

Expedition to Laysan Island

On February 3, 1909, President Theodore Roosevelt issued an Executive order: "Cure Island, Pearl and Hermes Reef, Lysianski or Pell Island, Laysan Island, Mary Reef, Dowsetts Reef, Gardiner Island, Frost Shoal, and Bird Island, situated in the Pacific Ocean at and near the extreme western extension of the Hawaiian Archipelago, are hereby reserved and set apart — as a preserve and breeding ground for native birds — . . . to be known as the Hawaiian Reservation."

The Hawaiian Island Reservation is composed of the islands and reefs included in the leeward chain extending in a northwesterly direction from the main Hawaiian Group. These islands are situated from 100 to 300 miles apart and are composed principally of lava. Laysan, the largest island in the reservation, is low and flat, the highest point being only 50 feet above sea level. On the surface of this island is a layer of coral sand and phosphate rock. Laysan has an area of about two square miles; the others vary in size from one square mile to small rocky reefs.

The purpose of the reservation was to insure for all time a refuge and breeding place for the numerous species of birds, chiefly sea fowl, that for

ages past had made the islands their home during the whole or a part of each year. In the spring of 1909, however, a party of Japanese plumage hunters landed on Laysan, the principal rookery of the reservation, and for several months made the slaughter of birds a business. Had they not been interrupted by a United States revenue cutter they would probably have exterminated the entire colony of birds on the island and perhaps on others of the group. As it was, many thousands of sea birds were destroyed, especially albatrosses. There was, however, no reason to doubt that, if left to themselves as much as possible and if further depredations could be prevented, the birds would in time repair this loss and continue to live as they had for thousands of years before civilized man intruded on their beautiful avian world.

The islands are entirely uninhabited by man, but Mr. Max Schlemmer, former owner of the guano company on Laysan, lived on Laysan Island for fifteen years. In 1903 he introduced domestic rabbits and Belgian and English hares into the island, intending to start a rabbit canning business.

Professor C. C. Nutting, who had visited Laysan in 1902, made arrangements in 1911 with the Department of Agriculture to send a co-operative expedition to the island for the Bureau of Biological Survey. Data were to be gathered for a comprehensive report as to the conditions of the rookeries, and as to the effects of the work of the

poachers on the avifauna; and a collection made of birds, their nests, eggs, and the necessary accessories for making a large panoramic group for the Museum of the State University of Iowa. The party was in charge of Professor Homer R. Dill, with Charles A. Corwin as artist, and H. C. Young and C. J. Albrecht as assistants.

As a landing could be effected on the island only in favorable weather, our party set sail on April 17, 1911, from Honolulu on the revenue cutter *Thetis*. During the first five days of our trip few birds were seen except for a number of black-footed albatrosses that followed the ship nearly all the way. When within about fifty miles of Laysan, their numbers increased, and were joined by a few of the white species, some sooty terns, and wedge-tailed shearwaters.

About 11 o'clock of the seventh day, the island was sighted. We expected to see clouds of birds about it, but in this we were disappointed. It was too early for terns to arrive in large numbers. We reached the shore about 3 o'clock and spent the remainder of the day in landing our outfit and repairing the old buildings for our use.

Our first impression of Laysan was that the poachers had stripped the place of bird life. An area of over 300 acres on each side of the buildings was apparently abandoned. Only the shearwaters moaning in their burrows, the little wingless rail skulking from one grass tussock to an-

other, and the saucy finch remained. It was an excellent example of what Professor Nutting called the survival of the inconspicuous.

Here on every side were bones bleaching in the sun, where the poachers had piled the bodies of the birds as they stripped them of wings and feathers. In the old open guano shed were the remains of hundreds and possibly thousands of wings which were placed there but never cured for shipping, as the marauders were interrupted in their work.

An old cistern back of one of the buildings tells a story of cruelty that surpasses anything else done by these heartless, sanguinary pirates, not excepting the practice of cutting the wings from living birds and leaving them to die of hemorrhage. In this dry cistern the living birds were kept by hundreds, and allowed slowly to starve to death. In this way the fatty tissue lying next to the skin was used up, and the skin was left quite free from grease, so that it required little or no cleaning.

Many other revolting sights, such as the remains of young birds that had been left to starve, and birds with broken legs and deformed beaks, were to be seen. Killing clubs, nets, and other implements were lying all about. Hundreds of boxes to be used in shipping the birds' skins were packed in an old building.

Half an hour's walk, however, led to an entirely different scene. The north, east, and south parts of the island had not been disturbed to any extent

by the poachers, who had confined their work largely to the area nearer the buildings and along the car track formerly used by the guano company.

Some species were found on the east side even more abundant than reported by Professor Nutting in 1902. We were much impressed with the surprising tameness of the birds. With a few exceptions most species could be caught in the hand. It was interesting to note the habits of the gregarious little creatures. For countless generations they had lived in a crowded community, like the inhabitants of our larger cities. Now, although the killing of thousands of birds on the west side of the island had made nesting places available elsewhere, they still lived as did their predecessors, nesting as closely as possible.

All the islands in this group had a vegetation of low bushes and sand grasses. The climate was warm but not enervating, tempered as it was by the northeast trade winds. Severe thunder storms were almost unknown. Frequent but short showers supplied us with plenty of drinking water. We carried a small still for use in case our water supply failed us, but did not have occasion to use it, although our supply was reduced at times.

Plenty of good fish could be found in the still water between the surrounding barrier reef and the shore, and they could easily be shot with a good rifle. Large crawfish were also obtainable and were easily caught in the evening by using a



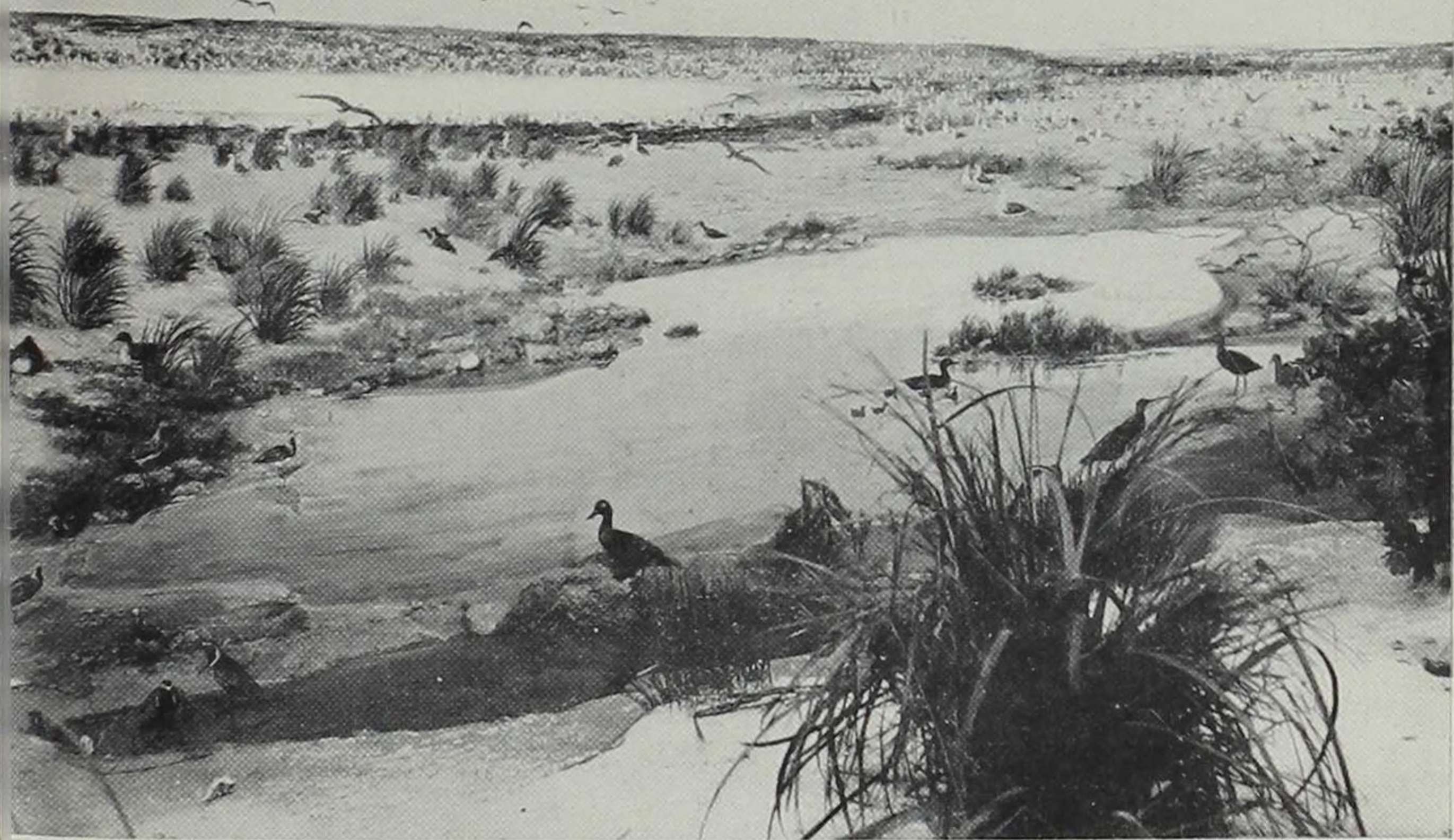
Display by Walter C. Thietje — Background painted by F. L. Jacques

LESSER SANDHILL GROUP — Two whooping cranes at left



Top: Rookery and swarm of Sooty-backed Terns.
Bottom: Main rookery, Laysan Albatross.

Top.
Bott.



Top: Laysan Teal, Bristle-thighed Curlew, Miller Bird, Golden Plover, and Turnstone.
 Bottom: Rookery of Black-footed Albatross; Laysan Finch and Rail, center foreground.



Antelope Group From Wyoming

flashlight and a spear. Large turtles were found along the beaches, where they crawled out to sun themselves. When turned on their backs they were helpless. We killed one of these turtles, and found the meat very good, but the eggs were unpalatable. This turtle was four feet long, three feet wide, and one foot, five inches from carapace to plastron. We estimated her weight to be 300 pounds. Although there were many edible shore birds on the island, our party did not kill any of them for food.

The rabbits were good food and their flesh seemed to be free from parasites. When not frightened they could easily be caught in the hands. They had killed many of the bushes, but had not caused so great a devastation as one would expect from their numbers. In the latter part of the afternoon, they could be seen feeding. They were very fond of the green juncus that grew near the lagoon, and while they were eating, their bodies were concealed among the thick growth, and only their ears showed.

It would have been very difficult to exterminate the rabbits without harming the birds. They lived everywhere; we saw many of them in the large tern rookeries. They had made burrows of their own, but when pursued they took refuge in the numerous petrel burrows. It was impossible to drive or snare them, as there were plenty of holes in which they could find shelter. Poisoning the rabbits would be disastrous to certain species of

birds, and indiscriminate shooting would have been harmful.

The year following our expedition, the Biological Survey sent some men to Laysan to kill off the rabbits. The party consisted of Commodore Salisbury, United States Navy, George Willett of the Department of Agriculture, and Mr. Wallace of Stanford University. After the party was made up, Chief H. W. Henshaw wrote to our Museum asking if it would be possible for them to get the cook that went on the Laysan expedition with us to go with their party. The cook did not care to make another trip to Laysan; so we sent Alfred M. Bailey, one of our students, along as cook. If the party had been properly supplied with ammunition and other equipment, and could have killed all of the rabbits, the land birds might have been saved. As it was they spent three months on the island and ran out of ammunition long before all the rabbits had been killed. As more space was made available, as well as more food, by the killing of many rabbits, the birth rate increased, so that by the time the party left the island there were more rabbits than when they landed.

Guinea pigs were found on the south end of the island in the thick juncus. They were rather abundant in this one place, seven being seen at one time, but they had done no harm. Mr. Schlemmer also introduced these animals.

A little-known species of seal (*Monacus*

schuinslandi-Matschie) was reported to live in the region of Laysan Island. Max Schlemmer said that during his stay on the island seven of these animals were killed. No signs of seals were noted while we were there.

The collector is not without his troubles on Laysan. Never have I seen so many flies in one small area. Our laboratory was so full of them that we were obliged to suspend work to reduce their numbers. Shallow pans of formalin, about 2 per cent, did wonders in this direction. Not only did the flies annoy us as we worked, but they would blow our bird skins. Even after the skins were thoroughly dry and cured, we often found masses of eggs deposited on the feathers. The feet of the larger birds would be eaten by larvae if they were not thoroughly poisoned. In addition to the flies, there were small ants which ate the feathers of the smaller specimens. There were also several species of beetles, the larvae of which devoured everything that was not well poisoned. The acres of carcasses left by the poachers had furnished breeding places for flies and beetles; hence the great numbers.

Mr. W. H. Henshaw, Chief of the Biological Survey, had requested that our party make careful observation as to the presence of seeds or balls of earth attached to any portion of the bills, feet, or plumage of the island birds, since there was reason to believe that birds play an important part in the

transportation of seeds from shore to shore. In handling and preparing 400 specimens we found but one that was of interest in this connection. On the foot of a Laysan albatross, between the second and third toes, was a spinate seed about the size of a flattened buckshot, and the spines of which were firmly embedded in the sides of the toes. The seed was sent to Washington, where it was identified as the seed of *Tribulus hystrix* R. Br. This species belongs to the family *Zygophyllaceae*, and is generally distributed in the South Sea Islands. So far as known, there was no record of it on Laysan.

In collecting birds that had young, much care was exercised not to take both parents and thus to leave the nestlings to perish. This made the collecting of some species difficult and slow. Fortunately we were able to preserve and so utilize many birds that were found dead on the rookeries.

The Laysan Cyclorama at the Museum was completed in 1914. It still stands as unique and as beautiful as the day it was opened to the public. It has been viewed and admired by many thousands of visitors and students. To Iowa graduates the name Laysan Island is an integral part of the Iowa campus. Three land birds of Laysan are now extinct, and two other species are likely to follow, being sadly reduced in numbers.