

This specimen is not quite adult, but obviously belongs to the present species, which is stated by Tristram to be "very common in the Southern Wilderness (of Judea) in winter."

39. *ÆGIALITIS CANTIANA*.

*Ægialitis cantianus* Tristr., op. cit. p. 130.

a. ♂. Hejana, 2.2.05; b. ♀. Kuryatein, 11.4.05.

40. *ÆGIALITIS CURONICA*.

*Ægialitis curonica* Tristr., op. cit. p. 130.

a. ♂. Kuryatein, 11.3.05.

41. *HOPLOPTERUS SPINOSUS*.

*Hoplopterus spinosus* Tristr., op. cit. p. 131.

a. ♀. Kuryatein, 22.3.03.

42. *MACHETES PUGNAX*.

*Machetes pugnax* B. O. U. List, p. 171.

a. ♀. Hejana, 20.2.05; b. ♂, c. ♂, d. ♂. Kuryatein, 5.3.05.

The Ruff is not included in Canon Tristram's List, but occurs in Greece and Egypt, so would certainly pass through Palestine on its migration north.

43. *TRINGA MINUTA*.

*Tringa minuta* Tristr., op. cit. p. 133.

a. ♀. Hejana, 18.2.05.

XVII.—On a remarkable *Capercaillie* (*Tetrao urogallus lugens*). By Dr. EINAR LÖNNBERG, C.M.Z.S. &c.

(Plate XVI.)

LAST winter I had the pleasure of obtaining for the Swedish Royal Museum of Natural History a specimen of the Capercaillie, which roused my interest to a very high degree by its strange appearance. It came from Finland, and before long I succeeded in procuring from the same source another specimen exactly alike in size and coloration. At the same time I was informed of the existence of six similar examples, which had been shot at different times within a period of



five or six years. Thus it became apparent that the aberration of these *Capercaillies* from the normal type meant something more than mere individual variation, so I wrote a preliminary report, which has been published in Reichenow's 'Ornithol. Monatsberichte' (Juin-Juli Hft. 1905) \*, and proposed to distinguish this aberrant form by the name used above.

The writer has now been enabled to present to the readers of 'The Ibis' a very exact and satisfactory picture of the bird, which has been prepared by the skilful hands of Mr. A. Ekblom.

The description of my specimens is as follows :—

Head and neck dark ashy grey finely mottled with black ; in one of the specimens the ground-colour of some of the feathers of the neck shades somewhat into brownish, but the mottling is similar to that on the other feathers. The colours of these parts are duller than in a normal *Capercaillie*, and they do not so plainly display a bluish hue.

The feathers of the chin and throat are blacker than the others, but with a fine grey mottling which is not found in the typical bird ; on the other hand, the metallic hue of the beard of the latter is entirely lacking in the variety.

The beautiful glossy green shield on the chest of the normal *Capercaillie* is wanting, and is only feebly represented by narrow margins shewing some green, or rather bluish-green, gloss on the feathers, which are otherwise mottled and similar to those of the neck. These green margins are chiefly confined to the chest-region, where the shield is found in the typical *Capercaillie*, but it is evident that the limits cannot be so sharp.

Upper back, scapulars, wing-coverts, and secondaries reddish brown, vermiculated with black. This ground-colour is much redder than in the typical bird, and might even be termed chestnut. The outer web of the primaries is brown, but less reddish. It is a very remarkable fact that there is no white spot at the anterior margin of the wing, nor any white colour basally on the outer web of the primaries, nor are there white tips to the secondaries. The under-wing-coverts

\* "Zur Kenntniss der Variation der Auerhahns," pp. 99-103.



are not white as in the typical form; only a few of them shew some white mottlings, and the axillaries are rather dark grey (not white). The back below the interscapular region is less reddish brown and more coarsely vermiculated or marked with irregular wavy black lines. Uropygium and upper-tail-coverts similar, but (especially the latter) finely vermiculated at their tips with hoary grey. The ground-colour is brown, however, all over this dorsal region, and is thus quite different from that of the same parts in a typical *Capercaillie*.

Rectrices black, with fine rufous-brown mottlings, especially on the middle feathers. The characteristic white spots and mottlings which form an irregular marbled band across the tail-feathers in the normal *Capercaillie* are quite absent. The tips of the tail-feathers are likewise not margined with white in this bird, although some of them have a few hoary grey mottlings at the extreme edge.

Flanks not white-spotted, but brown with fine mottlings of black and posteriorly of hoary grey. Breast and belly black or dark blackish brown with very fine reddish-brown and hoary-grey mottling. Posteriorly the latter mottling dominates the brown.

Under-tail-coverts blackish with light mottlings, which at the tips of some feathers become a little coarser and more whitish. There are, however, neither there nor elsewhere on the lower parts any white-spotted feathers, and the difference from a typical *Capercaillie* is, therefore, very striking.

Bill rather darker than in an old *Capercaillie* and somewhat lead-coloured above. In the younger of my specimens the bill is somewhat blackish laterally.

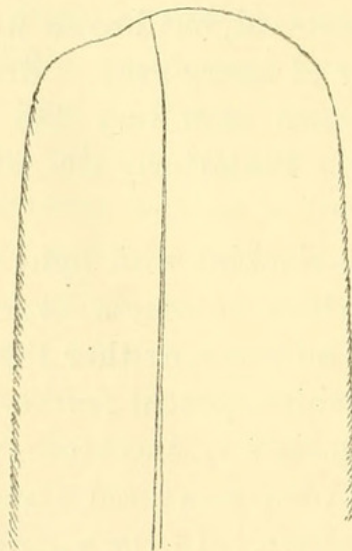
This aberrant *Capercaillie* appears at first sight to be smaller than a male bird of the typical race. This is chiefly due to the shortness of the tail-feathers. The dimensions of my specimens are :—

	mm.	mm.
Wing .....	369	370
Tail .....	240	245
Breadth of tail-feathers .....	35-42	32-43
Tarsus .....	74	74
Culmen .....	46	46



These measurements are all a little smaller than those of the corresponding parts of a typical Swedish *Capercaillie*, in which the length of the wing varies from 380 to 410 mm. Thus the variety in this connexion falls only 10 mm. short of the minimum of typical specimens. With regard to the tail, however, the difference is more striking. In the typical race the length of this member is from 315 to 340 mm. The difference in breadth and shape of the single tail-feathers is just as important. The rectrices of a typical Swedish *Capercaillie* measure from 56 to 76 mm. in breadth and are, as is well-known, squarely truncate at their ends. Compared with this the same feathers of the variety described above are very narrow, as may be seen from the measurements quoted. The shape is shown in the figure (text-fig. 1). It will there be seen that the end of each

Text-fig. 1.



End of the fifth tail-feather of *Tetrao urogallus lugens*.  
(Two-thirds nat. size.)

feather is rounded, while its structure also differs from the normal, in that the inner web is not much broader than the outer.

This description is based on the two specimens which I have obtained, but I have ascertained from Mr. Merilainen, Helsingfors, that two others which he formerly possessed



were quite similar. The owner of the four remaining specimens known, Mr. W. Pousar, Finland, has kindly sent me word that his birds also are similar. The only difference consists in the fact that one of his specimens has brown mottlings on the under-side of the tail-feathers and not only on the upper-side. Another specimen has (a pathological feature) a few white feathers in a single transverse series on the occiput.

The dimensions of Mr. Pousar's specimens are given by himself as follows:—

	<i>a.</i>	<i>b.</i>	<i>c.</i>	<i>d.</i>
	mm.	mm.	mm.	mm.
Wing .....	360	360	370	370
Tail .....	270	260	290	280
Breadth of tail-feathers ....	35-41	31-39	35-40	36-41
Tarsus .....	67	68	68	66
Culmen.....	44	46	45	46

The tail in these specimens appears to be a little longer, but otherwise the measurements agree quite well with those of my own examples.

The total length in three specimens measured by Mr. Merilainen was respectively 81, 81, and 82 cm., and the two former of these measured from tip to tip of the wings 113 and 117 cm. respectively.

All the specimens known of this peculiar *Capercaillie* are males and were shot in Finland. They were all bought in the market at Helsingfors, and in consequence of this the precise locality and date could not be ascertained in every case. According to the information received, the first specimen was killed at Kajana, Central Finland, on the 7th of December, 1896. This specimen belongs to Mr. Pousar, and is that marked *a* above. One of my specimens was killed on the 11th of February, 1897, in the Government district of Uleåborg, Finland. Mr. Pousar's specimen was killed on the 26th of November, 1897, in the Government district of St. Michel in the interior of Southern Finland; specimen in December, 1898, in the Government district of Uleåborg, Finland; specimen in the same district on the



22nd of February, 1900; and, finally, my second specimen in the same district about a month earlier. The locality in which the remaining two of the eight specimens recorded were shot is unknown. In the present state of our knowledge it must be assumed that Central Finland is the home of this peculiar *Capercaillie*.

How many more specimens may have been killed and eaten it is of course impossible to say. It is not, however, probable that all could have fallen into the hands of persons interested in ornithology, and thus have been preserved. The females are presumably more similar to the hen of the typical *Capercaillie*, and therefore have as yet escaped detection. Such a conclusion may be drawn from the parallel case of the female of the hybrid between the Black Grouse and the *Capercaillie*, which is so seldom found and is overlooked in consequence of its likeness to its maternal parent.

It remains to try to explain the origin of this remarkable bird. It will perhaps be best at once to exclude every idea of a hybrid origin. There is not a single characteristic that could be interpreted as a result of hybridization. Not even an eventual secondary crossing between the *Capercaillie* and the Rackelhane, or Black Grouse-*Capercaillie* hybrid, would help to explain any single feature in this bird, because there is no characteristic to be found that is common to this bird and a Rackelhane. It is the more impossible as some characteristics that are common to the *Capercaillie* and the Rackelhane are exactly those which are missing in this bird—for instance, the white spots on the wing-margin and on the under-tail-coverts, &c. The tail of this bird is small, but it has the same general shape as that of the *Capercaillie* and not of the hybrid, and so on.

The specimens must therefore be of unmixed origin. It is well known that barren females of the *Capercaillie* assume more or less the plumage of the male. Everybody that has any knowledge of such "hahnenfedrige Auerhennen" will perceive at a glance that there is no such phenomenon in this case. The barren female is at once recognised by its small size, white-spotted feathers on the lower side, &c. It has, as a







rule, a better developed glossy green shield on the chest, but usually retains here and there single typical female feathers, and so on. The birds in question can still less be interpreted as males in female plumage, or "hennenfedrige Auerhähne," as they do not possess a single female feather. The figure (Pl. XVI.) will unfailingly prove this to every ornithologist who is familiar with barren specimens of the *Capercaillie* which have assumed the plumage of the opposite sex.

The birds described here must consequently represent some other kind of variation. Can they be offshoots of a geographical subspecies? This might be possible, although the aberrations from the type are much greater and more important than exist, as a rule, between a geographical subspecies and the main species. This is the more striking as the birds do not appear to come from some isolated geographical area. It might, however, have happened that the specimens recorded had wandered to the places where they were shot from some other district; but, if so, whence? The only country not far distant from Finland, and at the same time somewhat isolated, is the Kola Peninsula. From that country, however, they can hardly have come, for I have a *Capercaillie* from that region which is quite typical and agrees with Swedish specimens. In his work on the ornithology of the Kola Peninsula, Pleske does not record any aberrations observed by himself in the case of the *Capercaillie*\*. On the authority of others he mentions, however, that in addition to the normal *Capercaillies*, small forms ("kleinwüchsige Auerhühner") exist in this region, and similar reports are found in the books of the older authors, such as Pallas †, Nilsson ‡, &c. But these authors do not give the slightest hint that the "small" *Capercaillies* differ from the normal birds with regard to plumage. It is, however, quite out of the question that so great an

\* 'Uebersicht der Säugetiere und Vögel der Kola-Halbinsel: T. ii. Vögel und Nachträge.' St. Petersburg, 1886. (Beitr. zur Kenntn. des Russ. Reiches, Bd. ix.)

† Zoogr. Ross. ii.

‡ Skandinavisk Fauna, ii.



aberration, with regard to plumage, shape of tail-feathers, &c., as that described above, should have escaped the keen eyes of these ornithologists, and if they had seen it they would have mentioned it. The "small" Capercaillies mentioned in such literature are not, therefore, identical with my variety, but are only dwarfish specimens of the common Capercaillie.

The fact that, so far as we know, this bird is not geographically isolated from the typical Capercaillie militates against a theory explaining it as a geographical subspecies. Nor does it represent the last remnant of a disappearing or vanishing race, for it is only in the last few years that it has been found in a country the avifauna of which has been well studied by ornithologists. It is something new and it is, as already mentioned, more than an individual aberration. It is evident that the number of specimens—eight in all—is too large to have been the produce of one brood\*. There is also direct proof that Capercaillies of this peculiar kind have been hatched and reared more than once, because my specimen killed in the year 1897 is a distinctly older bird than that killed in 1900. There are, then, but two explanations possible: either (1) these aberrant Capercaillies have been hatched repeatedly out of eggs laid by common Capercaillies, or (2) the specimens once reared have been able to propagate, and in that event the offspring has inherited the peculiarities of their parents. Thus much at least appears to be certain, that a variety of a bird has originated suddenly, with a number of specimens all alike and all differing strikingly from the original type. This appears to be a good example of "sport," or (to use a word which in Botany, through the interesting investigations of Hugo de Vries, has become very well known) "mutation." These mutations receive distinguishing names in Botany, and I have thought it advisable to follow the custom in this case and to propose as a third name for this Capercaillie the term "*lugens*," in consequence of its sombre colours as compared with the

\* The probable cause why, as yet, only male specimens have become known has been discussed above.



type. It seems to deserve a separate name, as the aberration is very thorough and at the same time constant.

If it is asked whether the variation of *T. u. lugens* can be said to have tended in any certainly definable direction, one might venture to answer atavistic; for the male *T. u. lugens*, as it seems, is less highly specialized than the typical Capercaillie. It has not the beautiful glossy green shield of the latter, its tail is shorter, with narrower, not truncate feathers, and it lacks also the white-marbled band across its middle. The bill is less powerful and the size of the whole bird is smaller. The absence of all white markings in *T. u. lugens* might perhaps at first tempt us to think of melanism. But on further consideration such an idea must be dismissed, for, with the possible exception of the head and neck, the plumage of this variety contains less melanistic pigment than that of a typical Capercaillie. It is therefore not probable that the absence of white markings in *T. u. lugens* is due to melanistic agency, in the usual meaning of the word. The white-spotted tail-coverts may, together with the white-marbled band on the tail-feathers, serve for ornamental purpose when the Capercaillie spreads its tail during its "spel" or love-performance. The white spots on these feathers may, therefore, have been acquired as secondary sexual characteristics, and in such case their absence may be an atavistic feature. The absence of the large white spot on the anterior margin of the wing is, however, much more difficult to explain. This spot may, however, also be an ornament, as it is more strongly developed in fine old cocks than in weaker specimens.

With the sudden appearance of this *T. u. lugens* might be compared "the strange case of *Athene chiaradiæ*," described by Giglioli in 'The Ibis' for January 1903. The latter has also been regarded as a mutation or, as Giglioli terms it, a *neogenesis*. How far the cases run parallel I am not prepared to say, as I have not been able to compare *Athene chiaradiæ* with other Owls.

At the sixth International Zoological Congress in Bern



last year (1904) Kleinschmidt\* proposed to regard *Corvus corax varius* of the Faroe Islands as a mutation. As it, however, displays partial albinism in a *variable degree* in different specimens, I do not think that it can be regarded as a typical example of mutation. *Sylvia heinekeni* of Madeira, brought forward on the same occasion by the same author as another instance of mutation among birds, is by others regarded as “an instance of partial melanism” †, or “*una varieta melanica*” ‡.

If the case of *Tetrao urogallus lugens* were to be ranked as a mutation in an atavistic direction, it might perhaps be regarded as a mutation in a progressive direction that the young of *Cygnus olor* in down, and again in their first plumage and then permanently, are white §, and thus give rise to the form *C. immutabilis*. But other authors say that the characteristics of this Swan are not constant and regard it only as “a quasi-albino produced by domestication” ||.

*Chrysolophus obscurus* has also been regarded as a mutation, but I pass over this case as we may soon learn its full history. Dr. C. Kerbert, of the Zoological Gardens of Amsterdam, has the material for its investigation.

### XVIII.—Notes on the Parrots. (Part IV.)

By T. SALVADORI, H.M.B.O.U.¶

Fam. V. PSITTACIDÆ (Cat. Birds Brit. Mus. xx. p. 137).

Subfam. NASITERNINÆ (op. cit. p. 138).

This subfamily contains only one genus, *Nasiterna*, which, according to some authors, ought to be named *Micropsitta*, a suggestion that I am not prepared to follow, as the latter name was proposed as a subgenus of *Psittacus* and not as a real genus.

\* According to the “Compte Rendu” of the Congress, p. 212.

† Cat. B. Brit. Mus. v. p. 25.

‡ Giglioli, Manuale di Ornitologia. Ital. p. 276.

§ Cf. F. A. Forel, ‘Le Léman,’ t. iii. pp. 308–326.

|| Cat. B. Brit. Mus. xxvii. p. 38.

¶ Continued from p. 131.





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