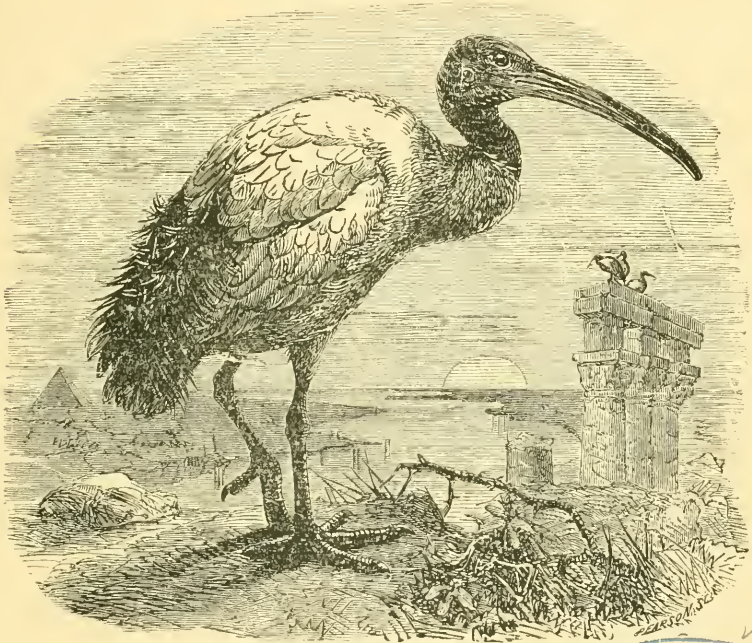


18
5/12.63

THE IBIS,
A
QUARTERLY JOURNAL OF ORNITHOLOGY.

48

EDITED BY
WILLIAM LUTLEY SCLATER, M.A., F.Z.S.



VOL. I. 1919.

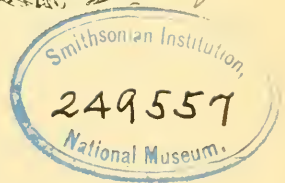
ELEVENTH SERIES.

He prayeth well, who loveth well
Both man and bird and beast.

PUBLISHED BY THE
BRITISH ORNITHOLOGISTS' UNION

AND SOLD BY
WILLIAM WESLEY & SON, 28 ESSEX STREET, STRAND,
LONDON, W.C.2.

1919.



XVI.—*List of the Birds of the Canary Islands, with detailed reference to the Migratory Species and the Accidental Visitors.* Part II. TURDIDÆ—HIRUNDINIDÆ. By DAVID A. BANNERMAN, M.B.E., B.A., M.B.O.U., F.R.G.S.

[Continued from p. 131.]

Family TURDIDÆ.

Turdus philomelus philomelus. Continental Song-Thrush.
(= *Turdus musicus auctorum.*) *

Turdus philomelos Brehm, Handb. Naturg. Vög. Deutschl. 1831, p. 382—Type locality : Middle Germany.

The Continental Song-Thrush is a regular Winter Visitor to the Canary Islands. There is but little doubt that all

* It must be borne in mind that every single author up to the present who has written on the Canarian birds has referred to the Song-Thrush as *Turdus musicus*. Those ornithologists who follow the example of the B. O. U. Committee and conserve the name *musicus* for the Song-Thrush must then, however, call the bird which visits the Canary Islands in winter *Turdus musicus musicus*, *i. e.* the Continental Song-Thrush. I entirely agree with the Committee who compiled the list that considerable confusion will doubtless arise by transferring the name *T. musicus* to the Redwing and bestowing Brehm's name, *T. philomelus*, on to the Song-Thrush (B. O. U. List, 1915, pp. 365, 366); but confusion will arise in any case—and, in fact, has arisen—as several of our leading systematic ornithologists have already accepted the changes. If we are to be consistent in nomenclature, I can see no help for it but to reject the *nomina conservanda* proposed (B. O. U. List, 1915, p. 355) and to accept the drastic changes which have become necessary under the Rules of Nomenclature as drawn up by the International Congress of Zoology. The best way to attain uniformity is for the younger generation of ornithologists to accept all these changes quickly, disagreeable as many of them undoubtedly are. Confusion need not arise if for several years to come systematic ornithologists will only state very carefully in their publications exactly which species they mean by *Turdus musicus*, *Turdus philomelus*, *Turdus iliacus*, etc. In this "transition-stage" of nomenclature no other course is open to working ornithologists who wish to avoid the confusion which would inevitably ensue if they referred to *Turdus iliacus* without any further explanation. The original reference alone is now not sufficient.

past records of "*Turdus musicus*" must refer to the continental form, which must now be known as *Turdus philomelus philomelus*.

The exact time when the Song-Thrushes arrive in the islands is uncertain. I doubt whether they arrive very much before November (Meade-Waldo's earliest records are 10 and 16 November: 12 and 19 December, Tenerife). I have found them very plentiful in January in the high forests. They stay in the Archipelago until March, a few remaining until April, but never nesting.

The Song-Thrush ("*Turdus musicus*" of all early writers) was mentioned by Ledru in 1810 from Tenerife, and since that date has been recorded by every observer who has written on the ornithology of the group.

It is mentioned by Webb and Berthelot (Orn. Canarienne, p. 11) as a bird "de passage," and after careful investigation I have come to the conclusion with Lord Rothschild that the account given by Webb and Berthelot under the heading of *T. iliacus* (Orn. Canarienne, p. 12) really belongs to the Song-Thrush (*T. p. philomelus*, which these authors call "*Turdus musicus*"), and should have appeared under that species. My reasons together with the original quotation of this paragraph are given in this paper under the next species dealt with. The following is a translation of the most interesting part of this paragraph under dispute:—

"It is certain that Thrushes [les grives] arrive in the winter and remain a certain time in the woods. A great migration took place in 1828, above all in the island of Tenerife, where they were very numerous. This migratory wave was repeated in 1832. Thrushes were then so numerous that one killed them with sticks and stones. The migration commenced in November and continued at intervals during part of December. These birds arrived on the east coast and flooded the gardens, the greater number reached the interior of the island where they took refuge in the Pine region. . . . They rested there three months in the country and then disappeared all at once."

Bolle records the arrival of the Song-Thrush, and writes :

“In the winters 1828–30 innumerable flocks of these Thrushes (*Turdus musicus* Linn.) came to Tenerife; they appeared over the sea like swarms of locusts, flying in troops down the streets of Santa Cruz on their way to the gardens, from which later they flew off to the Pine woods of the mountains” (J. f. O. 1854, p. 453).

Meade-Waldo never records them below 1500 feet in Tenerife and found them abundant “wherever there was sufficient cover.” He noted that a few remained until April (Ibis, 1893, p. 187), and that they swarmed in the mountains in the winter of 1888 (Ibis, 1889, p. 515).

Von Thanner considers it a regular Bird of Passage in Tenerife (Nov. Zool. xi. 1904, p. 431), and later mentions that many Song-Thrushes were seen at Vilaflor—a village on the southern slopes of the Peak—during the winter months 1906–7 (Orn. Jahrb. 1908, p. 214).

From the extreme western islands, Gomera, Palma, and Hierro, the Song-Thrush is not often recorded; this is probably due to the scarcity of observers rather than to the absence of the bird itself, for it is more than likely to be numerous in winter on these three islands. Meade-Waldo records it from Gomera on 12 February, 1888 (*cf.* private note-books).

In Gran Canaria I have always found it in the Monte District (1580 feet) in small numbers in January (Ibis, 1912, p. 598), but it is much more plentiful in the high ridges clothed with pines (3000–4000 feet) in the south of the island. It was particularly numerous in February 1911, and is always remarkably wild, which point is also mentioned by Meade-Waldo (Ibis, 1889, p. 1).

In the eastern group, Fuerteventura and Lanzarote, this Thrush is said by Polatzek (Orn. Jahrb. 1909, p. 125), who spent eight months in these barren islands, to be “a regular and frequent migrant and winter visitor.”

Meade-Waldo saw Thrushes in Fuerteventura on the 27th and 28th of March, 1888 (private note-books), and noted that it was not uncommon in the cactus-fields (Ibis, 1889, p. 509).

Von Thanner apparently met with the Thrush on migration in Fuerteventura in the same month (Mareh) many years later (Orn. Jahrb. 1905, p. 65), and noted it as a winter visitor.

In Lanzarote I identified a stuffed specimen in the Gonzalez private collection (Ibis, 1914, p. 62). It might strike one as curious that the Thrushes should resort to such islands as Fuerteventura when a wealth of verdure awaits them in the islands of the western group, but this is doubtless explained by the geographical position of the eastern islands, which lie much nearer the regular line of flight of migratory birds.

Needless to say, the Song-Thrush which occurs in the Canary Islands has invariably been quoted as *Turdus musicus* Linn., and it was not until quite recently that an examination of specimens which I had shot in Gran Canaria, together with those in the Meade-Waldo collection in the British Museum, revealed the fact that the migratory Thrush of the Canary Islands is undoubtedly the continental race (*Turdus philomelus philomelus*) [*Turdus musicus musicus* auctorum].

Range. The Continental Song-Thrush is apparently distributed through Europe generally, wintering in south Europe and north Africa, the Canary Archipelago probably being the southern limit of its winter range.

Turdus musicus *. Redwing.

(= *Turdus iliacus* auctorum.)

Turdus musicus Linn. Syst. Nat. 10th ed. 1758, p. 169—
Type locality: Sweden.

The Redwing is evidently an **Occasional Visitor** in winter to the islands. I have never met with it myself.

Webb and Berthelot (Orn. Canarienne, p. 12) were the first to mention this species, but a certain amount of confusion seems to have taken place between this species (*Turdus iliacus* of all former writers) and the Song-Thrush, *Turdus p. philomelus* (*Turdus musicus* auctorum).

* See my footnote given under *Turdus p. philomelus*.

Webb and Berthelot mention both forms, and under the heading "*Tourdre-Mauvis—Turdus iliacus* Linn.," they have the following note which, for reasons hereafter explained, must surely refer primarily to the Song-Thrush (*T. philomelus philomelus*), *Turdus musicus* of Webb and Berthelot:—
 "Obs. Le nom de *Pájaro de Africa* (Oiseau d'Afrique) que l'on donne à cette espèce, de même qu'à la précédente, indique assez qu'elle n'est que de passage aux îles Canaries. En effet les grives arrivent en hiver, et séjournent un certain temps dans les bois. Leur abondance fut remarquable en 1828, surtout dans l'île de Ténérife, où leur apparition s'est reproduite d'une manière bien plus extraordinaire encore en 1832. Les grives reparurent alors en telle quantité qu'on les tuait à coups de bâton et à coups de pierre. Le passage commença en novembre et continua par intervalles durant une partie du mois de décembre. Elles débarquèrent sur la côte orientale, et traversèrent par bandes les rues de Sainte-Croix. Beaucoup se répandirent dans les jardins, et le plus grand nombre gagna l'intérieur de l'île, pour se réfugier dans la région des Pins. . . . Ces oiseaux restèrent trois mois dans le pays ; puis ils disparurent tout à coup."

Now, as Lord Rothschild has pointed out to me, the French invariably mean a Thrush when they speak of the "grive," which is the word used throughout the account just quoted ; and the Redwing, on the other hand, is known as *mauvis*.

Whether Webb and Berthelot really intended their observation to refer to the Redwing or to the Thrush or to both species it is rather difficult to say, but I incline with Lord Rothschild to the belief that the account printed above should really have been included by Webb and Berthelot under the heading of their *Turdus musicus*, for the authors certainly distinguish between the vernacular names of the two forms. It must also be remembered that the greater part of 'Ornithologie Canarienne' was written by Moquin-Tandon from notes supplied by Berthelot, and this may account for the confusion.

Bolle (J. f. O. 1854, p. 453) records the great arrival of Song-Thrushes (“*Turdus musicus*”) in the winters of 1828–1830 to the Canary Islands ; but in the J. f. O. 1857, p. 277, under the heading “*Turdus iliacus*” he quotes Webb and Berthelot’s account of the arrival of Redwings, and notes, moreover, that Berthelot told him (Bolle) “that the Redwing was even more frequent than the Song-Thrush.”

Against this we must remember that, although Bolle confirms the great swarms of Redwings in 1828 and 1832, yet he himself was not in the islands then ; and, further, he remarks : “In ordinary years the number [of Redwings] cannot be very great, for during two winters in Santa Cruz I never saw a single specimen” (J. f. O. 1857, p. 277).

The next author to mention the Redwing is Cabrera, who notes (Catálogo, p. 46) that “*T. iliacus*” is a regular bird of passage (“De paso periódico) fairly abundant in certain years, met with as much on the coasts as in the mountains of Tenerife. He had specimens in his own collection. According to Cabrera, this bird is also cited by Serra, whose work I have not consulted.

Polatzek in his list (Orn. Jahrb. 1909, p. 125) includes the Redwing as “a regular and frequent migrant,” and places the species amongst the birds which have been verified without a doubt. It is more than probable that he had himself met with the species and had obtained examples, but I cannot agree with his statement that it is “a regular and frequent migrant.” Polatzek probably based his remarks on former writers who had blindly followed Webb and Berthelot, and the fact that he obtained specimens himself (which apparently he must have done) would lend colour to the older writings which he consulted.

Neither Meade-Waldo, von Thanner, nor myself have ever come across it, which in the case of von Thanner is most strange as he has lived a considerable time in Tenerife.

Range. The Redwing breeds in north Europe and winters in south Europe, and also in north-west Africa—where, however, it is rare.

Turdus pilaris. The Fieldfare.

Turdus pilaris Linn. Syst. Nat. 10th ed. 1758, p. 168—
Type locality: Sweden.

The Fieldfare is an **Occasional Visitor** to the Archipelago.

It sometimes arrives in autumn and occasionally also in spring, but is not by any means a regular migrant.

The first authentic record is given by Meade-Waldo, who saw a bird in the flesh which had been shot on the 19th of March close to Orotava (Ibis, 1889, p. 1), and he himself obtained a specimen, now in the British Museum, on the 15th of May, 1888, at the same place.

Polatzek mentions a passage of these birds in 1903 and gives the following account (Orn. Jahrb. 1909, p. 125):—
“On the 20th of October many [Fieldfares = ‘Wacholderdrossel’] came to Lanzarote with a strong north wind. I found flocks of about fifteen birds under fig-trees at Haria, and a few were in the fields. After three weeks their numbers gradually decreased, and in the fifth week (*i. e.* about the 25th of November) they disappeared altogether. The brown tint on the breast was very vivid.”

Von Thanner considers it to be a wandering visitor in Tenerife, and also recognized a specimen of this bird in the institute at Laguna (Nov. Zool. xi. 1904, p. 431).

I have never myself met with it in any of the islands.

From the only records which we have of this bird it would appear to occasionally touch the islands actually at the time when the migratory movement from Europe to Morocco is in course of progress.

Range. The Fieldfare, which is so well known in north Europe and north Asia, winters in central and south Europe and in smaller numbers extends south to north-west Africa. The Canary Islands are surely the most southern limit reached.

Turdus merula cabreræ. Cabrera's Blackbird.

Turdus merula cabreræ Hartert, Nov. Zool. viii. 1901, p. 313—Type locality: Tenerife.

A **Resident** subspecies.

Hab. in Archipelago.

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

Range beyond the Archipelago.

Madeira.

Phœnicurus phœnicurus phœnicurus. Common Redstart.

Motacilla phœnicurus Linn. Syst. Nat. 10th ed. 1758, p. 187—Type locality: Sweden.

The Common Redstart is a fairly regular Bird of Passage in small numbers to the Canary Islands in spring and autumn.

Meade-Waldo's notes sum up the situation. He wrote (Ibis, 1893, p. 188): "A few Redstarts touch at the islands in spring and autumn"; and in an earlier paper (Ibis, 1889, p. 2) remarked: "I saw a male on two occasions close to my house at Orotava."

Polatzek, whose field-notes are generally reliable, quotes it (Orn. Jahrb. 1909, p. 124) as a regular bird of passage. The following are the only dated records:—

- ♂. March, 1889. Oliva, Fuerteventura. Authority: Meade-Waldo (skin in British Museum).
- ♀. 27 March, 1905. Fuerteventura. Authority: Von Thanner (Orn. Jahrb. 1908, p. 214).
- ♂. 27 March, 1909. Gran Canaria. Authority: Von Thanner (Orn. Jahrb. 1910, p. 86).
- ♂. 4 April, 1913. Tenerife. Authority: Miss Annie Jackson (in litt.).
- October. Gomera. Authority: Bolle (J. f. O. 1857, p. 283).

Cabrera had an undated specimen in his Tenerife collection (Catálogo, p. 43), and Meade-Waldo also notes a specimen brought to Ramon Gomez from Fuerteventura (Ibis, 1889, p. 509). I have not handled all the specimens which have been obtained in the Canary Islands, but those which I have seen belong to the typical form.

Range. The Common Redstart which breeds in Europe winters in west and north-east Africa and is replaced by an allied race in the Atlas Mountains. Hartert met with the

typical species at El-Golea in the south-western Sahara at the end of March, and as late as the 5th of June in the Oued Nça (Nov. Zool. xx. 1913, p. 57). It was common on migration in Algeria, being frequently met with from El Kantara to Touggourt during the last week in March and on the 6th and 10th of April at Laghouat. On the east coast of Africa the Redstart appears to migrate south as far as 10° N. A specimen in the British Museum from Foda (Anglo-Egyptian Sudan) was obtained on 21 October, 1885.

Phœnicurus ochrurus gibraltariensis *. Black Redstart.

(= *Ruticilla titys auctorum*.)

Motacilla gibraltariensis Gmelin, Syst. Nat. i. pt. 2, 1789, p. 987—Type locality: Gibraltar.

The Black Redstart appears to be a regular **Bird of Passage** in small numbers to the islands in spring and autumn. It is recorded from Tenerife and Fuerteventura. Meade-Waldo considered it to be rather more frequent in the Canaries than the Common Redstart (Ibis, 1893, p. 188). He remarks that he examined a stuffed specimen in Cabrera's collection (Ibis, 1889, p. 515).

Cabrera obtained it in Tenerife near Laguna, and believed it to be an accidental migrant in spring (Catálogo, p. 43). This specimen was examined in the Cabrera collection by Hartert, who tells me it is certainly *P. o. gibraltariensis*.

Polatzek believed it to be a regular bird of passage and observed it twice in the eastern islands (Orn. Jahrb. 1909, p. 124).

Von Thammer also obtained it in the eastern islands of the group and records a male which he shot in Fuerteventura on the 5th of February, 1910 (Orn. Jahrb. 1910, p. 229), and

* This is another of the very few cases of nomenclature where I do not follow the Committee of the 'B. O. U. List of British Birds,' 2nd ed. 1915, in retaining the name *P. titys* for the Black Redstart (*vide* B. O. U. List, p. 366, where the reasons given for conserving the name *titys* are to my mind most unsatisfactory). I prefer to follow Messrs. Hartert, Witherby, and Ticehurst in their decision ('Hand-list of British Birds,' 1912, p. 85).

another in the same island on the 23rd of March, 1904 (Orn. Jahrb. 1905, p. 65: "Hausrotschwänzchen").

Range. This well-known European species winters chiefly in north-west and north-east Africa, but also in southern Europe. It breeds throughout Europe generally. There are specimens in the British Museum from Morocco (undated). In east Africa it is found as far south as Berber (Sudan), and there is a bird obtained in July from Abyssinia.

Erithacus rubecula superbus. Superb Redbreast.

Erithacus superbus Koenig, Journ. für Orn. 1889, p. 183—Type locality: Tenerife.

A Resident subspecies.

Hab. in Archipelago.

Western Group. Gran Canaria, Tenerife.

Range beyond the Archipelago.

Does not occur.

Erithacus rubecula microrhynchus *. Madeiran Redbreast.

Erithacus rubecula microrhynchus Reichenow, Journ. für Orn. 1906, p. 153—Type locality: Madeira.

A Resident subspecies.

Hab. in Archipelago.

Western Group. Palma, Gomera, Hierro.

Range beyond the Archipelago.

Madeira.

Erithacus rubecula. Redbreast.

[? *Erithacus rubecula rubecula.*]

[*Motacilla rubecula* Linn. Syst. Nat. 10th ed. 1758, p. 188—Type locality: Sweden.]

A Rare Visitor.

Redbreasts occasionally pass through the eastern islands

* I have accepted Reichenow's name for the Redbreasts inhabiting Madeira and the islands of Palma, Gomera, and Hierro in the Canary group. They are to my mind separable from the Continental race, with which they have been hitherto united by most writers, and from which I distinguish them by their paler coloration.

of the Canary Group—in which islands, be it noted, there are no resident Redbreasts.

I have not been able to examine a specimen, but am of opinion that these birds are genuine migrants, which on rare occasions visit the eastern islands. In this list it is intentionally named binomially, and therefore no original reference is given. Whether these visitors are examples of the Continental Redbreast (*E. r. rubecula*), which seems to me most probable, or whether of the north-west African race (*E. r. witherbyi*) cannot yet be proved. I strongly suspect the former, and, if this is the case, it will explain how the resident Redbreasts (*E. r. microrhynchus*) originally arrived at, and came to be isolated in, three of the western islands.

There is no evidence to show that at the present day the resident Redbreasts of Palma, Gomera, and Hierro have their numbers augmented in spring—the migrating Redbreasts having only been recorded from the eastern islands. It may be suggested that the birds which have been recorded from Fuerteventura are merely stragglers from the western islands. I do not believe this to be the solution. In the first place, the birds were observed in March—in which month *E. r. microrhynchus* is breeding,—and it would then be very unlikely to leave the islands which they have made their home when nesting is in full swing. Secondly, we have no records from Gran Canaria or Tenerife, in which geographically intervening islands another subspecies (*E. r. superbus*) is the resident form and the only Redbreast known.

So far as my knowledge goes, it shows that the various breeding birds living in the Canary Archipelago never migrate from one island to another. We have no reason, therefore, to suppose that the pale resident Redbreast is an exception to this.

The records of Redbreasts from the eastern islands are as follows:—Polatzek saw it once in the Barranco Rio Palma in Fuerteventura, and notes that it is very rarely seen in this island (Orn. Jahrb. 1908, p. 185).

Von Thanner saw it on two occasions:—

- (a) On the 23rd of March, 1904, at Gran Tarajal, Fuerteventura (Orn. Jahrb. 1905, p. 65).
- (b) On the 14th of March, 1905, also in Fuerteventura (Orn. Jahrb. 1908, p. 214).

I have no hesitation in accepting the statements of Polatzek and von Thanner that what they took to be the Continental Redbreast was seen by them in Fuerteventura.

Range. The Continental Redbreast (*E. r. rubecula*) breeds in Europe and winters in the Mediterranean countries and in northern Africa as far as the Oases in the Sahara. Type locality: Sweden.

Witherby's Redbreast (*E. r. witherbyi*) is a resident form in the Atlas Mountains of Morocco, and also breeds in Tunisia and northern Algeria. Type locality: northern Algeria.

Cyanosylvia suecica suecica *. Red-spotted Blue-throat.

Motacilla svecica Linn. Syst. Nat. 10th ed. 1758, p. 187—
Type locality: Sweden.

A Rare Visitor.

The first specimen of *C. s. suecica* is recorded by Cabrera (Catálogo, 1893, p. 43), who killed a bird of this species in October at Laguna (Tenerife).

Polatzek gives it in his List (Orn. Jahrb. 1909, p. 124) as a rare bird of passage occurring in the eastern islands (*i. e.*, Fuerteventura and Lanzarote).

Range. The Red-spotted Bluethroat breeds in northern Europe and Asia. It winters partly in north-east Africa. Its occurrence in the Canary Islands cannot therefore be expected, save as a straggler.

* I am following the Committee who compiled the 'B. O. U. List of British Birds' in not separating the typical Red-spotted Blue-throat and the Norwegian Bluethroat, *C. s. gaetkei* (Kleinschm.). Those who distinguish between the two supposed forms would doubtless find that it is *C. s. gaetkei* which occurs as a Rare Visitor in the Canaries (*cf.* B. O. U. List of British Birds, 1915, p. 368). I have not examined a specimen from the Canary Islands.

Cyanosylvia suecica cyanecula. White-spotted Bluethroat.

Sylvia cyanecula Wolf, in Meyer & Wolf, Taschenb. 1810, p. 240.—Type locality: Germany.

This is a **Rare Visitor** to the Archipelago.

The records of the White-spotted Bluethroat occurring in the Canary Islands are not by any means plentiful. In fact, the only occurrences which seem genuine are:—

- a. Two birds seen by Meade-Waldo which had been shot near Laguna (Ibis, 1889, p. 2). These are probably the male and female mentioned by Cabrera in his 'List' as having been shot in November 1889 (Catálogo, p. 43).
- b. A single bird identified in 1913 by myself in the Gonzalez Collection in Arrecife. This bird had been shot in the island of Lanzarote (Ibis, 1914, p. 62).

Polatzek, who spent eight months in the eastern group and chronicles the arrival of many migrants, does not mention any specific occasion upon which he met with this species. He writes:—"Like the Red-spotted Bluethroat this species may also pass through the eastern islands" (Orn. Jahrb. 1909, p. 124). This species is there referred to as *C. wolfi* (Brehm).

Range. The White-spotted Bluethroat is a European species, which in winter migrates through western Europe to north-west and north-east Africa.

Saxicola dacotiae dacotiae. Fuerteventuran Chat.

Pratincola dacotiae Meade-Waldo, Ibis, 1889, p. 504, pl. xv.—Type locality: Fuerteventura.

A **Resident** species.

Hab. in Archipelago.

Eastern Group: Fuerteventura.

Obs. Confined to this island.

Range beyond the Archipelago.

Does not occur.

Saxicola dacotiae murielæ. Muriel's Chat.

Saxicola dacotiae murielæ Bannerman, Bull. B. O. C. vol. xxxiii. 1913, p. 37 (figured Ibis, 1914, pl. v.)—Type locality: Allegranza.

A Resident subspecies.

Hab. in Archipelago.

Outer islets. Montaña Clara, Allegranza.

Range beyond the Archipelago.

Does not occur so far as is known.

Obs. It must be remembered that the Avifauna of the opposite coast of Africa is practically unknown. The fact that all these Chats undoubtedly left Montaña Clara whilst I was living on this island, suggests that they may have their headquarters on the mainland. They may, however, have only crossed to Allegranza.

Saxicola rubicola rubicola. Stonechat.

Motacilla rubicola Linn. Syst. Nat. 12th ed. 1766, p. 332—Type locality: France.

The Stonechat is said to be a Bird of Passage in the Canary Islands.

The species is mentioned by several authors, but I have been unable to examine a specimen. It is certain, however, to be the typical race which passes through the islands.

The Stonechat is mentioned as far back as 1841 by Webb and Berthelot, who note (Orn. Canarienne, p. 13) that it is "Rather rare in the Canaries, one meets with it in the Mercedes woods" (*i. e.* in Tenerife).

Bolle wrote that it turns up occasionally in winter always separately (J. f. O. 1857, p. 279).

Cabrera mentions that it has been met with in the vicinity of Mercedes, but he does not say whether this is from his own observation or whether he is simply quoting Webb and Berthelot (Catálogo, p. 40).

The most definite record is given by Polatzek, who wrote: "I saw only males and met them in the eastern islands as regular winter visitors. The flight begins often early in

October. In March I saw them on the return journey (Orn. Jahrb. 1909, p. 124).

Range. The typical race of the Stonechat breeds throughout Europe and north-west Africa and winters in the Sahara. It seems strange that Polatzek should have noted it as a regular transient through the Canaries, as I know of no records of this species from south of the islands. Where, then, do these birds go?

In west Africa it is common in Mazagan, and there is a large series from there in the Tring Museum obtained in April, May, October, and December, besides several from the Atlas Mountains obtained between the months of March and June. The most southern records are skins from Imintanout obtained in May. All these places are on the African coast north of the Canaries.

Saxicola rubetra rubetra. Whinchat.

Motacilla rubetra Linn. Syst. Nat. 10th ed. 1758, p. 186
—Type locality: Sweden.

The Whinchat is an irregular Bird of Passage. I have been unable to examine a skin, but it is certain to be the typical form which occurs there on migration.

The first record is by Cabrera, who recognized two birds in the spring of 1890 in the barranco of Mercedes, Tenerife (Catálogo, p. 40).

Polatzek includes the Whinchat as a regular bird of passage in the eastern islands in October; he notes that he saw small companies of them on their journey and that they did not remain in the island. He adds that he obtained specimens (Orn. Jahrb. 1909, p. 124).

I am doubtful whether *S. r. rubetra* can be considered a regular bird of passage, as Polatzek is the only ornithologist to have observed the bird regularly, and he only lived in the Archipelago for two and a half years. Neither Meade-Waldo nor von Thanner has met with it.

Range. The Whinchat breeds in Europe and winters in tropical Africa. Its occurrence in the Canary Islands is

therefore to be expected. I have examined skins from the Gold Coast obtained in October and November, from Senegal in March, September, October, and December, from Sierra Leone in March and April, from Morocco (Mazagan and Rahamna) in September, October, and May, and a bird obtained in Mogador on 5th November, all by Riggensbach (skins in Tring Museum), while Geyr von Schweppenburg met with it as far south as Ain Taiba in January, almost on the same parallel as Mogador.

Ænanthe ænanthe ænanthe. The Wheatear.

Motacilla ænanthe Linn. Syst. Nat. 10th ed. 1758, p. 186
—Type locality: Sweden.

From the actual records which we possess it is doubtful whether the typical Wheatear can yet be considered more than a Rare Visitor to the Canary Islands. I believe, however, it will eventually prove to be at any rate an occasional visitor.

Unfortunately all the older writers have failed to distinguish between this and the Greenland Wheatear, and it is therefore impossible to be certain to which form their records and remarks belong.

I have carefully examined a great many skins in the British and Tring Museums of this and the larger race, and have but little doubt that the majority of records of "*Saxicola ænanthe*" from the Canary Islands should rightfully belong to *Ænanthe ænanthe leucorrhœa*. I have therefore included them under binomial nomenclature (see next species) and indicated at the same time that I believe *Æ. a. leucorrhœa* is the race to which they should refer.

There is, however, one very definite record of the typical form:—

Von Thanner wrote in the Orn. Jahrb. 1912, p. 226 that he had shot a male example of "*Ænanthe ænanthe ænanthe*" in Fuerteventura on the 25th of March, 1912.

It is possible that an immature male killed in Tenerife on the 28th of September, 1908, and recorded by von Thanner

(Orn. Jahrb. 1909, p. 149) as "*Saxicola œnanthe*" may have belonged to the typical form, as it is doubtful if von Thamer then distinguished between the two forms, and in any case it was an immature bird.

Range. The Wheatear inhabits the whole of Europe and part of Asia and winters in tropical Africa. There is nothing to prevent it occurring fairly regularly in the Canary Islands on migration.

Ænanthe œnanthe. Wheatear.

[? *Ænanthe œnanthe leucorrhoa.*]

[*Motacilla leucorrhoa* Gmelin, Syst. Nat. i. pt. 2, 1789, p. 966—Type locality: Senegal.]

This Wheatear seems to be a somewhat irregular Bird of Passage in spring and autumn through the Canary Islands.

The majority of specimens appear to have been noticed in September.

I have not myself examined any skins from the Canaries, but am strongly of opinion that they will prove to belong to the large race, *i. e.* the Greenland Wheatear (*Ænanthe œnanthe leucorrhoa*). All records (with one exception) have been published as *Saxicola œnanthe*, but with the exception of Hartert and von Thanner (once) all former writers have failed to distinguish between the Greenland Wheatear and the typical form.

Webb and Berthelot, from 1828 to 1830, considered the Wheatear to be found accidentally in the Canaries after squalls from the south-west (Orn. Canarienne, p. 13).

Bolle in 1852 and 1856 noted it as a bird of passage in winter, and says that Berthelot told him he had shot many of them (J. f. O. 1857, p. 279).

Busto-y-Blanco is said to mention it in 1864.

Meade-Waldo from 1887-91 found it to be "a scarce and irregular visitor to the Laguna Plains in winter" (Ibis, 1893, p. 188).

Cabrera says it is a bird of passage in September and

that he had a specimen in his collection (Catálogo, 1893, p. 40).

Between 1893 and 1907 no birds were recorded, but we then find two records which may either refer to this or to the typical form. Apparently the collector (von Thanner) was not certain to which form his birds should be referred, as in the Orn. Jahrb. 1909, p. 149, he records "an immature male example of "*Saxicola ænanthe*" as having been killed in Tenerife by himself on the 28th of September, 1908.

With regard to the next specimen, which von Thanner shot on the 25th of March, 1912, in Fuerteventura, he had evidently no doubt as to which form it belonged to, as he records it as "*Ænanthe ænanthe ænanthe*," the Common Wheatear (Orn. Jahrb. 1912, p. 226), and this bird I have already recorded under that heading in this paper (see preceding species).

Again, in the same paper (Orn. Jahrb. 1912, p. 227), von Thanner mentions a bird at Vilaflor (Tenerife) on the 27th of September, 1912, which he records simply as "*Saxicola ænanthe*"*.

Polatzek presumably never met with it, as he omits it from his list entirely.

I have carefully examined the material in the British and Tring Museums with a view to fixing definitely the race of the Wheatear which passes through the islands. It may therefore be of interest to enumerate the specimens of the large race which I have examined from west Africa or the Atlantic islands.

In the first place, it must be remembered that Gmelin described this Wheatear from west Africa, the type locality being Senegal.

* From the above three records, I conclude that von Thanner differentiates between the two forms: the first he might be unable to name for certain as it is a young bird, the second he has no doubts about and names trinomially, but is not certain of the identification of the third and so rightly names it binomially. Possibly the last-named specimen was not actually procured.

There are only four birds in the British Museum from the west coast of Africa, all of which I believe to belong to this large race of Wheatear, (*Euanthe auanthe leucorrhoea*):—

a. Gambia River, Senegal.	No date.	Wing 103 mm.
b. Dakar, Senegal.	No date.	„ 104 „
c. Bo, Sierra Leone.	Feb. 1904.	„ 96 „
	(Robin Kemp Coll.).	
d. Golf Course, Sierra Leone.	6th Feb. 1911.	„ 99 „
	(Willoughby Lowe Coll.).	

There are as well two specimens from the Azores also referable to the Greenland Wheatear:—

e. ex Ponta, Delgada Museum, San Miguel.	No date.	Wing 102 mm.
f. Flores.	May 1865.	„ 101 „

In the Tring Museum I have examined the following specimens of *Æ. a. leucorrhoea*:—

<i>g-n.</i> ♂ ad.	Mazagan (Morocco), 3-22nd October, 1901.
<i>o.</i> ♂ ad.	Biskra (Algeria), 22nd March, 1908.
<i>p-r.</i> ♂ ad.	Near Thiès (Senegal), 11th and 23rd Feb. 1908, and 23rd Nov. 1907.

The following records relating to this species in north-west Africa are also worthy of notice here:—

Dr. Hartert (Nov. Zool. x. 1903, p. 295) records three adult birds from the Rio de Oro obtained in July 1902, and four juvenile specimens shot in the same month, which had doubtless been bred there [Riggenbach Coll.].

In a later Expedition Hartert found it in the western Sahara [near Oued Mya] on the 10th of April, 1912 (Nov. Zool. xx. 1913, p. 54).

Range. The Greenland Wheatear breeds in Greenland^o and north-east America. It migrates through western Europe to the Azores and through north-west Africa to Senegambia and Sierra Leone. It is almost certain to be this form which visits the Canaries on migration in spring and autumn.

Enanthe stapazina stapazina *. Western Black-eared Wheatear.

Motucilla stapazina Linn. Syst. Nat. 12th ed. 1766, p. 331
—Type locality : Spain.

A Rare Visitor to the Canaries.

I only know of one example having been obtained in the Archipelago.

Von Thanner shot a male Western Black-eared Wheatear in Tenerife on the 21st of February, 1903, and this specimen I have examined in the Tring Museum. It is a beautiful skin and the bird is in very perfect plumage.

This occurrence of the Western Black-eared Wheatear in the Canaries was first recorded by Tschusi in the Orn. Jahrb. 1903, p. 176, where he alluded to the above-mentioned specimen, naming it *Saxicola aurita*, which is a synonym of *Enanthe stapazina stapazina* †.

The same example is mentioned by Polatzek in his paper (Orn. Jahrb. 1909, p. 125) also under the name *S. aurita* Temm.

Range. The Western Black-eared Wheatear breeds in south-west Europe, in Portugal, Spain, and in north-west Africa. It is apparently a bird of passage in the western Sahara south to Senegal.

* If we consider the Western Black-eared Wheatear (*Enanthe stapazina*) and the Western Black-throated Wheatear (*Enanthe occidentalis*) to be dimorphisms of the same species, we can then use the name *Enanthe hispanica* (Linn.), as is done by Hartert, for both forms. But if we consider these two varieties to be distinct and separate species (which is the view taken by the B. O. U. Committee who drew up the List of British Birds, 1915) and not dimorphisms of the same species, we cannot use the name *hispanica*, for the reasons clearly set forth in the B. O. U. List, p. 369.

I have not yet formed my own conclusions on this much debated question, and, in the meantime, while preserving an open mind on the subject, I temporarily follow the Committee in their ruling and call the bird which von Thanner obtained in the Canary Islands *Enanthe stapazina stapazina*, as it is an example of the Western Black-eared Wheatear.

† Hartert considers both *aurita* and *stapazina* synonyms of *hispanica*, as he believes the Black-eared and Black-throated varieties to be dimorphic.

According to Hartert (Nov. Zool. xx. 1913, p. 73), the majority perhaps winter in the Saharan oases.

Enanthe deserti homochroa. Tristram's Desert-Wheatear.

Saxicola homochroa Tristram, Ibis, 1859, p. 50—Type locality: Tunisian Sahara.

The western form of the Desert-Wheatear is a **Rare Visitor** to the Canary Islands.

Only four examples are known to have been obtained, and three of these I have examined in the Tring Museum.

All were collected within three days by Herr von Thanner.

- a. ♂. Tenerife, 24. ii. 03 (not quite adult).
- b. ♂. Tenerife, 25. ii. 03 (adult).
- c. ♂. Tenerife, 25. ii. 03 (adult).

The fourth example, a female, does not appear to be in the Tring Museum.

The above specimens were first referred to by Ritter von Tschusi, who wrote (Orn. Jahrb. 1903, p. 176): "von Thanner informed me that he had killed on the 21 Feb. 1903 a *S. aurita* ♂. On the 24th of the same month (February) ♂ ♀ of *S. stapazina* and on the 25th three males." Next they were mentioned in the Nov. Zool. 1904, p. 431, where von Thanner wrote "in the preceding year I was able to collect in one morning . . . *Saxicola deserti* . . .," mentioning three other rare visitors as well.

Enanthe stapazina is, according to Hartert, synonymous with *E. hispanica hispanica* (the Spanish Wheatear), but there is no doubt at all that the three male birds in the Tring Museum enumerated above are examples of *E. deserti homochroa* (Tristram's Desert-Wheatear), and have nothing to do with *E. stapazina* or *E. hispanica*.

Tschusi certainly mentions both *E. stapazina* and *E. aurita* in his paper, but both these names are synonymous!

The original labels of von Thanner show that the three birds which we now know to be *E. deserti homochroa* were first erroneously named *stapazina* by the collector, who

wrote this to Tschusi, and hence Tschusi's error in Orn. Jahrb. 1903, p. 176, in referring these birds to *Æ. stapazina*, when, as pointed out by Polatzek (Orn. Jahrb. 1909, p. 125), they really belong to a race of *Ænanthe deserti*.

In his paper, here referred to, Polatzek explains that von Thanner wrote to him that the Wheatears described [by Tschusi] in Orn. Jahrb. 1903, p. 176, were not *Æ. stapazina* but *Æ. deserti*.

Range. Tristram's Desert-Wheatear extends from Tunisia to Cape Blanco. I have handled a skin in the Tring Museum from the latter locality, obtained on the 10th of May.

Family MUSCICAPIDÆ.

Muscicapa grisola grisola *. The Spotted Flycatcher.

Muscicapa grisola Linn. Syst. Nat. 12th ed. 1766, p. 328—
Type locality: France.

The Spotted Flycatcher is probably a fairly regular Bird of Passage in varying numbers during the spring and autumn migration.

It must be remembered that in the whole group of islands there are probably not more than two ornithologists who know the bird by sight, and that for years together a bird so sombrely coloured as the Spotted Flycatcher might entirely escape detection.

Opinions vary as to the migrations of this Flycatcher to the Canary Islands, as the following quotations show:—

“An occasional straggler: I saw one Spotted Flycatcher that had been shot in the winter near Laguna” (Meade-Waldo, Ibis, 1889, p. 2; 1893, p. 192).

“A regular bird of passage in the Eastern islands” (Polatzek, Orn. Jahrb. 1909, p. 123).

“An accidental migrant arriving in these islands in May, when I have shot various specimens at Laguna” (Cabrera, Catálogo, p. 48).

* If Vroeg's Catalogue (1764) is recognized, the Spotted Flycatcher must be known as *M. striata striata*. I follow the Committee of the B. O. U. List (1915, p. 371) in rejecting Vroeg's names.

Von Thanner records specimens from Tenerife on the 30th of September, 1910, "which appeared for many days" (Orn. Jahrb. 1910, p. 229).

Range. The Spotted Flycatcher breeds throughout Europe and in the Atlas Mountains in Morocco. It winters in central and southern Africa.

Muscicapa atricapilla atricapilla *. Pied Flycatcher.

Muscicapa atricapilla Linn. Syst. Nat. 12th ed. 1766, p. 326—Type locality: Sweden.

The Pied Flycatcher is a regular Bird of Passage to the Canary Islands during the spring and autumn migration.

Webb and Berthelot (Orn. Canarienne, p. 11) and Bolle (J. f. Orn. 1857, p. 286) both record it before 1858, Bolle noting that it is seen occasionally in Tenerife during winter.

Cabrera (Catálogo, p. 47) shot various examples near Laguna in May.

Meade-Waldo saw one at Laguna on 25 April, 1890 (Ibis, 1890, p. 429), and remarks that it is occasionally met with (Ibis, 1893, p. 192), while nearly twenty years later Polatzek wrote (Orn. Jahrb. 1909, p. 122): "It is a regular migrant. I have often seen some in October in Lanzarote. On the 14th of October, 1904, a south wind succeeded a strong north-west wind, and I saw several hundreds of them; some on the walls, some on the trees surrounding Haria in Lanzarote. When the north [? south] wind went on the 17th of October they all flew away."

Von Thanner shot a bird on the 10th of October, 1904, in the pine-woods of Tenerife (Orn. Jahrb. 1908, p. 214), and again records some from Tenerife on the 30th September, 1910, which birds remained in the vicinity for several days (Orn. Jahrb. 1910, p. 229), and two years later noted two or three birds at Granadilla (Tenerife) on the 3rd of September, 1912 (Orn. Jahrb. 1912, p. 227).

* If Vroeg's Catalogue is accepted, the name of the Pied Flycatcher must be *M. hypoleuca hypoleuca*. I reject Vroeg's names (see footnote under previous species).

Range. The Pied Flycatcher breeds in Europe and winters in Africa. A geographical race has been recognized from north-west Africa, and one from Asia Minor.

Muscicapa parva parva. Red-breasted Flycatcher.

Muscicapa parva Bechstein, Latham's Allg. Uebers. d. Vögel, ii. 1794, p. 356—Type locality: Thuringia.

A very Rare Visitor, which has been recorded on one occasion only.

Polatzek (Orn. Jahrb. 1909, p. 123) writes: "*M. parva* was taken in the Canary Islands by myself. I shot a juvenile specimen in Lanzarote on the 24th of November, 1904. There were several more there, only I could not properly recognize them in their very different immature plumage. The specimen I killed is in the collection of von Tschusi at Hallein."

In an earlier part of the same paper (Orn. Jahrb. 1908, p. 82) Polatzek notes that Tschusi confirmed the identification of this specimen.

This occurrence of the Red-breasted Flycatcher in the Canary Islands is very interesting.

Owing to the war I have naturally been unable to examine the skin of Polatzek's bird, which should be done at the first opportunity. It will surely prove to be a skin of the typical species.

It may be remarked that it is quite impossible for any ornithologist to confuse a skin of the immature Red-breasted Flycatcher with that of any other species; and Ritter von Tschusi is a most careful naturalist, whose identification of such a bird can be accepted without question.

Range. The Red-breasted Flycatcher breeds in Europe and winters in western India; it has, however, been procured near Cairo. The possibility of its wintering in tropical Africa was suggested by the editors of the 'Hand-List of British Birds.'

Family HIRUNDINIDÆ.

Hirundo rustica rustica. Swallow.

Hirundo rustica Linn. Syst. Nat. 10th ed. 1758, p. 191—
Type locality: Sweden.

The Swallow is a regular Bird of Passage in spring and autumn, but is especially numerous in spring.

The earliest record of its arrival is 5 February, a very early date, but the majority appear during the latter part of April, and are more or less plentiful until the end of June. I do not know whether the birds remain long in the islands or whether one batch of migrants succeeds another, which take their place while the first batch proceed on their journey north, and in this way give the impression that the same birds which arrived in April are still present at the end of June. I think, however, that Meade-Waldo was right when he concluded that Swallows never remained for long in the islands (Ibis, 1893, p. 192). I have never been in the islands in July and have no records of any in August, though stragglers may sometimes pass through after the main body have long departed. In this connection it is worth noting that when on board ship on 15 August, 1908, in lat. 13° 2' N., 17° 32' W., and about 40 miles from the African coast, three Swallows came aboard. These birds*, had they continued their course and survived, would very possibly have found their way to the Canary Islands.

Swallows do not breed in the islands, and I cannot find a single instance of their having done so of late years. The only authority for their ever having done so is F. Du Cane Godman, who remarks (Ibis, 1872, p. 171) that in the spring of 1871 he "found the Swallow breeding abundantly in [the] . . . Canaries." Floericke mentions the same fact, but his statements are proverbially untrustworthy (A. d. Heimat d. Kanarienvög. 1905).

Good ornithologist as he was, I cannot help thinking that Godman was mistaken in believing the Swallow nested

* The skins are in the British Museum.

in the islands. The evidence of every writer prior to 1871, including Ledru (1810), Webb, Berthelot, and Moquin-Tandon (1841), and Bolle (1857), is most emphatic in noting that the Swallow is a bird of passage only, not nesting in the Canaries. The same applies to every other observer up to the present day. If it did so in 1871, it has certainly ceased to do so since.

The following records as to the spring arrival of the Swallow in the Archipelago have been published from time to time, the authority for the statement is placed in brackets in each case:—

Spring Migration.

- | | |
|------------------|----------------------------------------------------------------------------------------------------------------|
| 5 Feb. 1909. | Gran Canaria. After a great storm a large number seen (von Thanner, Orn. Jahrb. 1910, p. 85). |
| 26 Feb. 1887. | Tenerife. First appeared on this date at Buena Vista (Savile Reid, Ibis, 1887, p. 433). |
| 31 March, 1913. | Orotava, Tenerife. A number passing over (Miss A. Jackson, <i>in litt.</i>). |
| 22 April, 1913. | Gran Canaria. Fairly plentiful (Bannerman, MS. note-books). |
| 25 April, 1890. | Tenerife. Thousands of Swallows after two or three days of dull stormy heat (Meade-Waldo, Ibis, 1890, p. 429). |
| 1 May, 1913. | Las Palmas, Gran Canaria. Shot several with testes small (Bannerman, MS. note-books). |
| 6 May, 1857. | Guanarteme, Gran Canaria. Flock of 20 seen (Bolle, J. f. O. 1857, p. 322). |
| 12-14 May, 1913. | Fuerteventura. Several flocks seen (von Thanner, Orn. Jahrb. 1913, p. 189). |
| 17 May, 1913. | Allegranza. Some Swallows seen (von Thanner, Orn. Jahrb. 1913, p. 191). |
| May 1913. | Gran Canaria. Swallows in small numbers throughout the month (Bannerman, MS. note-books). |
| June 1913. | Numbers seen throughout the month (Bannerman, MS. note-books). |

The return migration in autumn of the Swallow is less marked, and takes place in October. For my part I have not been much in the islands at this time of the year, and therefore have to rely on the information supplied by other observers. Webb and Berthelot (Orn. Canarienne, p. 23) and Bolle (J. f. O. 1854, p. 460) considered the

Swallow to be a bird of passage in winter. The following are the only records:—

Autumn Migration Records.

- 23-25 Oct. 1887. Orotava, Tenerife. Swallows seen (Meade-Waldo, MS. diary).
 29 Oct. to 1 Nov. 1904. Tenerife. Numerous Swallows on passage (von Thanner, Orn. Jahrb. 1908, p. 214).

Range. The Swallow breeds throughout Europe and in north-west Africa, and in winter is found throughout tropical and southern Africa.

Delichon urbica urbica House-Martin.

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

The House-Martin is a Bird of Passage in spring and autumn to the Canary Islands, but has never been known to breed.

It cannot be considered a very regular migrant, as it turns up in varying numbers, sometimes being very numerous and in other years very scarce.

The earliest record is on 5 February, but this is an unusually early date, and the bird cannot be expected before the beginning of April, in which month the majority of birds passing north have been recorded.

The latest date upon which House-Martins have been seen is 20 June, but it is worthy of note that between the 10th and 20th of June Herr von Thanner has noticed three or four of these birds pass through Vilaflor (a village on the slopes of the peak of Tenerife) every year for ten years, *i. e.* from 1902-1912!

Observers are naturally very scarce in the Archipelago, and this must always be taken into consideration, but it may safely be surmised that for every bird which is seen in the day 100 others pass in the night.

The House-Martin has been recorded by almost every naturalist of repute who has been in the islands at the time of migration; and Cabrera, who published a list of the birds

of the Archipelago, notes (Catálogo, p. 37) that this species is cited by the Spanish naturalists Viera, Mompo, Busto, and Serra.

About the return autumn migration we have very few records, but from these it would appear that the vanguard arrives in September, but the majority pass through on their journey south at the end of October.

The following are the only reliable records:—

Spring Migration Records of D. n. urbica.

- 5 Feb. 1909. Maspalomas, Gran Canaria. After a great storm a great number of House-Martins; all disappeared next day (von Thanner, Orn. Jahrb. 1910, p. 85).
- 25 Feb. 1912. Charco, Maspalomas, Gran Canaria. Two birds flying over (Bannerman, Ibis, 1912, p. 597).
- 29 March, 1887. "I saw quite a number of Martins (*C. urbica*) flying over the houses at Orotava . . . but did not meet with the species again" * (Savile Reid, Ibis, 1887, p. 433).
- April 1852. Oliva, Fuerteventura. Large swarms flying over (Bolle, J. f. O. 1854, p. 460).
- 1-15 April, 1905. Jandia, Fuerteventura. Numerous birds all flying *westwards* (von Thanner, Orn. Jahrb. 1908, p. 214).
- 23 April, 1913. Las Palmas, Gran Canaria. A single bird seen (Bannerman, MS. note-books).
- 25 April, 1913. Las Palmas, Gran Canaria. A single bird seen (Bannerman, MS. note-books).
- 25 April, 1890, and following days. Tenerife. Thousands noted, preceded by two or three days of dull steamy heat (Meade-Waldo, Ibis, 1890, p. 429).
- 1 May, 1890. Orotava, Tenerife. Two shot (Meade-Waldo).
- 11 May, 1912. Vilaflor, Tenerife. The beginning of a migratory movement of many House-Martins †, which stayed in Vilaflor for a time only, as the previous lot did (Thanner, Orn. Jahrb. 1912, p. 227).
- 19 May, 1913. Tinosa, Lanzarote. Two seen, one shot ‡ (Bannerman, Ibis, 1914, p. 251).
- 20 May, 1904. Adeje, Tenerife. One seen (von Thanner, Orn. Jahrb. 1905, p. 212).

* Reid remained in Tenerife until middle of April.

† Recorded under the vernacular name only—"Stadtschwalben."

‡ Skin in the British Museum.

- 29 May to 11 June, 1905. Vilaflor, Tenerife. Single birds seen every day (von Thanner, Orn. Jahrb. 1908, p. 214).
- 1 June, 1904. Vilaflor, Tenerife. Two seen (von Thanner, Orn. Jahrb. 1905, p. 212).
- 19 June, 1912. Four House-Martins seen. "This late appearance very striking" (von Thanner, Orn. Jahrb. 1912, p. 227).
- 10-20 June (1902-1912). Every year between the dates mentioned, for the last ten years, three to four House-Martins pass through Vilaflor, stay one or two days, and then disappear (von Thanner, Orn. Jahrb. 1912, p. 227).

Autumn Migration Records.

- 29 Oct. to 1 Nov. 1905. Tenerife. House-Martins numerous on migration (von Thanner, Orn. Jahrb. 1908, p. 214).
- 12 Nov. 1910. Tenerife. A single bird seen (von Thanner, Orn. Jahrb. 1910, p. 229).

Range. The House-Martin breeds throughout Europe, and in winter migrates south to south-east Africa and on the west coast to Angola. Some of these latter are doubtless the birds which pass through the Canary Islands.

Riparia riparia riparia. Sand-Martin.

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

For the present we must consider the Sand-Martin an **Occasional Visitor** to the Canary Islands during the migration period.

The actual records are so rare that I have quoted in full the only ones available, which were obtained in spring or early summer. In certain years Sand-Martins evidently pass through in fairly plentiful numbers. It is probable that a few birds of this species accompany the Swallows and House-Martins every year, and that further research will prove it to be a regular Bird of Passage.

Meade-Waldo only saw a few in 1890-91 (Ibis, 1893, p. 192). On the 25th of April, 1890, and following days they were numerous. The migration was preceded by two or three days of dull steamy heat (Ibis, 1890, p. 429).

Cabrera, who lived many years at Laguna, noted that it arrived with others of the same family, and he had specimens in his collection (Catálogo, p. 37).

Polatzek, who spent over two and a half years in the Archipelago, wrote (Orn. Jahrb. 1909, p. 120):—"In Puerto Cabras, Fuerteventura, on my arrival on the 4th of July I found a large number of these birds and the preceding species [*Cotile rupestris* = *Riparia rupestris* (Scop.)], where, late in the evening, they were flying round the houses. They arrived some days before the 4th of July, and were still there when I left on the 8th. No disturbing winds prevailed either before my arrival or after my departure. At Oliva (a village in the north of the same island) I noted them until the middle of June, not daily however; they were on migration."

The last record of the Sand-Martin having been seen in the Archipelago was sent to me by Miss Annie Jackson, who noticed a single bird at Orotava on the 4th of April, 1913 (*in litt.*).

I believe that I have seen the bird myself in Gran Canaria, but as it was flying at a great height the record would be unsatisfactory.

Range. The Sand-Martin breeds throughout Europe and in Africa, in Algeria and Tunisia. It is said to winter in eastern and southern Africa.

Riparia rupestris. Rock-Martin.

Hirundo rupestris Scopoli, Annus I. Historic-Nat. 1769, p. 167—Type locality: Tirol.

The Rock-Martin is an Occasional Visitor on migration, sometimes in large numbers, but is very irregular in its appearance.

Cabrera found it to be fairly frequent in its visits (Catálogo, p. 37), and had several specimens in his collection, which Hartert examined.

Polatzek includes the Rock-Martin as a bird of passage (Orn. Jahrb. 1909, p. 120), and on one occasion saw a large number of these birds in company with Sand-Martins on the 4th of July in Fuerteventura [see notes under *R. r. riparia*].

Polatzek also remarks that he noted some "as late as June." Apparently this must have been in another year.

Range. The Rock-Martin breeds in the Atlas Mountains and in the Mediterranean countries, and winters in north-east Africa. The extent of its winter range on the west coast of Africa seems to be little known.

[To be continued.]

XVII.—*Notes on the Height at which Birds migrate.*

By Capt. COLLINGWOOD INGRAM, M.B.O.U.

THE height at which birds migrate is one of the branches of ornithology upon which we are still profoundly ignorant. With the exception of one or two chance observations made through astronomical telescopes, until the advent of aeroplanes, our knowledge of the subject was limited to the range of human vision above the earth's surface.

W. E. D. Scott, of Princeton, U.S.A. (*cf.* 'Story of a Bird Lover,' New York, 1903), and F. M. Chapman (*cf.* *Auk*, 1888) were the first to publish authentic records of birds travelling at considerable elevations.

These naturalists detected birds flying across the moon's face while making telescopic observations of that luminary. Mr. Chapman's remarks are interesting: "During the first half-hour of observation (which lasted from 8 P.M. to 10.50 P.M., Sept. 3, 1887) a number of birds were seen flying upwards . . . these evidently being birds which had arisen in our immediate neighbourhood and were seeking the proper elevation at which to continue their flight: but after that time the line of flight was parallel to the earth's surface, the general direction being south." He was able to recognize Carolina Rails, Grackle, Snipe, and Duck. These he estimated crossed in front of the lens at elevations varying from 6000 ft. to 14,000 ft.

The height at which birds migrate is undoubtedly governed very largely by the meteorological conditions prevailing at the time, and when the air is inclined to be thick or heavily charged with moisture (if birds are migrating at all in such