

ON THE FORMS OF *COTURNIX COTURNIX*.

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IN the *Cat. B. Brit. Mus.* (xxii. pp. 230-240) two species and one subspecies of palæarectic Quails were admitted :

1. *Coturnix coturnix* : " Europe, Asia (except the south-west corner, Siam, etc.), Africa."

2. Subsp. a. *Coturnix capensis* : " South Africa, south of about 15° S. lat., Mauritius, Madagascar, Comoro Islands, Cape Verd Islands, Canaries, Madeira, and Azores."

3. *Coturnix japonica* : " Japan, Manchuria, S.E. Mongolia, and China, as far south as Canton. Specimens have also been obtained in Bhootan and Karen-nee."

Our friend the author of volume xxii. was at the time satisfied with the results of his study of the genus, for he says : " Perhaps no species of Game Birds has been more confused, and their changes of plumage less understood, than the Common Quail (*Coturnix coturnix*) and its near ally the Japanese Quail (*C. japonica*) ; and I am pleased that I have now at last discovered definite and well-marked characters by which both the males and females of these two species may be readily distinguished, while the intermediate forms are, as I shall presently show, undoubtedly the results of interbreeding." Dr. Stejneger has already, long ago, pointed out that he did not show that his supposed hybrids were hybrids, but merely said they were, while, in fact, there was, in our opinion, no reason whatever for this theory. From the distribution admitted for *capensis* (rectius *africana*), it is, among others, difficult to understand how Indian Quails could be regarded as the results of hybridisation of *C. coturnix coturnix* and *capensis*. It will be seen that, though in the "habitat" the sweeping statement "Africa" is made, not a single skin from that continent, except two from Egypt, was known to be in the British Museum in 1893, when vol. xxii. of the *Cat. B.* was published. The fact is, that it only breeds in Egypt and in Africa Minor, *i.e.* in the fertile districts of Marocco, Algeria, Tunisia, and Tripoli. It passes through the Nile Valley and winters in great numbers in parts of Abyssinia, and has been recorded from the White Nile, Kordofan, and Reichenow mentions one as obtained by Emin at Mahagi in Uganda. The Quail also passes through the Western Sahara south of Algeria, and must winter in the districts immediately south of the Sahara, but the only western localities on record seem to be as follows : Rendall says that they were common on the Gambia in February and March, but it seems that skins were not preserved. There is, however, a skin of a female in the British Museum, which was recorded as *africana* in the *Cat. B.* p. 238, but it belongs to *C. c. coturnix*. Shelley and Buckley say that they shot one at Acera, but did not preserve it ! Verreaux gives as locality the Casamanze, but before the specimen is re-examined, one cannot be certain about it. Boyd Alexander shot a ♂ near Mafoni (at "Marou"), south-west of Lake Chad in Northern Hausaland, on November 21st, 1904, which I have examined.

As the occurrence of the South African Quail in all these districts is not

known, a pairing of European and African Quail cannot take place, unless one surmises that the former make a circular flight round the Atlantic Islands (Madeira, Azores, Canaries), where close allies of *C. c. africana* (= *capensis*) are found; but even then there would be no sensible explanation how the results of their wickedness could reach such extraordinarily different places as Cape Colony, Gibraltar, England, Austria, Hungary, Greece, and India: all places where, according to Mr. Ogilvie-Grant, "intermediate forms," *i.e.* hybrids (cf. his explanations on p. 231, and the labels in the British Museum), are found. The fact is, that the supposed hybrid specimens from South Africa are less typical *C. c. africana*, and those from Europe red-faced varieties of the type of the so-called *Coturnix baldami* and others; mostly the former can be distinguished by their shorter wings, though otherwise, in coloration, light varieties of *C. c. africana* and dark ones of *C. c. coturnix* are sometimes difficult to distinguish.

The European *C. c. coturnix*, besides nesting in Europe and North Africa, extends in Asia as far east as Lake Baikal, but not farther eastwards. Mr. Ogilvie-Grant said that it occurred in Asia "except the south-west corner, Siam, etc.," but he evidently meant south-east corner; he admits skins from China and Japan as *C. c. coturnix*, and in the same places ever so many hybrids between the latter and *japonica*. This is a mistake. On p. 230 he gave one to understand that he was going to explain the changes of plumage in the *C. c. japonica*, but he has not done so, and evidently himself misunderstood them. He accepts that the adult male—apparently at all seasons—has the "sides of the head, chin, and throat uniform dull brick-red, without a trace of the anchor-shaped mark," while adult females and young males have the throat-feathers elongate and lanceolate. Now the moults of the Quails are very interesting: there is a complete moult of the entire plumage after the breeding season, but there is also another, partial, moult in the spring; this latter moult is apparently restricted to the head, neck, back, and chest, and it seems to be very irregular, some signs of moult being found in winter, while even in May Mr. Witherby shot moulting males in South-west Persia. In the European Quail this moult produces no evident difference in plumage at all, while in the eastern race, *C. c. japonica*, it produces a very marked change! The throat-feathers are elongate and lanceolate in winter, and in winter only. Every winter bird with trustworthy date, both male and female, has these elongate and lanceolate feathers, though they vary in length and pointedness, and every spring-bird has rounded, shorter, "ordinary" throat-feathers. Moreover, there are in the British Museum and in the Rothschild collection males which clearly moult from the hackle-throated plumage into the round-feathered, rufous-throated one. These birds, according to their state of plumage, are fully adult, and not at all juvenile individuals. In the adult males in spring the whole throat is dull brick-red, but the black anchor-shaped mark *is* sometimes indicated or even well developed. In the winter the male has the throat white, mostly with a more or less developed black mark along the middle; the female has no black mark on the throat, and differs, of course, from the male in having the crop and chest more or less spotted, like females of the other subspecies of Quails. The adult female in spring and summer is so much like that of *C. c. coturnix* that I am unable to give constant distinguishing characters, though *C. c. japonica* is generally smaller: wings, ♂ 98–102, ♀ 100–106, against ♂ 104–115, ♀ 106–117 mm. in *C. c.*

coturnix. Since *C. c. coturnix* is never found in East Asia, hybrids between it and *C. c. japonica* do not and cannot occur.

More difficult than the distinction between the western and eastern races, *C. c. coturnix* and *japonica*, are the forms which inhabit Africa and the Atlantic islands.

According to Mr. Ogilvie-Grant, *C. c. africana* (his *capensis*) inhabits "South Africa, south of about 15° S. lat., Mauritius, Madagascar, Comoro Islands, Cape Verd Islands, Canaries, Madeira, and Azores." This would be a most astounding distribution and requires much investigation and alteration. It would mean that the same form inhabited South Africa and the Cape Verd Isles, with no such Quail in an area of 25 degrees of latitude between the two areas, *i.e.* the Cunene River and the Cape Verd Islands. But, worse luck, the Quail, inhabiting the Cape Verd Islands is not at all of the group of *africana*! It is true that there is a male in the British Museum, presented by Bouvier, which belongs to *C. c. africana* and is labelled as coming from the Cape Verd Isles, but no date and no exact locality is given. I therefore do not accept this evidence at all, since more recently Boyd Alexander collected a nice little series on São Nicolau and other islands, and caught the downy young, showing that these Quails breed there in November! Now, these Quails are hardly distinguishable from the European *C. c. coturnix*, but they are smaller: wings, ♂ 99-106, ♀ 100-105 mm., against 104-115 and 106-117 mm. in *C. c. coturnix*. From the specimens examined I am not able to state constant differences in colour, but it seems that the throat is oftener spotted and the neck above more brownish. I name the Cape Verd Quail:

***Coturnix coturnix inopinata* subsp. nov.**

Type: ♂ ad., São Nicolau, 7. xi. 1897, Boyd Alexander coll. (In the Tring Museum.)

Proceeding northwards, we come next to the Canary Islands. From observations by various ornithologists, it seems certain that the European *C. c. coturnix* passes through these islands on migration while another form of the *africana* group is breeding and resident. From the material hitherto examined I am unable to separate the birds from the Canaries from those which inhabit Madeira.

The Madeira Quail resembles *C. c. conturbans*, but is larger; the upperside looks generally lighter, though the rump is in most specimens much darker, blacker, but the light shaft-stripes are wider, the upper wing-coverts darker and not so cinnamon-brown; the throat shows more white, and in the majority of specimens the middle of the abdomen is lighter and mostly quite white. The wings of Madeiran males measure 106-112, females 107-113 mm., in males from the Canary Islands, 107-110, once 104, once 103 mm. I was, however, only able to examine 3 males and 5 females from Madeira, altogether 9 ♂ and 3 ♀ from the Canary Islands, in the British, Tring (2 ♂), and Liverpool (1 ♂, 1 ♀ in the Tristram collection) Museums. Some Canary Islands males resemble more *C. c. conturbans*, especially the male in the Liverpool Museum. There is, as usual in Quails, much variation.

I name this form:

Coturnix coturnix confisa subsp. nov.

Type: ♂ ad. 12. ix. 1903, Ponta de Pargo, Madeira. Received from Padre Schmitz. (In the Tring Museum.)

In the last group of North Atlantic Isles, the Azores, Quails are also common and resident.

Now, the Azores birds are, strange to say, almost exactly like the South African *C. c. africana*, a fact which, in consideration of the enormous distance of their two areas, is most unexpected. There is, however, one difference: the outer aspect of the wings, that is to say, the upper wing-coverts and inner secondaries are of a more rusty cinnamon-brown tinge, while they are darker and generally more olivaceous in *C. c. africana*. There appears to be no constant difference in size, though the wings of twenty specimens measured do not reach beyond 105 mm., while they go to 109 mm. in *C. c. africana*. I propose to call the Azores Quail:

Coturnix coturnix conturbans subsp. nov.

Type: ♂ ad. Santa Maria, 400 ft., 3. iii. 1903. W. R. Ogilvie-Grant coll. (In the Tring Museum.)

Last of all, let us consider the distribution of the real *C. c. africana*. As I have said above, according to Mr. Ogilvie-Grant it inhabits South Africa south of about 15° S. lat., Mauritius, Madagascar, Comoro Islands, Cape Verd Islands, Canaries, Madeira, and Azores. I have already discussed the Atlantic Islands, where other subspecies, but not typical *africana*, are resident. The birds, on the other hand, from the Comoro Isles, Madagascar, and Mauritius are, I am only too glad to agree, indistinguishable from South African ones, though I must say that I have seen only one single bird without history said to be from Mauritius, in the British Museum: there is no proof that it actually came from Mauritius, where it might not be at home at all. Mr. Ogilvie-Grant also enumerates a skin of a female from the Gambia, but this is, in my opinion, a specimen of the migratory European *C. c. coturnix*. Moreover, since the *Catalogue of Birds*, vol. xxii., was written, we have some evidence of the extension, in Eastern Africa, north of the Zambesi, while in the west it is not known to occur north of the Cunene River. There are several specimens in the British Museum from Nyassaland. Von Stegmann shot one south of the Karissimbi volcano (north of Lake Kivu), and Rudolf Grauer collected one on the foot-hills of the same mountain; Reichenow mentions a specimen from the Rugege forest; Crawshai obtained one north-east of Fort Smith, in Kikuyu; all these latter were single specimens, which seems to show that the bird is rare in all these places, but Dr. van Someren says that near Embu and Kyambu in British East Africa it is sometimes common.

There is also a skin in the British Museum, collected near Gibraltar by the late Colonel Irby. Mr. Ogilvie-Grant called it an "intermediate form between *Coturnix coturnix* and *C. africana*," but to me it seems to be a male of the South African *africana*; it agrees with the latter in colour, the wing-coverts being very deep brown, but the wing measures about 110 mm., which is very long for *africana*. It is marked "spring 1872," no exact date being given; the primaries of the left wing are torn out. Were Colonel Irby alive, he could

doubtless tell us how he got it, but he evidently did not shoot it, and one cannot but regret the absence of its full history. If it is a South African Quail, it cannot have been wild at Gibraltar; the same can be said if it should be an aberrantly dark Madeiran bird. That it is a hybrid is, in my opinion, absolutely impossible, nor is there any evidence, as it is typically dark and red for *africana*, not in the least intermediate between the latter and *C. c. coturnix*.

Colonel Irby tells us that Spanish shooters and bird-catchers distinguish between the resident and migratory Quails, and says that he also found them to be different. I have very little confidence in such vague statements of bird-catchers and shooters; they may have once established such a statement, possibly based on comparison of the breeding birds in spring with autumnal migrants, and then repeated it from generation to generation; but it is difficult to understand that an excellent observer and field-ornithologist like the late Colonel Irby should have omitted to collect specimens to show these differences. Apart from the dark varieties of Valencia (which occur also in Italy and elsewhere, also among cage-birds), there are comparatively many very bright-coloured birds among the half dozen Spanish Quails which I have been able to compare, but a series is nowhere available; there is, however, no probability that a separate subspecies occurs in Spain, since the birds from North-west Africa do not differ from *C. c. coturnix*.

We have now to distinguish the following races of *C. coturnix*:

C. coturnix coturnix (L.).

Europe to Yenisey and Lake Baikal, south to Morocco, Algeria, Tunisia, Egypt, and Persia, also in small numbers nesting in North-west India. Wintering chiefly in Northern Tropical Africa south of the Sahara (south to Gambia and Abyssinia), in Arabia and India.

? *C. coturnix corsicana* Tschusi.

Described from two winter birds, which were smaller and darker. Other Quails from Corsica (Laubmann, Hartert) are typical *C. c. coturnix*, but they may be migratory birds. Material from the spring and summer months must be compared in order to settle the question of a possible Corsican race.

C. coturnix confisa Hart.

Madeira and Canary Islands.

C. coturnix inopinata Hart.

Cape Verd Islands.

C. coturnix conturbans Hart.

Azores.

C. coturnix africana Temm. and Schleg.*

South Africa, in the east north to Uganda; Madagascar, and Comoro Islands.

* Called in the *Cat. B. Brit. Mus.* xxii. *C. capensis*, but it is now universally known that the earlier name *africana* had been overlooked, and Mr. Ogilvie-Grant uses it too in his recent writings, as in 1905 and 1912.

C. coturnix erlangeri Zedl.

Near Harar in Abyssinia. According to Erlanger and Zedlitz, with black instead of rufous jugulum.

C. coturnix japonica Jemm. and Schleg.

East Siberia from Dauria (Transbaikalia) to the Amur and Ussuriland, south to China and Japan. In winter to Hainan and Formosa, in small numbers to Burma and Bhutan. (Not known from the Loo-Choo (Riu-Kiu) Islands.)
