

VI.—*The Birds of Southern Spain*.—Part II. *Passeres* (concluded)*. By the Rev. F. C. R. JOURDAIN, M.A., M.B.O.U.

***Anthus richardi richardi* (Vieill.).** Richard's Pipit.

Saunders (1871) states that he possesses two fine examples obtained near Malaga on 2 February, and describes it as not uncommon in some winters. In his later list he says that it occurs every autumn and winter, also more rarely on spring passage, but is never abundant. Mr. Witherby informs me that the Saunders collection contains four specimens from Malaga: 15 November, 1871, 15 March, 1873, and 10 December, 1876 (2). Irby shot one on the shore near Gibraltar on 1 March, and obtained others on 20 April, 1870, but did not meet with this species again. Verner also shot one on 9 June, 1877, near Gibraltar, a remarkable date. Arévalo says that it is a passage-migrant to the vega of Malaga in autumn, but absent in dry seasons. Lilford purchased a skin of this species from R. Mena at Malaga.

***Anthus campestris campestris* (L.).** Tawny Pipit.

Probably both a passage-migrant and resident, breeding chiefly on the uplands and resorting to the low ground in winter. Irby, however, never met with it on low ground, but noticed many on the open spaces near Ojen, and thence to the Venta de Subalbarro. Brig.-Gen. G. Clarke, however, found a nest in the marismas of the Guadalquivir. Congreve first noted it at the "Queen of Spain's Chair" on 13 April, and on 31 May, 1920, saw a bird assiduously collecting a beakful of fine grasses, but he lost it over the hill-top. He also obtained a male there with large testes on 21 May, 1927. A nest with four eggs, which appeared to belong to this species, was given to him by a road-man at La Janda on 22 May, but the resemblance between the eggs of *Erythropygia (Agrobates)* and *Anthus campestris* is close, and no particulars were obtainable. Witherby obtained three in the Coto Doñana 30 April to 1 May. Chapman records it on passage in the Jerez district in April, and subsequently found it common at 4800 feet on San Cristobal

* For Part I. see Ibis, 1936, pp. 725-763.

at the end of the month. He also records it as plentiful, the males being in full song on the arid uplands of the S. Nevada, where it evidently breeds. There are skins in the British Museum from Malaga (Sept.-Oct.), Cadiz and S. Nevada (June). Arévalo says that it frequents the vega of Malaga in autumn and winter, and probably breeds not far off. Saunders obtained eggs at Colmenar, near Malaga, on 30 May, 1870, as well as from the Granada district on 27 May, 1864, but the nest of this species is seldom found unless specially worked for.

Anthus trivialis trivialis L. Tree-Pipit.

Spanish: *Cinceta*.

A passage-migrant in southern Spain, some perhaps wintering. Irby noticed it only on migration at Gibraltar, the earliest date being 9 April, and in numbers about the 20th. Chapman gives March-April for spring passage, returning in October to November. Stenhouse records an early autumn arrival on 27 September.

Anthus pratensis (L.). Meadow-Pipit.

A winter visitor, arriving in October and staying till the end of March (Irby). It is interesting to note that a bird ringed in Iceland on 26 June was recovered at Peñarroya, Cordoba, on 19 November, 1928.

Anthus rufogularis Brehm. Red-throated Pipit.

Irby obtained two on 10 March, 1870, which he brought home and were identified by R. B. Sharpe and Capt. Shelley. He also killed a third, on 8 March, which appeared to belong to this species, but the rufous throat colouring was not developed.

Anthus spinoletta spinoletta (L.). Alpine Pipit.

Saunders met with this species in autumn and winter only, but not commonly, and obtained specimens at Malaga and on the mud-flats near Cadiz. Irby also records it from the Algeciras mud-flats as well as Malaga. In 'The Ibis,' 1872, p. 201, he describes meeting *Anthus aquaticus* (*spinoletta*)

on the high ground of the S. del Niño, between Algeciras and Tarifa, at about 2500 feet, "in the breeding-season," but this statement is not repeated in the second edition of the 'Ornithology of the Straits of Gibraltar,' and should, perhaps, like other slips in the same letter, be disregarded.

[**Anthus spinoletta petrosus** (Mont.). Rock-Pipit.

Irby (Ibis, 1872, p. 201) states that "*A. obscurus*" occurs on the mud and salinas of Palmones, near Algeciras, leaving early in March, and in the second edition of his book states that a specimen shot by him at this place was identified by R. B. Sharpe as *A. obscurus*.]

Motacilla flava flava L. Blue-headed Wagtail.

Spanish : *Nevadilla* (Irby), *Pispita*.

There is a good deal of confusion among the older writers on the subject of the Yellow Wagtails, not unnaturally considering that four races, then very imperfectly known, occur together on migration. The typical Blue-headed bird must occur on migration, and Irby's specimens with broad white eye-stripes probably belonged to this race. He noticed the difference between it and *iberiæ* (which he called *cinereo-capilla*), but was mistaken in supposing that both races bred in south Spain. Stenhouse records a male from Gibraltar obtained on 10 May, and there is a specimen from Granada in the British Museum (no date).

Motacilla flava thunbergi Billberg. Grey-headed Yellow Wagtail.

Irby records this race (under the name of *M. viridis*) as occurring on passage and passing later than "*M. flava*" [= *M. f. iberiæ*], as might be expected, considering its high northern breeding-range. Saunders records an adult male killed near Granada in September 1871. This specimen (labelled "*cinereocapilla*") is still in the Saunders collection in the British Museum, and its identification recently confirmed by Witherby. Arévalo's *B. melanocephala* probably refers to this race, which was also identified by Miss M. Barclay in the latter half of April in the Algeciras district,

Motacilla flava iberiæ Hart. Spanish Yellow Wagtail.

Spanish : *Nevadilla*, *Pispita amarilla*.

This is the Spanish breeding race, and is a common summer resident in low-lying and marshy districts. Irby gives the earliest dates of arrival as 20 and 24 February in different years, many appearing from 25 February to 20 April, by which date many are breeding. Congreve met with numbers on the salinas at the mouth of the Guadalquivir River, but none remained to breed. It is, however, a common breeding species in the lagunas on the islands in the Guadalquivir (Isla Mayor and Menor, etc.) and in the marismas, nesting not only as described by Irby, in grass and sedge near the water's edge in marshes, or even among sedges, but also in the bushes of *Salicornia* or *Inula*, sometimes a foot or two above the water in which they stand. The eggs are usually five, sometimes six, rarely seven in number, and are laid from the last fortnight of April (earliest dates, 22 April, eggs; 9 May, young fledged), but many nests are destroyed, and fresh eggs may be found till late in May or even in June, many birds apparently breeding twice. Chapman mentions nests of this bird (called by him "Grey-headed Wagtail") in open rushy glades of the woods in the Coto. It is widely distributed in all suitable localities. Saunders obtained nests in the Sevilla and Malaga districts, and Ratcliff records it as very common in the Huelva marismas.

The return passage takes place in August and September (Irby).

Motacilla flava rayi Bp. British Yellow Wagtail.

Occurs on passage with the other Yellow Wagtails, but not commonly. Irby saw many at Tapatanilla about 12 April, 1894, and states that it has also been obtained at Malaga. Saunders and Irby realized that it was only a passage-migrant. The British Museum collection contains adult males from Malaga, 17 April, 1871, and Gibraltar, 10 April, 1894.

Motacilla cinerea cinerea Tunst. Grey Wagtail.

Spanish : *Pispita*.

Resident on the mountain-streams of the sierras in fair numbers, and also a passage-migrant and winter visitor in

considerable numbers. Armitage does not record it from the Rio Tinto hills, but found it quite common in the S. de Aracena and parts of the S. Morena. Irby mentions a number of sites in the Algeciras and Almoraima districts, and Congreve also reports breeding near Jimera in the serrania de Ronda and also once near Europa, Gibraltar. McNeile records it as breeding at Grazalema. In the valleys and gorges of the S. Nevada it is a not uncommon breeding species (Chapman and Lynes), and is also resident in the Granada district (Armitage). Eggs have been recorded from about the last week of March (Congreve) onward, but it is probable that this species is double-brooded, as fresh eggs have been also recorded through April and May, and Armitage saw many nests with young in early June. Nesting-sites show much variety : holes in rocks by mountain streams or in brickwork of mills, or weep-holes in stone embankments are all occupied. In the winter months it is common and widely distributed over the lower ground, many going north in February and March.

Motacilla alba yarrellii Gould. Pied Wagtail.

Although only partially migratory in the British Isles, it is clear that some individuals winter as far south as southern Spain. Saunders found an adult male in the Sevilla market on 3 March, 1868. Irby says that it is scarce in summer plumage in Andalucia, and probably unnoticed in winter. Chapman has four records only, all in winter. Stenhouse saw several at Gibraltar, but obtained no specimens. Ringing has given us five records from the Iberian Peninsula, of which one falls within our limits. A bird ringed in Northumberland, 6 May, 1921, was recovered at Sevilla 15 November, 1921.

Motacilla alba alba L. White Wagtail.

Spanish : *Lavandera*, *Pispita*.

Winter visitor and passage-migrant in great numbers from September or October to March. Apparently a few pairs breed in the sierras.

Saunders noticed none in April, and Irby's latest date for the Gibraltar district was 24 March, but Stenhouse saw

one at Gibraltar on 11 April. A C. Stark found a nest at Alora, near Malaga, on 26 April, 1877. Arévalo says they also breed near Granada. Congreve met with a pair by the roadside near Tarifa on 3 May, and also saw others at San Roque station in May. A pair which Congreve and I noticed on the river below Gaucin town seemed to be settled down on 17 April, and the locality was a very likely one for nesting. Witherby saw one at 9700 feet in the S. Nevada in mid-October, 1923.

Certhia brachydactyla megarhyncha Brehm. } Short-toed
Certhia brachydactyla brachydactyla Brehm. } Tree-Creeper.
 Spanish : *Trepatroncos, Arañero.*

Resident in fair numbers in the wooded parts, especially where the cork-oaks attain a large size. Armitage met with it occasionally in the S. de Aracena and the S. Morena, chiefly in cork plantations. Not noticed in the piñales on the west of the Guadalquivir in the breeding season, though present in winter, but common in the Almoraima, Algeciras, and Retin woods. Saunders describes it as resident near Granada, where old timber is found, and Arévalo and von Boxberger record it as present and resident in Malaga. Witherby also saw a few at La Sagra and in the S. Espuña in autumn, and also met with them in the S. Nevada up to 5600 feet.

Irby lists this species as *C. familiaris* L., but all south Spanish birds belong to the Short-toed species (*C. brachydactyla*). From examination of a series from different parts of Spain, Witherby (Ibis, 1931, p. 357) comes to the conclusion that birds from the extreme south are somewhat intermediate, but come closest to *C. b. megarhyncha*, while those from central and eastern Spain are distinctly darker and less rufous and compare well with *C. b. brachydactyla*. It is a puzzling distribution and needs further investigation.

The nest is usually placed behind loose bark, sometimes on a eucalyptus trunk, or even between loose boards, and is made of felted vegetable-down. Full clutches, not exceeding five in number, may be found by mid-April. The eggs are usually heavily marked and much handsomer than normal eggs of *C. familiaris*.

[**Tichodroma muraria** L. Wall-Creeper.

The status of this species is unsatisfactory. Saunders states ('Field,' 14 February, 1874) that "it inhabits the wild mountains of the provinces of Granada and Murcia, a specimen or two having been obtained in the S. de España; but it does not seem to be known to the natives beyond the S. Nevada, which is doubtless its headquarters in Spain." Irby never met with it, but says it has been recorded from near Antequera, Gaitan, and the S. Nevada, and is said to have been seen at Gibaltar. These statements appear to rest on the authority of Seoane, Arévalo, and Guirao, but no confirmation has been received from any recent writer, and we are not aware of the existence of any specimens from southern Spain.]

Sitta europæa hispaniensis With. Spanish Nuthatch.

Sitta cæsia minor Brehm, Allg. Deuts. Naturh. Zeit. 1857, p. 447 (Pardo, Madrid), nec *S. minor* Bechst.

Sitta europæa hispaniensis Witherby, Bull. B. O. C. xxxi. p. 78 (1913—*nom. nov.*).

Spanish : *Trepa troncos*.

A very local resident in cork and ilex woods, but only recorded from the S. de Aracena and S. Morena, where it is apparently common (Armitage), and re-appearing in the Granada district (Saunders, Arévalo, etc.), where the latter writer also gives S. Nevada, S. de Gador, S. de Lujar, and Dehesa de Alfacar (Granada). Chapman met with it nowhere in Andalucia, and its complete absence from the cork woods of Retin, Almoraima, and the Ronda serrania is extraordinary. There is no recent confirmation of its occurrence in the S. Nevada. Armitage found family parties on the wing in the S. Morena on 3 June.

[Saunders's record of "*Sitta syriaca* Ehrenb." seen at work on a nest in April 1868 in a gorge near Archena, in the province of Murcia, is obviously due to an error of observation, and also falls outside our limits.]

Parus major alancorum Floer. Spanish Great Tit.

Parus major alancorum Floericke, Mitt. Vogelwelt, xxv. p. 42 (1926 : Oporto).

Spanish : *Carbonero*, *Carpintero*, *Quive-vive*, *Cerajero*.

This species is much the commonest of the Tits in southern Spain, and is resident and fairly numerous in all wooded districts. Armitage notes it as common in the Rio Tinto hills and through to the S. Morena, breeding in olives, ilex groves, and cork woods. It is also plentiful along the banks of the Guadalquivir, breeding in holes in the white poplars and other trees, and is found in the piñales of the Coto Doñana, the cork woods of the Gibraltar district, the Granada district, and from the lower hills of the S. Nevada to over 6000 feet. McNeile records an abnormal site on an old nest of a Greenfinch (?) about five feet from the ground in a fork of a sapling cork-oak. The eggs are generally seven to nine in number, and on the average are more highly coloured than British specimens. Full sets are generally to be found in the latter half of April or the first days of May.

Although Witherby hardly (1928) considers Spanish birds as meriting separation from the typical race, they do undoubtedly show a tendency towards the North African race, having rather smaller white wedges on the outer tail-feathers and slightly larger bills than in *P. m. major*. These characters are those of the Portuguese race separated by Floericke in 1926.

***Parus cœruleus harterti* Tratz.** Spanish Blue Tit.

Parus cœruleus harterti Tratz, Ornith. Monatsber. 1914, p. 49 (Oporto, Portugal).

Parus cœruleus wagneri Floericke, Mitt. Vogelwelt, xx. 1921, p. 38 (Oporto).

Spanish : *Hererrillo*.

Resident, but decidedly less numerous than the Great Tit, and absent from some districts where the latter is present. Recorded from the Rio Tinto hills and S. Morena, sparingly in the Sevilla district, commonly in the cork woods of Almoraima, the wooded hills of the S. de Ronda, also in the Granada district, S. Nevada, etc. Irby notes that it frequently nests in the decayed hollow branches of cork-oaks, but holes of any kind may also be utilized. As Congreve points out, the clutches in Andalucia apparently never exceed six in number, and the

small size of broods has also been commented on by other observers. The breeding season (latter half of April) is much the same as that of the Great Tit. Witherby has examined specimens of this form from Gibraltar, Granada, and the S. Nevada at 5600 feet.

***Parus ater cabreræ* With.** Spanish Coal-Tit.

Parus ater cabreræ Witherby, Ibis, 1928, p. 433 (S. de Guadarrama).

Spanish : *Hererrillo, Garrapinos*.

A local resident, confined to the higher sierras. In the S. Morena the only evidence of its occurrence is Saunders's statement that it is found near Cordova in spring together with *P. palustris*, which seems to require confirmation. Lynes, however, found it plentiful on San Cristobal, but strictly confined to the Pinsapo forest. In the S. Nevada he also found it plentiful in the pine forest of the middle zone (ca. 6000 feet), and Armitage saw some in June as low as 2500 feet. Other localities from which it has been recorded are Granada (Saunders), La Sagra (Witherby), and Malaga (Arévalo). The statement in the 'Zoologist,' 1900, p. 451, that it is very common at Algeciras and Gibraltar must be erroneous—possibly due to confusion with *P. cristatus*, which is not mentioned. We have no definite breeding records, but Lynes found no evidence of nesting at the end of April, though the birds were present in pairs.

***Parus cristatus weigoldi* Tratz.** Iberian Crested Tit.

Parus cristatus weigoldi Tratz., Ornith. Monatsber. 1914, p. 50 (Portugal).

Spanish : *Capuchino*.

A fairly common resident in the pine woods and cork-oak forest from the wooded country west of the mouth of the Guadalquivir to Almoraima. From the S. Morena we have no records, nor from the Guadiana Valley, but in the wooded country west of Coria del Rio it is found breeding among the foundations of the nests of Kites, Buzzards, etc., and also in natural holes in pine trees, but has not been met with, so far as I know, in the Coto Doñana. It is tolerably common

in the cork woods from Tarifa east to Almoraima, but Irby remarks on its absence from the S. Retin and S. Bartolomé. Here it breeds chiefly in the hollow end of cork-oak branches, but also in old Woodpecker-holes (Congreve). Elsewhere Saunders obtained specimens near Granada, and Witherby met with it in the La Sagra district, while Arévalo also records it from Malaga.

It will be seen from the above records that the main breeding area is confined in Andalusia to a restricted area of low-lying wooded ground, either pine or cork-oak woods. This is the more curious, as in other parts of Spain it occurs at considerable altitudes in the mountains. Granada seems to be the only part of our district where it ranges into hilly country, and here our information is decidedly scanty.

Witherby has recorded that birds from La Sagra and Murcia show a tendency towards *mitratus*, which is the breeding race in the S. Guadarrama, though *weigoldi* is resident in the S. de Gredos, and also ranges west into Portugal.

Irby gives 10 May as an average breeding date, but full clutches have been obtained by 25 April, and A. C. Stark records one on 10 April, 1876. It is possible that this may be a slip for 10 May, and that Irby based his statement on this evidence. Congreve has taken eggs as late as 27 May, but a clutch from the Coria woods was much incubated on 12 May. The clutch consists usually of five, sometimes six, eggs, heavily spotted as a rule. It is not uncommon to find the nest as high as thirty feet in cork woods, and when in the foundations of Kites' nests in pines it may be considerably higher.

[**Parus palustris** L. Marsh-Tit.

The records of this species are not satisfactory. Saunders states that he observed it, as well as *P. ater*, among the trees in the environs of Granada and Cordoba, but apparently obtained no specimens. Irby never met with it near Gibraltar, but says that Stark reports it from Granada; Arévalo mentions Granada (L. Seoane) and Cordoba as localities, and adds that it is far from common in Spain. Not recorded by any other naturalist.]

Ægithalos caudatus irbii (Sharpe & Dresser). Andalusian Long-tailed Tit.

Acredula irbii Sharpe & Dresser, P. Z. S. 1871, p. 312 (Gibraltar).

Spanish : *Mito*.

Probably more intensive search will result in the discovery of other localities for this interesting race. At present it is not recorded from the Guadiana Valley or the Rio Tinto hills, but is found in the S. Morena, where Liford mentions a nest found by Severini, and Arévalo obtained a specimen through R. Mena. Lynes met with it in the foothills near San Cristobal, but from the wooded country on the west side of the Guadalquivir and the Coto Doñana it has not been recorded. It is, however, common in the cork woods of Almoraima, but eastward the only evidence of its occurrence is Witherby's note that it was fairly common in October near La Sagra.

Congreve contributes the following notes:—"The nests are normally to be found in 'zazaparilla,' a species of thorny *Smilax* which hangs in streamers from many trees in the damper portions of the cork-oak forest. They are difficult to reach, as they are seldom less than ten feet from the ground, and sometimes considerably higher. One nest was found in ivy against the bole of an alder, and another in a spray of cork-oak at least 25 ft. from the ground, at the top of the tree. All nests in which incubation had begun contained seven eggs. In many cases full clutches may be found by the end of March, but fresh eggs have been taken late in April. In no single case has a nest under observation suffered from the depredations of any egg-devouring mammal, bird or reptile—a remarkable exception as compared with most of the small birds breeding in this part of Spain."

Irby gives the usual date for laying as about 20 February, and met with fully-fledged young on 12 April, but these dates are exceptionally early.

Remiz pendulinus pendulinus (L.). Penduline Tit.

Spanish : *Pajaro moscon*.

This east Spanish species, which is said to breed in Valencia, though not noted there by Witherby, is also stated to have

been obtained near Malaga (Irby). Arévalo gives Granada (L. Seoane), and Sevilla (Machado) as localities, but we have no confirmation from other sources.]

[**Regulus regulus** (L.).

Spanish : *Reyezuelo*.

This species was never met with by Irby or Lilford in Andalucia, but Saunders records it as a regular winter visitor, observed near Granada in March and in the pine woods on the coast in February. In his later list the locality on the coast is given as near Jerez, but no confirmation of the occurrence of this species in the Coto Doñana is to be found in Chapman's writings, though he records Firecrests. Arévalo mentions the S. Nevada and Vega de Granada (L. Seoane), and himself records it from Malaga. Probably it is an occasional winter visitor, but confirmatory evidence is much needed, especially as no Spanish specimen is known to exist.]

Regulus ignicapillus ignicapillus (Temm.). Firecrest.

Spanish : *Estrellina*.

Not recorded by Armitage from the S. de Aracena or the foothills of the S. Morena, but common and resident in the cork woods of Almoraima and the adjoining districts. It is also common in the pinsapo forest of San Cristobal. During the autumn and winter months it is found in bands with other species in the pine woods, but though described by Chapman as "resident," it seems doubtful whether it ever breeds there. Witherby saw a few near La Sagra and in the S. Nevada up to 6000 feet in the Monachil Valley in autumn. Congreve writes that in the Almoraima district most pairs appear to breed in the "Sotos," where alders grow thickly and ivy is a common parasite. The nests were usually from ten to twenty feet from the ground, on thin ivy, seldom actually touching a tree-trunk, but suspended from the ivy. One nest was found on the underside of an overhanging spray of cork-oak, and another suspended in "zazaparilla" creeper. The clutch is generally five to six, and the earliest nest noted was half built on 2 April. Incubated eggs were found in

mid-April and fresh eggs as late as 12 May. This species suffers severely from egg-sucking and nest-destroying reptiles or birds, presumably the former, and quite 50 per cent. of nests found were destroyed before incubation commenced. They are also very sensitive to human investigation; one pair deserted three times, either before the clutch or the nest was complete, although only cautiously examined, without touching. Another pair, whose nest contained two or three eggs, also deserted after examination.

[The only evidence of the occurrence of the Bearded Tit, *Panurus biarmicus* (L.), within our limits, is L. Seoane's citation of Granada as a locality. The nearest breeding stations are Valencia and Daimiel.]

Lanius excubitor meridionalis Temm. Southern Grey Shrike.

Spanish: *Alcaudon real*.

This fine species is decidedly local, though not uncommon in districts where there is plenty of scrub and thickets or young pine trees. In the lower Guadiana Valley Lynes found it breeding very commonly in bramble bushes on the Val d'oscura Plain and Lower Guadiana. In some parts of the Coto del Rey it is also numerous, and a few pairs breed in the Coto Doñana, while round Coria del Rio it is by no means scarce. In the Almoraima district and near Gibraltar it is extremely rare, for no apparent reason.

It is resident in Andalusia and an early breeder. Fresh eggs may be found from mid-March onward, but most birds have full clutches by the beginning of April, though eggs may be taken throughout the month and during the first half of May. The clutch consists of five or six, occasionally seven, eggs, and the nest is rather a bulky affair, sometimes within three feet of the ground, and rarely more than eight or ten feet up. It is built of twigs, roots, and grasses, lined with fine grasses, cudweed, and sometimes feathers. Diameter of cup five inches. The sites are variable; many nests are built in bramble clumps; others in sapling pines, tree brooms, wild olives, etc.

Lanius senator senator L. Woodchat.

Spanish : *Alcaudon*.

Lanius senator weigoldi Kleinschmidt, Falco, xiv. p. 16 (1919 : Spain).

An abundant and widely distributed summer visitor, arriving in the last days of March or early in April, and returning in September–October (Chapman). Irby records southward migration on 26 August, and gives 14 October as his latest date.

In the case of so generally distributed a species it is needless to go into detail, for except in the treeless open marismas and above the tree-limit in the mountains it may be seen wherever there are bushes or trees. Even in the S. Nevada at 7000 feet Chapman records a few seen near some ilex trees.

Breeding begins usually about the beginning of May (exceptionally late in April), and about a fortnight later nests may be found in profusion, generally at from eight to twenty-five feet from the ground. The outer branches of ilex, cork-oak, and olive trees provide favoured sites ; pines and fruit trees are less frequently used. The nests are characteristic, and are built largely of cudweed and other flowering plants ; sometimes a few feathers. Armitage notes that after heavy rain the sitting birds becomes so saturated that they can fly only with difficulty. Eggs usually number five or six, sometimes only four, while seven occur rarely. The type with greenish ground is by far the commonest, but occasionally creamy or erythristic types are met with.

[**Lanius nubicus** Licht. Nubian Shrike.

Saunders thought that he saw an individual of this species at Gibraltar ('Field,' 29 November, 1873), but did not admit it to his second list.]

Lanius collurio L. Red-backed Shrike.

This species appears to migrate northward from north-east Africa and thence spreads westward, but evidently does not make use of the Straits of Gibraltar route. Irby states that it has occurred very rarely in Andalucia, but

gives no details. Granada is given as a locality by L. Seoane. Chapman informed Saunders that he killed one near Rocio on 10 April, but neglected to preserve it.

***Muscicapa striata striata* (Pall.).** Spotted Flycatcher.

Spanish : *Papamoscas*.

A common and widely distributed species throughout all wooded districts, arriving from the beginning of May onwards, and commonly about the second week, and leaving about the end of August or September. A fair number stay to breed in the pine woods, some also in the cork trees. Kelsall and Congreve both record nests in Almoraima built on the top and near the end of a branch of a cork-oak. Nesting takes place about 24 May. Apparently this species becomes scarcer towards the Portuguese boundary, for Armitage only noticed two in the S. de Aracena.

***Muscicapa hypoleuca hypoleuca* (Pall.).** Pied Flycatcher.

***Muscicapa hypoleuca iberiæ* With.** Spanish Pied Flycatcher.

Muscicapa hypoleuca iberiæ Witherby, Ibis, 1928, p. 591 (San Ildefonso).

Spanish : *Cerrojillo*.

A common passage-migrant, arriving, according to Irby, from 8 April to 1 May, and returning late in September ; last seen 17 October. Chapman records a male in the S. Nevada on 30 April. Many of these migrants are undoubtedly of the typical race, but the Spanish breeding form, which is intermediate between it and the Algerian race (*M. h. speculigera*), also occurs on passage. A specimen in the British Museum dated 10 April, 1870, was obtained by Irby at Gibraltar. Saunders suggested that possibly breeding might take place at Granada, and on 11 June, 1930, Armitage found a pair nesting in a hole in a tall conifer at Granada in the Generalife Gardens, where they were feeding young. Hamond also records a bird seen at the Alhambra in July. Breeding birds must belong to the Spanish form. On the autumn migration Witherby saw a few in the S. Nevada up to 6000 feet from 15 to 19 October, and also records them as common round La Sagra from 5 to 10 October. These were probably of the typical race.

Muscicapa albicollis Temm. Collared Flycatcher.

Saunders states that he watched at close quarters an adult male in the Paseo de San Telmo at Sevilla in March 1868. No other records.

[**Muscicapa parva** Bechst. Red-breasted Flycatcher.

The only evidence of the occurrence of this species is the statement of Seoane that one in his collection was obtained at San Roque in 1857, and Saunders reports, on the authority of a friend, that one haunted a garden at Utrera from November to March, and that others were seen in the neighbourhood.]

Phylloscopus collybita collybita (Vieill.). Chiffchaff.

Phylloscopus collybita brehmii (Homeyer). Andalucian Chiffchaff.

Phyllopneuste Brehmii Homeyer, Erinnerungsschr. Vers. deuts. Ornith. 1870, p. 48 (Portugal).

Spanish : *Mosquilla*.

Although some Chiffchaffs are to be met with all the year round in the wooded country near Gibraltar, their numbers are greatly augmented from November to March (Irby). The earlier writers did not notice any differences between the resident birds and the passage-migrants. They are, indeed, very slight, almost trivial, in the birds, but as first pointed out by Lynes and confirmed subsequently by Stenhouse, Congreve, and others, the song is strikingly different from the familiar two-syllabled notes of the typical race, and the second syllable is replaced by four or five descending notes. The eggs also differ constantly, being boldly spotted with red-brown in place of the finer deep purple markings which occur on the great majority of British eggs. The best characters by which the Spanish birds can be distinguished are the longer second primary and, in the flesh, the paler feet, while Witherby notes that the juveniles are rather more bright in colour than northern birds. The distribution of the Spanish breeding race is peculiar. It is common in the Almoraima woods, but has not been met with breeding anywhere else in Andalucia except by Armitage in parts of the S. de Aracena and S. Morena, where the trees are large. It is rather curious that while the clutch at

Almoraima ranges from four to five, only once six, Armitage twice found six eggs or young in a nest. Full sets may be found from about 14 April to May.

Migrants, presumably of the typical race, were met with in Granada and the S. Nevada up to 5600 feet in autumn by Witherby.

***Phylloscopus trochilus* (L.).** Willow-Warbler.

Spanish : *Mosquilla*.

Irby's book on the birds of the Gibraltar district was of course a pioneer work, and Verner, who contributed many nesting notes, was not greatly interested in small birds, so it is not surprising to find that their notes on the *Phylloscopi* are quite erroneous and misleading. Probably the unfamiliar song and eggs of the local race of Chiffchaff led Irby to say that the Willow-Wren is resident in the cork wood, and that he had seen young able to fly on 8 May. His note on the difficulty of identifying the Leaf-Warblers by skins is significant in this connection. Chapman, evidently following Irby, gives nesting dates for Willow-Wren and Wood-Wren, and adds with regard to the former "many resident." Of Bonelli's Warbler no nesting date is given ! Lynes has already shown that there is no proof of the breeding of the Willow-Wren anywhere in central or southern Spain. It is merely a passage-migrant, passing in March and early April and also in October, and a winter visitor in smaller numbers.

***Phylloscopus bonelli bonelli* (Vieill.).** Bonelli's Warbler.

Spanish : *Mosquilla*.

Sylvia nattereri Temminck, Man. d'Orn. éd. 2, i. p. 227 (1820 : Algeciras).

Sylvia prasinopyga Gloger, Vollst. Hand. Naturg. Vög. Eur. i. p. 217 (1834 : Spain).

A common summer resident in the moist cork woods of Almoraima and also in the Algeciras district and the S. Retin. Armitage evidently met with it in the cork woods of the S. de Aracena, but it has not been recorded from the Coto Doñana, though Chapman says it occurs near Jerez and Lynes met with singing males at 5000 feet in the S. Nevada. Irby gives the earliest date of arrival at Gibraltar as 1 April,

and by mid-April the distinctive little song may be heard in the cork woods. It is rather a late breeder, and the nest found by Verner on 2 May and recorded by Irby was evidently a Chiffchaff's. Congreve, who has had considerable experience of this species, gives 14 May as the earliest date for a full clutch, but once met with incubated eggs on the 16th, and has found fresh eggs up to 2 June. The clutch is usually five, but occasionally only four in number, and the nest is generally very well concealed on steep banks bordering mule-tracks and hollows, almost invariably resting on the ground, in spite of Irby's statement to the contrary. It is lined with fine grasses or, at times, with a few black hairs or fine dark rootlets, but no feathers (Congreve).

Phylloscopus sibilatrix (Bechst.). Wood-Wren.

As Irby remarks, this is the scarcest of the four *Phylloscopi* in Andalucia. He records it as occurring first on 22 April, but Lynes met with plenty early in the month, and it is evidently only a passage-migrant in rather small numbers. Chapman's statement that it breeds about 25 May, and the nest reported by Irby as having been found by Verner, are probably both referable to Bonelli's Warbler. There is no satisfactory evidence of the breeding of this species in southern Spain.

Cettia cetti cetti (Temm.). Cetti's Warbler.

Spanish : *Buscarle, Rubita*.

A common breeding species and widely distributed, but always in the immediate neighbourhood of water-courses, rivers, or marshy spots where there is cover such as bramble thickets, tamarisk bushes, clumps of bamboo, or rank vegetation. Its presence is readily recognized by its loud burst of song, which ceases with equal abruptness. It is resident and noisy in winter as well as during the spring months. Where the banks of the rivers are covered with bushes it is common, but is absent from the steppe-like islands of the Lower Guadalquivir, and does not as a rule ascend high in the sierras, though Lynes heard one at 1500 feet on San Cristobal, and Weigold records one at 1450 metres in S. Nevada on 30 April. The nest is often over water and rarely more than a few feet

from it, sometimes in thick masses of brambles or bushes, but also at times in sites not unlike those of the Reed- and Marsh-Warblers, built on to the stems of reeds and *Epilobium*. Nests have also been met with in bamboos growing by water. The nests are rather bulky as a rule, with a neat and deep cup lined with fine grasses and hair, and contain as a rule four, but often only three, eggs, while five have been recorded. The wonderful red colouring renders them unmistakable. Congreve's earliest date is 3 May, but fresh eggs may be obtained till June, perhaps owing to the fact that many of the nests come to grief.

[**Luscinola melanopogon melanopogon** (Temm.). Moustached Warbler.

This is a lagoon-breeding species, apt to be overlooked unless one is acquainted with its notes. It is fairly common on the Albufera, Valencia, and, according to Irby, also at Malaga. Arévalo's description of the eggs points to confusion with *Cisticola*, and Irby's record requires confirmation.]

Locustella luscinioides luscinioides Savi. Savi's Warbler.

A local summer resident, breeding in swamps, and arriving about the end of March or the beginning of April, but though specimens were obtained in the Guadalquivir marshes, near Sevilla and near Malaga, it was not till 1874 that Irby proved the breeding of this species by the discovery of thirteen nests in one marsh. This was the result of over a week of incessant labour by a party of three, and Irby did not disclose the exact site, though there is little danger of a repetition of the feat. The distribution of this species is, however, less restricted than was supposed to be the case in those days. Saunders met with it on the Guadaljorce near Malaga, and received specimens also from Granada. Congreve saw one in a soto in the Almoraima woods in 1910, and found it still breeding in numbers in Irby's old locality in the same year. It was plentiful at either this or a neighbouring soto, north of the Laguna de la Janda, when we visited it in 1919, but Congreve did not meet with any in 1925, perhaps owing to drainage operations. It also occurs in a marsh on the edge of the marismas, a day's ride from Coria, where it was heard

by Selous and also by myself, while as far back as 1906 I found it nesting in the Coto de Doñana, though not noticed by Chapman there, and in 1927 Congreve heard the song at the eastern end of the Laguna de la Janda. In the following year Armitage also heard several south-east of the Isla Mayor on 11 May. The nest is extremely difficult to find, being well concealed in the clumps of partly dead sedge (*Cladium*) growing in mud and water, and only on rare occasions can the bird be detected flying from the nest. The breeding season seems to be rather variable, but fresh eggs have been taken from 4 May to the 15th by Irby, and I have seen recently hatched young on 30 April; the clutch is usually four, but at times three or five. There is a specimen in the British Museum from Malaga dated 8 August, 1872, as well as two breeding birds from near Casas Viejas.

***Locustella nævia nævia* (Bodd.).** Grasshopper-Warbler.

Records of this species are very scanty. Irby did not meet with it in the Gibraltar district, but Saunders records it in winter from Malaga, and had specimens from there and also from Granada. Skins in the British Museum from Malaga are dated September, October, and November. Stenhouse obtained two specimens on autumn migration near Gibraltar on 14 September and 12 October.

***Acrocephalus arundinaceus arundinaceus* (L.).** Great Reed-Warbler.

Spanish : *Carrizalero*, *Carrecera grande*.

A common summer visitor to reed-beds by the banks of rivers and in marshes, arriving in April and breeding in colonies, though the nests are some distance apart. At the east end of the Laguna de la Janda Congreve found a few pairs breeding among dense rushes, and in the Coria district I found a pair or two in a bed of huge nettles close to a small stream. Full clutches may be found from about the middle of May onward, and the set consists of five or six eggs. Stenhouse has two records on autumn migration, 14 and 19 September, near Algeciras, and a specimen in the British Museum is dated 6 October.

Acrocephalus scirpaceus scirpaceus (Herm.). Reed-Warbler.
Calamoherpe ambigua A. E. Brehm, Allg. D. Naturh. Zeit.
1857, p. 467 (Valencia and Murcia).

Spanish : *Pinzoleta*.

A summer visitor, but much less numerous than the preceding species. Arrives about the end of March (Irby), and is found locally in marshes and in reed-beds by rivers, breeding from the beginning of May onward. It is numerous in the swamps near Casas Viejas, and some also breed along the Guadalquivir banks and in the adjacent sotos. Clutch usually four. Witherby records a specimen from Malaga in the British Museum dated 11 November, and Stenhouse notes it from 6 to 22 October near Gibraltar.

Acrocephalus palustris (Bechst.). Marsh-Warbler.

The status of this species is very unsatisfactory. Saunders (1876) was unable to record its appearance with certainty, yet the British Museum has three sets of eggs from Malaga, one on 10 June, 1873 (Saunders), and two collected by A. Ruiz in 1874 and 1876, all from the Seebohm collection. That it does occur on migration is proved by Stenhouse's record of a female shot on 4 October in a cork-wood near Gibraltar.

Acrocephalus schœnobænus (L.). Sedge-Warbler.

A passage-migrant, recorded by Irby once (April 1894), and by Saunders, in winter, on the banks of the Guadaljorce near Malaga. Skins in the British Museum from this locality are dated 25 July, 6 and 18 October. Stenhouse obtained a male at Europa on 30 July, 1919.

Acrocephalus paludicola (Vieill.). Aquatic Warbler.

Witherby obtained a specimen in the marismas on 13 April, 1899. Irby states that he saw this species only once near Gibraltar, but adds that Verner found a nest in May 1875 near Casas Viejas, a record that seems to require confirmation. Saunders (1871) said that birds "with nest and eggs" were sent to him from the banks of the Guadaljorce near Malaga, and this is referred to by Irby, but is evidently due to a slip which was corrected by Saunders in Dresser's 'Birds of Europe,' ii. p. 593. Here he states that all his specimens from near

Malaga were obtained in autumn, and there are seven specimens in the British Museum dated 2 to 23 September. Stenhouse shot one on 22 October in palmetto scrub near Gibraltar. Failing further evidence this species must be classed as a passage-migrant.

Hippolais polyglotta (Vieill.). Melodious Warbler.

Spanish : *Almendrita de verano*.

A common summer visitor to the wooded and scrub-covered lower ground and the banks of rivers and streams, but few records from the sierra districts. Stenhouse's earliest dates are 11 April, 1919, and 24 April, 1920. Irby records 25 April as the earliest date of arrival at Gibraltar. It is generally distributed in all suitable ground, from the Guadiana Valley and the Rio Tinto hills to Almeria and Granada, nesting in almost any kind of bush or even trees, oleanders, gorse, hawthorn, willows, bramble thickets, arbutus bushes, and cistus; exceptionally in crab-apple tree (Congreve) or fig-tree (Lynes). Weigold met with it at 1200 metres in the S. Nevada on 20 April. The earliest date for full sets is 13-14 May, and fresh eggs may be found till the end of the month or even later. The normal clutch is four; sets of three or five are exceptional. Chapman gives the date of departure as August-September.

Hippolais pallida opaca Cab. Western Olivaceous Warbler.

Spanish : *Viñera*.

A summer visitor, arriving later than the preceding species, and common locally but not so generally distributed. Chapman gives the date of arrival as 1 May, and its presence is soon evident by the persistent song of the males. It is a tree-haunting species, and often to be met with in wooded gardens in towns. Lynes found it breeding in the Guadiana Valley, Armitage in the S. de Aracena and S. Morena, but it does not range high in the mountains, being confined to lowlands and foothills; near Coria del Rio it is numerous, and not uncommon in the Jerez district, but becomes scarcer near Gibraltar, though Congreve met with several pairs in Algeciras, and it also nests at Granada and commonly at Malaga, etc. The earliest date for full sets is 13 May, and a week or so later laying

becomes general. Chapman's nesting date of 10 June was probably due to a second laying. The nest is sometimes built at a considerable height when placed in a tree; I have seen them 25 to 30 feet from the ground, but often at lower elevations, and in bushes by the river-side only about four feet up. Armitage records a nest built in a clump of herbage hanging from a rock in the S. Morena. The normal clutch is four, but three occasionally occur, and sets of five are also met with. According to Chapman it leaves in August-September.

[**Hippolais olivetorum** (Str.). The Olive-tree Warbler.

A record by Seoane from Granada is almost certainly due to erroneous identification.]

Sylvia hortensis hortensis (Gmel.). Western Orphean Warbler.

Spanish : *Canaria*.

A common summer visitor to the wooded districts, breeding in gardens, cork-woods, orchards, and orange- and olive-groves in all the provinces of southern Spain. Chapman gives the date of arrival as mid-April and breeding as 15 May, but Lodge observed it on 2 April, and full clutches may be found from the end of April onward. The nest is usually placed on the outer branches of a tree about eight or ten to fifteen feet from the ground. Armitage once found a nest near Granada in brambles only three feet high, and I have seen nests in orange-groves about five feet from the ground. The usual number of eggs is five, but four are met with at times, and Congreve records six once, while Noble records both three (incubated) and once seven! Armitage found a nest with pure white glossy eggs with a few spots, 11 June, 1936. In autumn it was last noted by Stenhouse on 17 September.

Sylvia borin borin (Bodd.). Garden-Warbler.

A passage-migrant, arriving about mid-April (Irby), but Witherby saw the first on 11 April, and Lynes records it as passing between mid-March and mid-May. According to Irby it has bred in the Almoraima woods in May, though this has not been confirmed by recent workers. The record may, however, be a genuine one, as in 1930 Armitage found

this species nesting fairly commonly near the Rio Darro above Granada. Of three nests found on 11 June, two were apparently ready for eggs, and the third contained two eggs, a strangely late date for breeding. It was not noticed by him in Huelva. Chapman merely repeats Irby's dates, while Saunders treats it as a passage-migrant only in his earlier list, but in 1876 he states that he has received several nests from the neighbourhood of Malaga. It is said to pass south in September and October, but K. H. Jones noted it in the Alameda Gardens, Gibraltar, in November and December. The south Spanish provinces are apparently on the southern limit of the breeding range of this species, and breeding is probably somewhat irregular.

***Sylvia atricapilla atricapilla* (L.). Blackcap.**

Spanish : *Pulverilla*.

Although some winter in the lowlands of southern Spain and it breeds commonly in the woods and gardens, great numbers also pass through on passage, chiefly in February and October (Irby). Lynes notices that in March both sexes were on passage at the same time, but as a rule the parties were of one sex only. Stenhouse notes migration from 25 February, both sexes travelling together. The breeding range is confined to the wooded lowlands, and not, as Saunders surmised, to the higher regions. Neither Lynes nor Armitage record it as nesting from the province of Huelva, but it breeds commonly in suitable country from the Guadalquivir Valley eastward (Jerez district, S. Retin, Algeciras, Almoraima, etc.), and has also been recorded as nesting in Granada, Malaga, and Almeria.

Some birds nest very early ; Irby records three eggs on 15 March and four eggs (incubated) on the 16th. No records of the erythristic type of egg from southern Spain ! The autumn migration takes place in mid-September and continues through October (Stenhouse). Witherby observed this species in autumn in the S. Nevada up to 5600 feet.

***Sylvia communis communis* Lath. Whitethroat.**

A summer resident and passage-migrant in considerable numbers. Irby never met with it in winter near Gibraltar

and gives the date of arrival as April, but Stenhouse records specimens on 27 and 29 March and Witherby on 2 April. Armitage came across a few in the S. de Aracena and S. Morena which were obviously breeding, but I have no nesting records from the country west of Coria, though from the Guadalquivir east to Gibraltar it breeds locally in some numbers, especially in marshy districts and in the low-lying parts of the cork woods. Irby found as many as a dozen nests in a day while searching for nests of Savi's Warbler. Most nests are in rank vegetation or small bushes: Congreve found one in a gorse bush on the "Queen of Spain's Chair." Average time for nesting 7 May (Irby). It is not altogether confined to the lowlands, for Lynes found a breeding pair on San Cristobal (2500 feet) and also saw others in the S. Nevada. Weigold also met with it in the S. Nevada singing at 1450 metres on 27 April.

The autumn migration takes place in September to October; Stenhouse records one on 19 August and the last on 22 October.

***Sylvia curruca curruca* (L.). Lesser Whitethroat.**

This species is apparently only a very rare straggler to the southern provinces. Irby obtained only two specimens during a residence of about six years, both in April. Saunders's statement (1871) that it is abundant in winter and early spring in southern Spain is obviously erroneous, and is modified by him in 1876 to "on passage, and not numerous as far as my limited experience goes." There are no Spanish skins in the British Museum, and Witherby has never seen one yet. He adds that Quiros's record from Janda (Bol. R. Soc. Esp. Hist. Nat. xx. p. 243) is erroneous, and refers to the next species.

***Sylvia melanocephala melanocephala* (Gmel.). Sardinian Warbler.**

Spanish: *Camara, Palmera*.

A common resident, found wherever sufficient cover exists in all the provinces of southern Spain. It does not range

very high in the sierras, and on San Cristobal was only observed up to 3000 feet by Lynes, while in the S. Nevada he did not meet with it. The nest may be found in thick bushes about two or three feet from the ground, quite exceptionally as much as ten feet high (Armitage); also in cistus, gorse, rosemary, etc. Breeding begins early. Stenhouse records building on 26 February and eggs on 9 March; Irby gives 12 March as the earliest date; Congreve saw fledged young on 8 April, and as eggs may be found throughout April, May, and even in June, it is obvious that more than one brood is reared. The number of eggs is generally three or four, exceptionally five. It is curious that though erythristic eggs of this species, *S. cantillans*, and *S. undata* occur in southern Spain, they have not been recorded of *S. atricapilla*.

***Sylvia cantillans cantillans* (Pall.).** Subalpine Warbler.

Probably overlooked by the earlier writers or confused with *S. undata*, but is a not uncommon breeding species in scrub with occasional timber, or glades in open forest. It is apparently a summer resident, as Stenhouse records it on passage in March and April and gives first dates as 11 and 12 March. Irby shot one on 20 March, 1870, at Gibraltar, and saw eight or ten at Cadiz on 27 March, 1871, and also met with it in the Coto del Rey on 26 April, 1869. Saunders regarded it as sedentary, but his experience was practically confined to Murcia. Chapman treats it as a summer resident, arriving about the end of March. In the Guadiana Valley Lynes found it breeding in some numbers, and Armitage records it as a typical bird of the Rio Tinto hills and the S. de Aracena. It also breeds to the west of the Guadalquivir in the Coto del Rey and Coto Doñana, while Congreve found it not uncommon as a nesting species in the Almoraima cork woods. Lynes did not meet with it on San Cristobal or the S. Nevada, nor does von Boxberger record it from Malaga, but McNeile found it nesting near Grazalema not uncommonly, and Armitage found it breeding in the S. Nevada. Breeding begins early in April (Lynes found eggs quarter incubated on 13 April); McNeile took eggs half incubated on the 24th; Armitage saw fledged young on

14 May and Congreve on 19 May ; but breeding continues through May and June, so that two broods at least must be reared. The nests are usually built in cistus, sometimes in gorse, rosemary, or occasionally among oleanders. Clutch usually four, occasionally five. The erythristic type is not uncommon and is extremely beautiful.

***Sylvia conspicillata conspicillata* Temm. Spectacled Warbler.**

The status of this species is rather curious. Irby classes it as a summer resident and gives the earliest date of arrival as 10 March. He did not find a nest, but states that it is a conspicuous scrub-haunting bird, frequenting more open ground than the Whitethroat. Saunders describes it as abundant in spring, breeding in gardens and scrub-covered ground. Von Boxberger states that near Malaga it is not rare where there is cistus scrub ; yet Chapman merely mentions its arrival on 31 March ; neither Congreve, Noble, Witherby, Stenhouse nor Armitage met with it at all, and until recent years hardly any nests had been taken in Spain. C. B. Ticehurst describes it as common on the S. Carbonera near Gibraltar on 19 April, and a male with organs enlarged is in his collection ; but Stenhouse, who knew the locality well, failed to find it there. It is, in fact, an extremely local species in southern Spain, and only common in one or two localities. Lynes found a nest in the Guadiana Valley in 1906 ; Proctor found a nest near the Guadalquivir below Coria in the same year, and in 1907 I saw several pairs in a low-lying spot near the river overgrown with *Salicornia* (?) bushes, but we were riding against time and could not stop. Brig.-Gen. Clarke found a colony (perhaps the same) by the Guadalquivir and obtained eggs, and J. H. McNeile also found nests in the same locality in 1924. All these nests were built in the usual marisma bushes, some on dry mud and others actually in shallow water. Lynes's nest was half incubated on 11 April, and was built in a gorse bush ; McNeile's were taken between 23 April and 6 May, and Proctor's also on the latter date. Clutch four or five. The British Museum contains specimens from Gibraltar (10 March), Sevilla (10 April), and Malaga (20 September).

Sylvia undata toni Hartert. Furze-Warbler.

Spanish : *Colorin, Caganchina*.

A fairly common resident on heather- and scrub-covered hills. Lynes found it breeding in the Guadiana Valley, and Armitage records it sparingly in the Rio Tinto hills and the S. de Aracena. In the heather-covered hills south of Coria it is common, and also occurs in the Coto Doñana, on the coast near Gibraltar, and in the Algeciras district, especially on the low hills and sides of the sierras north to Gaucin (Congreve), and in the San Cristobal district up to 4500 feet wherever the ground is suitable (Lynes). Not recorded from S. Nevada (Lynes). Von Boxberger, however, describes it as a common and characteristic bird of the hills in Malaga. It breeds early, for incubated clutches and well-grown young have been found about 20 March and flying young by 3 April, but eggs may be found till late in May and young in early June, so it is probably double-brooded. Clutch normally three or four; five are very rare, but have occurred. The erythristic type occurs frequently in Spain. The nest is usually built in small gorse or broom bushes, but occasionally also in long heather.

Erythropygia (Agrobates) galactotes galactotes (Temm.).
Rufous Warbler.

Sylvia galactotes Temminck, Man. d'Orn. ed. 2, i. p. 182 (1820 : S. Spain).

Turdus rubiginosus Meyer & Wolf, Taschenb. d. deut. Vogelk. 1822, p. 66 (Algeciras).

Aëdon pallens brachyrhynchos Brehm, J. f. O. 1856, p. 441.

Spanish : *Alzacola, Rubita, Vinadera, Alzarabo, Colirojo*.

A fairly common summer resident, arriving about the beginning of May, and haunting the hedges and clumps of prickly pear (*Opuntia*), though in the Malaga district it is said by von Boxberger to prefer the olive orchards. It is found in the open country and outskirts of towns by cart-tracks and gardens, in vineyards, etc., in all the provinces, but does not ascend very high in the sierras. It is a late breeder, earliest date about mid-May, but many birds do not lay till early June, and Stenhouse saw fledged young being fed on 17 August. Clutch four to five; clutches of six, as quoted by Irby, must

be quite exceptional. The return migration takes place in September. Lynes records this species up to about 5000 feet in the S. Nevada.

Cisticola juncidis cisticola (Temm.). Fantail-Warbler.

Sylvia cisticola Temminck, Man. d'Orn., ed. 2, i. p. 228 (1820 : Portugal and S. Spain).

Cisticola cisticola jordansi Tratz, Orn. Monatsber. 1913, p. 138 (Portugal).

Spanish : *Tin-tin*, *Cierra-puño*, *Buitron*, *Tumanavilla*, etc.

A common resident in the cornfields and marshy ground, but Stenhouse observed considerable local movements and von Boxberger notes apparent absence in winter in Malaga. During the breeding season it may be found nesting in the weedy patches in the cornfields on the hillsides at some distance from water, but at other times is generally to be found in low, marshy spots. As Congreve observes, it is essentially a bird of the vega and cornlands, and is absent from all heathy and scrub-covered country. The nest is placed among corn and weeds or in rushes, and two, or possibly three, broods are reared. Irby records young ready to fly on 19 April, and eggs may also be found though May and June (eggs on 26 June, Congreve). The clutch varies from four to six as a rule, and Spanish eggs show all variations from plain white or blue to spotted types with both ground-colours.

[**Turdus pilaris** L. Fieldfare.

Only reported by Arévalo from Granada, but Saunders received two specimens from Valencia in January, so the report may possibly be correct.]

Turdus viscivorus viscivorus L. Mistle-Thrush.

Spanish : *Charla*.

A resident in small numbers in the forests and also a winter visitor and passage-migrant. Armitage met with a few in the better wooded parts of the S. de Aracena and S. Morena breeding in the cork-oaks. It is also present in small numbers in the cork woods of Almoraima and in the Coria district. Lynes observed it in the cork and ilex woods of the lower hills near San Cristobal and at 7000 feet in the S. Nevada, where

Witherby also saw some at nearly 6000 feet as well as near La Sagra, in the S. España. Arévalo records it from the Dehesa de Alfacar, Granada, and Malaga. Breeding records are very scanty; Congreve saw a fledgling at Almoraima; Stenhouse saw young on the wing on 25 April; and Armitage saw nests in construction and one with two eggs in the S. Morena on 3-4 June, 1930, probably second broods. J. H. McNeile obtained a nest with five incubated eggs from near Coria del Rio, and Saunders obtained an egg from Malaga (Brit. Mus.). Stenhouse notes that an adult shot in June was much greyer, especially on the rump, than British specimens, and a juvenile was also much greyer above and below; but Witherby, who has compared Spanish with African birds, says that the bill is always smaller than in *T. v. deichleri*.

***Turdus ericetorum philomelos* Brehm.** Continental Song-Thrush.

Spanish: *Zorzal*.

A common winter visitor and passage-migrant. Irby gives 22 October as earliest date of arrival and 1 April the latest for departure, but Lynes records one on 19 April and Witherby 11 April. Ringing has provided us with positive data as to the origin of these winter visitors, for specimens ringed in Sweden (two), Denmark (two), Helgoland (two), and Germany (three) have all been recovered in southern Spain, and one from Albino, Bergamo, in N. Italy, ringed 25 October, 1930, was reported from near Cordoba on 8 February, 1931.

***Turdus musicus* L.** Redwing.

Spanish: *Malvis*.

A common winter visitor, often in company with Song-Thrushes (Irby). Saunders met with great numbers in the winter of 1868-69 at Malaga, and Chapman records it from the S. Morena in January.

***Turdus torquatus torquatus* L.** Ring-Ouzel.

***Turdus torquatus alpestris* (Brehm).** Alpine Ring-Ouzel.

Spanish: *Chirlo*.

Irby records Ring-Ouzels on spring passage near Gibraltar, and gives the earliest dates for four years, which range from

12 March, 1872, to 9 April, 1871. These might be local breeding birds, which must be *alpestris*, but out of five specimens obtained by Witherby in the Monachil Valley, S. Nevada, where they were fairly common in mid-October, four proved to be *T. t. alpestris* and one adult male *T. t. torquatus*. There are also specimens of both forms in the British Museum, dated October, from the S. Nevada. Lynes also saw Ring-Ouzels in early May in this district, and at San Cristobal on 24 March and 23 April, but could not get a specimen. Saunders definitely states that it breeds in the S. Nevada, and that he received birds, nests, and eggs from Colmenar. Two of these eggs are in the British Museum, taken 27 May, 1870. Major G. H. Malcolm has also three clutches which are said to have been taken near Granada in June 1895 and 1896.

***Turdus merula merula* L.** Blackbird.

That the typical form of the Blackbird occurs in Andalucia as a winter visitor is proved by the recovery of a bird ringed on Helgoland 9 April, 1926, and killed at Rute, Cordoba, in November 1926. Others have been obtained in central Spain. Irby notices the arrival of immigrants in winter, but these may be of either form.

***Turdus merula algirus* (Mad.).** Algerian Blackbird.

Turdus hispaniæ Kleinschmidt, Falco, 1902, p. 22 (Spain).

Spanish: *Mirlo*.

The Algerian Blackbird is a common and generally distributed resident in all the provinces of southern Spain wherever there is sufficient covert except, possibly, in the "middle zone" of the S. Nevada, where Lynes did not observe it. Breeding takes place from April to July. A good deal has been written on the number of eggs laid by Spanish birds; the late Colonel Verner stated that he "had never seen or heard of more than three eggs" in Spain after more than thirty years' experience; but this was subsequently modified by his later experiences. Three is undoubtedly a common clutch in Spain, but fours are also quite numerous, and on two occasions I have come across five eggs or young, while Armitage found a nest with five young in the S. de

Aracena. Witherby also records five eggs from central Spain. Mrs. Rait Kerr records three broods successfully reared by one pair at Gibraltar in one season.

Monticola saxatilis (L.). Rock-Thrush.

Spanish : *Mirlo pintado*.

A summer resident, seen only on passage on the low ground, but breeding in the higher sierras. It arrives about the end of March or early in April (3 April, Chapman ; 4 April, Irby) and is nowhere very numerous, but scattered pairs breed in the Serrania de Ronda at 4000 feet and upwards, and in the S. Nevada in the middle zone, where it is fairly numerous ; also farther east, S. Gaitanes, etc. Breeding takes place about the middle of May (five eggs on 18 May, A. Chapman). On the autumn migration Irby records it from Gibraltar on 26 September.

Monticola solitarius solitarius (L.). Blue Rock-Thrush.

Spanish : *Solitario*.

A widely distributed and not uncommon resident, frequenting lower ground than *M. saxatilis*, and breeding in rocky and broken country in all provinces from sea-level up to about 3500 feet, in the Serrania de Ronda (Lynes), and common in the S. Nevada, especially between 2500 and 4000 feet. Lynes also records a singing male at 6000 feet, but this is quite exceptional. It is an early breeder, building in March and laying from about the beginning of April, but as eggs may be found throughout April and May, and even early in June, it must be double-brooded. The nest may be placed in holes of buildings or crevices, in roofs of caves, and in cliffs. The eggs are usually five in number.

Œnanthe œnanthe œnanthe (L.). Wheatear.

Œnanthe œnanthe nivea (Weigold). Nevada Wheatear.

Saxicola œnanthe nivea Weigold, Orn. Monatsber. 1913, 1913, p. 123 (Capilleira, Sierra Nevada).

Spanish : *Culilbanco*, *Ruiblanca*.

Saunders and Irby knew the Wheatears only as passage-migrants, arriving in March to April and leaving in October and November. Chapman, also in 1893, wrote "none

breed," but in 1910 Lynes obtained two males at over 4000 feet in the S. Nevada which were apparently breeding, and their distinctive characters were described by Witherby (Bull. B. O. C. xxix. p. 75). In 1913 Weigold also obtained specimens from the S. Nevada and described them under the name of *nivea*, on account of their lighter mantle, wide frontal bands, and short wings. Later Chapman (1910), who accompanied Lynes, refers to those seen in the S. Nevada at 7000 feet, and Witherby saw a few about La Sagra and in the S. Nevada in October. Von Boxberger also met with *nivea* at about 1000 metres in the S. de la Nieves. What proportion of these birds belonged to the typical race it is impossible to say, but as a ringed bird from Helgoland has been recovered near Zaragoza, it will probably be found among the migratory parties farther south; a juvenile ringed in Belgium 14 June, 1929, was reported from near Cordoba 3 November, 1929. Witherby has also examined specimens of the typical form from Gibraltar, Cadiz, and the mouth of Huelva Harbour (24 April).

***Oenanthe hispanica hispanica* (L.).** Black-eared Wheatear.

Motacilla hispanica Linnaeus, Syst. Nat. ed. x. 1, p. 186 (1758 : Spain).

M. stapazina Linnaeus, Syst. Nat. ed. xii. 1, p. 331 (1766 : Spain, etc.).

Vitiflora rufa Stephens, Shaw's Gen. Zool. x. pt. 2, p. 569 (1817 : Gibraltar, etc.).

Oenanthe albicollis Vieill., Nouv. Dict. d'Hist. Nat. N. éd. xxi. p. 424 (1818 : S. France, Spain, etc.).

Saxicola atrogularis Dubois, Ois. de l'Europe, 2 ser. i. p. 56 (1868 : Portugal, Spain, etc.).

Spanish : *Ruiblanca*.

This dimorphic species is a fairly common summer resident, appearing in March or early April. Irby's earliest dates are 15 March, 1872, and 17 March, 1877. It frequents rocky or broken ground, ruins, steep banks, etc., sometimes one form and sometimes the other predominating. Thus in the Lower Guadiana Valley Lynes and Ratcliff met with only

Black-throated birds. All the earlier writers treat the two forms as distinct species ; Saunders even describes differences in their nests ! It is to be met with in all the provinces, but is of course absent from the flat grassy plains and marismas and ranges in the sierras to about 3000 feet, while Lynes records a few in S. Nevada as high as 7000 feet. Breeding begins usually early in May, exceptionally towards the end of April. The normal clutch is five, sometimes four only, but Armitage found one with six.

Enanthe leucura leucura (Gmel.). Black Wheatear.

Turdus leucurus Gmelin, Syst. Nat. i. 2, p. 820 (1789 : Gibraltar).

Saxicola cachinnans Temminck, Man. d'Orn. i. p. 236 (1828 : Midi de l'Espagne).

Spanish : *Pedrero*, *Sacristan*, *Culiblanca* (gen.).

Resident in small numbers and also summer resident. Stenhouse records it as passing on 20 March and in autumn on 21 September ; also in numbers on 20 October. Although it can hardly be described as abundant, a pair or two can generally be met with in any rocky country, whether in the high sierras or among the foothills, but it is of course absent from the wide vegas and open country. It breeds on Gibraltar and is distributed over all the mountain region from the S. de Jerez east to the S. Nevada and its many tributary ranges. Its peculiar breeding habits are now well known, but the wall of loose stones, though sometimes conspicuous, is by no means readily noticeable when the nest is under a boulder near the ground or in a small hole in a rock-face. Stenhouse records one nest with over 200 stones in its foundation, while another had none : Irby says the stones from one nest weighed $4\frac{1}{2}$ lb. Breeding seems to be irregular : Verner records fully-fledged young on 10 April ; Stark took a clutch on 25 April ; Congreve found young hatched on 5 May, and eggs very slightly incubated on 17 May. The normal clutch appears to be five or six, but four are also recorded. The striking plumage and sweet song, often uttered on the wing, attract attention at once to this fine species.

Witherby met with it in the S. Nevada up to 6000 feet in October, and also saw some near Archena early in November.

***Saxicola rubetra* (L.).** Whinchat.

Spanish : *Zarzalera*.

A passage-migrant, not numerous ; noted by Irby in spring 7 April to 3 May, and by Stenhouse on 16 April. Witherby met with a pair only on 14 April. Apparently a few winter, as Stenhouse saw two hens on 11 January, 1919. The autumn movement takes place in September, and Witherby saw a few on the lower slopes of the S. Nevada on 15 October, 1923.

***Saxicola torquata rubicola* (L.).** Continental Stonechat.

Spanish : *Cagaropa*, *Caganchina*.

This common breeding species is present all the year round, but Stenhouse, who had excellent opportunities for judging, thought that the local breeding birds migrated and that there was a great diminution in their numbers in September ; also that large numbers of migrants arrived early in October, most of which passed on, but some stayed through the winter. Arrivals began 17 February and continued till 20 March. Breeding begins very early ; Stenhouse records a clutch on 28 February and Irby hard-set eggs on 10 March, while I have found eggs still fresh on 24 April. Witherby found young and fresh eggs 2 April, and Congreve took clutches on 9 and 16 May, so that it is evidently double-brooded. Wherever there is scrub one may expect to meet with this common species not only on the low ground, but also in the hill country. Armitage noted a few near Granada at about 2000 feet, Lynes in the S. Nevada at 5500 feet, and Congreve at Gaucin. An abnormal nest-site is noted by Stenhouse—a hollow in a rock face about two feet from the ground and quite open. The usual clutch is five to six, sometimes four only. A migrant ringed in Rheinland, Germany, 11 October, 1930, was recovered at Valenzuela, Cordoba, 26 November, 1930.

***Saxicola torquata hibernans* (Hart.).** British Stonechat.

Stenhouse records a female obtained on 12 October indistinguishable from British birds and probably a migrant from Portugal.

Phoenicurus phoenicurus phoenicurus (L.). Redstart.

Phoenicurus phoenicurus algeriensis (Kleinschm.). Algerian Redstart.

Spanish : *Culirojo*.

Redstarts are passage-migrants in considerable numbers at Gibraltar, but there are no records of breeding. Irby gives the earliest dates of arrival as 22 March to 5 April, latest date 26 April; Stenhouse gives 24 March; while Witherby records 30 April as the latest date from the Guadalquivir Valley. The breeding form in the S. de Gredos has been shown by Witherby to belong to the Algerian race, and must occur on passage with the ordinary form. Within our limits Saunders thought that it might breed at Granada, and Armitage saw a pair going in and out of a hole in a stump in the S. Morena on 3 June, 1930, but no nest was made there. Arévalo's description of the eggs shows that he confused them with those of some other species. On the autumn migration Stenhouse describes it as much more abundant—first seen 6 September and last observed on 29 October. Witherby saw a few in the S. Nevada up to 6000 feet in mid-October, and found it plentiful about La Sagra from 5 to 11 October. All specimens obtained seem to be of the typical form, and Spanish breeding birds must be scarce and very local.

Phoenicurus ochruros gibraltariensis (Gm.). Black Redstart.

Motacilla gibraltariensis Gmelin, Syst. Nat. i. pt. 2, 1789, p. 987 (Gibraltar).

Spanish : *Colirojo*, *Tintorero*, *Carbonero*.

In the low ground this species is only a passage-migrant and plentiful winter visitor, resorting to the broken ground and the sierras during the breeding season. Not recorded from the Guadiana Valley by Lynes or the S. Morena by Armitage, but near Gibraltar noted from 25 October (Stenhouse) to about the end of March; one hen seen 8 May. It breeds in the hills north of San Roque (Irby), but Congreve did not meet with it in the lower hills. Near Grazalema it is a fairly common breeding species, and McNeile found clutches on 20 and

26 April, and on San Cristobal it is plentiful (5000 feet). It also breeds near Malaga and in the S. Nevada, where Witherby records it from the base up to 11,000 feet at the Picacho de Veleta. Chapman also records eggs on 28 April. Eggs usually four to five in number, occasionally six; nest placed in crevices of rocks with a foundation of moss. A bird ringed at Tübingen, in Germany, in June, was recovered near Malaga in December of the same year (1922).

[**Diplootocus moussieri** (Olphe-Gall.). Moussier's Chat.

Irby (*Ibis*, 1873, p. 97) records seeing a male near Tarifa in October 1872, but did not shoot it, and, with his usual caution, omitted the record from his 'Ornithology of the Straits of Gibraltar.']

Luscinia megarhynchos megarhynchos Brehm.

Spanish : *Ruiseñor*.

An abundant summer resident in wooded districts and gardens, but always in the neighbourhood of water. It arrives at Gibraltar early in April (Irby); first noted by Stenhouse on 6 April and by Witherby on 2 April. It is very generally distributed along the banks of streams and rivers and in swampy jungles from the Guadiana Valley and the S. Morena hills to the Guadalquivir Valley and eastward to Granada and Almeria. Although mainly a bird of the valleys, it may occasionally be found at suitable spots high up in the sierras. Thus Lynes noticed a male singing at 4500 feet, and Weigold has recorded it at 1450 and even 1800 metres in the S. Nevada. The breeding season begins early in May (1 May, Irby; 7 May, Chapman, etc.). Although the majority of nests are placed on the ground, it is not uncommon, especially in gardens, to find them in bushes or among ivy on walls, at various heights from two or three to five and even six feet from the ground. It is as common in the gardens as in remote jungles in the river valleys. The eggs are four or five in number, normally some shade of olive, but quite exceptionally deep blue. The young are on the wing towards the end of May, but Verner has recorded them as late as 3 July, which suggests a second brood. Chapman gives the time of departure as August-September.

Luscinia svecica cyaneula (Wolf). White-spotted Blue-throat.

[**Luscinia svecica svecica** (L.) ? Red-spotted Bluethroat.]

Spanish : *Gargantiazul*, *Soldiya*, *Camancho*.

Saunders in his first list (1871) states that he has specimens with the red patch on the throat. This is, however, an error, as Dresser subsequently examined his series and stated that the birds in question were immature White-spotted Bluethroats, and in his second list Saunders omitted the Red-spotted race. Arévalo also says that several specimens from Malaga and Valencia have bright yellowish-red spots, but these are probably like Saunders's specimens. Witherby, after examining the Malaga skins in the British Museum, thinks they are Red-spotted, but cannot state positively that they are. There appears to be no other evidence of the occurrence of the Red-spotted form in southern Spain. The White-spotted race occurs on passage both in spring and autumn. Saunders had male and female from Malaga, 27 November and 5 October, 1871 ; also female from Granada, September 1870. Irby describes it as fairly common on passage in Sevilla, Granada, and Malaga, and obtained one near Gibraltar on 1 March, while S. G. Reid also secured one in November. Stenhouse, however, saw one on 27 February and met with many in autumn from 17 September to 5 October. It is now known that this form breeds in the S. de Gredos, where Witherby discovered a colony in 1927 and probably also in the S. de Guadarrama, as he found it present there in June 1931. Specimens with an entirely blue throat have been obtained at Malaga and are mentioned by Arévalo and Saunders, and one picked up dead on the S. de Gredos by Chapman on 10 May, 1891, is in Dr. C. B. Ticehurst's collection.

Erithacus rubecula rubecula (L.). Continental Redbreast.

Spanish : *Petirrojo*.

A common winter visitor to southern Spain. A juvenile, ringed at Copenhagen in 1927, was recovered at Jerez de la Frontera 15 November, 1927, and an adult from Germany, ringed 1 April, 1930, was recorded from Aguilas de la Frontera, Cordoba, on 5 November, 1930. Irby gives the dates of arrival

and departure in the Gibraltar district as mid-October to mid-March. Witherby found a few about La Sagra and a good many near Archena and in the S. Nevada up to 6000 feet in October and November. These may have been breeding birds, as Robins certainly nest in the S. Nevada (Lynes) and also in Granada. The breeding form in Andalucia is *E. r. witherbyi*, but these specimens were somewhat intermediate between the two races, as indeed might be expected, since the breeding bird in central Spain is of the typical race.

***Erithacus rubecula witherbyi* Hart.** African Redbreast.

Spanish : *Petirrojo*.

This race, distinguished by its reddish-orange breast from the paler Continental form, is apparently resident in the moist woods of Andalucia, especially in the sotos of the Almoraima cork-oak forest. In the San Cristobal district Lynes found it common up to at least 3500 feet, and also records it (subsp.?) from 6000 feet downwards to Granada, where it was building on 29 April. Armitage met with two in the S. de Aracena on 19 and 30 May, 1930, and one was singing in a cork wood in the S. Morena on 4 June. From these latter districts skins have not been examined, and the birds may be intermediate. In its nesting habits it closely resembles other races; the eggs are four to five in number and may be found in the second half of April or in May.

***Prunella collaris collaris* (Scop.).** Alpine Accentor.

Spanish : *Serrano*.

Has occurred on the Andalucian plain in winter and is resident near the snow limit in spring in the S. Nevada. J. H. Gurney was the first to record this species from Gibraltar, and Saunders states that it has occurred near Gibraltar in December, probably referring to Gurney, but Irby gives details, and states that one was shot by him on 1 February, 1870, and others seen on the 26th. It was not met with on San Cristobal (Lynes) or S. de Niño (Irby), though Verner says it occurs on the summits of the Serrania de Ronda, but Saunders describes it as abundant in the Picacho de la Valeta, S. Nevada, and Arévalo records breeding in the sierras of

Malaga and Granada. Lynes met with three or four in the Peñones de San Francisco at 8500 feet, apparently not yet paired on 1 and 2 May, and Witherby saw a small party at 9000 feet and one or two among snow-patches at 10,000 feet, also in the S. Nevada.

Prunella modularis (subsp. ?). Hedge-Sparrow.

Prunella modularis obscura Tratz, Ornith. Monatsber. 1914, p. 50 (Oporto).

Spanish : *Churruca*.

An uncommon winter visitor to Andalucia ; Irby states that he has shot specimens in the cork woods (Almoraima) in January, and Chapman has noted them in gardens at Jerez in the same month. Stenhouse obtained one male out of only three seen by him near Gibraltar in winter, and adds that its wing-formula was that of *P. m. occidentalis*. Arévalo states that they breed near Malaga and Granada, but there seems to be no proof of nesting south of the central Spanish sierras.

Troglodytes troglodytes kabyloorum Hart. North African Wren.

Troglodytes troglodytes weigoldi v. Jordans, Ornith. Monatsber. 1923, p. 14 (Oporto).

Spanish : *Cucito*, *Ratilla*.

A common resident, widely distributed throughout all broken and wooded country, and only absent from the treeless plains. In the sierras it ranges in San Cristobal to about 3000 feet (Lynes), but on the S. Nevada apparently goes much higher, for Lynes found a nest at 5000 and noticed several birds at 8000 feet. Armitage met with it occasionally in the S. de Aracena and more frequently in the S. Morena. In the wooded foothills of the south a favourite nesting-site is one of the innumerable little gorse bushes, but it also breeds in recesses of the rocks. The eggs are usually five in number, sometimes only four, and rarely six. Irby records young ready to fly on 26 April, but clutches may be found throughout April and May. Earliest date : four eggs, 6 April, 1877 (A. C. Stark).

Irby implies that besides the resident birds, migrants arrive in November and leave in February which may belong

to other races. North African birds are whiter below and paler and not so rufous above as the typical form.

Cinclus cinclus aquaticus Bechst. South Spanish Dipper.

Spanish : *Tordo de agua*, *Pechiblanco*.

Resident in small numbers on the streams in the sierras. Irby records it from near the waterfall beyond Algeciras, where it bred, but it has not been observed by any recent visitor there. In the S. Nevada it is still present in fair numbers locally. Lynes describes it as plentiful on the upper waters of the Monachil from 6000 to 4000 feet and probably all the way down. Witherby saw only two at La Sagra and three in various parts of the S. Nevada. Four specimens examined were indistinguishable from *C. c. aquaticus* from Germany. Breeding information is very scanty : A. C. Stark found a nest near Algeciras, according to Irby, about 17 May, but there were no Spanish eggs of this species in his collection. A set of five eggs from a Spanish collector through Schlüter is dated 20 April, 1882.

Hirundo rustica rustica L. Swallow.

Spanish : *Golondrina*.

Common summer resident, generally distributed. At Malaga it arrives 25 January (Saunders) and at Gibraltar about 13 February, although stragglers appear in December and January (Irby). Stenhouse noticed the first arrival in 1920 on 7 February. Nests in the Guadalquivir marismas had young already by 16 April (Saunders), and Stenhouse found them nearly fledged on 29 April. Migrants passing northward may be met with up to about 24 April (Irby). Ratcliff found two or three nests built on rock face over deep water on the banks of the Guadiana in 1905. The breeding birds leave about mid-August, but passage-migrants pass through in numbers in October and were last noted at Gibraltar on 7 November (Stenhouse).

Hirundo daurica rufula (Temm.). Red-rumped Swallow.

Arévalo states that it has occurred at Valencia ; also that it is said to have bred for some years at Casarabonela, near Malaga. On 26 April, 1919, Stenhouse saw one near La Janda

hawking for flies, and on 2 May, 1920, met with a pair collecting mud and evidently breeding at a cliff about eight miles from where the bird was seen in 1919. The male bird was shot. Verner also stated that this species had been seen in the same neighbourhood several years before. More recently A. W. Boyd met with these birds together near the Laguna de la Janda.

***Delichon urbica urbica* (L.).** House-Martin.

***Delichon urbica meridionalis* (Hart.).** Moorish House-Martin.

Spanish : *Vencejo*.

The typical race must be a passage-migrant and, as Stenhouse has pointed out, the odd birds seen in late August and September, and certainly the hundreds which pass in October and up to 7 November, must belong to this form, as the local breeding birds leave about the first week in August. The local nesters arrive at Gibraltar in February and March. Earliest date 5 February (Irby). They are somewhat intermediate between North African and European birds, but out of six specimens secured by Stenhouse, all but one male fell within the range of wing-measurements for the African race, which is a shorter-winged form.

There is a well-known and enormous nesting colony on the Fabrica de Tabacos in Sevilla, but many birds breed in caves and on cliff faces in Andalucia. Congreve reports a large colony on a small cliff below Castellar village, and Lynes found many colonies in caves in the Serrania de Ronda. The normal clutch consists of five eggs.

***Riparia riparia riparia* (L.).** Sand-Martin.

Spanish : *Golondrina de ribera*.

A passage-migrant, and local summer resident in small numbers. Irby gives the dates of first arrivals at Gibraltar as varying from 24 and 28 February to 22 and 24 March, and once noted a very large passage near Vejer on 13 May. Saunders reports breeding in the banks of the Guadalquivir in May, and Irby states that they nest near Sevilla. Stenhouse says they are not common. The return passage takes place in September to October. Chapman records an exceptional case of a few seen at Vejer on 28 December, 1887.

Riparia rupestris (Scop.). Crag-Martin.

Spanish : *Vencejillo*.

Partially resident, haunting the sierras and rocky ground during the nesting season and descending to the low ground or crossing over to Africa in the winter. Probably the birds seen on passage in numbers in October are migrants from more northerly localities. Nesting begins about 10 March (Irby), but most of the sites are difficult of access, being often in the roof of a cave or on the face of a cliff, sometimes in company with House-Martins, but also frequently singly. Occasionally a nest may be found in a small cave on a hillside which can be reached without difficulty from the ground. Irby says that the birds are sitting by 30 April, but the season seems to be rather irregular ; Congreve found three fresh eggs on 17 May ; Kelsall also found fresh eggs on 17 May, young in down on 17 June, and hard-set eggs on 2 July. The eggs are four or five number, sparingly marked with brown and ashy spots, and the nest is not unlike that of the Swallow. Scattered pairs breed in suitable caves or tajos in the broken country, especially in the sierras and especially near Ronda, and commonly in the precipices of the Monachil, where Lynes found it nesting at 8500 feet at the Peñones de San Francisco.

[To be continued.]

VII.—*Biological and other Notes on some East African Birds.*

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ANYONE who has put together a paper of this nature will realize that it may become prolix, repetitive, and trivial only too easily. We have done our best to maintain a selection, and have confined these notes to what we believe to be little-known birds, new facts, or new points of view. Most of the notes have been obtained in Usambara (see map in 'The Ibis,' 1932, facing p. 522) ; including migrants, we have a record