HINWR Spring Trip (Bound)
March 19 - April 16, 1969

2 TMRS removed at PH

Table II Necker Wildlife Populations cont.

Species	Population	Class Data	Comments
Noddy terns (common)	25	C	
Hawaiian tern	500	B	approx. 80% on eggs
Fairy terns	500	C	150 birds were actually counted. The figure of 500 was estimated on basis of representative cliff nesting areas which could not be censused. Eggs to almost fully fledged young.
Blue grey noddy	750	C	head count showed 375 birds. Total estimate based on other available nesting habitat. Most incubating eggs.
Ruddy turnstones	2	A	

Wildlife Management Studies

1. Populations and Movements of the Hawaiian Monk Seal

Due to the rugged shoreline of Necker Island, the area has never supported high seal populations; however, during the past several years there appears to be an increase in the number of animals using this island. Twenty seals were observed at the junction of Northwest Cape and the mainland in Shark Bay. The sex-age breakdown of the animals observed was as follows: 7 adult males, 1 sub-adult male, 4 pregnant females, 2 sub-adult females, 6 unknown.
This was the highest seal count ever recorded on Necker Island. No pupping has been observed here, however.

2. Life History and Management Studies of the Green Sea Turtle

Four green sea turtles were observed in the same area where the seals were present. One was tagged No. 794; its weight was 135 lbs.

3. Habitat Studies of the islands of existing or potential value to rare and endangered wildlife of the Hawaiian Islands National Wildlife Refuge

Sincock and Kridler cover type mapped the island. Approximately 50% of the island is not vegetated due to the rocky terrain and lack of soil. Of the vegetation present approximately 95% was Chenopodium. Only five species of plants grow on Necker. No new ones were found on this trip.

2. Populations and Movements of the Hawaiian Monk Seal

Although no seals were observed on Tern Island, discussion with CPO Laud revealed that personnel from the station visited some of the smaller islands on March 22 and reported seeing 2 pups on Whale Skate and 4 pups on East Island.

3. Populations and Movement of the Green Sea Turtle

While diving near the Shark Pier area, Olsen captured a turtle which was subsequently tagged and released. # 736 original 6/14/66 again taken 7/23/73

Operation and Maintenance

The refuge recognition sign at Tern Island appears to be in good condition. There were no indications that personnel at the station had been molesting wildlife.

GARDNER PINNACLES

Because of the rough seas encountered it was decided not to even visit the vicinity of Gardner since it would be impossible to make a landing.

Habitat Studies

The Chenopodium plant established just south of the camping site seems to be thriving and producing seed. This plant is the solo result of a number of efforts during the last eight years to reestablish the species on the island.

A single large plant of Cenchrus was found along the path from the landing site to the campsite. It was pulled and thrown into the ocean.

Photostation pictures were taken in Kodacolor.

The Green Sea Turtle

On the afternoon of March 26, the party traveled around the shoreline of Laysan counting and tagging the turtles they observed. Two were observed and tagged (No. 797 weighed 35 lbs., while No. 798 weighed 32 lbs.)

No tag returns were noted.

While diving with members of the Coast Guard party, Olsen observed a group of 6 turtles in water approximately 20 ft. off, near the cut in the reef. An observation such as this suggests that many more turtles are present in the water around these islands than ever show themselves hauling up on the beach.

Operations and Maintenance

The large resolution canvas tarpaulins placed on the north end of the island were observed and photogra hed. Heavy winds had pulled some of the shorter stakes up and it was predicted that after another severe storm, parts of the canvas will begin to tear up and scatter around the island.

These tarps were to be picked up by the military a few months after placement. To date no effort has been made to have the tarps removed. Practices such as these should make us more cautious about granting special use permits to military on Refuge islands.

Seals Tagged March 30, 1969, Lisianski Island

Yellow Plastic	Metal Tag.	Other	Sex	Age
A626	Same	826	M	1-2 yr.
A627	"	827	F	B.P. ca. 3 weeks
A628	"	828	F	" " newborn, umb. present
A629	"	829	F	G.P. newly weaned, no mother
A630	"	830	M	" " with mother
A631	"	831	M	B.P. ca 1 week
A632	"	832	F	" " newborn
A633	"	833	F	" " "
A634	"	834	F	" " "
A635	"	835	M	" " "
A636	"	836	M	" " "
A637	"	837	F	G.P. near weaning ca 6 weeks; weight 185 lbs.
None	638	838	F	G.P. weaned, no mother
A639	Same	839	M	B.P. ca 4-5 weeks
A641	"	841	M	Yrl.
800	A640	840	F	"
A642	Same	842	M	"
A643	"	843	F	B.P. newborn

2. The Green Sea Turtle

A total of nine turtles were tagged on Lisianski Island (Table IX). Six measurements, using calipers and steel tape were taken on each animal. The animals were also weighed. Only tag numbers and weights were listed in Table IX, since the other measurements taken have been recorded in the turtle banding card file.

Table IX

Turtle Tagging Lisianski Island March 26, 1969

Tag No.	Weight	Sex
A476	125	F
A493	80	F
A494 ENT. NO. 15	110	F
A495	47	F
799	160	M
876	180	M
877	140	F
878 ENT. NO. 15	185	M
601	34	F

why so confusing? Dup

Retap 7/23/73

Two tag returns were recorded.

Number 64D was originally tagged on Lisianski on 9/25/67 and at that time weighed 155 lbs. When weighed he tipped the scales at 145. The loss in weight should probably be attributed to an error in reading the scale. The carapace length and plastron width each grew .1 inch, while the animal's length (round) grew almost 6 inches.

The animal tagged number 644 was banded on Lisianski on 9/26/67, however, he was not weighed at the time of tagging. His carapace length (round) grew ¼ inch, while the width of the carapace grew 1 inch.

The growth rate of these larger sized turtles is extremely slow.

3. Habitat Studies

Kodacolor photographs were taken at each photostation. Some station markers are becoming overgrown with Scaevola. At other stations, the bamboo poles placed as markers were down on the ground, presumably as a result of winds or collisions by birds.

A patch of Cenchurus was noted in the area approximately 100 yards south of the coconut trees. As the specimen was not collected, it could not be determined if this was the native species or of a species which might have been introduced.

One of the coconut trees had lost its top, probably during one of the winter storms. Thus, the remaining is a single coconut tree on Lisianski Island.

Of interest was the lack of Sycios anywhere, especially since it was so abundant on Laysan. Most of the interior is covered with Eragrostis, Ipomea and Scaevola. A check under the south Causerina tree revealed that the Chenopodium is thriving and slowly spreading. The patch now occupies all of the area under the tree canopy, a distance of roughly 25 ft. in diameter.

Table XI

Seal Count Pearl and Hermes Reef

	Southeast Island	North Island	Total
Adults			
Males	6	3	9
Females	4	7	11
Unknown	4	6	10
Subadults			
Males	3	1	4
Females	9	1	10
Unknown	1	2	3
Pups		3	3
Dead animals	2	1 female	3
Tagged animals	8	1	9
Totals	37	25	62

Table XII

Pearl and Hermes Reef Seal Tag Returns

Original Tag Information

Tag No.	Date Tagged	Location	Age	Location of Return
A92	3/21/67	Southeast	yrl.	North Island
A99	3/22/67	Seal Island	pup	" "
A 98	3/21/67	Grass Island	subadult	Southeast Island
A141	7/ 7/67	Southeast I.		" "
A248	9/22/67	Southeast I.		" "
A279	9/27/67	Little North		North Island
A298	3/18/68	Laysan		Southeast Island
A364	2/10/69	Southeast I.		" "
A366	2/10/69	Southeast I.		" "
A371	2/11/69	Southeast I.		" "
567	9/22/66	Southeast I.	adult	" "

2. The Green Sea Turtle

Green sea turtles were seen at almost every hour of the day on the beach on the north side of Southeast Island. A total of 12 were newly banded and another nine previously tagged animals were checked (Table XIV).

Large growth, similar to cysts, were noted on the necks of two turtles.

These growths were surgically removed, and although the turtles bled profusely for a few minutes it appeared that the cuts would eventually heal up.

When the turtle tagging program began, only a few measurements were taken, thus, in attempting to compare the measurements and weights taken during this trip, we find that only a few of the measurements are actually comparable. After reviewing the data in Table XIV, it appears that some of the shells on the animals may actually become smaller. Even in the animals where increase in size was recorded, the increase was only slight.

These are some of the first tag returns we have had and they simply show us how little we know about growth rates or ages in turtles. We should begin to at least get some trend information as we continue to get tag returns.

Table XIII

Turtle Tagging Pearl and Hermes Reef

Tag No.	Sex	Weight	Location
879	F	96	North Island
880	M	174	" "
881	M	174	" "
882	F	208	" "
883	M	230	" "
884	M	260	" "
885	M	187	" "
886	F	est 100	Little North
887	M	" 135	" "
888	F	" 225	" "
889	F	265	Southeast Island
890	F	40	" "

Table XIV

Turtle Tag Returns Pearl and Hermes Reef

Tag No.	Original Tagging Date	Location	Length (R)	Wt.	Tag Returns Length	Wt.	Location
102	4/1/66	Southeast	28½		29.6	145	Southeast
105	4/1/66	"	39		37.7	305	"
158	9/23/66	"	35		34.0	195	"
439	3/21/67	"	36		37	235	"
646	9/27/67	Little No.	36¼	202	36	215	"
1042	3/13/64	Southeast	33½		35	180	"
1059	9/16/64	"	36		38 3/8	255	"
1068	9/16/64	"	37½		35	285	"
1102	3/21/65	"	34 3/4		32.8	225	"

P & H

The following tags were affixed to pups:

Metal No.	Nylon No.	Metal Control No.	Location	Date	Age	Sex
652	652	None	Little North	5/26/69	Pup	F
653	653	"	North	"	"	M
654	654	"	"	"	"	M
655	655	"	"	"	"	M
656	656	"	"	"	"	M
657	657	"	"	"	"	M
658	658	"	"	"	"	M
659	659	"	"	"	"	F
660	660	"	"	"	"	F
661	661	"	"	"	"	M
662	662	"	"	"	"	F
663	663	"	Seal	"	"	F
664	664	"	"	"	"	M
665	665**	"	Kittery	"	"	F
667	667	667	Southeast	"	"	M

* Nylon 665 destroyed. Owing to time limitation, all animals but ~~that~~ those tagged on Southeast Island were single banded and did not have control tags attached. Control bands were then destroyed to prevent future confusions.

The sex ratio of banded pups was 60 males: 40 females. The pup tagged on Southeast Island had been born that morning.

Green Sea Turtle - Six turtles were observed on North Island during the seal census but were not tagged because of lack of time. None were seen on any of the other islands except at Southeast. Of the 8 which came up on the beach during our stay there, 6 had been tagged previously (all on Southeast) while 2 were newly tagged. Data for the new tagging are as follows:

Tag No.	Date	Straight Line (Inches)				Round Measure (Inches)		
		Carapace			Plastron	Carapace		
		Length	Width	Thick	Length	Length	Width	Sex
891	5/26/69	32.9	25.6	11.4	26.8	34½	30½	Male
892	5/26/69	34.2	28.8	16.0	29.9	38 3/4	37	Female

Data on turtles observed on Southeast Island in May, 1969 which had been tagged in previous years.

Tag No.	Date Obsvd.	Sex	Caliper Meas. (Inches) Carapace Length	Carapace Width	Carapace Thick	Plastron Length	Tape Carapace Length	Tape Carapace Width	Date Tag.	Island Tag.	Tape Carapace Length	Tape Carapace Width
103	5/22/69	F	38.1	29.2	15.7	31.4	40.7	34.0	4/1/66	Southeast	41.5	37.0
104	5/26/69	F	31.3	26.0	11.8	25.5	34.7	32.0	4/1/66	"	32.0	30.5
109	"	M	32.8	26.0	11.9	26.5	37.2	32.0	"	"	35.2	32.0
119	5/27/69	F	32.3	24.2	11.4	25.3	34.0	32.5	9/20/66	"	34.5	32.0
165	5/29/69	F	32.3	25.8	12.6	25.9	36.2	30.8	9/24/66	"	Not taken	
445	"	F	31.2	25.6	12.8	25.3	32.8	30.9	3/21/67	"	32.5	30.5

Straight line measurements by use of large calipers has proven superior to measurements over the back of the carapace with a tape measure. Measurements are more precise and not subject to individual error by person taking measurement. Freqently when using the tape, animal was crawling away and measurements were taken in haste.