Extracts from George Willet's Report on the Bureau of Biological Survey Expedition to the Northwestern Hawaiian Islands in 1912-1913. Data pertaining to Necker Island. (Extracted from cards by R.B.Clapp, 23 April 1969).

Species	Willet's Remarks
Dimmedea nigripes	A few were found nesting.
Diomedea immutabilis	Estimated 400 prs. on Necker Island.
Puffinus pacificus	Were plentiful in ocean in vicinity of Necker and Bird Islands, March 19,20, and 21.
Sula leucogaster	2 noted on Necker Is. March 19
Sula dactylatra	Nesting in small numbers noted on Necker Is., Mar. 19, eggs and young seen.
Fregata minor	Substantial nesting (colony or colonies) found on Necker.
Phaethon rubricauda	Rather rare on Necker Is.
Areaaria interpres	Was only wader seen on Necker Is., where 1-2 seen.
Pluvialis dominica	Plentiful on all islands visited except Necker Is.
Anous stolidus	Round nesting in moderate numbers on Lisianski and less plentifully on Necker.

Extracts from George Willet's Report on the Bureau of Biological Survey Expedition to the Northwestern Hawaiian Islands in 1912-1913. Data pertaining to Nihoa Island. (Extracted from cards by R.B. Clapp, 23 April 1969)

Species	Willet's Remarks
Diomedea nigripes	A few were found nesting on Bird Island
Puffinus pacificus	Were plentiful in ocean in vicinity of Necker and Bird Islands, March 19, 20, and 21.
Sula leucogaster	A few birds noted on Bird Island, Dec. 17.
Sula dactylatra	common bird off Bird Is., Dec. 17.
Phaethon lepturus	One or two noted near Bird Is., December 17. Those seen on Bird Is. probably stragglers from larger islands.
Phaeton rubricauda	Fairly common around Bird Is. in December.
Pluvialis dominica	Plentiful.
Anous stolidus	Several seen off Bird Is., Dec. 17

Species	Willet's Remarks
Sterna fuscata	Thousands nesting on Necker Is. Most of eggs were advanced in incubation and a number of downy young seen.
Anous minutus	Noted on all islands visited except French Frigate Shoals
Gygis alba	Were found nesting on Necker Is., March 19, no young were seen; thousands seen on Necker and Bird Islands.
Sterna lunata	were nesting on Necker Island on steep hillsides. No young noted up to time we left islands. ((Check this back against other islands and add for each where not includedLaysan and Lisianski))
Procelsterna saxatilis	Were very plentiful on Necker Island where they were so tame they flutterd around out heads. One egg noted on this date ((March 19))

## Willet's Observations on Nihoa p.2

Species	Willet's Remarks
Anous minutus	Noted on all islands visited except French Frigate Shoals
Gygis alba	thousands seen on Necker and Bird Islands
Procelsterna cerulea	very plentiful on Bird Island.

Extracts from Geroge Willet's Report on the Bureau of Biological Survey Expedition to the Northwestern Hawaiian Islands in 1912-1913. Date pertaining to French Frigate Shoals. (Extracted from cards by R.B.Clapp, 23 April 1969).

Spidwies	Willet's Remarks
Pterodroma hypoleuca	Estimated 1000 prs. on Frigate Shaosl.
Diomedea nigripes	About 200 pairs were nesting on French Frigate Shoals.
Diomedea immutabilis	Estimated 200 pairs on French Frigate Shoals.
Puffinus pacificus Sula dactylatra	Only ones seen during winter were a nearly grown yo ng on French Frigate Shaols, Dec. 19 About 40 paris nesting on Frigate Shoals, Dec. 19.
Phaethon rubricauda	Fairly common around Bird Island in December, also around Frigate Shoals.
Arenaria interpres	Common on all islands made of sand (in reference to all islands visited-RBC).
Pluvialis dominica	Plentiful on all islands visited except Necker Island. (Bird, Frigate Shaols, Lisianski, Pearl and Hermes visited)
Numenius thattiensis	Several seen on Frigate Shoals , Dec. 19.
Crocethia alba	3 seen on Frigate Shoals, Dec. 19.
Anous stolidus	200 prs. nesting on Frigate Shoal, Dec. 19, and newly hatched young seen.
Anous minutus	Noted on all islands visited except French Frigate Shoals.
Procelsterna cerulea	Were fairly common on French Frigate Shoals.

Extracts from George Willet®s Report on the Bureau of Biological Survey Expedition to the Northwestern Hawaiian Islands in 1911-1913. Data pertaining to Laysan Island (Extracted from cards by R.B.Clapp, 7 April 1969)

Species

Willet's Remarks

Hemidactylus garnotii

Observed on Laysan Island; occasional. (This observation is of particularly significance since it it the only other record of this lizard's occurrence on Laysan besides the one published as a result of the Albatross visit in 1902. - RBC)

Monacus schaumnslandi

An adult taken on Laysan Island

Ablepharus boutonii

Observed on Laysan Island, abundant

Pterodroma hypoleuca

Was most abundant bird on the reservation during our stay. Estimated 50,000 prs. on Laysan Island. On Dec. 22 when we arrived on Laysan, the birds were courting and preparing to nest. Nesting began in January, with the first eggg noted Jan. 9. A very considerable mortality noted, hundreds smothered to death in burrows from drifting sand. Not seriously affected by losses as numbers are so considerable.

Oceanodroma tristrami /

Estimated there were about 10,000 pairs nesting on Laysan Island on arrival Dec. 22, 1912. The birds on Laysan nest low and the water would often rise and drown the birds in the burrows, so the percentage of youngxaxim raised to maturity must be quite small. Est. that about 20% of the birds succeeded in raising young this spring (1913). The eggs are laid in late December and early January; if the first is lost another egg is deposited. Measurement of 6 breeding males and 6 breeding gemales given in report.

Diomedea nigripes

The nest by actual count on Laysan Is, were 7722, or a total of over 15,000 birds. Count was made in Feb. when all eggs were laid. This species begins nesting by Dec. 15 and all eggs are laid by Jan. 15. Incubation period found to be 31 days. This species has a very low death rate, and does not renest if the first is unsucessful. First young were noted Jan. 21 and soon became plentiful.

Diomedea immutabilis

. . . actually counted 12,231 prs. Laysan Is. (Dill had reported 180,000 on Laysan Is., and there was nothing to indicate that the birds had been disturbed since his visit in 1911). Mortality is rather high and est. that 50% are lost. of 12,321 nests found on Laysan, 9201 were occupied and 3126 were deserted. First young noted Jan. 22. This species does not renest if first nesting is unsuccessful.

Buffinus pacificus V

Only(bird seen during winter) was a dying bird on Dec. 24. Began appearing March 10 when 3 were seen on Laysan. (Context of remarks on other islands suggests that none were found breeding on Laysan).

Puffinus nativa vatus

First seen on Laysan Is., Feb. 13, when 2 were seen by Bailey; had become abundant by March 11, when they were seen all over the Island. At this time they were courting and nest building.

Willet's Observations on Laysan *** 1912-1913 p.2	
Species	Willet's Remarks
Sula sula	Not very common on Laysan during winter; becoming more plentiful in spring. On March 11, about 50 prs. notes nest kwinking building invicinity of Frigate birds altho latter persecuted them.
Sula leucogaster	One noted on Laysan, Jan. 21.
Sula dactylatra	A few prs. beginning to nest on Laysan Is. Dec. 22. (Dill reported about 65 birds May 1911) There are about 100 prs. here at time of this visit. Most of nests cont ained two eggs.
Fregata magnificens	Found common, but mostly immatures on arrival in Laysan Island, Dec. 22. Adults begain arriving after first of the year and were still arriving March 11. Est. 3000 birds on area March 11, 1913 (Dill reported 12,500 present here May 1911) Were nest building by middle of January and first eggs were found Feb. L.
Phaethon rubricauda V	2 nearly grown young seen on Lawsan latter part of December and a few downy young seen in January together with a few eggs. A few pairs winter on Laysan and by March 15 were becoming rather plentiful.
Anas platyrhynchos	A pair seen on Laysan from Dec. 22 to February 9 frequenting fresh water pond.
Anas acuta	Flock of 15 seen Dec. 24 when flushed from vicinity of fresh water pond on Laysan Is. Small flocks seen several times during first part of January after which they disappeared.
Anas laysanensis	7 individuals found on Laysan Is. composed of 3 pairs and an odd male. Were very tame, have no enamies on the island. Had not started to nest at time of our visit, Dec. 22-Mar. 11.
Spatula clypeata	Flock of 6 birds seen on Laysan Island, January 30 and a gain on Feb. 11.
(Bufflehead)	An adult female taken by member of party,
Porzanula palmeri	Very plentiful over Laysan Is. Noted stealing petrel and tern eggs. One seen swimming armen across a pond, a distance of about 15 feet. Not nesting when we left March 11.
Arenaria interpres	Very a bundant on Laysan Island. Noted in thousands on Laysan.
Squaterola squatarola	2 seen on Laysan Is. Dec. 27 and one was secured. sincle

Squatarola squatarola 2 seen on Laysan Is., Dec. 27 and one was secured; single birds noted several times during the remainder of our stay.

Pluvialis dominica / Plentiful

Numerius tahitiensis / Abundant on Laysan Island.

Erolia alpina Only one seen, an adult female which was taken on Laysan Island.

	Willet's Observations on	Laysan 1912-1913 p.3
	Species	Willet's Remarks
	Crocethia alba	Occasionally seen on Laysan Island during winter and spring.
	Phalaropus fulicarius	First noted this date (1-6-13) on Laysan Island. Frequently noted in flocks of plover and turnstone until middle of February. A specimen was secured.
4	Larus glaucescens	Immature in gray plumage taken by Bailey on Laysan Island (1-25-13)
	Larus philadelphia	Immature female taken by Bailey on Laysan (12-27-12)
	Heteroscelus incanum /	Very common around lagoon and on the beaches during our stay on Laysan Island.
	Anous stolidus	Laysan had about same number nesting there (200 prs.) and by January 1 young birds were fairly plentiful. Many young were flying and fishing for themselves by first of March on Laysan
	Sterna fuscata	Occasionalyy seen during January and February on Laysan Is. Numbers increased rapidly after middle of February and became abundant by Mar. 11, but had not begun to nest.
	Anous minutus	Most plentiful on Laysan where there were 1500-2000 nesting pairs. Many nests contained eggs Dec. 24. Young first noted Jan. 17. About half of first nesting unsuccessful, due to eggs rolling out of nests or trampling of young birds. Were renesting Feb. 20, when nest rebuilding noted and by Mar 1, eggs were plentiful again.
	Gygis alba	2-3 pairs noted on Laysan on our arrival in December, increase gradually and by March 1 about 40 pairs present. First egg noted December 29 and by Jan. 4 an egg had hatched; this young bird kx was flying with old birds March 10.
	Sterna lunata	Occasionally seen on Laysan during winter. Became plentiful after February 1 and by early March were nesting abundantly. First eggs noted Feb. 25 24.

Telespiza cantains

Abundant on Laysan Island, Food buds and seeds, maining mainly from the vine Tribulus vistoides. Prone to eat eggs of absent owners.

Acrocephalus familiaris Least plentiful of kamm land birds on Laysan, but seem to be holding their own, and in no present danger of extermination. Estimated there are now at least 500 on island.

Himatione faaithii Common on Laysan where there appears to be no danger of extinction. Not nesting during our stay.

Extracts from George Willet's Report on the Bureau of Biologival Survey Expedition to the Northwestern Hawaiian Islands in 1912-1913. Data pertaining to Lisianski Island. (Extracted from cards by R.B.Clapp, 9 April 1969)

	Species	Willet@s Observations
	Monacus schauinslandii	2 seen on Lisianski Island.
	Pterodroma hypoleuca	Estimated 20,000 prs. on Lisianski Is.
	Diomedea nigripes	Estimated 300 prs. nesting on Lisianski
,	Diomedea immutabilis	Estimated 100 pairs on Lisianski
V	Puffinus pacificus	(Not seen on Lisianski during winter - no comment made as to their presence in March- RBC)
· Landarder	Puffinus nativitatus	l pair was seen on Lisianski, March 12
4.	Sula sula	30 pairs noted nesting on Lisianski Is., in company with Frigate birds. Some on nests contained fresh eggs.
	Sula leucogaster	About 12 birds seen on Lisianski Is., March 12.
	Sula dactylatra	Rather common on Lisianski Is., March 12.
1	Fregata minor	Substantial nesting colony (or colonies?) found on Lisianski
V	Phaethon rubricauda	(Presence not noted in card extracts of Willet's notes-RBC)
	Porxanula palmeri	We liberated 40 on Lisianski Island, under faborable conditions.
· •	Arenaria interpres	"Common on all islands made of sand" (but Lisianski not specifically mentioned - RBC)
	Pluvialis dominica	Plentiful
	Numenius tahitiensis	Common
V	Crocethia alba	Fairly common on Lisianski March 12.
✓	Americanis incanum	(Maithmerrentiansdringsepmentianskierwithkkieramstricements axtrastsesitwitheitsexteportexexect) (Not mentioned in card extracts of Willet's Report with regard to Lisianski - RBC)
V	Anous stolidus	Found nesting in moderate numbers on Lisianski
1	Sterna fuscata	Were plentiful on Lisianski Island, March 12.
1	Anous minutus	Noved on all islands visited except French Frigate Shoals
	Gygis alba	(Lot mentioned as occurring on Lisianski on cards - RBC)
	Sterna lunata	Westing in considerable numbers on Lisianski, Is., March 12.

Extracts from George Willet's Report on the Bureau of Biological Survey Expedition to the Northwestern Hawaiian Islands in 1912-1913. Data pertaining to Pearl and Hermes (Extracted from cards by R.B.Clapp, 23 April 1969)

Species	Willet's Remarks
Pterodroma hypoleuca	(estimated) 1500 prs. on Pearl and Hermes Reef.
Diomedeanigripes	About 300 prs. on Pearl and Hermes Reef.
Diomedea immutabilis	(estimated) 300 prs. on Pearl and Hermes Reef.
Sula leucogaster	One seen on Pearl and Hermes.
Sula dactylatra	About 50 prs nesting on Pearl and Hermes Reef; most of nests here contained eggs, but 2-3 had recently hatched young.
Fregata minor	a small colony seen on Pearl and Hermes Reef.
Arenaria interpres	Common on all islands made of sand.
Pluvialis dominica	Plentiful
Numenius tahitiensis	several seen on Pearl and Hermes Reef.
Sterna fuscata	l noted on Pearl and Hermes Reef March 15
Anous stolidus	Found nesting in moderate numbers on Lisianski and less plentifully on Necker and Pearl and Hermes Reef.
Anous minthes	Notes on all islands visited except French Frigate Shoals.

Extracts from William Todd's Report of a visit to the Northwestern Hawaiian Islands in September 1918. Data pertaining to Laysan Island (Extracted from cards by R.B.Clapp, 9 April 1962.

Species	Todd's Observations
Monacus schauinislandii	Large seal, estimated to weigh 600-700 lbs.found dead on beach at Laysan 8 Septebmer 1918.
Chelonia mydas	Were in a bundance along the beach on Laysan Island. Many caught by crew weighing 20-300 pounds (Entry is listed under Loggerhead Turtle but almost certainly pertains to the Green Sea Turtle - RBC)
Pterodroma hypoleuca	Next to most common species on Laysan Island and estimate of 250,000 considered conservative.
Diomedea nigripes	None seen on trip to Laysan Island
Diomedea immutabilis	Noticeable scarcity of this species on Laysan. usually seen in threes, 2 adult and an apparently young bird. No nests or very young seen.
Puffinus pacificus	Marked increase noted over numbers observed in 1911 by the expedition.
Puffinus nativitatus	Noted continusally, no count attempted.
Sula sula	Not more than a dozen seen on Laysan
Sula leucogaster	(Evidently not mentioned by Todd-RBC)
Sula dactylatra	4-5 seen near lagoon on Laysan, no nests nor young seen.
Fregata minor	Estimated about 16,000 on Laysan including the young; nests located around the lagoon, placed on high bushes.
Phaethon rubricauda	Very few noted on Laysan.
Anas laysanensis	Quite numerous on Laysan; one flock of 20 seen; also groups of from 2-6 seen.
Porzanula palmeri	Often seen on Laysan Island. No estimate of gigures attempted.
Arenaria interpres	Seen in large flocks on Laysan Island.
Pluvialis dominica	(Evidently not mentioned in Todd Report - REC)
Numenius tahitiensis	Were in numbers on all parts of Laysan, estimated at least 1,000 present.
Heteroscelus incanum	One seen on Laysan Island.
Anous stolidus	(Evidently not mentioned in Todd Report - RBC)
Sterna fuscata	Most common species on Laysan; nests distributed generally over the island. Estimated 500,000

Species	Todd's Observations
Anous mintess	Found only in lowlands near lagoon; no nests nor young found; estimated population at 2000
, Gygis abka alba	Pair seen flying a bout beach at Laysan, 3 more kakekkek seen later on island.
Sterna lunata	Not observed on trip to Laysan.
Telespiza cantains.	Seen in large numbers on Laysan Island.

Extracts from William Todd's Report of a visit to the Northwestern Hawaiian Islands in September 1918. Date pertaining to Kure Atoll (Extracted by R.B.Clapp, 23 April 1969)

Species	Todd's Remarks
Pterodroma hypoleuca	Noted on Kure or Ocean Island. (Sept. 15, 1918)
Diomedea nigripes	Noted on Kure or Ocean Island.
Diomedea immutablis	Note (sic) on Ocean or Kure Island
Gygis alba	Noted on Kure or Ocean Island.

Extracts from William Todd's Report of a visit to the Northwestern Hawaiian Islands in September 1918. Data pertaining to Nihoa Island (Extracted from cards by R.B.Clapp, 23 April 1969).

Species	Todd's Remarks	rr dina-redamananaka werdi err dilitel errina er-adilasse			
Diomedea nigripes Diomedea immutabilis	Noted on Bird Island (Sept. 2, 1918) A few seen on Bird Island.	,			May ex
Puffinus pacificus Gygkszakka	Noted on Bird Island	,			
Sterma fuscata	Noted on Bird Island		,	¢	

Extracts from William Todd's Report of a visit to the Northwestern Hawaiian Islands in September 1918. Data pertaining to Necker Island (Extracted from cards by R.B.Clapp, 23 April 1969).

Maddle Romanice

Species

	TOGG B REMERNS
Sula sula Gygis alba	Noted on Necker Island (Sept. 3, 1918) Noted on Necker Island
Phaethon rubricauda Sterna lunata	Noted on Necker Island Noted on Necker Island
Numenius tahitiensis	Noted on Necker and Frigate Shoals; nesting on latter island.
Sterna fuscata	Noted on Necker Island

Extracts from William Todd's Report of a visit to the Northwestern Hawaiian Islands in September 1918. Date pertaining to French Frigate Shoals. (Extracted from cards by R.B.Clapp, 23 April 1969).

Species	Todd's Remarks
Numenius tahitiensis	Noted on Necker and Frigate Sheals; nesting on latter islands.
Sterna fuscata	Colony noted on Frigate Shoals, nesting; young seen; estimated at 8,000-10,000 (September 5, 1918)
Anous minutes	About 500 seen nesting on Frigate Shoals.

Notes on Wildlife of Laysan made in May 1924 by G.P.Wilder and communicated by him to the Bureau of Biological Survey in a letter dated May 12, 1924. (Extracted from cards by R.B.Clapp, 23 April 1969.).

Species	Wilder's Remarks
Diomedea immutabilis	Present in great numbers.
Fregata minor	Numerous on Laysan Island.
Phaethon rubricauda	Very scarce on Laysan Island.
Anas laydanensis	Saw only 2 birds on Laysan Island.
Gygis alba	Very scarce on Laysan Island.
Rabbits	(May 2) No rabbits noted on Laysan; 3 seen on Southeast Island and 2 were shot.

Extract from Reno's Report on Rabbit Killing in 1923 (part of remarks are on a card that is missing.-RBC)

ever began to appear. When we left May 14 no rabbits had been seen for the past 8 days. The rabbits found on SE Island were thought to have been taken there by Japanese fishermen. Approximately 150 found here. Poison and guns were used here.



## UNITED STATES DEPARTMENT OF THE INTERIOR FISH AND WILDLIFE SERVICE BUREAU OF SPORT FISHERIES AND WILDLIFE WASHINGTON, D.G. 20240

June 20, 1968

Monogandum

To: Regional Directors and Rafuge Managers

Prom: Chief, Division of Wildlife Refuges

Subject: Distribution of record eard file

In the early years of refuge operations, before 1943, a card record for each refuge was maintained on birds and mammals taken from narrative reports, review of literature, and correspondence. This file also contains a record of early fish stockings, predator removals, planting of herbaceous materials and their costs, and related subjects.

It would be extremely difficult, if not impossible, to accumulate such substantiating records at the present time. Many contributors are no longer living. In some instances supporting details were never published in appropriate journals. Recently, requests have been received for such details when State publications will in preparation. Refuge managers should safeguard these records. They may wish to prepare an annotated sheet of rare species such as the Seney Refuge did on the fourth page of the bird list, adding name of observer and locality.

All cards on these various subjects for a refuge are being sent under separate cover to regional Offices for delivery to the refuges.

The following materials warm are extracts of materials loanded by Eugene Kridler to Robert L. Pyle of the Honolulu Office. They include extracts from reports by George Willett xxxxxxxx on the Bureau of Biological Survey Expedition of 1911 -1912 and from visits by Wilder in 1930 and from a report by William Todd made during a visit in 1918 to various of the Northwestern Hawaiian Islands. Much of this material Additional material including that from Munter's Reports and from others is already in the files of the Pacific Program and Ihave-not-// extracted these materials. The original information was typed on three by five inch cards. From these I have extracted the observtions by trip and by island on the acc mpanying sheets. The following page is a copy of a letter explaining the distribution of these files to the various refuges\_concerned. All material here extracted is from files of the U.S. Bureau of Sport Fisheries and Wildlife in Honolulu and appropriate acknowledgement, in particular to Eugene Kridler, should be made if these materials are used in any of the various island accounts. R.B.Clapp -- 7 April 1969 most of these materials (particularly the whileto and the material has not been extracted

Date on Laysan Wildlife made December 15, 1936 by W.F. Coultas and communicated by him in a letter dated June 4, 1937. (Extracted from cards by R.B.Clapp, 23 April 1969)

Species	Coultas's Remarks
Oceanodroma tristrami	(Referred to by Coultas as Mother Carpy's Chicken RBC) Apparentl not many on Laysan Island, only one pulled from burrow, although many burrows were opened.
Diomedea nigripes	Many thousands located mostly along sandy beaches at Eastern, Northern and Subthern ends of Laysan. 6 specimens and 5 eggs saved
Diomedea immutabilis	Many thousands scattered discriminately and in colonies all over interior of island. Just beginning to nest. 6 specimens and 5 eggs taken.
Sula syau	Arrpoximately 12 seen flying on Laysan Island, a pair nesting in ironwood trees at north end of island.
Sula dactylatra	Species had just finished nesting on Laysan Island. 4 specimens taken. About 100 on the island and mostly found on south end.
Fregata minor	Was just completing nesting season. Possibly 150 birds seen on Laysan at time of our visit. I specimen taken.
Anas Laysanensis	ll birds seen on south end of the lake. Ran easily into the grass, do not think these were all the birds. 2 specimens taken.
Arenaria interpres	From 3000-5000 seen about the edge of the lake on Laysan Island. About 100 seen dead, possibly an epidemic.
Numenius tahitiensis	About 20 seen about Laysan Island, Very shy, I specimen taken,
Heteroscelus incanum	Possibly a hundred scattered individuals seen about Laysan Island.
Anous stolidus	3-4 seen flying at south end of Laysan Island.
Anous minutus	About 40 have been seen around the various ironwood trees. Eggs observed.
Gygis alba	4-5 seen around the buildings.
Telespiza cantans	Found everywhere on Laysan Island. 1000 would be a conservative estimate of the population here. Often seen eating eggs of albatross. 6 taken.

data plate The following materials were are extracts of materials loanded by Eugene Kridler to Robert L. Pyle of the Honolulu Office. They include extracts from reports by George Willett inxxxxx on the Bureau of Biological Survey Expedition of 1911 -1912 and from visits by Wilder in 1930 and from a report by William Todd made during a visit in 1919 to various of the Northwestern Hawaiian Islands. Much of this material Additional material including that from Munteres Reports and from others is already in the files of the Pacific Program and Ihave not extracted these materials. The original information was typed on three by five inch cards. From these I have extracted the observtions by trip and by island on the acc mpanying sheets. Phe following page is a copy of a letter explaining the distribution of these files to the various refuges concerned. All material here extracted is from files of the U.S. Bureau of Sport Fisheries and Wildlife in Honolulu and appropriate acknowledgement, in particular to Eugene Kridler. should be made if these materials are used in any of the various island accounts. R.B. Clapp -- 7 April 1969 Most of these materials (particularly the wheet and Tooks reports) are apparently now otherwise unblamable. the material has not been extracted Roger - This has been typed and put in serial file under forw

Extracts from George Willet's Report on the Bureau of Biological Survey Expedition to the Northwestern Hawaiian Islands in 1912-1913. Data pertaining to Necker Island. (Extracted from cards by R.B.Clapp, 23 April 1969).

	Species	Willet's Remarks
٠	Dimmedea nigripes 3.	A few were found nesting.
the second	Diomedea immutabilis 4.	Estimated 400 prs. on Necker Island.
	Puffinus pacificus /a.	Were plentiful in ocean in vicinity of Necker and Bird Islands, March 19,20, and 21.
6	Sula leucogaster 23.	2 noted on Necker Is. March 19
September 1	Sula dactylatra 2/,	Nesting in small numbers noted on Necker Is., Mar. 19, eggs and young seen.
	Fregata minor 25.	Substantial nesting (colony or colonies) found on Necker.
	Phaethon rubricauda 19.	Rather rare on Necker Is.
	Areaaria interpres 64.	Was only wader seen on Necker Is., where 1-2 seen.
8	Pluvialis dominica 50	Plentiful on all islands visited except Necker Is.
497000	Anous stolidus 93	Round nesting in moderate numbers on Lisianski and less plentifully on Necker.

Extracts from George Willet's Report on the Bureau of Biological Survey Expedition to the Northwestern Hawaiian Islands in 1912-1913. Data pertaining to Nihoa Island. (Extracted from cards by R.B. Clapp, 23 April 1969)

	Species	Willet's Remarks
*	Diomedea nigripes 3	A few were found nesting on Bird Island
2	Puffinus pacificus / V	Were plentiful in ocean in vicinity of Necker and Bird Islands, March 19, 20, and 21.
Market Comment	Sula leucogaster 23	A few birds noted on Bird Island, Dec. 17.
Ť	Sula dactylatra 2/	common bird off Bird Is., Dec. 17.
and the second s	Phaethon lepturus 20	One or two noted near Bird Is., December 17. Those seen on Bird Is. probably stragglers from larger islands.
10	Phaeton rubricauda 19	Fairly common around Bird Is. in December.
To be designed to the same	Pluvialis dominica 50	Plentiful.
9	Anous stolidus 93	Several seen off Bird Is., Dec. 17

Species	Willet's Remarks
\\ Sterna fuscata 91.	Thousands nesting on Necker Is. Most of eggs were advanced in incubation and a number of downy young seen.
Anous minutus	Noted on all islands visited except French Frigate Shoals
Gygis alba %	Were found nesting on Necker Is., March 19, no young were seen; thousands seen on Necker and Bird Islands.
OSterna lunata 90	were nesting on Necker Island on steep hillsides. No young noted up to time we left islands. ((Check this back against other islands and add for each where not includedLaysan and Lisianski))
Procelsterna saxatilis %	Were very plentiful on Necker Island where they were so tame they flutterd around out heads. One egg noted on this date ((March 19))

Willet's Observations on Nihoa p.2

	Species	Willet's Remarks
10	Anous minutus for 94 die	Noted on all islands visited except French Frigate Shoals
15	Gygis alba .95	thousands seen on Necker and Bird Islands
8	Procelsterna cerulea 92	very plentiful on Bird Island.

Extracts from Geroge Willet's Report on the Bureau of Biological Survey Expedition to the Northwestern Hawaiian Islands in 1912-1913. Date pertaining to French Frigate Shoals. (Extracted from cards by R.B.Clapp, 23 April 1969).

	Species	Willet's Remarks
1 %	Pterodroma hypoleuca	Estimated 1000 prs. on Frigate Shaosl.
	Diomedea nigripes	About 200 pairs were nesting on French Frigate Shoals.
1/4	Diomedea immutabilis	Estimated 200 pairs on French Frigate Shoals.
	Puffinus pacificus  Sula dactylatra	Only ones seen during winter were a nearly grown yo ng on French Frigate Shaols, Dec. 19 About 40 paris nesting on Frigate Shoals, Dec. 19.
19.	Phaethon rubricauda	Fairly common around Bird Island in December, also around Frigate Shoals.
/.,	Arenaria interpres	Common on all islands made of sand (in reference to all islands visited-RBC).
	Pluvialis dominica	Plentiful on all islands visited except Necker Island. (Bird, Frigate Shaols, Lisianski, Pearl and Hermes visited)
en 's	Numenius taattiensis	Several seen on Frigate Shoals , Dec. 19.
d'i Ma	Crocethia alba	3 seen on Frigate Shoals, Dec. 19.
	Anous stolidus	200 prs. nesting on Frigate Shoal, Dec. 19, and newly hatched young seen.
च्यू.	Anous minutus	Noted on all islands visited except French Frigate Shoals.
72	Procelsterna cerulea	Were fairly common on French Frigate Shoals.

Extracts from George Willet&s Report on the Bureau of Biological Survey Expedition to the Northwestern Hawaiian Islands in 1911-1913. Data pertaining to Laysan Island (Extracted from cards by R.B.Clapp, 7 April 1969)

	Species	Willet's Remarks
71	Hemidactylus garnotii	Observed on Laysan Island; occasional. (This observation is of particularly significance since it it the only other record of this lizard's occurrence on Laysan besides the one published as a result of the Albatross visit in 1902 RBC)
	Monacus schaumnslandi	An adult taken on Laysan Island
	Ablepharus boutonii	Observed on Laysan Island, abundant
7.	Pterodroma hypoleuca 3	Was most abundant bird on the reservation during our stay. Estimated 50,000 prs. on Laysan Island. On Dec. 22 when we arrived on Laysan, the birds were courting and preparing to nest. Nesting began in January, with the first eggg noted Jan. 9. A very considerable mortality noted, hundreds smothered to death in burrows from drifting sand. Not seriously affected by losses as numbers are so considerable.
	Oceanodroma tristrami 6	Estimated there were about 10,000 pairs nesting on Laysan Island on arrival Dec. 22, 1912. The birds on Laysan nest low and the water would often rise and drown the birds in the burrows, so the percentage of youngxaxia raised to maturity must be quite small. Est. that about 20% of the birds succeeded in raising young this spring (1913). The eggs are laid in late December and early January; if the first is lost another egg is deposited. Measurement of 6 breeding males and 6 breeding females given in report.
3	Diomedea nigripes	The nest by actual count on Laysan Is. were 7722, or a total of over 15,000 birds. Count was made in Feb. when all eggs were laid. This species begins nesting by Dec. 15 and all eggs are laid by Jan. 15. Incubation period found to be 31 days. This species has a very low death rate, and does not renest if the first is unsucessful. First young were noted Jan. 21 and soon became plentiful.
The manage of the state of the	Diomedea immutabilis	actually counted 12,231 prs. Laysan Is. (Dill had reported 180,000 on Laysan Is., and three was nothing to indicate that the birds had been disturbed since his visit in 1911). Mortality is rather high and est. that 50% are lost. of 12,321 nests found on Laysan, 9201 were occupied and 3126 were deserted. First young noted Jan. 22. This species does not renest if first nesting is unsuccessful.
and the second s	Buffinus pacificus	Only(bird seen during winter) was a dying bird on Dec. 24. Began appearing March 10 when 3 were seen on Laysan. (Context of remarks on other islands suggests that none were found breeding on Laysan).

Puffinus nativitatus First seen on Laysan Is., Feb. 13, when 2 were seen by Bailey; had become abundant by March 11, when they were seen all over the Island. At this time they were sourting and nest building.

•	Species	Willet's Remarks
7. 7.	Sula sula	Not very common on Laysan during winter; becoming more plentiful in spring. On March 11, about 50 prs. notes nest kwikikug building invicinity of Frigate birds altho latter persecuted them.
v3.	Sula leucogaster	One noted on Laysan, Jan. 21.
	Sula dactylatra 2	A few prs. beginning to nest on Laysan Is. Dec. 22. (Dill reported about 65 birds May 1911) There are about 100 prs. here at time of this visit. Most of nests cont ained two eggs.
and the second	Fregata magnificens //	Found common, but mostly immatures on arrival in Laysan Island, Dec. 22. Adults begain arriving after first of the year and were still arriving March 11. Est. 3000 birds on area March 11, 1913 (Dill reported 12,500 present here May 1911) Were nest building by middle of January and first eggs were found Feb. L.
9-54	Phaethon rubricauda 7	2 nearly grown young seen on Lagsan latter part of December and a few downy young seen in January together with a few eggs. A few pairs winter on Laysan and by March 15 were becoming rather plentiful.
3/1	Anas platyrhynchos /2	A pair seen on Laysan from Dec. 22 to February 9 frequenting fresh water pond.
37.	Anas acuta	Flock of 15 seen Dec. 24 when flushed from vicinity of fresh water pond on Laysan Is. Small flocks seen several times during first part of January after which they disappeared.
	Anas laysanensis 13	7 individuals found on Laysan Is. composed of 3 pairs and an odd male. Were very tame, have no enemies of the island. Had not started to nest at time of our visit, Dec. 22-Mar. 11.
to the state of th	Spatula clypeata	Flock of 6 birds seen on Laysan Island, January 30 and a gain on Feb. 11.
eftel.	(Bufflehead) 16	An adult female taken by member of party,
47.	Porzanula palmeri //	Very plentiful over Laysan Is. Noted stealing petrel and tern eggs. One seen swimming aroxxx across a pond, a distance of about 15 feet. Not nesting when we left March 11.
Loth	Arenaria interpres	Very a bundant on Laysan Island. Noted in thousands on Laysan.
₩.	Squatarola squatarola /8	2 seen on Laysan Is., Dec. 27 and one was secured; single birds noted several times during the remainder of our stay.
A Ca	Pluvialis dominica 19	Plentiful
55	Numenius tahitiensis 20	Abundant on Laysan Island.
135 m	Erolia alpina 25	Only one seen, an adult female which was taken on Laysan Island.

Willet's Observations on Laysan 1912-1913 -- p.3 Willet's Remarks Species Crocethia alba 24 Occasionally seen on Laysan Island during winter and spring. Phalaropus fulicarius 26 First noted this date (1-6-13) on Laysan Island. Frequently noted in flocks of plover and turnstone until middle of February. A specimen was secured. Larus glaucescens 27 Immature in gray plumage taken by Bailey on Laysan Island (1-25-13)% Larus philadelphia Immature female taken by Bailey on Laysan (12-27-12) Heteroscelus incanum a Very common around lagoon and on the beaches during our stay on Laysan Island. 93. Anous stolidus 3/ Laysan had about same number nesting there (200 prs.) and by January 1 young birds were fairly plentiful. Many young were flying and fishing for themselves by first of March on Laysan. Sterna fuscata 30 Occasionalyy seen during January and February on Laysan Is. Numbers increased rapidly after middle of February and became abundant by Mar. 11, but had not begun to nest. Anous minutus/tonico 32 Most plentiful on Laysan where there were 1500-2000 nesting pairs. Many nests contained eggs Dec. 24. Young first noted Jan. 17. About half of first nesting unsuccessful, due to eggs rolling out of nests or trampling of young birds. Were renesting Feb. 20, when nest rebuilding noted and by Mar l, eggs were plentiful again. Gygis alba 33 2-3 pairs noted on Laysan on our arrival in December, increased gradually and by March 1 about 40 pairs present. First egg noted December 29 and by Jan. 4 an egg had hatched; this young bird wax was flying with old birds March 10. % Sterna lunata Occasionally seen on Laysan during winter. Became plentiful after February 1 and by early March were nesting abundantly. First eggs noted Feb. 24 24. Telespiza cantains 36 Abundant on Laysan Island. Food buds and seeds, maximize mainly from the vine Tribulus vistoides. Prone to eat eggs of absent owners. Acrocephalus familiaris 34 Least plentiful of kan land birds on Laysan, but seem to be holding their own, and in no present danger of extermination. Estimated there are now at least 600 on island.

Common on Laysan where there appears to be no danger of

extinction. Not nesting during our stay.

Himatione faaithii 35

Extracts from William Todd's Report of a visit to the Northwestern Hawaiian Islands in September 1918. Data pertaining to Laysan Island (Extracted from cards by R.B.Clapp, 9 April 1969.

	Species	Todd's Observations
	Monacus schauinislandii	Large seal, estimated to weigh 600-700 lbs.found dead on beach at Laysan 8 Septebmer 1918.
	Chelonia mydas	Were in a bundance along the beach on Laysan Island. Many caught by crew weighing 20-300 pounds (Entry is listed under Loggerhead Turtle but almost certainly pertains to the Green Sea Turtle - RBC)
7.	Pterodroma hypoleuca	Next to most common species on Laysan Island and estimate of 250,000 considered conservative.
	Dicmedea nigripes	None seen on trip to Laysan Island
4.	Diomedea immutabilis	Noticeable scarcity of this species on Laysan. usually seen in threes, 2 adult and an apparently young bird. No nests or very young seen.
12.	Puffinus pacificus (1)	Marked increase noted over numbers observed in 1911 by the expedition.
14.	Puffinus nativitatus (5)	Noted continusally, no count attempted.
# 2 # 2 15 2 2 4 4	Sula sula	Not more than a dozen seen on Laysan
23.	Sula leucogaster	(Evidently not mentioned by Todd-RBC)
21.	Sula dactylatra	4-5 seen near lagoon on Laysan, no nests nor young seen.
25.	Fregata minor	Estimated about 16,000 on Laysan including the young; nests located around the lagoon, placed on high bushes.
19.	Phaethon rubricauda	Very few noted on Laysan.
32.	Anas laysanensis	Quite numerous on Laysan; one flock of 20 seen; also groups of from 2-6 seen.
47.	Porzanula palmeri	Often seen on Laysan Island. No estimate of gigures attempted.
64.	Arenaria interpres	Seen in large flocks on Laysan Island.
50.	Pluvialis dominica (13)	(Evidently not mentioned in Todd Report - RBC)
55.	Numerius tahitiensis	Were in numbers on all parts of Laysan, estimated at least 1,000 present.
43.	Heteroscelus incanum	One seen on Laysan Island.
13.	Anous stolidus	(Evidently not mentiomed in Todd Report - RBC)
9/.	Sterna fuscata	Most common species en Laysan; nests distributed generally over the island. Estimated 500,000

Species

Todd's Observations

94. Anous mintoss + tenuirostal

Found only in lowlands near lagoon; no nests nor young found; estimated population at 2000

95 Gygis abka alba

Pair seen flying a bout beach at Laysan, 3 more kakekxxx seen later on island.

90 Sterna lunata

Not observed on trip to Laysan.

Telespiza cantains

Seen in large numbers on Laysan Island.

Extracts from George Willet's Report on the Bureau of Biologival Survey Expedition to the Northwestern Hawaiian Islands in 1912-1913. Data pertaining to Lisianski Island. (Extracted from cards by R.B.Clapp, 9 April 1969)

	Species	Willet&s Observations
	Monacus schauinslandii	2 seen on Lisianski Island.
4.	Pterodroma hypoleuca	Estimated 20,000 prs. on Lisianski Is.
1537	Diomedea nigripes	Estimated 300 prs. netting on Lisianski
4.	Diomedea immutabilis (2)	Estimated 100 pairs on Lisianski
12.	Puffinus pacificus @	(Not seen on Lisianski during winter - no comment made as to their presence in March- RBC)
14.	Puffinus nativitatus	l pair was seen on Lisianski, March 12
d2.	Sula sula (8)	30 pairs noted nesting on Lisianski Is., in company with Frigate birds. Some on nests contained fresh eggs.
	Sula leucogaster (9)	About 12 birds seen on Lisianski Is., March 12.
cil.	Sula dactylatra	Rather common on Lisianski Is., March 12.
25	Fregata minor	Substantial nesting colony (or colonies?) found on Lisianski
19.	Phaethon rubricauda	(Presence not noted in card extracts of Willet&s notes-RBC)
47.	Porxanula palmeri	We liberated 40 on Lisianski Island, under faborable conditions.
64.	Arenaria interpres	"Common on all islands made of sand" (but Lisianski not specifically mentioned - RBC)
50	Pluvialis dominica	Plentiful
25.	Numenius tahitiensis (3)	Common
70.	Crocethia alba (%)	Fairly common on Lisianski March 12.
63.	Amousxstokidusxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	(Neither: Mankiared: Mankarage extinguith: Meridanski anski
Z.	Anous stolidus	Found nesting in moderate numbers on Lisianski
91.	Sterna fuscata	Were plentiful on Lisianski Island, March 12.
94.	Anous minutus + tenuirestris	Noted on all islands visited except French Frigate Shoals
95	Gygis alba	(Not mentioned as occurring on Lisianski on cards - RBC)
90.	Sterna lunata	Nesting in conziderable numbers on Lisianski Is., March 12.

Extracts from George Willet's Report on the Bureau of Biological Survey Expedition to the Northwestern Hawaiian Islands in 1912-1913. Data pertaining to Pearl and Hermes (Extracted from cards by R.B.Clapp, 23 April 1969)

*		Species	Willet's Remarks
	7.	Pterodroma hypoleuca 3	(estimated) 1500 prs. on Pearl and Hermes Reef.
	3,	Diomedeanigripes	About 300 prs. on Pearl and Hermes Reef.
	of.	Diomedea immutabilis 2	(estimated) 300 prs. on Pearl and Hermes Reef.
	23.	Sula leucogaster 5	One seen on Pearl and Hermes.
MANA NASA	2/.	Sula dactylatra 4	About 50 prs nesting on Pearl and Hermes Reef; most of nests here contained eggs, but 2-3 had recently hatched young.
		Fregata minor 4	a small colony seen on Pearl and Hermes Reef.
ı	69.	Arenaria interpres	Common on all islands made of sand.
	50.	Pluvialis dominica	Plentiful
ł	Consultation of the second	Numenius tahitiensis 8	several seen on Pearl and Hermes Reef.
ı	9/.	Sterna fuscata 10	1 noted on Pearl and Hermes Reef March 15
4	23.	Anous stolidus	Found nesting in moderate numbers on Lisianski and less plentifully on Necker and Pearl and Hermes Reef.
. 1	<i>94.</i>	Anous minutes + Tenuisopie	Notes on all islands visited except French Frigate Shoals.

Extracts from William Todd's Report of a visit to the Northwestern Hawaiian Islands R. B. Clapp, 23 April 1969)

edit.	Species	Todd's Remarks
	Pterodroma hypoleuca	Noted on Kure or Ocean Island. (Sept. 15, 1918)
3	Diomedea nigripes	Noted on Kure or Ocean Island.
4.	Diomedea immutablis	Note (sic) on Ocean or Kure Island
	Gygis alba	Noted on Kure or Ocean Island.

Extracts from William Todd's Report of a visit to the Northwestern Hawaiian Islands in September 1918. Data pertaining to Nihoa Island (Extracted from cards by R.B.Clapp, 23 April 1969).

	Species	Todd's Remarks
3. 4.	Diomedea nigripes Diomedea immutabilis	Noted on Bird Island (Sept. 2, 1918) A few seen on Bird Island.
Mark, a	Puffinus pacificus	Noted on Bird Island
	6xxxxxxxxxxxx	
71.	Sterna fuscata	Noted on Bird Island

Extracts from William Todd's Report of a visit to the Northwestern Hawaiian Islands in September 1918. Data pertaining to Necker Island (Extracted from cards by R.B. Clapp, 23 April 1969).

Species	Todd's Remarks
Sula sula Gygis alba	Noted on Necker Island (Sept. 3, 1918) Noted on Necker Island
19. Phaethon rubricauda 90. Sterna lunata	Noted on Necker Island Noted on Necker Island
35. Numenius tahitiensis	Noted on Necker and Frigate Shoals; nesting on latter island.
%. Sterna fuscata	Noted on Necker Island

Extracts from William Todd's Report of a visit to the Northwestern Hawaiian Islands in September 1918. Date pertaining to French Frigate Shoals. (Extracted from cards by R.B.Clapp, 23 April 1969).

## Species Todd's Remarks Noted on Necker and Frigate Sheals; nesting on latter islands. Sterna fuscata Colony noted on Frigate Sheals restings restings

Colony noted on Frigate Shoals, nesting; young seen; estimated at 8,000-10,000 (September 5, 1918)

94. Anous minutes themere About 500 seen nesting on Frigate Shoals.

and 2 were shot.

Notes on Wildlife of Laysan made in May 1924 by G.P.Wilder and communicated by him to the Bureau of Biological Survey in a letter dated May 12, 1924. (Extracted from cards by R.B.Clapp, 23 April 1962.).

## Species Wilder's Remarks Present in great numbers. Numerous on Laysan Island. Phaethon rubricauda Very scarce on Laysan Island. Anas laysanensis Saw only 2 birds on Laysan Island. Saw only 2 birds on Laysan Island. Very scarce on Laysan Island. Wery scarce on Laysan Island. (May 2) No rabbits noted on Laysan; 3 seen on Southeast Island

Extract from Reno's Report on Rabbit Killing in 1923 (part of remarks are on a card that is missing.-RBC)

ever began to appear. When we left May 14 no rabbits had been seen for the past 8 days. The rabbits found on SE Island were thought to have been taken there by Japanese fishermen. Approximately 150 found here. Poison and guns were used here.

Data on Laysan Wildlife made December 15, 1936 by W.F. Coultas and communicated by him in a letter dated June 4, 1937. (Extracted from cards by R.B. Clapp, 23 April 1969).

Species	Coultas's Remarks
Diomedea nigripes	Many thousands located mostly along sandy beaches at Eastern, Northern and Southern ends of Laysan. 6 specimens and 5 eggs saved.
Diomedea immutabilis	Many thousands scattered discriminately and in colonies all over interior of island. Just beginning to nest. 6 specimens and 5 eggs taken.
Oceanodroma tristrami	(Referred to by Coultas as Mother Carey's Chicken - RBC). Apparently not many on Laysan Island, only one pulled from burrow, although many burrows were opened.
Sula dactylatra	Species had just finished nesting on Laysan Island. 4 specimens taken. About 100 on the island and mostly found on south end.
Sula sula	Approximately 12 seen flying on Laysan Island, a pair nesting in Ironwood trees at north end of island.
Fregata minor	Was just completing nesting season. Possibly 150 birds seen on Laysan at time of our visit. I specimen taken.
Anas laysanensis	ll birds seen on south end of the lake. Ran easily into the grass, do not think these were all the birds. 2 specimens taken.
Numenius tahitiensis	About 20 seen about Laysan Island. Very shy. 1 specimen taken.
Heteroscelus incanum	Possibly a hundred scattered individuals seen about Laysan Island.
Arenaria interpres	From 3000-5000 seen about the edge of the lake on Laysan Island. About 100 seen dead, possibly an epidemic.
Anous stolidus	3-4 seen flying at south end of Laysan Island.
Anous minutus/tenuiros-	About 40 have been seen around the various Ironwood trees. Eggs observed.
Gygis alba	4-5 seen around the buildings.
Telespiza cantans	Found everywhere on Laysan Island. 1000 would be a conservative estimate of the population here. Often seen eating eggs of albatross. 6 taken.