Jan. 1 Left Friendship Airport 4 p.m.
via TWA 61. Arrived Los Angeles 5:35 p.m.
Departed for Honolulu 6:30 p.m. via
United 95, arrived 9:35 p.m.

Jan. 2 Checked out of Hawaiian Kai early
in the morning and departed sea on
YAG 40. Went on board 7:36 p.m.

Jan. 3 Underway on YAG 40 9:32 a.m.

Jan. 19 Returned to Pearl Harbor 9:30
a.m. No field notes for YAG trip.

New birds - Harlequin Storm Petrel,
Pomarine Jaeger, White-naped petrel,
Boobies (red-footed) and Red-Tailed
Tropic-bird most common. Feeding
flocks of 20-100 boobies last 2
days out - surprising. Total no.
of birds ~ 500, 22 collected.

Very few boobies seen beginning
of trip, a somewhat greater no.
of wedge-tails throughout. Only ~
3 frigates seen. Fairy Terns ~
3 days out of Oahu - mixed with
booby flocks on return trip. Allatoona
disappeared morning of third day,
reappeared 3 (3?) days out on return.
Jaegers last after 2nd day.

Jan. 24 Departed Hickam AFB, Honolulu,
via MATS 623X to Johnston Is. 12:15 p.m.
averried on Johnston 3:35 p.m.
Jan 24 C.S. boat was already there, also Dave Bradly on weekly Johnston survey. He reported seeing a gull, an immature Western Gull probably, near one of the pads east of the runway and south of the weather beacon.

Dave filled me in on current studies here. Sooties are up to about 50,000; flight they begin streaming in about 4 pm after all-day absence from 7 am. Frigate resting, one brown booby, 3 eggs, one red-tailed tropic bird, 5 eggs. Extremely high mortality among frigate eggs. 200 sooties landed.

Jan 25 We went to Johnston 1. in the afternoon to try to shoot the gull but could not get within range. Another attempt was made to capture it, perhaps while sleeping, at night but this was also unsuccessful.

One white-tailed tropic bird was seen off Johnston.

Jan 26

Took the day off for the cookout. Fun. What weather.
Jan. 27 We went over to Johnston I. to straighten out getting permission for shooting over there. Cmdr. Cork and \H Cmdr. Bauer and Mr. Kaleke (JTFS) recommend that some permanent notification be sent from J.I. to JTFS on Johnston or to JTFS in Washington advising them of our needs and purposes.

Gull was still present at same spot on east shore.

Four tropic birds seen flying over the lagoon on our way to Johnston.

Four also seen over Johnston - may have been different group.

Jan. 28 Another attempt was made to shoot the gull. It was not at its usual place on the shore and was not seen by us until it suddenly flew up in front of us. Three shots were taken at it on the water - the closest at about 60 yards. This shot looked
as though it hit and perhaps even wounded the bird as it appeared to be unable to rise off the water. Unfortunately it drifted far out and out of sight. It possibly was sighted again drifting in toward shore but we did not have the binoculars (due to security regulations) and this object suddenly disappeared from sight. The bird is probably lost unless it drifts in to shore wounded.

Seven red-tailed tropic birds and seven fairy terns were seen flying over J.I.

One grayback tern was observed with an egg on the light platform between Sandy J.I. No nest.

1900 1200 lobes present 7:30 pm (dusk).
Also ~10 grayback terns, 2-3 common noddies, 6-8 Hawaiian noddies.

Jan 29

In another check for the gull the bird was spotted 300 yards off the south point in the water. It was swimming out. Another attempt to obtain it will be made.
The gray-backed tern had moved to the west side of the platform.

The red-tailed tropic bird is in very poor condition. Both eyes are started over and it is very weak. The RT bird, that PT seen on 7/1, Night hunting of Rotten yielded only 125 birds. Moon was up at 8:30, greatly hampering our work thereafter. No birds were observed on north or on north side of transmitter building. Though there were many there 1 Jan 14. Birds also seemed to begin acting down in large groups only after the time the moon appeared.

June 30th.

Lt. Rogers informed us that NYN will be in installing evaporators in the pump house in about two weeks. We must
February 16th

Move our gear out. We say space limitations make it possible to move only two trunks; again aiming at the reduction of the project beyond originally stated dimensions of "two peoplefour times a year". We cannot use roof of truck or original building for observations. Friggens would be welcomed - 1/2 size normal reefer, could be placed in pump house.

Personal: Hoyes prefers two. 14th district just refused union guarantees here due to this limitation (pref. on Hoyes recommendation)

Hunted 225 doves 8-9 30 p.m.
2150 *100 doves present 10 p.m. Tropic bird still on egg. Dave found what appeared to be fresh bootz egg, perhaps roddy.

Jan 31

Three P.T. Tropic birds over sand. Hwy-4th

Ten on range light was absent 6 p.m., egg not apparent.

Checked bootz egg in AM found it broken.

Made another attempt to capture gull on Johnston at night. Spotted it along east shore but it flew away very rapidly.

Waited around and some fishermen showed up with light and idea. Bird did not
February 1904

Come back in before dark. Anglers still at it at 7:30 as we gave up. Only temporarily, however. M. had run scheduled for 8:30 went instead at 10:30, leaving us stranded. C.B. could not pick us up until 12:30 as we raced back, to find the fishermen still there. With sinking hopes we headed for the eastern point away on the east shore in that area and lo and behold hit the exact point where the bird was sitting. A slight motion on the shore moved me to immediate action and I hit the water only a few feet behind the creature. A rather unwelcome moonlight swim and of course to no avail. Oh well, at least we know the thing can't fly.

February 6

Discovered two grey-backed tern eggs, one attended, and one possible partly egg on end of old dock. All other eggs still present except for fresh deposits additively. A second, newly appears to be preparing to lay on the east shore between the pinks and brown boobies.
Jan. 24

Banded 400 Foothills. 8:30 - 11:30.
The birds are sitting down on the
road and to the west of the transmitter
building again. They had not done
this since Jan 21. Many more are
roosting now, all over the island, and
totally one extended ½-way down the
road from the transmitter building. Also,
they are now sitting down as soon as
it gets dark rather than waiting for
the moon, which is an advantage for
us.

Dave found one Foothill with feathers
missing, each eye:
growing out of

3-4

Banded 500 Foothills 8:30 - 11:30 pm.
Most definite Foothill eggs turned up in
Dave's collection bag. From coloration,
one on dock and one found on north slope
are likely Foothills.

Tropical bird on egg is either well again
or a different bird. It has no tail
feathers but is white, not suffused
with the delicate pink, and seems
to have a different voice.
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Feb 3

Banded 600 boobies 8:30 - 12:30. Now begin to put down on road and right in front of transmitter until after 9, perhaps 9:30. Dave said one which he banded laid an egg nearby after being released.

Two Christmas Island shearwaters turned up on the slope. One had a band, apparently Ashmole's (544-10503). Also banded 6 Common Noddies and 4 Hawaiian (3 ad., 1 imm.)

Grey-back tern on range light definitely gone. Two frigatefish may have chased it off and destroyed the eggs.

A third grey-back was present on the end of the old dock, into an egg. The single sandy egg was still (or again) unattended.

No grey-backs were seen on the point while banding. About 50 were out on the dock at 1 am.

Feb 4

Sudden change in grey-back behavior. Those on the dock last night remained at least through 11 am, some perhaps all day, calling "a good deal of the"
Sail-Portrait

time. No new eggs yet, however.

Tropic birds also seem to getting
ready to breed. Two were found in
the bunker on the east shore at
2 p.m. and banded and tagged; one
remained inside after handling.
Also, the crew reported one under
the last fuel tank on the left in
the same spot where one nested last
year.

A third brown booby seems
about to lay. A second common noddie
on the small island also may be
preparing. A red-footed booby appears
to be constructing a nest on one
of the rubble leading out to the
guy wire on the SE shore, about
2 feet off the ground and right
at the water's edge.

June 10 - 10' x 10' plots were laid out
in anticipation of booby tern
nesting. Two of them may need
to be moved. They perhaps should
be set up only after the birds
begin nesting, but this would
present difficulties in mapping them.
The plots are as follows: # 1 in
open area in shearwater - Hawaiian
Sand-Johnston

Note: Nesting area; #2 in open area and Tribulus east of transmitter building; #3 in open ground and Tribulus on the SE shore; #4 - Tribulus behind transmitter building; #5 - open ground, Tribulus + Saccharium?
on slope.

While laying out the study plots these unattended 500, 500 eggs were found.

600 Soote's banded 8:30 - 12:00.

One Christmas Island Shearwater on hill near Brown Bootee during banding.

Feb 5

We made arrangements with the Special Services people (through Sgt. Thomas) to be taken out in a small boat off the shore of Johnston in hopes of picking the gull up in the water. A Mr. Hunt of the Navy picked us up here at 5:30 pm and after some searching we found the gull far out in the vicinity of a platform off the SE corner of Johnston. We could not get near the bird as it was sitting on the reef area and it was low tide.

Also many Sharks (4-6') in the area.

1964
could not identify.
Banded 550 Sophie's 830 - 12:30; also 190 Common Noddies. 400 birds seem to be my limit; I was having bull troubles on that last hundred.
Dave reported he caught one and on an egg. He also saw 8 pairs fly over during the day.

Feb 6
Four Brown Boobies with eggs now; all on slope (I saw today).
15 Grey backs on deck, raft and gun island 5 - 9 AM.
Banded 600 Sophie's in the evening.

Feb 7
Weekly survey of Johnston produced the following:
Red-tailed Tropic bird - 8
Fairy Tern 5
Golden Plovers 80 - 100
Buddy Turnstone 50 - 210
Wandering Tattler 7
Sanderling 1
Western Gull 1
Fleskine Gull 1
The Western Gull was still on the water off the SE corner. The new accidental was on the beach just south of the weather bureau. Both of us got very good looks at the bird. It, like the Western Gull found been two weeks ago, appeared to have just arrived. We could approach to within 50 feet and then when it flew it would go reluctantly, moving only a few yards ahead.

It was very small, with proportionally long legs. legs + bill black. Medial grey above except for white above bill and on sides of head. Clear white below. White rump, 1" black band on edge of tail, wing tips, slightly darker than rest of wings + back, thin white trailing edge to wings.

We tried to get permission to attempt to shoot the bird after supper. Mr. Kabebe of JTF 86 says such permission must await the requested official notification of scope and procedures from
Feb 5

Light to being showers much of day, with strong gusts.

A second egg appeared in Brown Booby nest 2 (55-43). The 3 gray-back eggs are still on the dock and the fourth, which is reddish brown rather than white, may also belong to a gray-back - at least, one was sitting right beside it. 25+ hawks on dock 11 A.M.

A group of 423 Common Noddies was present on the gun spirit at the same time - first time I have seen noddies present in daytime except for 2 or eggs and 1 or two others.

Dave said he saw a G. frigate feeding on innu.

Banded 500 Exotic 8:30 - 12
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Feb 9. Took a day off to recuperate.

Feb 10. Sooties present around island in numbers for first time in daytime.

About 200+ were wheeling around the gun island during the morning (8-10 AM).

About 50 landed on the island several times for various periods. They also passed over the antenna field several times. Before this, all the birds left the island by 2-7 PM. Many would be seen quite far off all around the island all during the day, in flocks of 20-50 and scattered individuals and groups of 2-6. They have been returning about 30 PM, hovering offshore, gathering into larger flocks. About 6 PM they begin to move in closer and some begin to cross the causeway from both sides, most remain fairly far out until just before dark.

The number of sooties present on the gun island also suddenly jumped to 150+ (at 9 AM). They sit in two groups, one on the deck.
Tab. 10. Rocks by the frigate and torches, the second and larger on the sandy slope facing Ward off the dock. 110 sticky-footed tarus present at same time. This also represents sudden large increase (previous high 75-80). Banded 600 Sticky-footed tarus 31.34-12; also 14 footties.

Discovered new tropic-bird nest in depression near 4' pipe, near slope. One egg, brighter red than that in first nest. The incubating bird had ants all over it; possesses 1 1/2 deck reticules (for how long...?).

At least four pt. Christmas Island Shearwaters on slope by plywood sheet. At least two banded (5/14 - 7/3009, 10).

Two more brown footties appear to be starting nests on slope. Red-footed footties on rubble by guy-wire also seems to be still trying, bringing vegetation to the precarious site to replace that washed or blown away.

Feb 11

Banded new tropic bird on egg (nest #2), plus first tropic bird from first nest.
Feb 11 - which had replaced us to make
on the egg yesterday.
Two Christmas Island Shoateers
on the slope near the plywood, 3 p.m.
Both were banded, but flew off before
we could catch them.
250 Common Noddees on gun island.
“15 Grey-back Terns on 1 around dock, 3 p.m.
Picked up 5 injured Terns from which
we took re/parents and measurements.
Second egg in nest #3 of Brown Boobies.
Banded 600 Terns, 17 Common Noddees,
1 lucky Turnstone.
10:10, 30 - 1.
Found 3 new Grey-back eggs among
rocks near shore of gun island.
At least 5 Christmas Islands now on
island: one unbanded, four banded; new
recovery tonight: 5/4 - 78006

Feb 12

Brinn arrived on Johnston in the
morning, came over to Sand on the 11:30
M. boat. He will stay here after all.

Made egg checks after lunch:
Found one more Grey-back egg near
the others on the gun island. All
four are at the edge of the sand
and rocks, and their coloration allows
them to blend extremely well.
Feb 12. The U.S.S. Energy arrived at J.I. at 1 P.M. to pick up fuel; halfway through the grid. We went on board and chatted with the stormy weathermen (Gould, King, Landis, Herman, Whitman) for most of the afternoon. Perhaps next month arrangements can be made for them to get off long enough to come over here.

Banded 600 Stormies; 15 Common Noddies; 8 Grey-backs; 15 Red-foot; 3 Masked; 2 Christmas Island 8 22 - 1.

Feb 13

Second tropic bird nest seems to have been deserted; 25 unattended 6 P.M. yesterday and yet today.

Six Grey-back eggs on gun island now. Several Noddies there bowling and carrying stones.

Banded 400 Stormies; 27 C. Noddis;
1 Red-footed Booby (5); 10 Grey-backs
8 22 - 17.

Both gulls still on J.I.; Franklin's still flyin'; Eastern 50. Flying again but weakly.

Other populations on J.I.:

RTE - 3, in air
UT 1 - 1
Feb 13

Parry Team - 5
Nova - 50+
Termitite - 60+.
Sanding - 5
Wandering Tattler - 7

Feb 14

Collected gear for removal to J.O. for storage and for temporary use in home lab.

No banding for classified reasons.
Sooties coming late and later in afternoon. Begin coming in over island 90º after their arrival, much threading back & forth across causeway. Causeway is last place occupied by incoming birds. Most back arrival in daylight now after 4:30.

Feb 15

Noddies sitting along 36º shore in daytime for first time. Simon sand some grey-backs and sooties had delighted together on the causeway near the A-antenna.

Brown sooties, Christmas Island, and Noddies all coming.

New KI magic bird most lamuiwal under old cook. Brother had delighted in a hollow in some grass clumps.
Feb 15. Below (3) the frigate colony. We did not disturb it but it left later and did not return.

Five Tropic birds or eggs discovered on Johnston; with 3 hanging at the same time, at least 17 there; probably 3 more nests somewhere. No tagged birds on J.I.

Fished 900 feet; 900 - 100. Two new Christmas Island; found on NW slope near pipes; one recovery, one unbanded.

Feb 16. Took the day off and journeyed out on the reef in the afternoon. Halfway to the reef the motu quiet for good. We were enormously towed in by the pickel boat. Few very few fish to look, though some nice red snappers were opened.

A young male frigate (white head and breast but with inflated pouch) was making passes at every female around. Sitting on one of the stanchions, he would spread his wings, shake his head from side to side, and whistle all song frigate while passed overhead. This would begin when the approaching frigate was 30 yards away and at heights of 20 ft. Many landed, evidently
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<tr>
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<td>Bristle-thighed Curlew</td>
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<tr>
<td>Sooty Tern</td>
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<tr>
<td>Gray-backed Tern</td>
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<td>Brown-winged Tern</td>
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<td>Common Noddy</td>
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<td>5</td>
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<td>Blue-gray Noddy</td>
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<td>Common Noddy</td>
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<tr>
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<td>1000</td>
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<tr>
<td>Blue-gray Noddy</td>
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<tr>
<td>Fairy Tern</td>
<td>3</td>
<td></td>
<td>1000</td>
</tr>
</tbody>
</table>
Table 12

Assessed by one observer, I notice at 6 and went up to the field end. Estimated 15,000 to 20,000 in our area. Number estimated could possibly be 100,000 by 5-10,000.

By 7:00 all but 1000 near the transmitter had left the road. A heavy shower from 6E to 7W may have put up many birds. The last 100 left the road 7:00. Those on the west side of the building left about the same time. These were the earliest departures. On the large roof on the E side of the building a large group left from along side of 7th. Another group went up 7th from the rear of the former area. Second departures from the edges to the center of the flock continued.

These birds did not go yet immediately but went 11 or 11:00 over the island. They walked back and repelled the new. Many of them walked again. 6007 birds were still on the 11 slope only. 900 and many in F20 over them. The somewhat damaged from sooties were missing at many of the many coralline areas. This is the first instance of it.
Feb 14. Day makers remaining on the island fell. Because the sun, after the feature, will increase the food-locating ability. Naturally there are no birds there.

By mid-afternoon this group had been replaced by 7 or 8 and moved to the N point. 200-300 on the ground and an equal or greater number in the air, wheeling about right on the end of the peninsula.

No birds were seen in dense clouds offshore before coming in at night. Single birds and small groups (3-8) came straight in and stayed in the area over the island from 6 PM on. Activity around the island was noticeably lower all day than it has been since I arrived.


22 Gray back eggs on inlet. 8 on dock.

Feb 15

The preparations for the arrival of 17 people from S.I. and other agencies this morning turned into a fiasco when Simon suddenly noted the ETA on yesterday's message - 18 Mar 64.

The large group of Soothes was
Feb 13 still on the ground. A very small number of Noddies is mixed in with the birds on the ground. Courtship feeding was observed in pairs of Noddies, one bird would grab the tip of another's bill & shake it vigorously; the other would then open its mouth and the first would place its head inside. Much better than giving Whitman chocolates.

Noddies seem to have spread out from the island to the rocks along the SE shore and to the S edge of the N point. There they sat in 3 groups, one of which contained many fagged birds today. Perhaps they have been crowded off the island by the Sooties, who seem to follow them wherever they congregate; first on the island, then the SE shore, then the N point. Many Noddies sat on the concrete abutments. The total number seems to be present in the day time and were seen before all on the island. More came in at night and roost on wires and sit still along the SE & E shores and up in the grass on the E corner.
Feb 18

600 Sooties, 2 C.I. Shearwaters
sailed 8.30 - 11.30.

Feb 19

Banded 1 RITB under fuel tank. 19
more banded on Johnston, 11 on eggs. All
were painted with fluorescent green to
observe inter-island movement. All were
found under bushes.
Both gulls still present on J. I.
600 Sooties, 2 Common Nighthawks, 1 C.I.
Shearwater sailed 8.30 - 12.

Feb 20

Brimon reported a group of Sooties
sitting on the slope NE of the Brown Boobies
at 9 AM. These disappeared or merged with
the group on the point by afternoon.
At 2.30 PM, the gulls on the point
numbered about 200. Most of these
were on the ground, only about 20 in
the air, which represents a change from
the more nearly equal distribution of
the past few days.
I have found 25+ poopy eggs on the
islet, plus 3 C. Nighthawks, 18 Gray-back.
15 Gray-tail eggs on dock.
We decided to discontinue landing
temporarily because of the difficulties.
Feb 20 in catching created by the 1/2 full moon directly overhead and able to see if they will perhaps begin nesting with the mighty disturbance stopped.

Feb 21

Made our weekly survey of Johnston. Both gulls still there in their same spots. Banded 5 more Red-tailed Tropicbirds and repainted most of the others with darker green. Total of 24 banded there now, plus at least 4 still not banded.

Others present -

White-tailed Tropic bird - 1 - Jane reports A were seen at times before. It seems quite possible that they may be nesting but we have been unable to discover the nest of A.

Buddy Turnstone - 6 - Marked decrease.

Golden Plover - 60 - 70

Wandering Tattler - 3

Sanderling - 6

Diving Tern - 8 - 3 in air with 9-10 Red-tails.

5 Storks sitting down before dark on SE side of Transmitter building.
Feb 22

Sooties, Grayback & Noddy seen from raft flying towards N point, from W - 8 - 10 AM - low numbers, but a steady stream.

One new frigate bird under old pier with one banded Wednesday on Johnston.

3-6000 Sooties on N point all day.

32 Grayback eggs on islet and 19 on pier - 51. Also 20 Seabird eggs on islet. Many of these seem to suffer early destruction.

Common Noddy 45 laid Jan 18 hatched.

At least one more C. I. Shearwater on island unmarked.

Feb 21 Large number of Sooties (~5000) in air & on ground to SE of transmitter all day. Moved in overnight - Also large nos. along SE shore & among Frigates & Sooties. Many eggs.

Population on point may be stabilizing noticeable decline in numbers there.

A great many eggs laid and a new Seabird colony at the edge of the colony on the point. Hopefully they will continue moving inward. Exotoparasite
Feb 24 Study plots were marked out adjacent to the new plot and to plot #12. Staked 12 Brown Booby nests and the red-footed nest with egg. Began banding and painting Brown Boobies. We are trying to number each bird with the fluorescent orange, giving pairs adjacent numbers and males even numbers. This number is painted on the breast; in order to distinguish marked birds while sitting we are also painting the neck.

Mar 28 Brood left at moon.

Mar 2 11th Progress Report. Boobies from the S.E. arrived including cheesecloth, staples, headlamp, torches, rings and (light) orange shovelnoses. Now have some 30,000 of the latter on hand according to S.E. scales.

Mar 3 Moved study plot 3 from SE shore to interior in same line as plot 1, on Tribulus. No eggs had been laid yet at the former location, apparently since it was on open ground. We have noticed that the boobies seem to favor...
<table>
<thead>
<tr>
<th>Location</th>
<th>Sand &amp; Johnston Island, Pacific C.</th>
<th>Observer</th>
<th>Date</th>
<th>Time to</th>
<th>Weather</th>
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<tbody>
<tr>
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<td>Abundance</td>
<td>Breeding</td>
<td>Remarks</td>
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<td>Laysan Albatross</td>
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<td>Bonin Island Petrel</td>
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<td>Phoenix Island Petrel</td>
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<td>Great Frigatebird</td>
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<td>Blue-gray Noddy</td>
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<tr>
<td>Fairy Tern</td>
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<td>H: TTB</td>
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<td>Possibly molting on a nest</td>
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<td>L: T</td>
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<tr>
<td>R: T</td>
<td>85</td>
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</table>
areas where there is at least some vegetation. This is found on the ground below or by plants, but of they are dropped in it completely open area of all these are very few and they appear only after the surrounding areas are filled densely. This is due to the number of plants and the area they occupy. The number was two of plot 2, plot 4 - more than plot 2. Plot 5 - more than plot 4. Plot 6 - more than plot 5. Plot 7 - more than plot 6.

Plot 8 - no visible vegetation. It was checked with the number of plot 4, but the open areas had none due to traffic. It is the same surrounding with no light and no one visible not to use it.
The 3 Court of the circuit plans were to be one group of the land above and to
the northern boundary. These may have been an omission in the
whole island population may have been concentrated in the one area of
low land. The Transactions (in printed
text), table and its contents were then transferred to the
transcripts.

Then the general plan for gathering
on the island apparently an incomplete
pressing plan as we added 26 more with
a great deal of which looks around
the island of the main islands. Many
and to sometimes have been incorrectly
with the scattered lower values
problem on the land.

March 7: Mean of 2. began cutting
the stakes for the Atlantic avenue
repeated to a carried out by
the Swanbury crew about 2.30 after
finishing on 265 pounds and earnings.
We collected 144 stones (66) ofudson
from an area. After walking about
begun ready. I ran from seeing the
road either they and began typing
just waiting. I was not wanting back
from the other side and investigated
the wood and a tree of 1, another
and 3 stay-backs on 1.50 from.
May 10 - the 10 pencivale, W.F. With the
trains were painted various
colors, and the same color splashed
around the egg. Data as follows:

<table>
<thead>
<tr>
<th>Color (left)</th>
<th>Red</th>
<th>753-74301-08</th>
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<tr>
<td>&quot;</td>
<td>Blue</td>
<td>97-14</td>
<td>Sunny &quot;</td>
</tr>
<tr>
<td>&quot;</td>
<td>Blue</td>
<td>17-23</td>
<td>Sunny &quot;B</td>
</tr>
<tr>
<td>&quot;</td>
<td>Orange</td>
<td>35-32</td>
<td>Horn &quot;</td>
</tr>
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<td>Black</td>
<td>33-40</td>
<td>Sunny Mv.12</td>
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<tr>
<td>&quot;</td>
<td>Blue</td>
<td>41-45</td>
<td>Midnight</td>
</tr>
</tbody>
</table>

Monday SB: Orange - July 29-35-48 - Sunny Mv.12
642-01070-72

Ah, rain! Downpoured from
9 P.M. through the night, accompanied
by thunder-lightning. What fendered
Olympian mind declines this unending
war of harassment on the poor
inhabitants? Two much, ue perdue. Perhaps
a treat for weeks and then therapy
as we collect funds!

May 11 - W.S.S. Energy arrived at Johnston
1000: But crew arrived at
3:00 and via M-boat. Have 3
7:00, then the 9:00 train,
including pick up (24), much to
the annoyance of the station crew,
although (25), milling around of
east shore, possibly leading, and
one party turn depending on egg
The crook in pine gum was
encountered the times of occasion of
the various groups of birds (see March) and pushed them
off with the fowls about 1230.

But reported that a black faced
detention had occurred there in
as far as the axe injury. It also
stated that one of the birds was
dead and a marked tree
boated since yesterday on Feb 26.
He marked the young stumps
necessity the death before perc
burning planing. He had no
out of persons that sight com
pointed three particular times

* Three empty tanks found off
after dark. On return I
removed these in keeping a slight too
bailing out other lumber.

Dec 12: Three empty tanks per month again
but at deade it were stripped
then lost again. Back Board
explore, one light and one extricated.

At least three members of the
crew report liking to hot meat
when hot, a black faced detention
on the main area and more hands
in search not find it out this
<table>
<thead>
<tr>
<th>Species</th>
<th>Abundance</th>
<th>Breeding</th>
<th>Remarks</th>
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<tbody>
<tr>
<td>Sooty Shearwater</td>
<td>1</td>
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<tr>
<td>Audubon’s Shearwater</td>
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<td>22-23 total: 1-10 per night</td>
</tr>
<tr>
<td>Bonin I. Petrel</td>
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<td>Phoenix I. Petrel</td>
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<td>Bulwer’s Petrel</td>
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<tr>
<td>Sooty Petrel</td>
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</tr>
<tr>
<td>Red-tailed Tropicbird</td>
<td>1</td>
<td>1-2</td>
<td>51 total: 52 per night, increasing</td>
</tr>
<tr>
<td>White-tailed Tropicbird</td>
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<tr>
<td>Masked Booby</td>
<td>35+</td>
<td>3</td>
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</tr>
<tr>
<td>Brown Booby</td>
<td>80+</td>
<td>3</td>
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<tr>
<td>Red-footed Booby</td>
<td>1</td>
<td>1-2</td>
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<tr>
<td>Great Frigatebird</td>
<td>1</td>
<td>1-2</td>
<td></td>
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<tr>
<td>Golden Plover</td>
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<tr>
<td>Ruddy Turnstone</td>
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<td>Wandering Tattler</td>
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<td>Bristle-thighed Curlew</td>
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<tr>
<td>Sooty Tern</td>
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<td></td>
<td></td>
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<tr>
<td>Gray-backed Tern</td>
<td>34</td>
<td></td>
<td>75-80 mad day: 50 mad, 50 total</td>
</tr>
<tr>
<td>Brown-winged Tern</td>
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<tr>
<td>Common Noddy</td>
<td>15+</td>
<td>6+</td>
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<tr>
<td>Hawaiian Noddy</td>
<td>15+</td>
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<tr>
<td>Blue-gray Noddy</td>
<td>15+</td>
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<tr>
<td>Fairy Tern</td>
<td>1</td>
<td></td>
<td>at least one ey</td>
</tr>
<tr>
<td>Red-footed Francolin</td>
<td>15-20</td>
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<tr>
<td>Golden Plover</td>
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<tr>
<td>Ruddy Turnstone</td>
<td>1</td>
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<td></td>
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<tr>
<td>Sanderling</td>
<td>1</td>
<td></td>
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</tr>
</tbody>
</table>
Mar. 12. - affectionately unprintable

descriptions suggest that species
Perhaps we will turn it up tomorrow
in Johnston. If it is a blackfoot
it may well be the one which followed
Slo's ship in.

A golden plover was found tonight
unable to fly but for no apparent
reason. Dave found another in the
same condition last night. Perhaps
they are weakened by starvation and
molt, or poisoned from insecticide?

Mar. 13. - Three red roosted at 1000
No. 4, 5, 7. They were not present at
2000 yesterday. A fourth was present
at 1800, could not catch it. A possible
5th may have been near 2000. These
birds all released yesterday at sunrise;
no sign of noddy's gray-ticks released
with them.

Mar. 14. - One more red sooty, no. 2, and two
green, nos. 12, 14 observed at 1000. One
Common Noddy also had returned by that
time. A third green (15) found at 1500.

Mar. 15. - No. 8 (red) and 16 (green) present 0700.

Mar. 16. - No. 6 (red) 1 and 39 (black) " 0700.

Another Common Noddy had returned by
7 P.M.

Mar. 17. - No. 1 (red) and 42 (blue) present at
0800. The first Gray-tick had returned.
Feb 17 - by 7 P.M. The first non-resting Sooty
FPA was first noticed at 11 P.M.
arive RFB next to H. I could not catch
it; it was back in the same spot one hour
dlater. The second melody was present again 7 P.M.

Feb 18 - Nos. 1 (red) and 265 (blue, new) were
seen for the first time 0830. Nos. 10 & 13
(green) were picked up for the first time
also but one of both has been here
for 2-3 days. The non-resting Sooty
and the Grey-buck reported yesterday
were at the same places 2 P.M. today.

Dr. Eby, Dr. Humphrey, Capt. Buddle,
John Bushman and the medical advisory
group arrived on schedule this
afternoon for a tour.
5 green, 2 blue (old), 1 red, 1 black
present at midnight.

Feb 19 - Nos. 374 37 (black), 11 (green), 413
(blue-old) present in the morning.
Probably the same bird that were
seen last night. Four other greens
no. 42 (blue) also present.

Feb 21 - On a fishing trip outside the reef.

Dave and I saw 4-5 Red-tailed
Tropic birds sitting on the water a
short distance beyond the reef,
7:30 - 10:30 A.M. We also saw
several wedge tails feeding amongst
Nov 21 - Seabirds. One or two graybacks were
seen and an occasional Common
Redpoll. All the activity occurred
during the morning, when we were
on the NW side of the reef. Very
few, if any, birds were seen in
the afternoon on the other side - time
or location or both?

Nov 22 - Brian returned from the ledge
trip and arrived here about 1100.
Common harlequin (YN2, U.S.N.) arrived
shortly after this. He will escort
300 Sooty terns back.

Nov 23 - Collected 16 Sooties for release
at sea from the U.S.C.G. Pinnetic
tomorrow. Nos. 1-8 numbered in red,
will be released 0800. Nos. 9-16 will
be led loose at 1500. All
from egg by left of transmitter.
Collected 300 Sooties for breeding
from in front of the rock and on the
road to the lump. Perhaps 1/3 of
these were not on eggs, though they may
have had mates which were.

Nov 24 - No sign of released Seabirds. Brian
and I observed some interesting things
in the Seabirds during the afternoon.
Several birds left their eggs for about
periods (less than a minute to 2-3 minutes).
June 24. Apparently to get water. We watched many dipping their bills in the lagoon all around the island. It was a very hot, still day. Many of the birds were noted with bills open - equivalent of yawn? We also observed changesover in several pairs. In most this was accomplished with ease; the sitting bird merely moved aside when the new one nudged it beneath with its bill generally from the side. In some cases the former incubating partner remained nearby and in some instances departed immediately. In one case, one bird gave up the egg and then returned and took it over again in less than 3 min. One pair seemed to be having difficulties. The incubating bird was very reluctant to leave and its partner repeatedly tried to get at the egg, nesting under the other bird and under its wing trying to push the other off. Perhaps changesover had already occurred.

I wonder if the very liquid materials given up by some of the birds (from bill and anus) indicate that that bird has been incubating for some time without solid feed.
Mar. 24 Perhaps the active nest from the
mouths might be from a fluid which
has just come from getting a drink.

Noted several frigate birds
on the 1st set of wires guy wire
right above the transmitter, beside
the antenna. We have never seen
them sitting there before. Many had
their wings open in the "sunbathing"
position. Many more than usual were
on the other wires too - also true of
Red-footed. Probably due to heat.

Observed several Sooties picking
up stones and dropping them in the
vicinity of the nest while incubating

Mar. 25 - Another very hot, calm day. The
frigates were again sitting on the low
wire right by the antenna, in
numerous numbers today. 100-200 wheeling
above the island on the south side all
day. Few sitting in the colony - only
about 60 in the morning.

Junior suggests that the Sooties
may move to shade the egg, rather
than to face into the wind, at least
when the wind is below a certain level.
Today, with no wind, they did seem
to be doing this.

Very light tides again - no washing
Mar 25 - Instruction on eggs: we did not get out to the island today but probably the Noddies and Grey backs have suffered severe losses. All but 2 of the 63 eggs on the west side of the peninsular have been lost and today the Common Noddies there were hit hard for the first time with 16 destroyed.

We have decided to discontinue checking frigate eggs daily to see if this reduces egg losses. We have about 80 eggs now remaining, of which 64 is the lowest number to begin. The more eggs remain the greater the likelihood of these being lost. Perhaps without our interference one would have chicks by now.

The first foot returned from the plantation between 1230 - 1345 - about 30 hours after release.

Mar 26 - Second foot (#3) back by 1412; arrived after 1100. #3 still present.

Jun 27 - No 5 present 0830 arrived between 1900 yesterday and 0830 today. Notice 8 also 5 present 0830, 5 present at 1000. No 1 present 0830.

Rain began last night about 7, stopped by morning and then started again. Intermittent showers all day.
Mon 28 - Sprawled and clouds still around. What a beautiful relief from the constant diet of sunshine, heat &  

snow.

Bennett & I went to Johnston in the afternoon, conducted a partial survey:

RTIB - 19 R1, 8 chick (3 ran), 4 egg

(3 new - 3 side - 1 central)

EP - 30, 30 seen

RT - none seen

WT - 2

FT - none seen

Franklin's Gull still present. It has moved west of the weather front onto a spit near the area where  

shading continues, very scared.

Mon 29 - While making egg counts, Bennett discovered a Chuckar's nest in a hole in the rocks on the east  

shore of the peninsula. This is the first record for Sand Island as far as we know. We tracked the  

bird rather than taking it as a specimen. Perhaps more will show up.

Mon 30 - For the past several days no birds have been nesting on the rocks by the eastern water. A few (3-5)  

frigates a/c red-feet have been perched on the pilings and 1-3
Than 31: Blue-faced Parrot's not on the highest rock. Perhaps the very high tides have discouraged birds from setting there or perhaps there has been a change in the population.

First of second parrot group (No. 14) returned 6 days after being turned loose. The seventh bird (No. 2) showed up at the same time (2-24).

Than 31: Two more of the second group of Parrot's returned - 17 between 1300, 1412 at 1500.

Simon found the Bulwee's we had banded back in the same place, and a second bird nearby, 2230-2300.

April 1: A third Bulwee's Petrel was found along the causeway; banded and released.

April 2: Johnston survey -
EP - 150 east
RT - 30-40
WT - 2-6
PT - 3 plane
RTB - 234 chis, 7-8 chicks.

Franklin's Gull: has moved west, to new feeding area. Very reed, cannot get close enough for shot.

No sign of Western Gull.
April 7 - Franklin's gull collected at last! We discovered it sitting on the north peninsula in the evening. Bvinon agreed with the position given. The flock possibly may have been attracted to Sand by the numerous dead fish which have washed up from the dynamiting operations - it had never appeared here before.

April 8 - Bvinon and I got out to North (PMR) Island via the EZ raft to investigate a report of "about a thousand" birds on eggs. We found about 35 spratback eggs and 120 birds. A few Sooty's were flying around and we found one possible Sooty egg (broken). There may have been many more eggs, since the report was received about a week before we could get over there, and they have been busy pushing that all week. We collected about 50 eggs from an area where they were certain to be destroyed.

April 5 - I got off at the island again while skin diving and could find
April 5: Only 14 eggs remaining, and
April 7: About 25-30 birds.
April 14: The AF Captain from the satellite
camera reported that a few
fairy terns were possibly nesting
inside the N & N warehouse adjacent
to the exchange. We checked on this
and found that one egg had indeed
been laid on one of the high rafters.
It had been removed by one of the
men and placed in a "nest" outside;
we collected it, as it was bad.
The man we talked to said that
nesting activity began about two
months ago in this area. The
Captain stated that the terns
spend the night and early morning
in bushes behind the tennis courts,
then move to bushes above the
hospital in the afternoon and down
next to the N & N warehouse in
late afternoon.
April 16: We have noticed Common Nighthawks
stealing food from Sooty terns
recently. They fly back
from our area of the colony, buzz
and great deal being put down
since attention gathering the
Sooty's still sometimes seen
lifting "the head up further"
We also have been forgetting harvesting wedges, as they come in at night which is surprising since the size of the food is so different.

April 26 - While checking plots we found an elbow booby check near plot #3. We removed it and will try to rear it to an age that a skin can suitably be made of it.

Found a fifth Britannia petrel in a deep hole on the right side of the causeway (leading east), just east of the Siegel building. It was making a curious drumming sound, made more resonant by the chamber, probably.

April 27 - Departed Johnston Island 10 P.M. via MATS N-28; arrived Hickam AFB, Honolulu, 1 A.M. Dr. Ely met me here with permits for the 1000 live ticks.
May 1 - Field party consisted of L. Huter, V. Hoeman, Bob Long and K. Hoeman. After a late start we got out in the 6 man (ktl) rubber raft about 1700. We arrived on the bigger of the pair of islands about 1745. One-two hundred wedgetails were noted in the air around both islands on the way out. A few boobies, probably redfeets, and numerous Scott Terns were also noted.

Upon our arrival we proceeded to collect soil and plant samples. Huter climbed to the top to observe until dark and Hoeman and I began landing wedgetails. We worked until 1230, mainly by flashlight since only one headlamp was working. Banded a total of 740 wedgetails, using the last of our bands, and 60 Bulwer's petrels. Huter did these, said they were found only in two small areas. Probably this represents the near total of birds on the island lead night, possibly 50 pairs using the island.

The consensus on the wedgetail population was 7500-25000 birds. I
believe there may be 7000 pairs using the
island.

The shearwaters were very vocal all
the while we were there. The main
body apparently arrived after dark,
as there were very few on the ground
prior to this. Most of the burrows
were in the soft reddish soil on the
center of the landward side. Most of
these were in short grass, though many
were in a mixture of higher grass and
hauhau and some were in sand near
the shore on the side between the two
islands. Most of the burrows were quite
short, only about 1-1/2' deep so
that a single bird just fit in. Some
were wide enough to accomodate both
members of the pair, though many had very small
openings.

We did not visit the other island
of the pair. Coming back in the raft
we noted shearwaters flying about
us more than ½ of the way back to
shore.
May 2: L. Huber, R. Long and W. Beaman set out in the rubber raft 1645.

We encountered greater difficulty than we had in going to Mobulan the day before, due to cross currents and high swells. Finally arrived in the churning surf 1800.

They began collecting plants and soil samples in a framework across the crater while I made observations and population estimates and Huber began banding Sooties. All of us banded from 7:35 to 12, then Huber and I continued until 6 A.M. We departed 7 A.M.

The Sooties occupied a broad belt across the vegetation on the landward side. They extended from the soil- or rock-hard junction about halfway up the slopes, in some cases further up than this on ridges. They did not occur above or to any extent among the tobacco plants. Many were also distributed around the crater rim, some on bare rock and some in grass clumps.

Noddies were found in two main areas—on the inside of the crater wall above the line of solid vegetation and at the base of the wall. They
were concentrated in the central portion of the wall, whereas it became rarer. A few were also found in valleys between mounds on the landward (south) and SW slopes.

Wedge-tailed shearwaters were distributed over the entire landward face up to about halfway. They became more scarce in the areas occupied by tobacco plants and on the west and NW slopes, where the Shearwaters were absent. Very densely distributed in the central areas.

Population estimates:

- Shearwater - 50,000 pairs (R.C. 50)
- Wedge-tailed - 4,000 (land and cliffs) R.C.
- 20,000 (central) (guess)

- Common Noddy - 4,000 (R.C. 50)
- Bulwer's Petrel - 2 hundred, no others seen.

Approximately 30% of the Shearwater eggs had hatched. All but a very small percentage of those were less than one week old; the remainder were 10 days - 2 weeks old ( incubus 3/4" x 3/4" in area). The oldest chicks were located on the SW slopes.

Having examined several Noddy eggs and found no visible embryos, indicating that they have all been laid.
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At Sea - General Notes

May - Scattered birds outside grid. Long periods of few or no birds, then numerous flocks, continue.

June - Marked contrast. Flocks down inside grid, few nes. of Stany.

Terns & Wedge-tails: Almost no babbies. Move into Atherstone on local. 7/2 1/3 of S & G – many (3) more than in May. Many Babbies.

July - Flocks, Seabees and Wedge-tails still low in grid, though better more numerous than in May.


New Birds:

May - Shur, Nenebe, Stort, Shew

June - Blue-gray Grit.

July - Kermadel Petrel

Aug - Normal grid, 15 days

June - N to La Perouse (F.F.S.), down chain.

July - Attempted come on June, turned before F.F.S.
July 31 - Leisure at Comarinta until 10:30

[Handwritten notes]
July 31, 1964

Pheasants - 2 - second edges
Chinese Thresh - 3
Hawaiian Duck - 1

Black - 1 - Night Heron - 1 (not seen)
California Gull - 5 - feeding on road

Spotted Dove - 2
White-tailed Tipgeber - 3

Wren - Canyon Kaibab Valley

Shelf sand and 1 - Shale
by camp field along 52

Birds: dove
House Sparrow
Cardinal - hedge area

Jungle Road (CA) - calling

Aug 1, 1964

got to Lake Apopka today
then went straight to Kaibab Lookout
and drove to the N. as far as
possible on the Kaibab - Havasu road.
Weird into very wet area, nearly
constant light rain. Vegetation
quite wild, very different from
yesterday area. Just as we
decided to turn back, we
saw a small bird just
behind of us, m. The story wasn't
wanted.

Wrote night story titled
the story then identified a Game Ward
Aug. 1 on the road to Poipu Beach. I saw it only as a light colored one, different from other land.

Planned departure at 6:30 pm failed by weather bureau clock at airport on Greenwich time - 4:30 was really 5:30 as we discovered at Poipu at 6:40.
August 16--Pearl and Hermes Reef

Ship arrived off Southeast Island about 1500. Raft and most of gear launched about 1730, arrived on Southeast 1800 and set up camp on the east corner. Two groups of three surveyed the island before dark.

After dark 1000 Sooty Terns landed. Five hundred each adult and immatures. Turtles (Green ?) on north shore - about a dozen. Similar number of seals. Some tagged, noted all around shore.

Retired

August 17--Up before 0800 for radio check and breakfast. Pete and I then went after boobies and frigates and getting nest counts and banding whatever possible. Paul and Alan covered the albatrosses. Thirty-nine young Laysan banded. Al Young - plants. Dick - seal skeleton.

Boat came in around 1000.

In afternoon Alan, Dick, and I banded 100 immature Sooty Terns each while Paul and Pete made unsuccessful attempt to get some Graybacks and Hawaiian Noddies. Relaxed for a while in late afternoon.

After dark 900 Wedgetails and 700 Sooty Terns banded. Wedgetails quite spooky, especially in chicks. Also worked on Boobies, Hawaiian Noddies and Graybacks.

August 18--Boat arrived 0830. Doug came in, spent day on Southeast.

We took some bands, nets, and food and set out for two small sand islands west ? of Southeast.
Landed briefly on Bird Island at 0930. No vegetation, long and thin, sand and ground coral with a little coral shelf at the East end. Banded one immature Masked Booby. Also present two adult Masked Boobies, one Wandering Tattler. Three Trunstones, and one Gray back. 


Arrived Grass Island 1200.

Fairy Tern 5
Frigate - 250+
Common Noddy - 300+
Hawaiian Noddy - 2 - 3
Laysan Albatross - 3
Sanderling - 2
Trunstone - 5
Tattler - 1
Red-footed Booby - 1 (immature)
Masked Booby - 2 (immature)
Sooty Tern - 20 (in air)
Red-tailed Tropicbird - 8
Wedgetail - 18 eggs and chicks

Arrived Seal 1315

Common Noddy - 1500
Hawaiian Noddy - 700
Fairy Tern - 2
Sooty - 1000 - 1500
Grayback - 15
Frigate - 75
Laysan Albatross - 1 immature
Red-tailed Tropicbird - 13
Masked Booby - 9
Turnstone - 9
Wedgetail - 4 seen

Surveyed Kittery from Seal

2 Masked Booby
1 Frigate 2 Seals
1 Gray-back
Turnstones
Took raft across reef to meet ship off Seal. Very shallow, small waves, only one of which broke over us. Hauled gear and raft aboard and (1500) returned to Southeast. Landed again on Southeast about 1815, this time through small boat channel (shallow) from rear.

Counted dead albatross young before dark 600 - 800 and picked up recoveries. After dark banded 1000 Sooty adults, 600 Wedgetails, finishing Sooties just before dawn.

August 19--Broke camp in about one hour between 0700-0800. Boat arrived 0830. Gear stowed; underway to North Island 10 miles across lagoon; choppy and windy, soaked constantly.

Arrived at South - North Island about 1100.

Masked Booby - one with downy young

Seals

Arrived North Island 1130. Set up camp at base of long peninsula. Walked around island and then slept for a couple of hours. Woke up Cold. Paul was out banding Tropicbirds, Laysans. I surveyed island, estimating Wedgetails and Common Noddies. No Sooties present! 250-350 Frigates in air. Ten turtles were on the shore in front of the camp when I went out.

Returned to camp and ate, then slept until about 1. Went out banding Wedgetails (400) and then went after Masked Boobies. Latter were concentrated down on the peninsula. Obtained several returns.
August 20 - Pearl and Hermes Reef - Lisianski

Returned to camp and slept for two hours. In the morning we covered the entire island thoroughly, finding 100 Common Noddy locals with difficulty. Pete banded 48 Frigate nestlings.

Broke camp and returned to ship before noon. Lagoon completely calm.

One orange-tagged Common Noddy seen and collected by Paul.

August 21—Arrived off Lisianski about 0800. Landed on the island ca 0930. Set up camp near a small grove of Casuarinas on the shore. We split into two trios again and walked around the island. Seals very numerous - close to 150 in all.

We cut back across the center of the island. Very hit, flies quite bothersome. Wedgetail burrows all over. Found two Bonin Petrels in the tall grass.

Found the tents full of flies on our return. Went for a swim to get some relief.

Dick and I and Pete and Alan banded 400 adult Sooty Terns in the afternoon. Paul went after Tropicbirds and Boobies.

August 22—Got up at 1030. Banded Sooty Terns until dawn - 2500 total. Paul did 100 Bonins. Slept for a couple of hours, made radio check at 0800, waited for boat to come in. Dick and I went out about 0930 to band 500 Sooty chicks a pied. Proved to be the hardest job we could have picked. They ran faster and better through the grass than adults. Finished the 1000, with Paul's help and the flies hindrance, about 1230.
Spent the afternoon walking around, taking pictures, trying to set relief from the flies that continued to plague us. Puttered around until dark, then went after Sooties again. Finished the final 2000 bands by about 0030. Paul did 300 Wedgetails during this period. Paul and I went out again after Bonin Islands. Came back and slept for a couple of hours. Awoke with a start to find boat in (0530). Broke camp in record one half hour, back to ship for final run. Under way 0200.
September 16 - Laysan Island

We arrived off Laysan in the USNS "Shearwater" about 7 a.m. and dropped anchor about 0.4 mile off the west shore, in line with the "best landing" site. About 500 Sooty Terns, 1/4 - 1/5 immatures, were flying about the ship, and an estimated 1000 more were visible above the west side of the island. A few Red-tailed Tropicbirds and Fairy Terns flew around briefly. A small number of Red-footed Boobies and Blue-faced Boobies flew past on their way to sea. A few hundred Frigates could be seen over the island and several immatures played king of the roost on the radar mast and boom. Common Noddies, including many immatures were also around the ship - over 100 Sooty Shearwaters were seen before leaving.

All the gear was loaded and the raft launched at 9 a.m. We landed at first opposite the former camping areas (Casuarinas) but then decided to set up camp on the northwest corner, where there is only open sand, hoping to avoid the flies. Red-footes in Casuarinas, Laysan Finches and Fairy Terns in Scaevola. Very open grassy area behind Casuarinas contained a few (8) Christmas Islands, Wedgetails and Sooty Terns. Latter not dense at all.

Rested a while after setting up camp, then Dick, Alan Young, and I walked around the lagoon for survey while Paul, Doug, and Alan walked the outer beach. A total of ___ Common Noddies were scattered around the whole shore. Estimate 1000+ shorebirds in lagoon, primarily on west side, with Ruddy Trunstomes, Golden Plover and Wandering Tattler in ratio of 100: 5: 1. Two Bristle-thighs were seen on the west side and three on the east, though the latter may have included the former.
Maximum of 500-600 Frigates in air 2-3 times, plus many smaller groups up to 100+. The small groups probably were successive as we went around. No estimate of total. Only Masked Boobies present. Small (on concentration 10 - 12) on east shore. Red-foots generally far into vegetation, nearer outside edge; more numerous on east side. One immature Red-tailed Tropicbird under Scaevola on east side. One Hawaiian Noddy egg, one chick about 4 feet apart in Scaevola. A total of 80+ Laysan Teal, all on east shore. Probably many more in morning glory. Apparently the lack of them on the west side is due to the greater width of unvegetated shore.

Returned to camp about 3 p.m. Shortly after this the guys from the raft came by and Bob Banner came struggling up with a surfboard of all things which he'd found in his jaunt around. Other team still not back so I went walking north along the shore. Found Fairy Terns nesting on rocks along the shore; 17 birds, 4 chicks, no eggs. Many Wedgetail burrows under same rocks.

Before going on survey Alan and I had gone in to the lagoon, finding about 40 teal. Walked back along beach. Small groups of Sooty Terns (100 or so) along edge of vegetation. One Fairy Tern egg under grass clump. Small groups of Wedgetails, up to 20 and many individuals and plus setting on beach. Dick reports two orange tagged Sooties and one Wedgetail.

Returned to camp about 6 p.m. The other team finally returned shortly thereafter. They report about five rocky areas containing Fairy Terns, large Christmas Island chicks and three Bulwer's chicks. No counts on other birds; too far from vegetated areas. Over 200 seals
Everyone but Paul slept until midnight. He woke us up after banding boobies. Alan and Paul continued after boobies; Dick, Alan and Bob went after Wedgetails and Doug and I walked the shoreline for Fairy Terns and shorebirds. We went north at first to the rocks, then back toward the ship. The shorebirds appear to move out from the lagoon at night, as there are few on the shore during the day. We banded Ruddy Trumstones, Wandering Tattlers, Bristle-thighed Curlews, Christmas Islands, and Fairy Terns, and two Bulwer's.

Raft in about 8:30 a.m. Dick and I went after Sooty Terns about 9 while Doug tried the mist nest by the lagoon and Paul and Alan went after more boobies. Finished the 500 Sooties in about four hours. Very few non-flying young. Possibly 1/10 the population from beginning of colony to corner banded. This is perhaps 1/4 of island population. Disturbances every once in a while - birds going for drinks or going to feed? Very few birds barfing fresh squid, only after 11 a.m.

Came back to camp "1 p.m., went for swim. Tried sleeping in afternoon, got rained on. Alan and Bob hauled back two loads of fish balls. Camp now resembles antique shop. Slept again from 9 to 2:30, they went after Wedgetails as Paul and Alan returned from getting boobies. Dick and company went after 500 Sooty Terns. Wedgetails in morning glory along alagoon very scarce. Difficult to catch anywhere with moon. Finished 230 by 6 a.m., in same area where we banded Sooties. Found three Bonins, one in morning glory near palms, two in grass (one in burrow, 5 foot long).

Wrote up notes at breakfast. Dick had caught a Golden Plover during the night so we had a session of taking photos. Doug and Alan
and Alan and I began walking west around the island surveying, collecting insects and clocking for ticks and taking photos, about 10 a.m. Insects on the ground relatively scarce - we collected some sow bugs, beetles resembling weevils, tiny ants or termites, some spiders. Flies everywhere in vegetation, though not as bad anywhere as on Lisanski last month. No ticks could be found anywhere. Alan and Doug and Then Alan Young turned back to camp and I continued around the island. Found several (5) Tropicbird chicks under one large clump of Scaevola by the Casuarina that Paul had missed and several more groups and individuals all the way around. Usually 3 - 6 adults in air in an area. One at the southwest end was trying to fly. Groups of Fairy Terns were present on the rocks all the way around. Estimate 300+ for island. They looked minute against therock wall with the surf crashing behind.

Frigates through Scaevola all the way around; many rusty-headed immatures on the southwest corner. Still no estimate. Saw about 150 Red-footes again but must be many more. Masked Boobies in clear areas at other end - 3, 9, 5, and occasional individuals and pairs in grass, plus one group of 5, 2 of which were painted, one open beach. Frigates seen to give way to Red-footes as you move from west to east.

Magnificent waves crashing on a rugged fringing rock wall at the opposite end of the island! Grey rocks, looks almost like a gorge coming up on it. Seals bobbing around in the waves. Brown rocks and shelves against the beautiful green water in the east side also ve vy picturesque. Reef close to island all the way around. Beautiful green and red parrotfish.

Saw fifteen or so Curlews in the rocky area at the end; estimate at least 100 for island now. One strange shorebird, half size of curlew.
but with long thin green-grey legs, 2 inch black bill, nondescript gray resembles yellow-legs in this area also, among turnstones and plovers.

Sooty Terns much more numerous than I had thought. Stopped for a while in the area in which we had been banding. Five hundred adults banded here, very few banded birds seen. Cannot tell if they extend the grass or are concentrated along the periphery. May be as many as 200,000 here, perhaps 500,000 in breeding height.

Caught up to Dick and returned to camp (3 p.m.). Swam briefly, then went to sleep after 5 until midnight. Went out after Wedgetails and Bonins. Paul and Alan had found a concentration of the latter in grass between tower and Casuarina. I could find only about 5, they must go underground or under vegetation as night wears on. Did 140 Wedgetails quickly and came back for more about 3 a.m. Alan, Bob, Aland I finished another 200 by 4:35, came back to camp and slept for two hours.

Fairy Tern egg on tower, popped yesterday, hatched sometime after 11 today (September 18). Dick reports one Common Noddy with orange tag. Five returns of Fairy Terns.

September 19—Upon awaking, found that the USCG ship "Basswood" was anchored off the island. Waited around camp preparing to go out around the lagoon until 9:30 or 10:00, by which time Bob Fleet appeared with Eugene Kreidler and Ron Walker on their way around the beach censusing seals. Talked briefly with them, then went up to where Doug and Alan were having a very difficult time catching adult Sooty Terns. Headed in toward lagoon, met Bob Long collecting Ipomea specimens in hopes of getting 3 varieties.
Walked along west shore of lagoon counting shorebirds. Counted 139 Ruddy Turnstones but this may have included many counted twice; however, probably compensated for by others on outer beach - estimate 1600. Also present - 358 Golden Plover, 132 Wandering Tattler, 8 Sanderling, 3 Bristle-thighed Curlew, one large shorebird, brown-grey, faint eye stripe, long straight bicolored bill (tip black, baral 1/3 orange), long black legs, barred grey and white tail, rump grey, slightly lighter than body. Limosa sp. ? (lapponica ?). Did not appear to be the same bird I saw yesterday at the south end in the rocks.

Cut up through the center of the vegetation on the west side to chick on Sooty Tern distribution. They are not evenly distributed through the Eragrostis, occurring mainly in a continuous band through the more open grass but not to any great extent in the entirely open spaces. This strip appears lighter than the denser, taller grass when viewed from the ridge. Now estimate 60 - 75,000 Sooties, perhaps 1/3 to 2/5 of which are immatures; very few non-flying young.

Also found a flock of 750+ Golden Plover in one large open area which apparently was the terminus of the guano digger's railroad according to Ron Walker - tracks still present. Paul estimated the same Golden Plover flock at about 1000.

Stopped at the Fish and Wildlife camp and met John Beardsley of University of Hawaii, entomologist. He had just finished walking around the lagoon, sweep-netting. He reports that 180 insect species have been recorded on Laysan.

Returned to our camp briefly and then went back to the Fish and Wildlife camp with Paul and Alan Young. After a refreshing swim six of
us set out to census the Laysan Teal, walking through the vegetation about 50 feet apart around the lagoon. We started south on the west side, finding very few. They became more numerous as we passed the palms at the southeast corner. The vegetation also became rougher, with much Scaevola, Solanum and Syparus extending into the Ipomea. About 2/3 of the way around we counted nearly 170 teal on the shore; it was then about 6 p.m. and it appeared that the ducks were coming out of the vegetation to feed. This seemed to be the major portion of the population so we gave up counting and relaxed in appreciation of the right of the birds moving along the shore and in the water in the fading light, bunching up ahead of us.

Returned to camp quite tired, slept until 10:30 p.m. Doug and Alan had had to give up after doing 200 Sooties; Doug had returned to the ship in the afternoon, with fish balls, surfboard and driftwood log. Camp now looks pseudoscientific and neat again. Paul and Alan had returned from banding 200+ Bonin Island Petrels and 100 Sooty Terns. Bob Banner returned shortly from doing 200 more Sooties. I went out with 500 Sooty bands and the remainder of the Christmas Island string (29). Banded 200 Sooties, then worked off the 4's. Most of the Christmas Islands were immatures, many with traces of down about the head, and nearly all were sitting on sand just at the annex edge of the outer rim of Scaevola. Found a very few pairs, ran out of Scaevola by the rocks past the Casuarina, finished the bands on the beach. One trio among the rocks, two adults and one half downy young. A few Bulwer present there also.
In the course of finding the Christmas Islands, ran across a small group of Brown Boobies for the first time - 13 adults, 2 immatures and 3 1/2 grown chicks on nests. Previously I had seen only one adult, one subadult, one immature, all in the air in early morning. Dick had found eight roosting on rocks on the east side. Do not know if they were from the nesting group.

Banded 200 more Sooties on the way back to camp. Everyone up, breaking camp by this time. Raft came in at 6:30 a.m., we were on the ship by seven. Raft returned to pick up Fish and Wildlife personnel since the "Basswood" had had to answer a distress call from a fishing sampan grounded on Maro Reef. Underway 8:30 a.m.

Laysan - Summary

Laysan is low coral and sand island 1.6 by .8 miles, long axis north to south, with a large central lagoon of salt water. The major portion of the vegetation consists of Scaevola, Eragrostis and Ipomoea. There are five major associations: Nama, with Boerhaavia, Portulaca and small Scaevola, along the outer beaches; Scaevola, with Ipomoea, indica Boerhaavia and Tribulus, in a rim along the ridge; open Eragrostis, with Nicotiana tabacum, Fibristillus cymosa, Tribulus and Boerhaavia, on the upper slopes below the Scaevola; Eragrostis - Ipomoea, on the lower slopes, denser; and Ipomoea - Cyperus - Heliotropum nearest the lagoon.

The band of vegetation is about twice as wide on the west side as on the east. The Scaevola on the east side is along the shore for the most part reduced to a few clumps and is nearly absent from the north end. The Eragrostis strip on the east is similarly much narrower.
Some Scaevola patches extend into the Ipomea almost to the lower edge of the vegetation on the east side. Two groves of palms, one at the northwest corner and the other at the southeast corner of the lagoon and one large Casuarina constitute the only land marks. Scaevola forms a secondary line behind the rim on the west side, diminishing toward the south. On the south end the Scaevola is very dense and occupies a broad area.

A few Red-footed Boobies and one small colony of Browns are found in the outer rim of Scaevola on the west side. Tropicbirds nest in small concentrations (5-6) under higher, larger clumps on the west and south sides, and in larger groups (20+) under very large clumps on the east side. Most of the Frigates are scattered through the western Scaevola rim. Red-footed Boobies increase. Frigates decrease in Scaevola on the south and east. Masked Boobies found in grass (scattered individuals and pairs from Scaevola to Ipomea) and some concentrations in open areas in grass, around lagoon and on east beach. Wedgetails very numerous in grass, less so in Ipomea, fewest (breeding) on open beaches but large clubs scattered over beaches on north, east and south. Christmas Islands - resting under outer Scaevola rim on west, immatures just at inner edge; some in Ipomea on west side, some under rocks on west side, some under rocks on west and north beaches.

Bonin Island Petrel most common in dense Eragrostis (no Sooty Terns), many at and under edge of outer Scaevola, few in open grass among
sooites, many pairs.

Bulwer's Petrel - scarce, under rocks along shore, mostly immatures.

Sooty Tern - periphery and open grass up to Scaevola.

Noddy Tern - Roosting mainly in Scaevola, small flocks on beach and around Lagoon (west) during day.

Hawaiian Noddy - Casuarina and Scaevola around it.

Fairy Tern - Scaevola along west side, rocky areas on beaches including rock wall at south end, few solitary nests - one in Scaevola southeast, one on rock in opening in grass, on west. One on tower, northwest.

Laysan Finch - dense grass primarily, though many around Casuarina, in Scaevola, in Ipomea around lagoon and even open beach.
### Sooty Tern - Banding

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(1 - 8 numbered with red, 9-16 with blue, for release from USCG Planetree 3/24)
Sooty Tern

Early December - flocks of -- 100 offshore every night.

Late December - 5 to 10,000 around island at night.

December 29 - 300 to 400 roosting for first time (first large number).

January 15 - Forty to fifty thousand came in at night; two to four thousand roosting. Begin arriving 5 to 4 p.m., remaining offshore in dense clouds on both sides of the island until shortly before dark, when they begin to move in. Do not land until after dark. The birds get up off the ground about 2 a.m. Birds gone by 6 a.m. - do not know when they left.

January 24 - 31 -- No sooties roosting on road. Birds would not land in large numbers until moon was down.

February 1 -- Birds roosting on road again and landing at dark (8 to 8:10).

January 28 - February 18 -- A few scattered eggs in roosting areas, deserted immediately; probably due to our disturbance.

February 10 -- First time numbers present in immediate vicinity of the island during the day. About 200 wheeling around islet and ~50 alighting on it several times, during the morning. Those flying would occasionally drift over the main island and then return to the islet.

February 14 -- Birds arriving noticeably later in afternoon, moving into immediate vicinity of island much quicker rather than hanging far offshore. Main body of birds arrives after 4:30. First eggs, on islet.
Sooty Tern cont.

February 17 - 20,000 immature; 5000 roosting. ~600 remained on main island, for first time, during morning, on slope among Brown Boobies. Moved to outermost part of the north point by mid-afternoon, half on ground and half in air. One hundred to two hundred birds still around islet all day.

Birds no longer congregating in thick clouds offshore before coming in to roost; instead, constant trickle of small numbers from 4 to 5 p.m. on, came right in over island.

February 18 - Beginning of nesting. ~25 eggs being incubated in large group on north point.

February 20 - Another group of birds remained on slope after main body of birds departed. Apparently moved into flock on north point later in day.

2000± present on point during day, 3/4 or better on ground.

25+ eggs on islet.

February 21 - Birds alighting in roosting areas on south side of the transmitter building before dark for first time.

February 22 - 5 - 6000 birds on point all day. Only 3 - 400 of these in air.

February 23 - 8 - 1000 birds on point. No birds roosting on road 11:30 p.m., 6 a.m. nesting morning, nor on left of transmitter building.

February 24 - Sooties everywhere! About 3000 remained on the south (right) side of the transmitter building all day, on the ground, with another 2000 in the air milling around. A few hundred also were sitting along the southeast shore, among the frigates and boobies and
all along the slope. None on the road or left of transmitter yet.

Those in the areas above the transmitter had thinned out by afternoon.

Scattered eggs throughout the newly occupied throughout the newly
occupied (by day) area, mostly in vegetated rather than open areas.

The number of birds on the point decreased by ~50 %, especially
in the air. These may have become part of the group in the new area
or may have gone to sea.

Birds sitting down on road and left of transmitter before dark.

February 25 - ~60 birds on islet during morning. Five eggs in
Plot No. 1.

February 26 - Two eggs in Plot No. 1. Population on north point
has stabilized, no longer moving inward. Many eggs there as well as
around plots 1, 2 and 3 and all along above Brown Boobies.

February 27 - Population in area of Plot 1 stabilizing - very few
birds in air there compared to other areas. Large concentration in air
between transmitter, frigates and boobies.

February 28 - 18,000± 3,000 sitting during day. 1/4 - 1/3 ? of
these eggs. 50,000 present at night. Many eggs on slope north of
Brown Boobies. One new egg in plot 1; original five broken.

February 29 - Population in area of Plot No. 2. 19 eggs - B
1 plot 4 stabilizing. Many eggs between frigates and shore.

March 1 - Birds moving into area between plots 1 and 2 and road
to dump. More coming into area on south shore also.

- 50,000± 5000 sitting by 6:30 p.m. Peak arrival 6:30 - 7:30 -
five to six hundred per five minutes - 6 - 7200 1 hour (x 2 ?)

Twenty-nine eggs in plot 4. Birds sitting in plot 6. Very few birds
come in to north point at night. Three new eggs plot 1.
Sooty Terns Cont.

March 2 - Three eggs in plot 1. Thirty in plot 4. Number still increasing by day in area along road to dump. Very few more birds seem to come in to the north point at night.

March 3 - Plot 1 3 and 8 = 11
2 6
3 8
4 35

Area B - 19

Birds have moved across road to dump, now occupying area between it and shore. Very few eggs, so far.

Pushing across slope from both sides; eggs up to nests 24 and 8.

March 5 - Birds spreading downward and outward on slope leading to peninsula. Those on peninsula may be moving inward some more. Patch of Sesuvium between plots 5 and 6 occupied during the morning, no eggs. Birds solid across slope with Brown Boobies.

First eggs in plots 5 and 6. The other plots are remaining fairly constant. No losses, 1 - 2 additions. One egg each in 5 and 6 by 1100; 7 and 2, respectively, by 7 p.m. Birds still occupying entire slope.

March 6 - Banded 600 on north peninsula on eggs. Many new eggs in all plots. Birds solid on road to dump.

March 7 - Many eggs right in road to dump, also many across it. Birds sitting and beginning to lay on open area where dump was situated. Very rapid and sudden movement into this area.

Many birds also sitting on Tribulus on North side of transmitter building. Few eggs so far. 300 banded in area of plots 1 and 2.
March 8 - 600 banded on eggs between plot 1 and road to dock.

March 9 - Birds solid in former dump areas and to left of transmitter. Only open areas remaining - right of transmitter, both sides of road to transmitter, innermost half of north peninsula. Egg numbers in plots seem to be steadying around 50 except in No. 6.

March 10 - Eggs in two new areas - left of transmitter building to edge of road and adjacent to road between plots 1 and 2. Birds sitting to right of transmitter and a few on the road near the building.

March 11 - Birds on eggs all the way back to the dock.

March 12 - Yesterday the birds were 20 feet away from the antenna enclosure and had eggs to the edge of this line. Today they had filled in another 10 feet but no eggs had appeared yet.

March 14 - Birds and eggs right to antenna enclosure. They are advancing slightly down the north side of the causeway also.

March 18 - Egg laying seems to have definitely slowed. A few more are laid each day, especially around the transmitter building (some on the road today), but no major influxes have occurred since the birds filled in this area. A few more eggs turn up each day in the study plots; this is probably representative of the situation on most of the island now. The birds moved inward on the north peninsula only about 15 feet more, and slowly; plots No. 6, which was on the edge of the group when it appeared to have stopped and head no eggs. Now has 21. The birds may be moving outward onto the peninsula slowly now.
March 19 - Fifty to sixty chicks on the north peninsula; on the north side of the group, when the first eggs were laid February 18.

Six chicks on islet 6 p.m., ten more eggs.

March 24.- Birds have spread across north peninsula from inland. Still filling in slowly behind the others on both sides of the road.

Many eggs hatching around plot No. 1.

Common Noddy - Banding

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Eggs; release at sea 0700 3-12

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| 13 | (22 - 25 Is.) 34 - 5A |

13 | 5A |

21
Amerman, Kenneth
1964

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Common Noddy - Banding

753-25861 - 80 | April 23, 1964 | nesting |

Common Noddy - Notes

January 18 - First egg, on islet.

February 1 - Population ~400, only at night.

February 8 - First time numbers present during day - ~25 on islet during morning.

February 10 - Population during day suddenly rose to 150+ on islet, in two groups. One group on rocks, other on slope around nesting bird.

February 11 - 250+ atoll on islet 3 p.m.

February 15 - Courtship behavior on islet.

February 15 - 50+ on southeast shore during day for first time.

February 17 - Four to five eggs on islet.

February 18 - Small number on north point among Sooties. Also three groups of 15 - 20 each along west shore of point and groups on concrete guy wire bases. Individuals on pilings off southeast shore. Population has declined on islet, seems to have spread out to these other locations. More present at night in grass around SE edge. Courtship feeding on N point.
Common Noddy - Notes cont.

February 20 - ~100 on islet 2:30 p.m. and ~200 on southeast shore and into center of island (a few) and ~100 on north point (all around perimeter, wires, abutments. Total 400 - 500.

February 22 - Seven eggs on islet
February 23 - 15 eggs on islet
February 24 - 20 eggs on islet
February 25 - ~250 birds on islet during morning.

February 27 - New egg, on southeast shore. Possibly 1 to 2 others on north point.

February 28 - Estimate population 400 during day. 700 at night.

February 29 - 26 eggs on islet and one on southeast shore.

March 2 - New egg, on north shore.

March 3 - Area B - 3½ eggs;
Southeast shore - 3
North point - 6
North shore 1
Total 4½

March 4 - Two more eggs on southeast shore, four more on north peninsula.

March 5 - Twenty-one new eggs on islet, total 53.

March 6 - Five new eggs on south shore, nine new on north peninsula.

March 9 - Eggs being laid in a new area as of today, on the east side of the north peninsula. Laying continues on the west side and on the south shore, with a few inland a bit, surrounded by sooties, and on the islet.

March 11 - Eggs being laid on slope leading to peninsula now.

Over 200 eggs total.
April 1 - Three new chicks on islet. A few eggs pipped along south shore.

April 7 - First chick on peninsula.

Gray-back Tern - Banding

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<td>70 - 72</td>
<td>Eggs, north point; release at sea 0700 12 March</td>
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<td>92 - 100</td>
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Gray-back Tern - Notes

January 2 - First two of the year seen.

January 18 - 35 - 40 roosting on north point at night.

January 28 - One egg on range light.

January 31 - 40+ present, roosting nightly on north point.

February 1 - Two (Possibly three) eggs on lagoon end of old dock.

Only one attended.

February 3 - Egg on rangelight gone. One new egg on dock (total three or four). Birds changed roosting site from north point to dock - about fifty at 1 a.m.

February 4 - Birds remained on dock through morning.

February 6 - Population up to ~75. Birds continue to remain through morning, leave about 12. Some have moved to the islet.

February 10 - Population 110+ today. About 15 still present 3 p.m.
February 11 - Three new eggs, on islet.

February 12 - Fourth egg on islet. Total 8.

February 13 - Six eggs now on islet. Total 12

February 17 - 22 " " 7 " eight on dock.

February 20 - 18? " " " fifteen on dock.

February 22 - 32 " " " nineteen " 

February 25 - ~30 birds on dock, 50+ on islet during morning.

February 27 - Thirty-three eggs on islet, twenty-four on dock. Many old ones missing however, perhaps due to high winds. Three eggs on north pt.

February 28 - Estimate population 300, half on dock and half on islet.

February 29 - Sixty eggs on islet, twenty-nine on dock, nine on N pt.

March 3 - First chick, from egg laid on dock Feb. 1 - thirty-one days incubation. Eggs Area B - 12 and 55 Dock 28 E point 2 (new) N point 21 (new nest) 113

March 4 - Second chick on dock. One egg on the soil near the edge of the rocks on the north shore, by the red-foot nest. Two more on the north peninsula.

March 5 - Seventy-seven eggs on south side of islet for first time.

Two eggs on east point gone, probably broken by waves. Eggs continue to be laid at three areas on the islet, and on the north shore and north peninsula on dock. Over 150 eggs now present.

March 12 - Seventeen eggs lost, most of them in the forward area on the west shore of the islet, probably due to high wind and tide in storm of March 10.

March 14 - Sixty-nine of 155 eggs lost due to very high tides. Most
Amerman, Kenneth
1964

of these were lost on the islet; all twenty-seven of those in the forward area lost, plus all of those below the frigates and half of the number on the west side. One chick on islet. Ten of twenty-five eggs on north penninsula also lost since March 9.

March ___—Third chick on dock.

March 18 — Fourth and fifth chicks on dock.

March 19 — Second chick on islet, plus thirty eggs.

March 24 — Eggs continue to be lost on penninsula due to high tides. Only seven now left on western shore. Still increasing slowly on north shore and dock.

March 26 — Only nine eggs remain on islet, two on north penninsula, due to high tides probably resulting from full moon.

Hawaiian Noddy - Banding

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Red-tailed Tropicbird - Banding

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<td>31</td>
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<td>67</td>
<td>Scaevola - D.C.</td>
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</table>
January 19 - One nest with two eggs behind transmitter building.

Bird pin,

January 29 - Incubating bird seems very sickly - crawling with ants, eyes clouded over.

February 2 - New bird incubating - white, different voice.

Maximum number seen on Johnston Island - seven. Two birds banded in bunker, one reported under fuel tank.

Returns

February 8 - Eight on Johnston Island, all in air at north end of runway.

February 10 - Second nest found behind northeast slope.

February 13 - " deserted.

February 16 - Egg in nest No. 2 broken by bird leaving nest.

February 15 - New nest, under dock. Also 5 nests with eggs found on
Amerman, Kenneth

Johnston Island, under vegetation near PMR radar antennas. Eight more birds in air - probably three more nests somewhere. Population at least thirteen.

February 17 - Egg in nest under dock.

February 19 - One bird under fuel tank again. Banded nineteen on Johnston Island, 11 on eggs, three pair.

February 21 - Banded five more on Johnston. Johnston Island population at least thirty-two.

February 25 - New nest with egg in bunker - bird banded there.

February 4 - Three birds at nest 3 - 565-12013, 30, 58. Incubating.

February 27 - Banded seven on Johnston. Two new nests with eggs. One bird painted on Sand flying over Johnston Island.

Three nests with eggs on Sand. Six birds investigating Scaevola bushes in front of D.C. shop during afternoons.

February 29 - 565-12013 on nest 3. 565-12025 on nest 4 (bunker).

Head painted. Changeover on nest 1. (?)

March 3 - Nest 1 unattended 2 p.m. Many Sooties on eggs in immediate vicinity.

March 4 - Two banded, one return, all by D.C. shop. Nest 1 still unattended. No. 26 on nest 4.

March 5 - One observed sitting in a hole in the face of the southeast shore, 11 a.m. Five banded on Johnston. Four chicks - two small, dark. One half again as large, dark, fourth same size as this but light.
March 15 - No. 26 on nest.

March 13 - Johnston - fourteen in air, on ground. Four chicks still present. Their voices are exact miniatures of their parents.

March 13 - One new nest, total down to twelve now. Four chicks doing well, growing very rapidly. Sixteen to eighteen in air, sixteen on ground.

March 19 - One bird which was incubating two eggs last week had one remaining today, with a dead chick beside it.

March 26 - Johnston - Seven flying, twelve on ground, three old chicks, three new chicks, three new eggs; banded five birds. Collected one dead chick which had hatched since the 19th. Seven active nests on south side of runway. No adults with two of old chicks. These chicks now more than 1/3 grown (hatched between February 27 and March 5). Upper back feathers and wing feathers appearing.

March 20 - 22 - New nest, under Scaevola by powerhouse. _____ incubating.

March 30 - First chick on Sand - under dock - laid 2/17 : 42 nd day.

April 3 - Johnston - Fifteen on ground, three old chicks, two new eggs, four or five small chicks. Many eggs have been broken even though well sheltered. We hope our activities have not attracted attention to the nest sites resulting in disturbance.

April 8 - Chick under dock dead. No apparent cause.

April 9 - Egg in bunker hatched.

April 10 - Johnston Island - Ten adults on ground, only three chicks present (one old, one new), four eggs. We were told that someone took the other two chicks from the PMR area. Eggs are still being lost and apparently some of the habitat is being destroyed still.
April 14 - Two new nests, one under fuel tank and one under Scaevola at the corner of the powerhouse. Two birds also investigating a small Meserschmidtia by the small antenna at the barracks end of the causeway. One bird flew out from under the Amaranthus in which the Hawaiian Noddies are nesting when I disturbed it.

April 15 - 565-12017 on nest at corner of powerhouse, 565-12015 under fuel tank, 12022 on nest in front of D.C. shop - all painted blue on head and breast. The bird under the fuel tank left and did not return.

April 16 - Egg under tank broken by early morning, no sign of either bird.

April 17 - Johnston - Thirteen adults on the ground, including a new return from Sand (565-12051) on a new egg by the transmitting building. Three chicks, one nearly fully feathered, and four new eggs plus four old. Fourteen adults flying.

April 21 - New nest, in hole in bank on south shore. Unbanded bird incubating. Both parents had left the chick in the bunker for the first time.

Red-footed Booby - Banding

737-44130 I-U January 30, 1964
31 S-U February 12
35 I-U "
36 I-U "
37 I-U "
38 A-U "
39 I-U "
40 " "
41 S-U "
42 S-U "
43 S-U "
44 S-U "
Red-footed Booby - Breeding cont.

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<tr>
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<tr>
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<tr>
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<td>Subadult -</td>
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Returns

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</table>

Red-footed Booby - Notes

January - February 15 - Population fluctuates 1800 - 2500 nightly, may get as high as 3000.

February 4 - One trying to build a nest 2 feet off ground on reinforcing rods projecting from broken concrete by near guy wire, southeast shore.

February 10 - Same bird continues to try and establish nest.

February 15 - A second bird sitting daily between Frigates and Brown Boobies.

February 19 - Nest seems established on rubber at water's edge. Another site under construction on piling off southeast shore. Occupied first by white adult, then subadult or brown phase.

February 23 - First egg, in nest on hill above Frigates. Scanty nest, acutally just a flattened area.
February 25 - About twenty birds sitting in vicinity of nest one (on hill) by day - many immatures.

February 26 - New nest under construction on northwest shore on broken concrete and rods.

March 2 - Nest along east shore has been washed away.

March 3 - Mate to bird A (737-44150) on nest 1 - (737-44101) - redhead (2).

March 15 - Third egg (nest No. 3)

March 17 - Three new eggs, including one in nest on north shore (4).

March 20 - Eggs three and four missing.

April 21 - Egg 2 pipped. Egg 1 hatched, apparently 7 to 10 days ago.

April 16 - EGG in nest No. 8.

Blue-faced Booby - Banding

737-44132 - Subadult - unknown February 12, 1964
33 adult - male
34 adult - female
59 " unknown 26
62 subadult - unknown March 14
63 subadult - unknown 28
64 adult - ? 29
66 subadult - unknown April 8 islet
67 adult - female " "
68 adult - ? 9 " ; no L leg
69 subadult - unknown " "

Recoveries

737-77103 Adult - unknown February 13, 1964
44300 " ? April 8 islet
558-82880 subadult - unknown April 3, 1964 " Whale, FFS
909 " " " "

Blue-faced Booby

February 15 - Irregular. One to four birds on rocks by whip antenna on various days, only late afternoon - early evening. One to three on islet after dark on occasion.
March 11 - No change. One on island near red-feet occasionally.

One on islet 1 p.m. Tonight.

March 29 - High tides seem to have forced the birds onto the islet.

Seven present there March 28, five tonight.

April 8 - Population has increased eight to ten.

April 13 - Eleven or twelve present. They appear late afternoon - early evening on rocks by whip antenna and guy wire bases. Then many shift to islet after dark.

April 14 - Fifteen counted at 1930.

Brown Booby - Banding

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<th>Age and Sex</th>
<th>Number</th>
<th>Nest number</th>
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### Recoveries

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### Brown Booby - Banding

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<tr>
<td>74</td>
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<td>76</td>
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<td>26</td>
<td>April 13 islet</td>
<td>new mate of 44053, of old 9</td>
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<td>77</td>
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<tr>
<td>88</td>
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</table>
Brown Booby - Notes

January 8 - Beginning of courtship and nest building.
January 23 - First egg.
January 29 - Second egg in same nest.
February 1 - Second nest, with egg. No. 2 February 8.
February 5 - Third nest with egg. No. 2 February 11.
February 6 - Fourth nest with egg.
February 11 - Nest five with egg.
February 12 - Nests 6 and 7 with eggs.
February 24 - Five banded, three returns.
February 25 - One banded, one returns. Fourteen nests.
February 29 - Banded two, one return.
March 1 - Nineteen nests, thirty-three eggs.
March 3 - Twenty-three nests, thirty-eight eggs on island. One incubating a Sooty egg. One nest on islet, on slope, with a Noddy egg.
March 4 - Different ? on nest 9; bill painted.
March 5 - Two more nests on islet; all three have eggs.
March 10 - First chick - egg No. 1.
March 13 - Eggs 2 and 3 hatched.
March 15 - Thirty-five nests, sixty-three eggs, three chicks.
March 19 - Nest 9 abandoned since March 15. The eggs were out of the nest that day, down the hill. We put them back but to no avail.
March 25 - Nest three abandoned after the death of the single chick.
April 11 - Both eggs were found missing in nest 35 on April 9. The male has continued to stand by the nest site so egg No. 28 from nest 13 (popped) was placed in the nest.

April 12 - Bonin found the egg 2 feet down the slope from the nest. He replaced it again but the male carefully picked it up and moved it out of the nest. The egg was again replaced and again removed. The chick was then replaced in nest 13 (after being removed from its shell) and was accepted. Thinking that the fact that the egg was a pipped one might have disturbed the bird, another was tried but it also was rejected. The nest is gradually becoming scattered and the bird will probably soon leave.

The chick from nest 1 has been sitting about 2 feet up from the nest most of the time this week and now has a semblance of a nest on the new spot.

Female No. 11 was present at the new nest 38, begun on the 8th or 9th. This bird was formerly from nest 9 and apparently has remated since the male has no painted number. Nest 9 was deserted March 12 ± 1 days; relaying occurred 27± 4 days later. We had found another female on nest 9, apparently incubating. Perhaps this was related to the subsequent desertion, or perhaps the male did not return, for this or some other reason.
Greater Frigatebird - Banding

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<td>697-69602</td>
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<tr>
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</table>

Greater Frigatebird

Nesting data - charts

March 3 - Egg No. 18, Area B, hatched. Naked chick being brooded by . Egg laid January 7 - 57 days incubation. Banded two today.

March 7 - Chick was down on the rocks below the nest. From its position it is doubtful that it had been pushed or dropped there as the parent took off at our approach. It was also quite cold so it must have
Amerman, Kenneth
1964

been there for some time. We replaced it in the nest.

March 9 - Chick dead by nest.

March 15 - Total of 267 eggs laid so far in area A, 58 in area B (islet), of which 97 and 6 remain, respectively.

March 31 - After not disturbing the birds in Area A for one week 14 eggs were missing or broken (2 of which we removed because they were not being incubated) and 13 new ones had been laid. Most of the losses were in older eggs; only three from 242 on. Probably many more of the old eggs will be lost or will not hatch because they already have been cracked or have gone bad due to not being incubated. Hopefully losses will remain low in the newer ones however.

April 9 - Since last check 21 eggs lost, 34 laid, 99 total present.

Losses continue to be heavy; 13 of the missing eggs were higher than 242.

(Area A)

The first week of March 42 eggs were laid (163-204) and 19 lost. Fifty-two were laid the second week (205-256), 31 the third (257-287), and the last (288-309) [March 22-31]. Losses for the same periods were 23, 30, 29, respectively (18 lost March 22-24).

April 15 - First chick in Area A - egg No. 129, laid February 17 - 55 + 2 days incubation. We have decided to check the colony every 5 days now.

April 20 - The second chick was found in Area A (main colony) - probably egg 140, laid __ days incubation. However, while we were checking the rest of the eggs a female swooped down and carried off the first chick, dropping it rear the water's edge, and then another or the same bird got the new chick as well. Both died, apparently from the impact; we took them as specimens. Eggs in Area A and 49 in Area B were pipped.
Hawaiian Noddy - Notes

February 15 - Population has remained constant since late December. Six to eight birds present at night only (?).

February 20 - Nine present on north point 2:30 p.m. At least one pair (?) seemed to be going through courtship. One would work around the other, shuffling sideways at times, and opening its beak as wide as possible in a sort of jerky "yawn." This bird had black legs and feet, the other's were browner.

February 24 - Single birds and pairs sitting in Amaranthus bushes at various times during the day.

February 27 - At least fourteen birds on island. Four on north point, ten in Amaranthus between Sooty plot 1 and 2. At least six of these paired.

March 2 - Four birds on nests in Amaranthus near Sooty Plot No. 1.
March 10 - First egg.
March 11 - Second egg. Laid between 11:45 - 1 p.m.
March 12 - Third and fourth egg. Four nests.
March 19 - Fifth egg
March 24 - Sixth egg.

April 1 - Two or three sitting in Amaranthus opposite the transmitter building.

April 8 - Seventh egg, same area. Egg No. 1 pipped.
April 9 - Egg No. 2 pipped; No. 1 still has not hatched.
April 12 - Neither egg has yet hatched. No eggs as yet beside the transmitter building.
April 13 - Egg No. 1 hatched.

April 14 - Egg No. 2 hatched 1130. Three and 4 pipped.

April 15 - Egg No. 3 hatched before 1400.

April 16 - Egg No. 4 hatched.

Christmas Island Shearwater - Banding

<table>
<thead>
<tr>
<th>Date</th>
<th>Banded</th>
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<tr>
<td>February 12</td>
<td>514-78020, 21</td>
<td>plywood?</td>
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<tr>
<td>22</td>
<td>grass, N site</td>
<td>19</td>
</tr>
<tr>
<td>23, 24</td>
<td>concrete slab</td>
<td>18</td>
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<td>25</td>
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<tr>
<td>26</td>
<td>East beach</td>
<td>March 6</td>
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<tr>
<td>27, 28</td>
<td>Concrete slab</td>
<td>14</td>
</tr>
<tr>
<td>29</td>
<td>Slab, north beach</td>
<td>29</td>
</tr>
<tr>
<td>30</td>
<td>south of bunker</td>
<td>31</td>
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</tbody>
</table>

Christmas Island Shearwater - Notes

February 3 - First two appeared on island, or slope near brown boobies. One banded (544-10503).

February 10 - At least four present on island. Two returns 514-78009, 10.

February 11 - At least five present at night. New return 514-78006.

Two present during the day, near plywood.

February 12 - Banded two new birds - 514-78020, 21.

February 15 - At least 13 on island. Up to ten present during day.

Courtship activity.

February 18 - Two banded 514-78023, 24.

February 19 - One banded - 514-78022.

February 23 - "   "

February 27 - No birds present during day, two new ones present by 11 p.m.

February 28 - All absent again during whole day. New recovery 6:30 p.m.
February 29 - Numbers 14 and 16 (new) sitting together on top of hill above Brown Boobies in mid-afternoon. One present under concrete slab 7 p.m., one flying around slope, one seen flying in from middle of causeway.

March 5 - Four under concrete slab 1100.

March 14 - Six by concrete slab, two unbanded. Have also noticed that of two pair occupying the site up to now. Two have been under the slab and two outside for the past few nights, perhaps in preparation for egg-laying.

March 25 - A pair had been present under the slab on the north shore during the day for one to two days but were discouraged by high tides.

March 29 - First eggs - one under concrete slab on east shore, one under plywood. Binion said he saw pairs sitting outside each location late last night. Banded one bird by slab on north beach; at least two more unbanded on island.

March 30 - Probably another egg under the concrete slab on the east shore, but the bird is too far back to reach.

April 12 - High tides have apparently destroyed two eggs under the concrete slab on the east shore of the peninsula.

Christmas Island Shearwater Recoveries

<table>
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<th>514-10503</th>
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<td>10</td>
<td>11</td>
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## Wedge-tailed Shearwater - Banding

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<td>615-01101, 45</td>
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<td>29 (34-43 islet)</td>
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<td>46 - 70</td>
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<td>71 - 79</td>
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## Returns and Recoveries

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Returns and Recoveries - Shearwater

565-12515
  137
  414 J
  401
  129
  639 J
  219

March 24, 1964

615-00555 J
  301 J
  432 J
  673 J
  675

565-12706
  71 J
  537 J
  214
  60
  420
  65

615-00549 J
  718 J
  25 J
  49 J
  103 J

Wedge-tailed Shearwater - Notes

March 11 - First birds noted on island (3). Single birds, sitting quietly on the ground. Two in Lepturus below Sooties, one on pond by bunker with Sooties.

March 12 - Three again present, two different.

March 14 - Birds arrive after dark, between 8 and 11.

March 15 - Eight returns; thirteen banded so far - total 21. The same birds are not present each night however. In most cases we have found them once.

March 16 - About 20 on the island 2300-2400. Banded nine, three returns. Two were heard calling for the first time.
Araerman, Kenneth 1964

March 17 - Twenty-five to thirty present 2200-2400. Several sitting among Sooties but fairly near the edges of groups, along the southwest borders of the Sooty populations. A few on North side near Red-footed Booby nest 4, and many on open ground just south of bunker.

March 25 - At least ten pairs sitting at various spots on the periphery of the island - some by bunker, some by Noddies on south shore, some on north beach west of Red-foot - At midmorning. A few were in burrows. We are finding several in burrows at night now. 100+ present each night now, still not the same birds each night.

One was present under the sidewalk by the transmitter building all day yesterday. Some birds arriving well before dark 7:15 - 7:30.

March 29 - 150+ nightly. Many birds we have handled are around but we can't tell now how many from each previous night are present the nest. We wandered out to the islet, found 26 returns and banded ten. Banded 55 more on the rest of the island.

Several pairs remain around nearly all morning now and a few into early afternoon. Many have returned by 7 p.m., a few around 6 - 6:30.

April 6 - At least a few birds apparently remain all day, in burrows and a few on the beach by the bunker. They may leave for an hour or so between 3 and 6 o'clock, and may be feeding just outside the reef as Dave and I noted them doing on the fishing trip. Nightly population 200+.
July 21--USCG LORAN Station, Sand I., Johnston I. Atoll


Birds nesting in vegetation at East end of island, all around transmitter building. Sooty Terns most abundant species present--Amerson says 200,000, though they seem to be decreasing rapidly. A few with eggs, chicks of all stages. None banded yet beyond antenna building.

Common Noddy--around perimeter of island and on sand spit especially. Many of guy wires and concrete piers in daytime; many more come in at night to guy wires, acc. to Amerson.

Frigates present, nesting, with chicks.

Red-footed Booby--with chicks

Brown Booby--with chicks, most more fully developed than Red-foots.

Hawaiian Noddy--a few, on nests 8 - 12" off ground in hedge-like bushes; some with eggs.

Red-tailed Tropicbird--Six adults, two chicks seen. Acc--to Amerson.

chicks nearly ready to leave.

Grey-backed Tern--a few

Wedge-tailed Shearwater--many burrows, many eggs, no chicks yet.

July 23

Wandering tattler--1 in winter, 1 in breeding plumage.

Turnstone--flock of four
Amerman, Kenneth
1963

July 24 -- Turnstone: flock of five

July 29 -- RTTB chick under tank left today. Sooties extend about 60 feet less down road now than at our arrival.

Noddy Tern--I estimate 400-500 present in daytime. About twenty eggs and twenty chicks in various stages seen, all on sand spit. They are larger than Sooty Terns, with thicker legs, longer claws (?), heavier bill with concave curved lower mandible. They do not hold wings above back when alighting, but shake them --three times and quickly close. Sooty does not shake wings.

July 31--Flock of eight Turnstones on road 7 p.m. Also one plover.

August 1--Flock of ten Turnstone seen -- 10 a.m. One Bristle-thighed Curlew seen--3:30 p.m. Two plover seen 7 p.m.


BIRDS BANDED - SAND I. - 07/07/63 - 08/29/63 - 10/23/63

FRIGATE    737-44201 → 47299 (4)
           44301 → 47370 (4)

BROWN BOOBY 737-44001 → 44039

RED-FOOTED BOOBY 737-44101 → 44126

MASKED BOOBY 737-44300, 44400

SOOTY TERN 743-72001 → 74000
           753-1001 → 21300 → 24700 + 59

WEDGE-TAILED SHEARWATER 565-12101 → 12800 → 13000
                     615-00001 → 01000
Amerman, Kenneth
1963

RED-TAILED TROPICBIRD 565-12001--12024
SMAS I. SHEARWATER 514-78001--78019
COMMON NODDY 753-30001--30100 (locals)
HAWAIIAN NODDY 642-01001, 01002, 01003

August 28--Sand Island, Johnston Island Atoll

Arrived here 11:15 a.m. Departed Washington D. C. 8:30 a.m.
August 26 aboard United 827. Arrived in San Francisco 10:40 a.m.
(Pacific time). departed 11:30 a.m. Arrived in Honolulu 1:30 p.m.
(Honolulu time). Departed Hickam AFB 0700 via MATS, Aug. 28.

Binion and Ken brought me up to date on activities here.
They left with me bands, pliers, batteries, gloves, lights, binoculars,
microscope, knee pads, banding schedules, stationary and correspondence
file.

August 29

Binion and Ken left Sand at 11 a.m. I inventoried materials,
finished unpacking, and read over all correspondence and instructions.

August 30

One Golden Plover found in mist net. Finally extricated after some
time, banded and tagged. Will try leaving mist net at ground level;
also may try decoys.

Banded 100 Sooties -- slow going. * 1 Semi-palmated plover seen on
sand spit by old dock -- 4 p.m. Flew off. Discussion on calling from
dock close enough to net.

Shearwaters leave island during day, mostly all have gone by 5:30 a.m.
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<th>SAND ISLAND, JOHNSTON I. ATOLL</th>
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<tbody>
<tr>
<td>Observer</td>
<td>B. AMERIN</td>
</tr>
<tr>
<td>Date</td>
<td>July 22, 1963</td>
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### Weather

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<th>Breeding</th>
<th>Remarks</th>
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<tr>
<td>Black-footed Albatross</td>
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<tr>
<td>Wedge-tailed Shearwater</td>
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<tr>
<td>Christmas I. Shearwater</td>
<td></td>
<td>✓</td>
<td>1000</td>
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<tr>
<td>Audubon's Shearwater</td>
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<td>25</td>
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<tr>
<td>Sooty Petrel</td>
<td></td>
<td>✓</td>
<td>30</td>
</tr>
<tr>
<td>Red-tailed Tropicbird</td>
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</tr>
<tr>
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<td>✓</td>
<td>300</td>
</tr>
<tr>
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<td></td>
<td>✓</td>
<td>300</td>
</tr>
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<td>✓</td>
<td>✓</td>
<td>1000,000 - many leaving</td>
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<td>3</td>
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<td>1000</td>
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<tr>
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<td></td>
<td>✓</td>
<td>512</td>
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<tr>
<td>Fairy Tern</td>
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</tbody>
</table>

*Remark: Permanently only.*
August 31

Banded 200 Sooty Terns. Semi-palmated plover still at same spot. Two fairy Terns flew over twice. One Frigate chick (F2) dead in bad condition. Shorebirds--5 + Golden Plover, 20 - 30 Burnstone. 2 Tattlers.

September 1

Banded 300 Sooty Terns. I estimate 5-6000, perhaps up to 10,000 at night. Between 1 and 2000 in daytime (?)

Definite change in Shearwater behavior since chicks are out. Formerly, one adult in burrow around 7 p.m. Now, none present until dusk (between 7:30 and 8 p.m.). I have not seen them enter burrows to feed chicks. Six chicks, one unhatched egg, in ten marked nests.

Semi-plover still there. Will try to collect it tomorrow.

September 2--Semi-palmated plover appears to have gone.

September 3--Banded 300 Sooties. Three Fairy Terns flew over several times in the morning. Almost succeeded in calling them down close enough to net.

Shearwaters leave around dawn, nearly all have gone by 7:30 a.m. Some are in the burrows at this time. They apparently continue to moan all night, right up to the time they leave in the morning.

One ruddy turnstone was found in the mist net this morning, in bad shape. Both wings rubbed raw. I let it go and found it dead later.

Several of the sailors reported what must have been a Bristle-thighed Curlew today. I did not see it. Other shorebirds--one flock of 13 Turnstone, 7 - 10 plover, 1-2 tattlers.
September 4—Banded 400 Sooties. Those along east shore of island seem to feed earlier than those closer to antenna building or on north corner. When starting work around 8 a.m. everyday, none will disgorge for about first hour. Those that first do seem to give up fish much more than squid.

Fairy Terns (one to three) are regular visitors, fly over three to four times every day. Sometimes roost for short periods on antennas. Always flying toward northeast.

Some shearwaters still present as late as 9 a.m.

September 5—Banded three hundred Sooties.

Shorebirds—one flock nineteen Turnstone, two tattlers, five plus golden plover.

September 6—Did four hundred Sooties. Much easier to catch them in morning anywhere. Many more present then. Much easier to catch them along east shore than further inland, among patches of bare ground. Most difficult of all on slope of north point.

One Red-tailed Tropicbird flew over yesterday, two today; first I had seen them since I returned.

Shorebirds—one flock twenty Turnstone, may be more (+10 ?), 5 + plover, 1 tattler.

September 7—One Red-tailed Tropicbird flew over several times, calling—once after dark.

September 8—Made observations on numbers and breeding status.

Sooties—about 1500 present in daytime, 4-5000 at night. Very few chicks.
<table>
<thead>
<tr>
<th>Species</th>
<th>Abundance</th>
<th>Breeding</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laysan Albatross</td>
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<tr>
<td>Black-footed Albatross</td>
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<tr>
<td>Wedge-tailed Shearwater</td>
<td>✓</td>
<td>✓</td>
<td>May be from 1200-2000</td>
</tr>
<tr>
<td>Christmas I. Shearwater</td>
<td></td>
<td></td>
<td>Last seen - 3 on Aug 31</td>
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<td>Audubon's Shearwater</td>
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<tr>
<td>Bonin I. Petrel</td>
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<td>Phoenix I. Petrel</td>
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<tr>
<td>Sooty Petrel</td>
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<tr>
<td>Red-tailed Tropicbird</td>
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<td></td>
<td>1-5, nearly daily visitors</td>
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<tr>
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<td>2 - occ. visits</td>
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<td>✓</td>
<td>1 75 ± 10</td>
</tr>
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<td>✓</td>
<td>1 200 ± 50</td>
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<td>5-10</td>
</tr>
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<td></td>
<td>1-2</td>
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<tr>
<td>Sandpiper</td>
<td></td>
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<td>Bristle-thighed Curlew</td>
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<td></td>
<td>occ. visiter; total of 4 decade 5000</td>
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<tr>
<td>Sooty Tern</td>
<td>✓</td>
<td></td>
<td>one seen on two occasions</td>
</tr>
<tr>
<td>Gray-backed Tern</td>
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<td>15000</td>
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<tr>
<td>Common Noddy</td>
<td></td>
<td>✓</td>
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<tr>
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<td>Blue-gray Noddy</td>
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<td>✓</td>
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<tr>
<td>Fairy Tern</td>
<td>✓</td>
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<td>1-5 daily visitors</td>
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</tbody>
</table>
Boobies—counted sixty-seventy-five in daytime. Most on offshore markers. Only five adults on land, and one nestling, two immatures. Estimate two-hundred to three hundred at night, many immatures. One Red-footed Booby still on egg.

Noddies—1000 ± 3 p.m., most in puncture vine. Perhaps two to three times this at night, surplus on wires. Many chicks, some eggs.

Frigates—thirteen nestlings. F-8 and F-17 nearby ready to fly. Estimate 200 3 p.m. One hundred on sand spit by old dock, fifty on rest of sand, rest flying. Four hundred (estimate) at night—antenna guy wires filled.

Tropicbirds—one to two fly over once or twice a day.

Fiary Terns—one to five fly over several times a day.

Shearwaters—1500 (estimate). Have found no eggs—all chicks seem to have hatched before I arrived. Still hope to find some to start series.

Shorebirds—Twenty-two to thirty Turnstone, five to eight Golden Plover, one to two tattlers. Have seen no sign of banded plover—has either left or died; probably latter since it was very weak when I removed it from net.

September 9—Three hundred sooties. Extremely hard to catch in daytime—100/2 hours +. Even at night, w/o moon, get two to three of a flock and then have to move.

September 10—Three hundred sooties, two frigates.
September 11—Message arrived 0800 that Chief Giragosian due today 1100.
Did one hundred Sooties 8:30 to 10:50.

Giragosian arrived --1030. Ft. Detrick wants one hundred (100 adult sooty terns, 150 shearwaters. After lunch we made up boxes and changed labels from "shearwater" to "sooty terns". Collected the terns in the afternoon, with the aid of McConnaghy and Charly Hill. All the C. G. personnel are really cooperative. They go out of their way to help us. We had enough cartons but not enough waxed inserts or dividers. We made up some more dividers and used a triple thickness of matting to replace the inserts.

We began collecting shearwaters about 8:15 p.m., again with Mac and Hill helping, as well as Cuthbert. With this gleeful crew we polished off the 150 in about one hour. The Chief and I then tied up the cartons. "secured" at 2300--

September 12—Chief Giragosian departed Sand Island at 1350, with the bird shipment of one hundred terns, 150 shearwaters. Just prior to his departure a message came in requesting an additional 150 shearwaters for Dugway P. G. He sent a message back (Capt. Reeves, Hawa Sea Fron) that this was impossible since there are no more boxes here.

Camera arrived today, along with letter from S. I, copies of progress reports. Two trunks arrived September 11. Two ammo boxes arrived Sept. 10. September 13—One hundred Sooty immatures. These are harder to catch than adults--they will not come near me. Fly away from me when put up, unlike adults. Using disgorged squid from captured adults as bait worked some.
Bristle-thighed Curlew seen—3 p.m.

September 15—Two hundred Sooty Terns, made observations on nests and counts and prepared progress report.

September 16—One hundred Sooty Terns.

Bristle-thighed Curlew seen again, in puddle at this end of causeway, 1 p.m.

September 17—One hundred Sooties. Five red-tailed Tropicbirds flew over, one to two around several times.

Bristle-thighed Curlew in puddle again 8 a.m.

September 18—One hundred Sooties; three frigates banded. Shorebirds—ten golden plover, seventeen turnstone.

September 19—One hundred Sooties, one hundred shearwaters, six Frigates banded. Shipping cartons and inserts arrived.

September 20—Made up boxes for bird shipment on September 25.

September 21 through 25—Banded frigates.

September 26—Collected and boxed 150 shearwaters for shipment. No ticks were seen.

September 27—Shorebirds: twelve plover, thirteen turnstone, one tattler (0930).

Bob Sundell arrived on J. I. —1230. The 0124 flight on which the birds were supposed to leave was cancelled. An attempt was made to get them on the plane on which Bob came in but this failed. Bob contacted Sudduth in Honolulu—1430 and filled him in. Birds were released 1630. Three were already dead by then (18 hours after capture).

Introductions were made and Bob talked with Lt. Hayes.
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<td>Black-footed Albatross</td>
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<tr>
<td>Wedge-tailed Shearwater</td>
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<td>Christmas I. Shearwater</td>
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<tr>
<td>Golden Plover</td>
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<td>Common Noddy</td>
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<td>Blue-footed Noddy</td>
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Time: 10
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<td>Audubon's Shearwater</td>
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<tr>
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<td>√</td>
<td>1-3 fly over almost daily</td>
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<td>75±</td>
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<td>250±</td>
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<td>100-1000</td>
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<td>√</td>
<td>1-2 seen, up to 8 reported</td>
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<tr>
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<td>√</td>
<td>one found dead; 5-7, perfect</td>
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<tr>
<td>Soothing Tern</td>
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<td>100±</td>
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<tr>
<td>Brown-winged Tern</td>
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<tr>
<td>Common Noddy</td>
<td>√</td>
<td>1000-1500; still many eggs</td>
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<td>Hawaiian Noddy</td>
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<td>may be over; uncertainty</td>
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<tr>
<td>Blue-gray Noddy</td>
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<td></td>
</tr>
<tr>
<td>Fairy Tern</td>
<td>√</td>
<td>1-5 daily visit</td>
</tr>
</tbody>
</table>
September 28—Bob and I went on a tour of the island. Two Red-tailed Tropicbirds put on a nice display and nearly landed near the highest area, hovering about 1 foot off the ground several times.

A dead Bristle-thighed Curlew was found along the shore by the old dump. It was in very bad condition, could not be salvaged. This was reported to us by try all. He also claimed to have seen two black and white birds, different from plover or turnstone, by the signal building. He said they flew off toward Johnston.

Noddy by ½ foot pipe hatched.

Five adult Wedge-tails and several chicks have been found dead over the past few days. We wondered if some might be weakened ones we had released but this does not explain previous ones. New dog responsible?

October 1—Sixth Progress Report submitted.

October 3—Fourteen frigate chicks color tagged.

A new species, tentatively identified as a pectoral sand piper, was spotted by Bob around 9 a.m. and collected by Don Beeson. It was stored in the freezer in the Chief's quarters with a golden plover found dead yesterday.

Shorebirds—2 p.m.: Sixteen plover, 14 turnstone, three tattlers.

Two dead immature. Sooty Terns were taken to a Mr. Chaigan of the AEC on Johnston for radioactivity content analysis.

October 4—Bristle-thighed Curlew reported to us by Winchell.

October 5—Curlew reported again, by Dougherty. Again we did not see it.

October 7—Began banding shearwaters again with newly arrived bands. One hundred nestlings done—very time consuming.
October 9--One hundred adult shearwaters banded in area between road to
dump and both shores.

October 9--Two hundred adult shearwaters banded. Many more found in
area covered last night. Second hundred done in area between road to
dump and Xmitter bldg. A few were found with orange tags but no metal bands.

October 10--Two hundred adult shearwaters done in area between road to
dump and Xmitter bldg. Several more with tags and no bands found and
rebanded. Leg sizes vary a good deal; some of the bands newly put on
seemed as if they could slip over the foot. Five hundred adults banded
in area of heaviest previous banding. Cannot estimate whether this
means overlapping populations or a very large number have slipped their
bands and perhaps tags as well. Total population in this area cannot
be more than seven hundred to eight hundred.

Population seems to fluctuate with cycle of moon. For shearwaters,
lowest at time of full moon, then increases again. May merely reflect
different time of returning at night--may come in later at night as moon
gets higher. Bob suggests may reflect behavior of food organism. Longer
feeding time for shearwaters with higher and brighter moon?

For Sooty Terns, population had dwindled to -- ten in day, twenty-

thirty at night. At time of full moon or just after suddenly they jumped
back to bout one hundred at night.

October 13--Two hundred adult shearwaters banded along left side of causeway
and Xmitter bldg. Finding an average of five to six per night (per 200)
with tag and no bands.

Six frigates banded.
<table>
<thead>
<tr>
<th>SPECIES</th>
<th>Abundance</th>
<th>Breeding</th>
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</thead>
<tbody>
<tr>
<td>Laysan Albatross</td>
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<tr>
<td>Black-footed Albatross</td>
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<tr>
<td>Wedge-tailed Shearwater</td>
<td>✓</td>
<td>✓    2000T</td>
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<tr>
<td>Christmas I. Shearwater</td>
<td>✓</td>
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<tr>
<td>Audubon's Shearwater</td>
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<td>Bonin I. Petrel</td>
<td>✓</td>
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<td>Phoenix I. Petrel</td>
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<td>Bulwer's Petrel</td>
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<tr>
<td>Sooty Petrel</td>
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<td></td>
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<tr>
<td>Red-tailed Tropicbird</td>
<td>✓</td>
<td>1-2</td>
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<tr>
<td>White-tailed Tropicbird</td>
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<tr>
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<tr>
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<td>1000 - 250</td>
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<td>Sanderling</td>
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<tr>
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<td>1 reported Oct 4+5</td>
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<tr>
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<td>Brown-winged Tern</td>
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<tr>
<td>Common Noddy</td>
<td>✓</td>
<td>1200 - 1500</td>
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<td>5+</td>
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<tr>
<td>Blue-gray Noddy</td>
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<tr>
<td>Fairy Tern</td>
<td>✓</td>
<td>1-3 over Sand</td>
</tr>
<tr>
<td>Red-tail Sandpiper</td>
<td>✓</td>
<td>1 Oct 3: collected</td>
</tr>
</tbody>
</table>

Note: "Tattler" and "sandpiper" are not standard bird species names.
October 14—Last two hundred adult Wedge-tail bands used, on left of transmitter building and in back of it. Estimate another five hundred to six hundred unbanded adults, 100-200 chicks. Therefore, nineteen hundred banded plus six hundred to eight hundred unbanded and 450 collected gives a total population of 3000‡ (including chicks).

October 15—A semi-palmated plover was seen by Bob on the rocks behind the landing room about 9 a.m. 'Holmes shot it and we prepared the skin immediately.' Another individual of this species was observed by me on October 5, in addition to the one present August 30 - September 1.

Bob said that he saw at least sixteen Fairy Terns on Johnston this afternoon and is sure there are several more. This is more than I have ever seen but Binion's original estimate was about fifty.

October 17—One Red-tailed tropicbird seen in morning. Twelve frigates banded.

October 18—A pintail duck was seen swimming by the seaplane ramp, reported to us by Mr Connaghy. We observed it for a period but did not attempt to collect it. It was later reported swimming toward the other end of the island but we did not see it again.

While working in the pump house a wandering tattler (rather aptly named) wandered inside, back out and in again. It was very thin and weak and could not fly, though no wings were broken. We banded it, gave it some fresh water to drink and attempted to release it at the old dock area but it died in the hand. Band was removed and not recorded.
October 19—Ten Frigates were banded. Also one Turnstone.

October 20—Four frigates, one Red-footed Booby, forty plus noddies banded.

October 21—Five frigates, one Red-footed Booby (immature) banded, plus 30+ noddies.

October 22—Left Sand Island 10:15 p.m. Departed Johnston Island via MATS C-118 for Honolulu 11:30 p.m. Arrived at Hickam AFB 2:30 a.m. Went to Waikiki International Hotel again.

October 23—Called Maryanna 10 a.m. in Washington to find out about Bill’s request for house on Kure. They had not received message. Matter still pending.

Searched out Fleet and Gould, met Warren King. In the afternoon Fleet, King, and I went out to Mokolii Island (Chinaman’s Hat) for a preliminary survey. We waded a distance of 0.3 miles in water averaging about 4 feet deep, from Kualoa Point.

The island is about 0.10 by 0.13 miles. A large, sheer mass of rock in the form of a butte, probably a former volcano core, rises to a height of 206 feet in the center of the island. This structure gives the island the appearance from which it derives its name. The lower slopes rise to a height of about 50 feet and are covered with thick vegetation.

The vegetation includes large masses of Scaevola on the landward side, mixed with a flowering weed called leitana (?). On the seaward side this same weed is mixed with tall grasses and shrubs. There are also a few coconut palms, some prickly-pear cactus, and other types.
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<td>3-100 day, ~600 night</td>
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<tr>
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<tr>
<td>Fairy Tern</td>
<td>✓</td>
<td>1-2 over sand; act 20 on 31</td>
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<tr>
<td>Scopoli's Plover</td>
<td>✓</td>
<td>1 taken Oct 15</td>
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<tr>
<td>Antelope</td>
<td>✓</td>
<td>1 seen, Oct 18</td>
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</table>

P | O | T | O |   |
Location: Motulii Island (Christmas Hut), Oahu

Observer: Fleet, Roxann, KY

Weather: Clear

Date: Oct 23, 1963
Time: 1230 to 1840

<table>
<thead>
<tr>
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<tr>
<td>Sanderling</td>
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<td>Bristle-thighed Curlew</td>
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<td>Fairy Tern</td>
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</table>

Remarks: Mentana, 2-Ends.

Seen by: King
Fifteen Wedge-tailed Shearwaters (nestlings) were found, in burrows (except one). Fourteen of these were in the scaevola - leitana area on the landward side. The other was found on the Northeast slope.

Five White-tailed Tropicbirds were seen from shore, circling around the top of the island.

October 24 --Mokuouia Island

Bob Fleet and I waded to this island from Kalanai Point, arriving at 3:15 p.m. The island lies about 300 feet offshore. Water depth was about 3 feet. The Island is about 1700 feet by 1000 feet. Maximum elevation equals 12 feet (est.).

This is the largest island in the area and is nearly covered with vegetation. There are four smaller islets nearby, all consisting of nearly bare rock. According to a fisherman with whom we talked, much of the vegetation on Mokuouia was planted (by himself).

The vegetation included salt pines, young palms (or palmettos?), sea grape (Messerschmidt bush ?), Scaevola, Portulaca sp., and short grasses.

Forty-four nestling (six to eight weeks) Wedge-tails were found and their burrows marked for future banding. Eight birds were found in Scaevola. The remaining birds were found in burrows in the grass. Most of these were under trees (salt pine or palm). Usually one burrow was located by each tree.

Shorebirds included three plover, three turnstone, and one tattler.
<table>
<thead>
<tr>
<th>SPECIES</th>
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<th>Remarks</th>
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<tr>
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<td>Christmas I. Shearwater</td>
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<td>Audubon’s Shearwater</td>
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<td>Bonin I. Petrel</td>
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<td>Great Frigatebird</td>
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<td>Fairy Tern</td>
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Location: Midway Island, Oahu  
Observer: Jane Doe  
Date: Oct 24, 1967  
Time: 1500 to 1500  
Remarks:  
- Neatly, 6-8 wha.  
- Flying over land mainland
October 25—Popoia Island

Fleet, King and myself waded to Popoia from Alala point, 1200 feet offshore.

Island is approximately 625 feet by 375 feet. Maximum elevation equals 10 feet (est.). Island is eroded volcanic rock nearly covered by vegetation. Many natural cavities in the rock are utilized as burrows.

Thick mats of Portulaca sp. covered about 2/5 of the island. Other vegetation included unidentified shrubs of two types, one high and one low. No Scaevola was found.

This was the most heavily populated island visited so far. Seventy Wedge-tail nestlings were found in the 2/3 of the island which was investigated. There are probably about fifty to seventy more present.

A flock of thirty to forty shorebirds was also present, including plovers (10 est.), turnstone (20 to 30) and tattlers (6).

As we were leaving the island around 6 p.m. we noticed shearwaters returning for the first time.

October 26—Mt. Kaala, Oahu

Mike Ord, president of Hawaii Audubon Society, picked up Warren King and us around 9:30 a.m. We attempted to drive up to the puu moho trail but were turned back because of Army maneuvers in the area (live fire exercises). Mike commented that the military seem invariably to choose to overrun areas where the Drepanidae seem to be holding their own.

As a result, we went about 3000 feet up Mt. Kaala, 2000 feet walking. Even though this was on a new road built for a tracking station, it was very tiring. We managed to see several birds, though none were very abundant, probably due to the recent activity in building the road.
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<tr>
<td>Audubon's Shearwater</td>
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<td>Fairy Tern</td>
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White-eyes were by far the most abundant. They were everywhere. Many more were heard than seen. This was the only bird not new to me—I had seen it Wednesday (October 23) here at the hotel.

Leiothrix were the next most abundant. I got a fairly good view of one. The red bill and yellow throat really stand out.

Elepaio were third in abundance. I saw several of these clearly, adults and immatures (no white on rump). They appeared almost orange—brown, nutmeg colored.

Ama kiki were fairly common. I watched one for some time but it was too distant for me to see the bill clearly. Identity by voice—catbird—like wheeze. Many more heard than seen.

Leiothrix sounds like titmouse with a repetitive call or like an Oriole with a second.

A few apapane were present, again more heard than seen. I caught a glimpse of one, merely a flash of red, black and white as it took off. Couldn't see the bill on this one, though I think I made it out (farsely) on one in flight silhouette.

Two Chinese thrushes were heard, not seen.

October 26—We also went to East Loch (?) of Pearl Harbor. On mud flats there we saw Hawaiian stilts (ten to fifteen), Golden Plovers, Sanderlings, Turnstones, Sharp-tailed Sandpipers, one Dowitcher, Shovellers, American Widgeon (1), both (?) teal, Muscovy duck (2?). In the reeds or cane beyond were flocks of strawberry finches (numerous), rice birds, and manakins (blue bill, black head and throat, brown body). Also present—both doves, mynahs, one coot.
New species: Leiothrix
Elepaio
Amakiki
Apapane
Strawberry finch
Manskin

October 29--Midway Atoll, Sand Island

Departed Honolulu (Nickam AFB) 1130 via Northwest flight N21.
Arrived at Midway Island 1530 (Midway Time) - four hours fifty minutes flight time.

Walked around the island 1800--1900. It was dark at about 1830. By far the commonest bird is the Fairy Tern. I also saw many noddies (Hawaiian ?) and Golden Plovers; one flock of twenty-one Ruddy Turnstone.

I saw what looked like shearwaters or petrels flying low over the ground after dark. Appeared to be dark on upper wings and back, white on breast and abdomen, light underwings; small in size.

October 30--Walked around the island again 0800-0900. In addition to the birds seen yesterday, I also saw five Red-tailed Tropicbirds and at least twenty frigates.

Lt. Com. Herb Kebschull contacted me when I returned to the BOQ and stated that I might get to Kure today.

Departed Midway Island 1330, via U-F ?, arrived on Green Island, Kure Atoll 1400. Bill Wirtz and Jim Ludwig acquainted me with members of the crew and with their current work.

Two shearwater study areas (200 x 200) and a rat study area have been set up. Two observation platforms have been constructed for activity studies. Banding and collecting are going well. Some real strange things nt Petrel (?), skylark, water thrush, Hawaiian are turning up here - Gia
Amerman, Kenneth—Sand I. Midway Atoll--Green I., Kure Atoll 1963

Owl, redhead duck, unidentified duck resembling small scaup (Asiatic?), several sharptailed sandpipers, one pectoral, several unidentified uncollected passerines. Two mist nets have produced about twenty shorebirds in two days.

Saw my first Masked Booby and Bonin Island Petrel today—latter from mist net. Unident. Procellarids on Midway most probably Bonins.

October 31—Jim and Bill took me on a short tour of the study areas. Seventy-three burrows in one corner (50 feet by 50 feet) of one plot.

We then rode around the beach on the flatbed, chauffeured by Gibson. Saw my first albatrosses, Black foots. We banded five. Also saw my first Hawaiian Monk Seals—one group of twelve, another pair and another single. Three new ones were tagged.

Shorebirds caught in mist nets are being weighed and measured.

Jim has demonstrated the preparation of both skins and skeletons.

November 1—Jim and I spent the morning and part of the afternoon plotting one shearwater-petrel study grid and counting burrows. The birds seem to favor the grass clumps or grass-puncture vine associations. They seem to avoid low puncture-vine, but a few are found beneath high clumps. A few are found beneath the clumps of another low-growing, light-green plant. Very few were found in Scaevola. 333 active burrows, 151 inactive, 82 scrapes, average density per slot = 35. Maximum 84 and minimum 3.

Later in the afternoon we rode around looking for seals and gooneys. Four new seals were tagged, new black-footed albatrosses banded, new recoveries. We also missed unbanded birds, making a total of new birds for the day and altogether on the island.
At night we tried some banding but it was still too bright, even though cloudy. 38 total. One frigate upchucked three 2 1/2 inches file fish - first reef fish I have seen as food.

November 2--Saw only previously handled albatrosses on tour of island today.

November 3--I skinned a common noddy in the afternoon. Abominable amount of time to do a fair job at best. Long way to go.

Four new albatross.

November 4--Up early for a day of observations from north tower. Worked at this from 0800 - 1150 and 1320-1630. Jim was simultaneously observing south end of island from radar tower while Bill checked his traps.

Some general notes on activities after one day of observing--no Fairy Terns seen in afternoon: only one noddy seen in early afternoon, then several late (1540). A few frigates were seen soaring over lagoon late in morning; always several in afternoon until - 1600 when activity dropped off. Very little activity from 1300-1500 except frigates and occasional booby, then picked up past this hottest part of day. Much preening all day during molt.

Went out after dark after albatross. Got first Layran, on west beach south of dock, plus largest number of new individuals--over forty. Also got several frigates, ten red-footed boobies.

November 5--Jim and I switched places for another day of observations. Saw about thirty albatross along the beach all day--five just below tower. A pair seemed to be formed early in day when one marked individual replaced an unmarked one after a brief encounter. The pair engaged in bill
rubbing, mutual preening, some bowing, neck stretching and various vocalizations during much of morning, then sat side by side rest of day. This was repeated late in afternoon when a sixth individual joined the group and a second pair was formed.

Yesterday's general observations repeated. Boobies appear to come back in between 3 and 4 p.m. One Fairy Tern observed late in afternoon. Many frigates spread wings while on perches—function?

Great success with albatrosses again—over fifty new birds after dark (inc. recoveries), plus - 20 frigates and boobies.

**November 6**—Another day of bird watching, this time from north tower again. Quite hot and still all day until late afternoon when wind sprang up, shifted.

Several unusual events—saw a sea turtle swim by; two seals playing or mating worked their way from north point past me. No prolonged contact but much nuzzling, rolling over, swimming side by side, etc.

About 1/2 hour before lunch an immature red-footed booby alighted on tower and remained, watching every move I made with neck stretched. Another was present when I returned after lunch and it also remained, for nearly an hour. Both were back about 4:15.

Rain prevented any banding at night.

**November 7**—Rain and strong wind continued all morning. Wind increased in afternoon, with occasional sprinkles.

Jim and I put in a couple of hours each in both morning and afternoon on the towers—he on the north, I on the radar t...
Weather prevented note taking in A. M. General observations—
albatross flying in close all day; always one to four in air. Frigates—
very little activity, never more than two to three in air at once,
mostly just flying around the roost area. Boobies—wind appeared to
knock some from their perches, as one or two would get up just as a
strong gust passed by. Shorebirds in bushes and interior areas all
day, some noted flying around over the island. Much noddy activity low
over the vegetation; one large feeding flock of 60+ individuals plus
another 60+ scattered individuals passed by about 9:45 a.m. Hardly any
on shore all day. Possibly one tropicbird seen far out over the south
end, heading east.

Two seals went cavorting by, 1005.

November 8—After debating whether to put in some more time on the
towers, Bill and I banded from 1030 to 1230 and from 1330 to 1700. Got
172 albatross over 100 of them new bands, rest recoveries. Laysans
have suddenly appeared in numbers, and in the interior parts of the
island, between the runway and beaches.

Also saw many seals up in the edges of the vegetation on the
north and east sides; many untagged. Appeared very sluggish.

Occasional sprinkles, high winds.

November 9—Arose late after heavy date last night. We went out banding
gooseys again, 1600-1700. Laysan's in in even greater numbers; some now
in antenna field and two behind barracks. We got about forty new birds,
getting partly 100 °/o along the west beach and in the interior, missing
many in the dump. This is where the largest group of black-foots seem to be congregating; about forty there today.

Nothing unusual seems to have been drifted in by the storm.

November 10--Six of us went out after noon to tag seals and, hopefully, to weigh several of different sizes. We were using a large tripod supplied by the CG, plus Bill's hoist. Weighed two on the north point. Found that we couldn't keep them strapped to the board since they taper to both ends. The first individual was quite the worse for wear by the time we got straightened around to using a heavy rope sling around the flipper area. The second went much better.

However, we found that this is not the way to weigh seals since the third animal, about 60 pounds heavier than the first two, died. Apparently the weight of the animal put sufficient force on the rope to collapse the lungs. The lung cavity was full of blood when we autopsied her.

Therefore, much to our consternation, we spent the rest of a long day skinning the animal. We saved whole organs when practicable, portions of them in other cases, preserving them in both Bonin's and buffered formalin. The carcass was placed in a wire cage and left to be cleaned in an old road off the west beach to the antenna field. The skin was salted and frozen.

We do not plan to do another seal in the near future. I don't particularly care to see another seal for a week or so.
November 11--Cleaned up the lab in a mad rush about 9 a.m. since a plane was due and it was suspected the Western Area team might be on it (on day early). We finished with only seconds to spare, just in time to see the plane turn back to Midway, unable to land because of trouble with the landing gear. A few moments of tense drama on an island paradise.

November 12--Inspection team arrived about 1000, left about 1530. They seemed rather concerned about the rats, more than anything.

Jim went back on the plane to have his head and thumb looked at. He rather ingloriously smashed into a shutter chasing rats; this didn't satisfy his masochistic impulses so he sliced his thumb with a scalpel. We gave him enough errands to run to keep him from getting too drunk.

Spotted a small teal in the puddle by the fuel tanks and tried to take it whole without success, couldn't spot it again.

Banded one Golden Plover from net, four Bonin Petrels.

November 15--Bill and I banded albatross all day on the north half of the island, concentrating on the Laysans in the rat study area and antenna fields. We got about 150 new birds. Locations were noted in the study area.

Many of the Laysans were sitting on apparent nests and were slow to get off. Many are making the "talking to chick" noises, even those not on or near apparent nests. We saw one pair copulating in the field behind the volley ball court in the afternoon.

Found an unbanded brown booby sitting on two eggs in an old road in the northwest sector of the island.
Saw a Hawaiian short-eared owl four times in the afternoon. First scared it up from field near end of runway, then three more times at different spots as we headed west along the north beach. We believe it is probably resident and we just do not see it often.

At night we collected twenty-six rats and removed ninety ticks from them in response to a request for three hundred by November 22. Using the fish net on them works well in open areas but not in vegetation.

Jim reported one black-foot egg on Midway; also several ducks and shorebirds.

November 15—Jim returned from Midway in the morning, reporting at least three black-foot eggs, twelve ducks. Bonin's slightly fewer than in September, tropicbirds way down, fairy terns same or even more numerous.

Bill went up in the UF to get shots of the island. Hopefully vegetation maps can be made from these.*

Banded albatross in the afternoon. Found three black-foots on eggs here. Fairy terns seem to have disappeared.

November 16—Friday

Spent the day cutting and stamping marker tags 25 feet beach and vegetation stakes and in laying out plots (25 feet by 25 feet) for succession studies. Five of these will be in areas of sparse vegetation and will be checked monthly for growth and development. The remaining five will include all vegetation types and will be stripped of vegetation to observe the regrowth.

Saw a pair of black-foots copulating at the north corner.
November 16—Albatross banding in afternoon. We handled about 260 birds, with the aid of Silock and Gibson. Worked south along runway—east side, and south antenna field.

November 17—Began clearing vegetation plots in afternoon. Nearly finished one in morning glory on west side of runway, south of buildings. Completed another in grass at north end of runway and started a third, in mixed vegetation, along the shore at the same area.

Bill and I banded seventy Laysans and got twenty-nine recoveries behind barracks and in south antenna field before dark. Jim began setting up albatross study nests.

November 18—Bill and I ran the traplines. Weighing each individual in the wind was a real chore. It took us all day. We managed to finish just in time to reset the traps for tomorrow. 151 captures.

November 19—Second day of trapping. 139 captures.

A great many Laysan albatross now in the study area and the rest of the antenna field, most of them unbanded, which is disheartening. We have given up all hope of keeping up with them as they arrive on the island. Many are in pairs now and there is a great deal of the "talking to the chick" calling. So far we have seen very little dancing; what displays we have observed have all been short.

We discovered that most of our ticks have died, which means a great nuisance for us in catching rats and searching them all over again. We caught and killed sixty-three rats this evening and tallied over three ticks from them. They had better remain alive and there had better be a plane Thursday.
November 20--Third day of trapping. 143 captures, one of them a triple again. The weather was much more cooperative today. Very little breeze. We finished about 2:30 and then decided to put metal tags on the end stakes. Finished only the "one" end before time to reset the traps.

Took in the movie for a change--very good, too, surprisingly.

I took a walk up to the south point after supper and found the first Laysan with an egg, just behind a Scaevola clump off the runway at the south end (east side). This was the first time since Staurday I had been along the beach. Many black-foots have eggs now and the whole picture has changed. Most of the individuals remain sitting, even those not on eggs.

November 21--Bill and I finished trapping in good time, before lunch and hauled the traps back to be cleaned. Jim's thumb has been acting up again so he has elected to go to Midway with Bill to get the house over.

Just as they were getting ready word arrived that there would be no plane! The prospect of not being able to get the ticks out caused no end of muttering and rumbling. Bill fired off a message to Kebuschull explaining the situation, to the effect that the ticks had to get out on the Friday log flight to meet personal pickup (by Bushman, who talked to Jim on the ham gear in the morning) in Honolulu. Whether this had any effect we of course don't know, but we got a plane at 5 p.m.

November 22--Rain and high wind most of day prevented working out of doors. Of course the station was buzzing over the shocking news of the President's assassination. Fiddled around most of day discussing this and listening to news. Could not find Jim's birds from Midway in the refrigerator.
Weather cleared up enough in late afternoon to allow me to finish cleaning the grass plot at the end of the runway. Began cleaning rat traps after supper.

November 23—Again no plane. I can imagine the dark clouds gathered around Bill's angry brow on Midway.

Spent most of the afternoon collecting plant samples. Eighteen specimens were taken, though some of the grasses may be identical. Cleaned another batch of rat traps. Most pleasant pastime - it begins to smell and look as though I am starting my own septic tank.

Found an adult of frigate in perfect condition on the road by the transmitter building. Apparently hit antenna guys, resulting in broken back or neck. Skinned the thing in the evening. I am far from satisfied with the results.

November 24—Began taking pictures around beach. Caught an adult tropicbird on the east side and took it back for banding. Plane arrived shortly thereafter, bringing Jim and a Navy doctor - a female, and a commander no less, which turned a few heads, to say the least.

Bill and the house (the whole house!) arrived on a second UF flight (unheard of!).

November 25—National day of mourning prevented us from starting work on the house. Finished taking pictures of the island, except for buildings. Unfinished business - photos of plants and study plots on west side. Also finished rat traps. The grass should flourish where I emptied the barrel!
November 26--With W. O. Wirtz, II as head contractor, we got the framework of the house up and three-fourths of the siding on with very little frustration. Perhaps we can replace the long-suffering M and R crew and study birds on the side.

November 27--Rest of siding and roof put on in the morning. All that remains in trim, finishing touches, and frills. Not bad for three zoologists in one and a half days.

Began painting the wood trim, putting in windows and fitting door in afternoon.

November 28--Thanksgiving

Painting continued plus miscellaneous puttering around on house.

November 29--More of same

November 30--Counters put in at both ends and floor (oops! - deck) painted. Cleanup.

First volley ball game in weeks after supper.

Skinned an immature Red-foot after movie, which Jim finished.

Hopefully, I can now remember how to get the wings, tail and head out myself. The rest of the bird gives me no trouble.

December 1--Jim spent the morning finishing gathering materials for departure to Midway. He found an apparently unmated Laysan on the front lawn, presented it with a black-foot egg, which it sat on briefly after it cleared a depression. Finally the bird left for good.

Jim left for Midway late in the afternoon.
December 2--Went through half of rat area hacking out the trails in the morning. Most of the Laysan's have eggs already. Hopefully, I can find a few which do not, for study nests. Primarily only single birds present, incubating. A few pairs were seen. These apparently will lay eggs very soon or have just laid. A few pairs are still dancing and a few trios and groups of four are standing around together. Many of these birds move around and exchange groups, as well as dancing with several different birds or attempting to do so. These may prove to be the "unemployed" or unmated birds.

Started around beach in afternoon, with object of censusing all albatross on island. Wound up covering only from dock to south point, counting birds and eggs. Counts:

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<td>egg</td>
<td>180</td>
<td>133</td>
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<td>no eggs</td>
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Began moving furniture and supplies into house after dinner.

December 3--Set up twenty-five Laysan albatross study nests in rat area (area A-L). Eleven new recoveries in birds on eggs. Also finished clearing trap lines. Change over on nest No. around noon.

December 4--Began catching up on albatross recoveries. Covered area from dock to south point (beach and interior). Got 115 Laysans, of which 101 were incubating, and 41 Black-foots, 36 on eggs. One Laysan and one Black-foot each had two eggs. About ten abandoned eggs seen, most, if not all, black-foots.
December 5--Continued work on albatross recoveries, covering the west side of the runway below the barracks and the entire east side. With few exceptions unpainted birds in the southern and eastern portions of the island are now unbanded ones. This makes the record keeping somewhat easier. Totals for the day: nine black-foots, four of which were incubating, and 153 Laysans, 110 on eggs.

Roger Clapp arrived on the afternoon flight. We toured the beach from the dock to the north end of the runway before supper.

December 6--Roger and I worked all day on vegetation plots, mapping No.s 1, 2, 4, and 1/5 of No. 3. Measurements are very subjective and variable, probably non-repeateable. Much difficulty in deciding what to measure (which plants and which parts of plants), especially in areas with much young grass.

At Roger's suggestion we went through the north antenna field recording all Masked Booby bands. This is a good idea for several reasons--any new individuals in the population can be recorded; it gives an accurate picture of numbers present and of sex composition; the birds are marked for further study. Males were painted with a stripe across the head, females with a spot, and unknowns with a central stripe. This procedure should probably be repeated every three months. The results of the evening's work are as follows: two new bands (737, 47001, A-U, and 47002, A-F); 101 recoveries (13 juvenile, 40 c, 37 ?, 11 U). Roger remarked about the birds' reluctance to vocalize, at least in the hand, which led to the high number of unidentifiable birds.
December 7—Slept in for once. Miserable weather spoiled the scheduled luau. It was held anyway, inside, and was still most pleasant and tasty.

Roger banded thirty-six albatross along west beach North of dock while I worked on records, etc. Eighteen recoveries.

December 8—Nasty weather continuing. Drenching showers and high winds all through day. Banded eighty-five albatross, with twenty-four new recoveries.

December 9—Banded albatross all day in southern half of island—251 Laysans, 21 Black-footed. Thirteen Black-foot recoveries, twenty-nine Laysans.

Banded Bonin Petrels in the evening, in and around shearwater Area A (north antenna field). Noticed about ten to twenty more Masked-boobies which we missed on December 6. Also, there were several unbanded Brown Boobies along the edge of the Scaevola and in a broad road or cut heading toward the west beach.

Two Red-tailed Tropicbirds observed flying around in the afternoon.

December 10—Spent the morning nailing the roof more firmly in place with eight to ten 2 by 4 footers. Had torn loose a little on Sunday with winds of only twenty to thirty knots: they reach 50 to 60 in winter.

Attempted to raise the north observation tower back in place without success, then tried to complete mapping vegetation plot No. 3. Rain prevented our finishing the last five foot square.

Rain at night also prevented further banding and recovery efforts on boobies and Bonin Petrels.
Two groups of three tropicbirds were observed in early afternoon and a seventh individual was reported by one of the M and R crew.

December 11—Dr. Fisher and Dr. Pettingill arrived on log flight about 8:30. We set to work capturing two small live seals which Dr. Fisher was procuring for the Honolulu Aquarium. This task was accomplished by 10:30. One individual was taken off the south point and another at the southern end of the Scaevola on the east side of the runway. They were left in the cages by the road to the barracks until the plane returned.

While capturing the seals we observed an unusual large (yellow-legs size) shorebird by the dump. It was long-legged and long-necked, unmarked gray except for slight white V on rump. Roger went to collect it before lunch, returned resembling a Cheshire cat. Further notes - legs gray or slight greenish gray, bill black and as long as head; weight - 180 gms.

Spent the rest of the day finishing records and running around like a maniac collecting gear for departure. Departed Green Island, Kure Atoll, at 5 p.m. aboard log flight with Drs. Fisher and Pettingill and seals (phew!).

The seal taken from the south point had died suddenly between 4 and 5 p.m. We transported it to Midway and Jim and I autopsied it after supper. Seemed to have blood in chest cavity, but not nearly as much as first seal we killed. Jim believed the intestine was ruptured also. Left the skin to soak and went looking for ducks on puddles in overrun. Scared up one pintail (?) and three teal-sized individuals but were unable to get them with lights alone.
December 12—Jim and I finished the seal in the morning. Carcass left in cage in Casuarinas in overrun. Skin salted and frozen. Kidneys were preserved in formalin.

Collected insects in the afternoon, then went to Happy Hour at the "O" club. Night off. (Not as necessary result of preceding).

December 13—Day more or less shot due to intermittent showers and preparations for my departure. Jim explained the set up on Midway, for future reference. Also worked up some skeletons.

Left Midway for Honolulu 5:30 p.m., (Midway time) arrived Honolulu 10:30 p.m. (Hawaii time).

Secured some dry ice from Air Force personnel at Hickam. United flight-kitchen freezers are not available for our use.

December 14 - 15—Left Honolulu via United flight 84, 11:55 p.m. (H. t.).

Arrived San Francisco 6:30 a.m. (Pacific time), departed 9:15 a.m. for Washington, flight 608 arrived 4:35 p.m. (EST).
Oct 10. Rtoll sighted about 0745. Great increase in number of birds this morning.
Good numbers of Red-foot, Fairy Terns and Blue-gray Noddies. Arrived off the Unnamed passage opposite Shelly Island about 1000.
Tide on its way out. We cruised around the edge of the reef for a short while, looking for other passages or anchorage. Finding neither, we returned to the channel after pulling our raft over with Mr. Ashton, Jim, and Al. They inspected the reef at close range and took soundings. Saw several sharks. Amazingly, sharp drop-off outside the reef - 135 fathoms about 100 yards out - no anchorage.
Saw my first Lessa Frigate, flying over the ship and Reef Terns (4, white phase), standing on the reef, oddly enough.
We drifted for 3 hours and the raft tried the channel again about 1530, making it through with no difficulty. Other raft in water and loaded, then the first, before 1630. We aboard and started for island at 1700, landing at 1740. Camp set up before dark. Roger, Larry, and George went NE while Binnion, Chris, and I went SW after Red-footed and Fairy Terns. Red-foot scattered, most within reach.
Through Scavola and Messor schmidlinii. Perhaps
5 Blue-faced were found on the west side, which is littered with rocks, shell rubble, boards and yes, fresh falls. About 20 Brown Boobies were banded along this same stretch. Three or four Red-tailed Tropic birds were found, one with egg, one with 2-3 day old chick. Numbers of Blue-faced increased roughly along the east shore, with many pairs, one immature and one egg. Red-footed also in greater concentration, 6-7 in a tree.

Returned to camp at midnight. Banding totals: 150 Red-footed, 74 Brown, Blue-faced, 7 Fairy Terns. The other team got 2 1/2 Red-footed and about 10 Blue-faced.

Many rats and harelip crabs. Only about 5 Noddies seen or heard. Frigate scattered throughout, nests mainly along east side, with 1/4-1/2 brown chicks. Some Red-footed on eggs.

Oct 11. Slept badly, got up about 0745 v wrote notes. Two groups of chicks reported by the early risers. Also a few Hawaiian Noddies. Saw my first Crested Terns on rocks at the water’s edge in front of camp. At last – real terns! Gray wings v back, black cap, large yellow bill.

Roger, Larry & I headed SW after breakfast (0900) to survey collected shorebirds, etc. Larry banded Tropic birds along the way. Saw 2 Crested Terns on open
and at one of the cuts. Saw 1-7 Black-billed Terns in the same area - they are indistinguishable from Fairy Terns at more than a slight distance. Call much different. Collected one on the way back.

Saw perhaps 15 Reef Herons, only 1-2 of which were solid white like the ones first seen on the reef yesterday. Two - three solid dark, 4 white with mottled black on back v wings and 2-3 dark body and proximal 1/2-1/3 wings, wing tips white, 1 dark body v solid white wings.

Walked to the end of Potak, turned back in order to return to camp for 1500 radio check. No vegetation on island beyond, only large rocks v boulders. Frigate roosting on these. Reef is very close at this point, island very hazy due to spray.

Coming back along east shore, collected one Bustle Thigh. Saw one medium sized shorebird with dark wing tips, long call. Did not view it through glasses, however I thought it had a light camp. Perhaps a godwit? Roger thought he saw another unidentified small shorebird; humpy reported another a Sandpiper but we couldn't find it.

returned to camp about 1330 - The other
group returned about 1630. They walked to the end of the next island and report clouds of terns over the one beyond. Other data: 7 Crested Terns on eggs, 3 more Blue-faced Booby eggs, 7-8 Black-naped Terns, an area of sheenwater furrows, many fish balls, poles, etc. from 3 wrecks, one only about 2-3 years old; Japanese survival shelter.

The supper and then set to moving our tent as it had collapsed several times during the afternoon in rain and wind. Everyone very tired, to bed about 10. No landing tonight.

Oct 12: Up about 7. Phil & I walked NE along the west beach collecting plants, then cut across the island at the point of the Japanese survival shelter. Finally got to see the other two wrecks. Both headed right for the beach, only about 100 yards out. Beach littered with lumber, fish balls, shoes, odds & ends of ship life. Thoughts about the feelings of the man aboard at the moment of reality after panic & after. How do these ships run up like this?

Returned to camp around 11. Collected 10 species of plants: Scirpus, Massarichina: form the main strand vegetation, being much dense and taller and in a wider belt.
on the east (ocean) side, Sida and 勿論 constitute the main part of the herbaceous ground cover, in patches, between the high vegetation where it is discontinuous on the west side. These patches reach to about the middle of the island, sometimes further. Other plants include Scaevola and a grass, possibly Sacrostema, as well as another herbaceous type, another vine and a single large tree.

Six of us departed camp in the rafts for Karon on about 1330, leaving Roger behind. We landed on the island about 1345. One raft went off briefly to explore the next island. We found the Sida trees and udekau, which were nesting on shelty, in good number. There are large areas of grass along the west side of the island, backed by a belt of Sida and grass. The Scaevola and 青鞋木 cover the eastern third of the island, being quite open on the west and dense adjacent to the east beach.

Fairy Terns very numerous here, even more so on the next (north) island. Perhaps 13 of the population nesting, half with eggs and half with chicks of all stages. Red-footed
and frigates also in large numbers, many nests. Most red-footed 1ad eggs. Found two brown phase nesting, one with a day old chick, the only chick I saw. Frigates and eggs + young up to half grown. A few common noddies were scattered about. Several were immatures and 2 saw one ½ grown chick.

Began banding shortly after 2000. Larry and I did Wedgeheads, the others Scott, Ernie. I could do only 200 Wedgeheads in 4 hours. They were very thinly distributed and I got lost several times. Larry set out about 2200 after these birds.

I finished my last four Wedgeheads in the rain. Simon, Phil & Chris had returned by this time and steered past me to the small Scavola bush about 100 yards from camp - the only one around. About five minutes later I managed to find the bush in the downpour, soaking wet.

Oct 13. We could hardly have suspected the siege we were about to be subjected to, from this humble beginning. We thus began the most miserable night I have ever spent, with no exaggeration. The rain continued off 1 on, mostly on and mostly hard, from midnight to about 0400. We had no shelter other than the
one 4' high x 5' wide Scareola. Binson & I were in tee-shirts and that was little better off in a short-sleeved shirt. Phil could hardly walk because his feet were badly cut up by sand. We made several forages for firewood and succeeded in keeping a good fire going throughout, which proved to be the one saving factor. The rain poured, the wind blew and we stood and sat and shuddered and shivered, one side hot and the other icy, for four ridiculous hours. It stopped then. Until 6:30, long enough for us to get warm. Almost.

It began again. Slowly. We departed Kamome with no misgivings. Shortly after 7. And it got worse. For another hour and a half we inched across the water, almost finely in as heavy a downpour as we could get.

At 8:30 we reached camp again. Not quite as cozy as a beach - rug. But dry, and a place to sleep as we thought. Hoped. In vain. The tent floor was under 2 inches of water, tents & air mattresses and anything in the open were soaked.

One might say we gave up in disgust at that point. At any rate, we stood around shivering and attempting to dry off (which was somewhat difficult since it was raining inside...
The tents, too, and provisions finally decided to abandon the effort. If it continued raining nothing could be accomplished and even if it stopped the equipment probably could not be dried out, which meant no sleep for at least three of us who had had but little sleep the night before.

Therefore, with no regrets, we departed Taongi at 1500 on the 13th. Ship was underway by 1700.

Oct. 14 Arrived off Bikua 0751 0900. Capt. Knoll took the ship in to view the passage, then down past Bikua Island in hopes of finding a closer route in and perhaps an anchorage, again in vain. After nearly 12 hours of sleep I awoke feeling miserable but by afternoon the aches and pains discovered in the soft bed had worn off and I felt quite energetic. Realized that on this trip and even the last to Hayvan the first 200 had become to get cleaned and warm, rather than to sleep.

Left the ship in very calm seas and had an easy passage into the lagoon and to Bikua Island. Camp set up near the center of the NE shore.

First coconut palms encountered here. Fowlers says they were planted by Marshall's who formerly made periodic trips here to harvest turtles and birds, always being careful not to disturb too many. Interesting that most
"primitive" societies that live in such close contact with nature must are wise enough not to mistreat it.

This atoll differs from Tarongi in that the islands are smaller but the vegetation is much more lush. The center is occupied by Pisonia forest 35'-40' tall. Messoreschridia occurs outside this, being 20' tall on the interior and gradually diminishing toward the shore where it becomes mixed with Scaevola. Cocoanuts in one grove at the NW end, plus two trees at the SE end. Two Pandanus (Pandanus) near the coconut grove. Short grass occurs around the perimeter beneath Scaevola + Messoreschridia. A small succulent also occurs there, more on the SE + SW sides. Two vines, one trifoliolate and the other red-backed, complete the plant species present.

Heated till dark, then went out after boobies and anything else we could get. Banded<br>Brown, Red-footed, Frigate. Most quite high. To bed by 2200.

Oct 15. Rain during the night, continued today added from 0700 - 1130. No exploratory trip to the other islands as planned.

Waded around the island in daylight as the rain stopped. Can find as White-tail Tropicbird rests, though at least 2 have been in the air at once.
After the meal cooked we proceeded
the surf ahead in front of cargo and
caught the fish. Many of them were at
Sand Martin, and there were even large
sharks. We found the butterfly species
appeared in the field. About 45 species
in all, quite a beautiful array of fish.

After supper we went after shell
samples. Only 2 inner Bourbon were found,
in contrast to the dozen or so the night
before. Perhaps they have moved to one
of the other islands or to the rocks along
the reef, only 8 samples found.

Oct 16. Another distant launch
left soon in the morning
1000. We heard the
bark from the boat
at 1000
Tobacco
Cay only 30
who were to
come on.

The sun was at
the horizon
The wind was
from the east
The current
was from the
west.
Roger v. I walked around judiciously before camp was set up. Found about 50 Brown Bobbies just under the edge of the forest, mainly on the east side, in sandy loam along on the small island off the U.C. coast, estimated 200 adults + 500 chicks present with brief glance. A group of Great blue herons was in the center of the sanctuary, apparently resting. About 15 Masked Bobby nests were found on the flint area of grass - Molokai (4) on the island, next near the edge of the forest.

After setting up camp Roger v. went over to Kauai to survey it while the others toured our island. Found 18 Masked Bobbies, with nests, on the east side in gravel area, similar to that on Kauai. Masked nests in gravel. Roger went through the interior, spending a tremendous amount of time there. In addition, saw a group of Amurian black bears, some 200 adults and 500-600 cubs, and one hoofed Okinawan Piglet, and an adult, also found a number of various flowers such as hawa-nani, Maile, and another. In the interior were many colorful flowers, cloths of various colors, and many species of various plants. The interior was quite different than that of the exterior, with large rocks protruding anywhere, and the sand was not as abundant as in the exterior. The exterior was covered with various species. Some birds?

Wild conch shells on the beach, and from there, nesting on remnants of some other.
Team reported one White-tailed Tropic bird nest in a hollow in a tree inside the forest, about 6' off the ground.

Roger: I found two Woodpecker chicks near the masked booby nesting area. First record of Woodpecker for the island.

After supper we all went out after boobies. Banded 62 red-footed, 61 brown and 57 masked. Surprising number of brownes inside the forest, some quite deep, a few masked also inside.

Finished the circuit of Isotarea by 240. Roger, Barry, Brian, George W then went to Cammara for booby. Found a huge clump of about 100-150 masked on the east side, decided to wait until after the moon rose down to go after them. Went completely around the island including most of the forest and banded over 600 red-footed, masked, brownes, Forster's. Saw at least 3 Red-footed Tropic birds deep within the forest and one Forster's on an egg.

Collected one male Woodpecker from one of the red-tailed woodpecker branches in the day.

Roger reports that a group of twenty Fowls just before 6am ready in the mangroves at the SW end of the island. They remained in the mangrove about noon.
culling until well after dark. There appeared to be perhaps 500 in the group. They grew silent about 1 A.M. and may even have left at this time, perhaps without landing. They were never observed on the ground though they may have been scared up by one shot from a distance.

Oct 17. Up about 0.30. Patted around for awhile, then George & I went up to band Footy tern chicks. Died 00 between us from 1100 - 1330.

Most 10-20 days old. Found 20 Crested tern eggs and 28 chicks. The eggs resemble footies' but are larger and the spots not "mottled." The chick is all white, pink feet & bills. Looked like an albino 5000 chick except for the larger, thicker bill.

Went for a short swim to wash off the footy tern quine. The chicks imitate their parents soon after at the earliest possible age. Water actually hot, warmer than even I like it.

After back we descended on minors on the footies again, first trying the club on minors with almost no success, then bombarding the frontal edge and smashing them the descending birds with poles & nets.

Returned to hove bare 2100. George & I went up to the tern colony and banded 700 more chicks after finding it impossible
To get some notable evidence of the moon. The others continued after two days, taking blood samples as well. Finished about 12:15 A.M.

Oct 13. Straightened up camp in the morning and packed some gear to be returned to the ship. Roger was off banding forty ducks again. Old Phil and George were working on units. Then Brian and I went after blood samples from twenty turkeys. Got sixteen, but only four suitable, 3 of which we collected.

Roger found the forty, banding enough going, went after forty turkeys and Tropicbrids. Collected one fairy trout. Lucky collected 1 white-tailed Tropicbird. By climbing around in the forest he has found at least six nests.

Great dinner from the ship - fresh chicken, cranberry sauce, baked, biscuits, honey and hot soup. Do it Tuesday.

Washed through the fields from Pheasant Island in the afternoon, wrapping them in cheesecloth to pack in ground-hog ice. Then to writing later.

A week after that we were banding other turkeys again, shooting on Macquarie they didn’t succeed with. Between brain fever had wrapped to then finally a hundred red-jack as humans abroad. Unfortunately in reality, we had only one last thing
J. Amsden

1964

Balaclava

of 20 bands, do we need a quick circuit
of Palawan, and returned by 10:45.
Last night's high tide was higher than
any so far, forcing us to remove the
raft from the high dry portion of the
sand bar. Second raft came in at 0730
(after leaving ship 0600). All gear
aboard ship by 0830, underway towards
Batan.

The ride out the channel was very
enjoyable. Both sides of the passage
formed a continuous waterfall about
a foot high, with the water pouring
off the reef, and the point had the
appearance of an ice sheet.

Died laundry helmed in passing
through watch from 1218 - 1800. Full day,
very satisfying.

Began to notice the water in these
depths appear tinge blue, then changes
to the翡翠blue green as you
got nearer. This was noticed in the
approach to Tahan Atoll.

Sighted the Atoll about 14:30 off the
passage by 1600 and inside the Atoll
by 1715. Very fine breeze at one, mostly
trade, a few Northerly in vicinity.

One feeding flock of red-footed about 130.
Sailed the night aboard ship.

At 22. Up at 06.00. Roger, Philo & went in one
craft to Black and Black Islands, leaving
the ship about 07.30 and returning at 11.30.
While Black, Simon & Billy went to Tobacco
and bojes and挑衅ues.

No vegetation exists on Black. About
the Black-raped towns and an equal number
of Naupuan outlets were sounding on the
northern and S. outlet. Poiic were finding
in the exposed west flats on the north
common goods. One goods turtle was
found, but was being devoured by lizard
crabs. Another turtle was swimming along
the rocks of the Black Rock. It apparently
had committed suicide on the same or gardens
had had an indecent brown island 2, as
it was boiling and meanly swimming
continuously on this island. Poiic water
sharkone, touched off west of the island
of the island.

The island operated inhabited by one native
brown crab, as there were mainly done than
previously seen. They include lizards (very
shells, crabs, brown shells). It would
be interesting to check number of weeks.

On Black, which district within
hundreds kilometers roundabout, we found
numbers of Guindy Town and Matthewia.
Moluccas and a few Common Moluccas. Our 3 estimates of Fairy Norns and Hawaiian Norns ranged from 1500-2000 and 500-1000, respectively. Two red-tailed tropicbirds were seen in the air. Both norniks were resting, with eggs in hand. No flying terns were seen and no boobies or frigatebirds were found with the exception of 1 brown flying past.\\n
Clark & 3 Browns roosting on Bodua.\\n
Found the first butterflies of the trip on Clark. I thought at first there were two species but closer study it is only several sub-species. One size is purplish with a blueish-white spot on each wing. The other is tan, black-spotted white. and resembles one of the admiral group of a painted lady.\\n
New plants, case - another low upright plant and a bleeding tree. The latter is possibly Darwinia.\\n
In the afternoon were all visited.\\n
Takai declared for about 1 hour, but it is so far the most pleasant and picturesque island we have visited, most water and ornithology on this island are due to a long settlement of Darwin's Parrots. The Project: Andrew? Half of island planted to coconut which are harvesting now captured by the natives from Oceania.
A mile N. Many Pandanus trees are mixed in with the crescents. Pandanus, which reminds me of agave, occurs on the two ends. Many new plants grow here, including a large tree with large round leaves of deep green and a white tubular flower. Hibiscus, a fern, and a passion vine. The East beach is covered almost exclusively by Pandanus, resembling the many much of Kure.

There is also a large (6") grape here, dark greenish above, yellow below, which grows about the coconut trunks.

A colony of fruit bees is located on the gently sloping country. We thought we saw one of them this morning as a big, chunky, black was flying between the two. Perhaps we missed it. They were very busy, flying from one blossom to another, taking off and landing in rapid succession. They were not on eggs and going up to a nest.

On this side the forest, there were very few trees on the island. These Fairy Pines were shut. A strange phenomenon was seen but reddish the morning was calm. The gale force breeze has broken loose this morning on Dalba. If we go to GitHub, it is...
After a factored or easy-minded I could guess Nazca. The other team who prepared a brown body which is not point, which would mean it is from Bikan.

We left Bikan with dust and spent the night ashore. The body drinks are too young to land and the animals perfectly cannot be got with the moon up all night until full moon.

Late in the afternoon most of the island crew came in and the island and reported a sailboat reached this way from Lititlack.

We watched it move around the reef and left it in rain and darkness. It went on by the ship with the island about 8 P.M.

Oct 21. Rain most of the day kept us aboard and none we can not heard for hours here. We claimed some in the afternoon.

Curiosity prevented all day over the activities of the natives on the island.

In late afternoon they landed the island and all went ashore to the young son. But they started around our cliff and led up at the captain's invitation.

Of the few we spoke quite passable English, some indicated a good lack of information from him about the islands, though in some cases it perhaps cannot be relied on since he often misunderstood.
our specimens. He reports wedgeheads on looting and is quite pointed after seeing one of our specimens.

Among the items of trading for shells and tools and headbands it was possible to gain many notes about the natives. Bundy, the English-speaking member of the group, is apparently fairly perceptive by local standards. He seems an apt急于 (like one they were using), one of nice ototuk, for which he paid $375 which he accumulated in a year. His father owns all of Kotomolle and the store on Utirik. He is interested in getting a 10 Hp outboard like ours.

The group appeared rather aloof, as if they had never had the sight of an Amazon and Atlantic. They went tonight on the last night gathering shells for trading. Money is almost apparently valued through copper. Tools, probably some kind of axe were the tribute they gave them three times during their stay of 6 weeks. One half of copper was for a tan each. They themselves are equipped partly by two cans.

Bundy was educated for 3 years at Meafou. There is an American school on Utirik. Many of the children have two heads.
The trip to Bikini Atoll is planned to salvage wood from the wrecked Japanese fishing vessels for houses. The present population is about 275.

The people are fond of birds and bird eggs. They visited Taka about a month ago and harvested a large number of eggs, and cooked up some Scotty Teems last night.

We have a promise to be shown the scuba tanks tomorrow and possibly we may feast on fresh-caught Dapin lobster.

Roger's binion saw a bird resembling a NASCAR fly past the ship this afternoon and Roger reports an orange-tailed Brown Booby!

Oct 23: Left ship around 0830 for Taka Island, except Mike, Roger who went to Club to collect scuba.

picked up net traps, catching 8 out of 25 - first successful trapping. We took blood sample, wound up pooling all eight due to the ridiculous 2-3 drops supplied by each.

Proceed to collect fish along the margin of the coral reef off the island, taking advantage of the low tide. Still very precious going - coral
very quiet and enjoyable, not broken by landfall.
progress as at 10 a.m., and write without
as I do along the shore. Tradescant in the
area; the Marshalls are bent on hunting. We spent
some time during this operation hunting
better claim shells, 18" to 20" long, off
the bow of the raft. May have torn
the raft in the process.
I collected plants until 11 a.m. While
waiting for dinner at the Society Farm colony
I saw a turkentine with a definite red
mark in the flanks of its head. The colony's George,
Roger and I spent the rest of the afternoon
chasing it around the island, all of us got
good looks at the bird and agree it looks
like an American individual though we are
rarely close enough to be a thorough
hunting. This bird we came across the
strange sandpiper formed the first day
and George readily proposed it. We
unfairly stuck together except for an
occasional sandwich, smoke or white bread, as
contrary to bright yellow-legs, moderate
beider is nearly identical in the beak and
Resembled totter in other respects. Though
visual, voice is similar to that of Totter.
with many young plants of both. This area
is very open and has a partial cover
consisting mainly of Veronica persica
and a self-sown upright herb, possibly
Oxytropis. Near the center of the island
are some small rocks without walls used
by the natives for shelter when they
come here to harvest ephedra. This area
has perhaps the most diverse plant life,
with scattered hippeastrum, crassulas,
Dimorphotheca and Boscovichia (buffand rosy
moundleaves) and some ferns, pteridophytes.
South of these there occur patches of
hippeastrum, Dimorphotheca and Boscovichia. Also
in this zone are Senecio, Lagenaria, together
with many seedlings, scattered
along the central stream, and a large
tree with broad round leaves and frequent
tuberous white flowers (Marinda? Anostephia?)
which occur only near the stream.

Next to the stream lies a belt of
dunes, sometimes extremely high and
covered with saltbush. There was
some Senecio, Lagenaria in this area. The ground
becomes very poor and dunes are deeper growing,
consisting primarily of grass and Flourens'\nDipterocarpaceae. The most important plant species, possibly
including Boscovichia, Senecio, and Senecio
up to 6' in height.

South of this zone there is mixed forest
of Scaevola, Messerschmidtia, probably Pisonia. Flengo 3 continues to be the main ground cover, mixed with grasses & Brachia. The second species of Brachia (Ground-leafed) occurs here in small amounts.

The vegetation fronting on the beach of Tenno other beaches consists of the unidentified broadleaf, Scaevola, & Messerschmidtia on the sides, in that order of importance. The broadleaf is almost lacking on the Tenno sides. These plants form a dense tangle, with little or no ground plants beneath.

The northeast and southwest corners are occupied by Scaevola. This occurs along the margins of the beach rock, in front of the Scaevola & Messerschmidtia. The densest area is on the northeast corner. It is mixed with Scaevola, Messerschmidtia, some Leptim & Portulaca in the Scaevol colony.

Oct 28. Up at 6:00 for a quick trip to Lopiron seeking Wedgetails. We stopped Roger & Barry on Takai for a last chance at the turnstone. Roger & I walked the shore of Lopiron in search of it also, while Birini & Bill sought the phalaropes. They were more successful than we, finding 5 chicks, one of which they collected.
Returned to the ship by 0130, underway by 0530 and out of the cyclone by 0900.

Arrived off Java Island late in the afternoon, all ashore and their lift for the island prepared to spend the night. Set out and topped, Brown set up his insect light. Kingsley had climbed the shore before dark looking for insects. After dark we all walked around the edge of the regulation. Bare 3 feet, foot, 3 Brown, a few large trees on the outside and many in the interior. Quite impossibly high. Having found a turtle, the first we have seen this entire day. They are as grandiose and somehow magnificent as life as on film. To dead about 300 under an open tarpaulin shelter over which we spread a tent. Days, steps, having bought 2000 Turak Queen on the beach to avoid the mosquitoes' rest but came running back about 10 in the middle of a flower, butter, butter, no one seeing around 3 in the morning. The whole causing some excitement.

Oldly up, worked a few plants we had not seen before, kept June 12, morning around 13.
The trip to Tunku was successful. We
arrived in mid-afternoon and were greeted
by a native from whom we learned our
ship anchored. They laid off our native briefly,
constantly coming back and reporting. We
made a quick trip into Tunku Island on
the south side of the entrance, collecting
seaweed and selling tankas. The natives
permitted us in and we found the old
man could speak a tiny bit of English.
The other five of the crew apparently were
his sons. They seemed to enjoy watching
our activities.

We returned to the ship in time for
lunch and the captain the night before on
Tunku are such, Finally, Tunku and Tunku
on hoj.

Oct 15: Quaint trip to the Tunku island breakfast.
Caught some fish. Solved Tunku taken
open completely, returned back on native's
belonging to ship for more to
Tunku and put it north on the upper side
of the pass. Much activity in the acquisition
here, including a few species not been
previously. We will be combined with
Sriwata a Nanobologe with Dejas
and Nanobologe beyond along the boathouse
side, Kepala in Kunge below in the
swimming hole. The centre is open
coconut grove with scattered Pandanus. Sections are covered by casuarina and a canoe-like vine, forming dense tangles.

After another quick survey we moved again. This time three miles across the lagoon to another Pandanus. We stopped and went ashore immediately after, again setting traps and collecting on board for the night again. Between 7:30 and 9:00 p.m. a swarm of baby green turtles went past the ship, heading west. We landed in about 20', putting some in salt water, some in fresh. So many unanswered questions - had they just hatched that night? Were they headed for the sea, as it seemed from their uniform direction of travel and great speed? Or was why travel all the way across the lagoon and into the seaward surf - did they default themselves according to current or wind direction? How many hatched and how many made it as far as the ship? What happens if they come onto another island in their path? If indeed they did come from one across the lagoon? Do those departed on the seaward side of an island on the seaward reef go right into the ocean, travelling in the opposite direction?
from these or do they cross the island? Finally, what happens to them now, where do they go & for how long? Fascinating. When removed from the water they continued their frantic scrambling; little discs of phenomenal energy.

Took in four movies in all this night, to bed at 1 A.M. This is a field trip? Fred would blush & sputter.

Oct 26. Bunion, George & Henry went in to Badojainur again; then to Badojainur while Roger, Phil & I journeyed up to Jaltumai via the ship. We found the usual species of plants & birds in the usual numbers for this area.

The ship returned to Badojainur after lunch where we picked up the other team who reported 40-60 Brown Booby nests and about 100 nodding Frigatebirds on Badojainur. From the ship this island looks just like all the others in size, vegetation & structure. Why are these birds here?

We continued south, anchoring again off Jaltumai. We split up again; Roger, Phil & I visiting Jaltumai & Gina, and the others the remaining four of the cluster.
In all cases the story was much the same again—Motorola, primarily Hawaiian, Fairy Teas and shorebirds. Spent the night aboard.

Oct 27. Ship moved early to Bikini. Roger, Paul and I went in to Bogen on while the others visited Bikini. A good wind rounded up the lagoon quite a bit, giving us a bouncy ride. Bogen is about 1/4 of a mile long and quite narrow. It is mostly coconut and associated plants on the western half. The eastern portion is mixed forest, very open beneath, or large brown beardeds. The dominant species here differs from those of the other islets with mixed forest, which are generally smaller. I do not know the names, but the two main ones were one with light green leaves of the shape of and orange blossoms, and one with long green leaves of a distinct type — [diagram]. A few Piromia, Vinteria schmidii, Maninda cautovana and one or two others were mixed in.

The entire near shore is fringed almost exclusively with large beardeds extending 5-10 yards in most of the way except near the middle where it becomes very sparse.
in the harbour. We arrived at the coconut tree husbandmen's village, the beach here. On either side are the societies of various inhabited islands far from the main island. There are fine, handsome houses, and in which we sought shelter from a steady, driving rain and enjoyed a natural beach.

Enidai is almost completely planted to coconut for its white and a half length.

Many houses have doors and there was a broad area of tree roots about 40; the distance from the coast and indicating a steady current during storms. Cocoa trees were present here also.

The president has been deceased since 1911. They said collected an unknown white goode which the natives claimed they had never seen.
Roger collected a group of and from
Gerda on Basona.
Back to the ship after lunch for
another short sail, back to Basona.
We went ashore before supper and
managed to get only 100 bird samples.
Returned after supper and got the
remaining four samples and sampled
all individuals as well - with the
expected, robust 50 nests (75 spotted)
with eggs and chicks up to 3 weeks
old. Only 15 dozen in the frigate
present today.

The only difference observed on this
island was a very open forest,
mostly Ulmum, resembling that on
Talentshine at Bora where Bora
Budos also were confused earlier. Whether
the natives prevent the birds from
breeding on the other islands or
whether their response shown is due
to the slight differences in
habitat cannot be determined. It
does seem unlikely that the natives
would ignore one bird out of the
dozens inshore here.
Oct 26. Began work in the market place early in the morning to collect taxes from the Emperor Body guards. Kicks being administered. This Session I compose fish from the back.

The captain requested that all loose gear be stowed before we got underway for Kungeldo. I translated this became 'eat all the crap off the back as we don't accommodate Chinese sampans.' So we spent a few happy hours whisking pans, bowls around (there's now hanging in clusters from the balconies in the hot, hot weather), bagging nutshell clean adults about,主要有 trading passengers onboard (impossible! It was almost impossible to distinguish the treasures from the trash) and generally getting everyone up. For the process on the maps were halved and the demands had got all sharpened up. We found yes, we hadn't seen for weeks. In accordance we should run across the platforms in three rows, ended up in an unused shop - we met them, we then went into.

About 4/10 we took the trigger. A promptly went off. We announced for supper, everyone still
Oct 27.

The ship entered the harbor at Kona, as usual, at breakfast. After which occurred like an immediate amount of maneuvering, we proceeded to the bay at the final point, which was made by the Bishop Museum during their visit to the Sandwich islands. During their visit to the Sandwich islands, the Bishop Museum visited the few islands that were visited, the Kona, 3 days ago, before their return. Various other forces were made to the local point, which was returned to. At noon, the Bishop Museum went next down to the Bishop Museum, where I returned to the ship and called the morning.

About 10 A.M., the Bishop Museum began to return to the Sandwich islands, and it was immediately apparent that they were in a novel, intelligent mood.
The cross-raging mob, hurling curses and threats at what they perceived as a mock trial, made fun of over the weight (which is posthumous) and being taken for a stupid powerhouse and an inferior. Our essay is about the whole affair in the gambles that form our many kinds, but that needed of instance in a person who had always showed me as so gentle and happy-go-lucky, seems to counter this. His feelings must have been building unto things and probably have some justification. Most of his attack was directed against human relation. It is easy to penetrate this, and even unconsciously, treat him as a "typicalchosen human" though it can speak eloquently and think well of no fault in time to finish. Though he displayed a magnificent dignity poised in an amazing range - strange and void to his normal as when later - his usual, the innocent yet caught in the middle. The Chief Engineer was driven past into the water a few, and thrown into the Dutch's United. This deeply shocked him, who related from somewhere from there on.
At 30. Bunker made various requests in the morning and got reservations on the 12:30 flight to San Francisco. Phil and I accompanied him. On the trip up I had my first real views of a real airport. It is really quite a sight. The ocean this day was its deep, rich blue and the lagoon and the same appearance. Between the two lay the stuff of light green water dotted with darker green islets.

The cloud configurations stood out as a screen of darker green and areas born in the light green. There were occasional circular patches of smudg a little darker than some of the islands, enough to be suggested by blue water, and the ridge often confused on them a partially appearance, very subtle.

For dinner, I recall, the islands served by a cumbersome screw. The Japanese made sliding room the room. The dining room served on the boxed ground for two purposes, sailed on the islands.

In the hotel directly 1944. Apparently there was a much larger number at the "Family Diner",5 the end of our stay.
4-6 feet thick, salt REMNAM... There
also remain some 6/4 5" guns
captured by the Japanese from the British
in Singapore and transported here. Divers
still bring up occasional survivors of
examination for these guns, from a freighter
made off shore.

All of this information was provided by
Mr. Hal Nichols of NMR's Honeycomb and
Honey here, who gave us a tour of the
island. We walked around a bit
after his left. Except for the
quiet local and kind of orange, I found the
the most pleasant island I have seen.
It was very still and quiet. The
whole island was covered with
mosses, tree roots and emergent
by a great number of vegetation (including
kelp, 70 species for the island), much
of it familiar to Alaskan foresters;
even probably important to keep the place a
"seaweed" atmosphere for other
considerations. The whole place seemed to have an
distinct coming atmosphere which
it did.

We found a variety of bird-life. Not
noting in large numbers and sometimes
only effective: a few
Wedge-tailed Shearwaters (100)
Hawaiian Storks (100 up to 25-30) and
Red-footed Boobies (2... a short piano), etc.
of the 6,000, 7,000, high material - I had become conscious of being in a 300-mile-wide comet - with a few 'diameter' words or 981 apparently named rather than the expected Bridge. Indeed, I continued, "to telescopic tens, I identified such.

Oct 31. Northward. History teaches me this day was not only in the world between having a Zora to our only could down the north 1040 trains. Both came at 13, but Zora did not like herself moves once he was in his field after being blended with the 300 Rammell. Being promptly fell out of the dead (opposite)

Nov 1 (Monday. Dec - Oct 31st)

According to our calendar today is still fertile land for local calendars, since they referred to 12. I think I am
of the whole of the 30 and I will now recite again. This is enough praise for them. Here are 2000 and enough accounting confusion over the religious duties, two 94 time is being assigned for their act in doing any. Simple and I went on a commission across almost the converted 2000 foyer "Terribly. The trip was along the interior...
end of the lagoon as far as Bizej, with stops of our show each at Elege and Bizej.

We looked for birds all along but saw nothing notable. There were many American Nodules in the lagoon and fewer than 6 Fairy Terns outside the reef. A few Herons were seen in the cattail field of the lagoon station on Elege and 4 Plover and 6 Tatties on the lagoon shore of Bizej.

The village on Elege seems very unpleasant just walking through, though perhaps the natives are better off ("happier") than in former times. All the houses are patchwork bands, most inlaid paint and most open along at least one wall which can't provide much shelter from rain though it probably serves to let breezes in. Most houses seemed to lack furniture beyond beds and all the household goods, boxes, piles of cloth, clothes, odds and ends were attached to it. Shelter everywhere. Two or three chickens and a few pigs wandering about.

We stopped at the lagoon station for a brief chat. The 13 crew members say they are enjoying themselves. The
Inland instead provided congenial, but......

entertainment. This is the only human
situation I have heard of where the
people reside for 2 months in a year.

In Ceylon I have and I posted
around some, but found the vegetation
impenetrable and no signs of life.

There was 2-3 minutes with families
leaving in turn. Of these people up and
the interior one island at all we could
find no way they could.

The rest of the T.I. party went to
Ceylon (Ceylon) island for fruit
collecting. They arrived with a
fair number, including some species
not seen before this time. Reported very
hard jet because of heavy current.

Nov 2. Roger: I went up to the sailing
in the afternoon to investigate the
triangle. Though somewhat mislayable,
prepared as for an open sea. Found
because of local report much, we
were not misled with 5 young trawls
fisheries. 2 trawls, 1 mackerel, 1 in
birding, 1 herring, 1 herring. Of I think of
South and I continued to the, in addition to
come to other islands, and I think we certainly.
Nov. 2  George, having I went to the charmy again to. The afternoon, mainly after the ducks arrived yesterday. It turned out to be another remarkable day of collecting, we got many new species this time. Collected were: 1 Teridactis, 3 Australian Mallard, a Sandpiper, a Kookaburra, 1 Black-cockatoo, and 1 Squirrel.

Nov. 3  George, being I returned to the swimming in the early morning. Birds were very scarce in comparison to previous visits - had only 3 managed to collect only 3 birds, of which appears slightly prepared from the day before - head dark brown brown with grey feathers, breast reddish brown or reddish.

Major Thorsen, the men in Sydney and the men of the rear trenches among the water snake, were very dead.

Nov. 4  George, being I went to the swimming in the springy morning. Birds were very scarce in comparison to previous visits - had only 3 managed to collect only 3 birds, of which appears slightly prepared from the day before - head dark brown brown with grey feathers, breast reddish brown or reddish.

Major Thorsen, the men in Sydney and the men of the rear trenches among the water snake, were very dead.
Nov. 5. George and I finally got to the basement in the evening. That didn’t work for us machine to be checked, having been washed and rechecked by an attendant for no apparent reason, which necessitated one rescheduling and operation back on the clothes right go through the water cycle, and watching people dumping in the ramp immediately, even after reading the instructions, I got a few clothes and George got fed up in the show and a half if that is.

George and myself of the crew are in state because of the library. We were scheduled to work yesterday evening, but must wait until a new record must arrives to replace me, the better, who endured a break to keep us record point, but imagine how the machine can get out in tomorrow morning.

But, George and I went off from complete exhaustion. Known what taking caught in school a bit from our being winded and a drive from the deep things along the pain.
Meyers is a security officer interested in the local fish. He is working with a fish pond that now contains about 46 species, and has plans for aquariums and shell displays. The pond is a ditch-like affair, 3 feet deep and quite clear. If one is patient he can probably see most of the species present in it.

Nov 6: After catching up on field notes yesterday I caught up on letters today. Rain nearly all day.

Baron & I took a taxi to the dump and set out set traps after supper.

Baron - 100 → 85 → 6 → 86 → 121 → 123

Nov 7 - 7

Reading, sleep, I guess.

Nov 8: The others went off in the raft to North Head Island after fish Primarily, and eggs. I took a taxi up to the dump, picked up the set traps, cleaned up lab 2 (shimming). Was pleasantly surprised at not finding the expected robust and a-stripped species under the accumulated debris. Found a Sea Ten - turned out better than any of my previous ones.

The raft returned in mid-afternoon with a packed drum of fish and

2 Common Noddies, 3 Hawaiian, 1 Furry Ten...
Nov. 8. I joined today - Roger Williams, and a German - Professor Heikel, with results more typical than yesterday's study. Now I have finished, birds!

The second male finally arrived.
We departed Kungskirken (cliff about 4 P.M., horror!)

Nov. 10. George, I had early walk. After this I finished another Heikel, with remarkable results.

We arrived at Valletta, Malta in mid-afternoon and anchored in the bay opposite the main island.

Two small craft came out to meet us. The smaller held an officer, the present for the Belgian. Heikal talked with him, while we got our meals for another afternoon.

We left in two minutes after 3 P.M. Roger had been - I went on to finish another of Heikel's, Dr. George having got his for tonight.

They are all on the square (300 by 400) with plenty of little shops (24 by 24) and hotels, though no one completely new town but streets and one small field. Belgian mission and new, very nice and smart.

From Valletta appears to be.
The white-cheeked tern (Chlidonias leucopterus) from Australia, New Zealand.

The island differs from any we have yet seen. The main plants were the beach lettuce and a yellow coralrod, and coconut and pandanus. The seaweed and sedge comprised the only vegetation in good measure. Other plants included fennel, cordyline (very brittle), teasel fruit, tree grasses, several crins, and shrubs. The forest was not very dense but the undergrowth, especially the bear-bite vine, formed very dense tangles.

Returned to the ship after supper.

Nov. 11 Roger and I went off in a small boat painted to resemble a whale to visit two islands with期望 in hopes of finding our diastere stereobite.

The rest of the crew went in a sailboat (accustomed to sail sooner, we calculate to look for it on the sail canvas) with the 32 ft. boat. Daniel and another native in an outrigger enquired the machance to get Bowenea's Stereobite. We arrived there about noon in a 2½-mi. long run (2½ miles).
The island was divided into two parts. The main (northern) portion contained a pine forest fringed with some mahoe and the palm-shaped frond were around the edge. The native coconut palms occurred near the edge and guano ponds were scattered along the north shore. Inside the forest was a large area of "dune-nest plants", concentrated at the southern end. The other section of the island was a stand of pure pampas up to 10' tall, on bare coral rock that was extremely difficult to walk on.

Hawaiian heliconia, red-footed ibisbies, and greater frigatebirds were the main birds. The Hawaiian heliconia were resting in numbers (perhaps 450 nests total) in both the heliconia and pineapple. Red-feet were confined to Pizomi. About 20 were on the island when we arrived.

This number rose to about 1400 after dark, the greatest percentage being immature. Only nearly mature most of the three-year fowls. The hawaii report that red-feet can only in this island at this time. The same problem occurs as at it existed - a light breeze, flies, ugly and a huge population on such a small area and what in the source of all the
The area about the Greater Frigate in the time when we arrived. It developed
that they nested only in the mangrove.
This is a more striking example of the
theory concerning all species of
Frigate and Red-footed to be somewhat
segregated.
At dusk we discovered several Lesser
Frigates flying with the Gannets. Lany
collected one male.
Upon my arrival a group of about 30
Solitary Nighthawks emerged from the underbrush
on the 500 course. Most of the birds there
were up to 2 in the air above but
some returned to the ground. Three were shot and all dead birds perished but 31
eggs of which could be found. They may
have been just beginning the breeding cycle. The
motive toward a colony of a few
confirmed on one of the other islands of
Christmas. Both sexes

The beehive on a common Western nuts, and
Sibon or on a fallen tree and in
the underbrush plant. We saw no
beehive nor dropped eggs among the
bees.

Forty Nighthawks, like the Hawaiian Nighthawks,
were found in both mangrove and Provicia.
Several young were found.
Brown cranes were seen overhead.
They roosted only in the coconut palms.
Two Crested Lory adults about 3/4 grown were found in the west point of sand. We pulled them up so they would not become prey to sharks due to our disturbance. This resulted in our being disturbed by the angry parents much of the time, which made the result in us being thrown over by a squall by one of the Manchester's. The two adults, one of which we collected, appeared to be about the same ages but one had a yellow bill and may therefore have been older.

After our preliminary survey George found a Fairy Tern and a Hawaiian Noddy in the net and collected grunts up with strictly meals from the Prowne. We cleaned these but they could not fly so they were collected.

The Australian had caught a 2-foot London cod and wanted us to shoot another so he could need clothes, which we did. When we returned from collecting fish better they let us sample them. It was quite palatable though rather tough - not the fresh - reminded me of skinned dog.
The fight itself was relatively unsuccessful. We shelled them too long as they had already run away to one side and we put out the凤凰es and it was carried away too quickly.

We walked around until dark, then went after birds for food samples and specimens. While waiting we noticed the natives preparing sticks about 20 feet long, obviously to be used against the birds in some manner. Just before it got dark they went off and each climbed a tree and waited for the birds to come in to roost. They then lure the birds with the sticks, tie their head in their wings and drop them down. Bailey told me that 8 men working in this manner can collect 100 birds in about 4 hours, which they then hide until call and kill. They took about 30 this time. Though it's not pretty, I feel no condemnation of the practice once it is a kind of harvest for these people. Hunters are a tasty part of the ecology here, in a more natural and thus respectable form then "mammal" people who can shoot, do expresses, paper 8000 to enhance for sport.
Because of the nature's activity, we decided hunting would be unsuccessful tonight
and useless in the long run since the birds would probably be slaughtered in the
near future anyway. We collected 10 adult red-footed 1 Greater Frigate and 1 Brown Booby and called it quits. We
then headed back into the bush.

About reached the ship around midnight, then spent two hours weighing & cataloging.

Phil, Roger & Dave returned with stories of a great hunt, gifts of shells and fans, and sad tales about the good
birds they missed, including a New Zealand Takahe and a Duck.

Nov 12. Up early to go back to Eungbok to
collect rat traps as we can depart
by 10. Only three of the traps had disappeared,
or were spread open and the door
had been chewed off one. I didn't realize
we were after such big game.

Before leaving the ship we got word
from Ably that the local women's club
requested our presence on Ably since
most of us had missed last night's festivites. Brian, Dave, Roger and I
got right in from Eungbok and Phil, Harry and George joined us aboard.
We stood around waiting for a while. The usual crowd of friends had gathered. Some were eating, some were silly. A pair of two, made quite an impression. The two friends were dressed in a uniform of white sheets, all of the same pattern. They formed the rear and walked in with a slow, deliberate pace. After a bit, the crowd also arrived in a procession, led out by two men dressed in white sheets, all of the same pattern. They formed the rear and walked in with a slow, deliberate pace. The crowd spun and presented a gift at the center. We made ready to leave, and everyone sought our thanks by a donation of some fashion. After a bit of a struggle, getting George and Dave into the right position, we had started off the friendly and civilly, the procession began forward, slowly moving. The usual sounds were heard, and when I found it all mean it to be, I was quite a happy, contented feeling and I was greatly encouraged by it. The gift were ignored and the music.

Listening about 10, we were walking out of the door in some quiet, peaceful street. The music and chattering, passing, than stood out magnificently in the dark sound of the final light.
except for a few interesting Chevrolet pixels very few which were round after we left the ship.

Friday
Nov. 12. Arrived at Buka Island about noon. While watching native loaded for the ship in these canoes I observed strange brown by the bead greenish diminufactured by a skin it had picked up on deck which probably robbed it in his fingers - I thought it was dead. An arrow penetrated skin while everyone checked at the hissing gun with painful success.

While dinner tabled to the native magistrate, Polite Chief’s dicker who had come aboard the night before. We had 1600 visitors to try using the chief method for 24 hours since we were low on gas. It was borrowed in the water to the arrival of much excitement and applying immediately water began receding toward the back. Mr. Baker asked the messenger if he was ready and he said the water was nearly draining from the bow. As the boat continued to settle in the water it presented skin position. When told to clean the boat...
back up the # is asked "already?" and
Action replied sagaciously "Yeah, he
--- is coming!

All of us went in to Bethlehem about 3 P.M. We were greeted by
the usual crowd. The final word
we heard coming, which explained
the sixth generation radical, "What is
up?". Several of the men and boys
expressed particularly angered by our
arrival. As we walked in, we could feel
our tide. Several of those who had seen
us said yes we need to react to our
feeling and punish the next.

We left them there; we drove a little
and sat out for Nelson Street, where
the constant by the people became attempted
to shoot a car at the edge of the edge,
though, fortunately, not successful on
an encounter with another that is
in the cabin, found in little suburb, and
continued on arrived on the island
about 4 P.M.

We dropped and sat in the negotiated
people, quite late. Some there were many
perhaps, it was perhaps not
satisfied quiet in the end very. A little
Tenshle, Lancaster, winter 1960, and 1961 to
The trees formed the wall of the negotiating, plus a few scattered pines.

Copy.jpg 1968

Fanning, Fanning
Central Park
Laurel Park
Redwood
Grove

We met some fishermen who were gathering basket leaves for fuel. After collecting, they would drag them across the forest, one set at a time, creating strange melodies. It was a method of communication, a way to connect with the land. The scent of the leaves filled the air, a reminder of our ancestors' ways.

In the distance, the sound of rushing water could be heard. It was the river, always flowing, always changing. It was a symbol of life, of the cycle of nature. We stood in silence, listening to the river, feeling the rhythm of the world.
compartment of the boat needed simply on the water. Since we took the gear and motor in the river we were quite pleased that the same compartment held up. Cairns & Wrighty grabbed the bowline and used it to keep the front end out of the water for the first quarter mile or so. Actually it was right when we reached the ship — another point that became not recorded for publicity. We threw the gear overboard ahead and could not restrain their desire for lugging as hard at the edge of our "deflated rubber boat", as it was named.

We ate, catalogued birds and whatever came. Bill took a soft in to the celestial and stones being calmer with our boat, exclusive to permit music of the ship and other activities — so long approved and unrecorded about our sea connections on a family in which a young girl had demanded "peace before" and "shall we swim?" or "that house — how about little balls?"
Nov 11. Arrived 10 A.M. Camin, Black, Lindo's company not on the expected list for today again. We collected some birds, nuthatch and flycatcher. I found the missing loquita from yesterday.

At noon we started for the next island north (Palmarejo) which we understood was inhabited. On the way we collected some Black-naped Terns in a feeding flock. We stopped at an unoccupied sand-canal where we found about 10 breeding terns and 10 Black-napes and 10 Black-nap nests on the rim of the highest area of the island. Half the colonies contained 2 eggs, half one.

We went on to Palmarejo. This island was inhabited by only one family, a man, 2 women, a Season boy and a couple more small children. It was very reminiscent of Lake Island though smaller, with cacti and the fuzzer and cacti on the undergrowth. The beautiful tall palmetto, most of them having retained the leaves. The man made general only a half dozen words of English. Though greenhouse were full with 301 class it seemed the island. The hare was quick around.
accompanied with smoke. The site was found
the main ground covered grass mounds. A
large portion of the ground was covered
by golden grasses and red plants.

We were close to the northeastern
point of the island. Near the water,
a small, partially burned and some
wood of a monument or a temple. It
consisted of a 3 foot long pillar
engraved with 3 shapes of carved lead
and topped with a heavy crown, perhaps
representing a crown design. At its
base was a neatly arranged group
of cane cups, some burnt and others,
beside a flat stone. We uncovered
the horizontal stone, in which were some
cups and a patterned banner and
indicated he wanted a cigarette, which
he placed with these materials.
Continuing on our offering on the
surrounding groundJAAB names were
engraved. There were two opening
during the excavation, and the
native indicated bringing water in this
connection since the monument or altar
with a consecrated prayer of the man.
The "tapa" with that place, a pool,
in place of the ocean on the island,
in small name the "Tapa Tapu" have
and inclining slender arches across it in the Sergeant's signal language without its sounding where two may have been on settle in which was little was given to become good form of the goods of our small world.

On the approach to the little Hudson stopped about some considerably pointed to a high numeral on a board of 6 in the plain. We went for the pump, returning directly followed by the several bogs. The camp on tight, nothing in the small ponds among the highest rocks and drivers yet our food, a considerable gulf. The tower number was from a hundred adjacent to the one we were given on board, amounting at least 3 measures of Hudson, Tompkins for the trip - comfortable boat!

At the entrance here we were given considerable guides and their statistics. We then social groups were divided to go on to the next second part. We had been told that it formerly were many stones and these had been removed by ends. They were stone, but many raindrops 20 feet from it through it covered available for hundreds. We saw no objects of coke in our time.
close though they would still be there. The vegetation was a pure shade of forest of "the light - brother leaves, possibly enhanced in poor light.

After a long couple mile hike we reached the top of the hill. Climbing with great difficulty, I accidentally placed myself looking out the bottom of the valley. It happened so fast I did not know where I was until I found myself

the night moving over me. I was dozing for a moment. A strange, familiarly, I heard myself and moved

up for a breathing deepening all the way.

After waiting and cataloguing Phil took the raft, and taught them a

a range and then turned back and

the rest of the boat. I went in to

the boat. Fitting in, my afterthoughts

under a bright moon, the rest of us
to turn the boat in the local hunting

hall for another night's festivities.

Our village seemed the brightest and

arested. Looking back, only in the dark.

When we arrived we were greeted

with the other camp members, on. In the ground floor and scattered

with paper, bat and a woven mat.
on which were built—chairs of trees, part of a graveyard fence—trees without leaves, unfeathered and unfeathered chickens, and a dish of candied apples of variously hued, multihued and red brawn.

The band, consisting of corn guitar and shaddekes, was seated on one corner of the school table. Around them was a group of women and girls, families and other spectators occupying the long sides, including many children behind us, and some parents were seated outside the building. At the end opposite the band was a table with a second plank. The village notables were seated there.

The building itself was magnificent: structure, house, high roofed with great supporting pillars and log beams, resembling not the methodical and Beaux

of American buildings.

While we were the band played and they and the school sang, somewhat willowy, alluring songs, hearing none of them but still feeling so good. We would sit and wonder, wouldexplore the land with a different range, then think of the own ones out simply.
all the while its intensity was increasing in intensity and the couple's dancing
slowed. lemon, finally, lifted himself and again simply moved in front of
the sea of its rhythm and a singer,
something akin to a trance.

The man might have been an
exterior. In order to stop the dancing
and begin dancing, someone had to lead
one person over to the sea. In order to stop
the dancing and avoid the dancing the
man had to stop. This might have been
only dancing, without the people showing
the expression of the previous evening
the dance was the jewel of all the
energetic things to find these, emanating
from waters beneath a Mediterranean
celebration, could. I suppose the rhythm
stands itself. To these people's natural
dancing indicative and vitality. Not only
from its beauty and energy
of the dancing, I could use the
reason for the expression to allow the
singing deadh right.

At one point the, 'constellation' voiced
that he understand there in terms of
singing. How does it change them?
Most turns at and around stop.
always about the same result. We
would not come up with a song which everyone known to then that a few people
have heard. They wanted me always
in helping people dance which would
show music at the beginning of art
changing to the music used in previous
love songs they used for us.

Jim, Jim, and Tigger each took turn
up on a couple of "accidental" songs
which were both bad, though some
powerful force intimate at an extra
much laughter in the end of the music
they evidently found it very strange.

These three also did a lot of dancing
and soap dances which went over
well though perhaps not satisfying the
audience. Jim was on a real quick
when the last was to announce that
this "danced" well was going to a string-
wise announcer. The other was
agreedly a bit less and one more
again not too. Then new lines in the
these were if forced as though the
people there now supposed the world
a part of the way together. They saw to
chose coming to another with the
girl after we kept good. As although is
his with the nearly back to open his
mouth and the attitudes built and laughing.
About 10 p.m. there was an intermission during which we were served coconut juice, from the shorts rather than from the nut. It tasted almost the same as the tea candy. After one more dance half of us left. The rest returned after midnight, with the exception of George, Phil, and Dave who spent the night at the hotel house.

Dorothy, Phil and I bought some mats for 45, beautiful things, 4 x 6, woven with patterns using light and dark leaves.

Nov. 15

Up early and in to the island (Britania) by 7:45 to pursue shoebills found on sand flats yesterday by George and Barry, including Black-tailed Plumes, Whimbrel, two species (3) of Dotterel, Spoonbills, and an unknown gull. We stopped at the pier and picked up George, Phil, and the real salesman who was to show us the channel to the area, since it was low tide. All the way, being complained restively and tirelessly about the waste of time and unnecessary channel. It's remarkable the way she learns the topography of a new area in a day or so, especially the submerged portions.
No. 16. The only item we have returned
Mariano Fortin early in the morning, most
of them in a large boat.

We were served the usual small
french breakfast on board. We
learned later that it was the John White's,
English colony, which we were supposed
to have passed. It was in empty place
and probably going to Lisbon.

Arrived at 10 a.m., left port in the
West Channel at about 11 a.m. The
(1100 a.m.) looks with us. The
scene has changed into the equal height.
Now passage to no avail, then noticed in
as far as possible and dragged the raft
a long way to semi dry ground. Harry
went off along the beach after bricks.
Roger did the same in the opposite direction
and I followed him counting starfish
or something, while Dennis, Phil & George
& Dave headed toward the point where
they thought the village was. Roger
and I were met by a native who asked in
halfway English why we came in the
village. Roger declined and went off
collecting again which aggravated me
further.

The native, several dogs and I went
in to the village and greeted the
population. There was one old woman,
quite as dark as the rest, who
spoke impeccable English. It turned
out that native was English and
she had been educated in Sydney.
I thoroughly enjoyed talking with her.
I explained what we were doing (while
distant shots boosted) and she in turn
told me much about the small village.
The only, thing they knew of were Nudies
and Fairies. We sat in the meeting
hall, a smaller version of the one at
Makin. The townspeople drifted in.
and the local town fairs and on the
communication. The pagodas were built
in the central area. The pagodas' styles, often graceful
and intricate, were unsurpassed.

There were only 9 homes in the village,
arranged in a network around a
central square in which the private
school lived and used for gatherings
and events. The village was a social hub,
and it was well maintained. Many of the
houses were beautifully built with
detailed platform floors.

I was awed by the architecture, which
varied with several designs, each
with a unique aesthetic. These
cities could be climbed and reached
by steps, or by a network of stairs
that led to various parts of the
building. The people were
dedicated in all the social aspects of life,
and the people lived a simple, yet
meaningful life.
one of the people closely placed before me — I was very sorry to meet absolutely nothing to offer in return. Just before I left the woman wore a terrible face and was affrighted with the gale in it.

She added that the reign of fear under this evil state there, that the natives were not allowed to travel between abodes any longer due to the danger and that there were numerous alleged objects which caused painful wounds and to an understanding could be killed, and which the natives thought with bawdy of a particular time which took pointed well growing in the spring.

I went weak to the mast and went the shore and we crossed across to the hill. The ship moved towards opposite the second small object piece, leaving the north, having stopped instead to take with the rest of us transferred to the largest craft side and continued to take from the hill the two things.

Roger and I walked with the people, examining the against the moored evening. Being unable the natives thought with the Egyptians. They tasted instead to the wireless operators raise the magnificent
was due back that morning. Because it was so hot we regrouped and got
permission to remain outside, and weight and instructed the ship of our plans.
Rogue and I then set out collecting along the wood (around there), followed
by the casual walks that I managed to proceed with of noon, to remain
with the while Rogue would school to school, till this was only temporarily
successful since more than I could count and the church. I walked up the
block. Rogue got off to collect more, they began moving by about three
and promptly had a total of 11 birds, Tannenfor the hell of it! When a boy
came up with would I not ever?
I wondered if they had seen them,
or what if hers were missing. Whatever
anything to express the occurrence that
he was looking to, we would almost
were elements of a great deal of
a comment individual.

Upon returning there, the horse
pointed up the other, where we had moved to
for lest at dusk. The horses had received our were called in.
through the boarded, the assembled because he asked if he could steal the palates.
we agreed and Robin carefully explained the mechanism of the gauge. He told
the crowd that it was just a small adjustment,
out of exposure, and seemed satisfied.
With the northern half we faced
most of our years up to the foreseeable
had written our own to spend the night.
The hill was a thousand feet high,
The center completely closed on the
outdoors, and the two were written half
fully. The northern position was
especially, the sleeping quarters and
the other areas were meant for sitting
and socializing. Longue chairs were
placed on the floor for us to sit on
and dinning-hall type which were
brought in. They placed a
columned lounge on a table and
the village lightCompound and along
the wall and with a built-in
and the roses nodded up in the
good tobacco plant with a foot.
The proper trend we thought about
the tobacco. It is necessary on a
cooperative society. The entire world
a first concern. Second is more focus
to the cooperative actions and
exchanged his currency. The entire
purchased about 100 items a year. At
By 1964, twelve grades of school were taught and at the completion of six years, about one student was placed economically in a university and attended the University of Toronto. About half of the children each year went to Toronto.

During the time, the children had been struggling in education. The children would have to work and study hard to keep up with the work and the time. They were tired and exhausted. They needed a break and received one with no instruction. The break was for about 10 minutes and would be necessary with the mountain climbing and to give it back to the women who simulated it. We began to teach small about 2-3 young men living, still living well of sight in the roadway. The teacher then asked if we would like to take some of the old-style teaching and use of hands. And they would be glad we did. The two men were seen often,感染者, and each received his reward and went on to sight travel. They showed a definite knowledge of how very complicated and sophisticated people to communism and very pleased, the content of which is the person...
was born about the presents the forming and other situations were neither gentle, which they had expected.

The song they both sung had been a love song written almost 340 years before. All over old music a song composed to long ago written in the old language written has been out of use for almost 340 years. A nation old man seated another time going over a possibly different style.

Next, came the time the music performed.

The native chief was seated below in a maol rence. The seated man was a man of native trees. He seated with his legs crossed by a post. The words and motions flowed up, as it inward and the chief was obviously enjoying himself. Then a couple stood together in a maol rence and went through a hand. Photograph taken which get man and father passed and moved up on his post. Recently, a couple passed the famous song poem which was written on this place. The child, clothing children's clothes among the these people approved him. These also produced changes with much fun.
At one end of the palace trail was a "dead" inscription and the beginning of each scene was painted with the names painted with abstract figures.

At this point, there was an interruption. The sun was about to disappear and one final man held a flag of the sun. It was an odd sight, and the sun was about to set.

The people sat on the ground, waiting for the sun to set. They had been waiting for hours, but now it was their turn. They sat in silence, watching the sun set, and the crowd was quiet. It was a moment of quiet and peace, and the people were glad.
The incident took place and the event was the result of a fire that started in the third story and spread rapidly throughout the building. The fire was contained and extinguished by the local fire department, reducing the damage to the building to a small extent. The investigation determined that the fire was caused by a short circuit in the electrical system, leading to the ignition of flammable materials. The building was temporarily closed for inspection and underwent a comprehensive renovation to ensure fire safety compliance. The community responded positively to the incident, with residents and businesses working together to restore normalcy and resume daily activities. The incident served as a reminder of the importance of regular maintenance and adherence to safety protocols in residential and commercial buildings.
No. 19 (Cont.)  The ship set out on May 10th, 1939, and was accompanied by countless numbers of vessels: six destroyers, three submarines, ten minesweepers, and many sloops and gunboats. On it, too, inside the main hatches, were flocked with thousands that had not consumed from noon to night—the next day and the next, the same three weeks. Starting from Russia, old Russia, in a southern direction again, for five days, and evading great agitators and strident voices. The captain and his crew left behind.

On arrived at Korean port, Busan, There’s no longer any path more correct there than all. They were still punctual due to the arrival of a fog. No quickly put concern, were greeted and welcomed and concerned. Boys bent off above the ship toasting and after that, after the smoke, the sailors gathered on a big, wide, broad, square, with pictures of all and the remaining pictures. Everyone marshalled every one of us and all the direction from shore, looking for North Island. Captain at the way. Since the lighthouse guarded during their observation, became followed with one
I went outside as soon as I could, and instead of getting another bad shock, I found myself in a fantastic, faraway place. I looked around, and the whole landscape was covered in a thick, white mist. The air was cold, and the ground was covered in a layer of snow.

I walked forward, and the mist parted to reveal a small village. The houses were made of stone, and the roofs were covered in snow. I walked up to a house, and knocked on the door. A woman opened the door, and invited me inside.

Inside, I found a large room with a fireplace and a table. The woman set out a meal for me, and we sat down to eat. After we finished, she invited me to stay the night.
May 17. After breakfast all of us went in a boat in a silent and effort among the most natural and best inhabited island (Frances?) for collecting, we went to Hvar. The nearest island north to the bay until deserted; I went to the pond to which it went again. There was a little house there this time, but we went out to the pond on the island and looked at the pond below. We could see the sea from the island, building nothing previously we crossed church, collecting almond for the bay. Rose planted the pear in some mud. I opened and only after collecting 3 almonds. The 20 gauge magazines could be used by the shepherd, probably line 3 per bullet. The gun magazine.

We went to the houses. The village was sleeping from the previous evening in the long, in one of which we stayed a day long. The author's voice to discuss performances of the children, piano recitals.
and out. They continued and we walked on to the frigate and then we took the man's guns from where they were stowed.

The frigate was anchored off the beach. While waiting to clean her further, I laid out a blanket on the deck and watched the world go by, witnessing the only channel the girl had thought she could get to.

I watched it and marveled at the many scenes to be shared by all the passengers.

The air was filled with a rhythm that was not set in any place or time, and the sound of the waves and wind filled the air. The channel was narrow and the weather was calm. The ship's journey took off with only a slight fumble. No explanation was given and it was a short voyage. After arriving at the port, I found myself in need of a place to stay.

I arrived in the afternoon, having caught a train in to the city. The pigeons and cats and dogs went...
The members of the accommodations, in various degrees of animation, to the trip and the various signals were taken or formed by various crew members. They remained outside in anticipation of the various signals held night guard had been treated to them all night long. Again, the additional parts not finished showing the lead on about 3 p.m. We then worked up half the additional controls and the depot, before sundown, went to the Umudu, relish. The crew counted around supper time when a large crowd came together, their netting being raised, leaving the net, including one which was added, spoke in English. Seems continued to arrive after dark and at about sound their van on road 21 in a usual floodlight of the storm.

Also that same day another ship arrived, carrying the 17 Lady astronauts members. As told around of their arrival was welcomed by our rescuers. Apparently on a small, however, command being given had side.
a church meeting that night, mistaking it for a party.

We got news that a message had been received from Tarawa saying we did not have permission to visit these islands. The usual lack of notification had caught up to us at least. We heard no more about it so it was evidently cleared up.

Nov. 19
Sand. Johnstone

K. Ammann
1966

This has been recorded and sent out to the firm 4/26/66
January 17. Departed Honolulu 0800 via MARS. N-23. Arrived Johnston 1100. Cicked at terminal, no one knew anything about bird shipment except that there definitely was no flight Wednesday or Thursday. Hugged my gear to the boat deck by hand and arrived on Sand about 1230. Maze knew nothing of shipment. Called George Sonin in NYN shipping; he said we could put birds on flight tomorrow. We went to P.F. on 430 boat, got 50 copies (all boxes big 7). Absent material and unused cardboard bottoms: no bunders. Returned to Sand on 730 boat. Began catching birds about 10 P.M. after assembling few boxes. Catching went well as we made up the rest. Finished catching before about 0100. Labeled them punched air holes and got through about 230. We ran out of tape after doing all the bunders, just folded the tops together. Caught a total of 58, 2 parrots. The last few took us through the entire colony. All birds in air. About 20 eggs; one new chick or bunter by its left. Males much more numerous than females.

Tried to call Dr. Elly about 2000 before beginning our labors. Honolulu operator and Pearl Harbor operator got recording signifying non-working radio No. when they called 3703. So far it has not proved an auspicious start.

January 18. Up at 0715, nothing to do but watch the morning's proceedings until about 0815. Bunde taken to Johnston by 0900. Warehouse people most cooperative. Save no tape for the tops of the cartons though they might have been shipped just folded. All bunders were alive yet. No banded ones had been taken.

Returned to Sand on 1100 boat. Rested until about 1400 after lunch. Then to colony to pick up guy wire casualties and autopsy. Casualties concentrated in area C. southern 1/3 of areas B and C (esp. along south shore) and western side of area E.

No feathers examined had food patches. Males had tests averaging about 11 for left, 6 for right, females' averages about 12x5, area 2-3. See ratio nearly 1:1. Estimate 150 top collected; 20 autopsied, 15 bands recovered.

Frigates did not seem much disturbed by last night's raid. Males are definitely more numerous, actively courting. Entire nesting colony has shifted from hill to South shore rocks except for a few on the inlet. Perhaps this was the original site and was disturbed by Coast Guard activities before we arrived.

One Red-foot beginning a nest on the north shore site. No Brown nesting. Some nothing with 0.8", on peninsulas and end shore.

Saw 11 Fairy Terns on Johnston yesterday.
January 19. We collected boobies and autopsied in the morning. Total of 65 dead or badly injured, plus 2 common noddies. Autopsied 13, none with brood patches, 1006, mother and secondary one tail feather each.

Found one Blue-faced Booby on guanoise base #7. With the exception of 2 sea - 59 at 1900, no brown even sitting on the hill in morning of evening.

Afternoon spent on book work. Checked the other end and collected boobies 1900. Banded from 2030 - 0030, total of 400 + first hundred checked for brochure patches (0) and one (265/1 outer retinu).

No frigate hanging yet. They are on the island and pier and a few were on the rocks above the pier after dark.

Returned on Hawaiian Noddy while banding. Total of 7 Blue-faced on #7 1900.

About 150 adult frigate on nesting colony, many immatures sitting around perimeter.

Boobies begin to move offshore about 1500. They form two nurseries, one off north side, other off south. They do not come in over island until about 1900, funneling in from west but not flying much over the causeway except for streaming across it earlier. First birds alighting about 1915, low in area D about 13 the way from the road. These seem to be two groups of birds, some swirling fairly close & streaming back & forth over island; others one

January 19. far out and in greater numbers, apparently do not come in to land as early as the former group. Perhaps latter are the first arrivals, which now form a cohesive unit after perhaps having built up to a number which could trigger a new phase of behavior. There was no moon while we were out and the birds seemed to be holding rather well. Also, they are down over a large area, including area B and area D between sandy shore.

January 19. Same routine as yesterday, only .-c

Blue-faced present on #6 guanoise base in AM. Banding 2030 - 0015, total 500 boobies. We worked the east side of the knitter building, found the birds much more easy than on south; finished on south. Saw two boobies dayly on dead ones, either attacking or attempting copulation.

January 21. Hourly counts on Boobies + Frigate today. Summary: Redtides decrease sharply right around sunrise, remain fairly constant there after until evening, inflating between 5-7. Though much shifting around was noticed from about 9 PM, Brownes concentrated on hill right about? They drop off until 1000, then become steady until 1500, mainly on guanoise bases + pilings; increase again between 4 & 5 PM, coming back to the hill until 6. Then moving back out to platforms + bases. Almost exclusively immatures in colony dive during the day. Some hill-fence noted in AM.
Jan 21 (cont) Blue-faced Booby - 4 on #6 at 8am, 2 most of day after; a third appeared about 1600, put in for a period, then moved to rocks among frigates for 1/2 hour. All active around 1600, jumping off into water & flying short distances.

Great Frigate - similar to Red-footed; decrease from many to 4, then more, around 1000, then constant until 4-5, increase again. Colony about constant all day. Sometimes sit in two groups: at E edge of colony and between two segments of it. Witnessed two copulations (or attempts), much courtship. Sometimes, evidently when the pair bond has been established, when the partner alights beside the other they fuse bills briefly and shake heads mutually. This also occurs when 8th bringing nest material. Female accepts; places, then may fly off leaving mate to finish incorporating it into the nest; several males busy with nest while females gone.

Saw two adult & frigates land among 7 immatures on hill 1540. One & fed two chicks, the young going inside her bill to get the food; evidently not a whole fish regurgitated; both bills level, no food, if liquid, still wasn't "poured" with young.

Grayback Tern - 0800 0900 1100 1300 - 1800 1900

Duck found first 250 today, 7 on pier & 1 on island. 500 Sooties banded.

January 22 Sooty Tern mortality only about 1/2 what it has been previous days. Perhaps this was due to light winds last night, or fewer birds being present.

Checked pier, one new Grayback 15 (total 8).

Emerged Johnston between 1700-1900. Found 2 new 2-prop bird nests with eggs plus the other one. No other birds seen flying. No Sooty Terns seen.

Only 6 shore, 20 turnsite, 2 raftless and one suddenly seen.

Banded 100 Sooty Tern, checking for molt & brood patches. Three of mine were molting around 3-14" secondaries only. No brood patches yet anywhere on island. Worked on terns after this - they were much scarcer than last night. The mortality already banded is remarkably low, from observation.

January 23

The first Christmas Bunting appeared - a pair sitting by the large clump on the east shore at the base of the peninsula. Returned one (1300). One present at night on shore.

Graybacks beginning to lay on west edge of peninsula near tp- 3 eggs, one broken. 6 eggs on pier new total 13 + 1 on islet by pier.

one of the two common noddy eggs on the peninsula hatched.

Total of 500 Sooties banded.

January 24

Total of 85 Sooties collected from guano.

Red-footed Booby nest on north shore has disappeared. Probably 100-150 Common Noddy nesting on peninsula and grass along east side - 17 banded.