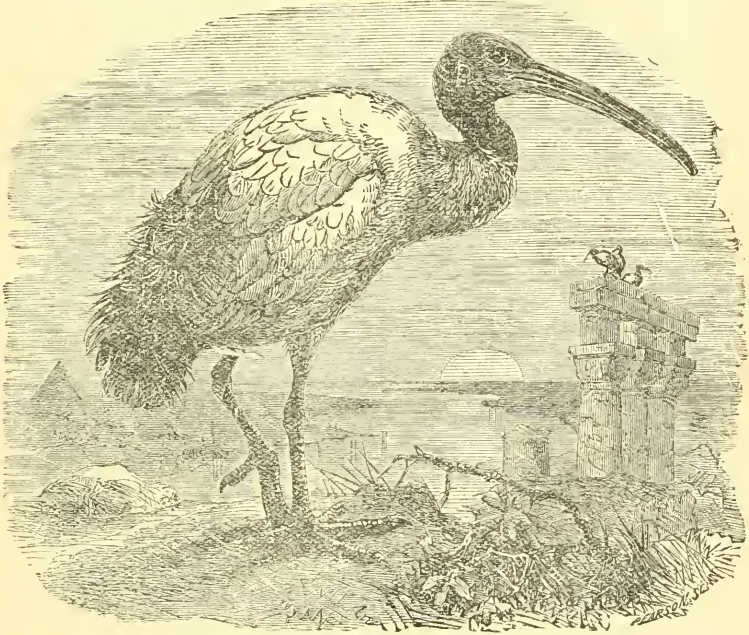


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**T H E I B I S,**  
A  
**QUARTERLY JOURNAL OF ORNITHOLOGY.**

EDITED BY  
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**VOL. VI. 1912.**  
**NINTH SERIES.**

227997

*Delectasti me, Domine, in operibus manuum tuarum.*

LONDON:  
R. H. PORTER, 7 PRINCES STREET, CAVENDISH SQUARE, W  
1912.

# THE IBIS.

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NINTH SERIES.

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No. IV. OCTOBER 1912.

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XXVIII.—*The Birds of Gran Canaria.*

By DAVID A. BANNERMAN, B.A., M.B.O.U., F.R.G.S.

(Plates IX.—XII.)

THE island of Gran Canaria is situated approximately in latitude  $28^{\circ}$  N., longitude  $15^{\circ} 30'$  W., and is noteworthy chiefly on account of its equable and delightful climate. Moreover, it has lately grown to be a most important shipping centre, large numbers of vessels calling at Las Palmas on their way to and from the south. In consequence, many people winter there every year, and to an ornithologist the island is full of interest. During the many weeks which I have spent there annually for the past five years, I have devoted almost all my time to studying the birds and to making a representative collection for the Natural History Museum. The results of my observations and those of former naturalists who have visited Gran Canaria are contained in this paper. Although much has appeared in 'The Ibis' on the birds of the other islands of the group, yet Gran Canaria has been almost entirely neglected. The only article\* dealing with the ornithology of this island as a whole was published by Herr von Thanner, on the results of a collecting-trip made by him in 1909.

In shape the island is almost round, and covers an area

\* 'Ornithologisches Jahrbuch,' xxi. 1910.

of 635 square miles (by the planimeter); the distance from north to south is  $34\frac{1}{2}$  miles and from east to west 29 miles. The nearest point of Tenerife is distant 37 miles and that of Fuerteventura 50 miles. On the east coast undulating plains roll up from the sea to the "Cumbres," which take up the greater part of the interior and, viewed from the sea, give the island a very mountainous appearance. Los Pechos, the highest ridge, is 6400 ft. high, and the Roque Nublo, 6110 ft., appears as an isolated pillar of rock about two miles to the northwards. Deep barraneos, which run from the coast far into the heart of the mountains, split up the island, and, indeed, some of these ravines are truly immense, notably the Barraneos de Tirajana, Fatarga, de la Virgen, and Tejeda (de la Aldea)—the last-named when seen from the coast appearing to divide the island into two parts. The "Isleta"—the northern portion—appears as a detached conical islet separated from the mainland by an isthmus composed largely of drifted sand.

The accompanying map (Plate IX.) which I have prepared will shew the various expeditions that I have made and the localities in which birds have been collected.

For the convenience of those who are not acquainted with Gran Canaria, I have split up the island into six Divisions, which are all more or less clearly defined:—

Division I.—*Monte and The Vega.* (Cultivated districts in the north.)

Division II.—*The Cumbres.* Plate X. fig. 1. (The mountain range in the centre of the island.)

Division III.—*The Pinar.* Plate X. fig. 2. (A large tract of pine-forests covering the mountainous country in the south and south-west.)

Division IV.—*Desert-like Plains.* Plate XI. fig. 1. (Including the sand-hills of Maspalomas.)

Division V.—*The Charco.* Plate XI. fig. 2. (The lagoons and swampy country found on the Maspalomas coast.)

Division VI.—*The Western Zone.* (The wild rocky country bordering the western coast-line.)

The members of the Fauna inhabiting these six divisions differ strikingly one from the other.









Division I.—*Monte and the Vega.*

By this I mean the country which includes the villages of Tafira, Santa Brigida, San Matéo, Teror, Firgas, Moya, Arucas, and Tamaraceite. In these districts the soil is to a large extent under cultivation—bananas, sugar-cane, oranges, tomatoes, almonds, vines, and immense quantities of beans constituting the staple produce. Near San Matéo fine chestnut woods stretch for some distance up the slopes towards the Cumbres, and laurels are found in the neighbourhood of Santa Brigida, besides countless other trees of many species. In this zone two famous barrancos are situated, the one at San Matéo and the other at Firgas, where the vegetation is most luxuriant. Birds here are more plentiful, both in number and in species, than in any other district. Flocks of Goldfinches, Brown Linnets, Spanish Sparrows, and Canaries are always in evidence, added to which many species, such as the Tenerife Blue Tit, Common Chaffinch, Grey Wagtail, Rock-Sparrow, Berthelot's Pipit, Blackbird, Chiffchaff, and Blackcap, are ever present in varying numbers. In the neighbourhood of San Matéo numbers of Corn-Buntings are met with, and their hissing notes can be heard on all sides. Occasionally in the winter months small flocks of Swifts appear, but never remain for very long. Kestrels, Kites, Buzzards, and Egyptian Vultures frequent the hillsides and open valleys. Ravens often pass overhead on their way to the Cumbres, where they are plentiful. In the thick fields of beans Quail can sometimes be flushed; however, they are not very common and a good dog is almost essential when shooting them.

One of the rarest and most interesting species to be found in this zone is the Redbreast (*Erithacus rubecula superbus*): it frequents the most secluded spots, such as the deep barranco beyond San Matéo and the thick undergrowth which is found on the slopes above that village. Some large water-tanks are built on this ground, to which many land-birds and several species of waders resort.

I found Rock-Pigeons very numerous in the caves near



Guanarteme, and excellent sport can be had by waiting for these sporting birds as they fly from the country to their stronghold in the cliffs. In the Monte they are not nearly so plentiful as they are in the south of the island, where they literally swarm in thousands. In the summer months Swallows and House-Martins visit Gran Canaria in fair numbers; but they are seldom seen before July, and depart very soon, not remaining to breed. Owls (*Asio otus canariensis*) are rare; I have met with them at Tafira. The Barn-Owl is very scarce indeed, and I have never seen one in the flesh. The Hoopoe, in this part of the island, is rarely observed in any numbers in the winter, but later in the year is said to occur commonly in the garden of the Santa Catalina Hotel at Las Palmas.

Between the Isleta and the town of Las Palmas a curious tract of drifted sand is to be found, and beyond it a dry elevated plateau stretches towards Tafira. On this arid, sun-baked ground few birds are to be seen save Berthelot's Pipit, occasional flocks of the Trumpeter Bullfinch, the Short-toed Lark, and several pairs of the Norfolk Plover. Vegetation consists chiefly of *Euphorbia*, the three commonest species being *E. regis*, *E. aphylla*, and *E. obtusifolia*, besides various other desert-loving plants such as *Launæa spinosa* and *Plocama pendula*.

#### Division II.—*The Cumbres.*

(Plate X. fig. 1.)

As might be expected, in these mountain solitudes bird-life is remarkably scarce, and is chiefly represented by the Raptores: Vultures, Kites, Buzzards, and Kestrels all being very plentiful. When encamped close to the Roque Nublo in February 1911, at an altitude of 5000 ft., I was much struck by the many Rock-Partridges (*Caccabis rufa*) to be found at this height. On every side of the ravine they were calling one to the other, the birds silhouetted against the sky on the highest pinnacles they could find. While at this camp I noticed several large flocks of Canaries, and again when encamped still higher up on a plateau 5650 ft.



1. THE CUMBRES.



2. THE PINAR.



above the sea. Here also I met with a large flock of Corn-Buntings; and on one occasion while passing over tableland at 5000 ft. I flushed a pair of Coursers, although these birds are almost entirely confined to the desert country round Maspalomas in the extreme south-east corner of the island. Berthelot's Pipits are found everywhere in the Cumbres, generally in pairs. Hundreds of Rock-Pigeons make their homes in the caves, and as very few are shot they must be increasing enormously every year. Each morning, long before the mists had dispersed, we were awakened by the melancholy croakings of the Ravens as they flew over the camp. They breed in the high cliffs, but I was too early to find their eggs.

The panorama seen from the summit of the Cumbres is grand in the extreme, and a magnificent view of the snow-capped "Pico de Teide" is obtained. The highest peaks in the Cumbres are broken by large stretches of almost desertland, parched by the sun and covered with loose stones and boulders. Vegetation is confined to the more sheltered barrancos, where certain bushes and grasses seem to flourish despite the character of the soil. The photograph reproduced, which was taken at an altitude of 5110 ft., facing the south-east of the island, gives a fair idea of the country and its rugged aspect; but it must be remembered that when once the summit of the Cumbres is reached progress is not at all difficult, and large stretches of almost flat ground are traversed before the descent is begun on the opposite side.

### Division III.—*The Pinar.*

(Plate X. fig. 2.)

When the Cumbres are crossed the character of the country changes. Barren mountains and deep barrancos give way to fertile valleys and large tracts of pine forest, which stretch as far as the eye can reach towards the south-west coast. The largest of these forests is known as the Pinar Pajonal, and here I camped for a considerable time in 1910 and 1911, thoroughly exploring its depths and the bird-life contained therein. As can be seen from the photograph, the trees have

been severely thinned by the charcoal-burners, and in many parts utterly destroyed by the Spaniards in the most ruthless fashion. Undergrowth is practically non-existent, and the dead pine-needles on the parched earth made walking very difficult. These pines are the home of the very beautiful Blue Chaffinch (*Fringilla teydea polatzeki*), a subspecies of the form found on the Peak of Tenerife. All my notes on this interesting subspecies will be found under the heading of the bird itself. Most noticeable of all in these forests is the brightly coloured Great Spotted Woodpecker. These birds are very numerous and extremely noisy, making themselves heard at a great distance in the silent woods. Pigeons also are fairly common, but are very wary. One of the most attractive species is the Tenerife Blue Tit; these little birds roam through the trees in small parties, keeping up an incessant chatter as is their wont. Chiffchaffs are constantly heard, although Herr von Thamer affirms that he never met with any in the Pinar. I found Partridges occasionally on the outskirts of the forests; but they preferred the hot sheltered barrancos, where they were quite plentiful, especially in the neighbourhood of the Cueva de Las Ninas. At this spot, where I was encamped in 1910 and 1911, a large Barn-Owl was several times seen by one of the members of my party; on one occasion it alighted on the ground close to the tent, where it could be plainly seen in the brilliant moonlight. Unfortunately it was never obtained. Norfolk Plovers were heard calling at dusk, but were never seen in the daytime. Other species noticed in the Pinar Pajonal were Shrikes, Grey Wagtails, Berthelot's Pipits, Blackbirds, and Canaries, all of which were decidedly scarce. Ravens and all the Birds of Prey, on the other hand, were common. Besides Vultures, Buzzards, Kites, and Kestrels, Herr von Thamer mentions having seen a single Sparrow-Hawk in the Pinar close to the Cueva de Las Ninas. In my opinion this must have been a chance straggler, as I have never heard of another example. The same collector obtained a Redstart on the 27th of March, in the Pinar de Mogan, but this also is a rare migrant.

The Pinar Pajonal commences at about 3000 ft. above Puerto Mogan, and on the slopes above Juucal the path through the pines reaches an altitude of 4000 ft. Fresh water is to be found in abundance near the Cueva de Las Niñas, and several deep pools of icy water are hidden in the depths of the forest.

Division IV.—*The Plains and Sandhills.*

(Plate XI. fig. 1.)

From Carrisal to Arguineguin is to be found perhaps the most desolate country in the whole island, and in consequence bird-life is exceedingly scarce. Looking down from behind the town of Aguimes, an immense flat plain stretches out before us from Carrisal to Juan Grande. The long ride across this desert is monotonous in the extreme. The ground is strewn with loose stones and boulders, and in parts is fairly thickly covered with *Euphorbia* (of which Gran Canaria possesses eleven different species) and another shrub named *Plocama pendula*.

From Juan Grande, where a certain amount of cultivation has taken place, the plain continues much as before, save that giant *Euphorbia canariensis* is found growing abundantly. This district is said to be of great interest to geologists. Nearing Maspolomas the ground begins to rise slightly, and a considerable amount of drifted sand covers the surface. Throughout this entire waste birds are seldom seen—Trumpeter Bullfinches, Short-toed Larks, Berthelot's Pipits, and a few Vultures, Kestrels, and Ravens being the only species found. I had hoped to meet with some form of Desert-Lark in this part of the island, but in this I was disappointed. As we neared the "Charco" the route lay over an elevated plateau close to the sea on which were growing *Plocama pendula* and scattered clumps of *Euphorbia* bushes; this in turn gave way to sandhills covered with a scanty vegetation; several Norfolk Plovers were flushed as we passed through the belt of *Euphorbia*, but were never seen far from these bushes. The plateau and sandhills are the true home of the Courser, small parties of which were

to be seen in all directions. Trumpeter Bullfinches were present in small flocks and were remarkably tame. Other species noted were Ravens and Rock-Pigeons, the latter in immense flocks which do considerable damage to the crops.

Division V.—*The “Charco” of Maspalomas.*

(Plate XI. fig. 2.)

This “Charco” is utterly unlike anything else to be seen in any of the islands. It is best described by imagining a fertile valley bounded on the one hand by sandy dried-up plains and on the other by a stretch of barren sandhills, which together form a country quite unique in character. Fresh water running from the hills into this valley becomes dammed for about half a mile from the sea and forms a considerable swamp; the main stream always appears to be running, but on the right bank of this stream various arms of stagnant, or almost stagnant, water stretch into the tangled vegetation. This consists of tamarisk bushes, poplars, stunted palms, tarajal bushes, mounds of coarse spiky grass, and rushes. Two clumps of tall date-palms stand out above everything and lend an extra charm to the scene. Some of the lagoons and pools are very deep, the banks being thickly overhung with coarse grass which affords a perpetual hiding-ground to the few water-birds which are to be found here. At one corner of this “Charco,” on the coast, is built the Maspalomas Lighthouse, and from the summit of this I mapped the country in the immediate neighbourhood. At high tide the sea runs up the main channel, which is then transformed into a comparatively wide stretch of water, but the salt water does not reach up the various lagoons. At low tide a considerable stretch of sand is left bare, much of it quicksand, and here innumerable waders may be found—the Ringed Plover, Sanderling, Dunlin, and Kentish Plover were all numerous in February, especially the Kentish Plover, which I am sure breeds in the vicinity. Whimbrels were occasionally noticed on the rocks by the lighthouse, and Sandpipers were found near the edge of the lagoons. At the time of my visit in February much of the marsh was dry, but after heavy rains in the hills the



1. DESERT-LIKE PLAINS.



2. THE "CHARCO" OF MASPALOMAS.

West, Newman proc.





“Charco” must become a veritable lake and a paradise for water-birds.

I was surprised to find a couple of Snipes frequenting the marsh, Herr von Thanner presumably did not meet with the species. Ducks were peculiarly scarce, and in ten days I only saw a single example, which was obtained and proved to be the Marbled Duck (*Anas marmorata*). Mr. Pittard, who shot this specimen, assures me that he has seen other ducks obtained here which certainly did not belong to this species. A single Heron frequented the seashore and reed-beds in turn, and Herr von Thanner, who camped in the Charco in February 1910, mentions a young one which was caught there. Just round the Point of Maspalomas, where the beach is stony, I shot two Grey Plovers out of a small flock feeding at the water's edge; Turnstones were also noticed on the rocks near by, and here I also saw a single Godwit—a bird which has not hitherto been recorded from Gran Canaria so far as I am aware. Doubtless at other seasons of the year numerous Waders of various species call here on migration; lack of observers is probably the only reason that so few Charadriidæ have as yet been recorded from this island.

The “Charco” is also a favourite resort of several species of land-birds, which appear to be entirely isolated from the rest of the island. Of these the Black-headed Warbler (*Sylvia melanocephala*) is perhaps the most interesting; Chiffchaffs were often noticed on the tamarisk-bushes; and two Shrikes (*Lanius excubitor koenigi*) frequented the flat ground behind my tent. In the evenings several Hoopoes made their appearance, flying into the “Charco” from the direction of Maspalomas village. The little Black Swift (*Cypselus unicolor*) and Martins (probably *Chelidon urbica*) were occasionally noted, but always in small numbers. From the account which Herr von Thanner gave of his visit to this spot I certainly expected to see several Coots and Moorhens, but they were remarkably scarce, and although the lagoons and pools are admirably suited to their wants, I only once caught a fleeting glimpse of one of these birds, and even then was not sure to which species it belonged. Certainly it is

not possible now in this "Chareo" to come upon the pretty picture of bird-life which Herr von Thanner portrayed in his paper! Buzzards occasionally visited the ground, and Vultures, Kites, and Ravens were numerous. I never came across the Peregrines which Herr von Thanner mentions, although I kept a strict look-out for them and visited the barranco where they are supposed to breed; Ospreys, on the other hand, were by no means rare and were seen on several occasions between Messrs. Elder & Fyffes' fruit-store and Arguineguin. Both *Larus fuscus* (? subsp.) and *Larus cachinnans* were found on the coast, but the former was by far the most plentiful species. Terns (*Sterna hirundo*) were entirely absent and have ceased to breed there, as they evidently did until quite recently.

I am greatly indebted to Don Pedro Castillo, the owner of this "Charco," for most kindly allowing me to camp there, and for giving me every facility to collect on his estates.

#### Division VI.—*The Western Zone.*

This part of the island is really the most difficult to define, as it comprises types of very different country. Moreover, it is the district with which I am least acquainted. It embraces the wild mountainous region bordering the coast from Agaete to Mogan, and thence inland to Fataga and Tirajana. Many huge barrancos break up the coast-line, and these deep valleys are often extensively cultivated. Birds are much more abundant where cultivation exists, hence many species were noted here which were not met with in the intervening country. A typical barranco is that which leads from Puerto Mogan to the Pinar Pajonal, and the following species were noticed there in abundance: Rock-Pigeons, Shrikes, Cliffchaffs, Blue Tits, Grey Wagtails, Spectacled Warblers, Blackbirds, Canaries, Ravens, Kites, Kestrels, and Egyptian Vultures; Corn-Buntings were also seen, but were not so numerous.

From Mogan to Aldea the rough mule-path passes through fine wild scenery and thence on to Agaete. As I have already stated, I have not personally travelled along the

path, but have obtained extensive views of this part of the island both from the Pinar and the sea; the country looks very uninteresting, and I should imagine that bird-life is poorly represented, being practically confined to Ravens and the Birds-of-Prey, save in the few fertile valleys where the species already mentioned may be met with. The entire coast-line from Mogan to Sardina is rugged in the extreme, high cliffs, where several pairs of Ospreys have their stronghold, dropping sheer into the sea. On the north-west corner of the island, between Agaete and Galdar, lies an extensive and arid plain, but in the neighbourhood of Galdar itself and the adjoining town of Guia the plains are well watered and yield large crops of bananas, tomatoes, and sugar-cane. As might be expected, the birds found in this region mostly resemble those in Division I.

The principal works bearing on the subject to which reference is made in my paper are contained in the following list:—

- Webb, Berthelot, and Moquin-Tandon, Hist. Nat. des Iles Canaries (Ornithologie Canarienne), 1841.  
 Bolle, J. f. O. 1857, pp. 258-292 and pp. 305-351.  
 Meade-Waldo, Ibis, 1889, pp. 1-13.  
 „ Ibis, 1893, pp. 187-207.  
 Tristram, Ibis, 1889, pp. 13-32.  
 Hartert, Nov. Zool. 1901, pp. 313-335.  
 Polatzek, Orn. Jahrb. 1908, pp. 81-119 and pp. 161-197.  
 „ Orn. Jahrb. 1909, pp. 1-24 and pp. 117-134.  
 Von Thanner, Orn. Jahrb. 1910, pp. 81-101.

An exhaustive list of the literature on the birds of the Canary Islands is given by Dr. Hartert in the 'Novitates Zoologicae,' 1901, pp. 333-335. A great deal has been done, however, since that date.

In comparing the various subspecies with the nearest allied species from the mainland, it struck me forcibly that these insular forms are almost without exception *darker* in colouring throughout.

Some ornithologists will doubtless take exception to the many trinomials included in the following pages. If, however, these insular forms are separable by sufficient characters

from the species found on the mainland, I judge that they are worthy of subspecific rank. In each case where this has been done, I have given the characters which separate them from the original species.

A large collection of birds from the other islands of the Canary Archipelago, collected by Mr. Meade-Waldo and now in the British Museum, has been available for comparison. Throughout the paper I have quoted Dr. Hartert's valuable work 'Die Vögel der Paläarktischen Fauna' as 'Vög. Pal. Faun.,' and the 'Novitates Zoologicæ' as 'Nov. Zool.'

An asterisk (\*) placed against a reference denotes the *original* description of the species or subspecies.

I hope at some future date to publish a paper dealing with the nidification of the Birds of Gran Canaria; at present, however, my notes are very far from complete on the subject, and I have therefore refrained from discussing in this paper the many interesting problems which have been brought to my notice.

I should like to express my grateful thanks to the following residents in Gran Canaria who have all done their utmost to assist me in my various expeditions in the island:—Mr. T. R. Morgan, Mr. Maurice Blandy, Mr. Vines, Mr. Charles Miller, and especially to Mr. P. R. Pittard, who has accompanied me on all my trips and helped me considerably in the forming of my collection.

I am also deeply indebted to Mr. W. R. Ogilvie-Grant for help which he has given me, and to his attendant Mr. Wells.

#### DESCRIPTION OF PLATES IX.—XII.

- IX. Map of the Island of Gran Canaria (p. 558).  
 X. Fig. 1. The Cumbres of Gran Canaria (p. 560).  
 Fig. 2. The Pinar of Gran Canaria (p. 561).  
 XI. Fig. 1. Desert-like Plains of Gran Canaria (p. 563).  
 Fig. 2. The "Charco" of Maspalomas, Gran Canaria (p. 564).  
 XII. *Fringilla teydea polatzeki*,  $\frac{9}{10}$  (p. 614).  
 Fig. 1. Male, on a branch of *Pinus canariensis*.  
 Fig. 2. Female, on the ground,  $\frac{3}{4}$ .

## CACCABIS RUFA Red-legged Partridge.

*Caccabis rufa australis* Tristram, Ibis, 1889, p. 28\*; Hartert, Nov. Zool. p. 330 (1901); Thanner, Orn. Jahrb. xxi. p. 98 (1910).

a. ♂. Cueva de las Ninas, 3200 ft. 10th Feb. '11.

Iris light brown, soft part round eye coral-red; bill bright coral-red; feet and legs coral-red.

In 'The Ibis' for 1889 Canon Tristram described the Partridge of Gran Canaria under the name *C. rufa australis*, and in his paper pointed out the differences between this and the European species *C. rufa*. His chief grounds for separating the insular form were: (1) the large size of the bill and greater length of the tarsus; (2) "a band of reddish brown on the nape and hind neck, brighter than in French and English, but not brighter than in Spanish examples"; (3) "whereas in European birds the whole of the rest of the upper parts are reddish brown, in the Canarian the back and upper tail are slaty grey."

Apparently the last two points are founded on his comparison of a single specimen from Canary with the material in the Natural History Museum. As I have now before me the type-specimen of *C. rufa australis* (shot in March 1888), kindly lent to me by Dr. J. A. Clubb, of the Liverpool Museum, and also the entire material contained in the Natural History Museum of both forms, I should like to make one or two remarks on Canon Tristram's observations.

With regard to the size of the beak in examples from Gran Canaria, the only two specimens which I have from this island certainly appear to have slightly larger bills, but this is *not* the case with examples which I have examined from Tenerife. Moreover, the tarsus is almost identical in length with that of European birds.

As regards the second character mentioned I must also differ, the colour of the nape and hind neck agreeing exactly with certain specimens of *C. rufa* shot in England, although it is certainly true that Spanish examples from Coruña and Madrid in the National Collection are considerably brighter

and darker throughout, doubtless constituting a dark geographical race. Lastly, the grey colouring of the back and rump at first sight appeared to be constant; when, however, the series of *C. rufa* was laid out according to the months in which the specimens were procured, it was at once apparent that those birds obtained in the first part of the year (January to May) were considerably greyer than examples shot in September, October, and November; in some cases the rump was quite as grey as in the Gran Canaria birds. This grey colouring, therefore, is evidently due to seasonal change and to wear of plumage, and cannot be counted as a distinct character. No doubt specimens obtained in Gran Canaria during the latter months of the year would be as rich in colouring as typical examples of *C. rufa* obtained at the same time. It is almost certain that the Partridge has been introduced into Gran Canaria, and, up to the present, at any rate, I do not consider that it has become sufficiently differentiated to deserve subspecific rank.

The Red-legged Partridge is never seen in the north of the island, but in the vicinity of Mogán and the Cueva de las Ninas is fairly plentiful: here, in small deserted barrancos, thickly overgrown with Euphorbia bushes and prickly pears, where the rays of the sun penetrate with double the usual vigour, several Partridges are sure to be found. In such places they lie very close, and when put up have a happy knack of always doing so at the worst possible moment for the sportsman. They are very strong on the wing, and when disturbed fly for a long distance. Occasionally I have flushed them quite in the pine-forests, but usually they prefer thicker undergrowth than is to be found there. The call is very loud and not unlike that of our British bird. In the early mornings a regular chorus may be heard of birds calling to each other.

On Feb. 12th, 1911, I camped below the Roque Nublo, at 5000 ft., in the Cumbres. This camp was in the wildest spot I have yet seen in these islands (see Pl. X. fig. 1). Towering rocks and precipices rose on every side, and even the scant euphorbia bushes were less in evidence in

this hidden valley. I was at once struck by the number of Partridges to be seen; on every side of the valley they were calling one another; the birds, silhouetted against the sky, were perched on some high rock, whence they kept up an incessant babel until nightfall, only to begin again at the first signs of daylight.

Another part of the island, very different in character, where these birds are found is amongst the almond-groves of Tirajana; many are shot there annually by the Spaniards and sent to Las Palmas. I have often seen these birds kept as pets in a small cage, and one which belongs to a shopkeeper in Las Palmas has become remarkably tame.

Examples of *Caccabis petrosa* (? *koenigi*), the form found in Tenerife, Gomera, and Lanzarote, have been recently turned out in Gran Canaria. If they survive the attentions of the Spanish sportsmen I have no doubt they will successfully establish themselves in this island.

COTURNIX COTURNIX. Migratory Quail.

COTURNIX C. AFRICANA. African Quail.

Both these species of Quail are undoubtedly found in the Canary Islands, and although I have not actually any examples from Gran Canaria in my possession, yet it is safe to assume that they both occur there.

Mr. Meade-Waldo obtained both forms in the neighbouring island of Tenerife. The resident subspecies *C. c. africana* interbreeds with the migratory Quail *C. coturnix*, and consequently hybrid birds in intermediate plumage are often seen. Male examples of the resident subspecies are readily distinguished from *C. coturnix* by having "the lores, sides of the head, chin, and throat bright rufous-chestnut," instead of pure white with a black anchor-shaped mark down the middle. The females are indistinguishable.

Quails, many of which are resident in the island, are, I believe, not nearly so rare in Gran Canaria as they appear to be. They are very hard to flush from the fields of beans, &c., which they frequent, and without dogs are easily passed over. Shooting, in February 1912, above San Matéo, I



flushed a couple of these birds in a dense field of beans, which reached to my waist. They were the first I had actually shot myself in the island. They uttered a sharp cry of alarm as they rose, and flew strongly and fast. One bird which fell was unfortunately lost. The Spaniards hunt them with dogs.

**PTEROCLES ARENARIUS.** Black-breasted Sand-Grouse.

*Pterocles arenarius* Bolle, J. f. O. 1857, p. 332.

I have never seen the "Sand-Grouse" in Gran Canaria, nor have I heard of any having been shot in recent years. Proof that it was once looked upon as an habitué is given by Dr. Bolle, who, writing in 1857, remarks: "Gangas are found in the S.E. of Canaria in the neighbourhood of Juangranda and Sardinias, and are by no means uncommon; but the people there were uncertain whether they bred in the country or only came across from Tierra del Moro. The English people in the island call them 'grouse,' because of their resemblance to the Tetrao of their native land."

No doubt stragglers occasionally fly over from Fuerteventura to the south of Gran Canaria. They are resident in the former island and by no means uncommon.

**COLUMBA LIVIA.** Rock-Dove.

*Columba livia* Thanner, Orn. Jahrb. xxi. p. 98 (1910).

a. ♀. Near Tirajana. 10th April '09.

b. ♂. Pina Pajonal (Cueva de las Ninas). 24th Jan. '10.

c. ♂. Pinar near Juncal (4000 ft.). 8th Feb. '11.

d-f. ♂ ♀ ♀. Maspalomas village. 25th Feb. '12.

Iris reddish orange; bill black; feet pinkish claret-coloured. Total length in the flesh 12 inches.

Testes of specimen c were very large.

The Rock-Pigeon is most numerous everywhere in the island. The birds are very shy, and unless shot flying are not easy to obtain; they are very plentiful on the west coast and roost in the caves of the cliffs at Guanarteme, every evening flying down from the country to spend the

night, and dropping like stones from the heights above. Excellent shooting can be obtained by anyone hidden in the cliffs or stationed in a boat beneath.

In the Pinar Pajonal these were the only Pigeons seen, and, indeed, they are the only ones now left in the island, *Columba bollii* having disappeared with the laurel forests.

At Maspalomas and on the plains of Juan Grande these Pigeons are found literally in thousands, countless flocks frequenting the fields of grain in the neighbourhood of Maspalomas village: indeed, it is always a matter of great surprise to me that there are any seeds left to flourish. They nest undisturbed in the caves of the steep barrancos which run inland, and in the high cliffs on the coast.

TURTUR TURTUR. Turtle-Dove.

*Turtur turtur* Bolle, J. f. O. 1857, pp. 331-332; Thanner, Orn. Jahrb. xxi. p. 98 (1910).

A summer migrant to the island. Herr von Thanner records this bird from Arguineguin, where he noticed the "first" arrival on March 13th. It is not found here in the winter months. A Turtle-Dove was seen in the summer of 1911 on the fields between Las Palmas and the Port.

There is one example, stuffed, in the Las Palmas Museum.

FULICA ATRA. Common Coot.

*Fulica atra* Thanner, Orn. Jahrb. xxi. p. 100 (1910).

From the description which Herr von Thanner gave of the "Charco" at Maspalomas I expected to find several pairs of both Coots and Moorhens. They were, on the contrary, extremely rare. In fact, only on one occasion did I catch a fleeting glance of a bird which I took to be of this species. The conditions are ideal for Coots and Waterhens to breed undisturbed. Herr von Thanner records it as breeding in the lagoons of Maspalomas and also in the little "Charco" of Arguineguin.

GALLINULA CHLOROPUS. Waterhen.

*Gallinula chloropus* Thanner, Orn. Jahrb. xxi. p. 100 (1910).

The Moorhen is said by Herr von Thanner to be found

in the "Chareo" at Maspalomas. He also establishes the species as a breeding bird and states that he received five eggs which had been taken at Maspalomas. I can only surmise that the parent birds were shot after the eggs had been taken, as there were certainly no Waterhens in the "Chareo" at the time of my visit. Both this and the preceding species were known to the natives in the neighbourhood.

OCEANODROMA CASTRO. Madeiran Fork-tailed Petrel.

The Madeiran Fork-tailed Petrel is found in the seas of the Canary Archipelago, and Mr. Nicoll saw large numbers of it before reaching Gran Canaria, when on board the 'Valhalla.' Mr. Ogilvie-Grant found this Petrel breeding on the Desertas, Porto Santo, and the Azores. There are no records of its having bred on any of the Canary Islands.

Doubtless several other species of Petrels frequent the seas round Gran Canaria. I have only mentioned those which have been seen actually within sight of the island.

BULWERIA BULWERI. Bulwer's Petrel.

I have never seen this Petrel in the island myself, though it must, of course, occur there. Mr. Meade-Waldo writes to me that during his residence in the islands he found a pair breeding in a cave near Arucas. This town is situated some distance from the coast.

PUFFINUS KUHLI. Mediterranean Shearwater.

*a, b.* ♀. Confital Bay. 17th Nov. '11.

The two specimens recorded above were obtained for me in November by Mr. P. R. Pittard, who has also supplied me with the following note on the species:—"Numbers of these birds frequented Confital Bay from October 1st till November 15th, 1911. The fishermen affirm that they 'turn up' every year about the same time; they appeared quite fearless, and were skimming over the sea quite close to the reef. None came within the sheltered water."

Herr von Thanner mentions that he constantly saw examples of this Shearwater in his journeys round the coast. Mr. Nicoll also obtained a single specimen off Gran Canaria when he visited the island with Lord Crawford in the 'Valhalla.'

*P. kuhli* breeds in the Azores (*Godman*), Madeira and Great Salvage Islands (*Ogilvie-Grant*), and Porto Santo (*Schmitz*).

Mr. Meade-Waldo, writing in 'The Ibis,' 1903, states that he has seen flocks of many thousands on the water between Gran Canaria and Fuerteventura. I noticed large numbers of these Petrels skimming about in the neighbourhood of the Isleta during a flying visit which I made to the island at the beginning of June of this year (1912).

#### LARUS FUSCUS, subsp. ?

*Larus fuscus* subsp. ? Lowe, British Birds, vol. vi. p. 5 (1912); Bannerman, Bull. B. O. C. xxix. p. 121 (1912).

*a-c.* ♀ ♀ ad. et imm. Las Palmas Harbour. 20th Feb. '12.

Iris clear amber; bill yellow and crimson; legs banana-yellow.

Dr. Lowe has recently separated the Lesser Black-backed Gull of the British Islands from typical *L. fuscus*, and has named this subspecies *L. fuscus britannicus*. I was privileged to examine along with Dr. Lowe the large series of Lesser Black-backed Gulls which he had at his disposal, and the only specimens which did not agree with either form were the birds which I had myself collected in the island of Gran Canaria.

As Dr. Lowe has already gone into the matter as thoroughly as is at present possible, I will quote his remarks in full:—"I have examined Lesser Black-backed Gulls from the Canaries, Tenerife, and the Grand Canary (Bannerman Coll.), and one example in the British Museum collection which was taken at Valencia. These birds appear to differ from both of the above-described races\*; but whether they

\* *Larus fuscus* and *Larus fuscus britannicus*.

are representatives of another race meriting the distinction of subspecific rank, the material at present to hand is too meagre to allow me to say. It may, however, be pointed out that the Lesser Black-backed Gull breeds in at least one locality off the Moroccan coast (Alboran Island, *Lilford*), and extends southwards along the West African shores as far as Bonny (*Saunders*); so that it is very possible that these local birds wander in winter to the Canaries and Madeira, or to places like Valencia on the Mediterranean shores, where they may be found along with representatives of the light-backed or more northerly race, *Larus fuscus britannicus*. These points I am now endeavouring to clear up."

I may remark that the colour of the back in specimens from the Canary Islands is intermediate between that of *L. fuscus* and *L. f. britannicus*.

I paid a flying visit to Gran Canaria on June 1st of this year and had hopes of procuring a series of the bird in question. However, in this I was disappointed, as the harbour was entirely deserted by Gulls, and, I was told, had been so for at least a month. At the time when I left Las Palmas previously, on March 11th, the Gulls were very plentiful, as the following notes which I have made during many visits to this island will prove.

In the winter months the Lesser Black-backed Gull is the commonest species frequenting Las Palmas harbour, where a number of both adult and immature birds may always be seen round the shipping or else flying leisurely along the coast. Every evening before dusk I used to notice a long line of these Gulls crossing the isthmus of sand which joins the Isleta to the mainland, and finally disappearing over the precipitous ground which borders Confital Bay, to roost in the high cliffs of Guanarteme. Whether they breed in the islands I have been unable to discover. There seems no reason why they should not do so, and especially on the little island of Alegranza. Unfortunately, no one has yet visited the outlying islets in the breeding-season. *Larus cachinnans*, on the other hand, is said by Mr. Meade-Waldo to breed on most of the islands.

## LARUS CACHINNANS. Yellow-legged Herring-Gull.

*Larus cachinnans* Thanner, Orn. Jahrb. xxi. p. 99 (1910).

The Yellow-legged Herring-Gull is found here in some numbers, although at times it seems to quite forsake the harbour of Las Palmas. It is not nearly so plentiful as the Lesser Black-backed Gull. Occasionally a few may be seen flying from the direction of Guanarteme towards the Isleta. On the south coast a number were noticed in company with Lesser Black-backed Gulls. Mr. Meade-Waldo found it breeding on the neighbouring islands. On the 1st of June, 1912, I saw a single Yellow-legged Herring-Gull in Las Palmas Harbour. All Gulls had deserted the harbour during the previous month.

## LARUS RIDIBUNDUS. Brown-headed Gull.

*a, b.* ♂ ♀ imm. Las Palmas Harbour. 20th Feb. '11.

*c.* ♂ imm. Las Palmas Harbour. 20th Feb. '11.

Iris chocolate-brown; bill reddish-horn-coloured; legs dark pink.

Total length in the flesh 14.7 and 15 inches; expanse 35 inches.

These birds are all in the immature plumage of the second (?) year. Numbers of them were to be seen in Las Palmas Harbour throughout February. I did not observe a single fully adult bird.

## STERNA HIRUNDO. Common Tern.

*Sterna hirundo* Bolle, J. f. O. 1857, pp. 341-344; Thanner, Orn. Jahrb. xxi. p. 99 (1910).

As Herr von Thanner remarks, the Common Tern has decreased to such an extent of late years that it may be almost considered to have disappeared. I myself have never seen this bird at all, although stragglers doubtless visit the shores of the island from time to time, especially in the summer-time. In the years when Dr. Bolle visited Gran Canaria he found the Common Tern breeding near Maspalomas. The sand-hills there are an ideal spot for its nesting-grounds, and it is easy to believe that in olden days a very thriving colony was in existence. The cause

of the disappearance can only be put down to the universal and regular "egg-robbing" to which these birds were subjected. Herr von Thanner was told by the villagers of Maspalomas that "baskets-full of eggs were taken away and eaten"; and I can well imagine these short-sighted people taking clutch after clutch until the poor birds were literally driven away to a more hospitable land wherein to rear their young in peace. In any case the district of Maspalomas has not changed in itself, and is as suited to their requirements at the present day as it was sixty years ago.

STERNA CANTIACA. Sandwich Tern.

*Sterna cantiaca* Webb, Berthelot, et Moquin-Tandon, 'Histoire Naturelle des Iles Canaries' (Ornithologie Canarienne, p. 41, 1841).

*a-c.* ♂ ♂ ♀. Las Palmas Harbour. 28th Feb. '11.

Iris dark chocolate, pupil dark blue; bill black, tip light yellowish horn-coloured; feet black.

Total length in the flesh 15·8 inches.

The rosy tinge on the feathers of the breast and inner webs of the primaries was more pronounced than on any Tern which I had shot previously.

The Sandwich Tern is by no means a common species on the shores of Gran Canaria. The Spanish boatmen affirm that it visits the harbour of Las Palmas once a year—in the month of February. Certainly I have not seen it on any previous occasion, and Herr von Thanner does not mention the species in his paper, though he records *Sterna hirundo*, which I have not met with myself. Webb and Berthelot gave the habitat of this species as Fuerteventura and Lanzarote. The Sandwich Tern is said to breed on the island of Alegranza.

My three examples are fully adult birds in winter plumage, the forehead being white with a few streaks of black and the nape and hinder part of the crown black. The head becomes entirely black about April. These birds have all assumed new primaries, and the white margins to the inner webs are continued to the tip of each feather.

CURSORIUS GALLICUS. Cream-coloured Courser.

*Cursorius gallicus* Hartert, Nov. Zool. 1901, p. 332; Thanner, Orn. Jahrb. xxi. p. 98 (1910).

*a, b.* ♂ ♀. Plain between the "Charco" and Maspalomas Village. 25th Feb. '12.

*c, d.* ♂ ♀. Sandhills near Maspalomas Village. 28th Feb. '12.

Iris dark brown; bill black; feet white, soles yellow.

The true home of the Courser in Gran Canaria is on the sandy plains which surround the "Charco" of Maspalomas. Here it breeds undisturbed, and, I am glad to say, the numbers must be considerably on the increase. At the time of my visit, in February 1912, there were, I should say, several hundred birds in the vicinity. I did not meet with any until within about a mile of the "Charco," and there they became numerous. At the time we were passing over an elevated sandy plateau close to the sea. This in turn gave way to sand-dunes, with which the birds harmonized so exactly in colour that they were difficult at first to make out. They usually betrayed their presence by running some time before taking flight. When flying the black underwing is most conspicuous. They were seldom seen in pairs, but used to feed in small flocks of half a dozen birds or more scattered over the ground "in open order," with several yards between each bird. As we drew near to a flock they would all run swiftly behind some rise in the ground and then remain still. I found them ridiculously easy to obtain, never flying far even when shot at. The cry consisted of a sharp piping note twice repeated, and was often uttered while on the wing. Mr. Meade-Waldo discovered Coursers breeding in Fuerteventura, and took the young in down on March 24th. In Gran Canaria they did not appear to have commenced laying by the end of February. Herr von Thanuer met with these birds between Telde and Arguineguin, and although I did not actually see any myself until after leaving Juan Grande, yet there is no reason why they should not occur there, the ground being quite suitable to their habits.



## VANELLUS VANELLUS.

I have only once seen this bird in Gran Canaria, a solitary example flying over the golf-links at Las Palmas. This was in the winter months, but I have mislaid the actual date. Mr. Meade-Waldo mentions it as a regular winter visitor, but says he only noticed it in Tenerife and Fuerteventura.

## SQUATAROLA HELVETICA. Grey Plover.

*a, b.* Maspalomas Beach. 22nd Feb. '12.

Iris brown ; bill black ; feet greenish black.

These examples were shot out of a small flock of about seven birds which were feeding by the water's edge on a shingly beach near Maspalomas. This is the only occasion on which I have seen these birds in Gran Canaria. Mr. Meade-Waldo mentions that they are "regular winter visitors to the eastern islands."

## STREPSILAS INTERPRES. Turnstone.

*a.* Sex? Reef in Confital Bay. 27th Jan. '11.

*b, c.* ♀ ♀. Maspalomas Beach. 29th Feb. '12.

Iris dark reddish brown ; bill dull black ; feet reddish orange.

Total length in the flesh 8·4 and 8·5 inches.

Turnstones are fairly numerous near Las Palmas, and large flocks may be found feeding on the reef in Confital Bay at low water. Occasionally small parties fly across the strip of sand on to the other coast, where they search for food near the old castle in full view from the noisy port-road. If approached they are exceedingly shy, and are hard to obtain in consequence. Occasionally they may be found frequenting the water-tanks beyond the golf-links, but never more than singly or in pairs.

Herr von Thanner seems not to have met with this species, but it frequents the rocky parts of the coast north of the "Chareo." An individual which I had shot fell some forty yards out at sea. The waves were slowly drifting the specimen to the shore, when a Yellow-legged Herring-Gull, passing along the coast, swooped down and

picked the carcass out of the water, carrying it some way out to sea, when it let its prey drop well out of my reach. Mr. Meade-Waldo was informed by the peasants that Turnstones were breeding in the eastern islands; he himself saw them paired in June. This may be the case, as they undoubtedly breed in the Azores.

*CALIDRIS ARENARIA.* Sanderling.

a. ♂. Charco of Maspalomas. 24th Feb. '12.

b, c. ♂ ♀. " " 27th Feb. '12.

d. ♀. " " 29th Feb. '12.

Sanderlings were found in February 1912 frequenting the mouth of the "Charco" in small flocks. They are migrants to the island; I have never seen them in the north near Las Palmas.

*TRINGA HYPOLEUCA.* Common Sandpiper.

a. ♀. Las Palmas. Jan. '11.

b, c. ♀ ♀. Charco, Maspalomas. 23rd & 27th Feb. '12.

Iris dark blue with a reddish tinge; bill black; feet grey-green.

Total length in the flesh 8 inches; expanse of wings 13.6 inches.

Herr von Thanner does not record the Common Sandpiper from Gran Canaria. On the rocks between Las Palmas and the Port, and also on the reef in Confital Bay, it is most plentiful. I saw this species in every month which I have been in the island, December to April inclusive, and I have no doubt that it is resident throughout the year. I several times saw Common Sandpipers in the "Charco" at Maspalomas, where they frequented the edges of the stagnant pools. They probably breed there.

*TRINGA ALPINA.* Dunlin.

a. ♀. Mouth of the "Charco," Maspalomas. 23rd Feb. '12.

Dunlins are occasionally found on migration, but even then are not by any means plentiful on this island.

TOTANUS GLOTTIS. Greenshank.

LIMOSA LIMOSA. Bar-tailed Godwit.

Both these species are occasional visitors to Gran Canaria, where they may be seen on the stony beach near Elder and Fyffe's fruit-store at Maspalomas.

ÆGIALITIS CANTIANA. Kentish Plover.

*Ægialitis cantiana* Hartert, Nov. Zool. 1901, p. 332.

*Ægialitis cantianus* Thanner, Orn. Jahrb. xxi. p. 99 (1910).

a. ♂. Las Palmas. 8th April '09.

b. ♂. „ 15th Jan. '10.

c. ♂. „ Jan. '11.

d-h. ♂ ♂ ♀ ♀ ♀. Shore near the Charco, Maspalomas. 23rd-26th Feb. '12.

Iris purplish blue; bill black; feet pale slate-coloured.

Total length in the flesh  $6\frac{1}{2}$  inches; expanse of wings 12 inches.

The Kentish Plover is a common species on the shore near Las Palmas. It is very tame, small flocks running along in front of passers-by within a few dozen yards, and then only flying a short distance along the edge of the waves. They are resident in this island, and on the Maspalomas coast and at the mouth of the "Charco" were by far the most plentiful of all the Waders. They undoubtedly breed in the neighbourhood, and a bird which I disturbed on the 29th of February behaved exactly as if it had a nest close by, although I was unable to find it.

ÆGIALITIS DUBIA. Lesser Ringed Plover.

a. ♂. Las Palmas. 19th Jan. '10.

The Lesser Ringed Plover is so difficult to distinguish on the wing from the common and larger bird that it is probably often mistaken for that species\*. This example

\* The Lesser Ringed Plover (*Æ. dubia*) is easily distinguished from the allied species (*Æ. hiaticola*) by its having the shaft of the first primary white and *the remaining shafts black*, while in the Ringed Plover all the primary shafts are white.

is the only one which I have shot in the island. A pair were found breeding in April 1911. Two eggs were taken and sent to me by my friend Mr. Pittard. He writes that he procured the eggs in the barranco behind the Catalina. No nest was made, but the eggs placed in a hollow scooped out in the ground more than a mile from the sea. Although Mr. Pittard watched for a considerable time he saw no signs of the birds themselves, and eventually took the eggs, which otherwise would certainly have fallen a prey to the watchful Spanish boys.

*ÆGIALITIS HIATICOLA.* Ringed Plover.

*Ægialitis alexandrinus* Thanner, Orn. Jahrb. xxi. p. 99 (1910).

*a, b.* ♂ ♀. Las Palmas. 5th Sept. '10.

*c.* ♀. Las Palmas. 10th Jan. '11.

*d.* ♂. Shore of the Charco, Maspalomas. 23rd. Feb. '12.

Iris dark bluish brown; bill black; feet orange, nails black.

Total length in the flesh 7 inches; expanse of wings 11.8 inches.

The testes of specimen *d* were minute.

The Ringed Sand-Plover is very plentiful on the coast on both sides of the sand-banks which separate the Isleta from the main island, and may be constantly seen winging its way over the houses from the one shore to the other. It is often to be found, in company with the Kentish Plover, frequenting the large water-tanks about two miles inland. These tanks are often in a semi-dry condition, and at high tide the shore-birds resort to them while the reefs near Confital Bay are covered.

In February of 1912 for some reason these birds entirely forsook the sands between the Port and town of Las Palmas. In former years, as I have mentioned, this was a favourite resort of these Waders. I found them in small numbers along the sandy coast near Maspalomas. They are migrants to the island both in spring and autumn.

NUMENIUS PHÆOPUS. Whimbrel.

a. ♂. Las Palmas. 12th June '11.

Iris dark hazel ; bill—upper mandible dark horn-coloured, lower mandible lighter ; feet dark slate-coloured.

Total length in the flesh 17·6 inches ; expanse of wings 32 inches.

I have seen these birds occasionally on the reef in Confital Bay, whence they occasionally wander over the isthmus to the Las Palmas shore. In the south of the island single examples were often noticed on the rocky parts of the coast. I observed a pair of these birds on the rocks near the Santa Catalina Castle on the 1st of June, 1912. They were very tame and allowed me to approach them within twenty-five yards.

ÆDICNEMUS ÆDICNEMUS. Thick-knee.

*Ædicnemus ædicnemus ædicnemus* Hartert, Nov. Zool. 1901, p. 331 ; Thanner, Orn. Jahrb. xxi. p. 98 (1910).

*Ædicnemus ædicnemus insularum* Sassi, Orn. Jahrb. 1908, p. 32.

a. ♂. Plateau above Las Palmas. 15th March '11.

b. ♀. „ „ 12th Feb. '12.

c. ♂. Plain above the Charco, Maspalomas. 23rd Feb. '12.

Iris bright clear amber, pupil dark ; bill—basal half yellow, extremity black ; feet dull sulphur-yellow.

Sassi's description of the Canary Island 'Thick-knee, which he calls *Ædicnemus ædicnemus insularum*, does not apply to the three examples which I obtained in Gran Canaria. I have compared my specimens with typical *Ædicnemus ædicnemus* and with examples from Tenerife, from *both* of which it differs strikingly in being much whiter beneath, and, in consequence, the markings of the breast are more clearly defined. The throat is likewise as white as the belly ; the upper parts are darker and not so reddish sand-coloured ; moreover, the dark shaft-streaks to the feathers of the crown which give to the head such a streaked appearance are heavier. In size the bird from Gran Canaria is smaller, as

can be seen from the following measurements of the wing. Examples which Mr. Meade-Waldo shot in Tenerife I am unable to separate from European birds.

| Gran Canaria. | Tenerife. | Europe.  |
|---------------|-----------|----------|
| ♂ 23 mm.      | ♂ 25 mm.  | ♂ 24 mm. |
| ♀ 22·5 „      | ♀ 24 „    | ♂ 23·5 „ |
| ♂ 22·2 „      | ♀ 22·8 „  | ♂ 23·3 „ |

The “Alcaravan,” as the Norfolk Plover is called in the Canary Islands, is a resident species found in some numbers in suitable places in the island. In certain barrancos near the Las Palmas golf-links I have flushed no less than eight birds in as many hundred yards, but this is unusual, as they are known to prefer escape by running, or lying perfectly still with the head and neck stretched before them flat on the ground. At dusk they are very noisy, and at this time are continually heard calling. Part of the ground between the Port and town of Las Palmas is known as “Alcaravaneras” from the number of these birds which frequent it, although in later years they have become more scarce, or, at any rate, less often heard on these fields. In the central part of the island they do not appear to be nearly so plentiful, as I have seldom heard the call when camping on the higher ground. “Alcaravans” were numerous on the sandy plateau between Elder and Fyffe’s fruit-store on the coast and the “Charco” at Maspalomas, where a number of them were flushed from a belt of *Euphorbia*.

They breed in April, and I have an egg taken near Las Palmas which appears to be smaller than usual.

HOUBARA UNDULATA. Houbara Bustard.

*Otis undulata* Meade-Waldo, Ibis, 1893, p. 202.

Mr. Meade-Waldo says that “the Houbara is very occasional in Gran Canaria.” It is a resident species in Fuerteventura, and stragglers at times may find their way over to the sandy plains of Maspalomas. The country there is well suited to their needs, but doubtless such a large bird would

very soon be noticed and fall a prey to some watchful gunner. I could hear no news of any having been seen during my visit to Maspalomas in February 1912.

ARDEA CINEREA. Heron.

*Ardea cinerea* Thanner, Orn. Jahrb. xxi. p. 99 (1910).

Hérons are often to be found in the neighbourhood of the Isleta, and I have several times noticed them fishing on the reef, which is exposed at low tide in Confital Bay. In January 1911, two were seen there, together with a Curlew and several flocks of small Waders; on being disturbed they flew to the mainland.

Westwards of Confital Bay a small rock lies exposed some five hundred yards from the Point, and this is a very favourite place for Herons to spend the day. One day in February 1912 I counted as many as six at once; they roost in the high cliffs towards Guanarteme. In the south of the island Herons were noticed daily on the Maspalomas coast. One bird which frequented the "Charco" was always to be seen in the same place. Herons doubtless breed in the neighbourhood, and Herr von Thanner mentions a young bird unable to fly which was caught the year previous to his arrival. During a visit which I paid to the island in June of this year, I was informed that a pair of Herons had built a nest on a rock off the Isleta; unfortunately I had not time to visit the spot myself.

ANAS MARMORATA. Marbled Duck.

*Anas marmorata* Thanner, Orn. Jahrb. xxi. p. 100 (1910).

a. ? "Charco," Maspalomas. 24th Feb. '12.

Iris dark; bill black, greenish at base; feet greyish-green, webs black.

Total length in the flesh 16·2 inches.

Ducks are generally to be found after a heavy gale frequenting the tanks beyond the golf-links, but hitherto I have failed to procure any. They are occasionally shot at Maspalomas, where Herr von Thanner procured specimens. I have had no means of ascertaining whether the large flock of ducks which visited Las Palmas in March 1911 were of

this species or not. Herr von Thanner states that this Duck "undoubtedly breeds at Maspalomas," but his evidence does not seem very conclusive. Other species of Ducks certainly visit the "Chareo" occasionally.

*SULA BASSANA.* Gannet.

Gannets undoubtedly wander to the shores of Gran Canaria occasionally, but are not often noticed.

*NEOPHRON PERCNOPTERUS.* Egyptian Vulture.

*Neophron percnopterus* Thanner, Orn. Jahrb. xxi. p. 86 (1910).

*a.* ♂. Agüimes. 22nd Feb. '12.

*b.* ♀. Maspalomas Village. 25th Feb. '12.

Iris dark orange; bill—tip black, base of mandible bright yellowish orange; feet yellow.

Total length in the flesh 25·2 inches; expanse of wings 59·5 inches. Weight in the flesh of specimen (*a*) 4 lbs. 7½ oz., (*b*) 4 lbs. 8 oz.

Egyptian Vultures are found throughout the island. In the neighbourhood of Las Palmas they are very plentiful. Several of these unwieldy-looking birds nest and roost in the barrancos just above "the Catalina," and spend much of the day wheeling in high circles above the golf-links. In the evenings they fly down to the beach, where they may be very closely observed walking just below the windows of the Beach Club, and shewing no fear whatsoever. Up in the hills they are not so easily obtained, unless one chances to disturb them when feeding. They appeared to be plentiful in every part of the island that I visited, and were very numerous on the plains south of Agüimes. The two which I procured were both fine adult birds. The nest is a clumsy structure built on a ledge of rock and generally very hard to reach. These Vultures are indescribably filthy eaters and do an enormous amount of good in scavenging.

*HALIAËTUS ALBICILLA.* Eagle.

On 23rd of December, 1908, while riding from the village of San Matéo to Teror I noticed a large bird high up in



the sky which, even at that immense height, seemed to stand out against the few Egyptian Vultures and Kites which were to be seen. I have little doubt that this was a Sea-Eagle (*Haliaëtus albicilla*), as stragglers of that species occasionally visit the Canary Islands. The bird came considerably nearer to me than when I first observed it, and I was able to watch its evolutions for some time through strong Zeiss glasses. Such an occurrence in Gran Canaria is very rare, and I have not seen an example since.

BUTEO BUTEO INSULARUM. Buzzard.

*Buteo buteo insularum* Floericke, Mitteil. österr. Reichsb. iii. 1903, p. 64\* ; Thanner, Orn. Jahrb. xxi. p. 88 (1910).

*Buteo buteo* subsp. ?, Polatzek, Orn. Jahrb. 1908, p. 111.

I have been unable to see Floericke's description of this subspecies.

In the Cumbres and the south of the island the Buzzard is fairly plentiful. I have never met with any of these birds lower than the Santa Brigida in the north. At the latter place, however, a pair were generally to be found in the Vega, and their shrill whistling cry could be heard frequently as they hunted the sides of the immense barranco below the picturesque Spanish town. To obtain specimens it is necessary to spend a few days encamped on the "Cumbres," where, if one is lucky, a few chance shots may be obtained. They are very wary, and are fond of the most inaccessible rocks in this wild stretch of mountainous country. A resident species throughout the year, the numbers are increased occasionally by an influx of migrants.

FALCO PEREGRINUS. Peregrine Falcon.

Peregrine Falcon, Tristram, Ibis, 1889, p. 17.

*Falco peregrinus* Thanner, Orn. Jahrb. xxi. p. 87 (1910).

There are two male specimens of the Peregrine Falcon in the Las Palmas Museum, said to have been shot near Firgas. At the present time this species is almost exterminated in Gran Canaria, but Herr von Thanner saw a male example at Maspalomas in 1909, and mentions that there was a nest inland. Dr. Tristram saw a single bird close to the Sitio de

Arriba in 1888, and a pair in the Barranco de la Virgen near Firgas. They have certainly not increased since then, and I have never once met with the species. However, the Spaniards engaged in the fruit-store near Maspalomas know the bird by sight, and say that it occasionally visits this part of the coast, but is very rare.

ACCIPITER NISUS. Sparrow-Hawk.

*Accipter nisus* Thanner, Orn. Jahrb. xxi. p. 87 (1910).

Herr von Thanner only saw one example of the Sparrow-Hawk in Gran Canaria. This was a female, in the Pinar near the Cueva de las Ninas, which he does not appear to have obtained. I have never seen a single bird, although I have twice been encamped near the Cuevas, and have been to many parts of the island which Herr von Thanner does not appear to have visited. His surmise that it is "very rare" may be taken as absolutely correct. In Tenerife I am told that it is by no means uncommon.

TINNUNCULUS TINNUNCULUS CANARIENSIS. Canarian Kestrel.

*Tinnunculus tinnunculus canariensis* Koenig, J. f. O. 1889, p. 263 \*; Thanner, Orn. Jahrb. xxi. p. 88 (1910).

a. ♀. Las Palmas. Dec. '08.

b, c. ♂♂. Between Agüimes and Tirajana. 10th April '09.

d. ♂. (Santa Bartolomé), Paso de la Plata, 5500 ft. 22nd Dec. '09.

e. ♀. Pinar Pajonal. 23rd Jan. '10.

f. ♀. Mogan, 100 ft. 25th Jan. '10.

g. ♀. Las Palmas?

h. ♂. Above Juncal. 6th Feb. '11.

i. ♂. Roca Nuhlo, 5000 ft. 12th Feb. '11.

k. ♂. Cumbres, 5650 ft. 12th Feb. '11.

l. ♂. San Matéo; died in captivity. 21st Feb. '11.

m. ♀. Maspalomas Village. 25th Feb. '12.

Iris brown; bill bluish horn-coloured, cere yellow; feet yellow.

Total length [ ♂ ] 12·3 inches; [ ♀ ] 13·5 inches.

This is a dark-coloured race found in the Canary Islands and Madeira.

The Kestrel is extremely abundant throughout the island, and wherever my travels in Gran Canaria took me it was seldom, indeed, that one or more specimens were not in sight; perhaps they are most plentiful in the Monte district, but numbers are also found in the Cumbres up to the highest point, and also hunting over the wide plains on the west. Several may also be seen frequenting the hillsides behind the Catalina Hotel. Resident throughout the year, their numbers are largely increased by migrants in the spring, but whether the latter remain to breed in the island I have been unable to ascertain. These birds are mostly very richly coloured. They roost in the barrancos which run back from the coast, and nest in the crannies in the rocks and in the tops of palm-trees. The staple food of this species in the summer consists, I believe, of lizards, hundreds of which are found everywhere, but from December to March, when the weather is cool, very few lizards are to be found, and the Kestrels then have recourse to other food. In the crop of specimen *h* I found a large number of black ants, and in the gizzards of specimens *i* and *k* the larvæ of a species of *Noctua* were discovered.

MILVUS MILVUS. Common Kite.

*Milvus iclinus* Thanner, Orn. Jahrb. xxi. p. 88 (1910).

*a.* ♀. Cueva de las Ninas, 3000 ft. 9th Feb. '11.

*b.* ♀. Maspalomas "Charco" (sea-level). 29th Feb. '12.

Iris light amber; bill horn-coloured, base of lower mandible, cere, and gape yellow; feet sulphur-yellow.

Total length in the flesh 24·4 inches; expanse of wings 60 inches; wing 19 inches.

Mr. W. P. Pycraft, who has closely examined both the above-mentioned specimens, has kindly supplied me with the following notes on the plumage:—"Specimen *a* procured at the Cueva de las Ninas differs conspicuously from specimen *b* obtained at the 'Charco' of Maspalomas in having the breast of a pale, instead of a dark rust colour, and narrow instead of

broad black longitudinal stripes; the bars across the tail-feathers are obsolete and the rust-coloured areas on the wing-coverts, hind-neck, and tail are much paler. The whole plumage is much faded—'worn to rags,' even more than the Maspalomas specimen, but, as in this example, the four outermost primaries are almost new and black, the remaining ones are much frayed and are faded to rusty brown. The outer tail-feathers have all lost an inch or two from their tips. On the hind-neck of this bird are a few feathers which are of a much darker rust-colour, and have much broader longitudinal stripes than the neighbouring feathers, from which they also differ in being almost unworn. Are these new feathers, or feathers which from their position have escaped wear and tear from exposure? Similarly, at the elbow-joint and on the lower back the feathers shew no signs of wear whatsoever."

Kites are very plentiful in the island; over almost every village a pair of these fine birds can be seen diligently searching for food. They appear to be found in Gran Canaria both in the winter and summer months. I first saw them in March, and subsequently during all my visits to the island. They are much more fearless than the Buzzard, and occasionally come down as low as Las Palmas, where I have seen them soaring over the sea in company with Egyptian Vultures. I found them plentiful in the Cumbres, and also in the extreme south of the island, where they were much more fearless than in the north. The arrival of a number of fishing-boats on the shore near Maspalomas was the signal for several Kites to appear, swooping down so close to the boats that I could almost have struck them with an oar.

Dr. Tristram ('Ibis,' 1889, p. 22) remarks that the Kite is a summer migrant, retiring in the winter. I do not think this is the case, as I have found it in Gran Canaria in December, January, February, and March. Very possibly a partial influx takes place in the spring, and a corresponding decrease in their numbers is noticeable in the winter months, but even then they are by no means rare.

PANDION HALIAËTUS. Osprey.

*Pandion haliaëtus* Thanner, Orn. Jahrb. xxi. p. 86 (1910).

a. ♂. Maspalomas. 23rd Feb. '12.

b. ♂. „ 27th Feb. '12.

Iris bright yellow ; bill black, base whitish ; feet greenish white.

Total length in the flesh 23 inches ; expanse of wing 64 inches. Weight in the flesh 3 lbs. 9 oz.

These magnificent birds are, I am glad to say, by no means rare. They frequent the coast from Maspalomas westwards, and during my stay at the "Charco" I saw several individuals, besides the two which I obtained. They were all quite fearless, and while watching one flying leisurely along the coast I was lucky enough to see the bird suddenly dive with a loud splash completely below the water. In the space of three or four seconds it reappeared holding a fairly large fish in its talons. Its legs were stretched out to their utmost with the weight of the fish, and in this manner it flew slowly towards the shore. Another pair inhabit the cliffs between Arguineguin and Mogan. Herr von Thanner observed the Osprey on all the coasts which he visited, and mentions a nest in the high walls of a barranco, far inland, to the east of Maspalomas.

STRIX FLAMMEA. Barn-Owl.

*Strix flammea* Thanner, Orn. Jahrb. xxi. p. 89 (1910).

*Strix flammea gracilirostris* Hartert, Bull. B. O. C. xvi. p. 31.

I have met with this Owl only once during my wanderings in the island, though it is said by Herr von Thanner to be found in the north. The single specimen used to frequent the country near the Cueva de las Ninas, but we never managed to secure it, although it was often heard and once seen sitting on the ground in the bright moonlight close to our tent by my companion Mr. P. R. Pittard.

Dr. Hartert has described a subspecies of the Barn-Owl from Fuerteventura and Lanzarote which he calls *Strix*

*flammea gracilirostris*. I have not been able to compare Barn-Owls from Gran Canaria with the type specimen from Fuerteventura, so am unable to state whether the bird found in Gran Canaria is similar to the form found in the Eastern Islands. Two badly stuffed examples in the Las Palmas Museum certainly struck me as having very slender bills.

ASIO OTUS CANARIENSIS. Long-eared Owl.

*Asio otus canariensis* Madarasz, Orn. Monatsb. 1901, p. 54\* ; Hartert, Nov. Zool. 1901, p. 329 ; Thanner, Orn. Jahrb. xxi. p. 89 (1910).

*a-e.* ♂ ♂ ♂ ♂ ♀. Telde. 9th Feb. '10.

The Canarian Long-eared Owls differ from the European species *Asio otus* in two essential points :—

- (1) They are considerably darker on the upper parts and to a lesser degree on the under side.
- (2) A marked difference is at once noticeable in the size of the birds, *Asio otus canariensis* being the smaller. The wing-measurements of the eight examples which I have compared are all 1-1½ inches shorter than in typical examples of *Asio otus*.

Madarasz in his original description claims another character, *i. e.* that "the light portion of the base of the primary quill is divided in the centre of the inner vane by means of a dark band." This character is not in the least borne out by the examples which I have examined.

The Long-eared Owl is far more plentiful than the preceding species. The five specimens from Telde were all obtained at once and sent to me in the flesh. I have also seen one at Tafira. It breeds in the island, and Herr von Thanner mentions one which built a nest in a bushy young palm-tree in a swamp at Maspalomas. In 1911 Mr. Meade-Waldo, writing to me, mentions having flushed as many as seven birds together in the *Euphorbia canariensis*. The Owls are fond of roosting in the high palm-trees before the branches are cut.