
trayed
issing-
ed

100-TC ✓

05 AUG 2002

TAGS- 6219 LFL

~~6220 RFL~~

~~6230 R2ndS~~

S - 95.6 ✓

C-

Date	Time	Area	Activity	Remarks
6/20/82	1230h sun	3 ✓	N ✓	
6/21 ✓		4 ✓	N-LAY ✓	
8/3/82	pm	6 ✓	N ✓	
8/8/82	am	5 ✓	N-Lay ✓	

2/ ✓
6/20 ✓

TAGS - 3220^x RFL (Recovery)
3221 LPL

TC - 101

05 AUG 2002

NO. 181

S-

D-

D/T
6/20 2230h
SUN

A
4

Act.
N-Lay?

Remarks

102-TC

05 AUG 2002

TAGS- 6221 RFL

6222 LFC

6231 L2nd Sale

S- 97.1

C-

ID/T

AREA

Activity

Remarks

6 6/20/82 ^{2230h} SON

5/

N

6/21 0400

4/

N-LAY

Rec 6/19/86 tern 8 (recorded as a 07)

D/T

6/20/8

6/22/7

TAGS- 6223 ~~RFC~~

6224 ~~LFC~~

~~TC-103~~

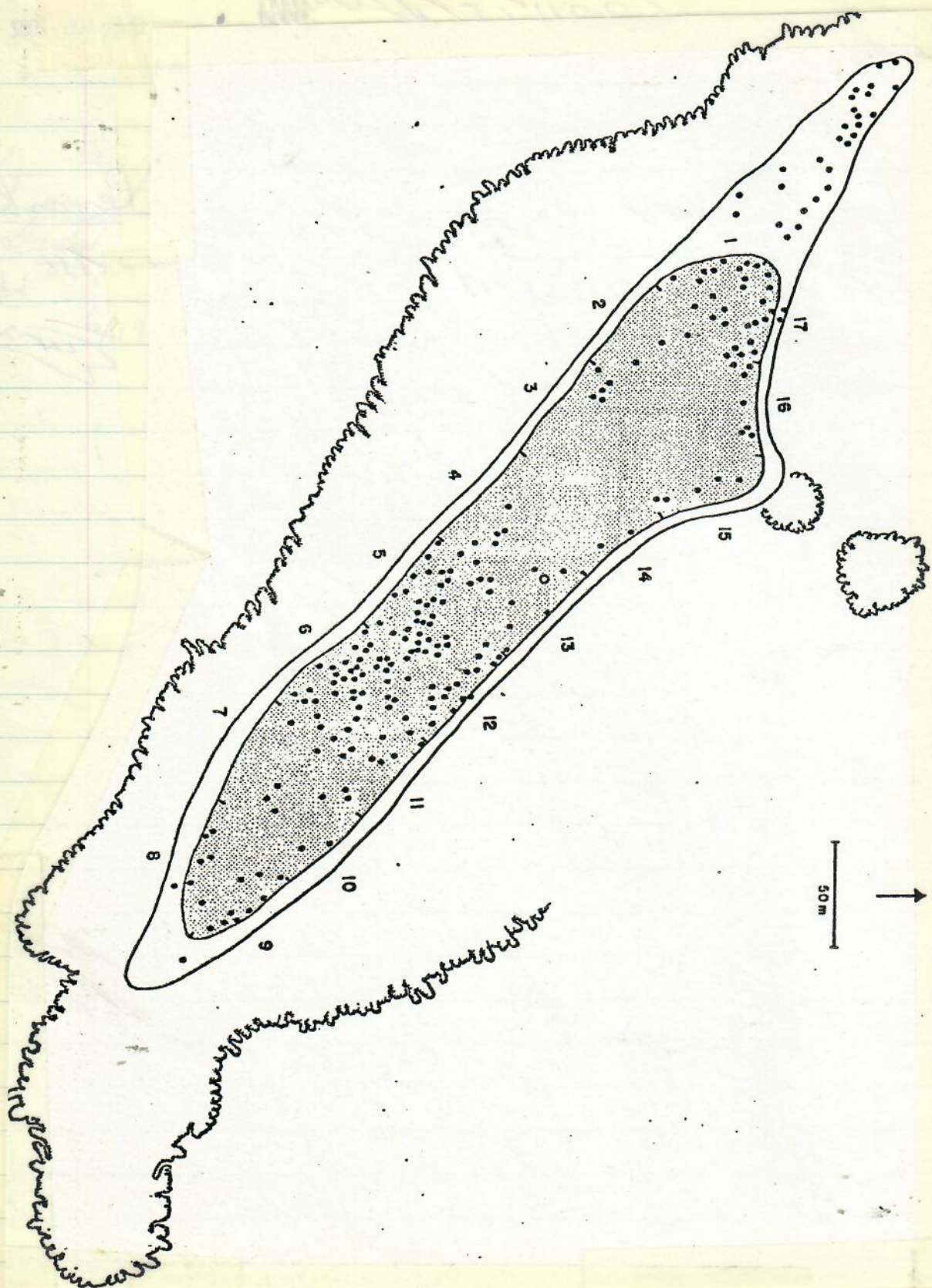
05 AUG 2002

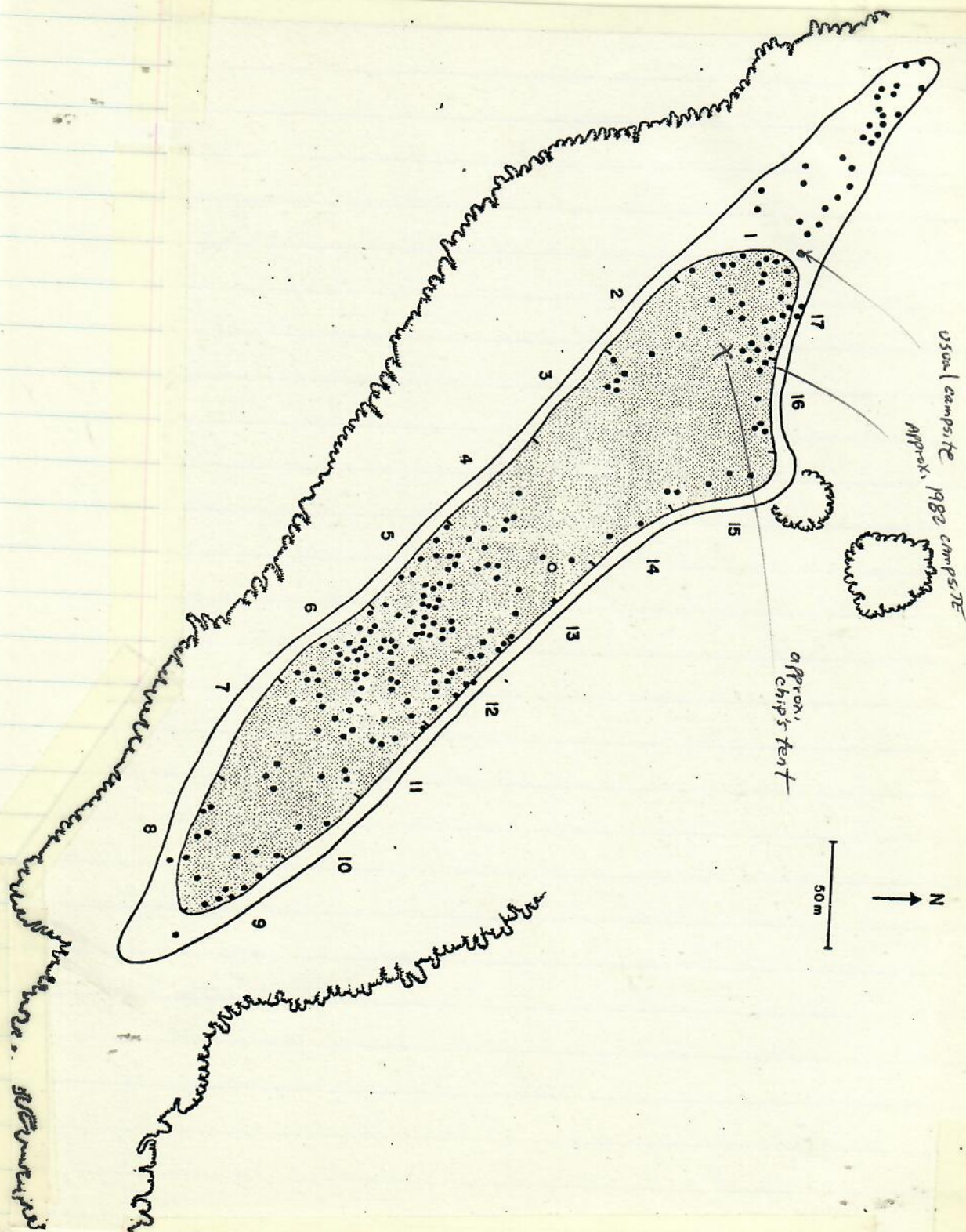
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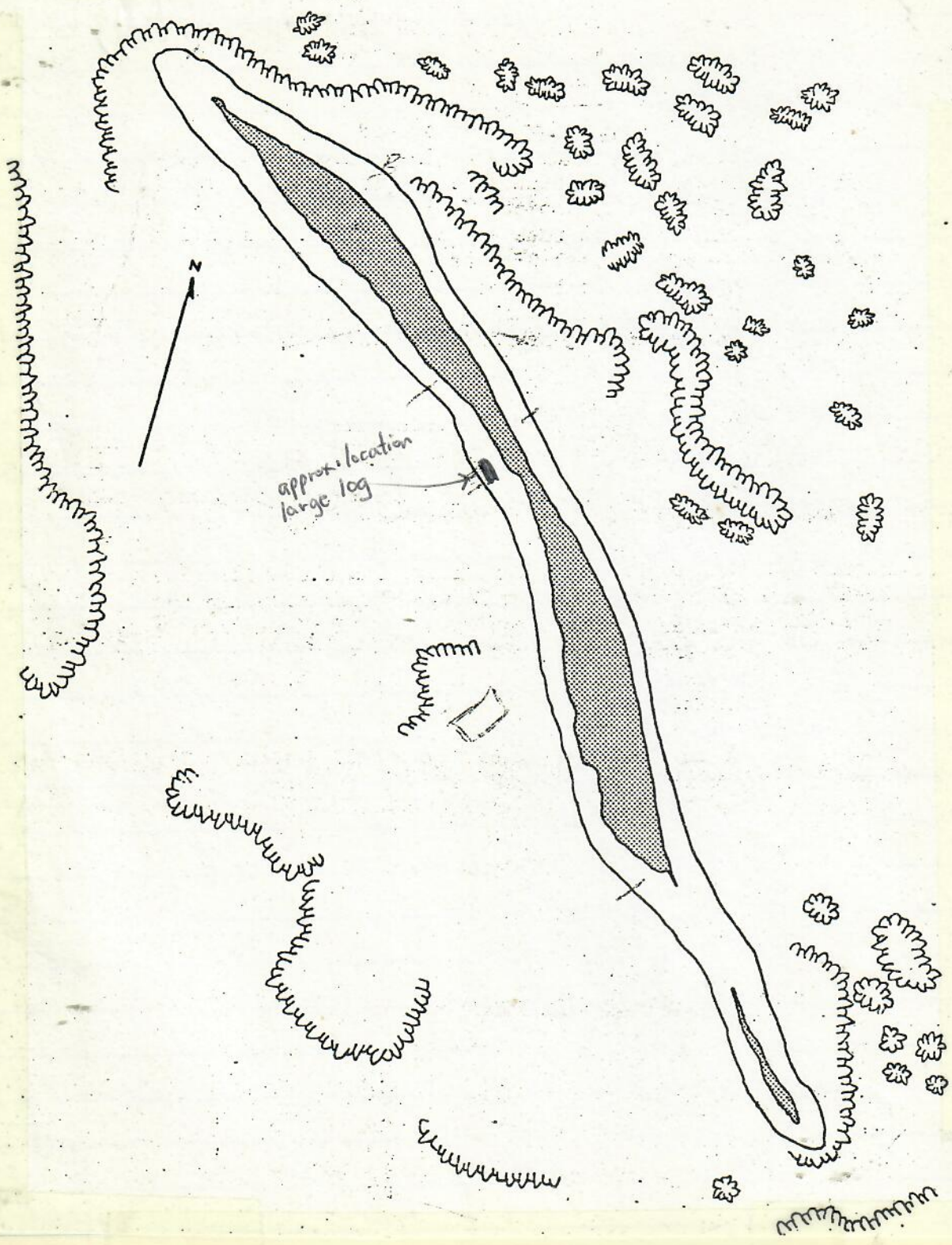
S-

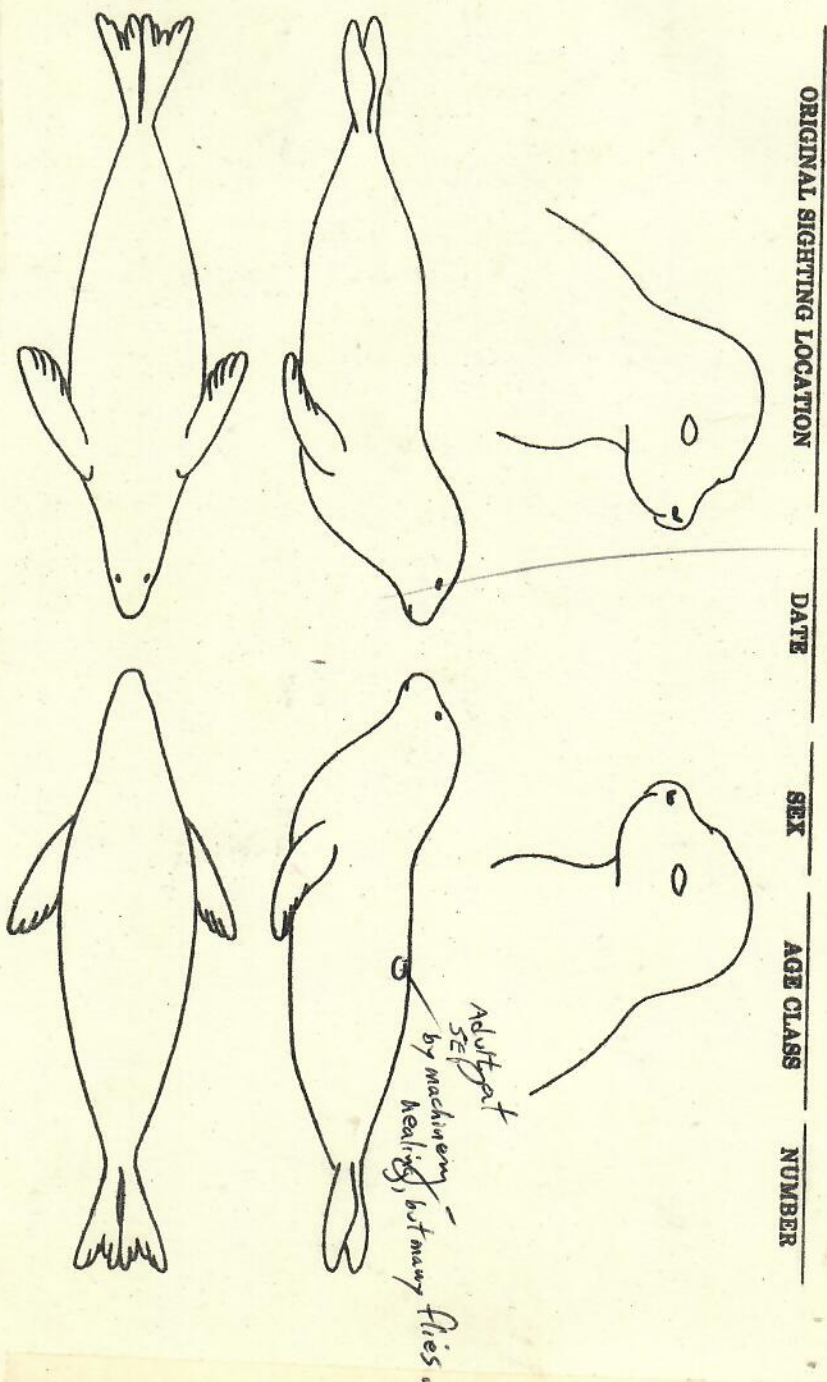
C-

D / T	AREA	ACT.	Remarks
6/20/82 ^{2300h} SUN	8	N	by machinery
6/22 ⁰¹³⁰ TUES	1	N	RFF
			LFF









BASKING TURTLE CENSUS

DATE/TIMES	MALE	FEMALE	I	TOTAL	OFFSHORE			LOCATION	DATES
					M	F	I		
6/6/82 Sunday 2:30pm	10	3	2	(15)			~3	TRIG	6/16 wed
6/6 3:30pm	3	6	17	(26)			~7	W-Skale	6/17/82 1330 Thursday
EAST/MULLET/BARE - nothing									
6/6 Rain 6:30pm	1	8	18	(27)			?	East	6/18/82 Friday
6/7 5:30pm MONDAY	NO TC's	19-SEP 10-NEP	7 SP 3-A10/11	(39)			~3	EAST	6/19/82 SATUR
6/8 - 5:30pm	5	17	probably 5	(32)				EAST	6/21/82 14 SATUR
6/9 4:30pm		SP-3 SEP-21	NEP-10 A11-13-4	(38)				EAST	6/21/82 14 SATUR
6/10 5pm Thursday	3	11	20	(33)			TC 6, 11, 17 26, 40	EAST	6/21/82 14 SATUR
6/12 5pm SATURDAY									6/21/82 14 SATUR
6/12 10:30pm night							3 SEP	EAST	6/22/82 17 TUESDAY
6/13 1500h Sunday		12-NEP 5-SEP	~4 Area 10-13					Possible switch to NEP due to S. swell & low tide	6/24/82 1 THURSDAY
6/14 1730h Monday	3	TC14-SP TC23-A11	TC4, 17, 18 + UNB. - NEP TC 6, 10, 40, 46 21 ♀ 9 I	(22)				"8 of these clustered" right at the end of NEP	6/25/82 15 FRIDAY
6/15 1600h A11- Tues 4		SEP - 14 total	NEP - ~8	(26)			TC 6, 14, 46, 40 10, 32	EAST	6/25/82 16 FRIDAY
6/15 1400h Tuesday		near Bob Justman	By fuel tanks	(1)				West end of Tern beach -	6/25/82 16 FRIDAY

STATION	DATES/TIME	MALE	FEMALE	I	TOTAL	OFFSHORE			LOCATION
						M	F	I	
219	6/16/82 1700 hours Wednesday	2 ♀ SP 49 AIO	20 NEP 15 SCP		(41)				EAST
Skate		TC 48, 23, 32, 19, 12, 5, 6, 6, 55, 17, 18, 4, 37, 52 green 6, 46, 6	(16 total)						
est	6/17/82 1330 - 1430h Thursday	5	29	2 No TC's seen	(36)				(3+) W-S
ST	6/18/82 1700h Friday	SEP-21 NEP-10			(31)				EAST
ST			TC 40, 66, 32, 42, 18, 9 + many too faded to read.						
ST	6/19/82 1730 Saturday	SEP-7 NEP 5 TC 90, 48, 37 SP-1			(13)			Low count due to W-SW ? swell	EAST
ST	6/21/82 1200 Monday	4-SEP 10-NEP 2-IN	1-AD ♀ includes 1-A12 ♂ 7+TC, 1-SP ♀ BUT most unreadable - problem	Colored paint problem	(17)				EAST
EAST	6/21/82 1400 Monday	6	21	1	(28)				W-S
ST	6/22/82 1730h Tuesday	SEP-16 NEP-1	(TC 4, 15, 48, 79, 83, 109) 8 unreadable 3 No TC		(17)				EAST
ST	6/24/82 1500h Thursday	NEP-9 (TC 9 & 3 unread.) SEP-11 (TC 4, 10, 17, 18, 99 & 6 unread.) 1 ♂ - Area 10 1 ♀ - Area 9; 1 - S.P.			(23)				EAST
ST	6/25/82 1530 Friday	I	14		(15)				TRIG
ST	6/25/82 1630 Friday		6 ♀ 2 ♂	Tag encountered - Central area only					W-S

74

1982

FRONT FLIPPER WIDTHS*

TC NO.	FLIPPER WIDTH ^{cm}	SI LENGTH ^{cm}
--------	-----------------------------	-------------------------

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

11.

* Not many taken because, in doing so, I am more apt to get chigger and tick bites - loose dirt & thrashing of flipper. (susceptible)

05 AUG 2002

BASKER TAGGINGS

DATE/TIME	TAG NOS.	SEX	LOCATION/REMARK	DATE/TIME
6/6/82 2:15pm SUNDAY	5978 RFL	MALE	TRIG LFL has piece missing (old tag?)	6/6/82 SUNDAY
6/6/	5979 RFL	MALE	TRIG	6/6/
6/6/	5980 RFL	small MALE	TRIG	6/6/
6/6/	5981 RFL	small FEMALE	TRIG	6/6/
6/6/	5982 RFL	FEMALE	TRIG	6/7/82 MONDAY
6/6/	5983 RFL	Male?	TRIG 1/2 length tail "Turtle-greenish"	6/7/82 MONDAY
6/6/ 3pm	5984 RFL	Female	W-S	6/7/82 MONDAY
6/6/	5985 RFL	Female	W-S	6/7/82
6/6/	5989 LFL	Female(?)	mutilated but healed TAIL W-S	6/8/82 Tuesday
6/6/ 6/8/0500	5990 RFL	Female	old tag? part of LFL missing returned - NOTC	6/8/82
6/6/ 6/16/1630h	5992 RFL	Female	Assigned TC 85 6-17	6/8/82
6/6/ 6/19/1730 SEP;	5993 LFL	Female	Assigned TC 7 6-7	6/7/82
6/6/	5995	Male	SEP EAST	6/7/82

Reconsider article on repeat site-specificity (Basking) for males

05 AUG 2002

DATE/TIME	ENT. NO.	TAG NOS.	Assigned	SEX	LOCATION/REMARKS
6/6/82 Sunday	309	5996	TC 61 6-13	Female	SEP EAST
6/6	188	5997	TC 83 6-16	Female	SEP EAST
6/6		5998 RFL		Female	TC 68 6/15 SEP EAST
6/6		6044 LFL (NEP)			
6/6		5999	TC 59 6/13	Female	SEP EAST
6/7 5:30pm MONDAY		6012 LFL		Female	assigned TC 115 6-25 SP-EAST
6/21 13:00 S.P.		6232 RFL			
6/7 5:30pm MONDAY		6013 RFL		Female	SP-EAST
6/7 5:30pm Monday		6014 RFL		Male	extensive SP- cop. BITES EAST
6/8 5pm		6017 LFL	ENT. #110	Male	SEP
6/8/82 Tuesday		6037 RFL		Male	many barnacles A13 EAST
6/8 1700		6038 RFL	ENT. #96	Male	A13
6/19 16:30h A13		6076 LFL	6/6 16:30h A10, 6/21 13:00h A42		
6/8 1700		6040	Assigned TC 54 then 6-13	Female	EAST NEP
6/7 2300		6019 RFL		Female	Assigned TC 57 6-8-82 NEP
6/7 2300		6020 LFL		Male	small EAST A11
6/8 1700		6041		Female	NEP

BASKER TAGGINGS (CONTINUED)

DATE/TIME	TAG NOS.	SEX	LOCATION/REMARKS	DATE
6/8/82 Tues	6042	Female	TC 69 6-15 NEP	6/11
6/8 6/9 4:30pm NEP	6043 RFL 6078 L2nds	Female	TC 6 6/15 (+2) RFF NEP (tag hole in RFL)	6/11
6/8 6/9 4:30pm SEP	6045 LFL 6079 R2nds	Male	SEP	6/13
6/8 6-9 2300h SEP; 6-11 2300h SEP;	6046 RFL · 6047 L1 st Fe 5 Male	Male	Assigned TC 65 6-14-82	SEP 6/13
6/8	6048	Female	TC 39 6-9-82	SEP 6/14
6/8	6049	Female	Taken off - too tight Assigned TC 40 6-10	SEP 6/15
6/8	6050	Female	Assigned TC 73 6-16	SEP 6/16
6/8	6051	Female	Assigned TC 36 6-9 large green scum on carapace	SEP 6/17
6/8	6052 RFL	Female	posterior shell	SEP 6/17
6/8	6053 RFL	Female	Assigned TC 45 6-11	SEP 6/17
6/9/82 Wednesday	6077 RFL	Male	INT. #108	AI 6/17
6/9/82 4:30pm	6080 RFL	Female	Assigned TC 41 6-10	AI 6/17
6/11/82 Friday	6106 RFL	Male	transferred to "Recoveries" table Bitten scabs on tail	SEP 6/17
6/11 4:30pm	6107 RFL	Female	Assigned TC 48 6-11	AI 6/17

22 AUG 2002

DATE/TIME	TAG NOS.	SEX	LOCATION/Remarks
6/11/82 Friday 4:30pm	6108 RFL	MALE	Body cop. bites on A12 trailing of LFF EAST
6/11 4:30pm	6109 RFL assigned TC 116 6-14 7-5-89 Paldao Bullpen "ADULT MALE" tail	FEMALE	short abnormal A13 6109 RFL 85.3 SL 91.5 CL
6/13 Sunday 17:30h	6133 RFL assigned TC 88 6-18 1141 LFL	Female	A12
6/13 Sunday 17:30h	6134 LFL probably assigned TC 86 6-17	Female	Brownish- Deformed PC's A12
6/15 1600h Tuesday	6150 LFL	Male	Tag probably not on good TV Film A12
6/15 1600h Tuesday	6151 RFL	Male	TV Film A9
6/16 1800h Wednesday	6157 RFL assigned TC 76 6-17	Female	"smoothed out" PC's SP.
6/17 1330h Thursday	6155	Big Female	Bashing whale- skate
6/17	6166	Female	W-S
6/17	6167 RFL	Female	W-S
6/17	6168 RFL	Female	W-S
6/17	6169 FL	Female	W-S
6/17	6170	Female	W-S
6/17	6171 ^{AK} 399C	ENT. #267 Female (?)	W-S

22 AUG 2002

DATE/TIME	TAG NOS.	SEX	LOCATION/REMARKS	DATE/TIME
6/17 ^{1400h} Thursday	6173	Female	Whale-Strat	6/25/8
6/17/82	6174	Female	W-S	6/25/8
6/17	6175 RFL	Big Female	W-S	6/25/8
6/17	6176 RFL Rec 6/5/86 W-S B	Female	W-S	6/25/8
6/17	6177 RFL	Male	W-S	6/25/8
6/17	6178 LFL	Male	W-S	6/25/8
6/17	6181 LFL	Male	W-S	6/25/8
6/21 ^{1400h} Monday	6233 LFL	FEMALE	W-S	6/25/8
6/21	6234	FEMALE	W-S	6/25/8
6/21	6235	FEMALE	W-S	6/25/8
6/21	6239 RFL	FEMALE	W-S	6/25/8
6/25 ¹⁵³⁰ Friday	6264 LFL	Female	TRIG	6/25/8
	6270 RFL			6/25/8

deformed (indented) edges to carapace - both left & right sides,

Giant barnacle on 2-3rd left lateral scute; Bod copulation bites on all flippers; R Flap missing - bad tag?

6/21^{1400h} Monday W-S;

6/21^{1400h} Monday

ENT. NO. 409

22 AUG 2002

DATE/TIME	TAG NOS.	SEX	LOCATION	REMARKS
6/25/1530 Friday	6265 RFL	Female	TRIG	lots of BAENS
6/25/82	6266 RFL	Female	TRIG	Hole in left flap
6/25/82	6267 RFL	Female	TRIG	
6/25/	6268 RFL	MALE	TRIG	fresh scratches in carapace
6/25/	6269/	Female	TRIG	
6/25/	6271 RFL	Female	TRIG	
6/25 1430 Friday	6272/	Female	W-S	
6/25/	6273 ENT. NO. 310 EAST-N	Big Female	W-S	
6/25/	6274 RFL	Female	W-S	

capture method

DATE	TAG NDS.	ENTERED NO.	SEX	LOCATION / REMARKS
6/6/82 Sunday	3035 RFL 2004 + BLUE PLASTIC 2004	NO. 20	MALE	TRIG
6/6	1210 FL	ENTERED NO. 28	Male tail abnormal	TRIG
6/6	1214 FL (old 747)	ENTERED NO. 9	Male	TRIG
6/6	679; 699 5986 R scale (new)	ENTERED NO. 6	Female	Basting Swend Whale Skat
6/6	x 3674 (came off) 5987 5988 (new)	TAG NO. 32 twisted	Male	ENTERED NO. 82 W-S
6/6	x 3040 RFL 5990 FL (new)	ENTERED NO. 79	Male	W-S
6/6 1800h	2671 5994 (new) RFL		Female	BASK SEP EAST ASSIGNED TC 2
6/6	3147 + ind tag 3146		Female	assigned TC 79 6/17/82 SEP EAST
6/6 2230h	2804 RFL 6000 LFL (new)	6210	Female	assigned TC 95 6-19 BASK SEP EAST

Capture method

DATE	TAG NOS.	SEX	LOCATION/REMARKS
6/7/82 2300h	X 5257 LFL NO. 85 6016 R 1 st (new)	Male	SEP BASK
6/7/82 2300h	X ^{JUNE 79} 3216 RFL ENTERED NO. 81 6018 LFL (new)	Male	SEP
6/7/82 2300 6/11 4:30pm A13;	2742 LFL; 2743 RFL <u>1058</u>	Assigned TC 81 6/17/82 Female	SEP BASK many large tumors; left shoulder, R eye
6/7/82 2300	6019 RFL	Female	NEP
These two should be in BASKER taggings			
6/7/82 2300	6020 LFL	Male	Area 11
seems like several big females all together here at SEP!			
6/8/82 Tuesday 6/9 9:30pm	2589 LFL + another tag = 2590 RFL Assigned tag TC 51 6/11	Female	NEP TRAPS ON EYES
6/8/82	3246 ENTERED NO. 183 3247 LFL 6/9/82 4:30 SEP BASK / 3246 same? YES	Female	SEP
6/8/82	3151 LFL + another on 3150 RFL (made into a "ring"?)	Female	Assigned TC 77 6-17 SEP
6/8/82	1093 ^{RF} + another 1131 LFL Assigned TC 75 6-16	Female	SEP
6/8/82	1286 RFL (one tag only)	Female	Assigned TC 42 6-10 SP

Capture method

TURTLE TAG RECOVERIES
(continued)

DATE	TAG NOS.	SEX	Assigned LOCATION	REMARKS
6/9/82 wednesday 4:30pm	3142 FL + 1 FL 3143	Female	Assigned TC 70 6-16	A 11 LAST
6/9 4:30pm	2690 + 1 FL	Female	Assigned TC 55 6/11	N&P
6/11 FRIDAY 11:30am	2600 RFL 6105 LFL (new); 6198 LFL	Male	ENTERED NO. 32	Bitten scabs on tail - S.P. & copulator Scale 6/18 SEP 2330h
6/10 1530 - 1930	5453 left (up-side down)	ENTERED NO. 189 (as ♀)	seen at 200 meters	at TERN S.B. by R. ITNER
6/12 1700	3632 FL; 3633 FL	Female	Assigned TC 60 6-13	EAST A10
6/13 Sunday 1000h (am)	5084 LFL; 5085 RFL + tag on left scale	Large Male	ENTERED NO. 84	SEP (orig. tagged in 1981 June)
6/17 THURS. 1330h	3041; 6164 (new)	Basking Female	ENTERED NO. 41	Whale- State
6/25	3041 RFL; 6164 W-S			
6/17 1330h	3124 RFL + 3125 LFL	Female	ENTERED NO. 177	W-S
6/17	5782 LFL	Female	NO. 192 TURNS IN eyes & shoulder April 1982	W-S

DATE	TAG NOS.	ENTERED	SEX	LOCATION/Remarks	Capture method
6/17/1400h Monday 82	X 3606 LFL June 80	NO 188	Female	W-S	
6/17/1400	ENTERED NO. 109 2716 FRFL 6172 L 2 nd Scale (new)		Female	W-S	
6/17/1400	X 3165 RFL ENTERED NO. 176 NO 197, NO		Female	W-S	TRM
6/17/1400	X 3758 LFL 198-1	ENTERED NO. 83	Male	W-S	Right Hind flipper completely missing healed
6/17/1400	X 5397 CFL NO. 154 6-15-81 TRIC 6-17-81 TRIC Basking	6179 RFL (new)	Female	W-S	RFF clean crescent missing healed Brownish
6/18/2330h Friday	X 3052 RFL 6106 R 1 st Scale (applied 6/11/82 sp.) 6197 LFL	ENTERED NO. 80	Male	W-S	Bitten scabs on tail East SEP
6/21/1400h Monday 82	X 5784 RFL 6237 LFL (new) April 82	ENTERED NO. 86	MALE	W-S	
6/21	X 3167 RFL 6238 LFL (new)	ENTERED NO. 155	FEMALE	W-S	

Turtle tag Recoveries (cont.)

DATE	TAG NOS.	SEX	LOCATION/Remarks
6/25 ¹⁵³⁰ Friday	1120 ^{RF} ENTERED NO. 33 2416 ^{RFL} ^{abFW}	FEMALE	TRIG BASKING
6/25/82	5458 ^{andrew} ENTERED NO. 191	Female	Trig
6/25 ¹⁶³⁰ Friday	X 2818 ^{LFL} ENTERED NO. 168	Female	W-S
6/25 ¹⁶³⁰ Friday	960 ^{LFL} (HIMB) ^{asa}	MALE ENTERED NO. 22	W-S Right Flipper 1/2 off; TAIL DEFORMED

~~105~~ - KC

TAGS- 6229 LFC

(TC 104 ~~is~~ TC 5)

2^o AUG 2002

S-

C-

DATE/TIME
6/21 ^{Monday} 04:00

AREA
3

ACTIVITY
N-LAY

REMARKS
could only put on
one tag -
nested near
new-born pup -
NO TC SPRAYED

DATE/TIME
6/21/02
6/22/02

TAGS- 6240 LFL
6241 RFL

106

22 AUG 2002

S- 90.8

C-

D/T
6/21/82 2300h Monday
6/22 0130

AREA

4

4

ACT.

N

N-LAY

Remarks

seen trying - but no eggs
coming out yet.
Tail bent - defouled
but healed -
broken at one
time?

heavy white scum
or coralline (?)

109 - TC

(TC107 IS TC78)

(TC109 IS TC7)

TAGS -

<u>DATE/TIME</u>	<u>AREA</u>	<u>Activity</u>	<u>Remarks</u>
------------------	-------------	-----------------	----------------

198

<u>DATE/TIME</u>	<u>REMARKS</u>
6/22	6
6/24	0
6/25	8

TAGS- 6243 ~~LFL~~

6244 ~~RFL~~

~~TC-108~~

22 AUG 2002

1982

S-

C-

<u>DATE / TIME</u>	<u>AREA</u>	<u>ACTIVITY</u>	<u>Remarks</u>
6/22 0130 Tues	S.P.	N	
6/24 0600 Thursday	S	N-LAY	
6/25 0200 Friday	S.P.	N	

ENT. NO. 358
(TAMMOS)

109-TC //
(Te 110 is Te 44)

TAGS- 6249 LFL
6250 RFL

same as Te 110?

<u>D/T</u>	<u>S-84.4</u> <u>AREA</u>	<u>ACTIVITY</u>	<u>REMARKS</u>
6/22/82 ²³⁰⁰ Tues.	8	N	RFF 4th 5th
6/23 ⁰²⁰⁰	8	N-Coy?	old tag site?

828.04 .749
(ADJUST)

TAGS - ~~3227 RFL~~ (Recovery) ~~TC-102~~

~~3226~~

~~6251 LFL~~

~~6252 R2ndS~~ ; ~~6253 L2ndS~~

22 AUG 2002

No. 182

S- 92.0

Q-

D/T
~~6/23~~
wed

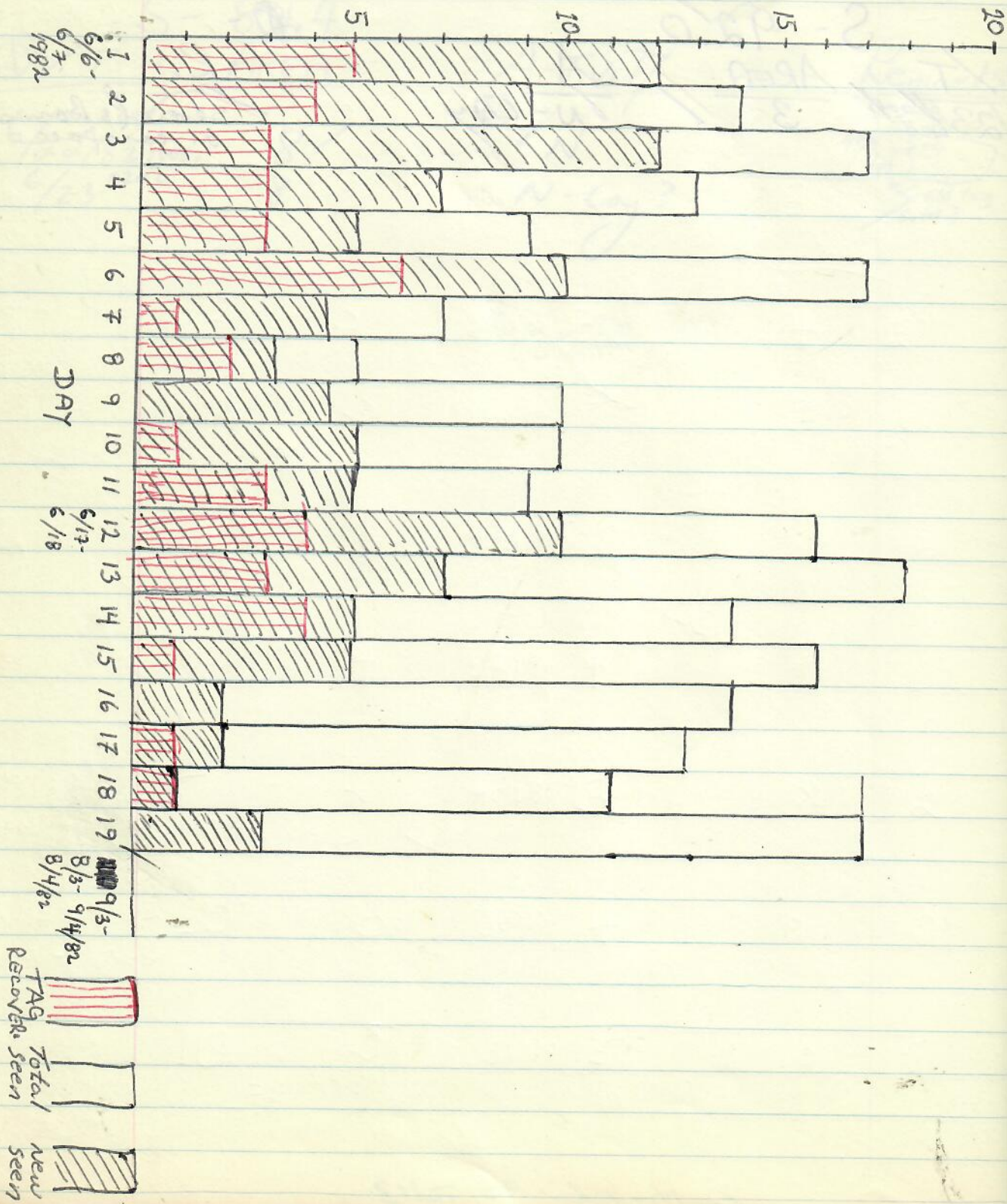
AREA
~~3~~

A
~~N-LAY~~

R.
Several Bams
on carapace

Continued to 70113

Number
of
NESTERS
1982



NUMBER OF FEMALES PER NIGHT

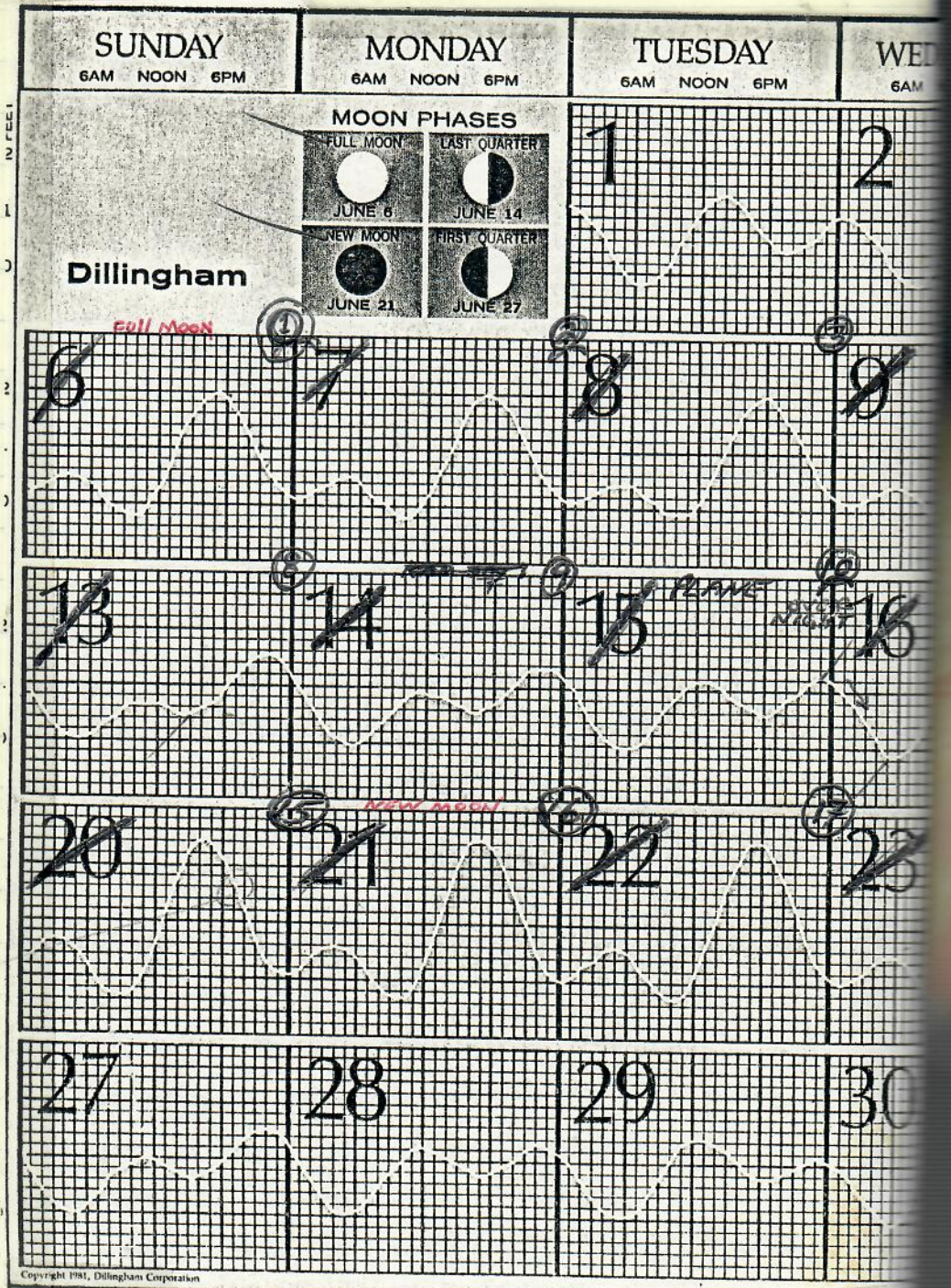
NIGHT PM TO AM	NO. OBSERVED	* OF THOSE - NO. SUCCESSFUL	% SUCCESS.	NEW OBSER.	% NEWLY OBSER.	(night) DAY	(of newly obser.) NO. LONG TERM RECOVERIES	DATE
6/6-6/7/82 SUN. - Monday Blue paint	12	6 ⁱ	50.0%	12	100%	①	5	41.7
6/7-6/8 MON - TUES	14 TC 13, 14, 15, 5, 3, 6, 16, 17, 18, 19, 11, 8, 20, 599/	6	42.8%	9	*	②	4	44.4
6/8-6/9 TUES. Wed.	17 TC 21, 20, 22, 15, 23, 24, 25, 26, 27, 2, 8, 29, 30, 31, 14, 32, 33	9 ^{ok}	52.9%	12	(NOTE)	③	3	25%
6/9-6/10 Wed - Thurs	13 TC 34, 27, 35, 26, 36, 37, 38, 2, 39, 26, 40, 25, 32	5 ^{ok}	38.5%	7		④	2	42.8
6/10*-6/11 Thurs - Friday	9 TC 34, 37, 42, 35, 43, 41, 44, 45, 21	5	55.6%	5		⑤	3	60.0
6/11-6/12 Friday - Sat.	17 TC 2, 46, 47, 44, 45, 43, NEW 40, 41, 48, 49, 50, 51, 52, 53, 54, 42, 55, 1,	8	47.1%	10	(6091, 6111, 12)	⑥	6	60%
6/12-6/13 SAT. - SUN.	7 TC 55, 1, 56, 2, 57, 58, 59	4	57.1%	4	not sprayed	⑦	1	25%
6/13-6/14 SUN - MON	5 TC 60, 61, 58, 62 (pre-54), 45, 63	2	40.0%	3		⑧	2	67%
6/14-6/15 MON - TUES.	10 TC 64, 62, 45, 58, 65, 57, 63, 50, 66, 67	3	30%	4		⑨	0	0
6/15-6/16 TUES - Wed	10 TC 69, 63, 58, 64, 68, 45, 67, 70, 71, 72	5	50%	5		⑩	1	20%

* ARRIVAL OF SECOND PERSON ON EAST

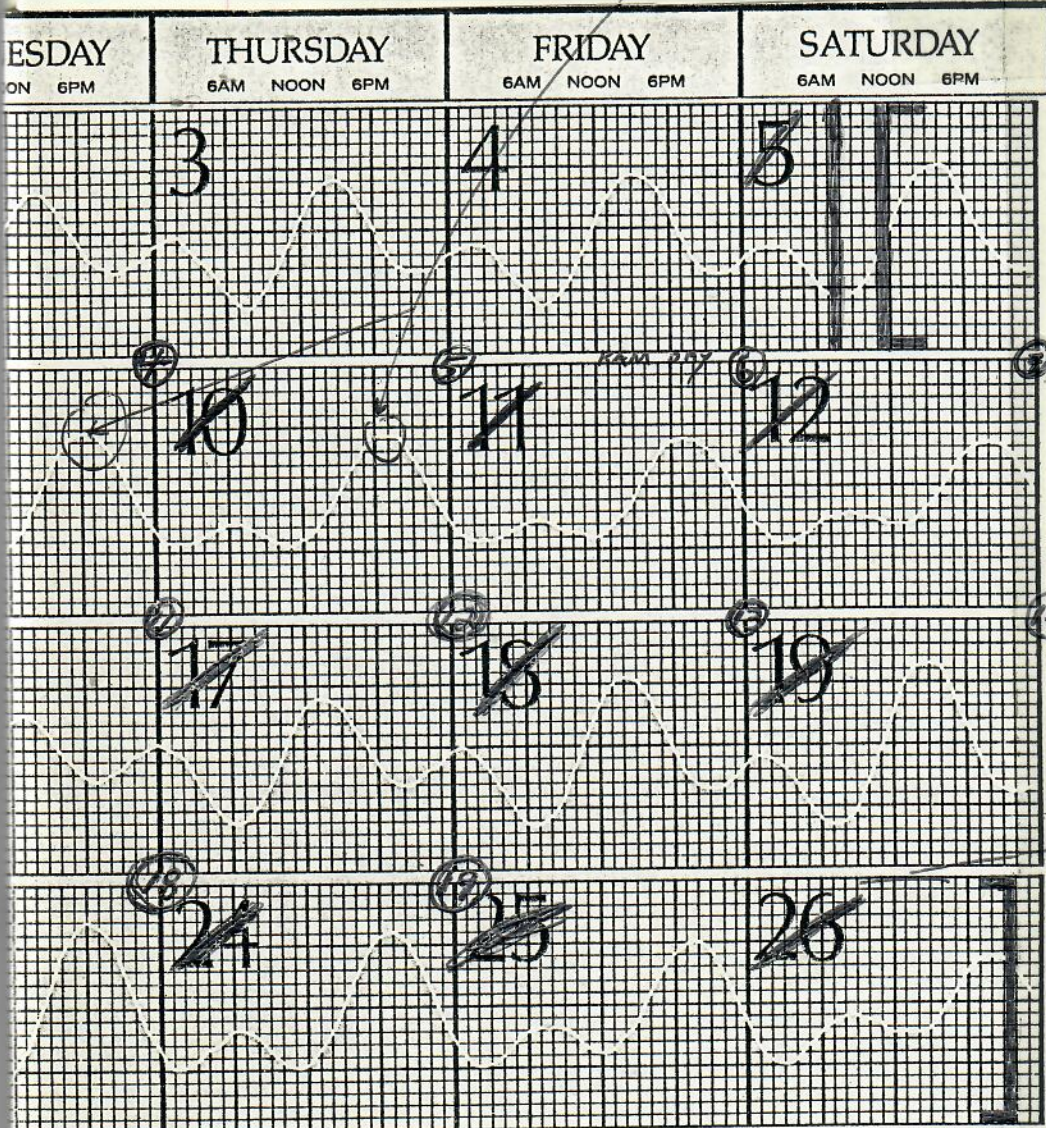
X =

DATE	NO. OBSERVED	OF THOSE - NO SUCCESS	% SUCCESS	NEW OBSER.	% NEWLY OBSER.	(NIGHT) DAY	NO. LATERM RECON.	%
6/16-6/17 WED. - Thurs.	9 (TC 73-77)	4	44.4%	5		11	3	60%
6/17-6/18 Thurs - Friday	16 (TC 78-87)	5	31.3%	10		12	4	40%
6/18-6/19 Friday - Sat.	18 (TC 88-94)	6	33.3%	7		13	3	43%
6/19-6/20 SAT - SUN.	14 start white (TC 95-99)	5	35.7%	5		14	4	80%
6/20-6/21 SUN - MON.	16 (TC 100-105)	10	62.5%	5		15	1	20%
6/21-6/22 MON. - TUES.	14 (TC 106-109)	5	35.7%	2		16	0	0
6/22-6/23 TUES. - Wed.	13 (TC 110-112)	7	53.8%	2		17	1	50%
6/23-6/24 WED. - Thurs.	11 (TC 113)	5	45.4%	1		18	1	100%
6/24-6/25 Thurs. - Friday	17 (TC 114-116)	9	52.9%	3		19	0	0
	$\bar{X} = 12.7$ per night		45.2% SUCCESSFUL	111 (19 NIGHTS) 5.8 per night		98 (14 NIGHTS) 7.0 per night		

JUNE 1982



slight decrease
in "high" starting
here



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

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

PLANE
TO LAYSAN
& return
with film
crew

CLIMATIC

DATE	SEAWATER C°		OBSERVATIONS
5-5-82 SATURDAY	N.T.	FFS	Glassy calm - clouds hang around
6-6-82 Sunday	N.T.	FFS - east Is.	wind out of ^{Hot} SW - gentle - dark clouds rain 4-6 pm
6-7-82 Monday	28° C	East Is.	Glassy ^{sunny} calm in the morning ^{Hot} AFTERNOON
6-8-82 TUESDAY	28.1° C	East - FFS	glossy - calm - sunny - but light NE wind early evening times
6-9-82 Wednesday	28.1° C	East	Moderate trades blowing - some clouds - much cooler.
6-10-82 Thursday	N.T.	East	moderate E-NE (mostly E) sunny w/ clouds.
6-11 FRIDAY	N.T.	East	trades way down calm seas thunder & lightning all night off in the distance
6-12 SATURDAY	27.3° C	East	distant thunder - calm seas - very little wind. Lots of clouds (close lightning during the night, but no rain on East)
6-13 Sunday	N.T.	East	Almost glassy calm - very hot. Moderate SW swell up
6-14 Monday	27.7° C	EAST	Sunny, but moderate trades.
6-15 TUESDAY	NT	East	light - moderate trades - sunny
			A couple rain showers - strong wind 6/15 - 6/16 NIGHT

DATE

6-16-

Wednesday

6-17-82

Thursday

6-18-82

FRIDAY

6-19-82

Saturday

6-20-82

Sunday

6-21-82

Monday

6-22-82

TUESDAY

6-23-82

Wednesday

6-24-82

Thursday

6-25-82

Friday

6-26-82

SATURDAY

DATE	SEAWATER C°		OBSERVATIONS
6-16-82 Wednesday	NT	EAST	moderate strong trades some passing rain showers
6-17-82 Thursday	NT	EAST	moderate trades a few heavy passing rain showers intermittent sun. with strong winds calmer seas in the afternoon.
6-18-82 FRIDAY	NT	EAST	light trades all day - a few passing showers. South swell up a little moderate
6-19-82 Saturday	NT	EAST	mostly calm all day - very little wind w-s-w up considerably.
6-20-82 SUNDAY	27.3°C	EAST	light winds - calm seas, but w-sw swell. very hot - solar radiation
6-21-82 MONDAY	27.5°C NT	EAST	Heavy short (45 minutes) rain at 1 am. Trades up moderately in the late afternoon. Heavy overcast for awhile.
6-22-82 TUESDAY	NT	EAST	Strong moderate trades all day; sunny with some clouds.
6-23-82 Wednesday	NT	EAST	moderate trades - mostly sunny
6-24-82 Thursday	27.8°C	EAST	LIGHT TRADES - SUNNY ALL DAY
6-25-82 Friday	NT	EAST	light - MODERATE TRADES - MOSTLY SUNNY
6-26-82 SATURDAY			

PIT COUNTS

<u>DATE</u>	<u>LOCATION</u>	<u>Good</u>	<u>FALSE</u>	<u>UNKNOWN</u>
6-5-82	TERN			19
		Ruth reports first digs between 4-9 MAY 82		
6-6-82 Sunday	TRIG	10 at elevated west end		23
		13 center area		
6-6-82	Whale-Skate	7 SW sandy area		
		9 south projection point		
6-21-82	Cots of digs in central area & sandy "skate" area	5 N end		
		6 west ridge (beach top) northern end		
		29 central by log		56

EAST

- Wind/weather conditions can make extent on recent digging deceptive

Tern - ~ 6/8/82 "good" nest made under Makai westerly fuel tank. Hatchlings will be trapped by cement block wall

6/25 Friday TRIG - Lots of fresh digs (some also in sandy east end), but many are obviously false.

W-S - Many digs in central area - Big excavations

TAGS - 3601 RFL (Recovery)

Te - 113

3600 LFL
6256 2nd Scale

22 AUG 2002

NO. 195

S - 95.3 cm

C -

DATE/TIME	AREA	ACTIVITY	REMARKS
6/23/82 ^{wed} 2300h	4	N - LAY	TC not sprayed - paint left in tent

114 - TC ✓

TAGS - 6257 RFL ✓

6258 L2nd Scale ✓

22 AUG 2002

S - 88.4 ✓

C -

Date/Time ✓

Area ✓

Activity ✓

Remarks

6/24/82 ^{2100h} Thurs.

S.P. ✓

N ✓

~~wet - not sprayed~~

~~LFF short~~

TAGS - 6012 ~~LFC~~
6232 ~~RFL~~

~~TC-015~~

22 AUG 2002

S-

C-

<u>DATE/TIME</u>	<u>AREA</u>	<u>ACTIVITY</u>	<u>REMARKS</u>
6/24-6/25 ²⁰⁰⁴	2	N	by seals

116-TC //

TAGS-6109/

22 2002

S-

C-

Date/Time	Area	Activity	Remarks
6/24 ²³⁰⁰ hrs.	8	N	first seen 6/11 4:30pm basking in A13; recorded as a "male" having a "short abnormal tail"

(see p.79) /

7-5-89 Palaau Bullpelt

SL-85.3 cm

CL-~~87~~ 91.5 cm

Do immature/maturing males sometimes
haul out and false nest?

ROLL NO.

DATES

SUBJECTS

Roll n

EL
① ASA 64

< 6-5-82

6/9 -

Previous photos of GRAFF
MARKS OR CAPTIVE TURTLES;
BASKERS at SEP & weaned pup/turtle
A pup with FANTA bottle - all 110mmMOVIE 40
RA

< 6-5-82

Some already exposed -
aerial coming into FFS -
W-S; TRY-Term; TC 146/9/82

MOVIE 40

6-8-82 5pm

all baskers at SEP

R-B

6/9/82 morning

R-C 160 ASA TC 14

R-D 40 ASA "

R-E 40 ASA "

R-F 16 ASA 6/17/82 TC 77 by tent

EL

Thursday
6-10> Turtle & weaned pup together (110mm & 55mm) 6/12 J upk-
slab area

② ASA 64

6/13

3-4 self-photos by campsite; 6/14 Monday Baskers
clustered at end of NEP; cement and former slab area;
chip on East; 6/15 TUES. slab area; 6/16 - Rest of Roll Baskers
at NEP, weaned pup with baskers, TC 51 with eye marks.

EL

③ ASA 64

6/17 Thursday

7-8am

entire roll of TC 77
Tags 3158, 3151 relating by
campsite in A17 -
includes self-photos

EL

④ ASA 64

6/17 Thursday

seal & turtle on W-S w/110mm lens - note
lots of flies on Seal. Rainbow over
concrete pile on East.

6/18 Friday

~ 5pm baskers stocked - on

each other at SEP. Weaned-pup
by TC blue; 6/19 Rubbish pile where turtle
nested; 6/21 4 views of seal with bitten
back.6/22 ~ 9:30am TC 94 in Area 16; 6/26 T19 tag 07
TUESDAY BONES IN NET

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

0225

\$