

crowned Sparrow, distinguished from his confreres by the small but important mark, the black spot between his bill and eye.

One of the Gambel's Sparrows gave me a surprise that day by taking a bath in the water pan. He was the first bird I had seen all winter presuming to use water for that profane purpose. For in that year of drought in the desert both bird and beast were fortunate indeed if they could get enough to drink. The bath was doubtless accounted for by the fact that *gambeli* is a bird of lush mountain meadows threaded with running brooks. Certainly no right-minded desert bird would have been guilty of such shocking wastefulness.

The following day to my great satisfaction the third and last of the Tanagers to be looked for here appeared over the bird table—the red-headed, yellow-and-black Louisiana. For some time in the characteristic deliberate Tanager way he looked down at the table as if trying to fathom the strange phenomenon, but at last dropped down to the water pan.

The next three days we were so busy breaking camp that we had no time for the bird table. But although we left the mountains without seeing the last birds the migration should have brought us, I had seen enough to leave with a lively sense of the keen interest and pleasure afforded by a camp feeding table.

Of course many migrants, especially Warblers, Vireos, Flycatchers, and Hummingbirds passed through the neighborhood, many of them through camp, without visiting the bird table; but that is another story.

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A VISIT TO MIDWAY ISLAND.

BY PAUL BARTSCH.

THE little paper here presented was prepared as we left Midway Island in 1907, it being my intention to send it to 'The Auk' from Guam. The manuscript was lost, and has only recently again come to hand. Believing that the data contained in it have sufficient value to merit publication I submit it even at this late date.

On the night of November 6, we sailed under half steam that we might reach Midway at dawn. In the first dim light of the following morning we sighted the islands as a faint mist on the horizon, and shortly after came close enough to see the surf pounding the narrow barrier reef that encloses the lagoon and the two islands. Midway is situated in Latitude $28^{\circ} 12' 22''$ N., Longitude $177^{\circ} 22' 20''$ W., about 1,000 miles west by north from Honolulu. The encircling reef forms an almost complete fringe, its chief interruption being to the northwest, where there is a channel of sufficient depth to admit a steamer in fair weather. Were the ring complete it would measure about eighteen miles. The two low sand islands are both near the southern end of the lagoon.

As soon as the necessary formalities had been discharged, Mr. Wells and I left the "Albatross" for the islands. We touched on Sand Island, which contains the telegraph station, and the barracks, to secure information how best to approach Eastern Island, then set out for it. The space between the two, a little more than a mile and a half, is shallow, showing a bottom thickly studded with heads of coral which come close to the surface and make rowing rather difficult when the sea is choppy. We spent all of November 7 on Eastern Island, which is a low pile of more or less consolidated coral and shell sand, of roughly triangular outline. The southern edge is almost a mile long and separated from the reef by a channel about an eighth of a mile in width. Its length from north to south is about three quarters of a mile, and the entire island excepting the beach is covered by a scanty growth of *Scaevola* bushes, grass and sedge, the ground itself being literally honeycombed by the nesting burrows of the wedge-tailed petrel.

On November 8, we visited Sand Island, which is boot shaped, with the leg of the boot a little wider than the conventional concept, the toe pointing in a south westerly direction and the front and back of the leg north and south. Its greatest north and south line is a little more than a mile, while its greatest east and west is a little more than three quarters of a mile wide. Sand Island is much more elevated than Eastern Islands. Its highest point, which is in the middle of the northern line at some little distance from shore, is forty-three feet and this place is occupied by the cable station and the marine barracks. This end of the island is

a bleak, barren waste of white sand, very trying and tiring to the eyes. The southern edge of the island consists of a series of sand dunes covered with *Scaevola* bushes, of which there is quite a thicket on the southwestern part. In the interior the dunes are more scattered and the vegetation is less developed.

Midway has been visited twice before by ornithologists. In 1891 Mr. Henry Palmer, while making collections for Rothschild, spent a week here, July 11-17, a journal account of which is published in Rothschild's 'Avifauna of Laysan,' pp. xiii-xiv, 1893-1900. He records fourteen species:

Megalopterus minutus melanogenys (Gray)
Gygis alba candida (Gmelin)
Diomedea immutabilis Rothschild
Diomedea nigripes Audubon
Puffinus cuneatus Salvin
Phaethon rubricaudus Boddaert
Fregata minor palmerstoni Gmelin
Sula leucogastra (Boddaert)
Sula dactylatra personata Gould
Sula piscator (Linnaeus)
Heteroscelus incanus (Gmelin)
Phaeopus tahitiensis (Gmelin)
Porzanula palmeri Frohawk
Telespiza cantans Wilson

The second visit was made by Mr. William Alanson Bryan, then of the Bishop Museum, Honolulu, who spent a day and a half here on August 21 and 22 in 1902. He has published on this visit in 'A report on a visit to Midway Island' in the Occasional Papers of the Bishop Museum, August 26, 1905, pp. 37-45. In this paper the following species were listed:

Sterna fuscata oahuensis Bloxham
Anous stolidus pileatus (Scopoli)
Megalopterus minutus melanogenys (Gray)
Gygis alba candida (Gmelin)
Diomedea immutabilis Rothschild
Diomedea nigripes Audubon
Puffinus cuneatus Salvin
Phaethon rubricaudus Boddaert
Fregata minor palmerstoni Gmelin
Sula dactylatra personata Gould
Sula piscator (Linnaeus)

Phaeopus tahitiensis (Gmelin)
Arenaria interpres oahuensis Bloxham
Porzanula palmeri Frohawk

During our short visit we noted all the species recorded by these two observers, with one exception; namely, *Sula leucogastra*, but we also observed five additional species not recorded by them.

I am indebted to Dr. Richmond and Mr. Riley of the Division of Birds U. S. National Museum, for the latest dictum in the scientific names used in this paper.

Sterna fuscata oahuensis Bloxham. HAWAIIAN SOOTY TERN.—Several groups of Sooty Terns were seen on the beach at Eastern Island and scattered individuals in and among shrubbery of the interior. All in all, we probably saw two hundred living individuals. Among the bushes, however, a large number of dead, both young and old, were found in various stages of decomposition. On Sand Island the conditions were still worse. Less than a dozen living individuals were here noted while hundreds of dead bodies were strewn among the *Scaevola* bushes bordering the southwestern shore. Here, too, the dead seen were fledged young and adults. It would seem as if some epidemic had invaded this colony and almost overwhelmed it.

Anous stolidus pileatus (Scopoli). PILEATED NODDY TERN.—Quite rare on both islands. Not more than a dozen specimens were seen flying about Eastern Island and a single individual only was noted on Sand Island.

Megalopterus minutus melanogenys (Gray). HAWAIIAN TERN.—Very rare—Only a single living individual, which we photographed, was seen sitting under some low bushes. It was exceedingly tame, so much so that I believed it to be sick. A number of dead specimens were found among the dead Sooty Terns on Eastern and Sand Islands.

Gygis alba candida (Gmelin). HAWAIIAN WHITE TERN.—This exquisite little bird was found on both islands. It is more abundant on Eastern, where we saw probably two dozen specimens. This bird is as fearless as it is beautiful, hovering over the intruder's head almost within reach of his hand, alighting in the nearby shrub when you come to a stop, watching you the while with inquisitive eyes. Birds of this type make collecting difficult, not because they are hard to obtain, but on account of their confiding nature. None were taken.

Diomedea immutabilis Rothschild. LAYSAN ALBATROSS.—These birds mingled with the Black-footed Albatross and averaged about one to twenty of the latter. They seemed to be more partial to that portion covered by vegetation than the sand dunes, though some were also found in open places. In a number of instances two birds were found together, apparently paired, rehearsing their curious love ceremonies. One individual, caught and held for a moment, offered his dinner as a ransom. The

contribution consisted of a mass of *Scaevola* berries and several large pebbles. Their fearlessness made photographing them a very simple performance.

Diomedea nigripes Audubon. BLACK-FOOTED ALBATROSS.—I was told by the inhabitants of the station that these birds are now beginning to return to their breeding ground, and that a little later there would be a hundred on Midway to each one now present.

Although these birds were within sight of our ship ever since we left San Francisco, I little appreciated their stately proportions until I met them here on shore. On wing they look so trim—not at all bulky, as they do when on land. Their flight when a good breeze is whipping white caps on the sea reminds one of gigantic Chimney Swifts, but when the wind is low they are less active and might then even be called awkward flyers.

As we landed our boat on Eastern Island a sudden shower of short duration forced us to seek shelter under the *Scaevola* bushes on shore. These being insufficient to protect us from the driving rain and cold, we finally buried ourselves in the sand and thus succeeded in hushing the tattoo of our chattering teeth. While here, inquisitive Albatrosses formed a circle about us. We also excited the curiosity of the only mammalian representatives on the islands, eight burros, which joined the circle of clamoring birds and gazed with wondering eyes, outstretched necks and protracted ears at the curious, to them apparently bodiless heads resting on the sand. I regretted much not being able to secure a photograph showing the combination of Albatross and ass. I was told that two of the officers at the station had imported a pair of these asses to be used for riding about Sand Island, but finding them too destructive, they transported them to Eastern Island and turned them loose. Here they have multiplied to the number of eight and seem to be in good condition. They are of the tall, exceedingly long-eared, shaggy-coated variety and would have proved interesting objects to the student of the effect of environment upon mammals. The question of their water supply interested me, and I was told that they pawed in the sand at some little distance from shore until water was exposed, which they drank. I understand that the entire "assinine" population, consisting of twenty-two specimens, was killed in 1912 or 1913 to stop their destruction of the homes of the burrowing birds by breaking through the shallow roof of their tunnels.

Most of the birds were in groups on Eastern, and the open sandy portion of Sand Island. Some of the groups must have contained a hundred birds or more. They were evidently mating, for they were going through their curious song and dance ceremonies. These performances were participated in at times by single pairs, at other times by large groups. Smaller groups and single pairs were scattered all through the island and one pair was seen engaged in copulation, which would speak for a breeding season close at hand.

On Sand Island we saw heaps of bleached bones of Albatrosses, a reminder of a visit to this island by Japanese plume hunters, who are said to have made regular trips to this and neighboring isolated islands for skins and feathers.

Puffinus cuneatus Salvin. WEDGE-TAILED SHEARWATER.—This species at the present time is a close second as far as numbers are concerned, to the flightless rail on Eastern Island. All the elevated portions of the island were thoroughly honeycombed by their nesting burrows, and these rendered walking rather difficult in many places. The burrows are only a short distance below the surface, leaving the upper arch too weak to support the weight of a man. We found ever so many young birds all seated outside, near the entrance to the burrows. Some of these were still in their dusky, downy plumage, while others had attained the garb of the parents. Many of the old birds were seen flying about and occasionally one would drop near its nestling.

For several nights prior to our reaching Midway, specimens of this species came aboard our boat. On the last night no less than three were caught.

Oceanodroma castro (Harcourt). HAWAIIAN PETREL.—Three specimens of this species came aboard while we were at anchor within the encircling barrier of coral reef at Midway.

Oceanodroma tristrami Stejneger. TRISTRAM'S FORKED-TAILED PETREL.—A specimen of this species came aboard the "Albatross" on the night previous to our arrival at Midway, November 6, at Latitude 28° 15' N., Longitude 176° 30' W. Since this is but a short distance from the islands I have thought it best to include it in the list.

Pterodroma hypoleuca (Salvin). BONIN ISLAND PETREL.—A Petrel not quite so large as the Wedge-tailed Shearwater was seen flying about Eastern Island in company with the above named species. It appeared to have a smaller bill, and had white and black areas on the sides of the head. It is an extremely rapid flyer and exceedingly difficult to bag. Several specimens hard hit flew out to sea and none were secured.

Phaethon rubricaudus Boddaert. RED-TAILED TROPIC BIRD.—Found on both islands, but as in the case of all the other species, more abundant on Eastern. Here we found a number of almost fledged young birds scattered irregularly on the ground under the low bushes, each in a small, clear, clean spot, cackling and hissing and mad as the proverbial wet hen on account of our intrusion. These birds, while fully the size of the adults, did not have the long tail feathers. Quite a number of birds were seen on wing, some flying overhead and following us about the island, others fishing out at sea. It was a pleasing sight to see them plunge into the water like a rocket from a great height, disappearing completely below the surface. Most of the birds on wing possessed the long tail feather.

Fregata minor palmerstoni Gmelin. MAN-O'-WAR BIRD.—Man-o'-war-birds could be seen at all times high above the islands, hanging in

the air on motionless wings. A few were found sitting on bushes near the middle of Eastern Island.

Sula leucogastra (Boddaert). BOOBY.—Found breeding on Midway Island by Palmer, July 14.

Sula dactylatra personata Gould. BLUE-FACED BOOBY.—A few of these birds were seen flying about both Islands.

Sula piscator (Linnaeus). RED-FOOTED BOOBY.—Three individuals of this species were found seated in the dry sandy plain on the middle of Sand Island in company with the Black-footed Albatrosses, Curlews and Golden Plovers.

Porzanula palmeri Frohawk. LAYSAN ISLAND RAIL.—Mr. Henry Palmer states in his diary published by Rothschild in 'The Avifauna of Laysan,' page xiv, that Captain Walker's son liberated on this island a pair of Laysan Island Rails. They must have found the conditions very suitable for them here, for they are certainly very abundant now. The little fellows remind one more of mice than birds as they scurry away from under your feet and dodge your hand when you try to catch them. They are exceedingly quick and expert at dodging, so much so that we found it next to impossible to catch one, even when in so small a piece of brush as two feet square. One little fellow, whom we had chased into rather open ground, sought safety by diving into a Petrel burrow where we caught him. After examining him we set him free. This experience did not frighten him very much, for after running a short distance into a clump of shrubbery, he crept cautiously forth, eyeing us curiously, undoubtedly wondering about the meaning of the whole affair. If one sat quietly in any place in the shrubbery on this island, one or more of these birds would come up to within reach. A move on your part would make them retreat just beyond your reach but never any distance. This little Rail is at the present time probably the most abundant bird on Eastern Island.

Pisobia acuminata (Horsfield). SHARP-TAILED SANDPIPER.—Two specimens of this species were secured on Sand Island, where several others were seen. They frequent the open sandy stretches between the *Scaevola* bushes and in their habits recall our Pectoral Sandpiper.

Phaeopus tahitiensis (Gmelin). BRISTLE-THIGHED CURLEW.—Quite abundant on both islands, where in company with the Golden Plover it frequents all parts of the island excepting those covered by brush. These birds were quite tame as well as curious and when flushed would frequently fly about us, emitting their peculiar cry. Specimens shot were in excellent physical conditions and crammed full of *Scaevola* berries. The flesh was delicious and quite free from the usual fishy taste, which was probably due to their diet.

Pluvialis dominicus fulvus (Gmelin). PACIFIC GOLDEN PLOVER.—Four specimens of this species were secured. They were quite abundant on both islands, frequenting the grassy plots and the open sandy places, in fact all parts but those covered by *Scaevola* bushes.

Arenaria interpres oahuensis Bloxham. PACIFIC TURNSTONE.—Abundant on both islands, everywhere. It was a decided surprise to us to find waders in bushes feeding upon berries, and yet this was the case here. Again and again we flushed bunches of Turnstones from the dense *Scaevola* thickets and watched them circle about for some time, only to re-alight in the tops of another clump of bushes. Specimens shot on Sand Island were filled with *Scaevola* berries. On Eastern Island we saw them running on the beaches following the waves and feeding in the orthodox manner.

Asio flammeus sandwichensis (Bloxham). SHORT-EARED OWL.—A single specimen was flushed from a *Scaevola* covered sand dune on Sand Island. We marked the place where it alighted near the middle of the western shore, but the bird was very wild and left long before we came within gun-range, flying far out to sea before swinging to the southern point of the island. A further attempt to add it to our bag proved equally unsuccessful.

Telespiza cantans Scott Wilson. YELLOW FINCH.—I was told by Mrs. Florence McDerfee Nevin, the wife of Lieut. J. D. Nevin, who was in command of the Marine detachment at Midway at the time of our visit, that the birds locally called Canaries were brought to Midway from Laysan Island. They are not very abundant; we saw only three small flocks, probably twenty-five specimens in all, on Eastern Island, where they frequent the shrubbery. Like most of the other birds of the islands they are exceedingly tame and curious; rather sluggish in their movements and quite stupid. The only note heard was a half subdued squeak. They appear to be equally at home on the ground and in the shrubbery. Mr. H. Palmer says in Rothschild's 'Avifauna of Laysan' that Capt. Walker's son liberated a Finch on the island. It would be very interesting to get definite data of subsequent importations which made the present colony possible, for Palmer does not list it as a resident on Midway.

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THE FALL MIGRATION OF HAWKS AS OBSERVED AT FISHERS ISLAND, N. Y.

BY A. L. FERGUSON AND H. L. FERGUSON

FISHERS ISLAND, N. Y., lying as it does at the eastern entrance of Long Island Sound, is a connecting link between Rhode Island and Long Island, N. Y., and with the other two islands, Gull and Plum, affords stopping places for birds of all kinds on their migration southward each fall.