

AN UNDESCRIBED SPECIES OF DREPANIDIDÆ ON
NIHOA, HAWAIIAN GROUP.

BY WILLIAM ALANSON BRYAN.

WHAT will probably prove to be the last species of land bird to be recorded from the Hawaiian Islands has recently been found living in a small colony on the island of Nihoa, a small isolated remnant of rock situated in the northwest or leeward chain of the Hawaiian group, and is here noted for the first time.

For a number of years it has been my desire to visit this island, which is in reality a small remaining part of what was undoubtedly a much larger volcanic point in former time,— for the purpose of studying its geology and collecting its fauna and flora. Although I have made three round trips along the Leeward chain, as far as Laysan and Midway Islands, I have never been able to land on this forbidden spot owing to unfavorable weather conditions and the dangers which attend the making of a landing there, even in the most favorable weather. With one or two exceptions other naturalists who have visited this chain of islands have also been unable to land and have been obliged to be content with viewing it as I have done — from a distance.

It is, therefore, with much satisfaction that I am able to report that at my suggestion Captain James H. Brown, in command of the U. S. Revenue Cutter "Thetis", was able to make a landing on the island on the occasion of the April, 1915, cruise of the "Thetis" to patrol the Hawaiian Island Bird Reservation. It is from information supplied by him and the members of his crew that I am able to report that my surmise with reference to the presence of land birds on the island has proved to be correct.

Owing to unexpected heavy weather the landing party was so unfortunate as to have their whale-boat wrecked on the shore after a safe landing had been made. One member of the crew was seriously injured, but fortunately no lives were lost. Once on shore it was with much difficulty and danger that the party was able to leave the island; having to swim through the angry breakers to a second boat sent out to rescue them from their

unhappy situation. For this reason, if for no other, no specimens of any kind save a few palm (*Pritchardia remota* Becc.) seed were secured.

The only species of land bird seen by them, and the only species believed to be precinctive to the island, was a small *Drepanididae*, undoubtedly belonging to the genus *Telespiza*. This genus was established for a single species (*Telespiza cantans*) from Laysan described originally by Mr. Scott B. Wilson (*Ibis*, 1890, p. 341). The female of the species from the same island was described by the Hon. Walter Rothschild from Palmer's collection as *Telespiza flavissima* (*Ann. & Mag. Nat. Hist.*, Vol. X, 1892, p. 110) two years later.

It is only for want of a specimen in hand that I withhold a new name for this bird which doubtless occurs only on the island of Nihoa and appears to be heretofore unknown and unnamed, and, moreover, to be the last of the Hawaiian avifauna liable to be discovered in the group.

Captain Brown is well acquainted with the Laysan "Finch" having seen the species at Laysan and also the colony from there that has been established on Midway Island. He believes the male Nihoa bird to be a trifle larger and perhaps yellower over the breast than are the males of the Laysan species. As Nihoa is one of the islands included in the Hawaiian Island Bird Reservation no attempt was made to secure a cabinet specimen; though specimens could easily have been collected as the birds like their Laysan cousins are exceedingly inquisitive as well as fearless. He states that specimens could be taken with an ordinary hand-net. It was estimated by the party that there are perhaps a thousand specimens of the 'Nihoa Finch' on the island.

When Mr. Carl Elschner visited the Island in 1914, for a few hours only, he was engaged chiefly in geologic and chemical investigations and made no attempt to study its fauna or flora.

The "Albatross", during the investigation of the aquatic resources of the Hawaiian Islands, was in the vicinity of Nihoa on two occasions during the voyage to the Leeward Islands of the group in 1902, but the scientists were unable to land. Dr. Walter K. Fisher in his report on the "Birds of Laysan and the Leeward Islands" (*Bull. U. S. Fish Comm.*, Vol. XXIII, pt. III, p. 778)

says that on "June 1st we sighted Bird Island rising like a citadel into a hazy skyline and the "Albatross" came to anchor at dark off the south side. Although we could see nothing of the island, birds were in evidence by their cries. An *Oceanodroma fuliginosa* flew aboard, attracted by the glare of the deck light and on the following evening *Bulweria* and *Puffinus cuneatus* were similarly lured in some numbers.

"From our anchorage Bird Island appeared like a very steep half-funnel shaped hillside with several bold rocks and cliffs rising from the general slope. Two sulcuses, on the east and west haloes, divide the slope into three ridges and in each valley there is a group of palm trees. The peak to the west rises 903 feet. The whole of the south slope is covered with a growth of bushes and rank grass. This portion of the island suggests the half of an old crater. The west, north and east sides rise as a wall of naked rock straight and sheer to an imposing height. The west face is black and menacing and perfectly perpendicular.

"We were in the vicinity of Bird Island two days but the sea was too heavy for landing. In fact, a safe landing can be made only in very quiet weather. The shore on the south side is so rocky that even a small swell causes considerable commotion. Birds nest all over the island. Those species which love the cliff find a congenial home on the precipices and in the escarpments of the south side, while the boobies and man-o'-war birds live among the bushes on the grassy slopes. In fact, the whole mountain seemed alive with *Sula cyanops*, *Sula piscator*, and *Sula sula*. The last species lives along the top of the low escarpment which rises out of the sea along the south side. These three species and man-o'-war birds were continually flying around the vessel, as were likewise the various terns. We noted with pleasure *Procelsterna saxatilis*, which was common. We saw only one or two *Diomedea immutabilis* west of the island some miles, but a number of *nigripes*. Birds collected or otherwise identified are: *Sterna fuliginosa*, *Sterna lunata*, *Anous stolidus*, *Micranous hawaiiensis*, *Procelsterna saxatilis*, *Gygis alba kittlitzi*, *Diomedea immutabilis*, *Diomedea nigripes*, *Puffinus cuneatus*, *Puffinus nativitatis*, *Bulweria bulweri*, *Oceanodroma fuliginosa*, *Phaëthon rubricauda*, *Sula cyanops*, *Sula piscator*, *Sula sula*, *Fregata aquila*, *Charadrius dominicus fulvus*, *Arenaria interpres*."

The second visit of the Albatross was on August 5. It remained in the vicinity four days without being able to land. "Although a landing might possibly have been made with considerable risk when we first arrived, the problem of leaving the island proved scarcely reassuring, so that we had to be content with again observing the birds from a distance."

The islands of Nihoa and Necker are of interest to ethnologists as well as to ornithologists since they were visited by natives in former times in search of feathers. From the plumage of certain species they made some of the remarkable feather-work objects for which the ancient Hawaiians were famous. As the journey thither had to be made in their curious outrigger canoes, it is doubtful if it was frequently undertaken as to visit Nihoa from Niihau, which is the nearest inhabited island, entailed a journey of 120 miles over the open ocean; while Necker Island is at least 150 miles farther on in a northwesterly direction.

Nihoa is the highest island in the Leeward chain and is about a mile in length by 2000 feet in breadth which gives it an area of about 250 acres. As has been indicated it is most probably the eroded remains of a deeply subsided crater the outer slopes of which have been worn away by the sea, leaving only a portion of the volcanic bowl. The material of which it is composed is similar to that of the high islands of the group and there is evidence that it is even more ancient than Kauai.

Perhaps this hoary remnant of the past may at one time have been a stately island, like those of the inhabited group with which we are familiar. Perhaps the island has been cut off and isolated by subsidence and but this single hardy bird was able to withstand the hardships and vicissitudes through which this lonely bit of land has passed since the island was severed from a pan-Hawaiian land. At any rate, it is of interest to find here a species of *Drepanididae* differing specifically at least, from its next of kin now living on Laysan which is at least 500 miles distant from Nihoa. It is a satisfaction to know that this rare and remote species is guarded by its rugged and isolated environment no less than by the protection afforded by having the island included in Hawaii's great bird sanctuary.