

ROUGH NOTES ON THE AVIFAUNA OF PAITA, PERU.

BY G. E. VERRILL.

THE following is from notes made during the period from September 19, 1920, to December 10, 1921, while the writer was engaged in engineering work at Paita, and Arenal.

As his time was largely occupied with his professional duties, no collections were made and the notes were simply kept as a matter of personal interest.

Paita is located on the western coast of Peru, about 5° south of the Equator. During the day, especially in the summer, it is very hot but the nights are cool, usually cool enough to require a cotton blanket in summer and the addition of at least one, and sometimes two, woolen ones in winter. It is never so cool, however, as to make a fire desirable. Rain is almost unknown, the total precipitation while I was there being certainly less than one inch and probably less than half an inch. During the winter the forenoon is usually dull and cloudy but the afternoon is almost invariably sunny. Mist and fog, known as "garua," which make Lima so disagreeable in winter, are rarely seen at Paita. There is much wind, especially during September, October and November. The forenoon, until about 11 A. M., is usually quite calm but in the afternoon and evening the wind blows very strongly. On the land side Paita is surrounded by a plateau, known as "El Tablazo," about 200 feet above sea level, Paita itself being at the foot of the cliffs and only a few feet above high water. This plateau is old ocean bottom, composed of clay, sand, and gravel, with occasional outcroppings of shell limestone and is an almost perfect desert. The only vegetation consists of a few shrubs, nearly buried in sand, some small sedum-like plants and here and there a very few other kinds of desert flora. Prior to 1891, there are said to have been copious rains every few years and the tablazo is said to have then been well covered with vegetation, including trees, of which the dead remnants still remain in some places. It is also stated that vegetables, cotton, and even grapes were

raised there. In 1891 there was a particularly heavy rain but practically none has fallen since then. Owing to the high winds the sand drifts badly and in some places forms moving dunes, six, eight and even ten feet high. When water is applied, as from a broken main, vegetation quickly springs up, showing the presence of seeds. At Paita itself, there is no vegetation except in the Plaza de Armas and other places where trees and plants have been set out and kept irrigated. The nearest stream, or other body of fresh water, is the Chira river, 16 miles up the coast from Paita. The valley of the Chira is a mile or more wide and fertile, being well wooded and much cultivated.

Under the conditions above described the number of land birds found in the vicinity of Paita is naturally limited, as are also nearly all forms of terrestrial life except the genus *Homo* and various domestic animals, man being apparently about the only animal that has willingly chosen such a place for a home.

Lizards, three or four species, are abundant on the desert and around Paita. Snakes are very rare: foxes are not uncommon. Insects, with the exception of house flies and fleas (the latter in countless numbers), are scarce, but various moths, beetles, dragon flies, spiders, and a very few butterflies were observed. The above remarks apply to Paita and the surrounding desert. At Arenal, on the banks of the Chira, and all along that valley, the fauna is abundant and includes many birds.

It is not expected that there is anything especially novel or of great interest in these notes, but as the writer's residence at Paita was located on a rocky promontory jutting out into the sea, about three-quarters of a mile from the town and perhaps 40 feet above high water, he had an excellent opportunity to observe the sea birds during the fifteen months that he spent there and it is thought rather improbable that any ornithologist would be likely to spend as long a time in so uninteresting a spot. For these reasons some of the notes on the occurrence, relative abundance and habits of the birds may be of interest.

The writer does not claim to be scientifically familiar with the avifauna of that region but most of the birds are readily identified, and he has made frequent use of the excellent report by Mr. Robert E. Coker on the Guano Birds of Peru (Proc. U. S. Nat.

Mus. Vol. 56, pp. 449-511), which was the only publication available relating to the Peruvian avifauna.

Gulls and Terns: *Larus dominicanus*? Large "Gaviotas" or Gulls are by far the commonest sea-birds at Paita, where they share with the Buzzards the duty of scavengers along the beach. Mr. Coker, in his paper above referred to, speaks of two similar species *L. dominicanus* and *L. belcheri*, stating that the latter is easily distinguished by its smaller size, red-tipped bill and bright yellow feet and tarsi. I have little doubt but that those observed at Paita were all one species, *L. dominicanus*, but the coloration of bill, legs and feet differed considerably. All were approximately the same size; the upper side of wings, scapulars, and back were black, so that when wings are spread the entire upper side of the bird was black, except head, neck, tail and narrow stripe on anterior and posterior edges of wings, which were white. Entire underside of the body pure white. In most individuals the legs and feet were yellow, not very bright, but in a good many they were a dirty greenish color. Those with yellow legs and feet had a red spot near tip of under mandible but in those with greenish legs and feet the spot was black. These latter were probably young birds. Aside from these differences, all appeared to be exactly alike in size, color and habits.

These Gulls are apparently about equally common throughout the year at Paita. Numbers of them may be always seen along the shore, "policing" the beach with the Buzzards and perched on roofs of buildings. They are extremely tame and will permit one to approach within less than ten feet, often squabbling for offal around the feet of the person throwing it out, after the manner of poultry.

L. modestus: This species, known as "Mateo," is often seen following the steamers in company with the preceding. Rarely seen at Paita except in July, August and September, when they are rather common. Noticed June 11 and 17 and September 28, 1921, and frequently between these dates. Usually seen along the beach, either on the sand or swimming close to shore, singly or occasionally two or three together, not as a rule associated with other birds. Very tame.

Several other species of Gulls were noticed but, except in one case, not near enough to identify or give a good description. On November 20, 1921, a flock of over 20 small Gulls were seen in the water and on the beach near our office. They were rather smaller than a Kittiwake, gray back, gray cap on back of head, white tail with black band at tip, black feet. This same species was abundant for a few days but was not seen at other times. On October 9, 1921, and several times thereafter, several small Gulls, about the same size and similar in general appearance to the Bonaparte's Gull, were noticed but not near enough to give, a good description. On November 22, I noticed several Gulls, rather larger than a Kittiwake, and apparently entirely white. They were on the wing and not near enough to observe details.

Terns are rarely seen at Paita. In July, 1921, a small Tern was noticed fishing off the mouth of a small sewer and on one or two other occasions terns were seen at a distance.

Gannets: Apparently *Sula variegata* is not often seen at Paita. I saw none that I could identify as that species, certainly none in the full plumage. All seen were the same size, very similar in plumage and habits, and were considered *S. nebouri*. They were common during the summer and fall but comparatively rarely seen in winter. Only noticed twice in August (30 and 31), four times in September and three times in October. None were seen between September 28 and October 23. During the summer and until about July some were nearly always in sight but not in flocks, generally singly, flying along the beach or over the bay, fishing. Their habit of carrying the bill pointed down when thus engaged, is very characteristic and noticeable. They are very expert divers, dropping from the wing vertically into the water from as high as 100 feet. I have seen them dive from a height of 50 feet into water less than 2 feet deep. The suddenness with which their flight is often stopped and the vertical dive made is very remarkable. I never saw them dive except from the air, never from the surface of the water like the Cormorants. When they come to the surface after a dive they take to the air again almost immediately. So far as observed, most of their feeding is in shallow water and they commonly follow close to the shore in their cruising.

Cormorants: *Phalacrocorax bougainvillei* was not seen at Paita and *P. gaimardi* was not identified, though doubtless the latter and probably the former occur there. *P. vigua*, commonly called "Patillo" by the natives, is about equally common throughout the year. A few are almost always in sight. They are apparently not gregarious and are usually seen singly or occasionally two or three together; when perched on a rock or some part of a wharf several may often be seen together. They fly low and laboriously but in the water are very expert, often remaining beneath the surface nearly a minute, usually 30-40 seconds. I never saw them dive except from the surface of the water.

Pelicans: *Pelecanus thagus*. Very common at Paita during the summer. From early in November to the end of April some are always in sight during the day, on the water or flying, and many large flocks (30-40) are seen, especially late in the afternoon. During the winter they are much scarcer and there are no large flocks, but single birds or small groups of two or three, are seen.

On August 20, 1921, the first flock of any size, 12 or more, was noticed and nearly every day thereafter similar flocks were seen, generally late in the afternoon, flying in a S. W. direction, passing close to my house and across the tablazo back of the town. The number of birds in the flocks rapidly increased to over 25 before the close of August. These flocks did not stay around Paita and Pelicans fishing in the bay and harbor were not very common until November 1st. A very common method of fishing is to dive from a considerable height (40-50 feet) while on the wing, but the dive is not nearly as neatly executed as by the Gannets, and results in a great splash. The bird usually does not go completely under the surface of the water and after the dive commonly remains a short time on the surface before again taking to the wing.

They also spend much time lazily paddling around, often very close to the shore, and now and then picking up a fish. Never saw but one bird—a sick one—actually land on the beach at Paita but they occasionally perched on rocks along the shore. Although the large flocks habitually passed very close to my house, often within 10 feet or less of where I stood on the porch, when single birds or small groups were swimming close inshore,

they usually took to flight when a person, mounted or on foot, passed along the beach within less than 100 feet, and would often fly when the distance was even greater.

Man-of-War Birds: *Fregata* sp. These birds, known as "Tijeras" or "Tijeretas" to the natives, are common at Paita from the latter part of November to April or May, some being nearly always in sight. During the rest of the year they are scarcer but were observed every month in the year, viz: June 10, 1; July 24, 4; July 30, 3; July 31, 1; August 9, 3; August 18, 1; August 21, 3; August 26, 3; August 27, 3; August 30, 1; August 31, 1; often seen in September and October and noted on November 23 as "Abundant, 6 to 12 in sight most of the time." During the summer flocks of a dozen or more often passed close to my house after the manner of the Pelicans. In the spring of 1921 when the first of these flocks was noticed on September 28, when 8 birds were seen. I understand that but one species of this genus is found in the vicinity of Paita but several different plumages were noticed, viz: 1, all black with the exception of a bright red patch on the throat; 2, black with white head; 3, black with white head and breast, and 4, black, except the breast, which is white. The different plumages appeared to be about equally common. During the summer some were almost always visible sailing over the harbor, often at a great height so that they were scarcely more than specks in the sky. In fact, these birds were noticeable as flying much higher than others. I have frequently watched them for an hour or more at a time simply sailing around without any apparent object and making no attempt whatever to interfere with the Gulls or Gannets, which were industrially fishing. At such times the tail is kept closed and it is only when doing "stunts," or suddenly changing direction, that it is opened.

The Tijeretas very rarely flap their wings but almost invariably depend upon soaring, at which they excel any of the other birds unless it is the Buzzards. As flocks of them often passed within a short distance of me as I stood on the porch of my house, sometimes within 6 or 8 feet, I had an excellent opportunity of observing their methods of flight but was never able to discover how they, or any of the other birds, accomplished their wonderful soaring.

Although some were usually in sight all summer it was comparatively rare to see them pursue other birds to obtain their prey, but occasionally I have seen several Tijeretas unite in chasing a Gannet. On three different occasions I saw them fish for themselves. The first time was September 25, when I noticed a Tijereta sailing around a patch of water as if interested. He finally dropped down, hovered over the surface and picked up something of considerable size that he soon dropped with a splash. Again he tried and again dropped it. Meanwhile, another Tijereta and a couple of Gulls (*L. dominicanus*) came along and all four birds attempted to get the food. The Gulls soon settled on the water and remained there a long time but the tijeretas, after a few apparently unsuccessful attempts to carry it off, gave it up and flew away. I am unable to say positively whether the food was fish or something floating but think it was the former as the pieces looked white like shiny fish, and were of considerable size. The second occasion was on November 22. This time the Tijereta dove nearly vertically from quite a height, "flattening out" and grabbing the fish from the surface, but did not actually enter the water. Another one tried it but missed his fish. The following day I saw a similar case.

Shore Birds: Although there is an excellent sandy beach at Paita and crabs and various small crustacea are plentiful, shore birds are not, as a family, abundant, or even common, except for a brief time during migrations.

During the summer of 1920-21 Curlews (*Numenius hudsonicus*) were quite common and a flock of a dozen or more rested each day, at or near high tide, on a rock in front of my house. In the spring of 1921 the first Curlews were seen August 27, two being noticed; on September 24 another was observed, and on September 26 and 27 several; throughout October they were common.

During September and October, 1921, Sandpipers, Plover, and various species of beach birds were common, the first being noticed late in August. After November 20 few were seen. One species, similar in general appearance to our Turnstone, first appeared September 25 (20 or more in flock), were very abundant for a couple of weeks and were last seen October 25 (single bird). They had a conspicuous black spot on the breast and bright red legs

and feet. With them were a few very bright colored Sandpipers, similar in appearance to our Sanderling. In the latter part of October, and thereafter for about a month, large Plover with white tail and prominent black spot under the wings (only visible when flying) were quite common along the beach. Occasionally Plover were also seen on the tablazo. Throughout the year a small Sandpiper, similar to our Spotted Sandpiper, was occasionally seen but was not common.

Vultures: The Condor (*Vultur gryphus*) is occasionally seen about Paita and on the tablazo between there and the Chira river. On two occasions (Feb. ? and Sept. 26, 1921) I saw one perched on the extreme edge of the tablazo, about 3 or 4 miles from Paita. In each case the bird was very tame, so that the first time I rode within 25 or 30 feet and less than 20 feet the second time. Both birds (possibly the same individual in each case), were in excellent condition and plumage. A third specimen was seen in nearly the same place by one of my men. On August 27, 1921, I saw one flying past my house at Paita and on November 7 saw one flying over the tablazo about eight miles from Paita. In the two latter cases, as well as the first two, identification was positive, the white neck ruff being very plainly visible.

Turkey Buzzards or "Gallinazos" are, of course, very common at Paita, as at all the coast towns. There are two kinds, the "Blackheads" and the "Redheads," which I take to be *Coragyps foetens* and *Cathartes aura* respectively. Mr. Coker states that the former is the commoner near the cities, and that the latter is not only less numerous but more timid. According to my observations at Paita, they are equally common there and "timid" could not be properly applied to either of them. Of the two the "Redheads" are the more aggressive and often drive away the "Blackheads" and the Gulls from some piece of food. Both species are everywhere; along the beach, soaring over the bay and perched on buildings, flagpoles, telegraph poles and along the edge of the tablazo. If a burro gives out on the desert and is left to die (a pleasing native custom) he is at once surrounded by Buzzards. The smallest piece of fish or offal on the beach is at once found and eaten. They are omnipresent and it is well they are as their services are greatly needed. Apparently they have difficulty in

finding enough fresh water as they were often noticed drinking from the outlet of some small sewer and wherever there is a small leak in the pipe line which supplies Paita with water, which is pumped across the desert for 16 miles, there are sure to be several Buzzards waiting to catch it, drop by drop. One of their favorite perches is on the top of a flag or telegraph pole, and in such places they often assume a pose, with half spread wings, making a ridiculous caricature of the American Eagle as shown on our coat-of-arms. The buzzards are equally common throughout the year.

Hawks: A Sparrow Hawk, very similar to *Falco sparverius*, was occasionally seen on the tablazo and once or twice at Paita. They are fairly common in the Chira valley. Larger Hawks, about the size of a Red-tail, were seen a few times on the tablazo but not at Paita itself.

Small Birds: The only small passerine birds at all common in the vicinity of Paita, are a small Swallow and a warbler-like bird, very terrestrial in its habits. The Swallows are black above and light below, and are not infrequently seen flying along the edge of the tablazo or perched on telephone wires nearby. I judge that they nest in the face of the tablazo cliffs. Occasionally I have seen them in Paita but they are rare there. Do not recall seeing any during the winter and the first note of their appearance is September 22, one on tablazo; September 28, one in Paita; October 20, a flock of twenty or more on tablazo and on November 7, "Plenty."

The small warbler-like bird¹, which we commonly called "Desert-bird," I am unable to identify. They are about the size and in general appearance, except coloring, resemble a large Warbler, or about the size of an Oven-bird, but rather slenderer; gray or sand color above; very light (nearly white) below; black or very dark tail, when spread; under side of wings reddish; black, rather long, slender bill. The general coloration is such that they are scarcely noticeable among the sand of the desert. They are very terrestrial in their habits, quick in their motions and insectivorous in diet, often darting into the air for an insect. Very common over the entire tablazo and also around and in Paita

¹Probably *Geositta*.—R. C. Murphy.

itself, coming onto porches or doorsteps for food. They are equally common throughout the year.

No other small land birds were seen at Paita except one small Hummingbird, around my own house in the middle of winter, July 5, 1921.

A species of Mockingbird is very common in the Chira valley and usually one or two were seen in a small clump of bushes on the tablazo, where there had been a leak in the water main, about 5 and a half miles from Paita. None were seen nearer to Paita except in cages. They are often kept as cage birds by the natives.

DESCRIPTION OF TWO APPARENTLY NEW FORMS OF AEGITHALOS CAUDATUS FROM JAPAN AND KOREA.

BY NAGAMICHI KURODA, H. F. A. O. U.

THE following two forms of the Long-tailed Titmice from Japan and Korea are apparently undescribed:

***Aegithalos caudatus shimokoriyamae*, subsp. nov.**

Diagnosis.—Similar to *Aeg. caudatus trivirgatus* of Hondo, Japan, but it may be distinguished by the wing being longer (60–67 mm. instead of 56–62 mm.), the tail distinctly longer (80–91.5 mm. instead of 68–81.5 mm.), and by the chest-spots being blackish and very distinct.

Type.—Adult male, Koryo, Keiki district in Central Korea, October 15, 1917. N. Toda coll. My coll. No. 3808. The type specimen was presented to me by Mr. S. Shimokoriyama of the Seoul Museum, for whom the form is named.

Habitat.—Probably confined to the Korean Peninsula and the Island of Tsushima where it is a common resident. It is probably found also on Quelpart Island, south of Korea.

Measurements.—4 ♂♂ (Korea) wing, 63–67; tail, 85.9–91.5; tarsus, 17–17.5; culmen 7–7.5 mm.

2 ♀♀ (Korea) wing, 60, 62.5; tail, 80, 90; tarsus, 17, 17 mm.; culmen, 7, 7.5 mm.

4 ♂♂ (Tsushima) wing, 60.5–62; tail, 81–85.5; tarsus, 16–17.5; culmen, 7–7.5 mm.

4 ♀♀ (Tsushima) wing, 57.5–61.5; tail, 80–83.5; tarsus, 15.5–17; culmen, 6.5–7 mm.

Type.—wing, 65; tail, 91.5; tarsus, 17; culmen, 7 mm.