```
Bird Specimens Collected by POBSP on Baker Island
Blue-faced Books (Sula dactylatra)
493936 -
Semipalmated Plover (Charadrius semipalmatus)
496785
496786
 American Golden Plover (Plavialis dominica)
 493166 -
 493167
 493168
 493169
                     498351
                     498352 ...
  493176 -
                     498353
  493171
                     503636
  493172
                     503637
  493173 -
  494038 -
  496682 -
Ruddy turnstone (Arenaria interpres)
493186
 493187
 493188 -
 493189 -
493190 -
493191
493192 -
493193 -
 493194
496074
 496075
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Bird. Sp. Coll. by POBSP. on Baker Is,
Ruddy Turnstone (cont)]
496351
496352 -
 496353
 496904 -
 496918
 496918
 496919 -
 496920
 496921 -
 496922 -
 496923 -
 497284
 497285 -
 497286
 497387
 497288
               498031
*******
 543133 -
Bristle-thighed Curlew (Numerius takitiensis)
496051-
Wandering Tattler (Heteroscelus incanum)
493220 -
493221
```

493222

494055

494056-

(Z)

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Bird Sp. Coll. by POBSP on Baker Is.
[Wandering Tattler (cont.)]
496059 -
496061
496690 -
 543102 -
 543103 -
Sharp-tailed Sandpiper (Erolia acuminata)
 496070 -
496694
 496695 -
 497273
 Pectoral Sandpiper (Erolia melanotos)
 496066
496067
 Bar-tailed Godwit (Limosa lapponica
 493338
 493339
 496056 -
 496789 _
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Sanderling (Crocethia alba)

Laughing Gall (Larus atricilla)

493256 -

493257 --

494089

(3)

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Bird Sp. Coll. by POBSP on Baker Is.
Gray-backed Tern (Sterna lanata)
497114
543149 -
Sooty Tern (Sterna fuscata)
496041
497067
497068-
Brown Noddy (Anous Stolidus)
493288-
493289-
493290
493291
493292
 493293-
 4933944
                   497935 -
493295_
                   497936 -
 493296
                  497937
 493297
                  498045 -
                   4980Hle -
 497233-
                   498047
 497734
 497235-
543073
 543074
```

5.5 the POBSP on Baker Island
Molt Sto-Bird specimens collected by

Type Spec- imen		skin	skin	skin	skin	skin	skin	skin	skin	skin	skin	skin	skin		skin	TTTVC	skin		skin	skin	skin	skin	skin	skin		skin	skin	skin	skin
Collector		Sible	Sible	Sible	Sible		Clapp			RL DeLong	RL DeLong	RL DeLong	RL DeLong)	RL DeLong		W Bulmer	1	R Chandler	R Chandler						F Smith	F Smith	F Smith	
Ecto. Coll-ected		1	9	8 9	8		8	9	8	No	No	8	8		Yes	0	No	;	No	No	No	No	No	No		No	No	No	No
Sto- mach Saved		8			1			1		Yes	Yes	8	K R S			2) -	Yes	1	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes
Molt Data Rec.			8	8		8	1	8	3 8	Yes	Yes	3	Yes		Yes Res	2)	Yes	\$ }	Yes	Yes	Yes	Yes	Yes	Yes	,	Yes	Yes	Yes	Yes
Date collected		Oct. 196	Oct. 196	0ct. 196	0ct. 196	17 Oct. 1963	oct. 196	oct. 196	0ct. 196	Nov. 196	Nov. 196	6 Feb. 1966	6 Feb. 1966		6 Feb. 1966		14 oct. 1966	ŀ	20 Nov. 1966	20 Nov. 1966	Nov.	Nov.	20 Nov. 1966	Feb.		19 Feb. 1967	y Feb.	19 Feb. 1967	9 Feb.
Fat Condition	ned	1 1	8	1	1	1	1	3 8	; 1	Heavy	Heavy	Extremely	fat	fat	Ti sht.	0	Medium	() -	неаvy	Heavy	Heavy	Heavy	Ext.heavy	Medium	:	Heavy	Medium	Moderate	Med-hvy
Wt.	continued	06	87	87	102	84 4	80	100			_	135.0	-122.0		108.0	<u> </u>	100		9	66	105	10%	127	98	(871	き	1.07	124
Gonad Data	interpres)		Ts: 1 mm	mm +7	Ħ	Ts: 2	/t mm +	7 mm.	6 mm.	5x2	V . S	1t: 2x1	not recogni	zable	8x4; ova gr. 6x3; ova	werr fine	1t:3x.5;	SX.	LU:CXI;		6x3	4x3	1.8x8		rt:1x.5	8x3;gran	15:2X.5;	┥ • _+ ,	3xl gran
Sex	(Arenaria	0+	" O	O + :	O+	* 0	O+ (O+ (O+ (O+ (0+	" O	ı		O+ O+	, Y	*0	*7	0	0+	O+	O+	O+	ď	Š.;	O+ *i	O	0+(0+
Field #	Turnstone (10054	37001	10056	10047	10055	10049	10048	10057	1627	1628	5891	5892	÷,	5893 6718	4 37	6949	1087	Topo	6802	6803	4089	6805	4689		0890 0890)	6897	9629
# Wnsenw	Ruddy Turn	493187	493188	493189	493190	493191	493192	493193	493194	420064	496075	496351	496352	E)	496353		4,96918	010309	ATAOATA	1496920	126967	8	48923	Ω Ω		49/285 107086	43/600	497287	$\gamma \gamma$

Balen Climate

not much is known of the climate of Daker Island but the fact that it is situated in a region of with scanty precipitation is abundantly illustrated by the character of its vegetation.

le is the case with many equatorial islands, meteorological records for Baker I dend wie and the second ACANY ANDREW MARKET MARKET or lacking in many areas. Where They do exist the series of observations are short and discontinuous, but sufficient is known to allow a brief general description of the character of the area. The Baker: area as a whole is deminated by the trade winds, decording to the usual picture of tropical islands, These winds blow from the mortheast in the regions north of the equator, and from the southeast in the regions to

the south of the equator, with the doldrumes er belt of calms, squally and variable mends set sandwicked in between. In reality, the situation is not this simple, for the trade mendes of the Pacific are not as strong or stendy as those of the atlantie, the doldrum belt is narrow or nonexistent, and the trade-wind Aystem has a seasonal escillatory movement northward and conthward. The result at pulse that while the general direction of the winds is from the east, they are apt to vary between northeest and southeast, variable between January and may, at the Time when the writheast trades have receded to the southwards. It fakes the the dendency in fir the trade winds to blow steadily, but with no great force; local squally occur, but severe storms are rare. Squally weather is more liable

to occur between november and may. (nov. Int. Div. 1945) The highest wind velocity is about the barometric pressure is practically intent except, for dimend variations (Hague, 1862) The amount of precipitation is strongly influenced by the changes in the trade winds. () During the middle of the year, when the easterly and south easterly winds are predominant, rainfall tends to be sparce; then I from no. Through may, when mirth eastery wind are more frequent, the rains Deason occurs, any interruption of this periodicity by mesterly winds, however, is almost invariably asseciated with heavy precipitation. Another fulle of importance in the And in an island without a layour such as Baker, is the heated column of our which rises from its and conditions are favorable for precipitation over the surrounding ocean, the intende

does not get its share. Heavy rain clouds have been observed to that on their approach toward Buder to Esplit and by the rising column of hot are, as part by to the either side of the island. (Bryan (1942), Ramsny (1924) Oraque, (1862), and The rainfall is highly warriable, not only from month to month but year in on squatorial islands such Howland. Hague (1867) give the following descripting of Bakers chimate:

The nat. may, in found the following

March 4-10, 1963: Fairyly dry - ABK personal communication

July 4-10, 1963 : Fairly even cover of low grasses. Many eggs washed off Noddy colony.

October 14-18,1963 : Island unchanged since July. No precipitation during our stay.

February 13-14,1964: Island vegetation much more lush than October.

July 21-22, 1964 Island vegetation unchanged from February.

October 13-15, 1964:

February 3-5, 1965: Vegetation in poor condition on Baker. Mimosa Sida and three species of grass are badly burned from lack of rain. Only Portulaca, B.+T.healthy

May 8-18, 1965 Rob ray judging from Howland

September 16-20,1965: Lush vegetation and standing water indicated heavy recent rainfall.

October 15-21, 1965: At about midnight last night we had a downpour.

November 25, 1965 :

February 5-7, 1966 : NO COMMENT

February 27-28, 1966:

: Vegetation is showing definite signs of drying. Leaves of Lepturus and March 25, 1966 Digitaria only half green. Leaves dropping from some Sida in bloom.

May 2-3, 1966 : At time of visit - cloudy with full moon - Judguy Con thouse

dryer

July 12, 1966 : Vegetation shows considerable evidence of prolonged drought. 273 of Mimosa dead. Much of Lepturus along west beach crest dead. Some sida blm

August 14, 1966 : Must have had a fair amount of rainfall since July. Most of Lepturus had green growth above dead stalks. Lagoon level risen at least 6 in.

September 18, 1966 : Only the Portulaca and Cordia healthy. Other vegetation sparse and brown indicating very little rain fell in past month.

October 13-14, 1966: NO COMMENT

November 20-21, 1966: No store of entrer excessive will or disquest - No married things

IN severalizable from previous Desir

March - Hpril 63 - neither we nor dry May - June 63 - rain in here somewhere Tuly- October 63 - Hominal 2011 - COLMANDER - MELECULA INCHERCAL The - July - stead vanded Oct 64 - 3 Jan-Ger as a new and May 65 - rawy

Hugust - Sept 65 " War Cat as a popular Non- feb - Ca - make the March 66 - Leconing & year may be a single July 66 - day late truly according to a met the his end sext dry oct the de medical

Baker Island - Appendix D

Summary of Bird Specimens Taken by the POBSP on Baker Island

Species		Number of Specimens	Type Skins, Ske	Type of Specimen Skins, Skeletons, Alcoholics	n for weights	Mean weight (grams)	Range of weights (grams)
Blue-faced Booby	Ç-0	Н	H			1560	
Golden Plover	0 O+ c-	$m \kappa H$	w ru H		M 4 H	104 117 128	92-120 85-137
Ruddy Turnstone	†O O+	49	mV	H	m\0	90	84-98
Bristle-thighed Curlew	c-•	Н			<u></u> }	439	i
Wandering Tattler	© O+	7 CI	70		4 0	91.6	73-112.9
Pectoral Sandpiper	O+ O+	CJ	C1		CJ	77.77	40-47
Sharp-tailed Sandpiper	0+	\vdash	 !		\vdash	52	I
Bar-tailed Godwit	*O O+	α H	CV H		CU H	214	192-235
Sanderling	000	N	CJ		CA	26	25-27
Laughing Gull	ð		г—І		Ë	ī	Ž.
Sooty Tern	6	<u></u> l	(H	130	New York
Common Noddy Tern	*O O+	10	2	~ ~	0/4	174	157-203 163-183
		53	94		7.47		

Pilanaia, A. et al. 1936. (Unpublished) Daily Log of Baker Island August 7, 1936 - October 26, 1936. National Archives Record Group 126, File No. 9-12-17

Aug 14: 11 papio caught.

Aug 15: 4 paulu, 2 uu caught.

Aug 16: 22 papio caught using pièces of flying fish for bait. Flying fish had flown in one band at night and become staranded. Gaught also a moana, several pualus.

Aug 23: Gaught 27 papios -- a foot long weighing one pound.

Aug 24: Flants watered include ironwood and mangoes brought down last time on the Itasca.

Aug 26: Small Japanese cargo freighter seen offshore.

Aug 30: 5:30 rained 12 minutes .05 inches (Did not rain on Howland same day)

Sept 27: an ulua caught. (40 lbs.)

Oct 4: Searched for rats with clubs, killed 12.

Oct 9: Goconut grove among () at NE section of island. Trees ()

Oct 11: .88 inches rainfall -- 3 hours -- starting slightly before noon.

Oct 15: 6 squid caught in afternoon.

Oct 23: transplanted two mango trees.

Oct 24: 31 papios caught.

Oct 26: Itasca arrived.



	TABLE Avifauna of E	aker Island	Months in which
Species	Current Status	POBSP Maximum Population Estimate	Nearest- Nesting
	CENTRAL PACIFIC	RESIDENTS	
Red-tailed Tropicbird Blue-faced Booby Brown Booby* Red-footed Booby* Great Frigatebird* Lesser Frigatebird* Sooty Tern Gray-backed Tern* Brown Noddy* Black Noddy* Fairy Tern*	Rare resident Fairly common resident Fairly common visitant Common visitant Common visitant Very common visitant Abundant visitant Rare resident Common resident Fairly common visitant Fairly common visitant Fairly common visitant	19 400 21 16 ca.40 175 1,000 25 1,000	
	ARCTIC SHOREBIRD M	IIGRANTS	
Golden Plover Ruddy Turnstone Wandering Tattler* Bristle-thighed Curlew Sanderling* Pectoral Sandpiper* Sharp-tailed Sandpiper* Bar-tailed Godwit*	Common migrant Very common migrant Uncommon migrant Uncommon migrant Rare migrant Rare migrant	150 250 35 15 2	
	VAGRANTS	·	

Laughing Gull*

^{*} previously unreported from the island or no unambiguous records in the published literature.

BAKER ISLAND

PRELIMINARY REPORT

SIC# 14 - AUGUST, 1966

BAKER ISLAND

PRELIMINARY REPORT

SIC# 14 - AUGUST, 1966

Field Party --- Richard S. Crossin (Biologist in Charge), Kenneth C. Balcomb, Walter Bulmer, Richard D. Chandler, Roger B. Clapp, David I. Hoff, Lawrence N. Huber, and David L. Pearson.

Itinerary ---- August 14 - 1215 - Clapp and Pearson arrive Baker.
- 1600 - Clapp and Pearson depart Baker.

Man-days Spent on Baker: 0.3

Upon our arrival at the island we noted that Baker, although very dry, must have had a fair amount of rainfall since our visit in July. Most of the Lepturus whowed new green growth above the dead stalks and the Mimosa along the west beach crest was far greener than on our previous visit.

Some Portulaca, Boerhaavia, Tribulus and Sida plants were flowering, but only the latter two plants were flowering in most areas where they occurred. The two Cordia at the northwestern end of the island, although possessing several dry and yellowed leaves, seemed to be in good condition.

Another indication of increased rainfall since our last visit was the increased depth of water in the small lagoon which was notably dry on our last visit. The water level had risen at least six inches in the past month.

A single butterfly, a male <u>Hypolimnas</u> bolina, was seen flying over the north end of the island.

The four most notable differences in the avifauna since the previous month were the decrease in the number of tropicbirds, the changing status of the Common Noddy nesting cycle, the increased number of shorebirds, and the presence of two species (Gray-backed Tern and Fairy Tern) not seen on the previous visit.

Three Berlese samples and four bird specimens were collected.

Additional notes on the fauna and specimens are given in the following annotated list.

BIRDS

ANNOTATED LIST

Red-tailed Tropicbird (Phaethon rubricauda)

Estimated population - - - - - : 12
Nest count: Nests/ egg - - - - : 1

Fewer tropicbirds were seen on this visit than in July. The

most seen in the air at one time was two, and none were seen displaying. The nest site under the plane wreck that contained a bird on an empty nest in July has now been deserted. An unbanded tropic was found on one heavily incubated egg beneath the larger and northernmost of the two small fordia trees.

Blue-faced Booby (Sula dactylatra)

Estimated (diurnial) population - - : 20
Nest count: Nests/ 2 eggs - - - - : 20
Nests/ large downy young: 10
Nests/ immature - - - : 10
Berlese samples taken - - - - : 11

Although four Blue-faced Booby nests were found, our coverage of the ish land was not complete, and it seems likely that as many as four or five more nests may have been present on the island.

One of the nests (containing a young bird that had almost fully attained immature plumage) was found in the north-central part of the island and was probably the same nest that held a large downy young on the previous visit. The other three nests were found on the open sand of the north-western beach crest about 100 yards north of the lighthouse. The three nests were within about 30 feet of one another.

Three of the four adult Blue-faced Boobies associated with the nests (from the nest containing a large downy young, the one containing an immature, and from one nest with two eggs) were blue-streamered birds from Howland Island.

Lesser Frigatebird (Fregata ariel)

Estimated (diurnial) population - - -: 25

As we first approached Baker Island in the rubber raft, a group of nine unidentified frigatebirds were seen flying towards Baker from the southeast. While on the island we saw five frigatebirds which flew low enough for specific identification. All five birds (three adult males and two adult females) were Lesser Frigatebirds. Later in the afternoon a group of fifteen unidentified frigatebirds were seen flying several hundred feet above the water off the northwestern point of the island.

Golden Plover (Pluvialis dominica)

Shorebird count - -- - - - : 75

Most of the Golden Plover were seen along the northern third of the island perimeter. Only about 6 of the 75 birds counted were first seen in the lagoon.

Most of the plovers were seen in mixed flocks with Ruddy Turnstones and often a few Wandering Tattlers. The three largest flocks (with perhaps some overlap in individual birds) were composed of 52 birds (27 Golden Plovers and 35 Ruddy Turnstones); 37 birds (20 Golden Plovers and 17 Ruddy Turnstones); and 42 birds (13 Golden Plovers and 28 Ruddy Turnstones).

None of the Golden Plovers observed were in breeding plumage.

Ruddy Turnstone Shorebird count - - - - - - : 136 (Arenaria interpres) Specimens collected - - - - - : :

Only 15 of the 136 birds counted were first seen in the lagoon, most of the rest being seen either in mixed flocks with Golden Plover or in "pure" flocks of Turnstones. The largest single flock composed solely of turnstones contained 35 birds.

At least 40 or 50 of the turnstones were observed closely with binoculars but none showed any trace of red on the rump. The single specimen collected by Pearson was well into its primary molt which was about 50% complete but had not yet begun to molt in the secondary series.

Wandering Tattler Shorebird count - - - - - - : 22 (Heteroscelus incanum)

Twenty of the 22 tattlers counted were first seen along the outer perimeter of the island. They associated realtively little with the plovers and turnstones, and for that matter, with one another. The largest flock of tattlers seen contained but five birds.

Sanderling Population - - - - - - 2 (Crocethia alba)

Crossin reported that two Sanderling were seen flying into the island from the south just prior to Pearson's and my departure from Baker.

Sooty Tern

(Sterna fuscata)

Estimated (diurnial) population - - -: 15

About 15 adult Sooty Terns, mostly in ones or twos, were seen flying over the lagoon, but no evidence of nesting was found.

Gray-backed Tern
(Sterna lunata)

Population - - - - : 8

Specimens collected - - : 1

As we approached the lagoon eight Gray-backed Terns arose from the sandy easternmost edge of the lagoon. One bird at least had long white

streamers on the outermost rectrices. The specimen, an adult male collected by Pearson, had a naked brood patch, no molt in the flight feathers, and enlarged gonads (12 x 8 mm.). About twenty minutes were spent searching for active nests but none were found. These observations, taken in conjunction with the tern's behaviour, suggest that the Gray-backed Terns may be pre-breeding and that some nests may be present later in the month.

Common Noddy

(Anous stolidus)

Estimated (diurnial) population - -: 850

Nest count: Nests/egg - - - - -: 69

Nests/ small chicks - -: 4

Nests/ large chicks - -: 60

133

When Pearson and I first arrived at the lagoon some 600 Common Noddies arose from the central islet. Most flew out to sea to join a flock of about 250 more feeding off the northeasternmost point of the island.

Only a very few small chicks were seen but 3 of 4 were dark phase and 1 of 4 were white phase, a very similar proportion of dark to light to that seen in July.

Most of the nests with eggs were concentrated on the easternmost end of the islet and along the souteasternmost side where small ledges afford some elevation above the water. One nest was found containing two eggs, one egg fresh, the other heavily incubated. In all, nine eggs were examined to determine their stage of incubation. Seven were fresh, one was slightly incubated, and one was heavily incubated.

Judging from the large proportion of fresh eggs present, the very small number of young chicks, and the increased water level in the lagoon it seems likely that either little egg laying occurred between the July and August 1966 visits, or that those eggs laid during that period were inundated and washed off the central islet.

Five Fairy Terns were seen flying over the coral rubble on the ocean side of the lagoon. One of the two specimens collected had a naked brood patch with but one or two feathers growing upon it while the other specimen possessed a nearly completely refeathered brood patch. Neither bird was molting in the major flight fea thers.

MAMMALS

House Mice seemed to be as abundant as on our last visit but we were

unable to collect any in the limited time available.

Two nests were found at the northern end of the island, one inactive, the other apparently active, and Berlese samples were taken from both. The first nest was found under a plank and was an open cup about three or four inches across. It was lined with pieces of grass and was surrounded by bird bones (apparently booby and frigatebird) and by Common Noddy feathers which had apparently been brought under the board by the mice. The other nest was found under a piece of tarpaper near some of the debris left from World War II. It was about the same size as the other nest but was lined with soft brown fibers which were originally some sort of insulating material. Two mice fled from under the tarpaper when it was lifted leading to the supposition that the nest may have been being actively used.

House Cat
(Felis domesticus)

None were seen during our short stay on the island.

LIZARDS

No time was spent on this visit collecting or observing lizards but both Snake-eyed Skinks (Ablepharus boutoni) and Mourning Geckos (Lepidodactylus lugubris) were casually observed during the tour of the island. No turtles were seen.

Baker Island - Appendix D

Summary of Bird Specimens Taken by the POBSP on Baker Island

Range of weights (grams)	8	92-120 85-137	84-98 63-102	, š	73-112.9	24-04		192-235	25-27			157-203	
Mean weight (grams)	1560	104 117 128	90	439	91.6	4,4	. 52	214	56	J	130	174	
n for weights	H	m4 H	mV0	Н	40	N	Н	Q H	CV.	à	Н	0.4	147
Type of Specimen Skins, Skeletons, Alcoholics	>-1	W FU H	3	-	7 0	~1	,—	CU H	CV.			3 3	7 94
Number of Specimens	H	m in H	49	H.	7 N 4	2	Н	O H	2	0,		10 TO	53
Species	Blue-faced Booby	Golden Plover 999	Ruddy Turnstone of	Bristle-thighed Curlew ?	Wandering Tattler of	Pectoral Sandpiper 99	Sharp-tailed Sandpiper \$	Bar-tailed Godwit	Sanderling	Laughing Gull	Sooty Tern	Common Noddy Tern of	

4 L

Species Total Breeding Pct.of. Present Pop. Seabirds Total Present Popu.	trans. seabirds pres.	Pct. of total Pop.	No. of shb. pres.	Pct. of tot	<u>Othe</u> r
March 10-11 226 176 77.9	13	5.8	37	16.4	
July 8 1066 1034 97.0	15	1.4	17	1.6	
Oct. 16 527 110 20.9	123	23.3	294	55.8	ž
Feb. 12 476 40	367	·	129		1
July 13 1724 350 20.3	1308	75.9	66	3.9	
Oct. 13 1272 395 31.0	696	54.7	181	14.2	
Feb. 12 1277 857 67.1 1965	288	22.6	132	10.3	
May 11 850 628 73.8 1965	200	23.5	22	2.6	
Sept. 15-17 717 137 19.1 1965	248	34.6	332	46.3	500
Oct. 16 724 37 5.1 1965	237	32.7	450	62.1	250
Nov. 10 774 303 39.1 1965	147	19.0	324	41.9	
Feb. 8-9 685 253 36.9	101	14.7	331	48.3	
Feb. 8 696 401 57.6	74	10.6	221	31.8	
March 10-11 1024 617 60.3	91	8.9	316	30.9	
May 7-8 619 306 49.4 1966	74	11.9	239	38.6	
July 8 575 446 77.6	20	3.5	109	19.0)
August 11 1170 890 76.1 1966	45	3.8	235	20.1	
Sept. 12 718 474 66.0 1966	17	2.3	227	31.6	
Oct. 17 803 415 51.6	122	15.1	253	31.5	13
Nov. 17 1022 632 61.8	166	16.2	224	21.9	

^{*} Species known to breed on the island (Gray-backed Tern, Red-tailed Tropicbird, Common Noddy) are considered as residents each time recorded whether or not they may not be breeding. Blue-faced Boobies are considered breeders only for population known to breed since clubs are almost certainly largely composed of non-Baker Island birds.

TABLE

Island

in Each Month to Baker

Number of Visits Made