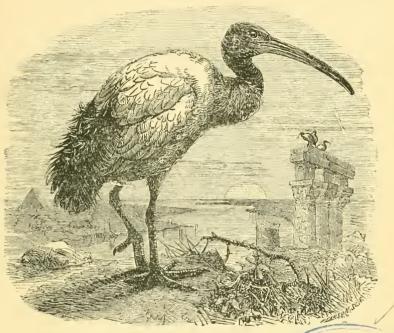
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He prayeth well, who loveth well Both man and bird and beast. 249557
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XXIV.—List of the Birds of the Canary Islands, with detailed reference to the Migratory Species and the Accidental Visitors. Part III. PICIDE—SULIDE. By DAVID A. BANNERMAN, M.B.E., B.A., M.B.O.U., F.R.G.S.

[Continued from p. 321.]

Family Picidæ.

* Dryobates major canariensis. Tenerife Great Spotted Woodpecker.

Picus canariensis Koenig, Journ. für Orn. 1889, p. 263— Type locality: Tenerife.

A Resident subspecies.

Hab. in Archipelago.

Western Group: Tenerife.

Obs. Confined to this island.

Range beyond the Archipelago.

Does not occur.

Dryobates major thanneri. Gran Canarian or Thanner's Great Spotted Woodpecker.

Dendrocopus major thanneri le Roi, Orn. Monatsber. 1911, p. 81—Type locality: Gran Canaria.

A Resident subspecies.

Hab. in Archipelago.

Western Group: Gran Canaria.

Obs. Confined to this island.

Range beyond the Archipelago.

Does not occur.

Iynx torquilla torquilla. Wryneek.

Iynx torquilla Linn. Syst. Nat. 10th ed. 1758, p. 112— Type locality: Sweden.

The Wryneck is a Rare Visitor.

Cabrera had a specimen in his collection which had apparently been killed in Tenerife. Dr. Hartert examined

* The entire absence of any Woodpecker from Hierro and Gomera, and especially from Palma, is very remarkable.

this skin (Nov. Zool. 1901, p. 305), but the bird is not mentioned in Cabrera's Catálogo.

I saw another example which had been killed in Lanzarote and which was in the Gonzalcz collection in Arrecife (Ibis, 1914, p. 62).

Range. The Wryneck breeds in Europe and winters partly in northern and tropical Africa.

Family Cuculidæ.

Cuculus canorus. Cuckoo.

[or Cuculus canorus canorus.]

[Cuculus canorus Linn. Syst. Nat. 10th ed. 1758, p. 110— Type locality: Sweden.]

It is probable that the European Cuckoo (C. canorus canorus) is an Occasional Visitor to the Archipelago during the spring and autumn migration.

The Lesser Cuckoo (*C. canorus minor*) undoubtedly occurs in the islands, as I have examined a skin of a bird shot in Tenerife, and this bird is duly included in this list under that heading (see next species).

There are, however, other records of the Cuckoo having been obtained in the Canaries; but as these birds are not available for comparison, I include the records under the binomial name only, as it is not certain whether they should be referred to the typical or the smaller race.

The records are as follows:—

- (1) Bolle (J. f. O. 1857, p. 324) mentions the Cuckoo as "having been heard in Fuerteventura," but evidently did not meet with it himself.
- (2) Two specimens shot by Cabrera at Laguna (Tenerife) in May (Catálogo, p. 35).
- (3) One bird recorded from Tenerife (Orn. Jahrb. 1909, p. 149) by von Thanner in October 1908: the specimen was not obtained.
- (4) A skin in the collection of Gonzalez y Gonzalez in Arrecife, Lanzarote. The bird had been shot in that island. I examined the bird myself in June 1913, but stupidly did not measure the wing; the bird did not strike me as being small at the time, and I recorded it (Ibis, 1914, p. 62) as the typical form.

Dr. Hartert must have examined Cabrera's birds when he looked through his collection in Tenerife, but he does not

now remember whether they belonged to the small or typical race. In his Vög. pal. Faun. p. 945, he wrote under *Cuculus canorus canorus*: "Auf den Canaren und Madeira sind die Kuckucke nur gelegentliche Durchzügler, sie überwintern aber in fast ganz Afrika südlich der Sahara."

Range, Typical C. c. canorus is found throughout Europe. It winters in Africa south of the Sahara.

Cuculus canorus minor. The Lesser Cuckoo.

Cuculus canorus minor Brehm, Allg. D. Naturh. Zeitung, Neue Folge, iii. 1857, p. 444—Type locality: Spain.

This small race of the European Cuekoo is an Occasional Visitor to the Canary Archipelago during the spring and autumn migration.

Meade-Waldo, during the four years he spent in the islands, found it to be an irregular spring visitor, and records many which came to the islands on the 25th of April, 1890, and remained for a few days (Ibis, 1890, p. 429). He notes that these birds were all "very small and dark in colour" (Ibis, 1893, p. 195). A specimen which he shot at Orotava on the 4th of May, 1890, and which presumably belonged to this identical migration, is now in the British Museum. It is unquestionably C. c. minor, although it does not appear to be extraordinarily dark, yet it is certainly a very small specimen and has a wing measuring only 190 mm. It is an adult bird, but the sex has not been ascertained.

C. c. minor has until recently been confused with C. c. canorus by most writers on Canarian ornithology. It may be generally distinguished by its much smaller size, wing 190-217 mm., as against 216-230 mm. in C. c. canorus. A bird in the British Museum from Madeira has a wing of 206 mm., which appears to be the average size.

Range. The Lesser Cuckoo occurs in Spain, Morocco, Algeria, and Tunisia, on migration, rarely in Madeira, and more often in the Canaries. It appears to reach the Gold Coast on the west coast, and British East Africa on the east coast.

Clamator glandarius. Great Spotted Cuckoo.

Cuculus glandarius Linn. Syst. Nat. 10th ed. 1758, p. 111—Type locality: Gibraltar.

The Great Spotted Cuckoo is a Rare Visitor to the islands.

It is recorded as an occasional migrant by Berthelot (Orn. Canarienne, p. 25), Bolle (J. f. O. 1854, p. 461), and Polatzek (Orn. Jahrb. 1909, p. 120).

Cabrera had one in his collection shot at Los Rodeos in Tenerife, presumably in the summer (Catálogo, p. 35).

I have myself seen a specimen which had been shot in Lanzarote in the Gonzalez collection in Arrecife (Ibis, 1914, p. 62).

Polatzek (l. c.) quotes Hartert's remarks, which really refer to *Cuculus canorus*, under this species in error, as can easily be seen if the text is read carefully.

Range. The Great Spotted Cuckoo breeds in Europe and is also found throughout Africa. It is not surprising, therefore, that it should occasionally be found in the Canaries.

Family Cypselid.E.

Micropus murinus brehmorum. Brehm's Pale Swift.

Apus apus brehmorum Hartert, Naumann Naturg. Vög. Mitteleuropas, iv. 1901, p. 233—Type locality: Madeira.

Brehm's Pale Swift is a Summer Visitor to the Canaries, although it may almost be called a resident, as it is only absent from the Archipelago for about three months in the year.

Hab. in Archipelago.

Western Group: Tenerife, Gran Canaria, Palma, Gomera*, Hierro.

Eastern Group: Fuerteventura, Lanzarote.

Onter islets: Montaña Clara, Allegranza.

From the very considerable notes relating to this species which have been made by almost every ornithologist of

 $[\]ast$ I cannot find any particular record from this island, but there is no doubt that this Swift occurs there.

repute who has visited the islands, added to my own observations, I have been able to form definite conclusions as to its arrival and departure.

M. m. brekmorum arrives in the Canaries at the earliest during the first week in January, but usually the main body arrives in February. The principal breeding-time is April and May, but second broods are probably reared, which accounts for young birds having been taken by Bolle as late as the 10th of July. The Swifts remain in the islands during August, but in September, or at the very latest in early October, they take their departure. Meade-Waldo records that "a very few Swifts pass the winter in Tenerife," which is quite possible should the weather be particularly warm. From all accounts the winter climate of the Canaries seems to be cooler than in former years, which may account for my never once having seen the Pale Swift in the islands during October, November, or December of several years.

Brehm's Pale Swift is by far the commonest member of the genus in the Archipelago and, unlike the Black Swift, is found in all the islands, though it must be considered a rare breeding bird in Lanzarote.

The following notes taken from the diaries of various ornithologists are arranged under the headings of the various islands:—

Western Group.

Tenerife.

- "I observed several the day I landed [in Tenerife] 4th February, 1887." (Savile Reid, Ibis, 1887, p. 434.)
- "A very few Swifts pass the winter in Tenerife; large numbers arrived early in February." (Meade-Waldo, Ibis, 1889, p. 4.)
- "It usually arrives early in the spring and is most common near the coast." (Meade-Waldo, Ibis, 1893, p. 195.)
- 29 January, 1888. "Appears to be an arrival of Swifts, a change in the weather, heavy rain, snow on all the mountains down to 4000 feet, and temperature in morning 54° rising to 60° in the day." (Meade-Waldo, MS. note-books.)
- 4 February, 1888. "Shot Swift [C. m. brehmorum] with testes fully developed at Orotava." (Meade-Waldo, MS. note-books.)
- "Not as frequent as the Black Swift—found in Tenerife near Santa Cruz and Laguna, I saw also a few east of Vilaflor in July;

they might still have had nestlings then. In summer they mount up to the Pico de Teide and pursue the chase even in spite of the suffocating sulphurous fumes from the crater. On the 20th of February, and following days, I noticed swarms of these birds on their passage through, flying along the high mountain-sides between Santa Cruz and Laguna." (Polatzek, Orn. Jahrb. 1908, p. 164.)

"Noticed only a few Swifts at Santa Cruz, March 25th, 1909." (Bannerman, MS. diaries.)

"The Swifts of the apus-species leave Tenerife in the autumn."
(Von Thanner, Nov. Zool. 1904, p. 431.)

Gran Canaria.

19 March, 1888. "A few pallid Swifts seen." (Tristram, Ibis, 1889, p. 15.)

"A bird of passage.... I can verify now beyond a doubt that it breeds in the tower of the Cathedral in Las Palmas, and I received on the 10th of July two young fledged birds from San José." (Bolle, J. f. O. 1857, p. 322, erroneously recorded under Cypselus apus.)

"In August and September, and probably earlier in July, these Swifts fly along the Barranco Guiniguada to San Matéo before noon and return in the afternoon towards 5 o'clock." (Polatzek, Orn. Jahrb. 1908, p. 163.)

The following records are all my own:-

Oct., Nov., Dec.
5 January, 1908.
 A flock of Pale Swifts seen at Santa Brigida (MS. diaries).
8 January, 1908.
2 March, 1912.
1 April, 1909.
 To birds seen at Juan Grande (Ibis, 1912, p. 595).
Two birds obtained, Santa Brigida (skins in British Museum).
8 April, 1909.
Thousands of Swifts hawking over Aguimes, four days later all had disappeared (Ibis, 1912, p. 595).

22 April, 1913. Large numbers over fields near Las Palmas and following days (MS. diaries).

29 April, 1913. Birds seen at Firgas (MS. diaries).

May 1912. Several noted near Las Palmas (Ibis, 1912, p. 595).

1-3 May, 1913. Several obtained at Firgas, sexual organs large (MS. diaries).

19-22 June, 1913. Many Pale Swifts at Alcaravaneras (MS. diaries).
18 August, 1908. A few Pale Swifts seen in the Monte (Ibis, 1912).

18 August, 1908. A few Pale Swifts seen in the Monte (Ibis, 1912, p. 595).

Von Thanner, who was in Gran Canaria from January to April 1909, wrote of this Swift:—

"Very common in the north of Gran Canaria and also in the immediate neighbourhood of Las Palmas, while it probably does not occur in the south for I, at all events, never saw it." (Orn. Jahrb. 1910. p. 89.)

Palma.

"On January 17, 1905, observed large numbers of Swifts circling round. I did not see them again in the island until my departure on January 8." (Von Thanner, Orn. Jahrb. 1908, p. 207.)

Gomera.

Though not actually recorded from this island, there is no doubt that it occurs there.

Hierro.

A skin in the Tring Museum labelled El Pinar, obtained 3. iii. 1905, by von Thanner. (Examined by myself, August 1918.)

Eastern Group.

Fuerteventura,

- "It appears in many districts. During my journey in the spring I shot the first on the 10th of February in Rio Cabras." (Polatzek, Orn. Jahrb. 1908, p. 164.)
- "March 10, 1889. Swifts seen in Fuerteventura." (Meade-Waldo, MS. note-books.)
- "April 1, 1888. Swifts breeding in sand cliffs in Fuerteventura." (Meade-Waldo, MS. note-books.)
- "Very common, much more so than in Tenerife." (Von Thanner, Orn. Jahrb. 1905, p. 60.)
- "We found these Swifts to be plentiful in the Eastern Group during May and June, but particularly so in Fuerteventura. They were seen in numbers round Puerto Cabras, also met with throughout our long journey in the island, being especially numerous at Toston, in the valley of La Peña, and at Antigua." (Bannerman, Ibis, 1914, p. 252.)

Lanzarote.

"I observed the Pale Swift only as a bird of passage, which, however, does not exclude the possibility of its breeding in another part of the island. I can vouch for the passage of the last birds through Lanzarote on the 27th of April. On this island I seldom saw more than three pairs flying together." (Polatzek, Orn. Jahrb. 1908, pp. 163, 164.)

"Found the Pale Swift much less common than in Fuerteventura.

It was only seen in any numbers at Tiñosa, though single birds
were seen from time to time during my journey in 1913."
(Bannerman, Ibis, 1914, p. 252.)

[Vide Map, Ibis, 1914, pl. ii.]

Outer Islets.

Montaña Clara.

A few were noted which appeared to be breeding in holes of the sea-cliffs, 1913. (Bannerman, Ibis, 1914, p. 77.)

Allegranza.

- "I saw three birds in this islet on the 23rd of June, 1913." (Von Thanner, Orn. Jahrb. 1913, p. 192.)
- "A few birds were seen by my taxidermist between the 9th and 14th of June, 1913." (Bannerman, Ibis, 1914, p. 86.)

Range beyond the Archipelago.

Brehm's Pale Swift is also found in Madeira and in parts of north Africa (Moroceo, Algeria, and Tunisia), where it is resident.

I have examined the following skins amongst others, which are particularly worthy of notice here, in the Tring Museum:—

Cape Blanco (Mazagan), Morocco.	20. iv. 02.
Biskra.	22. iv. 09.
,,	25. iii. 09.
Algiers.	8. v. 11.
Mogador.	19. iv. 04.
Baie du Lévrier, Cape Blanco.	7. v. 95.
Omaruru (Damaraland).	12. xi. 79.

In the British Museum there are only two skins from the mainland which have been identified as belonging to this subspecies:—

a. Benguella. No date.b. Damaraland. 2 December.

I am very doubtful whether the Benguella skin is really a specimen of this Swift. Its colouring appears to me too brown. Where the bulk of the Canarian birds go to in October, November, and December it is impossible to say.

They may visit the Rio de Oro, the birds of which are so little known, or they may proceed farther south to Damaraland. It will be noted that the two birds from Damaraland were shot in November and December respectively—months when they are absent from the Canaries,—and this may prove the real elue to their whereabouts during these months.

Micropus unicolor unicolor. Madeiran Black Swift.

Cypselus unicolor Jardine, Edinb. Journ. Nat. & Geogr. Sci. i. 1830, p. 242, pl. 6—Type locality: Madeira.

The Madeiran Black Swift must come under the heading of a Summer Visitor, although it is only absent from the Archipelago during part of the year.

Hab. in Archipelago.

Western Group: Gran Canaria, Tenerife, Palma, Gomera, Hierro*.

Eastern Group: Fuerteventura.

Outer islets: No records.

We have now considerable material with which to sum up what is known of the migrations of the Black Swift in the Canary Islands.

It would appear from the majority of reports that M. n. unicolor is the first Swift to arrive in the Archipelago, coming earlier than the Pale Swift (M. m. brehmorum).

It seems to begin to arrive in January, but even as early as the 24th of December flocks have been recorded from Tenerife by Meade-Waldo, and Koenig saw it in Fuerteventura in this month also. February seems to be the month when the main body returns (although the time may vary slightly in the different islands and in different years). The birds probably breed in all the western islands of the Archipelago, particularly in Tenerife and Gran Canaria. Specimens which I shot on 1 May, 1913, had well-developed eggs in the ovary, while Webb and Berthelot heard the young chirping in the nest during the first week in May.

* There is no particular record from this island, but the bird is sure to occur there.

At any rate, May and June are the months when nesting is at its height. I do not know whether a second brood is raised in the season. The Black Swifts prepare for departure about the end of September, and all have left by the middle of October. It seems therefore only to be absent from the islands about two and a half months, and even then, as Meade-Waldo remarks, "birds turn up when the main body is absent."

Western Group.

In the western islands of the group the Black Swift is abundant, particularly in Gran Canaria and Tenerife. It breeds in the deep barraneos and in the mountains in holes and crevices of the rocks, also doubtless in the sea-eliffs. It is also recorded from Palma and Gomera, and probably inhabits Hierro.

The following are extracts from diaries, etc., kept by various ornithologists who have worked in the group. The names of the authorities quoted are enclosed in brackets with a reference to their papers:—

Gran Canaria.

"Breeds in the Cumbres, where they are especially numerous." (Bolle, J. f. O. 1857, p. 323.)

A flock of *C. unicolor* noted on 20 March, 1888. (Tristram, Ibis, 1889, p. 23.)

"Numbers playing over the plain on the next day, 21 March." (Tristram, Ibis, 1889, p. 25.)

"Common in the gardens of Tafira." (Polatzek, Orn. Jahrb. 1908, p. 164.)

"I saw it wherever I went in 1909," (Von Thanner, Orn. Jahrb. 1910, p. 89.)

"Generally found in the south of Gran Canaria, where it frequents the deep barrancos and roosts in the high overhanging cliffs. A few birds occasionally wander to the 'charco' on the shore near Maspalomas, and there is a colony in the Barranco de Fataga which I discovered on the 28th of February, 1912. This species is generally confined to the higher levels. I have seldom seen it in the north of the island, but there is a colony in the Barranco de la Virgen, near Firgas, and another near Tafira." (Banuerman, Ibis, 1912, p. 596.)

Tenerife.

- "Very common, above all in the neighbourhood of the barrancos on the coast. They were met with on both occasions on which the Peak was ascended flying around the crater of the Piton. The hot sulphur vapours did not appear to worry them. The Black Swifts nest in the caves, and in the crevices of the rocks. The sites chosen by this bird are almost always inaccessible. In the Barranco de Martianez several of these Swifts have built their nests in the fissures of rock. In the first week of May one heard the little ones chirping." (Webb & Berthelot, Orn. Canarienne, p. 24.)
- "It appears in large numbers. On the 26th of February [Bolle does not mention the year, but he is writing in 1857] I saw several over Santa Cruz, some were there almost the whole spring. More were seen on the 10th of March.... In Tenerife they disappear all at once in September (I think that they go to their relatives in the Cape Verde Islands) and return early in the next year." (Bolle, J. f. O. 1857, pp. 322, 323.)
- "Large numbers of *C. pallidus* arrived early in February and the main body of *C. unicolor* later." (Meade-Waldo, Ibis, 1889, p. 4.)
- "This little Swift is extremely abundant all the year except from about October IO to the beginning of January, but occasionally birds turn up when the main body is absent." (Meade-Waldo, Ibis, 1893, p. 194.)
- "Black Swifts in flocks 24 December, 1888 and 9 January, 1889; three seen 20 January, 1888, several 23rd." (Meade-Waldo, MS. diaries.)
- "One of the first species which arrives at the beginning of spring." (Cabrera, Catálogo, 1893, p. 36.)
- "Leaves Tenerife after the breeding season (autumn) and returns in the spring." (Von Thanner, 'Einiges über das Vogelleben Tenerifes,' 1906, p. 3.)

Palma.

- "Noted in this island on 26 March." (Koenig, J. f. O. 1890, p. 474.)
- "The Black Swifts had not yet arrived when I left the island on the 8th of February." (Von Thanner, Orn. Jahrb. 1908, p. 207.)

Gomera.

A bird shot May 8. (Meade-Waldo, MS. diaries.)

Hierro.

No particular record, though the bird is sure to occur here.

Eastern Group.

In the eastern islands of the group the Black Swift is quite a rare bird.

In Fuerteventura in May and June I found it to be much less plentiful than the Pale Swift, and not by any means universally distributed. Polatzek notes (Orn. Jahrb. 1908, p. 164) that "it seldom appears," while Thanner likewise records that "it is not often seen, and then in pairs and only in certain localities" (Orn. Jahrb. 1905, p. 60). Koenig, however, saw it in Fuerteventura in December and January (J. f. O. 1890, p. 342), but these birds may have been stragglers which had either arrived in advance of the main party or had possibly remained in the islands from the preceding year.

In Lanzarote and the Outer Islets I did not meet with it in May and June, and none appear to have been noted there by other observers.

Range beyond the Archipelago.

M. u. unicolor inhabits only the Canary Islands and Madeira. When it leaves the Canaries its destination is a mystery which has not yet been satisfactorily solved. Bolle concluded that "it visited its relatives in the Cape Verde Islands," but as the Cape Verde Islands form (M. u. alexanderi) has been described as distinct from M. u. unicolor this theory hardly holds good. It is more probable that the Black Swift migrates in autumn south-east to some part of Africa where it has not yet been discovered.

Still another race inhabits Fernando Po, which has been named M. u. poensis (Alex.).

Micropus melba melba. European Alpine Swift.

Hirundo melba Linn. Syst. Nat. 10th ed. 1758, p. 192— Type locality: Gibraltar.

This is a Rare Visitor to the Archipelago.

There appears to be only a single record of the Whitebellied Swift from the Canary Islands between 1810 and the end of 1914. A specimen is recorded by Meade-Waldo in 1893 as having been killed near Santa Cruz de Tenerife (Ibis, 1893, p. 195).

Cabrera, who published his "Catalogue" in the same year, notes that he shot one in May on the coast of Tenerife (Catálogo, p. 36).

Both these references doubtless refer to the same example. It was M. melba and not the tropical African race M. m. africanus* which was recorded from the Canary Islands. The bird which Cabrera shot is said to have been obtained in May, in which month \dagger M. m. melba is breeding in northern Africa \dagger .

Since this paper has been in type Dr. Hartert has kindly forwarded to me a letter dated 27/x./18, which he has received from Herr von Thanner. In this letter Herr von Thanner writes:—"Some days ago (16/x./18) I saw eight *Micropus melba* [in Tenerife]." This is a most valuable record.

Range. The typical European species, M. m. melba of the Pyrenees and Alps, ranges as far as north-west Africa, where it is known to breed.

Micropus apus apus. Common Swift.

Hirundo apus Linn. Syst. Nat. 10th ed. 1758, p. 192—Type locality: Sweden.

Polatzek says that the Common Swift is a frequent Bird of Passage in the Canaries (Orn. Jahrb. 1909, p. 119). He does not confuse it with either of the breeding species (M. murinus brehmorum or M. u. unicolor).

* The South African race *M. m. africanus* ranges as far north as Kilimanjaro on the east; there are no specimens from the central west African coast, but it is quite certain that this bird never ranges as far north as the Canary Islands. We can therefore safely refer the birds from Tenerife to the typical European species.

† Hartert received fresh eggs taken at Constantine (western Algeria) on 21 May, 1914 (Nov. Zool. xxii. 1915, p. 76).

 \ddagger Tschusi has separated the northern African race as M. m. tuneti as it is said to be very pale, but Hartert (Nov. Zool. xxii. 1915, p. 76) doubts whether a northern African race can be separated, and I agree with him.

I have been unable to examine a specimen from the Canary Islands. There is not one in either the British or Tring Museums, but I feel justified in including the Common Swift in the list of authentic migrants as I have no doubt that Polatzek will prove to be correct in his statement.

Examination of Polatzek's collection, which is mostly in the Vienna Museum, will probably confirm this view.

Bolle's statement in the J. f. O. 1857, p. 322, under the heading of *Cypselus apus*, obviously refers to the Pale Swift (*M. m. brehmorum*), which breeds in the tower of the Cathedral in Las Palmas, and is erroneously included under the heading of the Common Swift. This has already been pointed out by Polatzek (Orn. Jahrb. 1909, p. 119).

Range. The Swift breeds in Europe and in north-west Africa, and ranges in winter to South Africa. There are skins in the Tring Museum obtained in the Rio de Oro on the 11th of August, 1902.

Family MEROPIDÆ.

Merops apiaster. Bee-eater.

Merops apiaster Linn. Syst. Nat. 10th ed. 1758, p. 117—Type locality: South Europe.

The Bee-eater is an irregular Bird of Passage to the Canary Islands and has been known to remain to breed.

It is sometimes very numerous on migration, especially in the eastern islands, and occasionally remains to rest for a few days.

M. apiaster is first recorded by Viera, who says that very large flocks appeared at Ciudad of Canaria [i.e. Las Palmas] in 1788 and in May 1800. I have not seen Viera's Dictionary myself, but the description is said by Savile Reid to undoubtedly refer to M. apiaster (Ibis, 1888, p. 75).

Webb and Berthelot considered it to be "accidental on migration," and note:—"It arrives sometimes in the islands in winter, spreading over all the islands without remaining very long. In December 1828 a flock lived in the Dragon Tree at Orotava, Tenerife" (Orn. Canarienne, p. 25).

Bolle recorded the arrival of those in December 1828,

and wrote:—"In winter the Bee-cater comes in large flocks to Fuerteventura.... They also visit Canaria frequently, and they nested for some time at Arguineguin; a pair even built in a hole in the wall of the little house I stayed in in May 1856" (J. f. O. 1857, p. 324).

Meade-Waldo found it to be an irregular but occasionally numerous spring migrant, especially to the eastern islands (Ibis, 1893, p. 195), where he saw it in flocks. He obtained a specimen at Laguna on the 4th of April, 1890, which I have examined in the British Museum.

It was very numerous in Tenerife on the 25th of April, 1890 (Ibis, 1890, p. 429).

Cabrera noted that it sometimes arrived in great numbers in the month of May (Catálogo, p. 38), and in support of this is the fact that von Thanner shot two (a male and female) on the 7th of May, 1904, in Tenerife (Orn. Jahrb. 1905, p. 212).

Polatzek includes it as a Regular Bird of Passage in spring, and says:—"In Tenerife in spring, in the zone of about 2300 m., when the bccs are swarming ('Bienenkorbe') they make themselves unpleasantly perceptible. In May I saw them flying in large swarms ('grösseren Schwärmen') over Fuerteventura; they were so high up, that I should never have observed them, had I not recognized their call-note. Sometimes some of them fly down and hunt in the neighbourhood of Oliva, without staying there long. In Fuerteventura I saw some resting in a fig tree" (Orn. Jahrb. 1909, p. 120).

Polatzek never found the Bee-eater breeding in the islands. Range. The Bee-cater breeds in southern Europe and north Africa, north of the Sahara. It winters in tropical and southern Africa.

Merops persicus. Persian or Blue-cheeked Bee-cater. [Merops persicus persicus.

Merops persica Pallas, Reise d. versch. Prov. d. Russ. Reichs, ii. 1773, p. 708—Type locality: shores of Caspian Sea.]

A very Rare Visitor to the islands.

There are only two records of this species.

Cabrera notes that he shot a specimen in May at Laguna (Catálogo, p. 38). He does not mention the year in which his bird was obtained.

Meade-Waldo notes that *Merops persicus* occurred at Laguna on the 25th of April, 1890, when there was a great influx of migrants (lbis, 1890, p. 429).

It is possible that the Persian Bee-eater which has occurred in the Canaries was the typical form; there is, however, another race, M. p. chrysocercus (type locality: Senegal), which might conceivably have visited the Archipelago. Until specimens are examined the bird is best named binomially.

Range. The typical Persian Bee-eater is found throughout the greater part of Africa.

Family Upupid.E.

Upupa epops epops. Hoopoe.

Upupa epops Linn. Syst. Nat. 10th ed. 1758, p. 117—Type locality: Sweden.

A Partial Resident.

Hab. in Archipelago.

Western Group: Gran Canaria, Tenerife, Palma, Gomera, Hierro.

Eastern Group: Fuerteventura, Lanzarote.

 $Outer\ islets$: Graciosa, Λ llegranza.

The Hoopoe is the first bird in my list which I place under the heading of a Partial Resident; though a resident and breeding bird in nearly all the islands, its numbers are augmented by fresh arrivals from the continent at certain seasons.

This species is one of the most difficult of all the Canarian avifauna to deal with satisfactorily.

In the first place I have been unable to distinguish between the various forms described from the Canaries, and agree with Dr. Hartert in his conclusions. Considerable variation is certainly shown, and there may eventually prove

to be two distinct races. Much more material is required; at any rate there are not more than two forms at the most.

The migrations of the Hoopoe are also difficult to determine, and I have therefore quoted the opinions of the various ornithologists who have studied this question at length.

If two forms are recognized, which, according to Polatzek (Orn. Jahrb. 1908, p. 165), is the case:

- (a) is a Resident Species. A larger bird, more vivid in colouring and with a longer bill than the typical form, which breeds in the winter months and lays slightly larger eggs. This bird has been named Upupa epops fuerteventuræ by Polatzek (loc. cit.).
- (b) is the typical race (Upupa epops epops), which is a Partial Resident and also a regular visitor to the islands, where it breeds. A few remain throughout the year. These birds arrive in March and April from Africa, and the majority leave the islands in the antumn.

Floericke, who has caused so much confusion by his writings on Canarian birds, has thought it necessary to describe (A. d. Heimat. d. Kanarienvög. 1905, p. 32) two additional forms of the Hoopoe from the Canary Islands, *Upupa epops petrosa* and *Upupa e. pulchra*, both from Tenerife in the Western Group (!).

After my last expedition, before the war, to the islands, I studied the question of the Hoopoes of the Canaries very carefully, and my remarks will be found summed up in 'The Ibis,' 1914, pp. 253-256. I am not entirely satisfied with the conclusions at which I then arrived, especially as regards a possible resident race, but will defer discussion of that until some future paper.

Granted that it is the *typical* form which visits the Archipelago annually, as distinct from a possible resident race, the following statements of various ornithologists must refer to this bird alone.

Polatzek (Orn. Jahrb. 1908, p. 165), writing only of the

eastern islands, believed there were two distinct forms:—
(a) a resident bird; (b) "a somewhat smaller species, as bird of passage, of which some would appear to stay during the winter." I consider form (b), at any rate, to be the typical species. Still referring to form (b)—the bird of passage—Polatzek notes: "On the 29th of March I observed the first returning from Africa, about twenty of them, which had at most been preceded by a few. From that day forward I found pairs of them in localities where before they had never appeared, and they remained there."

Von Thanner, like Polatzek, recognizes two forms from the Archipelago—U. e. epops and U. e. pulchra of Floericke, with which latter species he considers U. e. fuerteventuræ Polatzek to be synonymous (Orn. Jahrb. 1912, p. 225). Of the typical species he writes (Orn. Jahrb. 1905, p. 60): "To be found [in Fnerteventura] in large numbers in the vicinity of the villages, where it breeds, after which the majority leave the island"; and again (Orn. Jahrb. 1910, p. 89) notes: "I shot a few of these birds in the middle of March 1909, and saw them in every part of the island (Gran Canaria)."

Under the heading *U. e. fnerteventuræ* in the same paper (Orn. Jahrb. 1910, pp. 89, 90), Thanner records his birds from the Charco of Maspalomas in Gran Canaria, saying that they agree closely with Polatzek's description of the resident winter-breeding birds of Fuerteventura.

In a much later paper (Orn. Jahrb. 1912, pp. 225, 226) von Thanner discusses the Hoopoes at greater length. As already noted, he now considers that Polatzek's *U. e. fuerteventuræ* must be known as *U. e. pulchra*, and says that he found it in the western islands, where it also appears on the coasts of Gran Canaria and Tenerife, and breeds everywhere on the coast during the winter, when it is quite an exception to find a Hoopoe in the higher districts of these islands. After the nesting is finished, he says that the majority of the coast (winter) birds [i. e. *U. e. fuerteventuræ*, or *pulchra* as Thanner prefers to call it] disappear from the island.

Von Thanner is here only discussing the western islands Tenerife and Gran Canaria when he says that, after breeding in the winter, *U. e. pulchra* leaves the island. It may, therefore, be that there are two forms of Hoopoe in the Archipelago (judging by their habits); but I do not admit this yet, until more skins can be examined.

If this turns out to be the case, then

- (a) The resident bird must be *U. epops fuerteventuræ*Polatzek, which lives throughout the year in Fuerteventura and Lanzarote (in the Eastern Group); some of these birds visit the coasts of Tenerife and Gran Canaria (in the Western Group) in the winter, where they breed, returning to the Eastern islands after nesting is finished.
- (b) The typical form *U. epops epops* appears to arrive from Europe and Africa in March and April, breeds in all the islands, and departs in the autumn, a few remaining in the islands throughout the year.

Range beyond the Archipelago.

The European Hoopoe (*U. e. epops*) inhabits the greater part of Europe, but is more abundant in the south. It extends to India and breeds in northern Africa, extending its range south to Senegambia in winter.

Family Alcedinida.

Alcedo ispida. Kingfisher. [or Alcedo ispida pallida.]

[Alcedo pallida Brehm, Vogelfang, 1855, p. 51—Type locality: Egypt.]

The Kingfisher can now only be considered a Rare Visitor to the Canary Islands, even if it has not entirely ceased to occur.

Until a specimen of the Kingfisher is actually killed in the Canaries, it will be impossible to determine whether it is the typical European species or the North African subspecies (A. i. pallida) which visits the Archipelago from time to time. I lean strongly to the latter view, as will be seen from the heading 1 have employed.

In the days when Berthelot and Bolle wrote on the birds of these islands (1841–1857), the Kingfisher was evidently an occasional visitor. I doubt its ever having been a resident species in any of the islands.

Webb and Berthelot include it in their 'Ornithologie Canarienne,' p. 25, giving as its "Habitat" in the Archipelago "La région maritime, dans toutes les îles."

Bolle notes (J. f. O. 1854, p. 461), "A rather rare resident bird in the barraneos of the warm coast region"; but in his later paper (J. f. O. 1857, p. 319) modifies this assertion and remarks: "According to my own and Berthelot's experience the Kingfisher breeds nowhere in the Canary Islands. It appears now and again only. The want of river fish, with the exception of an eel, and the periodical drying up of the streams in summer easily explains its absence."

The last record is given by Godman, who in the year 1871 "saw it once or twice near the Port of Orotava in Tenerife in the middle of April" (Ibis, 1872, p. 169).

Cabrera notes that the Kingfisher has been recorded from Tenerife and Palma by Berthelot, Godman, and Busto, but he never observed the bird himself (Catálogo, p. 38).

Meade-Waldo did not include it in his list (Ibis, 1893), and in later years Polatzek failed to gain any information respecting it, nor did he ever see it (Orn. Jahrb. 1909, p. 121).

It would therefore seem that the Kingfisher has gradually disappeared from the islands. It may, and probably does, turn up at rare intervals, but its visits to the Archipelago are certainly becoming less frequent.

Range. Alcedo i. pallida inhabits Morocco, Algeria, Tunisia, and Egypt. A. i. ispida inhabits the greater part of Europe from Scandinavia to the Mediterranean region.

Family Coraciidæ.

Coracias garrulus garrulus. Roller.

Coracias garrulus Linn. Syst. Nat. 10th ed. 1758, p. 107—Type locality: Sweden.

The Roller comes under the heading of an Occasional Visitor during the spring and autumn migrations to the Archipelago.

In certain years, as in 1890 when many were captured in Tenerife, it is not by any means uncommon, while in other years it may not be noticed at all. It usually occurs in the months of May and September.

Bolle records a flock of twenty from Puerto Cabras, Fuerteventura, noting that two were shot and preserved as they were very fatigued after their long flight over the sea (J. f. O. 1854, p. 452); in a later paper he remarks that the Roller is well known in the island of Canaria (Gran Canaria), "where it is said to arrive often in winter in large numbers very much fatigued" (J. f. O. 1857, p. 277).

Meade-Waldo considered it not very uncommon at migration time, and mentions seeing a mounted example in Cabrera's collection (Ibis, 1889, p. 515).

Cabrera says it is rather frequent in May and September (Catálogo, p. 38), and had various specimens in his collection killed in the years 1890-1892.

Polatzek found it rare in the eastern islands (Orn. Jahrb. 1909, p. 120).

Von Thanner records a specimen shot in Tenerife on the 19th of May, 1912, and remarks (Orn. Jahrb. 1912, p. 227): "During these days a hot and strong southeast wind blew, bringing sand from Africa."

Range. The Roller breeds in Europe and north-western Africa and in winter ranges to South Africa.

Family Strigidæ.

Tyto alba. Barn-Owl.

(= Strix flammea auctorum.)

[? Tyto alba alba *.]

[Strix alba Scopoli, Ann. I. Hist. Nat. 1769, p. 21— Type locality: Northern Italy.]

A Resident species.

Hab. in Archipelago.

Western Group: Tenerife, probably Gran Canaria.

Obs. Barn-Owls have been seen in Gran Canaria by myself and described to Polatzek from Gomera, but have not been obtained except in Tenerife. They are very rare.

Range beyond the Archipelago.

Western Europe generally from the British Isles through France, Spain, the Azores, and Morocco, extending eastwards to Mesopotamia and Palestine.

Tyto alba gracilirostris. Slender-billed Barn-Owl.

Strix flammea gracilirostris Hartert, Bull. B. O. C. xvi. 1905, p. 31—Type locality: Fuerteventura.

A Resident subspecies.

Hab. in Archipelago.

Eastern Group: Fuerteventura, Lanzarote.

Outer islets : Allegranza.

Range beyond the Archipelago.

Does not occur.

Strix aluco. Tawny Owl.

A race of the Tawny Owl has occurred in the Canary Islands and is said to have bred there.

* I cannot myself separate the Barn-Owls of Tenerife from the Mediterranean form *T. alba alba*. Two specimens have been examined in the British Museum collection (Meade-Waldo coll.). Dr. Hartert writes me under date 10/1/19: "In Cabrera's collection in Laguna, I saw, in 1901, several *Tyto* (*Flammea*) with white undersides, which without any material for comparison appeared to me to be the Mediterranean form."

It is included in this list as a Rare Visitor, but further investigation may prove that it is an exceedingly scarce resident.

As I am uncertain which form occurs, no original reference is given.

Cabrera mentions that specimens of this Owl were killed in the Barranco del Agua de Dios in Tenerife (Catálogo, p. 34).

Polatzek included this species in his list of breeding birds (Orn. Jahrb. 1908, p. 161), but never met with it himself in the islands. Writing later (Orn. Jahrb. 1909, p. 119), Polatzek notes that "this species was erroneously included as a breeding bird, which statement is here corrected."

Von Thanner (Orn. Jahrb. 1913, p. 189) wrote:—"Until now the 'Wald Kanz' Syrnium aluco (Linn.) was not specially authenticated as a breeding bird. I saw a female which had been * taken away from its eggs. It breeds in the lava caverns." The above statement in regard to the nesting of the Tawny Owl must be received with caution. Von Thanner evidently did not take the bird from its eggs himself, and the native Spaniards have very elastic imaginations.

Range. Typical Strix aluco aluco is a European species ranging to the Mediterranean. It does not occur farther south. Strix aluco mauritanica takes the place of the typical species in northern Morocco. It is possibly this species which occurs in the Canary Islands.

Asio otus canariensis. Canarian Long-eared Owl.

Asio canariensis Madarász, Orn. Monatsber. 1901, p. 54— Type locality: Gran Canaria.

A Resident subspecies.

Hab. in Archipelago.

Western Group: Tenerife, Gran Canaria, Palma.

Range beyond the Archipelago.

Does not occur.

* Note that Thanner writes in the past tense, "had been."

Asio flammeus flammeus *. Short-eared Owl.

(= Asio accipitrinus auctorum.)

Strix flammea Pontoppidan, Danske Atlas, i. 1763, p. 617
—Type locality: Denmark.

The Short-eared Owl is a Rare Visitor to the islands.

Although Mompo, Busto, and Serra are said by subsequent authors to record the Short-eared Owl from the Canaries, I consider that the following is the first authentic record:—Mr. Meade-Waldo (Ibis, 1893, p. 196) identified two examples during the three years which he spent in the islands, and from his recording the species as "an occasional winter visitor," the specimens which came under his notice were probably shot in the winter months. He notes seeing a mounted example in Cabrera's collection (Ibis, 1889, p. 515) which is probably included in his "two birds" mentioned above.

Cabrera mentions (Catálogo, p. 33) a bird which he killed at Los Rodeos, Tenerife, in the month of July, doubtless the same which Meade-Waldo refers to.

Polatzek shot one in Lanzarote, but fails to record the date (Orn. Jahrb. 1909, p. 119). This may be the same bird as he mentions (under the name of "Sumpfohreule") as having been shot in Lanzarote at harvest time (Orn. Jahrb. 1908, p. 163).

When in Lanzarote in 1913 I identified a Short-eared Owl in the collection of Don Gonzalez y Gonzalez which had been shot near Arrecife (Ibis, 1914, p. 62).

The above are the only records which have come under my notice.

Range. The Short-eared Owl is a cosmopolitan species, and in winter is found in north-east and north-west Africa.

^{*} This is another instance where I have not followed the Committee of the 1915 B. O. U. List (p. 376) in conserving the name accipitrinus for the Short-eared Owl.

Family Vulturide.

Neophron percnopterus percnopterus. Egyptian Vulture.

Vultur perenopterus Linn. Syst. Nat. 10th ed. 1758, p. 87—Type locality: Egypt.

A Resident species.

Hab. in Archipelago.

Western Group: Gran Canaria, Tenerife, Gomera.

Eastern Group: Fuerteventura, Lanzarote.

Outer islets: Graciosa, Montaña Clara, Allegranza.

Obs. The absence of the Egyptian Vulture from Palma and Hierro is noteworthy.

Range beyond the Archipelago.

Breeds in southern Europe from Spain to the Caucasus and in northern Africa from Morocco to Egypt, extending down the east coast of Africa to Cape Colony. It breeds in the Cape Verde Islands.

Family FALCONIDÆ.

Circus æruginosus æruginosus. Marsh-Harrier.

Falco æruginosus Linn. Syst. Nat. 10th ed. 1758, p. 91—Type locality: Sweden.

The Marsh-Harrier is a very Rare Visitor.

It is first recorded by Ledru* in 1810 and is said also to be included by Serra* in his list. The latter reference I have not verified.

Cabrera (Catálogo, p. 33) noted that he shot two in Tenerife in December in the "charcos" formed in the environs of Laguna.

Range. The Marsh-Harrier breeds in Europe, western Asia, and northern Africa (Morocco to Egypt). In winter it ranges through east Africa to the Transvaal and Angola.

Circus pygargus. Montagu's Harrier.

Falco pygargus Linn. Syst. Nat. 10th ed. 1758, p. 89— Type locality: England.

^{*} See "List of Publications," Part I. supra, pp. 86-89.

This is a Rare Visitor to the islands.

Webb and Berthelot give it as an inhabitant of Tenerife (Orn. Canarienne, p. 8). When recording this species they particularly remark the absence of *C. æruginosus*, which Ledru is stated to have found in Tenerife in 1810. They are all the more likely to have been sure of their identification of Montagu's Harrier before including it in their list.

Bolle mentions it (J. f. O. 1854, p. 450).

Cabrera says (Catálogo, p. 33) that it is an accidental migrant in the spring, and this observation is quoted by Polatzek (Orn. Jahrb. 1909, p. 119).

The only specimen which I believe to have been procured was shot in Tenerife by von Thanner in the month of February, and recorded in the Ornithologische Jahrbuch, 1903, p. 176 by Tschusi, and by Thanner in Nov. Zool. xi. 1904, p. 431. The year in which it was obtained was not then mentioned, but it appears to have been shot in 1903, as Thanner notes having procured the bird in the "preceding year" and is writing in 1904. Also he remarks that it was shot "on the same morning" as Saxicola deserti. Three of the latter birds shot by Thanner are examples of Enanthe deserti homochroa and are in the Tring Museum; they bear on the labels the dates 24/25 Feb. 1903.

Early writers record it under the name F. cineraceus.

Range. Montagu's Harrier breeds in Europe, also in Morocco and Algeria. In winter it ranges to Cape Colony.

Buteo buteo insularum *. Little Insular Buzzard.

Buteo insularum Floericke, Mitteil. österr. Reichsb. iii. 1903, p. 64—Type locality: Gran Canaria.

A Resident subspecies.

* The supposed occurrence of Buteo buteo buteo in the Canaries on migration (Ibis, 1893, p. 196) cannot be maintained, the bird in question being an example of the island Buzzard; it is a female with a wing-measurement of 374 mm. Local migration of the insular form B. b. insularum may take place between the islands, but not from the continent. The possibility of birds having come from the Azores, though unlikely, should not be overlooked.

Hab. in Archipelago.

Western Group: Gran Canaria, Tenerife, Palma, Gomera, Hierro.

Eastern Group *: Fuerteventura, Lanzarote.

Outer islets: Allegranza.

Obs. The Little Buzzard appears from my own observations to have now deserted the small islet of Graciosa (Ibis, 1914, p. 65), where Meade-Waldo found it in April 1890 (Ibis, 1890, p. 437).

Range beyond the Archipelago.

Azores Archipelago.

Haliaëtus albicilla. White-tailed Eagle.

Falco albicilla Linn. Syst. Nat. 10th ed. 1758, p. 89—Type locality: Sweden.

This is a Rare Visitor to the Canary Islands.

The White-tailed Eagle has been recorded on four or possibly five occasions, but in no single instance has the bird been obtained. This is not surprising, as a wandering Eagle is not the easiest bird in the world to approach.

Early writers seem to have confused *Haliaëtus albicilla* with *Pandion haliaëtus*, and thus what I believe to be the Osprey has erroneously been recorded as the White-tailed Eagle from the island of Lobos by Bolle (J. f. O. 1854, p. 449).

Webb and Berthelot probably fell into the same error. They distinctly note (Orn. Canarienne, p. 6) that they never actually met with the bird themselves, but include the species on the word of others as inhabiting Lanzarote and Fuerteventura. On the other hand, they received the foot of an Eagle which had been killed in Lanzarote and which they identified as belonging to *H. albicilla*.

Godman +, who also omits the Osprey from his list (Ibis,

* Polatzek described and separated the Buzzard of the eastern group (Type locality Lanzarote) under the name *Buteo buteo lanzaroteæ* (Orn. Jahrb. 1908, p. 113), but I do not recognize this supposed race.

† Godman undoubtedly knew the difference between the Osprey and the Sea-Eagle. His identification is therefore more than likely to have been correct.

1872, p. 166), wrote that he frequently watched a pair of these birds near Orotava, and added: "I have no doubt about the species" ["Haliaëtus albicilla" (Linn.)].

Another apparently genuine record by a reliable ornithologist is given by Tristram (cf. Meade-Waldo, Ibis, 1893, p. 185), who "observed and recognised beyond a doubt" the White-tailed Eagle on the beach near Arrecife, Lanzarote. Tristram visited Lanzarote in April 1890.

Cabrera (Catálogo, p. 30) observed three examples apparently all in Tenerife, while I myself saw an Eagle believed to be *H. albicilla* on the 23rd of December, 1908, while riding over the hills from San Matéo to Teror in Gran Canaria (Ibis, 1912, p. 587).

It is worthy of note that Meade-Waldo wrote (Ibis, 1889, p. 4) under Aquila sp. inc.:—"I saw several Eagles during November and early in December, but never near enough to be sure of the species."

It is quite probable that the White-tailed Eagle occurs occasionally in the islands in winter when it visits Africa from its breeding-quarters in the north. It has been recorded from the Azores.

Range. The White-tailed Eagle breeds in many parts of Europe and in winter visits northern France.

 $\begin{tabular}{ll} {\bf Accipiter\ nisus\ *}. & {\bf Sparrow-Hawk}. \end{tabular}$

[Accipiter nisus teneriffæ.]

[Accipiter nisus tenerifie Laubmann, Verh. Orn. Ges. Bayern, xi. 1912, p. 116—Type locality: Tenerife.]

A Resident subspecies.

Hab. in Archipelago.

Western Group: Gran Canaria, Tenerife, Palma.

Eastern Group: Fuerteventura, Lanzarote.

* I have not yet made up my mind to which race this Sparrow-Hawk should be referred. Laubmann has described the bird from Tenerife, and so I provisionally use his name for the bird dealt with here. Dr. Hartert cannot separate the Canarian bird from A. n. granti, the Madeiran form described by Sharpe, Ann. & Mag. Nat. Hist. ser. 6, vol. v. p. 485.

Obs. Rare in all these islands except in Tenerife.

Range beyond the Archipelago.

Does not occur.

Milvus milvus milvus. Kite.

Fulco milvus Linn. Syst. Nat. 10th ed. 1758, p. 89—Type locality: Sweden.

A Resident species.

Hab. in Archipelago.

Western Group: Gran Canaria, Tenerife, Gomera, Hierro.

Obs. The absence of the Kite from Palma is noteworthy. Range beyond the Archipelago.

Generally distributed throughout Europe from Scandinavia to the Mediterranean. Extends eastwards to Asia Minor and Palestine. In Africa it is found in Algeria; Tunisia, and Morocco. A subspecies occurs in the Cape Verde Islands.

Peruis apivorus apivorus. Honey-Buzzard.

Falco apivorus Linn. Syst. Nat. 10th ed. 1758, p. 91—Type locality: Sweden.

A Rare Visitor to the Archipelago, observed during the spring and autumn migrations.

There are only four records, and these are not absolutely satisfactory as no specimens were obtained; but as the observers, especially Mr. E. G. B. Meade-Waldo, are known to be careful and experienced field-naturalists, I include the species on the following evidence *:—

Meade-Waldo (Ibis, 1889, p. 515) writes: "I had a good look at a Honey-Buzzard (*Pernis apivorus*), and was quite certain as to the species." This was on November 21, and later (Ibis, 1893, p. 196) he wrote: "An accidental visitor, I have seen only two." He refers to these same

* $P. a \ apivorus$ should be easily distinguished by a good observer from the Canarian Buzzard B. b. insularum. It can be told by its flat head and considerably longer tail, $10\frac{1}{2}-11$ inches, as compared with $8\frac{1}{2}-9$ inches in B. b. insularum.

specimens in Ibis, 1893, p. 185, where he notes that the species was "recognised beyond a doubt."

Cabrera (Catálogo, p. 31) notes that he saw one in Laguna in the month of May.

Polatzek (Orn. Jahrb. 1909, p. 118) records that he saw one at Teror in Gran Canaria, but gives no date.

I have not myself had an opportunity of handling a specimen of the Honey-Buzzard from the Canary Islands.

Range. The Honey-Buzzard breeds in Europe and winters in Africa. There are many West African specimens in the British Museum, particularly from Fantee (Gold Coast) and Cameroon. A specimen was obtained in Cameroon as late as June by Mr. G. L. Bates. Although no specimen was obtained it can only be the typical species which visits the Canary Islands, the other races of the Honey-Buzzard being found in India and eastern Asia.

Falco peregrinus. Peregrine Falcon.

A Rare Visitor.

It is uncertain which race of the Peregrine inhabits the Canary Islands.

Dr. Hartert in his notes on Falcons (Nov. Zool. xxii. 1915, p. 169) remarks that "Mr. Rud. von Thanner informs me, in litt., that he shot a specimen on Fuerteventura (Canary Islands), the first known to have occurred there. It would be interesting to compare it, as it might possibly belong to calidus."

If von Thanner recorded this specimen in print I have missed it when going through his papers.

Dr. Hartert tells me he is of the opinion that the bird in question may turn out to be Falco peregrinus calidus Lath.

I have included this bird as *F. peregrinus*. It may turn out to be the typical form *F. peregrinus peregrinus*, but, as Dr. Hartert has pointed out, there is more than a possibility of it being an example of the race *F. p. calidus*, which has been recorded from Morocco as far south as Haha which is south of Mogador in western Morocco (vide Nov. Zool. xxii. 1915, pp. 169-170).

Range. Typical F. p. peregrinus inhabits north and central Europe and visits Africa in winter. F. p. calidus is an eastern race which was originally described from India, but specimens have been obtained in northern Africa as far west as Morocco.

Falco peregrinus pelegrinoides. Barbary Falcon.

(= Falco barbarus auctorum.)

Falco pelegrinoides Temminck, Pl. Col. 479, 1829 or 1830 — Type locality: Nubia.

A Partial Resident.

Hab. in Archipelago.

Western Group *: Gran Canaria, Tenerife.

Eastern Group: Fuerteventura, Lanzarote.

Outer islets: Montaña Clara, Roque del Oueste.

This fine Falcon, over which there has been much confusion, must be considered a Partial Resident in the Canaries.

A few pairs inhabit and breed in the most inaccessible spots in the Archipelago, and it occasionally passes through the islands in spring on migration. Whether any of these migrants remain to breed has not been solved.

It was obviously this species which Tristram noted in Gran Canaria in March 1888, undoubtedly breeding birds (Ibis, 1889, p. 17). Meade-Waldo saw them at all seasons of the year (Ibis, 1893, p. 197—F. punicus, et Ibis, 1889, pp. 516, 517).

Cabrera (Catálogo, p. 31) notes that Falco peregrinus is a migrant from March to April, and also includes F. barbarus in his list as a migrant, and says there is a specimen in the Las Palmas Museum †. His notes most probably refer to the same species, which it has now been decided must be called F. p. pelegrinoides (cf. Hartert, Nov. Zool. xxii. 1915, p. 171).

^{*} I can find no records of the Barbary Falcon from Palma, Gomera, or Hierro, but shall be surprised if the bird does not inhabit any of these islands.

[†] The two mounted specimens in the Las Palmas Museum are examples of F, p, pelegrinoides.

Von Thanner records (Orn. Jahrb. 1908, p. 214) two migrants to Tenerife which put in an appearance in the autumn of 1907, and he also shot a bird on the 30th of November, 1908. It is probably this species which von Thanner met with in Gran Canaria in February 1909 (Orn. Jahrb. 1910, p. 87) and which he mentions as having seen constantly in Tenerife (Orn. Jahrb. 1910, p. 101).

Polatzek apparently did not observe any migration of this species in the eastern islands. His notes on the resident birds will be found under *F. barbarus* (Orn. Jahrb. 1908, p. 102). Polatzek shot several birds in the eastern islands which he forwarded to the Tring Museum, and it was this material which enabled Dr. Hartert to determine to which species these Canarian Peregrines really belonged. These specimens * are here listed:—

3 ad. Fuerteventura. 22 June, 1904.

2 ad. Fuerteventura. 27 June, 1902.

ç ad. Lanzarote. 12 Nov. 1904.

Range beyond the Archipelago.

This small race of the Peregrine breeds in northern Africa, north of the Sahara (Algeria, Tunisia, Egypt, Nubia, and Morocco), extending in the north-west as far south as the southern Atlas range.

Falco subbuteo. Hobby.

The Hobby is a Rare Visitor to the Canaries. It is uncertain which race of the Hobby has occurred in the Archipelago.

It has been recorded on a number of occasions, but with one or two exceptions on very unsatisfactory evidence.

Berthelot (Orn. Canarienne, p. 6) records *Falco subbuteo* as rare in all the islands.

* Since this paper has been in print Dr. Hartert writes to me that he has just received a beautiful female example of this Falcon from Herr von Thanner, who shot the bird at Vilaflor in Tenerife on the 28th of September, 1917.

Bolle mentions it in his first paper (J. f. O. 1854, p. 449), but later (J. f. O. 1857) he omits the species altogether.

Savile Reid (Ibis, 1887, p. 429) recorded a bird from Tenerife which he saw but did not obtain, and wrote: "That the Hobby (Falco subbuteo) is occasionally found in Teneriffe I am tolerably certain. I saw a small Falcon, which I recorded at the time as of this species, on the edge of the pine-woods above La Guancha; and Baeza* informed me that he had shot two during his lifetime, one near the coast below Realejo, and the other near Tacoronte. He described the bird accurately, and from his knowledge of the subject I conclude there is no doubt as to these two cases."

Cabrera notes (Catálogo, p. 32) that it occurs accidentally in spring.

Von Thanner records having shot a Hobby in February † 1903 (Nov. Zool. xi. 1904, p. 431), and observed one in the following autumn (14 November, 1903) also apparently in Tenerife (Nov. Zool. xi. 1904, p. 434). The former bird should be examined at the first opportunity if it has not been destroyed.

It is next mentioned by Tschusi who notes (Orn. Jahrb. 1903, p. 176) a specimen procured in February, apparently also by von Thanner. This is obviously the same bird as Thanner himself records (supra) as having been shot in 1903.

Range. The typical Hobby breeds in Europe generally and in north-west Africa. It winters in Africa, ranging as far south as Cape Colony. Mr. Ogilvie-Grant records

* Don Benjamin Baeza, a Spanish Captain of Militia, was resident in Tenerife. He is said by Reid to have been "a fairly good ornithologist and taxidermist" (Ibis, 1887, p. 424). He accompanied both Godman in 1871 and Savile Reid in 1887 in their ornithological excursions in the island until his untimely death in 1887.

† Although the actual date is not mentioned, Thanner states that the Falcon was shot on the same day as he procured Saxicola descrii (amongst other birds). This specimen of S. descrii homochroa is in the Tring Museum and was shot in the month of February 1903.

meeting with a Hobby on the Salvage Islands in the latter part of April 1895 (Ibis, 1896, p. 43). It is represented in north-west Africa (Tunisia, Algeria, and Morocco) by a closely allied race, F. s. jugurtha, and it is uncertain which of these two forms has visited the Canarics.

Falco eleonoræ. Eleonore Falcon.

Falco eleonoræ Gené, Rev. Zool. 1839, p. 105—Type locality: Sardinia.

The Eleonore Falcon is a Summer Visitor to the Eastern Canary Islands and apparently also a Bird of Passage.

Hab. in Archipelago.

Eastern Group: Fuerteventura, Lanzarote.

Outer islets: Montaña Clara, Roque del Este.

It appears to be absent from the islands from the middle of October until the middle of May.

The beautiful Eleonore Falcon was first discovered in the Canary group by Polatzek. This observer lived for the most part in the eastern islands, Fuerteventura and Lanzarote, which leads me to think that *F. eleonoræ* does not often visit the western islands, from which it has never been recorded.

Polatzek was of opinion that this Falcon only comes to breed in the islands.

The following are dated records when the bird has been seen or obtained. The majority of Polatzek's notes and the records (to which his name is appended) appeared in the 'Ornithologische Jahrbuch,' 1908, pp. 104-106. Some of the specimens are in the Tring Museum, where I have examined them.

19 May, 1913 (Lanzarote). A bird believed to be of this species seen on two occasions, but not obtained (Bannerman, Ibis, 1914, pp. 55, 56, & 258).

17 June, 1913 (Fuerteventura). A bird believed to be of this species seen (Bannerman, 1bis, 1914, pp. 89 & 258).

July, 1904 (Fuerteventura). One bird seen at Oliva (Polatzek).
 Latter part August, 1904 (Lanzarote). Many seen near Haria (Polatzek).

28 August, 1904 (Lanzarote). An adult male shot (Polatzek). Skin examined in Tring Museum (D. A. B.).

2 Sept. 1904 (Lanzarote). An adult female shot (Polatzek). Skin examined in Tring Museum (D. A. B.).

7 Sept. 1904 (Lanzarote). A fledged young bird killed (Polatzek).

20 Sept. 1904 (Lanzarote). Another older young one shot (Polatzek).

23 Sept. 1904 (Lanzarote). A young female shot (Polatzek).

14 Oct. 1904 (Lanzarote). Twelve birds seen together (Polatzek).

Doubtless congregating before departure (D. A. B.).

From March until the middle of May no birds were observed by Polatzek in 1902. He particularly mentions this, and again that no birds were seen by him during the months of November and December 1904. As Polatzek in addition gives no records for the months of January or February, I take it that he did not observe the bird in the islands then.

It is apparent therefore that the Eleonore Falcon is present in the Canaries from mid-May until mid-October, and that it is absent from the Canaries during the winter from mid-October until mid-May.

Von Thanner records it as breeding on the Roque del Este (the east rock off the north coast of Lanzarote) and on Montaña Clara (Orn. Jahrb. 1913, p. 192), where it is recorded under the vernacular name only—" Eleonorenfalke."

It is interesting to compare these dates with those furnished by Riggenbach, who lived in Mogador over two years.

During this time he did not obtain any examples of the Elconore Falcon between October and the end of April. Specimens from Mogador in the Tring Museum were obtained from the 30th of April until the 15th of October.

This coincides remarkably closely with what takes place in the Canary Islands.

Range beyond the Archipelago.

The Eleonore Falcon inhabits the Mediterranean islands, Morocco, and Tunisia. It has once been shot in Algeria. It has never been taken in tropical Africa. Falco vespertinus vespertinus. The Red-footed Falcon.

Falco vespertinus Linn. Syst. Nat. 12th ed. 1766, p. 129 — Type locality: Ingria (= St. Petersburg).

This little Falcon has visited the Canary Islands on several occasions, but can now only be included as a Rare Visitor, usually during the spring migration.

Meade-Waldo notes that a good many examples of this Hawk visited the valley of Orotava (Tenerife) during the spring migration of 1890 (Ibis, 1893, p. 197), notably on the 25th of April of that year (Ibis, 1890, p. 429), when they were not uncommon. I have examined an adult male specimen now in the British Museum which Meade-Waldo obtained on the 7th of May, 1890.

Cabrera records another example shot at Orotava in the month of May about the same time (Catálogo, p. 32).

Polatzek obtained a specimen, which he did not preserve, at the end of February 1902, also in Tenerife (Orn. Jahrb. 1909, p. 118).

Range. The Red-footed Falcon breeds in eastern Europe, and in winter visits Africa as far south apparently as Damaraland.

Tinnunculus tinnunculus canariensis. Canarian Kestrel.

Cerchneis tinnunculus canariensis Koenig, Journ. für Orn. 1889, p. 263—Type locality: Canary Islands.

A Resident subspecies.

Hab, in Archipelago.

Western Group: Gran Canaria, Tenerife, Palma, Gomera, Hierro.

Range beyond the Archipelago.

Madeira.

Tinnunculus tinnunculus dacotiæ. Fuerteventuran Kestrel. Falco tinnunculus dacotiæ Hartert, Vög. pal. Faun. ii. 1913, p. 1086—Type locality: Lanzarote.

A Resident subspecies,

Hab, in Archipelago.

Eastern Group: Fnerteventura, Lanzarote.

Outer islets: Graciosa, Montaña Clara, Allegranza, Roque del Oueste*.

Range beyond the Archipelago.

Does not occur.

Pandion haliaëtus haliaëtus. Osprey.

Falco haliaëtus Linn. Syst. Nat. 10th ed. 1758, p. 91— Type locality: Sweden.

A Resident species.

Hab. in Archipelago.

Western Group: Gran Canaria, Tenerife, Palma, Gomera, Hierro.

Eastern Group: Fuerteventura, Lanzarote.

Outer islets: Graciosa, Montaña Clara, Allegranza, Lobos, Roque del Oueste.

Obs. The Osprey probably also breeds on the Roque del Este, the most inaccessible of the outer islets, which has not been visited for many years.

Range beyond the Archipelago.

A very wide distribution throughout Europe, Asia, and northern Africa, breeding as far south as the Cape Verde Islands. In winter it visits tropical Africa.

Family Phalacrocoracide.

Phalacrocorax carbo carbo. Cormorant.

Pelecanus carbo Linn. Syst. Nat. 10th ed. 1758, p. 133— Type locality: Sweden.

A Rare Visitor.

It is mentioned by Busto (according to Cabrera and Polatzek) and by Cabrera, who however had never seen a specimen (Catálogo, p. 64).

Von Thanner records having seen a captured bird at Arrecife in Lanzarote, and remarks (apparently on the

* I observed the Kestrel on this rock, but it is most unlikely to breed there.

evidence of local fishermen) that the "Cuervo marino" appears in the winter off the small islets (Orn. Jahrb. 1913, p. 189).

When in Arrecife on the 16th of June, 1913, I examined a stuffed specimen of the Cormorant in the collection of Don Gonzalez which had been shot locally, and recorded it in my report of the expedition (Ibis, 1914, p. 63). This may be the same bird as you Thanner has recorded (supra).

Range. The Cormorant inhabits the coasts of the north Atlantic as far south as, and including the Mediterranean. I doubt whether it is found much farther south than the Straits of Gibraltar, though in winter a few wander apparently as far as the Canary, Islands. Subspecies have been described from Africa.

· Family Sulide.

Sula bassana. The Gannet.

Pelecanus bassanus Linn. Syst. Nat. 10th ed. 1758, p. 133—Type locality: Scotland.

The Gannet is an Occasional Visitor in winter, but sometimes, according to Meade-Waldo, is abundant round the islands especially between Fuerteventura and Cape Juby on the mainland (Ibis, 1893, p. 198). The same observer also records a single bird seen off Fuerteventura on the 30th of March, 1888 (Ibis, 1889, p. 508, and MS. diaries).

Previous to this the Gannet had been observed only by Bolle, who about the year 1853-4 handled immature specimens in both the Binna and Léon collections in Tenerife and Gran Canaria (J. f. O. 1857, p. 348).

Polatzek says (Orn. Jahrb. 1909, p. 132) "the Gannet appears very seldom," but I question whether he ever saw the bird himself.

Range. This well-known British bird, so familiar to every voyager in the Bay of Biscay, extends its range in winter down the north-west African coast (according to Hartlaub) as far as Senegal. It is probably very rare south of the Canary Islands,

Mr. Gurney writes to me that occasionally, when brought up by the wind, the Gannet has been extraordinarily plentiful on the coast of Portugal and off the south of Spain (where, by the way, I have often noticed it myself in winter), and further notes that it seems uncertain where the southern range of S. bassana meets the northern range of S. capensis. Details and maps are given in Mr. Gurney's 'Life of the Gannet.' Curiously enough the most southern ganuetry in Europe is the Bull Rock, Co. Cork, while the most southern breeding places known are on Bonaventura and Bird Rocks in the Gulf of St. Lawrence.

[To be continued.]

XXV.—Further Ornithological Notes from the Neighbour-hood of Cape San Antonio, Province of Buenos Ayres.
Part II. Trochilide—Plataleide. By Ernest Gibson, M.B.O.U., F.Z.S.*

238. Chrysuronia ruficollis Vieill. Golden-tailed Humming-bird.

Mr. Hudson, in his brief notice of this species, states that it visits the more northern portion of the Argentine Republic; but he himself obtained specimens at Conchitas (near Buenos Ayres), and Durnford did the same at Punta Lara, farther south.

It has been left to Mr. Claude Grant to chronicle the Golden-tailed Humming-bird as a winter visitor to the Ajó district; for I had attributed the appearance of a Humming-bird during that season to a stray individual of our regular summer species (Chlorostilbon splendidus Vieill.)—most likely the young, from the darker plumage. Miss Runnaeles, it should be noted, "observed it in every month throughout the winter of 1909." Picking out what I formerly took to be these aberrant occurrences of C. splendidus in my diary, I come to the conclusion that the Golden-tailed species arrives about the middle of April

^{*} Continued from 'Ibis,' 1918, p. 415.