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BULLETIN
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BRITISH
ORNITHOLOGISTS' CLUB



EDITED BY
DR. JEFFERY G. HARRISON

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Volume 22

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P R E F A C E

NINE MEETINGS were held during the year 1952, from January to June and October to December inclusive and nine Bulletins were issued, in accord with the Committee's decision that the date on the cover and the date of publication shall coincide.

There has been a welcome increase in the number of papers submitted. Because of this, there is now a short waiting list for publication. Papers read before the Club and those describing new forms are given priority, but these can only appear in the appropriate Bulletin if they are submitted to the Editor one week in advance of the meeting. In order to distinguish between papers read before the Club and those which are not, a change in titles has been introduced.

The number of attendances at the Meetings was as follows:—Members of the Club, 345; Guests, 204; Guests of the Club, 6. These were H.H. Prince Dharma Kumarsinhji, Mr. P. H. T. Hartley, Dr. and Mrs. Ludwig Koch, Mr. Roger Tory Peterson and Dr. N. Tinbergen.

The thanks of the Club are due to Mr. C. N. Walter, who undertook to compile the list of authors for this volume. The Editor also gratefully acknowledges the help he has received from his predecessor, Captain C. H. B. Grant, and from the publishers on taking over the Bulletin.

JEFFERY HARRISON.

Sevenoaks, December, 1952.

PREFACE

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- BENSON, C. W.; c/o Game & Tsetse Control, P.O. Box 72, Lusaka, N. Rhodesia.
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- Mrs. J. B. PRIESTLEY is now Mrs. D. A. BANNERMAN. Address as above.

CORRIGENDA, VOL. 72.

- p. 37, line 23, for Vicillot read Vieillot.
- p. 37, line 28, for east to west read west to east.
- p. 45, line 12, for T. Fisher read J. Fisher.
- p. 46, line 19, for T. Fisher read J. Fisher.
- p. 46, bottom line, for Mr. Roger Tony Peterson read Mr. Roger Tory Peterson.
- p. 47, line 3, for Mr. Roger Tony Peterson read Mr. Roger Tory Peterson.
- p. 49, line 20, for designed read designated.
- p. 88, line 46, for *Novotates* read *Novitates*.
- p. 90, line 36, for Lapesuaye read Lafresnaye.
- p. 95, line 38, for *Nicato* read *Nicator*.
- p. 96, lines 7, 11, 13, for *Nicato* read *Nicator*.

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The five-hundred and eighth meeting of the Club was held at the Rembrandt Hotel, Thurloe Place, S.W.7, on Wednesday, 19th December, 1951, following a dinner at 6.30 P.M.

Chairman: SIR PHILIP MANSON-BAHR.

Members present, 26; Guests 4, Total 30.

A New Race of Serin from Eastern Africa.

Captain C. H. B. GRANT and Mr. C. W. MACKWORTH-PRAED exhibited and described the following:—

SERINUS CAPISTRATUS KOLIENSIS, new race.

Description.—Differs from *Serinus capistratus capistratus* Finsch, in that the male lacks the black on the forehead, sides of face and chin, and in general appearance is very similar to the female of *S. c. capistratus*, but with the streaks on the head and mantle darker and more distinct, and the dark streaking on the chin to chest darker and much sharper.

Distribution.—Central and southern Uganda and western Kenya Colony to Ruanda, Belgian Congo.

Type.—In the British Museum. Male adult. Onyulu's, Koli River, Lango, Uganda. 13th March, 1910. Collected by T. V. Fox. (Col. Stephenson Clark Collection.) Collector's No. 433. Brit. Mus. Reg. No. 1923.8.7.2375.

Measurements of type.—Wing 62, exposed part of culmen 10, tail 45, tarsus 45 mm.

Remarks.—Van Someren is the first to mention, in Nov. Zool. p. 172, 1922, a race of *S. capistratus* which he could not name. He had these from Kisumu and South Ankole, and states that all were breeding.

We have examined six adult males, four in the British Museum from Mfumburu Mts., Kigezi, Teso, and Koli River; one kindly loaned from the Coryndon Museum, Nairobi, from the Yala River, one kindly loaned from the Musée du Congo Belge, from Busunga, Mokoto, and one of the Van Someren specimens from Kisumu, loaned from the Chicago Nat. Hist. Museum, all of which show the characters given in the description of this new race.

We have also had the loan of two females, one from the Coryndon Museum, and the other from the Chicago Nat. Hist. Museum. The one from the Coryndon Museum is generally rather duller and more buffish than the males, and appears to be adult. We have not seen any young birds with which to compare this female. The one from Kampala (Chicago Nat. Hist. Museum specimen) is similar to the males, but is slightly warmer in colour tone. The wings of the six males measure 61 to 67 mm., and the two females 63 to 65 mm. The unsexed specimen from Kisumu, Van Someren collection, kindly loaned to us by the Am. Mus. Nat. Hist., wing 62 mm., agrees with the series in the B.M.

We have to thank Dr. Chapin of the American Museum, for giving us all the information he has at his disposal including the record of *S. c. capistratus* from Usumbura, at the north end of Lake Tanganyika. The bills of all these specimens agree with *Serinus* and not with *Carduelis*.

The Affinities of the Genus *Picathartes* Lesson.

DR. W. SERLE gave the following talk and exhibited specimens.

In 1938 Lowe transferred the West African genus *Picathartes* from the *Corvidæ* to the *Sturnidæ*. Lowe demonstrated that in certain osteological characters, namely, the form of the lacrymals, the vomer, and the maxillo-palatines; and in certain characters relating to pterylosis, namely, the almost complete absence of feather tracts on the head, and the form of the dorsal spinal tract, *Picathartes* differed from the *Corvidæ* and resembled certain or most of the *Sturnidæ*.

If Lowe included other passerine families in his comparative study he does not record the fact.

Lowe's views have not been accepted by all. In particular, Amadon and Delacour have criticised them constructively, and have suggested that *Picathartes* may be a very aberrant offshoot of the Thrush-babbler assemblage.

I have during the last two years made field observations on *Picathartes oreas* Reichenow in the British Cameroons; and collected a series of skins and eggs including embryos and nestling; and these are exhibited tonight.

These observations (which amplify those made by Bates and Webb), and these specimens, may throw light on the systematic position of *Picathartes*.

The only nesting places of *Picathartes oreas* Reichenow, known to me personally are in the Mamfe Division of the British Cameroons, in

heavily forested, trackless, broken country near the headwaters of the Cross River. The forested slopes that rise steeply from the streams that intersect the area are crowned in places by long ranges of sandstone* cliffs up to a hundred feet in height. The cliffs in their whole depth are often overhung, so that during the rains the rock face (with the *Picathartes* nests) remains dry.

The *Picathartes* build mud cups resembling gigantic swallows' nests. Fragments of roots and grasses bind the mud. They are firmly adherent to the vertical rock face, and even when ledges and niches are available these are not utilised for support. The inner surface is moulded to the rock face, and the rounded exposed surface is smooth, not papillated like the mud pellet nest of the swallow; and shows here and there superficial linear grooves, made it would seem by the bird's beak when fashioning the nest. The free outer rim is flanged, and the open cup is lined with a thick or thin pad consisting variously of roots (mainly), grasses, palm fibre, moss, leaf skeletons, and tendrils.

One nest of average bulk weighed $5\frac{1}{4}$ lbs., and another of average dimensions had these measurements:—

External diameter at the rim (including flange) ...	340 mm.
Internal diameter at the rim	190 mm.
Depth of the nest	190 mm.
Internal depth of the cup	90 mm.

A colony comprises four to eight nests including old ones. These are built at heights of four to twenty-five feet, and occupy a stretch of cliff of fifty yards length or less. I know of ten such cliff colonies, separated from fifteen minutes to three hours walking time.

The normal clutch is two, rarely one. The eggs are ovate, elongate-ovate, or ellipsoidal in shape, with a smooth surface and slight or absent gloss. The ground is white tinged with grey, buffish-cream, or greenish, and is usually marked all over the shell with spots and blotches and mottles of amber-brown, yellow-brown, olive-brown, or chestnut-brown primary and ashy-grey secondary markings. Generally the markings are more dense at the broad end where they coalesce to form a cap or wreath.

Average of twenty-five eggs 40.8 x 27.25: max. 45 x 27.3 and 39.7 x 29.9; min. 36.8 x 27.5 and 38.3 x 25.9 mm.

There is considerable range in the type of markings in this short series but all the eggs are typically corvine. You will notice for instance clutch R50/23 which matches almost perfectly a clutch of *Coracia pyrrhocorax* (Linnæus) from the Stuart Baker collection, and clutch R50/29 which matches almost perfectly a clutch of *Urocissa erythroryncha occipitalis* (Blyth), also from the Stuart Baker collection.†

*Professor Arthur Holmes, F.R.S., kindly reports on a fragment of cliff sent to him for examination. "The specimen you sent is a coarse grit made up of fragments of quartz and some feldspar. It is a typical sedimentary rock, probably of no great geological age."

†The eggs from the Stuart Baker collection and the skins of *Eupetes macrocerus* Temminck, are exhibited with the kind permission of the Trustees of the British Museum.

In shape, texture, gloss, grain, ground, and markings these are typical crows' eggs. No eggs of the *Sturnidæ* known to me bear any resemblance to those of *Picathartes*.

There is wide diversity in the site and structure of the nests of the *Corvidæ* (*Corvus corax* (Linnæus), *Corvus monedula* (Linnæus), *Pica pica* (Linnæus), and *Podoces humilis* Hume, to give only a few examples), indicating perhaps a plasticity of the germ plasm controlling nidification behaviour patterns, which would facilitate the rapid evolution of new norms to suit new environments. If this postulate is accepted, and if *Picathartes* is to be allied to the *Corvidæ* its aberrant nesting habits are explained.

At the nest *Picathartes oreas* is extremely wary, the incubating bird diving silently and swiftly into the forest when one is still far distant.

The nesting season is prolonged, and coincides with the rains. In March, when several colonies were visited there were no new complete nests, and only a few fresh half-built ones. The earliest record for eggs was 7th June (heavily incubated) and the latest 16th October (fresh). Nesting is not synchronised. Colonies may include partially built nests and others with eggs or young, all on the same date.

It appears that one or other of the nesting sites is used as a communal roosting place. I was unable to verify this myself at the colonies I visited at night, but my Ibo skinner, Gilbert Nkwocha, had better fortune. In March (before the nesting season) he observed birds fighting in to roost at one of the colonies; and again in August (the height of the nesting season).

On the latter occasion the birds arrived just before dusk, in pairs or small parties, flying low over the ground through the forest. They settled on the lower branches of the smaller forest trees at the base of the cliff. They occasionally uttered their typical "chirrrr". The estimated size of this roost was fifty birds.

In his original diagnosis of *Picathartes oreas*, Reichenow describes the underparts as white, in the middle washed with chamois yellow. Other systematists describe the underparts as white. In life the shade of the underparts behind the throat is apricot, darkest on the lower breast, lightest on the undertail-coverts, and intermediate in shade on the belly, thighs, and upper breast, but the skins rapidly lose their yellow colouration even when stored in the dark. You will notice a great difference in the shade of the underparts of the two birds collected nine and twenty-eight months ago respectively. When collected they were of the same shade, and both of them much more intense than they now appear.

In the colouration of its plumage; in the colouration and extent of the bare patches on the head, and in the distribution of the fine hair-like feathers on the top and sides of the head, the nearly full-fledged nestling resembles the adult.

The embryo, as far as can be determined from a formalin specimen not fully developed, exhibits sparse, hair-like, short, dark down with a vertebral, femoral, humeral, and ulnar distribution.

I noted recently, quite by chance, a remarkable similarity between *Picathartes* and a Malayan species *Eupetes macrocercus*, specimens of which are exhibited. *Eupetes macrocercus** is itself a form of uncertain affinities generally regarded as an aberrant babbler. Its nidification is unknown. Forbes' anatomical study of *Eupetes macrocercus* showed only that it was one of the oscinine Passeriformes.

The measurements of two adult specimens of *Picathartes oreas* and *Eupetes macrocercus* picked at random, show how closely the two forms approach each other in their proportions.

<i>Picathartes oreas</i>				<i>Eupetes macrocercus</i>
Wing	...	...	156 mm.	95 mm.
Tail	...	...	146 mm.	103 mm.
Bill (from base of skull)			47 mm.	32 mm.
Tarsus	...	...	61 mm.	41 mm.
Middle toe without claw			33 mm.	22 mm.

The bill of *Picathartes* is somewhat stouter and more laterally compressed, and the upper mandible more curved. In the anterior position of the nostrils the two forms are similar (note that *Ptilorrhoea* species differ from them). In both, the forehead is low, and the tail slightly graduated. There is a striking similarity in the texture of the feathers of the mantle, back, and tail. And finally *E. macrocercus* shows bare skin patches below the eye and on the sides of the neck.

I believe that till a comparative examination is made of all the passerine groups, including of course the babblers, to assess the phylogenetic significance of the osteological and other characters mentioned by Lowe, *Picathartes* should remain in or near the *Corvidæ* where it originally belonged.

Its eggs are corvine; there is nothing about the neonatal or juvenile plumage inconsistent with its corvine relationships; and in the field it strikes the writer as being nearer to the crows than to any other passerine family.

SOME BIBLIOGRAPHICAL REFERENCES.

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*Mayr (Check-list of the Birds of New Guinea, 1941) followed the earlier systematists in regarding *E. castanonotus* Salvadori, *E. carulescens* Temminck, and *E. leucostictus* Sclater, as congeneric with *E. macrocercus*. Peters, Auk, p. 94, 1941, had created for them a new genus—*Ptilorrhoea*. I incline to agree with Peters. Indeed *E. macrocercus* seems nearer to *Picathartes* than to its supposed congeners.

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Further as to Colour Change without a Moul—Subtractive Change in the Starling, *Sturnus vulgaris* Linnaeus, and the Chaffinch, *Fringilla coelebs* Linnaeus, and further as to subtractive change as a physiological process and some remarks on its mechanics.

Dr. J. G. HARRISON made the following remarks and showed slides in colour and monochrome:—

In our last joint paper read before this Club (Bull. B.O.C., 69, pp. 89-103, 1949) we demonstrated tonal colour changes taking place in definitive feathers and took as our examples the Snow Bunting, Lapland Bunting, Black Lark, Brambling, Rock Thrush, Redstart and Stonechat. We also referred to the Starling as presenting a special problem of its own, on which conclusions were reserved. At the same time we considered the process, which was then known as "abrasive moult"—a term used to describe the wearing away of the tips of the feathers as a result of friction by external agencies. We attempted to show that this "abrasive moult" was not the haphazard method by which certain species came, as if by chance, to reveal important secondary sexual characteristics, but was a phenomenon which took place rapidly and at a definite time of year—i.e., the early spring—and furthermore showed marked differences between male and female.

The time factor, the selective sex differences, and the obvious purpose served, led us to postulate that the process was a physiological one and to describe it we suggested the term "subtractive change" by which we mean to imply that there is a moult of part of the individual feather. In our last paper, we were able to demonstrate "subtractive change" taking place but we made no attempt to correlate it with the physiological state of the bird beyond showing that the chief change took place at the time of year when the bird was beginning to come into breeding condition.

To-night, we hope to take our investigations a stage further and to show that the process of subtractive change is closely linked with the physiological state of the bird. To do this we are going to consider two species, the Starling and the Chaffinch. Both have been chosen for a very special purpose.

First, let us consider the Starling. It is well known that there are two populations of Starlings in the British Isles in winter; our own resident birds, and migrant visitors from the European continent. Although there are no colour or structural differences to enable us to distinguish between them, it is an accepted fact that the "British" Starlings come into breeding condition, pair off, and go to nest considerably earlier than the "European" Starlings which must migrate home before this happens and are still in flocks when the others have paired. At this time there is a difference in the colour of their bills—the "British" birds developing the yellow breeding colour, which the migrant birds have not yet attained. This difference led Bullough (Ibis, 1942, pp. 225-239) to consider the British Starling as a "physiological race"—a race that was not, however, accepted by the British Ornithologists' Union List Committee because, in fact, the differences are in time and not substance.

These colour changes in the bill of the Starling serve as an indicator of the physiological state of the bird. The amount of yellow increases with the advance into breeding condition. Because there are two populations of Starlings in Britain, we are able to compare specimens at the same time of the year, some of which are coming into breeding condition and some of which are not. The guide to this is the amount of yellow on the bill which, fortunately, does not completely fade in the dry skin.

The object of our demonstration to-night is to show that the amount of yellow in the bill varies directly with the degree of abrasion (or as we feel it should now be called "subtractive change") in the feathers.

The first series of five Starlings are all males collected in December and show on the extreme left a bird with no yellow on the bill and a heavily spotted plumage. From left to right the birds show progressively increasing amounts of yellow developing in the bills and this can be seen to be associated with the rapid loss of the light tips of the feathers. The left hand bird was shot from a flock of migrants on the Wash on 23rd December, 1944—the other four were all residents from Sevenoaks and were collected between the 3rd and 10th December, 1927. If we now look at the underparts we find a surprising difference in the amount of spots in the European bird on the extreme left as compared with the British specimens.

A second series of male Starlings collected in January show a similar correlation between the development of yellow on the bill and the loss of feather tips. The extreme left hand bird was shot on 20th January and the extreme right hand bird on 8th January. Thus, in both these series, there is no correlation between the date of the specimen and the loss of tips—an association that should be evidenced if the abrasion of the feather tips were due to external factors.

We have heard it stated by some eminent ornithologists that the Starling abrades the tips of the feathers by going in and out of nesting holes and more especially on the head by just looking in and out. Apart from the fact that the early date of loss of feather tips in our series should disprove this idea, it is noteworthy that the tips of the ear coverts and the crown are the last to be shed.

The third series of Starlings consists of four females collected in January. These show yellow developing in the bills, but in this case it is not so definitely associated with the loss of feather tips. Thus there is clearly a sexual difference and the only marked loss of tips is on the chin of the right hand bird.

It is a pity that there are no racial characters by which we can distinguish between the two winter populations of Starlings in Britain. We decided, therefore, to look for a species with a similar distribution, which shows the colour changes to the bill in spring, the so-called abrasion in the spring plumage, and a species in which the visiting population can be distinguished from the British residents. The male Chaffinch conforms to all these requirements.

Dr. J. M. Harrison (Ibis, pp. 411-418, 1947) has shown conclusively that there are three races of Chaffinches wintering in Britain. The Northern European (*Fringilla cœlebs cœlebs* (Linnæus), the Central European (*F. c. hortensis* (Brehm), and the indigenous race (*F. c. gengleri* (Kleinschmidt). For our purpose we decided to compare the British race and specimens of the Central European race taken in England in winter and on the Continent. We were fortunate in having before us the same series on which Dr. J. M. Harrison had based his studies so that the racial identification was already determined for us. We would point out that the Central European race is decidedly more pinkish on the underparts compared with the more ochreous underparts of the British race.

The first series of four shows, on the right, two European birds shot from flocks in Kent and, on the left, two British birds. All four are January specimens and, already, the British residents are showing subtractive change on the crown, revealing the black line above the bill and the blue crown. These changes are taking place even before any definite colour changes in the bill and are not shown by the European migrants which still retain brown tips on their heads.

The two February examples, on the left of the next slide, show subtractive changes occurring to a marked degree in the British specimen while the Continental bird only shows early changes. The two March birds, on the right of the slide, are particularly instructive. Both were shot on the same day at the same place in Kent—the Continental one from a flock of immigrants, the British one was a single bird. The developing blue head and the subtractive changes on the forehead and crown of the British bird can be seen to be well in advance of the changes in the Continental migrant.

The April series all show considerable subtractive changes and it requires a careful examination to see the differences. The two British examples on the right may be said to be in full breeding plumage—subtractive change on the crown is complete and their bills have turned blue. The two European migratory birds, on the other hand, have not yet developed the full blue of the bill and the feathers on the nape still retain the remnants of their brownish tips.

As a final check to demonstrate that the difference in "subtractive change" in these two groups of Chaffinches are not in any way connected with racial differences, we compared resident Continental birds of the race *F. caelebs hortensis* with migrants of the same race from England. Unfortunately no birds of February or March were available. At these dates we would have expected the differences to be most marked because the resident bird should come into breeding condition before the migrants. The two birds on the right of this April group are residents, one from Denmark, the other from Germany. These two are in full summer plumage, exactly comparable with the two British examples in the previous slide and different from the migrants in having fully developed blue bills and complete subtractive change on the crowns.

To summarise our findings up to the present, we claim now to have shown that the process of wear is not haphazard but takes place in an orthodox and regular manner, which cannot be satisfactorily accounted for by the mechanical abrasive effect of external environmental factors.

In the Chaffinches we have been able to show that subtractive changes are delayed in the migratory winter population in England compared with the residents. In the case of the Starlings, this was presumed. We have also shown that these migrants show delayed changes compared with residents of the same race on the Continent. Such changes when correlated with the colour changes in the bill show that they coincide with the development of breeding condition.

The changes are largely confined to males. We have also shown in the Starlings and Chaffinches that the commencement of subtractive change coincides with the advent of breeding condition and that the two phenomena then develop simultaneously and progress together—in other words—subtractive change is controlled physiologically.

I shall now hand over to Commander Staples, who is going to show that the process whereby the Starling loses his spots is not that simple process implied by the happy bird book phrase "these wear off by the Spring".

(To be continued.)

The Scientific Name of the Jack Snipe.

Captain C. H. B. GRANT sent the following:—

In Mr. Gibb's paper on the "Birds of the Maltese Islands" (*Ibis*, p. 120, 1951) is to be found the combination *Lymnocyptes minutus*. This presumably is meant for the Jack Snipe, *Lymnocyptes minima* (Brünnich), as the Common Snipe is coupled with it in discussing the status, and a correction is given in the *Ibis*, p. 655, 1951.

Unfortunately *Lymnocyptes minutus* is a scientific combination and should be so dealt with. It therefore appears necessary that it be placed in the synonymy of *Lymnocyptes minima* (Brünnich), and I now do so.

This is an example showing how careful authors, committees and editors should be to ensure that the nomenclature they use is scientifically correct.

Notices.

STOCK OF THE "BULLETIN".

It is proposed to reduce the stock of the "Bulletin", but before this is done members are given an opportunity to acquire parts at 2/6 each. Application should be made to W. E. Glegg, Esq., Zoological Museum, Tring, Herts. No reply will be sent if parts are not available.

BACK NUMBERS OF THE "BULLETIN".

Members who have back numbers of the "Bulletin" which they no longer require, are requested to kindly send them to W. E. Glegg, Esq., Zoological Museum, Tring, Herts.

DINNERS AND MEETINGS FOR 1952.

January 16th; February 20th; March 19th (at the Zoological Society, in conjunction with the B.O.U.); April 16th; May 21st; June 18th; October 15th; November 19th; December 17th.

SEPARATES.

Contributors who desire six free copies of their notes should state so on their M.S., otherwise these will not be ordered.



Communications are not restricted to members of the British Ornithologists' Club, and contributions up to 1,500 words on taxonomy and related subjects will be considered from all who care to send them to The Editor, Capt. C. H. B. Grant, British Museum (Natural History), Cromwell Road, London, S.W.7.

Communications relating to other matters should be addressed to the Hon. Secretary, N. J. P. Wadley Esq., 14, Elm Place, London, S.W.7.



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BULLETIN
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Volume 72.

No. 2.

The five-hundred and ninth meeting of the Club was held at the Rembrandt Hotel, Thurloe Place, S.W.7, on Wednesday, 16th January, 1952, following a dinner at 6.30 P.M.

Chairman: SIR PHILIP MANSON-BAHR.

Members present, 52; Guests, 53; Total, 105.

Further as to Colour Change without a Moul—Subtractive Change in the Starling, *Sturnus Vulgaris* Linnaeus, and the Chaffinch, *Fringilla coelebs* Linnaeus, and further as to subtractive change as a physiological process and some remarks on its mechanics.

(continued from p. 9.)

Lieutenant-Commander C. P. STAPLES continued with the following remarks and also exhibited slides in colour and monochrome:—

Due to modification in feather shape as between the sexes, the Starling has always lent support to the view that the contrasting tips—the spots on the plumage—are worn away by external factors of the bird's habitat. The feathers of the male are pointed while those of the female are rounded and of a softer texture. In the result her spots are broader and larger—hers are roundish, his triangular. Inferentially, the smaller spots on the plumage of the male would wear away mechanically more rapidly than the larger and less pointed spots of the female. Moreover, the feathers of the male are more erectile and appear to be stiffer than the female's—appear less elastic and hence more likely to wear at the tips by physical abrasion. From this has no doubt arisen the idea that looking into nesting-holes causes abrasion of head and neck feathers—which are the most erectile and stiff. We hope to demonstrate, however, that feather shape and form does not influence subtractive change.

The first slide shows skins of a male and a female. The more pointed feathers of the former—particularly on head and neck—are clearly shown.

Under magnification, the feathers show interesting features. First dealing with the question of stiffness. A feather from the nape of a male is very pointed and the median portion—which carries the prismatic colouring of dark pigment—presents a heavy mosaic. This portion and the contrasting tips are all we usually see—the downy lower part of the feather being hidden. If we take apical barbs from the tip we find that the part of these which form the contrasting tips are patently of finer and lighter form than the part carrying the median colouring. Further examination of one of these apical barbs, shows that the dark pigmentation is carried by barbules which have become modified by flattening. These flattened barbules lie on one side of the barb only—the barbules on the other side are of normal filamentous type. A more enlarged picture shows that these flattened barbules still retain a normal filament of attachment so the stiffness of the whole feather is really illusory and probably emphasised in appearance by the heavy mosaic caused by the flattened barbules overlapping the plain filamentous barbules on the adjoining barb and so on throughout the median feather. Thus is produced a solid reflecting surface for the prismatic colouration. Apical barbs in the feathers of a female are similar but the flattening of the barbules is not so pronounced and varies as the depth of iridescence varies on the plumage, some feathers being quite unmodified. The contrasting tips however follow the same form as those of the male.

So much for the appearance of stiffness, and solidity in the male feather, and the similarity between the tips in both sexes. If we now compare the distal halves of nape feathers from both sexes, we see that a part of the main stem—the rhachis—is pigmented with dark melanin and protrudes into the contrasting tips and that this pigmentation is on a broader base in the case of the male. Moreover, although the female feather is rounded, the tips are not much longer than those of the male—anyway not sufficiently longer to effect any appreciable disparity in rate of abrasion by mechanical methods.

In checking the rate of wear of tips of nape feathers we find that neither sex begins to lose any part of the tips before December—that is four months from the moult—yet, during January to April very rapid loss ensues and the male tips wear more rapidly than the females. Most males have lost their nape tips by the end of April, females never entirely lose theirs.

Four nape feathers from males taken in December, February, April and July show that although there is little difference between them in December and February, the tips are much reduced in April and have disappeared in July. The July feathers shows the point of the rhachis still protruding and subsisting apparently unshortened while the curve on each side of the feather point is still retained in its original form minus the contrasting tips. These are all that have gone—no other

wear has apparently occurred. A rather remarkable result if mechanical environmental abrasion has anything to do with the loss of tips. The shape of the July feathers, we submit, speaks volumes.

If we now examine female nape feathers for December, March and June, we find that shortening of the tips is not comparable with that shown by corresponding male feathers, and, in June, there is still a lot of tip remaining on the apical barbs. In all these feathers it will have been observed that abrading is regular without inequalities such as one would expect to find if external agencies caused the wearing away. All the tips shorten evenly and progressively and the feather shape is constant until the tips are finally lost.

Turning now to feathers of the under-parts—which are tipped with white in both sexes—we find that shortening commences in December and by March only vestiges remain in the case of the male. Little change has by then occurred with the female tips. Both these slides show December and March feathers for comparison between the sexes—the first of male and the second of female feathers. We would remind you that when the male has lost the majority of his under-part tips, the nape tips are hardly worn notwithstanding the tips of the under-parts are considerably larger and longer than those of the nape, and crown.

Coming now to the mantle feathers—which in both sexes are tipped with buff or ochre—we find these retain their tips for the longest time. The females never entirely lose their tips while males may retain some tips until June. The rate of loss is not comparable with that taking place in the feathers of the nape, throat and under-parts. The next two slides show mantle feathers from each sex for the months of December and April respectively. In December both have tips of equal length but the female tip is, as usual, on a broader base. In April, those of the males are noticeably the shorter. Examination of numerous skins also discloses a tendency for the tips of mantle feathers to bleach at their apices just before shortening. They bleach to light buff and even white. The tiny vestiges of tips which remain just before final clearance are almost invariably white. The next slide shows a normal male and one that has bleached its mantle feathers to a considerable extent. It is noteworthy that bleaching of these mantle tips does not occur before March at which time sunlight rapidly gains in strength.

From the examples we have shown it will have been noted that the loss of tips from the various contour feathers is not uniform over the whole body. Some parts retain their tips longer than others irrespective of the original length of the tips immediately after the moult. There is, nevertheless, a fixed sequence of loss—first, the throat tips, then those of the under-parts from breast downwards, followed by the tips on forehead, crown, nape and mantle. The tips of the ear coverts persist the longest of white tipped feathers despite their small size and similarity between the sexes and their liability to wear and tear through head movements while the bird is feeding or weaving through

cover. This slide shows ear covert tips of both sexes in December and April respectively. Where in their case can we point to outside factors as causing their abrasion? In fact the sequence of loss of tips is in proportion to pigmentation and not length—the white tips go before those of light buff, and light buff tips before those of darker buff or ochre. This points to subtractive change being a physiological process and when correlated with bill colouration as stated earlier, such a claim seems to be sustained. We submit that it is apparent from close examination of feathers that the abrading of the tips is not at the whim of outside factors or there would not be differential wear or such evenness of wear as we have shown.

In a previous paper (Bull. B.O.C. 69, p. 36, 1949) we referred to abrasive moult—such as occurs in the Starling—as being due to some inhibition in the flow of oil through the feather to the tips and also pointed out that unless a feather is first deprived of its oil content that feather is impervious to chemical action by dyeing or bleaching. Oil is a feather's safeguard against chemical change whether natural or artificial. It would, therefore, seem logical that if, as we claim, these tips have become devoid of oil and for this reason abrade readily and sometimes bleach naturally, then, it should be possible to dye these tips without preliminary treatment of any kind. The next slides show the result of immersing tipped feathers in water soluble stains or dyes—such as Erythrosin, Orange G, Methyl Green, and the like—the tips have dyed quite readily—while the rest of the feather is unaffected except where cut through at the base. We chose water soluble dyes to ensure that the oil content of the feather should not be affected by the spirit in spirit soluble dyes. What is most interesting is the fact that, although the tips are dyed in the case of both sexes, those of the females are not dyed so deeply or evenly even when immersed in the same dye and for the same period as the male feathers. This distinction appears visually to corroborate our other claim that the abrasion in female feathers is not so great because the loss of oil in the tips is not so great. The modicum of oil present in female feathers has sufficed to impede the full effect of dyeing.

Yet there is still a link missing from the chain of proof that subtractive change is a physiological process arising from reduction of oil in the tips and as a result of which they become friable from the apices downwards and progressively wear away. We have demonstrated by dyeing that there is a deficiency of oil in these tips and that it is greater in the male than the female feathers. We have not been able to show how or why this deficiency arises. It seems that the loss of oil commences at the same time as internal sexual changes leading to breeding condition begin to take place and the two phenomena run concurrently, but what is the mechanical secret behind the loss of oil in the contrasting tips? The solution should be simple for we are dealing with a simple structure—a feather, consisting of keratin in which pigment granules are embedded. The tips only differ from the remainder of the feather in their format and lighter pigmentation. The line of demarcation between the two shades of pigmentation is clearly

defined, the transition is sudden without any gradation or shading as this slide shows. We are still of the opinion, but in default of actual proof, that there must be a break in capillary flow through the cortex of the feather and that this is brought about simply by the transition of form and pigmentation at the junction of tip with main feather. A slight change in the course of the fibres of keratin or its consistency or content—including pigment content—would suffice to cause a break in capillary traction. When one compares the feathers of the females of species undergoing subtractive change with those of the corresponding males one invariably finds a difference in texture and that there is not so much divergence between the format or the pigmentation of the tips as compared with the rest of the feather in the case of the females. The male feathers are always stiffer and more contrasting in the pigmentation and leads one to postulate that the greater divergence between the tips and the median feather in the male would lead to greater impediment to the flow of oil or any secretion, oil borne, through that feather into the contrasting tips. This idea does not invalidate our earlier claim that at the breeding season fatty secretions permeate the feathers of the males. On the contrary it would serve to emphasise the build up of sheen and colouring in the median feather by damming the secretion or oil from entering the tips.

The Starling is one of those passerine species which flock in the non-breeding season and pair up annually. Such a species is subject for biological reasons to subtractive change in plumage to attain breeding dress as explained in our previous paper (Bull. B.O.C. 69, p. 99, 1949). We also then pointed out the reason for the similarity in colouring of head and upper-parts and for that colouring to be retained for as long as possible while the flocks remained together.

We also pointed out that under-part colouration is of no importance as a sexual differentiation while birds are in flocks and feeding together. The Starling, therefore, is another corroboration of these rules for it retains its buff spots on the upper-parts longest and sheds its white spots on the under-parts earliest, in fact before the flocks begin to disperse, but its ear covert spots are retained until later.

Summing up, we find that the Starling shows:—

(A) Conformity with the rule that there will be subtractive change in a passerine species if it flocks in winter, pairs up annually and has dissimilar plumage between the sexes at the breeding season.

(B) That there is a definite correlation between the changes in bill colouring and plumage during subtractive change. This is also confirmed by males of the Chaffinch.

(C) That the loss of feather tips is entirely independent of environmental factors.

(D) That there is more rapid loss of tips in the case of the males but that tips on the upper-parts are retained longest by both sexes.

(E) That the tips are discarded in inverse order of their depth of pigmentation—white being first and buff last, which tends to bleach before being shed.

(F) That there is a progressive deterioration in the oil content of the feather tips and it is this physiological factor which determines the sequence and rapidity of subtractive change and colour change by bleaching.

(G) That all the changes are interrelated with the breeding cycle and have no connection with environmental causes.

We express our grateful thanks to the authorities of the British Museum (Natural History) and the Royal Scottish Museum and to Dr. J. M. Harrison for kindly making skins available for our investigations.

All the skins shown on the slides to-night are from Dr. J. M. Harrison's collection and they are here to be demonstrated to members.

'On the History of the Partridge in the German Friesian Islands, with the Description of a new Race from the Island of Borkum'.

Dr. JEFFERY HARRISON read the following paper and exhibited specimens:—

The history of the Partridge in the German Friesian Islands is far from clear. The islands originally formed the coastline of the German mainland, which was then sheltered behind a narrow belt of sand-dunes. During the thirteenth century, a widespread land subsidence took place, leaving only a chain of islands, each one consisting of the higher parts of the dunes. Today the Partridge is common along the coastal marshes of the German mainland, and I can see no reason to suppose that it was different on the marshland which eventually sank during the thirteenth century. It is therefore feasible to presume that some of them became cut off on the newly-formed sand-dune islands, in surroundings which they must have found unusual.

There is evidence to support this, because as far back as 1857, Rafn reported that they were still breeding on the Island of Sylt, whereas the earliest record of any introductions is not until 1880 (Krohn [1]). Apparently the birds on Sylt became extinct in the 1860's, but were reintroduced by the Spa Medical Officer, Dr. Nicholas, in 1880 and some were reported as nesting there in 1902 by Dietrich [2]. He also reports that Partridges were introduced into Föhr and Pellworm, but did not survive for long. Writing of the present-day, Beckmann [3] states that the Partridge has not been identified from the North Friesians, but I myself saw several on Sylt in July 1950.

I can trace no early history relating to the East Friesians, although it is known that some were introduced with Pheasants about 1890 (Leege [4, 5]), but the Partridges were said to have been unsuccessful, quickly dying out on several islands, except on Langeoog, where they were still doing moderately well in 1903. On Borkum, Sehlbach [6]

saw an adult in June 1924 and a number of fledglings. In 1928, however, Dietrich [2] reported that all attempts to introduce Partridges onto the East Friesians had met with only short-lived success.

Herr H. Ringleben of the Vogelwarte Helgoland tells me (in litt.) that he visited Borkum for a few days in June 1948 and saw no Partridges, but that other German ornithologists had seen scattered pairs during the previous few summers. He also tells me that there are apparently none today on the Islands of Juist, Norderney, Spiekeroog or Wangeroog.

Such are the reports of Partridges in the Friesians. My main studies have been made on the Island of Borkum and I will say at once that the Partridge is a most difficult bird to find in undulating sand-dune country, which must be the reason for so many conflicting reports. Although only scattered pairs had been seen on Borkum since the war, 1949 was an excellent year and in October we estimated that there were about two hundred birds on the island, in large coveys with many young. We found them mostly among the dunes, although they came on to the marshland occasionally and into the allotment gardens near the town. Next year their numbers were reduced again and only three coveys were seen, as on my last visit in October 1951. In 1949, only eighteen were shot and it seems probable that disease may have been the factor responsible for reducing the large population of 1949.

I collected a series of nine Partridges from Borkum and immediately noticed that they were not the same colour as the typical Partridge, a fact which was also noticed by other members of our shooting parties. I have compared the Borkum series with others from the German mainland and from Holland, Switzerland, Czechoslovakia, England and Wales and I find that both males and females from Borkum are generally paler birds, in which the black markings on the back have been largely suppressed. As with Partridges from elsewhere, the female from Borkum tends to be rather darker than the male.

For this new race of Partridge I propose the name

PERDIX PERDIX PALLIDA, new race.

Description.—Differs from *Perdix perdix perdix* (Linnæus) in being generally paler; the back lacking any black markings; the chestnut markings of the forehead and face are much paler. The horse-shoe marking on the underside is light brown, but an occasional specimen from England has been found with a light-brown horse-shoe marking.

Type.—In my collection. Male, adult, Ostland dunes, Borkum Island. 3rd December, 1950. Collected by Mr. A. B. Marsden-Smedley.

Distribution.—Borkum Island, German East Friesian Islands.

Remarks.—The differences shown by the Borkum Partridge are both interesting and puzzling. It is of great significance that the Rabbit, *Oryctolagus cuniculus* Linnæus, should have developed along exactly

analogous lines, which will be exhibited tonight. The Borkum Rabbits have lost all black markings in the fur of the backs and flanks and have become strikingly pale and sandy coloured.

The Rabbit has of course, been subjected to complete isolation, while the Partridge is considered to be a sedentary species and is unlikely to cross the fifteen miles of water that separate Borkum from its nearest point on the Continental mainland. In this respect, it is noteworthy that Borkum is the island furthest from the mainland, whereas the other islands are very much nearer and I am informed by J. Altman (per Ringleben) of Jiust Island that when the introduced Partridges disappeared from that Island during a particularly cold winter fifty-five years ago, they were said to have flown across to the mainland.

However, it must be accepted that isolation of the Borkum Partridge has been more complete than on the other islands and we know that neither this species nor the Rabbit can have been in isolation for more than six hundred years. Their terrain has consisted of white sand-dunes, on which a wide variety of bushes and coarse grasses are growing. I think it is most likely that the Partridge has existed on Borkum ever since the island was formed, although often unnoticed. We have evidence that several attempts have been made to introduce the species to the Friesians and that these have met with little success. I have been unable to trace the origin of these introductions, but I have been told that a few pairs were brought from Westphalia, although there was no proof of this statement.

The colour of the Borkum Partridge and the Rabbit are examples of differentiation in response to the prevalent soil colour. One can theorise that the process of natural selection has applied in the sand-dunes, whereby the darker examples have been gradually eliminated by predators. Natural selection is bound to act more quickly on a small population and the examples shown tonight, which have differentiated within a known and limited period of time and in response to an apparent environmental factor, are of considerable theoretical interest in the study of evolution.

I am most grateful to my father, Dr. J. M. Harrison, D.S.C., for the loan of the comparative material and for his assistance with the examination of the material. Herr H. Ringleben, of the Vogelwarte Helgoland, has been the greatest help with his knowledge of the German literature and for providing me with his own observations. I am greatly indebted to Commander J. V. Wilkinson, R.N., Lt.-Cdr. W. Loftie, R.N., Dr. D. L. Harrison, Mr. A. B. Marsden-Smedley and Major Noel Ward, R.E.M.E., who have assisted me in the collection of specimens from Borkum and the mainland.

Dr. David Harrison then exhibited specimens of the Rabbit from Borkum and from the German mainland to demonstrate the marked difference between the two.

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Marking Wild Geese in Iceland in July, 1951.

Mr. PETER SCOTT gave a most interesting talk and exhibited colour films showing incidents during the expedition, the birds, scenery and sunsets.

Mr. Scott's talk and film was very much appreciated by those present.

A New Race of *Muscicapa aquatica* Heuglin, from Northern Rhodesia.

Dr. JAMES P. CHAPIN sent the following:—

The nominate race of the African swamp flycatcher, ranging from the Gambia to the Bahr-el-Ghazal, is a rather greyish brown bird, pale below, and with almost no sign of a dark breast-band. Its wings measure 67-71 mm. in length. The much darker brown *M. a. infulata* Hartlaub, has a well developed brown breast-band, wings 64-69 mm., and ranges from Lake No to the eastern Uelle District, Lake Edward, the northern shores of Lake Victoria, and the Kagera River. This in turn is replaced in the highlands about Lake Kivu by *M. a. ruandae* (Gyldenstolpe), with wings 68-76 mm. In the lowlands along the Lualaba River, near the vast marshes about lakes Kisale and Upemba and along the Luapula River lives *M. a. lualabae* (Chapin), with only a slight indication of a breast-band, and wings only 62-66 mm. The range of the species was known to extend to Lake Bangweulu and to the north end of Lake Nyasa. A single specimen collected by Fülleborn at Langenburg was said by Reichenow to be rather lighter brown above than *M. a. infulata*.

The distribution of this flycatcher is dependent on swamps with a luxuriant growth of papyrus, phragmites, or other reedlike plants; and it now has been found to inhabit the extensive Lukanga Swamps, about forty miles west of Broken Hill in Northern Rhodesia. The Congo-Zambesi waterparting might be expected to provide such a population with a fair degree of isolation.

Certainly the two male specimens recently collected by Mr. I. R. Grimwood at Suye Lake and sent to the American Museum of Natural History by C. M. N. White for study cannot be referred to any of the races thus far named, and so I propose to call them:—

MUSCICAPA AQUATICA GRIMWOODI, new race.

Description.—The upper-parts are dark brown, differing at most from those of *M. a. lualabae* and *M. a. ruandae* by a faintly greyer tinge. The lower surface looks much more whitish than in either of those races, for a breast-band is scarcely more evident than in *M. a. lualabae*, and lower breast, flanks, and under tail-coverts show scarcely any wash of grey or brownish. In size, moreover, this new race exceeds *M. a. lualabae* very markedly, for two males have wings 68, 71 mm. long, tails 54, 57 mm., culmen from base 16, 17 mm.

Type.—Male adult, Suye Lake (lat. 14° 25' S., long. 27° 35' E.), Northern Rhodesia, 26th June, 1951. Collector's number 618, AMNH. No. 748,410.

Distribution.—Thus far known only from the Lukanga Swamps. It would seem unlikely that this race could occur at Lake Bangweulu, but it should certainly be looked for at any other suitable locality in the Kafue River drainage.

Remarks.—It is interesting to note that this southernmost race is of much the same size as *M. a. aquatica*, its counterpart to the north of the equator. Between them, in the lowlands, the races *M. a. infulata* and *M. a. lualabae* are both of smaller size. But the largest representatives of the species, referable to *M. a. ruandae*, are found on highlands lying mainly within the three degrees just south of the equator. Four examples from the northwest side of Lake Tanganyika and the Ruzizi Valley, while agreeing with *M. a. ruandae* in colour, have wings only 68-71 mm. long. On the whole, pigmentation is heaviest near the equator, though it cannot be said to vary exactly with latitude.

The American Museum is grateful to Mr. Grimwood for the gift of the type specimen.

Change of Names among Sunbirds and a Woodpecker.

The MARQUIS HACHISUKA sent the following:—

According to the modern classification the following changes are required. For welcome help in the following matter I am much indebted to Mr. H. G. Deignan of the Smithsonian Institution, Washington who kindly looked into nomenclatorial problems which I was unable to settle in Japan.

(1) As early as 1912, Oberholser (*Smiths. Misc. Coll.*, 60, no. 7, p. 18, footnote) explains that *Nectarinia pectoralis* Horsfield (*Trans. Linn. Soc.*, 13, pt. 1, p. 167, May, 1821, from Java) is pre-occupied by *Cinnyris pectoralis* Vieillot (*Nouv. Dict. d'Hist. Nat.*, 31, p. 497, 1819) which is a synonym of *Cinnyris afra* of Cape Province. The next oldest name is *Nectarinia eximia* Temminck (Temminck and Laugier, *Pl. Col. d'Ois.*, livr. 23, pl. 138, figs. 1 & 2, June 1822, from Java) but this is an exact homonym of Horsfield's (*Nectarinia eximia* (Horsfield), *Trans. Linn. Soc.*, 13, pt. 1, p. 168, 1821, from Java)

and never been usable. He recommends *Cinnyris ornatus* (Lesson) (*Dict. Sci. Nat.*, 1, p. 15, 1827, for same as *N. eximia* by Temminck: Java) to stand for *Nectarinia pectoralis* (Horsfield). Oberholser's proposal was followed by Kuroda (*Leptocoma jugularis ornata* (Lesson), *Bds. Is. Java*, p. 98, 1933) but not by several others presumably because if *Nectarinia* and *Cinnyris* are separated Horsfield's *N. pectoralis* is not going to become invalidated. The modern trend of classification is to unite the above two genera under *Nectarinia*, therefore, *Nectarinia jugularis ornata* (Lesson) must be used for *Cryptostomus pectoralis* (Horsfield) by Mathews (*Syst. Av. Australas.* Pt. II, p. 732, 1930), *Leptocoma jugularis pectoralis* (Horsfield) by Chasen (*Handl. Malays. Bds.*, p. 227, 1935) and *Nectarinia jugularis pectoralis* by Delacour (*Bds. Malays.*, p. 312, 1947).

(2) *Cinnyris sericeus* (Lesson) (*Dict. Sci. Nat.*, 1, p. 21, 1827, from Dorey (now Manokwari), New Guinea) is preoccupied by *C. [erthia] sericea* (Bechstein) (*Allgem. Uebers. Vög.*, 4, pt. 1, p. 194, pl. 38, fig. 1, 1811). For Lesson's *C. sericeus*, *Cinnyris aspasia* Lesson and Garnot (*Voy. "Coquille,"* liv. 7 pl. 30, fig. 4, June 21, 1828, from Dorey) must stand.

(3) *Dendrocops* (Malherbe) is now united to *Picoides*; therefore *Picoides major tenuirostris* (Buturlin) (*Dendrocopus major tenuirostris* (Buturlin), *Ibis*, p. 412, 1906, from Caucasus) is preoccupied by *Picoides arcticus tenuirostris* (Bangs), 1900. For Buturlin's *P. m. tenuirostris*, I propose *Picoides major kitsutsuki* nom. nov. The new racial name denotes the Woodpecker in Japanese.

On the type locality of *Parus ater britannicus* Sharpe & Dresser.

CAPTAIN C. H. B. GRANT sent the following:—

It would appear that an exact type locality has not been designated—

Parus britannicus Sharpe & Dresser was described in *Ann. Mag. Nat. Hist.*, ser. 4, 8, p. 437, 1871 and the type locality is given as England, with no indication of any type.

In *Bds. Europe*, 3, pp. 96-97, 1872, Sharpe & Dresser enumerate specimens which they place under this race, and the first they mention with a date as having been collected in or before 1871 are from Aboyne, Aberdeenshire, and Avington, Hampshire, which they apparently had before them when describing this race in 1871.

Avington, Hampshire is the first English dated locality, and should therefore be accepted as the type locality of *Parus ater britannicus* Sharpe & Dresser.

Notices.

STOCK OF THE "BULLETIN".

It is proposed to reduce the stock of the "Bulletin", but before this is done members are given an opportunity to acquire parts at 2/6 each. Application should be made to W. E. Glegg, Esq., Zoological Museum, Tring, Herts. No reply will be sent if parts are not available.

BACK NUMBERS OF THE "BULLETIN".

Members who have back numbers of the "Bulletin" which they no longer require, are requested to kindly send them to W. E. Glegg, Esq., Zoological Museum, Tring, Herts.

DINNERS AND MEETINGS FOR 1952.

January 16th; February 20th; March 12th (at the Zoological Society, in conjunction with the B.O.U.); April 16th; May 21st; June 18th; October 15th; November 19th; December 17th.

SEPARATES.

Contributors who desire six free copies of their notes should state so on their MS., otherwise these will not be ordered.



Communications are not restricted to members of the British Ornithologists' Club, and contributions up to 1,500 words on taxonomy and related subjects will be considered from all who care to send them to The Editor, Capt. C. H. B. Grant, British Museum (Natural History), Cromwell Road, London, S.W.7.

Communications relating to other matters should be addressed to the Hon. Secretary, N. J. P. Wadley Esq., 14, Elm Place, London, S.W.7.

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The five-hundred and tenth meeting of the Club was held at the Rembrandt Hotel, Thurloe Place, S.W.7, on Wednesday, 20th February, 1952, following a dinner at 6.30 P.M.

Chairman: SIR PHILIP MANSON-BAHR.

Members present, 37, Guests, 6; Total, 43.

A new race of *Agapornis* from Angola.

Mrs. B. P. Hall exhibited and described the following:—

AGAPORNIS ROSEICOLLIS CATUMBELLA, new race.

Description.—Differs from *Agapornis roseicollis roseicollis* (Vieillot) in its brighter colouring. The red of the forehead and supercilium is slightly deeper in tone and the salmon pink of the cheeks and throat more heavily suffused with scarlet. The green of the mantle and underparts is deeper and brighter and the blue of the rump is frequently deeper and purer, less green-blue.

Distribution.—Benguella, Angola.

Type.—In the British Museum. Adult male, Catumbella, Benguella, Angola, 4th August, 1905, collected by Dr. W. J. Ansorge—B.M., reg. No. 1905.11.22.52.

Measurements of Type.—Wing 98, tail 50 mm.

Colours of soft parts of Type.—Iris dark brown; bill, upper pinkish-white, shading into greenish-yellow, with dark green tip, lower greenish-yellow with dark green tip; feet greenish-grey.

Remarks.—Seven males, four females and one unsexed specimen from Catumbella and Hanha River, near Lobita Bay, Benguella, were compared with two males, four females and one unsexed specimen of *Agapornis r. roseicollis* from different localities in South West Africa. Both series contain birds at different seasons of the year.

The polymorphic forms of *Chlorophoneus multicolor multicolor* (Gray), in the British Cameroons.

Dr. WILLIAM SERLE gave the following talk and exhibited specimens :—

A series of *Chlorophoneus multicolor* collected in the British Cameroons rain forest have slightly darker tails than *Chlorophoneus m. multicolor* (Gray), of Upper Guinea ; yet they belong to this race rather than to the black tailed *Chlorophoneus m. batesi* Sharpe, of Lower Guinea.

The usual habitat of this shrike is the forest canopy, and its food consists almost entirely of insects, which are sought amongst the foliage and smaller branches in the shaded interior of the tree tops. It is seldom seen in the open. By reason of these habits it is, despite its bright colours, inconspicuous, and would often pass unnoticed were it not for its characteristic call. Ordinarily it occurs in pairs, and the male is much more vocal than the female.

These facts are relevant to the statistical analysis of the series of *C. m. multicolor* exhibited tonight, which were all collected, at or near Kumba, Lat. 4° 40' N, Long. 9° 25' E. between 1947 and 1951.

Three colour phases are represented in this sample of seventy-five birds—an orange-breasted, a red-breasted, and a black-chested. They are divided thus :—

		Males.	Females.	Males and Females.
Orange-breasted	... ..	27	9	36
Red-breasted	... ..	27	5	32
Black-chested	... ..	7	—	7
		—	—	—
Total	... ..	61	14	75
		==	==	==

It will be noted that orange-breasted and red-breasted birds occur in about equal numbers, and that black-chested birds are much rarer and are all males.

I know of no series of *C. multicolor* of comparable size collected elsewhere, and for the present the relative frequency of the different colour phases of the species throughout its range is unknown. This much is known—that the orange and red-breasted phases are relatively common, and widely distributed ; that the black-chested phase is absolutely rare (only five examples are known apart from these here) and is restricted to Western Africa between Sierra Leone and the British Cameroons ; and that a fourth phase (not represented here) which is buff-breasted and is rare, is restricted to the eastern Belgian Congo border between Lat. 0° and 4° S.

The Kumba sample is I believe unselected in respect of colour and selected in respect of sex. In the field, the ear, not the eye, detects the bird, and as all three phases have the same call there is no bias towards collecting one or more of them in excess of their actual proportions. The male, being vocal, is usually seen first, and draws the fire of the collector, whilst the silent female tends to escape. Thus, though males and females occur in equal numbers—as is learnt by observation—males are more likely to be collected.

Field observation also reveals that there is no selective mating. On five occasions both birds of what seemed to be a pair were collected. These were all fully adult. In two cases a red-breasted male was mated to an orange-breasted female; in two cases an orange breasted male was mated to a red-breasted female; and in one case a black-chested yellow bellied male was mated to a red-breasted female.

Immature red-breasted and orange-breasted birds are less brightly coloured than the adults but are readily assigned to their colour phase. But the black chest of the black-chested mutant appears only in maturity. The seven birds here are all mature. In one of them there is a single old red feather visible on the chest. In the British Museum there is an immature male *C. m. multicolor*, red below, but with several new black feathers, some of them in sheath, intermixed with the red on the chin and throat.

The black-chested mutant may have the underparts below the chest either red or orange. In this series of seven, six are orange and one red. It was Stresemann who first surmised that the black-chested phase occurred only in the male. This series supports his surmise.

In the absence of records of the phenotypes of successive generations of *C. multicolor* one can only speculate on the nature of the genotypes. The red and the orange phases appear to be allelomorphs. A differently located gene or genes must control the black-chested phenotype. The character might be sex-linked due to a gene of low penetrance (seemingly always fully expressed) more likely to become manifest in the XX male, or it may be that the gene or genes controlling the melanistic mutant are not sexlinked but sex-limited, becoming manifest only in a male internal environment.

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Colour variation in *Malaconotus cruentus* (Lesson).

Dr. WILLIAM SERLE also gave the following talk and exhibited specimens:—

It has been customary to divide the fiery-breasted bush-shrike of Western Africa into two races, a western race *Malaconotus cruentus cruentus* (Lesson), ranging from Sierra Leone to the British Cameroons, and an eastern race *M. c. gabonensis* Shelley, ranging from French Cameroons to Gaboon, the latter race being distinguished by having the underparts redder and less yellow.

In the British Museum collection the twelve adult *M. cruentus* from Lower Guinea are on the average a little redder than the six adult *M. cruentus* from Upper Guinea; but certain individuals collected in Upper

Guinea have the supposed characters of *M. c. gabonensis*, and certain individuals collected in Lower Guinea have the supposed characters of *M. c. cruentus*. Upper and Lower Guinea birds are not to be distinguished by size.

The series exhibited tonight comprises forty-five adult birds all collected at Kumba, Lat. 4° 40' N., Long. 9° 25' E., in the British Cameroons between 1947 and 1951.

There are thirty-two males and thirteen females in this series. There is no apparent sexual dimorphism in colour or size.

Wings of 32 Males 110, 109, 111, 115, 112, 108, 112, 112, 106, 108, 108, 116, 108, 107, 111, 110, 116, 108, 113, 107, 113, 111, 108, 109, 112, 114, 112, 109, 113, 110, 111, 112 mm.

Wings of 13 Females, 109, 105, 110, 113, 107, 111, 106, 107, 107, 105, 107, 112, 108 m.m.

Bills of 32 Males, 31, 31, 31, 31, 31, 31, 32, 32, 31, 31, 33, 33, 31, 33, 32, 32, 32, 32, 33, 31, 31, 32, 33, 34, 33, 33, 33, 29, 29, 29, 31, 32 mm.

Bills of 13 Females, 30, 30 31, 30, 30, 30, 30, 29, 29, 29, 30, 31, 29 mm.

You will observe that there is a striking variation in the colouration of the underparts. At one end of the series are birds with chin, throat and breast strongly washed with crimson, and belly and under tail—coverts washed with vermilion. At the other end of the series are birds with orange yellow or yellow underparts showing a complete absence of scarlet or vermilion wash. Between are birds showing every intermediate shade of colouration.

Of these forty-five birds, fourteen are predominantly red below; eleven predominantly orange yellow or yellow; and twenty are intermediates. The dividing line between the three groups is of course a matter of opinion; the change of shade from individual to individual is almost imperceptible.

Had these specimens been collected throughout the range of the species, with red birds all from one area, and yellow birds all from another, linked by intermediates from geographically intermediate territory, the picture would have been the familiar one of continuous variation in a polytypic species.

But these widely varying specimens all come from the same locality, and it seems in the case of *Malaconotus cruentus* that we are dealing not with two races of a species, but rather with two colour phases.

The phases themselves are not clear cut (as they are for example, in *Chlorophoneus multicolor* (Gray)); there are many intermediates. This in itself is not inconsistent with a dimorphic hypothesis; it could result from the action of an incompletely dominant autosomal gene, the dominant and recessive homozygotes producing the red and yellow phenotypes, and the heterozygote the intermediate phenotype.

Man's Impact on British Bird Populations.

Mr. E. M. NICHOLSON gave the following talk:—

The study of changes in the populations of British birds, and in their distribution and habits, resulting from human activities is not only an important field for scientific study on its own merits, but is urgent for

two other reasons. These changes, which are of many different kinds—changes in absolute and relative numbers, in geographical distribution, in choice of habitat, in diet and in habits—are taking place so rapidly that unless they are fully and carefully recorded as they happen the opportunity of tracing them will have been lost permanently, and material essential to future ornithology will not be available. Also, a scientific assessment of these changes and the factors involved in them is the only possible foundation for scientific policies of protection and conservation, which are often spoken of but do not yet exist. The subject is however, so enormous that no more than an introduction to a discussion can be attempted on such an occasion as this.

Even what we think we know about it is fragmentary and distorted, and as it involves relations with mankind and touches upon deep emotional prejudices we must regard our own motives and standpoints as suspect, and must constantly check the validity of our assumptions and inferences. If a pest is a creature which, having become overabundant, spreads indiscriminately and does irreparable damage to other forms of life we must bear in mind that no species conforms to this definition better than Man himself, and that therefore when we speak of pests we are not enjoying the more or less objective bird's-eye view which we may hope to command elsewhere, but are ourselves taking a pest's-eye view of the activities of our fellow-pests. We therefore need to achieve the humility of imagining ourselves from the outset as approaching the problem like say a large self-conscious Crow with an uneasy conscience, and not as being entitled to assume our own scientific disinterestedness.

What are the nature and extent of the changes under review, what are their causes, and what part does man play in them? It is valuable first to consider what changes are not due to man's activities. Apart from very long-term evolutionary processes it appears that the only obvious, large, quick-acting factor which is currently giving rise to extensive changes of this character quite independently of human intervention is climate. Here fortunately, we have a useful check ready to hand. Climate is changing more significantly in some countries than in others, and we can also contrast changes discernible in thinly inhabited and undeveloped countries, such as large tracts of Scandinavia, with those occurring in humanly populous and developed areas with similar climates. As would be expected the most general result of climatic change during the present onset of warmer average temperatures, especially beyond the influence of maritime conditions, is for additional southern colonists to extend northwards, and for arctic and boreal species to retreat, and to diminish in the southern parts of their range. However in such cases as the spread of the Fulmar (which is almost certainly due to modern trawling; see Lockley and Marchant, *British Birds* 44, pp. 373-383, 1951), we find a contrary tendency for a northern species to spread southwards, the help given by the impact of civilisation in this case more than matching the climatic handicap which is implied in the fulmar's previous range. Another interesting test case is the originally Asiatic and Balkan dove *Streptopelia decaocto* (Frivaldszky) which is attached to human settlements and during the past few years has spectacularly extended its range north-westward in Europe as far as Holland and Scandinavia. This implies

highly favourable circumstances and it is possible that climatic and human factors are both giving assistance.

A critical comparison of changes due to climate and to civilisation would be of great value and is also urgent since (despite the strictly limited potentialities of rain-making techniques) there is every likelihood that climatic changes on a significant scale will soon begin to be brought about by human intervention through large-scale diversion of rivers, atomic explosions and other methods. Indeed large-scale deforestation and afforestation, certain agricultural methods and reservoir formation have already started the process long ago on a limited scale.

Another note of caution is needed as regards the nature of bird population changes. It cannot be too strongly stressed that factors which appear to the field observer likely to cause population changes, such as slaughter by predators, may actually play a very small part in the whole sum. This may be illustrated from the growth of human population in the world, which has quadrupled from c. 545 mns. in 1650 to c. 2,400 mns. in 1950, although annual birthrates have been in the region of 40 per 1,000 or less. Avian reproduction rates for species producing 1 egg per pair per year would be 500 (less allowance for non-breeders) and at the other extreme, for such a species as the partridge, over 7,000 per 1,000 population. Even allowing for different spans of life avian fertility provides great buoyancy for making good setbacks or for taking advantage of favourable conditions.

The national Index of Heron Population, now covering 23 years, provides the fullest scientific data for a wild population over a whole country and this indicates that after the worst setback (the 1947 frost which reduced breeding numbers to 53% of normal) it took only 4 years to recover to 100% in 1951. The Heron's failure to rise much above the 100% level is certainly not due to lack of fertility and is very unlikely to be due to increasing mortality of breeding birds above that level; the probable cause is to be sought in some factor which in present conditions limits the carrying capacity of the country in terms of herons to that approximate level, and which is not more than temporarily displaced from its dominating position even by the most catastrophic or the most favourable weather.

If therefore we can detect how and where human influence is increasing or diminishing the capacity of a given area to carry a given stock of birds this will give us for the majority of forms a far more reliable guide than can be obtained from direct data on mortality or reproduction, although the latter are of course more important for rare species whose members or nests are exceptionally vulnerable. The safest rule is to look for the limiting factor, or where as in the case of the Heron we cannot identify it yet, to look for its effects as shown by the recovery from fluctuations.

Turning to the main types of human impact it is important to bear in mind that they are not only varied but that they often have complex indirect as well as direct results, which the following over-simplified list will illustrate :

1. Man as a hunter takes or kills birds or eggs for food, clothing, ornament, &c. In Britain this primarily economic type of impact has very much declined and is now unimportant except for limited groups and areas.
2. Man as a sportsman pursues, shoots or traps birds and "farms" wild populations irrespective of the economic value of the bag. This is an important factor over large areas and is responsible for most of the direct "control" which is at all effective.
3. Man cages birds as pets. This has practically disappeared as a serious factor, although it was apparently serious last century in parts of Britain.
4. Man watches birds in a wild or semi-wild state for recreation. This to some extent replaces parts of 2 and 3 and is obviously growing very fast. It resembles 2 in leading to attempts at "farming" wild populations and "controlling" others, sometimes coinciding with 2 but often aiming at the opposite results, especially where birds of prey are concerned.
5. Man deliberately or incidentally propagates creatures predatory or parasitic on birds. This may be a very important factor in many cases, and is often underrated in view of preoccupation with the damage done by these humanly encouraged pests, predators and parasites to human livestock, game, food, etc., as distinct from the damage which they inflict on wild life.
6. Man develops mechanical, biological or chemical means aimed at destroying plant or animal "pests," with direct or incidental repercussions on bird life, e.g. chemical insecticides and weed-killers, the former being very destructive to insectivorous birds if applied in concentrations exceeding a certain strength.
7. Man destroys vegetation, pollutes or dries up surface water, excavates soils, and in many other ways removes or modifies existing habitats.
8. Man indirectly changes water-levels by pumping, climates by diverting rivers for hydro-electric schemes, etc.
All these except usually 4 and often 2 may be viewed as in principle adverse influences, but they are in many ways offset by others which are favourable in general to bird life :
9. Man provides exposed refuse and carrion, from primitive middens and remains of "kills" to sewage-farms, lamb placenta and the offal of trawlers, which sustains large numbers of birds often at seasons of shortages of natural food, when these supplies become a limiting factor.
10. Man provides vulnerable crops of cereals, fruit, roots, and buds, and also gleanings, weeds, &c. on a large scale.
11. Man provides planted trees, shrubs, hedges, gardens, artificial waters, shingle tracts and other new or extended favourable habitats on a large scale.
12. Man deliberately feeds and otherwise protects birds at vulnerable periods and points. (This largely overlaps with 4, and the protectionist and bird-watching approaches are becoming combined,

although with rather different emphasis). Perhaps the extreme case of this was the deliberate sending over the Alps by air of large numbers of swallows which had been overwhelmed by severe weather in Austria.

Merely by examining such factors, however, it is impossible to obtain any adequate impression of the far more varied and complex indirect and secondary effects of man's impact. For example :

- (a) The immediate result of a change in conditions may not show the full extent of the impact because it may be temporarily masked by a partial adaptation which ceases to be effective when the change has run its full course, or because the population losses involved are recouped by drawing on surpluses elsewhere which may later fail. On the other hand the first impact may appear strongly adverse but after years or decades may be successfully counteracted by a delayed adaptation. It is accordingly often misleading to judge the impact of change at a given point of time without considerable allowance for the further working out both of the change itself and of the possible responses to it.
- (b) Some conspicuous but not decisive factor may mask or distract attention from a more important but less readily recognised one operating in the opposite sense. For instance, over-emphasis on the destruction of black grouse by the Forestry Commission as a forest pest may lead to under-estimation of the part played by planting large acreages of highly suitable habitats for the species, and thus lead to a false assumption that the species must be decreasing or stationary in numbers in areas where it may actually be increasing despite the numbers killed.
- (c) A favourable modification of a limiting factor governing survival of eggs or young may create a disproportionate local surplus of a species leading to a chronic or temporary overspill into adjoining areas or habitats hitherto unoccupied or thinly occupied by the species. This may lead to the paradox of a competitively more efficient species being forced to give ground in its own habitat to a species competitively less efficient in that habitat, when the latter is sustained by a strong overspill which enables ample replacements to be found for losses. This "population dumping" needs closer attention. One of its results is that in countries subjected to intense human development the bird population of a given habitat is determined not only by the nature of that habitat but by its accessibility to invasion by overspill populations of species specially favoured by economic development. For example, a wood or thicket which elsewhere would be dominated by chaffinches will be taken over by house-sparrows near their main strongholds. In such conditions woodpeckers may be displaced from the holes by starlings, and gulls may outnumber rooks in the fields. Flocking is often intensified by such pressures, and is specially marked in the conditions now prevalent in south-east and midland England, in contrast to France and even to other parts of England and Wales

in the case of certain species. Even birds normally solitary such as the Carrion Crow will form large daytime as well as roosting flocks in such conditions.

- (d) More generally, any expansion or reduction in particular species brought about by human action has repercussions which may again be delayed or masked, and may be of corresponding, smaller or greater magnitude, on other species and on the total structure of the bird population. We do not yet know what the "climax" populations will be in areas where habitats have been drastically modified, let alone in those where drastic further modification is in progress or impending. Sometimes a hint of "climax" conditions can be gained by seeking out areas where a given change took place many years ago and has been followed by stability and the growth to maturity of the new artificial habitats. The tendency seems to be for the approach to a climax to be marked by a partial reaction towards the earlier population, the extreme divergence having occurred at a fairly early stage in the transition. However, great caution is needed, pending the development of anything sufficiently stable to be regarded as a "climax" in so far as the concept can be applied to artificial conditions.

In conclusion, a number of questions were discussed regarding the position of certain key species and groups. Comparisons of post-war and pre-war counts showed that the House-sparrow population of Kensington Gardens had fallen to less than one-third of what it was in 1925, and a similar trend was found in another large London open space, Battersea Park. The virtual elimination of street foraging through the switch from horse to motor traffic has no doubt exerted a similar influence on numbers in closely-built areas, yet despite its great importance the question what is happening to the House-sparrow population generally has received little attention.

In the case of the Starling it is important to check whether the climatic improvement in the breeding quarters round the Baltic is leading, as would be expected, to a population increase, and if so whether there is any corresponding increase in winter immigrants to this country, or whether milder conditions on the Continent reduce the pressure for crossing the North Sea, and perhaps alter the immigrant/resident ratio in this country in the opposite sense. In London it is known that the vast majority of wintering birds are residents, but details from large country roosts, especially in East Anglia would be valuable. Changes in numbers of immigrants may have repercussions on the size of the resident population.

In the case of the Woodpigeon the recent investigation showed a very high protein requirement, closely linked with breeding success, and met at a critical period largely by weeds of cultivation. The wholesale adoption of chemical weedkillers may well therefore become a limiting factor, and here is another point deserving of study.

Paludan's recent survey of the breeding of the Herring Gull and Lesser Black-back on a Baltic island indicates that over a long period the increase of some of the larger Gulls may lead to reductions in some of the weaker members of the family.

In the case of birds of prey the coming to maturity of Forestry Commission woodlands, the restocking with sheep and cattle of rough hill country and the making of extensive new sheets of water in the Highlands for hydro-electric purposes are among factors which may render possible a substantial expansion by some of the larger species which have been kept artificially at a low level of numbers recently.

Another urgent subject for scientific study is the actual experience of attempts at controlling wild bird populations. It is very doubtful whether some of these attempts have been justified either in their objects or by their effectiveness in attaining them and a disinterested assessment is desirable. Scientific bird protection cannot become a practical possibility until much more knowledge of the underlying problems has been gained. This contribution is intended merely to suggest certain lines of approach and to examine certain assumptions rather than to come to final conclusions, which would be premature at the present stage.

Taxonomic notes on the Lineated and the Green Barbets of India, with the description of a new race.

By AJIT KUMAR MUKHERJEE, Zoological Survey of India, Indian Museum, Calcutta.

Baker (1) placed the Lineated Barbets and the Green Barbets in two separate species, namely, *Thereiceryx lineatus* (Vieillot) and *T. zeylanicus* (Gmelin), respectively. Ripley (2) synonymized *Thereiceryx* with *Megalaima*, but considered *M. lineata* and *M. zeylanica* to be conspecific. In spite of the admission of overlap of their ranges Peters (3) followed this treatment. Ripley (4) later justified this action by pointing out that they replace each other in all possible zones of overlap.

However, a collection of birds from the Simlipal Hills, Mayurbhanj district, Orissa, made by Mr. B. Biswas of the Zoological Survey of India, early in 1951, contains specimens of both Lineated and Green Barbets. These specimens were all with swelled gonads and were collected while feeding on the same tree. Going through the material in the collection of the Zoological Survey of India, and Mr. Biswas' notes, it became clear to me that both these Barbets also occur together in the Lower Central Nepal. There is no evidence of their hybridizing in the areas where they coexist.

Baker differentiated *M. lineata* from *M. zeylanica* on the character of the orbital skin and the presence or absence of feathers between the eye and the bill. The extension of the orbital skin is highly variable in *M. lineata*, from a small, not much extended condition to its extension up to the gape (like Baker's character for *M. zeylanica*). I am, therefore, unable to attach any taxonomic importance to this character. There are, however, other good diagnostic characters by which *M. lineata* and *M. zeylanica* can be distinguished. Such characters are tabulated below :—

	<i>M. lineata.</i>	<i>M. zeylanica</i>
Chin and throat	White.	Brown.
Head, neck and breast	Brown with prominent white spots.	Brown.
Shaft stripes	Broad, white.	Narrow, pale yellowish.
Wing coverts	Green.	Green, with brown tinge.
Back	Bright grass green, less brown on upper back	Bright green, more brown on upper back.
White spots on wing coverts and scapulars.	Absent.	Present.

In view of the above-mentioned differences and complete breeding isolation between them, I would treat *Megalaima zeylanica* and *Megalaima lineata* as two distinct species.

The Indian races of the two species will stand as follows :—

MEGALAIMA ZEYLANICA (Gmelin).

1. *Megalaima zeylanica zeylanica* (Gmelin).

Bucco zeylanicus Gmelin, Syst. Nat., 13th ed., 1, p. 4, 1788—Ceylon.

2. *Megalaima zeylanica inornata* Walden.

Megalaima inornata Walden, Ann. Mag. Nat. Hist. (4) 5, p. 219, 1870
—“Malabar, Coorg and Candeish,” hereby restricted to Malabar.

3. *Megalaima zeylanica caniceps* (Franklin).

Bucco caniceps Franklin, Proc. Zool. Soc. London, 1, p. 121, 1831—
“On the Ganges between Calcutta and Benares and in the Vindhyan Hills between the latter place and Gurrah Mundela on the Nerbudda.”

I agree with Ripley⁽⁴⁾ in not recognising Whistler and Kinnear's *M. kangrae* from Ranital, Kangra.

MEGALAIMA LINEATA Blyth.

1. *Megalaima lineata hodgsoni* Bonaparte.

Megalaima hodgsoni Bonaparte, Consp. Gen. Av., 1, p. 144, 1850—Nepal.

Megalaima lineata rana Ripley is differentiated on very slender characters. The Himalayan and the South-eastern Assamese populations measure :

Locality.		Wing.	Tail.
Western Himalayas—			
Hardwar, Dehra Dun District, U.P.	1 Male	135	77
¹ Kaladoongi, Naini Tal District, U.P.	1 unsexed	138	88
² Bajora, Dailekh District, Nepal.	2 Males	140.5-141	87-87.5

Central Himalayas—

³ Lower Central	4 Males	128-134 (131)	78-82 (80)
Nepal (Simra, Hitaura).	4 Females	128-138 (133.2)	76-85 (80.2)

Eastern Himalayas—

Sikkim to Northern Assam	2 Males	128-136	79-83
	3 Females	127-131 (128.6)	75-85.5 (79.1)

South-eastern Assam—

Khasia Hills	1 Male	134	81
Southern Sylhet and Cachar.	4 Females	128.5-135 (131.6)	77-85 (79.2)

¹ *Ex* Shelley, 1891, Cat. Bds. Brit. Mus., 19, p. 81.

² *Ex* Ripley, 1950, Proc. Biol. Soc. Washington, 63, p. 102.

³ *Ex* Biswas on Koelz collection (unpublished).

2. The population from the Simlipal Hills cannot be fitted in any of the known races of the species, and is herein described as

MEGALAIMA LINEATA KUTRU*, new race.

Description.—Similar to *M. l. hodgsoni* Bonaparte, but smaller and deeper colored; breast and nape chocolate brown; green much brighter on underparts.

Type.—Adult male, Chahala, Simlipal Hills, Mayurbhanj District, Orissa; February 13, 1951, Collector, B. Biswas.—Zool. Surv. India Reg. No. 27297.

* *Kutru* is a common local name for this bird.

Measurements of type.—Wing 125, Tail 77, Bill from skull 32 mm.

Measurements of other specimens —One Male, Wing 122.5, tail 78, bill from skull 33 mm. Three Females, Wing 126-132 (128), tail 77-79 (78), bill from skull 31.5-33.5 (32.3) mm.

I am indebted to Mr. B. Biswas of the Zoological Survey of India for helping me in working out the problem.

REFERENCES.

(1) BAKER, E. C. S. 1927, *The Fauna of British India, Birds*, 4 pp. 108-112.

(2) RIPLEY, S. D. 1945, *The Barbets, Auk.*, 62, p. 552.

(3) PETERS, J. L. 1948. *Check list of Birds of the World*, 6, pp. 32-33.

(4) RIPLEY, S. D. 1950, *New Birds from Nepal and the Indian Region. Proc. Biol. Soc. Washington*, 63, pp. 101-102.

Notices.

PUBLICATION DATE OF No. 2. VOL. 72, 1952.

15th February, 1952.

DINNERS AND MEETINGS FOR 1952.

January 16th; February 20th; March 12th (at the Zoological Society, in conjunction with the B.O.U.); April 16th; May 21st; June 18th; October 15th; November 19th; December 17th.

SEPARATES.

Contributors who desire six free copies of their notes should state so on their MS., otherwise these will not be ordered.

ANNUAL GENERAL MEETING, WEDNESDAY 16TH APRIL, 1952.

The Annual General Meeting will be held at The Rembrandt Hotel, South Kensington, at 5.45 P.M.

Mr. Roger Tory Peterson, the American Ornithologist and artist will speak on "American and British Birds" and will show a coloured film entitled "Bird Migration in America."

Communications are not restricted to members of the British Ornithologists' Club, and contributions up to 1,500 words on taxonomy and related subjects will be considered from all who care to send them to The Editor, Capt. C. H. B. Grant, British Museum (Natural History), Cromwell Road, London, S.W.7.

Communications relating to other matters should be addressed to the Hon. Secretary, N. J. P. Wadley, Esq., 14, Elm Place, London, S.W.7.

BULLETIN

OF THE

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Captain C. H. B. GRANT

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28 APR 1952



BULLETIN

OF THE

BRITISH ORNITHOLOGISTS' CLUB.

Volume 72.**No. 4.**

The five-hundred and eleventh meeting of the Club was held at the Zoological Society in conjunction with the British Ornithologists Union, on Wednesday, 12th March, 1952, following a dinner at 6.30 P.M.

Chairman: DR. A. LANDSBOROUGH THOMSON.

Members present: B.O.U. 27, Guests 14, B.O.C. 48, Guests 21;
Total 110.

Broadland Birds.

Mr. WALTER HIGHAM showed coloured films and gave a commentary.

Southampton to South Orkneys.

Dr. WILLIAM SLADEN showed coloured films and gave a commentary.

Both these films were much appreciated by the Members.

Red-Eyed Vireo off the Irish Coast.

Mr. ROBERT F. RUTTLEDGE sent the following note:—

On 4th October, 1951, a bird was picked up dead at Tuskar Rock, Co. Wexford, and considered so unusual that it was forwarded for identification. The specimen was found to be a Red-eyed Vireo, *Vireo virescens Vicillot*. This was later confirmed by Mr. J. D. MacDonald at the British Museum (Nat. Hist.).

The bird had evidently been killed striking the lighthouse in company with many other migrants.

A study of the weather charts shows that conditions were, at the time, very suitable for an east to west crossing of the north Atlantic.

BRITISH ORNITHOLOGISTS' CLUB

Report and Accounts for the year ended 31st December, 1951.

REPORT OF THE COMMITTEE.

The Committee presents herewith the Accounts of the Club for the year 1951. The Income and Expenditure Account for the year shows a surplus of £71 14s. 7d. This sum added to the sales of the "Bulletin" of previous years resulted in a credit balance for the year from all sources of £108 1s. 2d., which is carried to the Accumulated Fund in the Balance Sheet.

Comparative figures for 1950 are given, and it will be seen that normal Income for the year rose by £59, the main item being Income Tax recovered on Covenanted subscriptions. On the other hand expenditure fell by £19.

The Committee had budgeted for publishing 90 pages in the "Bulletin", excluding Preface and Index, but only 58 pages were produced. Eight parts were issued instead of nine, as members have been advised, which accounts for a few pages, but, unfortunately, there was a considerable shortage in the number of communications received during the year. Had it been possible to maintain the intended number of pages, expenditure for the year would have equalled income.

As foreshadowed in the previous Report, the sales of old "Bulletins" cannot be depended upon to continue helping the finances of the Club as they did in the immediate post-war years: only £36 6s. 7d. was received from this source, compared with £80 10s. 8d. in 1950.

During the year the holding of 500 National Savings Certificates, which cost £400 many years ago, was realised for £640 17s. 4d. This amount now forms part of the new investment of £700 3% Defence Bonds, thereby benefiting the future income of the Club, as the interest on this investment will be received in cash each year. The excess of £240 17s. 4d. on realisation of the National Savings Certificates is interest which has been accruing over past years and has been credited to the Accumulated Fund.

The Committee is confident that the purchase of a projector, lantern and screen will prove a sound investment, and will pay for itself within 5-6 years by eliminating the heavy and increasing cost of hiring. It was used in October and December, 1951 and thereby saved £10 10s. in hire charges. It is a wasting asset and the cost, except for £1 nominal value, has been written off against the Accumulated Fund, so that future years will not have to bear any depreciation charges.

As members are aware an appeal was made for donations to a "Bulletin Fund" for the purpose of assisting in the enlargement and improvement of the "Bulletin". The amount of £42 3s. appearing

in the Balance Sheet represents sums received to 31st December. The Committee is most grateful for this generous support and hopes the ultimate total will be substantially larger. The thanks of the Club are due to Messrs. W. B. Keen & Co. for acting as Honorary Auditors.

The Club held nine meetings in 1951 and the aggregate attendances of 323 members and 111 guests totalled 434, an average of 48 per meeting and a further improvement on last year's average of 42.

The Committee is glad to report a decline in resignations to three, though additionally the names of Mr. C. Whybrow and Mr. J. V. Morley were removed from the list of members owing to unpaid subscriptions. The death of Dr. E. Hopkinson, a member of the Club since 1925 and a vice-chairman in 1943-45, is noted with regret. Since the end of the year Mr. W. E. Glegg has died. Nine new members and six new associate members joined the Club, making a net increase of nine members during the year. The total membership at the end of 1951 was 183.

The late Mr. W. E. Glegg once more earned our thanks for handling the sale of back numbers of the "Bulletin", which though less than in 1950 still contributed a useful sum. The Committee would appeal to all members who have any back numbers which they do not want to send them to Mr. R. A. H. Coombes at Tring Museum. The stocks of recent years are now getting low and will soon run out unless replenished. There is still a good demand from universities and libraries abroad.

When the Committee came into office in 1950 there appeared to be three tasks before it—to strengthen the financial position, to stimulate interest in the meetings and to raise the standing of the "Bulletin".

The Committee feels that a comparison of the accounts and the attendances for the last three years justifies their claim to have made progress towards the first two objectives. But the Committee remains far from satisfied with the "Bulletin". A year ago certain proposals were put before members, and though a cover has now been provided, the Committee is under no illusion about the disappointing nature of the size and content of the "Bulletin" due, as already mentioned, to paucity of articles. A "Bulletin" Sub-committee has now been formed which it is hoped will be able to overcome this difficulty in the future. The Committee appeals to members to give their full support by getting new subscribers, making the "Bulletin" known to a wider field and by contributing articles. Finally, the Committee wishes to thank all those members who have made suggestions and put forward criticisms—it welcomes both.

(Signed) P. Manson-Bahr,

Chairman.

8th March, 1952.

BRITISH ORNITHOLOGICAL SOCIETY

INCOME & EXPENDITURE ACCOUNT FOR THE YEAR 1951

1950	EXPENDITURE.	£	s.	d.
£	“ Bulletin ” Vol. 71—			
	Cost of publication, distribu- tion, including Editor's			
193	Expenses	£191	2	4
38	Less : Sales	50	12	3
<hr/>				
155			140	10
22	Notices for Meetings		27	4
19	Postages and Miscellaneous Expenditure ...		14	5
11	Hire of Lantern		17	4
11	Contribution—“ Zoological Record ”			
<hr/>				
218			199	4
	Balance, EXCESS OF INCOME OVER Expendi- ture carried down		71	14
<hr/>				
£218			£270	18
<hr/>				
	<i>Excess of Expenditure over Income brought down</i>			
7	Surplus for the year carried to Accumulated Fund		108	1
73			2	
<hr/>				
£80			£108	1
<hr/>				

BALANCE SHEET

£	ACCUMULATED FUND :—	£	s.	d.
	As at 31st December, 1950... ..	921	5	5
	Add : Interest received on realisation of National Savings Certificates	240	17	4
<hr/>				
			1,162	2
	Less : Reserve against In- vestments	£61	13	4
	Written off cost of Projector, Lantern and Screen	85	7	6
<hr/>				
			147	0
			10	
<hr/>				
	Add : Surplus for year 1951		1,015	1
			108	1
<hr/>				
921			1,123	3
	BULLETIN FUND		42	3
8	SUBSCRIPTIONS for 1952, paid in advance...		9	17
126	CREDITORS for cost of “ Bulletin ”		75	3
<hr/>				
£1,055			£1,250	7
<hr/>				

We have examined the above Balance Sheet and Income and
certify them to be in accordance therewith, and in our opinion

FINSBURY CIRCUS HOUSE,
BLOMFIELD STREET, LONDON, E.C.2.

4th March, 1952.

AGISTS' CLUB

YEAR ENDED 31st DECEMBER, 1951.

1950		INCOME.		£ s. d.		£ s. d.			
£									
	Subscriptions :—								
179	174 Members	...	...	182	14	0	
5	10 Associates...	...	...	10	10	0	
	Income Tax recovered under								
—	Covenants	...	...	41	4	0	
<hr/>							234	8	0
184	Entrance Fees :—								
10	9 Members	...	...	9	0	0	
5	6 Associates	...	...	6	0	0	
<hr/>							15	0	0
12	Investment Income	21	10	8
<hr/>							211		
7	<i>Balance, Excess of Expenditure over Income,</i>								
	<i>carried down</i>								
<hr/>							£218		
<hr/>							£270	18	8
<hr/>									
—	Excess of Income over Expenditure brought								
	down	71	14	7
80	Sales of " Bulletin " for previous years, <i>less</i>								
	expenses	36	6	7
<hr/>							£80		
<hr/>							£108	1	2
<hr/>									

DECEMBER, 1951.

£		£ s. d.	£ s. d.
	INVESTMENTS, at Cost :—		
	£700 3% Defence Bonds	...	700 0 0
	£256 14s. 1d. 3½% War Stock	...	255 13 4
	£100 3% Savings Bonds,	...	...
	1960/70	...	100 0 0
<hr/>			1,055 13 4
755	<i>Less : Reserve</i>	...	61 13 4
<hr/>			994 0 0
(Market Value of all securities at date £994)			
	PROJECTOR, LANTERN AND SCREEN :—		
—	Cost	...	86 7 6
	<i>Less : Amount written off</i>	...	85 7 6
<hr/>			1 0 0
1	STOCK OF " BULLETIN " Nominal value	...	1 0 0
23	DEBTORS for sales of " Bulletin "	...	21 11 1
276	CASH at Bank	...	232 16 5
<hr/>			
£1,055	PHILIP MANSON-BAHR, <i>Chairman.</i>		£1,250 7 6
	C. N. WALTER, <i>Hon. Treasurer.</i>		
<hr/>			

lititure Account with the books and records of the Club and

W. B. KEEN & CO.,
Chartered Accountants,
Honorary Auditors.

Notices.

DINNERS AND MEETINGS FOR 1952.

January 16th ; February 20th ; March 19th (at the Zoological Society, in conjunction with the B.O.U.) ; April 16th ; May 21st ; June 18th ; October 15th ; November 19th ; December 17th.

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Edited by

Captain C. H. B. GRANT

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BULLETIN

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Volume 72.**No. 5.**

ANNUAL GENERAL MEETING.

Chairman: SIR PHILIP MANSON-BAHR.

The Sixtieth Annual General Meeting of the Club was held at 5.45 p.m. on Wednesday, 16th April, 1952, at the Rembrandt Hotel, Thurloe Place, London, S.W.7.

After the Minutes of the last Annual General Meeting held on 18th April, 1951, had been read and passed, the Report and Accounts for the year to 31st December, 1951, were considered.

Mr. C. W. MACKWORTH-PRAED raised the question of renewing the donation to the Zoological Record. Lt.-Col. W. P. C. TENISON, after a spirited indictment of the Committee's action in withholding the donation in 1951, put a resolution that the sum of twenty guineas, being donations at the rate of ten guineas per annum for 1951 and 1952, should be made forthwith. Mr. T. FISHER seconded the motion and Mr. J. D. MACDONALD spoke in support.

The Honorary Treasurer reminded members that when the decision to withhold the donation to the Zoological Record was taken the finances of the Club were deteriorating alarmingly: expenditure had greatly exceeded revenue for two years and the deficit was increasing; the cost of printing was rising and the attendance at meetings and the membership were declining. Though the financial position had since been improved he warned members that the utmost economy would have to be exercised if the subscription was to be kept at the pre-war figure. He also drew the attention of members to the generosity of the Club's previous donations to the Zoological Record which compared favourably with those of other ornithological bodies.

Colonel R. MEINERTZHAGEN pointed out that members of the Club, being members of the British Ornithologists' Union, already subscribed to the Record through the Union.

Lt.-Cmdr. C. P. STAPLES moved and Mr. C. W. MACKWORTH-PRAED seconded a resolution that the matter should be given sympathetic consideration by the Committee within one month.

Sir PHILIP MANSON-BAHR gave an assurance in these terms, and Lt.-Col. TENISON thereupon withdrew his motion. Lt.-Cmdr. STAPLES' resolution was passed without dissent.

Miss E. M. GODMAN suggested that an economy might be made in the cost of cards for meetings by duplicating instead of printing them. Lt.-Col. TENISON proposed that the cards should be doubled in size to provide members with one part which could be kept as a reminder. The Honorary Secretary promised to consider both suggestions.

Mr. T. FISHER proposed and Lt.-Col. TENISON seconded a vote of thanks to Captain C. H. B. GRANT on completion of his five years as Editor of the "Bulletin". Mr. FISHER said he knew from personal experience the difficulties with which an editor had to contend and he congratulated Captain GRANT on the conscientious and good-humoured manner in which he had carried out his duties. The meeting expressed unanimous and warm appreciation of Captain GRANT'S work for the Club.

Mr. C. N. WALTER, in proposing a vote of thanks to Messrs. W. B. KEEN & Co. in their capacity of Honorary Auditors, paid tribute to the despatch with which they handled the Club's accounts.

ELECTION OF OFFICERS.

Hon. Treasurer: Mr. C. N. WALTER (re-elected).

Hon. Secretary: Mr. N. J. P. WADLEY (re-elected).

Editor: Dr. J. G. HARRISON vice Captain C. H. B. GRANT.

Committee: Mr. E. M. NICHOLSON vice Lt.-Cmdr. C. P. STAPLES.

COMMITTEE, 1952.

Sir PHILIP MANSON-BAHR, Chairman (1950), Colonel R. MEINERTZHAGEN, Vice-Chairman (1950), Mr. C. N. WALTER, Honorary Treasurer (1950), Mr. N. J. P. WADLEY, Honorary Secretary (1951), Dr. J. G. HARRISON, Editor (1952), Mr. R. P. DONALDSON (1950), Col. O. E. WYNNE (1950), Miss C. M. ACLAND (1951), Mr. E. M. NICHOLSON (1952).

ORDINARY MEETING.

The five-hundred and twelfth meeting of the Club was held at the Rembrandt Hotel, Thurloe Place, S.W.7, on Wednesday, 16th April, 1952, following a dinner at 6.30 p.m.

Chairman: SIR PHILIP MANSON-BAHR.

Members present, 44; Guests, 14; Guest of the Club, Mr. ROGER TONY PETERSON; Total, 59.

American and British Birds. Bird Migration in America.

Mr. ROGER TONY PETERSON gave a Talk on the relationship of American and British Birds and showed a coloured film of Bird Migration in America. His talk and film were much appreciated by those present.

The Name of the Borkum Partridge.

DR. J. G. HARRISON sent the following:—

I am grateful to Dr. H. G. Deignan, of the Smithsonian Institution, Washington, U.S.A., for drawing my attention to the fact that the name of the new race of Partridge, *Perdix perdix pallida* is pre-occupied.

I therefore propose:—

Perdix perdix borkumensis nom nov. for *Perdix perdix pallida* Harrison, Bull. B.O.C. 72, p. 19, 1952; NOT *Perdix hepburnii* var *pallida* Gray, Ill. Ind. Zool. 1, pl. 55, fig. 1, 1830-32.

An historical note on the Starling *Sturnus vulgaris* L. at the Cape of Good Hope.

COLONEL R. MIENERTZHAGEN sent the following:—

On January 14th 1899 I gave Cecil Rhodes who was embarking for the Cape at Southampton, 18 live Starlings which had been caught at a large roost at Mottisfont in Hampshire. These are believed to be the original stock from which the present starling population of the Cape is derived.

In June, 1949, six specimens of starling were collected at Stellenbosch near Cape Town; five of these have purple heads and green ear-coverts, therefore closely resembling Swedish (*Uppsala*) breeding birds. The remaining specimen has not only a purple head but purple ear-coverts therefore more closely resembling *S. v. menzbieri* of Krasnyarsk.

It may here be mentioned that the Cape starlings have developed the swallow-like flight after flying insects to a much greater extent than is usual in Europe, birds hawking about sometimes for half an hour on end. The starlings introduced to the United States appear also (Auk. p. 88, 1952) to have developed this habit to a greater extent than is usual in Britain. I have never seen starlings do this in either Sweden, Holland or Germany, though no doubt it occurs.

The validity of *Aegithalos smithii* Jardine.

MR. J. D. MACDONALD sent the following:—

It is usual to recognise three races of the Cape Penduline Tit, *Anthoscopus minuta* (Shaw & Nodder); namely, the nominate race

in Cape Province, *A. m. smithii* (Jardine) in eastern districts north of the Orange River (that is, Griqualand, Orange Free State, and Transvaal), and *A. m. damarensis* Reichenow, of western districts north of the Orange River. The last two are said to join up somewhere in the Kalahari. I think there is adequate proof that Jardine's name *Aegithalos smithii* was not based on birds from anywhere in the area stated; and I do not think that there are sufficient differences between eastern and western birds north of the Orange River to justify their separation into distinct races.

South of the Orange River, along the greater part of its course, the Cape Penduline Tit is characterised by having golden or honey-yellow underparts and darker grey-brown upperparts; while north of the Orange River the upperparts are appreciably lighter grey-brown and the underparts lemon-yellow. It is the paler lemon-yellow group which has been split into eastern and western races.

Shaw and Nodder's description of the species (Nat. Misc. 23, 1812, pl. 997) is based on Levaillant's "Le Becque-Fleur" (Hist. Nat. Ois. d'Afr, 1802, pl. 134). The illustration of the male (fig. 1), clearly shows honey-yellow underparts. It is possible to fix the type locality to a definite place for Levaillant said that he found the bird in the vicinity of "Heere-Logement, et de là jusqu'à Rivière-des-Eléphants". Modern large scale maps show a Heerenlogement about 15 miles southwest of Klaver on the Olifants River. It can be quoted as the type locality.

Sharpe (Ibis, p. 343, 1904) made the identity of Shaw & Nodder's *Sylvia minuta* quite clear, but unfortunately he was mistaken about *Aegithalos smithii* of Jardine (Edin. Journ. Nat. Geog. Sci. 3, p. 212, 1831). The cause of the mistake was two Smith specimens in the British Museum, one of which Sharpe thought might be the type. Both these specimens have lemon-yellow underparts. But Jardine described the specimen he had before him as having "the breast, belly, and vent rich honey-yellow". Jardine's description was published in 1831 and up to that date it is doubtful if Andrew Smith went north of the Orange River. Most of his bird work was done in the western areas of Cape Province as far north as Little Namaqualand. Roberts (Ann. Trans. Mus. 18, pp. 271-323, 1936), published field data from Smith's notebooks relating to the period 1826-31. Under the heading of *A. m. minuta* (p. 304) he quotes the following from Smith's diary:—"Aegithalos. *Sylvia minuta* Shaw. At Verloren Fley. 6 together in Namaqualand . . . Found one with young just out on the 20 September, 1828, at Zylverfonteyn". I think there can be no doubt that Smith collected a specimen at Verloren Fley (or Veloren Vley). There is a place of that name shown in modern large scale maps on the west coast railway-line from Cape Town to Bitterfontein, about 20 miles inland from the mouth of the Veloren Vallei River, and at about lat. 32° 40'S., long. 18° 40'E. Veloren Vley, therefore, can be quoted as the type locality of *Aegithalos smithii*. It is only about 30 miles south of Heerenlogement, the type locality of *Sylvia minuta*.

The other locality mentioned by Smith, Zylverfonteyn, is an old name for the present Steinkopf, about 30 miles north of Springbok. Specimens collected in the same area by the British Museum South-West Africa Expedition 1949-50 show that Little Namaqualand birds belong to the nominate form. There can be no doubt therefore, that *Aegithalos smithii* is a synonym of *Anthoscopus minuta*. The Smith specimens in the British Museum mistaken by Sharpe for the bird described by Jardine, were probably collected on Smith's later expedition (1834-36) in which he spent most of the time in eastern districts north of the Orange River.

Reichenow (Die Vog. Afr. 3, p. 526, 1905) added a further complication. He accepted Sharpe's allocation of *A. smithii* to populations north-east of the Orange River, but tried to prove that *A. minuta* also belonged to that area and therefore replaced *A. smithii*. This left the Cape bird nameless and he proposed for it the name *A. levaillanti*. Nothing can be gained by quoting his arguments for it has been shown that *A. minuta* almost certainly applies to birds in western Cape Province.

The position is now that the north-eastern populations which have been wrongly designated both as *A. smithii* and *A. minuta* are without a name. I do not think it matters very much for in my opinion the group with the lemon-coloured underparts is not readily divisible into eastern and western races, and fortunately Reichenow gave the name *A. damarensis* to specimens from Damaraland. Comparison of specimens in similar conditions of plumage show that fairly obvious differences apparent in a sample can be attributed to seasonal changes. Reichenow did not designate a type, or type locality, but in the list of localities mentioned in which he recognised this race as occurring he gives Ovaquenyama first. This is a well-known Andersson locality, just north of Ondonga, and can be accepted as the type locality of *A. m. damarensis*.

The main point is therefore that *Aegithalos smithii* Jardine should be regarded as a synonym of *Anthoscopus minuta* (Shaw & Nodder). The racial nomenclature of this species can be summarised as follows:—

- (1) *Anthoscopus minuta minuta* (Shaw & Nodder).
Sylvia minuta Shaw & Nodder, Nat. Misc. 23, (pl. 997), 1812, ex Levaillant, Hist. Nat. des. Ois. d'Afr. 3, (pl. 134, fig. 1), 1802: Heerenlogement, C.P.
Aegithalos smithii Jardine, Edin. Journ. Nat. Geog. Sci. 3, (p. 212, pl. 5), 1831: Veloren Vley, C.P.
Anthoscopus minuta levaillanti Reichenow, Die Vog. Afr. 3, (p. 526), 1905: Cape Province.
- (2) *Anthoscopus minuta damarensis* Reichenow, Die Vog. Afr. 3, (p. 526), 1905: Ovaquenyama, S. W. Africa.

The Status of *Zosterops smithi* Neumann.

MR. R. E. MOREAU sent the following:—

Most authors since the original describer have been doubtful about the distinctness of this form from *Z. jubaensis* Erlanger. Adequate series of the latter not being available, both forms were accepted by Mackworth-Praed and Grant (*Ibis*, p. 5, 1945), who at the same time synonymized *Z. senegalensis australoabyssinicus* Benson with *Z. smithi*.

Through the kindness of Dr. J. Steinbacher I have recently been able to examine ten specimens, coll. Erlanger, from the Juba River, including males from Damasso, as well as an unsexed bird from the Juba River, kindly lent by Professor E. Stresemann. I have been able to compare these with:—

(a) Ten specimens, regarded as *Z. smithi*, in the British Museum from Omo, Sagan, and Lake Stefanie, together with a female lent by the American Museum of Natural History from Sillul, the type locality of *Z. smithi*;

(b) Sixteen specimens, on which *Z. s. australoabyssinicus* was based, from higher altitudes than the foregoing, 4-5,000 ft. and once 6,000 ft., in the Yavello area.

I find that individuals in each group can be matched with individuals in the others, that the Yavello and Juba series are alike in plumage, while the Omo series are as a whole slightly duller and greyer above and paler and duller below than the others. On the other hand, in size the Omo and Juba birds are alike, while the Yavello birds average slightly bigger (as would be expected from their greater altitude):—

Juba males	50-53 mm.	wings,	females	50-53 mm.
Yavello males	52-56	„ „	„	52-54 „
Omo area males	52-54	„ „	„	50-53 „

It may be noted that the type of *Z. s. australoabyssinicus* is matched by only one of the rest of the series, the remainder being a little greyer and duller above and paler yellow below. On the other hand it may be pointed out that a Juba bird (Djilandu 19 May), sexed as an adult female, but with skull incompletely ossified, is much greyer above than the rest of the Juba birds and not such a clear bright yellow above. Degree of greyness in these birds does in fact depend to some extent on maturity.

From the foregoing it appears that if *Z. smithi* were maintained, *Z. australoabyssinicus* would have to be synonymized with *Z. jubaensis* rather than with *Z. smithi*. But on the present material I think it preferable not to maintain *Z. smithi* and to use the oldest name *Z. jubaensis* for all these yellow-bellied birds from the mouth of the Omo to the mouth of the Juba. On the south they appear to intergrade with *Z. s. flavilateralis* Reichenow; and a bird from Lamu,

lent by the American Museum of Natural History, is already brighter and yellower, both above and below, than *Z. s. jubaensis*. Captain C. H. B. Grant examined the specimens with me and agrees with my decision.

Notices.

STOCK OF THE "BULLETIN".

It is proposed to reduce the stock of the "Bulletin," but before this is done members are given an opportunity to acquire parts at 2/6 each. Applications should be made to R. A. H. Coombes, Esq., Zoological Museum, Tring, Herts. No reply will be sent if parts are not available.

BACK NUMBERS OF THE "BULLETIN".

Members who have back numbers of the "Bulletin" which they no longer require, are requested to kindly send them to R. A. H. Coombes, Esq., Zoological Museum, Tring, Herts.

DINNERS AND MEETINGS FOR 1952.

January 16th; February 20th; March 19th (at the Zoological Society, in conjunction with the B.O.U.); April 16th; May 21st; June 18th; October 15th; November 19th; December 17th.

SEPARATES.

Contributors who desire six free copies of their notes should state so on their MS., otherwise these will not be ordered.



Communications are not restricted to members of the British Ornithologists' Club, and contributions up to 1,500 words on taxonomy and related subjects will be considered from all who care to send them to The Editor, Capt. C. H. B. Grant, British Museum (Natural History), Cromwell Road, London, S.W.7.

Communications relating to other matters should be addressed to the Hon. Secretary, N. J. P. Wadley, Esq., 14, Elm Place, London, S.W.7.

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Captain C. H. B. GRANT

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The five-hundred and thirteenth meeting of the Club was held at the Rembrandt Hotel, Thurloe Place, S.W.7, on Wednesday, 21st May, 1952, following a dinner at 6.30 P.M.

Chairman: SIR PHILIP MANSON-BAHR.

Members present, 33, Guests, 9, Guest of the Club, H.H. Prince Dharma Kumarsinhji; Total, 43.

The Distribution of the Peat Partridge, *Perdix perdix sphagnatorum* in North-West Germany.

Dr. JEFFERY HARRISON read the following paper and exhibited specimens:—

The handsome dark race of the Partridge known as the Peat Partridge, *Perdix perdix sphagnatorum* (Altum), is at present only recognised as occurring in a limited area in north-west Germany, close to the Dutch frontier and across the border in the province of Drenthe. Niethammer (1) in 1938 gave the distribution for Germany as being exclusively in the Ems region, west to the Dutch frontier and north as far as the northern limits of the Bourtanger Heath. In the south it used to extend as far as the heath country in North Munsterland, where however it is no longer found.

Niethammer describes this race of the Partridge as being associated with the desolate moors and heaths and states that it must have evolved from the typical race of the Partridge inhabiting the cultivation. As a result of differing environment, both forms live next to one another and intermediates are said to be rare. By 1938 much of this heathland was being brought under cultivation and consequently Peat Partridges were reported to be becoming rare and more localised. In a recent article that appeared in December 1951, Ringleben (2) stated that this race had become further restricted.

From 1949 to 1951 I had opportunities to examine a large number of Partridges from many places in north-west Germany and in view of the reported decreases in the Peat Partridge in Emsland, it is pleasing to be able to record this race from two previously unknown localities, one on peat land north-west of Stade in northern Nieder-Sachsen and the other on peat land in central and southern Schleswig-Holstein, the two areas being approximately 90 and 120 miles north-west of their haunts in Emsland.

Their distribution is extremely patchy and corresponds most accurately to the distribution of the peat. I was able to study them frequently in Schleswig-Holstein and came to the conclusion that the limiting factors in their distribution may well be rather different from those accepted at present. Thus, near Schenefeld and near Bad Bramstedt, Peat Partridges were found commonly on peat land that had been brought under cultivation, both for agriculture and for growing young fir trees for afforestation. Fields of six to twelve inch firs were found to be favourite roosting grounds for Peat Partridges.

As an evolutionary factor, the Peat Partridge is obviously sensitive to soil colouration as shown by the patchwork distribution of the Peat Partridge and the evolution of a pale form of Partridge (3) on the sand-dune island of Borkum, that has only been isolated from the mainland since the thirteenth century. I would suggest that the factor of prime importance in the origin of the Peat Partridge was the black colour of the soil, rather than other factors associated with the vegetation growing on the heaths and moors, although these probably resulted in certain specialised feeding habits, which served further to restrict their distribution.

In Schleswig-Holstein, as the heaths and moors have been brought under cultivation, the Peat Partridge has succeeded in adapting itself to the changing environment and with its dark plumage it is well suited to the black soil, which is a regular feature of the countryside, when peat land is cultivated. Another result of this adaptation has been that Peat Partridges have come into greater contact with the typical Partridge around the fringes of its distribution with the result that intermediate forms are found rather more frequently in Schleswig-Holstein than is apparently the case in Emsland.

I am most grateful to Dr. J. M. Harrison, D.S.C., for the loan of his fine series of Peat Partridges from Holland and for his help in studying the material, which consisted of thirty Partridges from Schleswig-Holstein and Nieder-Sachsen. Herr H. Ringleben of the Vogelwarte Helgoland very kindly advised me on the German literature.

REFERENCES.

- (1) 1938. NIETHAMMER, G. Handbuch der Deutschen Vogelkunde.
- (2) 1951. RINGLEBEN, H. "Das Heiderebhuhn-ein aussterbender Vogel der Heimat." Westfälischer Jägerbote, Dec. 1951.
- (3) 1952. HARRISON, J. G. On the History of the Partridge in the German Friesian Islands with the Description of a new Race from the Island of Borkum, Bull. B.O.C. 72, pp 18-21, 1952.

A Note on *Perdix perdix* Linnaeus from Holland.

COLONEL R. MEINERTZHAGEN made the following remarks and exhibited specimens:—

As far back as 1896 three varieties of the partridge were recognised in Holland—a dune, heath and clay. These are in addition to the generally accepted race *P.p. sphagnetorum* (Altum), which is patchily distributed from East Friesland to N.W. Germany, Hanover, Westphalia and occasionally as far north as Schleswig and Holstein. It is figured in van Oort's *Vogels van Nederland* 2, pl. 124. It was recognised by Hartert and Stresemann, but van Oort considered it to be an ecological variety and unstable. Hens (Proc. 7th. Orn. Congress, Oxford, p. 354, 1938) leaves one in doubt regarding its status, but as the race is by no means constant within its alleged distribution, it should probably be regarded as a melanistic mutant dominant within its own area. The race is only slightly darker than the 'heath' form from Holland and in many cases identical.

British partridges are such a mixed population owing to introductions from Eastern Europe that they are useless for comparative purposes; the nominate race occurs in Sweden and I have several specimens from Uppsala taken on an estate where there is believed to have been no introductions from elsewhere. Dr. J. G. Harrison has described a particularly pale race from Borkum as *P.p. borkumensis*. I have only seen a single specimen of his series and I cannot see that it differs materially from Swedish (Uppsala) birds.

Partridges in Britain and on the Continent show considerable variation in tone both above and below. A partridge crouching to evade the predator would doubtless benefit by a dark colour on a dark soil and a pale colour on a pale soil, but the dune variety, living on pale sandy land is on the dark side and darker than most British specimens and very much darker than Uppsala birds which live on a fairly dark soil. Moreover, a dark underparts, could have no protective value against predators; this variation in colour is therefore a mystery; the explanation may or may not be similar to the problem of 'desert colouration' which also, in my mind, is still in the realm of conjecture. In the case of *Perdix*, variation in colour, appears to be better correlated with humidity than with soil.

Identifying Birds of Prey in the Field.

MR. H. G. ALEXANDER gave a talk and showed drawings:—

There is a certain irony of fate that has led me to discuss the problem of field identification of Birds of Prey at a meeting of the British Ornithologists Club. All my life I have tended to regard the birds of prey as among the least interesting of birds. In Britain, of course, we hardly have any, so, apart from an occasional doubt about the identification of one of the Harriers, the problem hardly arises. But I think my objections to the birds of prey have been due not only to

their scarcity in Britain but also to two other factors. First, I find their way of life, their habit of preying on others of their kind, not specially attractive. Birds of prey have commonly been admired as "bold" and "courageous." I cannot see that they are more bold or courageous than many other birds. Indeed, this respect for the boldness and courage of the slaughterer is merely a rather tiresome kind of anthropomorphism, and I hope we are getting away from all anthropomorphism in our bird-studies. If we are to allow our human feelings to colour our bird study, then I suggest that the songs of the birds are much more attractive than their capacity to shed blood. And the birds of prey do not sing.

But my other objection to birds of prey brings me to my real subject this evening. By comparison with all the smaller birds, and even with some larger ones, they are extremely difficult to watch at close quarters, unless you have time to find their nests. And nest-finding has never been one of my skills. I want to be able to identify the birds I see at any time of year in the field. The birds of prey are very difficult to identify, for two reasons: First, more often than not, you only see them sailing high in the sky, refusing to come near for careful inspection. And, further, some of them have a most astonishing variety of plumage. The "what is hit is history, and what is missed is mystery" type of ornithologist merely assumed that they could only be identified in the hand. Some of this school no doubt persist today. They certainly have a strong case. I remember, for instance, that a good many years ago, on a heath near Berlin, there was a Buzzard with a colour pattern that made it look almost exactly like an Egyptian Vulture at some distance. What I should have thought it was if I had come upon it by chance, I cannot imagine. Fortunately for my own reputation, I was in the company of a young German who knew what it was. In any case, let me point out, the bird had in fact been correctly identified without being shot.

Another example, this time from South India. Some years ago, I was in Travancore with Salim Ali. On Periyar Lake, we came upon a suspicious looking creature, which he thought might be the Japanese Buzzard, a species that has very rarely been recorded in India at all, but which I believe was found in Travancore a good many years ago. Salim Ali managed to shoot it, and still thought it was probably a Japanese Buzzard. However, the measurement of the tarsus finally proved that it was only an immature Brahminy Kite. There seemed to be no other feature that was wholly diagnostic. However, I feel impelled to add that I had thought it was a young Braminy all the time, at any rate so long as it was alive and in the air. If asked my reason for this, I think I should have said that its wings looked too broad for any Buzzard I had ever seen. So, on the whole, that incident fortified me in the view that field identification of the more difficult birds of prey was not quite hopeless.

Then, of course, we may be encouraged by the work done in America. The several American species of Buzzard are undoubtedly

a most difficult group to identify, but the ornithologists of America seem to have finally worked out combinations of colour pattern and shape which will identify almost any Buzzard in almost any plumage. Mr. Peterson's latest colour plates are an enormous help to the field ornithologist.

So, with such experiences to encourage me, let me come to the birds that occur in North India. I must first make it clear that I have only made serious attempts to identify the birds of prey to be seen about Delhi and elsewhere in North India during the past four or five years, and that most of the sketches that I have made have been the result of casual encounters rather than any systematic work. One of the oddest of these occasions was when I went to see what was happening to the hapless villagers near the Kashmir-Punjab border in the winter of 1947-8. We suddenly found ourselves more or less mixed up in a battle; as a raiding party from the Pakistan side of the border had just appeared. So, while my hosts of the Indian Army went off to assist in the battle, I wandered off in the opposite direction, and found some most interesting birds of prey, evidently migrating south, and I forgot about the battle while I watched and drew sketches of the birds. When I returned to the jeep, I found my hosts in a state of great anxiety, fearing that I had been captured by the enemy.

I think we may divide the larger birds of prey of the Punjab into the following groups: Large, Medium-size and Small. I am not here concerning myself with the Vultures. They are comparatively easy to identify, and, with the exception of the Egyptian, they are larger than the Eagles. I am also omitting the Harriers, though there are times when the Marsh Harrier can be confused with the smaller Eagles or Buzzards. Nor am I including the Falcons, nor the Hawks; in both groups, size and shape of wings separates them, at any rate as groups, readily enough from the Eagle-Buzzard group.

Size itself, of course, is often difficult to estimate when birds are, soaring in the air. So that my rough division of the Eagles and Buzzards according to size may not seem very helpful. Fortunately, in India there is very often a Kite somewhere in the air to compare the other birds with. So, when I speak of three sizes, I am really saying that there is a group larger than the Kite, a group roughly Kite size, and a group smaller than the Kite.

The large Eagles of North India include the Golden Eagle, Tawny Eagle, Steppe Eagle, Black Eagle, Imperial Eagle and the two Spotted Eagles. The Tawny Eagle, which is perhaps the smallest of these, only one size bigger than the Kite, is the most generally distributed in India. It is resident. Its plumage seems to vary very much, and it has no obvious colour pattern that can always distinguish it. Generally speaking, if you see a dark brown, or rather tawny brown, large Eagle in India you call it a Tawny. In some plumages the Tawny, like most of the other Eagles, seems to have some white on the upper tail-coverts. This is by no means a diagnostic point. On the contrary, white on the upper tail-coverts seems to be one of those

things that ought to help but does not. Let us turn to some other species that have diagnostic characters.

Throughout the winter, by far the commonest species round Delhi is the Steppe Eagle. About the sewage-dump five miles north of Delhi you can often find a dozen or more. They sometimes sit on telegraph poles, and can be seen at close quarters. One day I found one beside the road, on its back, which had just been hit by a passing lorry and was about to expire. I was able to make exact notes on the colour of its soft parts, and plumage characters, which have been useful to me since.

Sometimes I find it hardly possible to distinguish a Steppe Eagle from a Tawny, but as a rule, the Steppe Eagle has a more uniform, plain brown mantle, contrasting with the blackish primaries. Another point that seems to me valuable, and which I confirmed with my dying bird, is the blackish tail with a narrow pale tip. This can be seen when the bird is in the air above your head, provided the light is fairly favourable. The young Steppe Eagle is easy to identify, for, as noted by Whistler and other authors, it has two whitish lines across the length of the wing, one near the front edge, the other along the tips of the secondaries. In some plumages there also seems to be a transverse pale line across the primaries.

The Black Eagle is like a very dark form of Tawny, but it can be identified at reasonably close range by the white feet, which contrast with the dark plumage. It is a bird of forests, and I have never seen it near Delhi. The Larger Spotted Eagle I had the good luck to see in company with Kumar Shri Dharmakumarsinhji of Bhavnagar, when he was staying at Delhi. He probably knows the Indian birds of prey as well as any living man. He called my attention to this bird, with a narrow but very clearly defined V-shaped white mark on the upper tail-coverts. This is readily distinguishable from the whitish patch I have already mentioned on the upper tail-coverts of several species.

Of the Golden Eagle, Imperial Eagle and Lesser Spotted Eagle I still have very little experience. Once or twice I have seen a large Eagle with whitish shoulder patches, which I took to be an Imperial. But I am not sure that this is diagnostic, nor does it occur in all plumages. The Golden Eagle can, I think, usually be identified by the pale patch on the secondaries. Lately I saw a remarkable film taken by Mr. Albert Linton from Hawk Mountain in Pennsylvania, of a Golden Eagle gliding downwards with half-closed wings, in which this feature, as also the pale upper tail-coverts, showed very well. A few weeks later I saw one overhead in the mountains near Los Angeles, which had just the same wing-pattern. But I believe that the Larger Spotted Eagle also has this pale patch on the secondaries. If so, apart from the difficult problem of size, I wonder how one can always be sure which it is, in countries where both or all these species occur. Some authorities say that the length of the tail is important. Golden

and Imperial have, I think, rather longer tails than the rest in this group. I expect this is a good point, but I have not had enough experience to be sure just how useful it may be. All that I have said so far, I am afraid, amounts to this: the Steppe Eagle can usually be identified from below by the pale lines along the wing; also by the pale tip to the tail; the Larger Spotted Eagle, when seen from above, shows a conspicuous narrow whitish V on the tail-coverts; the Golden Eagle has a pale patch on the secondaries, and should look longer in the tail: and the immature Golden Eagle has a white band across the base of the tail. The Imperial Eagle has white shoulders in some plumages. I think it also has a dark band at the end of the tail. The Lesser Spotted Eagle I have not been able to identify at all.

Before I pass to the medium-sized Eagles, I ought to say something about the Sea- or Fishing-Eagles, which are, on the whole, even larger than the group I have been discussing, and four of which are to be seen in India. By far the commonest of the four in North India is Pallas's Fishing-Eagle. This is the common bird of the North Indian rivers. It has a uniformly dark wing and mantle, the head somewhat paler. The basal half of its tail is white, the other half dark brown. The underparts are also dark brown. Hodgson's Grey-headed Fishing-Eagle is a rather smaller bird, which, in adult plumage, has a whitish underside, and three-quarters of the tail are white. Immature birds of these two species, which have dark tails, are very difficult to distinguish. The White-tailed Sea Eagle also occurs in North India, especially in Kashmir. The adult, with its completely white tail, is easy enough to identify. But I should not find it easy to distinguish the young from young Pallas. These three all have a very dark wing, which should distinguish them from almost all other Eagles. In the coastal belt of Eastern India one fairly often sees the White-bellied Sea Eagle, an unmistakable bird. The whole head and underside is white; so is the underside of the fore-wing, and a good deal of the tail. One Christmas that I spent at Puri, on the Orissa coast, a White-bellied Sea Eagle used to go out to sea to fish just opposite where we were staying. Once, at least, it reappeared trailing an immense sea eel.

Passing to the medium-sized Eagles, I begin with the Short-toed Eagle. One of my sketches of this bird I have put among the large Eagles, another among the medium-sized; so that you will see how unsatisfactory even this provisional grouping under size really is. As a rule, it is a fairly easy bird to identify. The whole underside, including the wing apart from the tips of the primaries, is so pale as to appear white at a distance; though, if you get a close view, you discover a number of small spots. At a distance the tail looks dark. As a rule, one of the best diagnostic features, as Salim Ali pointed out to me years ago, is the dark chin and throat. Unhappily, this is not invariable. When you see it, you can say "Short-toed"; when you don't see it, I used to think the similar looking bird was Bonelli. But,

the winter before last, in Delhi, we had a pair of very pale-headed birds, which I was inclined to call Bonelli's, but when the Dhar-makumarsinhji came out with me, he satisfied me that they were Short-toed. How, then, is one to distinguish Bonelli's? In the first place, I think it is not as a rule so white below. But plumage changes are so various that this is not a satisfactory means of identification. More important, and I think more uniform, is the ringed tail. The Short-toed is faintly ringed, as seen from below, if you are near to the bird. But Bonelli's appears to be more boldly ringed, both above and below. Bonelli's, moreover, is of the Hawk-Eagle shape, that is to say, it is longer-winged and longer-tailed.

One of the most satisfactory Eagles is the Crested Serpent-Eagle, widely distributed over North India. When it is in the air, the under-plumage is dark, with a band of white right across the primaries and secondaries, and another band across the tail. Its shape is Buzzard-like, that is to say, broad in the wing and rather short in the tail.

I have very little knowledge of the Hawk Eagles, and I do not know if they can be identified except at very close quarters.

So we come to the smaller group, in size comparable to our Buzzard. First, there is the Brahminy Kite. In adult plumage, with white head and rich rufous plumage otherwise, it is, of course, impossible to confuse with any other bird. But the immature is much more tricky. It is a fairly uniform brown, but there is a pale patch on the secondaries. When they are working over marsh land, they are readily confused with Marsh Harriers, but in fact the rounder tails and broader wing should be enough to distinguish them.

In winter, the Long-legged Buzzard is another bird of the same size and shape. Its pale underside, with dark tips to the primaries and dark patch on the under wing-coverts, gives it a very characteristic appearance. I think it always has a whitish patch on the upper tail-coverts, but the colour of the mantle varies greatly, and sometimes the whole bird looks nearly white.

There is one Eagle that belongs to this small group, namely the Booted Eagle. From time to time I was puzzled by a small Buzzard-like bird, with colour-pattern almost like an Egyptian Vulture, except that it had a dark rim to the wing, that is to say, black tips to the secondaries as well as the primaries. This bird I saw from time to time in the winter about Delhi, usually while I was hurrying in my car from one engagement to another and could not stop. Finally, in the autumn of 1950, one kindly took up its residence for some weeks in the garden of a member of our Delhi Bird-watching Society, Captain Ranald, where it would sit in a tall eucalyptus tree by the hour, and then circle round over the garden. A meeting of the society took place there one evening, when this Eagle and a Kite were in the same tree together. On the wing, in this plumage, it is a very striking and distinctive bird. But in the tree it can look just

like a rather pale Buzzard. How it is to be identified from the Buzzards in any other plumage, I do not know.

I have sketches of a bird which I took to be the Crested Honey-Buzzard, showing a slight crest, and showing a contrast between almost black crown and mantle with a pale spotted underside, which I watched in a tree at Delhi in January, 1951. When it flew from the tree it went straight away, so I could not get a satisfactory view of its pattern in the air. Also, I have one or two sketches of Buzzards, one of which, seen at Delhi in January, 1951, I have called provisionally the Upland Buzzard, *Buteo hemilasius* Temminck and Schlegel, on the strength of its very strongly ringed tail. But I am not at all sure that this identification is correct.

The common Buzzard of India is the White-eyed Buzzard, which is so small that it really belongs to a size group all by itself. Yet, once again, how deceptive size can be. On occasion, when I have seen one fly off from a low tree, I have thought for a moment that it was a Kestrel. The flight is quite Falcon-like, with rapid wing beats, and the wings can look very narrow until it gets well into the air and begins to sail and soar. By contrast, I have seen a bird sailing alone in the air overhead, looking almost white underneath, apart from a narrow rim of black or dark brown on the wings and tail, and have thought from its shape that I must be seeing some Hawk-Eagle. But as soon as it comes nearer, the size shrinks, and it is nothing but the familiar White-eyed Buzzard.

All this is, as you will realise, the merest preliminary essay on the Eagles and Buzzards of India. Probably other members of the Club know many of them far better than I do. Some, such as the Spotted Eagles and Bonelli's, are European species, and should have been observed by many more competent observers than I am. But as far as I can discover, very little has yet been published that will help the field observer with identification. I am convinced that something comparable to the plates in Roger Tory Peterson's latest Field-Guide to the birds of the Eastern United States may yet be possible.

Colour Film of the Lesser Florican & Great Indian Bustard.

PRINCE DHARMAKUMARSINHJI exhibited the film and gave a commentary.

The first part showed the courtship and breeding displays of the Florican and the remainder the Great Indian Bustard on the plains.

This very clear and excellent film was much appreciated by the assembled company.

Further breeding notes from Nyasaland.

MR. C. W. BENSON sent the following:—

These notes supplement those in Bull. B.O.C., 71, pp. 5-8, 1951. Localities neither mentioned in the previous notes nor on the map

in Belcher's "Birds of Nyasaland," 1930, are (altitudes above sea-level approximate):—Mkhoma Mountain, 20 miles east of Lilongwe, summit 6,000 feet; Ntakataka, 18 miles north-east of Dedza, 1,700 feet; Sekwere, 5 miles north of Ntakataka, 1,800 feet. All skins have been presented to the British Museum and the eggs to Captain C. R. S. Pitman. Useful previous references are given. They contain much information which it is unnecessary to repeat.

Pyrhherodia purpurea purpurea (Linnaeus).

C/4 fresh, Lake Nyasa near Ntakataka, 22nd January. Eggs pale blue; size 55 x 40, 52 x 40, 51 x 39, 49 x 37mm. Nest in top of dense bed of fifteen foot reeds, in one foot deep water on edge of lake; one of a colony of seventeen, within twenty-five square yards; two others inspected also contained four eggs each, not taken. This corroborates the breeding season suggested by Kirk's record, "Ibis," p. 332, 1864.

Ixobrychus minutus payesii (Hartlaub).

"Ibis," p. 279, 1947. Nestling, Lake Nyasa, near Ntakataka, 8th May. Still mainly in pale rufous down, with some feathers emerging from sheath, mostly on upperside. Nest contained a second young, when originally found 4th May, already dead. Site as for *Pyrhherodia*, but only five feet above water-level.

Aquila verreauxi Lesson.

"Ibis," p. 286, 1940, p. 206, 1945, p. 387 *et seq.*, 1947. A nesting site on a ledge on a rock-face on Mkhoma Mountain visited 15th July. On arrival, parent on nest. It was impossible to get nearer than ten feet to the nest, or to see into it. Calling of a single young heard, the febleness of which suggested age less than one week. Both parents continually in vicinity, either perched on ledges or flying; one carrying a twig of *Brachystegia* leaves for over half-an-hour, which was finally dropped in mid-air.

Stephanoaëtus coronatus (Linnaeus).

An adult and a nestling, already fully feathered and making short sorties from nest, both shot at a nest at Mitongwe, 13th February. Nest in a baobab tree, on edge of a dense thicket.

Circaëtus pectoralis Smith.

"Ibis," p. 288, 1940, p. 211, 1945. An adult flushed from nest in top of a forty-foot high *Parinari* sp. tree, in *Brachystegia-Uapaca* woodland near Kapiriuta, 29th October. A single nestling, not taken. It had crown and nape tawny rufous, with darker centres to feathers; remainder of upperside sepia, with pale rufous margins to feathers; underside tawny (under tail-coverts less markedly so), feathers of throat and chest with darker centres, some down remaining on chest and belly; under wing-coverts still mainly in down; bill and cere pale bluish grey, apical half of bill black; iris pure yellow; tarsi and feet white, claws black. All down-feathers an intense pure white.

Accipiter tachiro tachiro (Daudin).

"Ibis," p. 213, 1945. Nestling, moult from white down to juvenile plumage about half complete, with female parent and one infertile egg, Sekwere, 21st December. Nest in thick riparian scrub, twenty-five feet above ground. Another nest, at Mitongwe, 13th February, contained a young in complete white down (not taken) and a single infertile egg.

Melierax metabates mechowi Cabanis.

"Ibis," p. 722, 1928. Nest seen at Dedza near top of a twenty-foot high *Acacia* sp. tree, 11th October. A single nestling (not taken), still in complete down—grey, with head and chest white—except that remiges, retrices, scapulars and some wing-covert feathers emerging from sheath.

Rostratula benghalensis (Linnaeus).

"Ibis," p. 393, 1940, p. 362, 1945. C/4 fresh, with male parent, Ntakataka, 10th May. Nest a shallow "saucer," diameter eight inches, made of coarse grass, on bare mud in a rice garden. Another C/4 taken the same locality and date, and three days later another such seen.

Centropus toulou wahlbergi C. Grant.

"Ibis," p. 403, 1940, p. 60, 1946. C/4 slightly incubated, 35 miles west of Dedza at 4,000 feet, 27th February. One egg taken from a C/3 the same locality, 1st March, was quite fresh.

Ceuthmochares aereus australis Sharpe.

Stark & Schlater, "Bds. of S. Africa," 3, p. 211, 1903. Nest with two eggs found near Ntakataka, 13th December. Eggs white, but not closely examined, and the following day had disappeared. Nest within a fifteen-foot high bush, near top, on edge of dense scrub. Outside of bush almost completely covered with leaves of a creeper. Nest a flimsy platform, loosely constructed with twigs to which green leaves attached, some of them of *Kirkia acuminata* Oliv.

Dicrocercus hirundineus hirundineus (Lichtenstein).

"Ibis," p. 308, 1946. Fully feathered young taken from nesting hole, in which two others similar, Sekwere, 26th November. Another hole frequented by this species in same locality was opened up 28th November. It contained a single nestling of *Indicator indicator* (Sparman), soon to be fledged, which together with five punctured (presumably by the parent *Indicator*, see "Ibis," p. 93, 1942) eggs of the bee-eater have been sent to Mr. C. J. Skead at the King William's Town Museum.

Apus aequatorialis aequatorialis (Müller).

Two partially feathered nestlings, together with a series of adults, taken from a nesting colony in a rock-crevice on Dedza Mountain, 25th October.

Apus apus barbatus (P. L. Schlater).

Within fifty yards of the *A. aequatorialis* colony was one of *A. a. barbatus*, which could not be reached. Adults frequently entering throughout the day, several of which shot. Calls heard apparently emanating from nestlings. Similar observations Mphunzi Mountain, ten miles west of Dedza, 28th October. There is a young bird, only a few days fledged, in the British Museum, collected by Whyte at Zomba in October.

Apus caffer streubelii (Hartlaub).

Mr. G. F. A. Hibberd found a nestling on the floor of the verandah of the District Commissioner's house at Ncheu, 7th November, which had fallen from a disused nest of *Hirundo abyssinica* Guérin. He found it to be fully feathered, generally similar to adults in appearance, but with noticeable gape-wattle and very short tail.

Buccanodon whytii sowerbyi (Sharpe).

C/5 fresh, with female parent, ovary with no more eggs to lay, Kapiriuta, 4th October. Nesting hole in a *Parinari* sp. tree, in *Brachystegia-Uapaca* woodland. Eggs pure white, slightly glossy; size 25 x 19, 25 x 18.5, 24.5 x 18.5 (two), 24 x 18.5mm. A nesting hole examined near Dedza, 7th November, contained three still naked young; in a *Ficus* sp. tree in riparian scrub through *Brachystegia-Uapaca* woodland.

Viridibucco leucomystax (Sharpe).

"Ibis," p. 559, 1947. A nesting hole examined on Chongoni Mountain, 4th December, contained two fully feathered young, not taken, having no obvious difference from adults. Their call a series of about eight abbreviated, high-pitched whistles, inaudible further than twenty yards.

Myopornis böhmi böhmi (Reichenow).

Bull, Mus. Comp. Zool., 106, p. 95, 1951. C/4 slightly incubated, Kapiriuta, 7th October, from a disused nest of *Hyphanturgus olivaceiceps* (Reichenow), see below, as per description of second nest.

Parisoma plumbeum orientale Reichenow & Neumann.

Ool. Rec., 21 (4), p. 7, 1947. C/2 fresh, Sekwere, 26th November. Nest in decayed branch of a tree of *Brachystegia bussei* Harms, twenty feet above ground. Eggs white, in one tinged pale greenish; heavily mottled with brown, with some underlying greyish lilac, mottling heavier at larger end, but no particular zone of concentration; size 17 x 13, 17.5 x 12.5mm.

Hyltiota flavigaster barbozae Hartlaub.

"Ibis," p. 560, 1947. C/3 slightly incubated, with female parent, ovary with no more eggs to lay, Kapiriuta, 7th October.

Erythrocerus livingstonei thomsoni Shelley.

"Ibis," p. 283, 1947. C/2 fresh, with female parent, ovary with no more eggs to lay, Sekwere, 26th March.

Trochocercus cyanomelas bivittatus Reichenow.

Ool Rec., 21 (4), p. 8, 1947. C/2 fresh, with female parent, ovary with no more eggs to lay, Mitongwe, 12th February.

Oenanthe pileata livingstonii (Tristram).

"Ibis," p. 192, 1947. Fledgling male, collected from two other young still being fed by parents, and roosting together in a disused mouse-hole on Dedza aerodrome, 26th September.

Hirundo dimidiata marwitzi Reichenow.

"Ibis," p. 111, 1949. C/2, one soon to hatch, one infertile, Dedza, 15th September. Nest in secondary *Brachystegia* woodland, attached to roof of a disused ant-bear's hole, four feet from entrance.

Riparia paludicola paludicola (Vieillot).

"Ibis," p. 115, 1949; Ann. Trans. Mus., 21 (2), p. 172, 1949. C/3 fresh, River Linthipe at 3,500 feet, 13th July.

Antichromus minutus anchietae (Bocage).

"Ibis," p. 135, 1949. C/2 fresh, Dedza, 13th November.

Parus leucomelas insignis Cabanis.

"Ibis," p. 314, 1949. C/1 infertile, from nest containing two young, Dedza, 12th October. Nest in a *Bridelia* sp. tree; bottom of nesting hole well padded with *Vellozia* fibres. Young with feathers emerging from sheath, and large yellowish white gape-wattles; in colour generally similar to adults.

Hyphanturgus olivaceiceps (Reichenow).

C/3 soon to hatch, Kapiriuta, 7th October. Nest made of "Old Man's Beard" lichen (*Usnea barbata* Fries), most inconspicuous, appearing merely as an enlarged strand of the lichen, near top of a twenty-five-foot high tree of *Brachystegia velutina* De Wild. Roughly globular in shape; entrance at bottom, lacking any protruding spout; greatest height five inches, greatest length or width seven inches, width of entrance two and a half inches; top of nest enclosing a two-inch thick branch for two inches length. Eggs immaculate bright turquoise, slightly glossy, size 20 x 15mm.

Another nest same locality and date contained two feathered young (collected), about one week from fledging. Nest similar in all particulars to the first, but general shape more of an inverted pyramid, greatest length at top (enclosing branch) and gradually tapering to entrance at bottom.

Coliuspasser macrourus macrourus (Gmelin).

"Ibis," p. 504, 1949. Three C/3 fresh, Dedza, 31st January, 2nd and 9th February. In each case female parent snared, and ovary showing no more eggs to be laid.

Notes on Eastern African Birds.

Captain C. H. B. GRANT and Mr. C. W. MACKWORTH-PRAED sent the following:—

On some Grey Shrike types and the Races occurring in Eastern Africa.

In the Bull. B.O.C. p. 44, 1944, we discussed the status of *Lanius pallidirostris* Cassin, *Lanius aucheri* Bonaparte, and *Lanius grimmi* Bogdanov.

Through the kindness of Mr. R. M. de Schauensee, of the Academy of Natural Sciences, Philadelphia, and Dr. E. Tortonese, of the Turin Museum, we have been able to examine the types of *Lanius pallidirostris*, *L. pallens* Cassin, and *L. pallidus* Antinori.

Both *Lanius pallens* and *Lanius pallidus* are young birds of *Lanius excubitor elegans* Swainson. The type of *Lanius pallidirostris* is an adult and has a horn-coloured bill, the forehead grey and whitish, and the lores to ear-coverts, including the bristles over the nostrils, black. It does not agree with either *Lanius aucheri*, *Lanius elegans*, or *Lanius leucopygus* but, except for the black lores and bristles over the nostrils, it does agree with specimens we had considered to be *L. grimmi*. It would therefore appear that all the adult specimens with horn-coloured or dusky—not black—bills are one race, and that this race also varies in the amount of dusky or black on the lores and nostril bristles, though none have any black on the forehead and all are creamy white below, often with a pink blush on the chest.

In considering the races that occur in Eastern Africa, we have examined birds of this species from the whole of Africa, Arabia, India, and southern Europe to Turkestan, and we find that seven races occur, one of which is from Socotra Island. Fourteen specimens in the British Museum collection from Mishum, in the Persian Gulf, Arabia, Iraq, south-western Iran, Jericho, and British Somaliland (and two in the Meinertzhagen collection from British Somaliland) agree with *L. e. lahtora* Sykes. These were all taken between October and April, and show that this race moves westward in the non-breeding season.

As regards the name *Lanius excubitor leucopygus* Hemprich & Ehrenberg, given by Sclater, Syst. Av. Æthiop. 2, p. 607, 1924, we find on fol. e. of the Symb. Phys. *Lanio leucopygo* and on fol. dd. *L. leucopygo*. A careful study of the subject matter on the overleaf of fol. d. to the overleaf of fol. e. shows that the authors are discussing in a general way the Shrikes occurring in Libya, Abyssinia, Syria and Arabia. In footnote (2) they have given a new name under the genus *Lanius*, i.e. *Lanius isabellinus*. Elsewhere the terms *Laniorum*, *Lanium*, *Lanei* and *Lanio* are not scientific appellations. *Lanio leucopygo* on fol. e. is therefore not a scientific name and no doubt this is the reason why Sherborne did not record it in his Index Animalium.

On the overleaf of fol. dd. under VII *Lanii* species 5, item 36 *L. leucopygo* is again given in connection with *Lanius excubitor* in a list

of the 50 species in Nubia and Dongola. Where the authors have given new scientific names a description has been given in the footnotes, but there is no footnote and description of *L. leucopygo*. We are of opinion that, on this page, this also is not a scientific name and had the authors been writing in English they would have used the words "White-rumped Shrike." Heuglin, Orn. Nordost Afr. p. 480, 1871. should be accepted as the author and reference to *Lanius leucopygus*.

We are of the opinion that the difference between the birds known as *L. e. leucopygus* and *L. e. elegans* is only one of degree in that in the southern areas the rump and upper tail-coverts are lighter, less grey. Specimens can be matched all over the area and we therefore place *L. e. leucopygus* as a synonym of *L. e. elegans*.

The races we now recognise as occurring in Eastern Africa are:—

Lanius excubitor elegans Swainson.

Lanius elegans Swainson, Faun. Bor. Amer. 2, p. 122, 1831: Algeria; of which *Lanius pallens* Cassin, Proc. Acad. Nat. Sci. Philad. 5, p. 245, (1851) 1852: Fazogla, eastern Sudan; *Lanius pallidus* Antinori, Cat. descr. Coll. Ucc. p. 56, 1864: Gedaref, Sudan, and *Lanius leucopygus* Heuglin, Orn. Nordost Afr. p. 480, 1871: Dongola, northern Sudan, are synonyms.

Above pale grey: narrow band on forehead and lores to ear-coverts black; rump and upper tail-coverts white to greyish-white; below, white; bill black. Wing 93 to 111, tail 90 to 115 mm. Forty-five specimens measured.

Distribution: Southern Algeria, French Sudan and northern Nigeria to Egypt, Eritrea, the Sudan, and western Palestine.

Lanius excubitor lahtora Sykes.

Lanius lahtora Sykes, P.Z.S. p. 86, 1832: Deccan, India. Tone of grey above darker than in *L. e. elegans*; below, similar to *L. e. elegans* and often with a buff wash on chest, breast and flanks; bill black. Wing 105 to 111; tail 99 to 121 mm. Fifty specimens measured.

Distribution: India; in non-breeding season to Persian Gulf, Arabia, Iraq, Iran, Palestine and British Somaliland.

Lanius excubitor pallidirostris Cass.

Lanius pallidirostris Cassin, Proc. Acad. Nat. Sci. Philad. 5, p. 244, 1852: Eritrea; of which *Lanius grimmi* Bogdanov, Sorok (Soradichi), Russ. Faun. Zapiski, Imp. Akad. Nauk. 29, p. 151, pl. 4, 1881: Amu Daria district, south of Lake Aral, Russian Turkestan, is a synonym.

Differs from other races in having no black on forehead; mantle more or less washed with isabelline; bill dusky to horn colour, not black; below, white with usually a pinkish wash on chest. Wing 102 to 117 mm. Thirty-four specimens measured.

Distribution: Lake Aral and Transcaspiian areas; in non-breeding season to Iraq, Palestine, Iran, Afghanistan, Punjab, Arabia, Egypt, the Sudan, Eritrea and Abyssinia,

Lanius excubitor aucheri Bon.

Lanius aucheri Bonaparte, Rev. Mag. Zool. p. 294, 1853; Iran, of which *Lanius assimilis* Brehm, J.f.O., p. 146, 1854: Sennar, eastern Sudan, is a synonym.

Above, usually slightly darker than *L. e. elegans*; black band on forehead; below, with a grey wash on chest and flanks, not the white or white with a buff wash on chest, breast and flanks of *L. e. elegans* and *L. e. lahtora*; bill black. Wing 98 to 115; tail 98 to 115 mm. One hundred and four specimens measured.

Distribution: Eastern Palestine to Iran, Iraq, Sinai and Arabia (except hills of southern area); in non-breeding season to south-eastern Egypt; Eritrea, the Sudan, Abyssinia, British Somaliland and India.

Lanius excubitor uncinatus Sel. & Hartl.

Lanius uncinatus P. L. Selater & Hartlaub, P.Z.S., p. 168, 1881: Socotra Island.

Differs from *L. e. aucheri* in having a longer bill and rather less white in the scapulars; bill black. Wing 98 to 102 mm. Ten specimens measured.

Distribution: Socotra Island.

Lanius excubitor buryi Lor. & Hellm.

Lanius buryi Lorenz & Hellmayr, O.M. p. 39, 1901: Yeshbum, southern Arabia, of which *Lanius arabicus* O. Grant, Bull. B.O.C. 15, p. 78, 1915: Gerba, Amiri district, southern Arabia, is a synonym.

Much darker above, more dusky grey than other races; chest and flanks and under primary coverts usually dark grey; bill black. Wing 99 to 111 mm. Twenty-three specimens measured.

Distribution: Eastern Abyssinia to hills of southern Arabia.

Lanius excubitor dubarensis Grant & Praed.

Lanius excubitor dubarensis C. Grant & Mackworth-Praed, Bull. B.O.C. 71 p. 55, 1951: Dubar, about 10 miles south of Berbera, British Somaliland.

Above similar to *L. e. buryi*; below, whiter and lacking the grey on chest and flanks; upper tail-coverts slightly paler than mantle and rump; bill black. Wing 105 mm. One specimen measured.

Distribution: British Somaliland.

Notices.

STOCK OF THE "BULLETIN".

It is proposed to reduce the stock of the "Bulletin," but before this is done members are given an opportunity to acquire parts at 2/6 each. Applications should be made to R. A. H. Coombes, Esq., Zoological Museum, Tring, Herts. No reply will be sent if parts are not available.

BACK NUMBERS OF THE "BULLETIN".

Members who have back numbers of the "Bulletin" which they no longer require, are requested to kindly send them to R. A. H. Coombes, Esq., Zoological Museum, Tring, Herts.

DINNERS AND MEETINGS FOR 1952.

January 16th; February 20th; March 19th (at the Zoological Society, in conjunction with the B.O.U.); April 16th; May 21st; June 18th; October 15th; November 19th; December 17th.

SEPARATES.

Contributors who desire six free copies of their notes should state so on their MS., otherwise these will not be ordered.

PUBLICATION OF THE "BULLETIN".

Members who make a contribution at a Meeting should hand the MS. to the Editor at that Meeting. As the proofs will be corrected by the Editor, it is essential that the MS. should be correct and either typed or written very clearly with scientific and place names in block letters. The first mention of a scientific name should be spelt out in full, i.e., genus, specific name, racial name (if any), and author. Any further mention of the same name need only have the initial letter of the genus and no further mention of the author.

If no MS. is handed to the Editor at the Meeting, a note will be inserted mentioning the contribution.

ADDRESS OF EDITOR.

Articles for the Bulletin should now be sent to:—

Dr. J. G. HARRISON,
Bowerwood House,
St. Botolph's Road,
Sevenoaks,
Kent.



Communications are not restricted to members of the British Ornithologists' Club, and contributions up to 1,500 words on taxonomy and related subjects will be considered from all who care to send them to The Editor, Dr. J. G. Harrison, Bowerwood House, St. Botolph's Road, Sevenoaks, Kent.

Communications relating to other matters should be addressed to the Hon. Secretary, N. J. P. Wadley, Esq., 14, Elm Place, London, S.W.7.

BULLETIN

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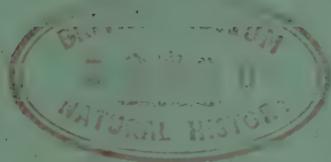
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BRITISH ORNITHOLOGISTS' CLUB.

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The five-hundred and fourteenth meeting of the Club was held at the Rembrandt Hotel, Thurloe Place, S.W.7, on Wednesday, 18th June, 1952, following a dinner at 6.30 P.M.

Chairman : SIR PHILIP MANSON-BAHR.

Members present, 23 ; Guests 3 ; Guest of the Club, P. H. T. Hartley ; Total, 27.

Mr. P. H. T. HARTLEY read a paper on

The Biology of *Cercomela melanura* Temminck,

of which the following is a summary :—

In the deserts of the southern Palaearctic and northern Ethiopian regions the ecological niche of the 'small insectivorous bird' is filled, in winter, by members of a number of related species—Wheatears and Chats—which get their living partly by searching for prey of small invertebrates in rough ground and partly by 'fly-catching' on the wing. All hold territories in winter. When several species have similar habitat preferences there is considerable inter-specific territorial exclusion.

Along the coasts of Aden Colony and Protectorate, *Cercomela melanura* Temminck, the Black-tailed Rock-Chat is the most abundant small insectivorous bird, with a few *Oenanthe deserti* Temminck on stretches of level desert.

Black-tailed Rock-Chats spend the winter in pairs ; both birds of a pair take part in the defence of their territory. In aggressive display, use is made of the black rump and tail, both in antic flight and by standing with depressed and spread tail while turning the back on the opponent. In September, Rock-Chats sang only before 07.00 hours.

In October they sang scarcely at all, but in November song began again and was continued into the breeding season. In this winter-spring song season there are two singing periods in each—the morning and early forenoon and the evening. The song of the Black-tailed Rock-Chat is a repetition of short, shrilly musical phrases, very similar to the songs of several species of Wheatear.

Most of the species of Chats winter solitary. *Saxicola torquata* L. is the only other species wherein paired birds share a winter territory.

Bombycilla garrulus centralasiae in England.

Dr. JAMES M. HARRISON exhibited six specimens of *Bombycilla garrulus centralasiae* Poljakow, a new British form, and made the following remarks :—

When recently examining a series of British taken Waxwings, formerly in the collection of Dr. N. F. Ticehurst, and a further specimen received from Mr. P. A. Clancey, I was impressed by the extreme paleness of five in the former collection as well as the example from Mr. Clancey.

On comparing these with thirty from Siberia, and nine from other Asiatic localities, and with nineteen from Scandinavia as well as others from many European countries in the National Collection, the six British specimens were found to match the Siberian and Asiatic series exactly, and are therefore referable to *Bombycilla garrulus centralasiae* Poljakow [1] This form extends from east of the Ural Mountains eastwards as far as the Kamchatka Peninsula and to the coast of the Behring Sea. The range towards the south-west is as yet not exactly known, but it has been recorded towards the south-east in Tien Shan and the North West Provinces of India. It is possible that it may extend to some extent westwards towards Poland and the Baltic States round the southern spur of the Ural Mountains, and that some intergradation with the nominate race may occur in this area.

It is to be noted that this form has page priority over *B.g. ussuriensis* Buturlin, [2] which was described in the same issue of the *Messenger Ornithologique* in 1915, and that the latter race therefore becomes a synonym of *B.g. centralasiae*.

Johansen [3] states that in the western end of its range, *B.g. garrulus* is found, the birds being characterised by a strong red-brown tone, while in *B.g. pallidiceps*, the form occurring in North America, at the eastern end of the range of the species, the population is much greyer on the upper parts, and paler on the rump and under tail-coverts. The Siberian birds stand mid-way in colour between these two extremes, while some are very close to the nominate race. For the Siberian form Poljakow's name *B.g. centralasiae* is to be accepted.

REFERENCES.

- [1] *Messag. Ornitholog.* 1915, p. 137.
- [2] *ibid.* p. 233.
- [3] *Jnl. f. Orn.* 1944 (1952), pp. 203, 204.

This form is distributed widely in the northern and central Siberian taiga, and nesting has been established as far south as latitude 67°, family parties having been seen around Tomsk. At Tara, Uschakow (*vide* Johansen, *loc. cit.*) found a nest with eggs, and similar findings are recorded from the area between this latitude and 64° north. Its status in the Altai seems less well substantiated, but there is in the British Museum (Natural History) a good series of birds from around Tarbagatai (Rothschild collection) taken between March 6th, and 25th, 1914.

This form is new to the British list, and to four counties, viz. :— Cambridgeshire (1895), Yorkshire (1904), Sussex (1914) and Kent (1914).

The following specimens have been identified and are now exhibited :—

♂ ad. 18.1.1895, Gamblingay, Cambridgeshire, ex collection N. F. Ticehurst,

♂ ad. 18.1.1904, near York, Yorkshire, ex collection P. A. Clancey,

2 ♀♀ ad. 30.1.1914, Winchelsea, Sussex, ex collection N. F. Ticehurst,

2 ♀♀ ad. 15.11.1914, Newenden, Kent, ex collection, N. F. Ticehurst.

All the above specimens are now in my collection.

The Validity of Turton's name *Turdus ericetorum* for the Song-Thrush.

By CAPTAIN C. H. B. GRANT.

Mr. W. E. Glegg's letter in 'The Ibis,' p. 163, 1951; throws new and interesting light on this question and supports the decision of the 1934 B.O.U. List Committee. This question having been raised in print by Mr. Glegg and Colonel Mienertzhagen ('The Ibis,' p. 670, 1947), I feel that I should now add the following :—

This name was brought to light by those two indefatigable systematists G. M. Mathews and T. Iredale. These two placed the matter before the B.O.U. List Committee in 1924, and it was considered by Evans, Hartert, Iredale, Jourdain, Mathews, W. L. Sclater, N. F. Ticehurst, Witherby and Stuart Baker, who were at that time members of the Committee. Their conclusion was :—“The Committee rejected the proposal as the figure in Lewin's work is not definitely assignable to the Song Thrush and possibly represents an American Thrush.” It is not clear what they meant by the last statement as all of them could have examined the American Thrushes and would have found that not one species agrees with Lewin's figure.

In 1934 this name was again before the List Committee, and the members present were Evans, Jourdain, Mathews, W. L. Sclater, Witherby, Stuart Baker, Kinnear, and C. B. Ticehurst. Six of the above were members in 1924. Their conclusions were :—“The bird

described and well figured by Lewin as the Heath Thrush is undoubtedly identical with the Song Thrush." Compare the words in 1924 "not definitely assignable" with "is undoubtedly identical."

British ornithologists had accepted this name and no question as to its validity had been raised for thirteen years, when Meinertzhagen in 1947 wrote:—"Turton definitely states that this bird is not the Song Thrush and Lewin's figure bears this out, for the bird depicted more closely resembles an American Thrush, a view accepted by the Committee in 1924. If there was doubt in the minds of the Committee in 1924, on what grounds was that doubt removed ten years later. The decision of the 1934 Committee was not unanimous."

Meinertzhagen's first point will be mentioned later. His second point is not upheld by comparison of American Thrushes with Lewin's figure. His third may be answered by pointing out that six of the members of the 1934 Committee were on the Committee of 1924. As to his last point, all decisions by the B.O.U. List Committee were on a majority vote.

In view of Meinertzhagen's letter in 'The Ibis' (copy to B.O.U. List Committee), the question was placed on the Agenda of the List Committee and was considered by them at a meeting held on 19th November, 1947. The members present were Glegg, Grant, Harrison, Low, Mathews, and Tucker, and their decision as recorded in the Minute Book, Minute (3) is:—"That it was unanimously agreed that Lewin's figure was the British Song Thrush and that there was no fresh evidence on which to reconsider the 1934 decision." As a member and present at that meeting I may add that this figure was again compared with specimens of the Song Thrush and I have personally compared it with all the American Thrushes. The point was also raised as to whether this name could be considered indeterminate, but examination of the description and figure showed that there was no evidence to support this. Lewin, *British Birds*, 2, pp. 66 and 68, 1795, gives the following descriptions:—

"SPE. II. SONG THRUSH.

Pl. 62. This species is inferior in size to the foregoing* and being only nine inches in length, thirteen and half in breadth, and in weight three ounces, but it resembles it so much in colour as to need no further observation than that the upper parts are of a more uniform brown, the inner coverts of the wings yellow, and the spots of the under parts of the body somewhat like the heads of arrows with the points upwards.

It is much valued in England on account of its song, as it has great sweetness and variety of note, and continues to sing near three quarters of the year.

**Turdus viscivorus*.

It breeds very early in spring, and it makes its nest in some low bush, composing it of earth, moss, and straw mixed together, and lining the inside with clay, on which it lays five or six eggs.

SPE III. HEATH THRUSH.

Pl. 63. This bird very much resembles the song thrush in colour, but it is perfectly distinguishable from it by its make. Its tail is half an inch shorter, and its neck is not so long, but its body is considerably thicker, so that it exceeds the song thrush in weight. It has also a short black mark passing through the eye, and is somewhat whiter under the chin.

It is a lonely solitary bird, frequenting heaths and open countries only, and does not remain in England the year through, migrating to us about the latter end of March, and remaining till the autumn. Though scarce, it is well known to the bird-fanciers, who value it highly on account of its song, which is superior to that of any other bird of this genus."

Turton, *British Fauna, Birds, Passeres*, Nos. 61-62, p. 35, 1807, gives the following descriptions:—

"*Turdus musicus.* Above brown, beneath yellowish-white, with blackish arrow-shaped spots: quill feathers ferruginous on the inner base.

Throstle. Song Thrush. Lewin t. 62, Walcot t. 198. Length 9 inches: extent 13 and a half: weight 3 ounces.

Differs from the last* in having the upper parts more uniformly brown, the spots underneath arrow-shaped and pointing upwards, the inner wing coverts yellow.

T. Ericetorum. Above brown, beneath yellowish-white, with blackish arrow-shaped spots: across the eyes a blackish stripe.

Heath Thrush. Lewin's *British Birds*, ii, tab. 63.

Resembles the last, but is heavier: the neck not so long, the chin whiter, across the eyes a short blackish stripe, and the tail is half an inch shorter."

It will be noted that Lewin remarks that his Heath Thrush "much resembles the Song Thrush in colour, but is perfectly distinguishable from it by its make," and that Turton remarks that his *T. Ericetorum* "Resembles the last (*T. musicus*) but is heavier . . ."

It would not appear that "Turton definitely states that this bird is not the Song Thrush."

An examination of all Lewin's figures show that they are somewhat amateurish,—none are life-size; the colours are not perfect; the feet in almost every case are exaggerated in size, but all are easily recognisable.

**Turdus viscivorus.*

It would appear peculiar that one out of all his figures should be considered unreliable. Approximate measurements taken from Lewin's figures give :—Song Thrush, Wing 82, tail from end of upper tail-coverts 50, exposed part of culmen 13, tarsus 31 mm. Heath Thrush. Wing 80, tail from end of upper tail-coverts 32, exposed part of culmen 15, tarsus 28 mm. The only noticeable difference is 18 mm. in the tail, but specimens in the British Museum show this difference in the measurement from the end of the upper tail-coverts, i.e. 38 to 56 mm.

Dorst's footnote (2) is L'Oiseau, p. 222, 1950, and can be dismissed without comment, as he is merely quoting and it does not appear that he personally investigated this case.

Lewin's figure agrees very well with the description and shows the shorter tail, "half an inch," i.e. 12.5 mm. and the "short black mark passing through the eye."

An examination of specimens in the British Museum collection shows that the Song Thrush is variable in size, colour and markings, especially on the head. The face markings and the lores in particular are dark in some specimens and light in others and the colour of the top of the head reaches the top of the eye and in others the lighter colour extends over the eye giving an appearance of an eyestripe. The throat is also variable, pale buff to white, the buff being well marked in fresh dress and fading out in the breeding season. The buff tips to the wing coverts also tend to disappear in the breeding season and a specimen from Monxton, Andover, Hants, taken on 1st July, 1899 (Brit. Mus. Reg. No. 1914.9.30. 1092) agrees well with Lewin's figure in this respect. There is no specimen in the British Museum collection with the dark mark through the eye as figured, but in Dr. J. M. Harrison's collection an adult male, taken at Sevenoaks on 22nd May, 1945, is distinctly dark on the lores and around the eyes agreeing well with Lewin's "short black mark" if we allow for the shortcomings of the artist. The fact that only a few specimens have dark lores and dark around the eyes may be brought forward as an argument against Lewin's figure, but is it not true that the early authors inclined towards figuring or describing a specimen that differed markedly from the majority ?

The second paragraph of Lewin's description shows that his Heath Thrush is a British breeding bird and it is known that the Song Thrush is not a plentiful bird on heather and open country. Migratory movements were not too well known in 1795 and it is possible Lewin's statement "and does not remain in England the year through" could mean that this bird deserted the more open country in the autumn and winter for the more sheltered woods and orchards, and therein would perhaps not be distinguishable from his Song Thrush. It is now known that there is an emigration in the late autumn and winter of the resident Song Thrush. The Heath Thrush could not have been a rare visitor or vagrant if it was as Lewin states "well known to the bird fanciers." It is well known that the early authors both on the continent and in England

gave environmental names to birds and was not Lewin following the custom of his day? Turton in 1807 gave a scientific name to Lewin's figure apparently accepting that the Heath Thrush was a different environmental species to the Song Thrush. There is no other Thrush in the world that resembles Lewin's figure.

The evidence produced by this examination of all the facts points to Lewin's figure being that of a Song Thrush and that birds with darker faces and lores could be said to have a dark mark "through the eye." Lewin has portrayed a bird which he and the bird fanciers of his day knew well as an inhabitant of the heathlands that in 1807 were in existence around Darenth. The opinion expressed by the majority of British systematic ornithologists that this figure is that of a Song Thrush is therefore upheld.

Note by Colonel Meinertzhagen:—"Captain Grant has kindly shown me the above. I am not really interested in the validity of the name *Turdus ericetorum*: it may or may not be the Song Thrush. What I am interested in is stability in nomenclature. The Song Thrush has had three names during the past 50 years *Turdus musicus* Linnæus, *T. philomelos* Brehm, and *T. ericetorum* Turton. I want it to have one name in perpetuity, and I do not much care which of the three is applied, so long as a decision in that direction is final; and the only finality in nomenclature is invoking a *nomen conservandum*."

What is the Amami Woodcock ?

By THE MARQUIS MASA U. HACHISUKA.

The Woodcock *Scolopax rusticola* is distributed over Eurasia and is well studied as a whole but the status of it and of *Scolopax rusticola mira*, its only ally, confined to two of the Ryukyu Islands, is far from completely understood. In this paper, I have compiled all known facts concerning Amami Oshima, where both *Scolopax rusticola rusticola* Linnæus and *Scolopax rusticola mira* Hartert are met with, to try to determine whether they are only subspecifically related or not.

Off the continent of Eastern Asia the Woodcock is found along the islands from Sakhalin to the Philippines. Its breeding is well known in Sakhalin, the Kuril Islands, and Hokkaido, and from the last island, eggs have been collected between 12th May and 20th June; it is locally rather common in Hokkaido during the summer months. In Honshu a well known breeding ground is Subashiri, at the foot of Mt. Fuji, where eggs were taken between 10th April and the middle of June. However, in spite of this ground having been systematically examined by Japanese naturalists, it proved to be extremely rare, being observed once perhaps in an interval of almost ten years. In winter the Woodcock is also met with in Honshu to the south of Tokyo, Shikoku, and Kyushu but not plentifully. In Korea it is an uncommon early spring and late autumn

migrant and there is only one published winter record ; therefore they must migrate to Kyushu and to the Ryukyus.

On the Seven Islands of Izu, the status is different. It is resident there and eggs and chicks have been recorded in May and June from several islands, namely Oshima (chicks ringed in spring 1950 : Kuroda *in litt.*), Toshima, Niijima, Miyakejima, Mikurajima, and Hachiji, while during the winter their numbers are augmented. Status in the Ryukyu Islands will be referred to again later. For Formosa we have but two records, the first is an October specimen, and the second without date. There are two records from the Philippines, one taken on September 18th. The Woodcock is a common winter visitor to south-east China and any of these might migrate to Formosa or to the Philippines, but being so scarce in these islands, such occurrence is probably unlikely, so that those found in Formosa have probably reached there through the Ryukyus.

The Ryukyu records may be tabulated as follows :—

Tanegashima (just off Kyushu)—November, December.

Yakushima (just off Kyushu)—26th July (after Ogawa 1905).

Amami Oshima (Northern Ryukyu Islands)—November, March, April.

During his visit between the end of March and early April, 1928, Mr. K. Kobayashi observed on moon-lit nights many flying and calling. A breeding bird and its eggs in the Prince Taka-Tsukasa collection (cf. 'Ibis' 1925 : 904) were formerly in the old Matsudaira collection, but no data or the collector's name was given. Since these specimens were destroyed during the last war and there being no way of tracing further particulars, the Prince now thinks no weight should be given to this record, whether they were *S.r. rusticola* or *S.r. mira*.

Tokunoshima (just south of Amami Oshima, Northern Ryukyu Islands)—1st June, 1922 ; one was observed by Orii and recorded by Kuroda (1925), who suspects it to be a resident *S.r. mira*.

Okinawa (Middle Ryukyu Islands)—November, January, 17th March.

Borodino Island (about 210 miles due east of Okinawa)—3rd November.

Rasa Island (about 250 miles south-east of Okinawa, in the same latitude as the Southern Ryukyu Islands)—April, May.

Dr. Tsuneto observed several flocks each of 20–30 individuals.

Iriomote (Southern Ryukyu Islands)—November.

Yonakuni (Southern Ryukyu Islands)—September.

To sum up the above, we find that the Woodcock winters throughout the Ryukyus and, from observations made by Tsuneto and Kobayashi, they are common. The scarceness of summer records is either because they do not occur there or because little collecting has been done at that

season. Tanegashima and Yakushima are much suspected as breeding places since Ogawa recorded a specimen on 26th July from the latter island and Hartert (1917) wrote "the collectors also obtained specimens . . . on Tanega (shima) and Yakushima, where it is probably still nesting, as it does in Hondo (or Honshu)." These two islands have mountains higher than those in Kyushu, their forests boast of gigantic trees and damp slopes which supply ideal breeding grounds for the Woodcock.

In Honshu the last spring record as far as I can determine is 15th April from Kobe; also bearing in mind the Rasa Island April and May occurrences and the April record on Amami Oshima, one suspects that the Woodcock breeds on Tanegashima and Yakushima, and perhaps on Amami Oshima and Tokunoshima.

On Amami Oshima *S.r. mira* is resident; adult specimens have been collected in all months between September and May except October. For the chick, Kobayashi has three about two to three weeks old (bill—44–49, tarsus—34–41) taken in April, Marquis Yamashina has four May-taken juveniles and when describing *S.r. mira* Dr. Hartert also recorded a young bird, but unfortunately gave no date. Kobayashi procured eggs on six occasions between 20th March and early May and Marquis Yamashina's three eggs were collected on 5th April. Mr. K. Shimomura found a nest containing three eggs which were collected on 5th April. Mr. K. Shimomura found a nest containing three eggs at the end of April and published a photograph of the nest and egg (two being broken) in the memoirs of his journey in Japan in 1936.

The character of *S.r. mira* given by Hartert in his original description is precise and a coloured plate given in 1917 is excellent. In colour *S.r. mira* is darker than *S.r. rusticola* since the darker pattern of the latter is more enlarged. It is even evident in the young, with their upper-parts darker rufous and inner webs of primaries almost plain dull black, whereas on the other hand, Japan taken *S.r. rusticola* show very distinct buff markings on the corresponding part of primaries. In structure *S.r. mira* is a larger bird with a thicker bill and the tarsus as much as 1 cm. longer, while on the contrary its primaries are 1–2 cm. shorter. This means that *S.r. mira* is heavier and has less power of flight than its migratory cousin; the *S.r. mira* combines these modifications suited to life on a small island with the intensification of colour which is universal among endemic Ryukyu birds.

As one could expect, the egg of *S.r. mira* is also larger and darker; any single egg cannot be mistaken for that of *S.r. rusticola* found in Hokkaido or Honshu. Mr. Kobayashi kindly supplied me with the following measurements of his *S.r. mira* eggs:—clutch 1; 26th March, 1936; 48.2 x 37.2, 48.4 x 37.0, 50.2 x 37.8; clutch 2; 30th March, 1936; 49.2 x 37.0, 50.2 x 37.6; clutch 3; 13th April, 1938; 48.8 x 37.6, 48.4 x 36.8, 49.4 x 36.5, 49.2 x 37.0.

Eggs of *S.r. mira* have the ground colour reddish or strong buffish brown, blotches are much heavier, while in *S.r. rusticola* the ground colour

is grey-white or yellowish milk-white with surface markings lighter brown and shell markings in pale violet. These markings of *S.r. mira* are plainly identifiable in Shimomura's photograph. It is interesting to relate that eggs taken on Miyake (2 sets) and Hachijo (1 set) Islands in the Seven Islands of Izu are darker than the typical *S.r. rusticola* eggs, showing intermediate signs between it and *S.r. mira*, but being small like the former they cannot be mistaken for the latter. The Hachijo eggs are beautifully figured in life size and colour in Kobayashi and Ishizawa's book, 1933.

The Tokunoshima June record is exceedingly important. Marquis Kuroda and I think it must be *S.r. mira* for zoogeographical reasons—the Lidth Jay *Garrulus lidthi* Bonaparte and the Ryukyu Rabbit *Pentalagus furnessi* Stone, most distinct animals of this chain of islands, are found only on Amami Oshima and Tokunoshima. The Tokunoshima *Scolopax* is therefore probably *S.r. mira*.

Known Woodcock eggs from the Ryukyu Islands up to the present came from Amami Oshima alone and every one preserved in Japan is typically a *S.r. mira* type; the breeding of *S.r. rusticola* in the Ryukyus particularly from Amami Oshima is not established.

It is interesting to note that the peculiar proportions of the body in *S.r. mira* are also found in *Coenocorypha Aucklandica* Gray, a resident on dependent islands of New Zealand which appears to be a link between *Scolopax* and *Gallinago*, appropriately called by the New Zealanders "Semi-Woodcock." Both *S.r. mira* and *Coenocorypha*, therefore, developed in the same direction of modifications, which is well known among sedentary Rails living or once having lived on far off islands in warmer seas.

The evidence that *S.r. rusticola* does not breed on Amami Oshima is not conclusive, however knowing the morphology and bearing in mind the modern trend of classification, *S.r. mira* and *S.r. rusticola* are more appropriately considered conspecific. The attention is drawn to the B.O.U. committee's decision published in 'Ibis' 1949: 510.

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Further new or unusual records from Northern Rhodesia.

Mr. C. W. BENSON sent the following:—

The following records from near the Nyasaland border supplement those given by myself in Bull. B.O.C., 69, pp. 58–60, 1949 and by White, 71, p. 50, 1951 (those forms marked with an asterisk do not appear to have been previously recorded for certain from Northern Rhodesia):—

(1) I have examined specimens of the following in collections made by Mr. E. L. Button, M.B.E., during September–December, 1951, in the Northern Rhodesia section of the Nyika Plateau, within the drainage of the Upper Chiri river, at 7,000–8,000 feet:—

Columba arquatrix arquatrix Temm. & Knip.

A female, 25th September, contained a full sized egg.

Aplopelia larvata larvata (Temm. & Knip).

Heterotrogon vittatum vittatum (Shelley).

A female, 10th October, and another, 4th November each contained an almost full sized egg.

Mesopicos griseocephalus ruwenzori Sharpe.

Mirafra africana nyikae Benson.

Also a clutch of three heavily incubated eggs, 10th December (see also "Ibis," 1940, p. 584).

Arizelocichla tephrolaema fusciceps (Shelley).

Phyllastrephus flavostriatus alfredi (Shelley).

A female, 25th September, and another, 4th November each contained a full sized egg.

Dioptornis chocolatinus nyikensis (Shelley).

Chloropeta natalensis Smith.

Intermediate between *C. n. natalensis* and *C. n. massaica* Fisch. & Reichw.

**Chloropeta similis* Richmond.

Batis capensis dimorpha (Shelley).

Trochocercus albonotatus albonotatus Sharpe.

Turdus olivaceus nyikae Reichw.

**Cossypha caffra iolaema* Reichw.

Pogonocichla stellata orientalis (Fisch. & Reichw.).

**Apalis murina youngi* Kinnear.

Cisticola lais semifasciata (Reichw.).

**Cisticola njombe mariae* Benson.

Specimens of the above two forms of *Cisticola* have been compared with the British Museum series. Ref. Bull. B.O.C., 68, p. 122, 1948 and White & Winterbottom, "Check-list of the Birds of Northern Rhodesia," 1949, specimens from the Nyasaland side of the Mafinga Mts. are *C.l. semifasciata*. *C.n. mariae* probably does not occur in Nyasaland or Northern Rhodesia except on the Nyika.

Cisticola ayresii ayresii Hartlaub.

**Cisticola nigriloris* Shelley.

**Hirundo atrocaerulea* Sundev.

Laniarius fülleborni (Reichw.).

Button informs me that the *Vipya* record given by White is really referable to the Northern Rhodesia section of the Nyika. No part of the *Vipya* is in Northern Rhodesia.

Parus leucomelas insignis Cabanis.

Onychognathus walleri walleri (Shelley).

A female, 6th October, contained an almost fully developed egg.

**Onychognathus tenuirostris raymondi* Meinertz.

Zosterops virens stierlingi Reichw.

**Nectarinia johnstoni salvadorii* Shelley.

Cinnyris mediocris fülleborni Reichw.

Serinus canicollis sassii Neum.

**Polioptila striolata whytei* (Shelley).

(2) In January, 1952, thanks to Mr. Button's supervision, my collector, Jali Makawa worked in the same area of the Nyika as had Button, and obtained the following of interest, specimens of which have been presented to the British Museum :—

Sarothrura rufa (Vieill.).

**Pseudoalcippe abyssinicus stictigula* (Shelley).

**Aethe fülleborni fülleborni* Reichw.

Young male, 18th January, moulting into adult dress. Abdomen as in adult, though feathers in centre with buffy sub-terminal and black terminal markings; all feathers on chest buffy, laterally margined

black ; lower throat as centre of abdomen ; upper throat and chin dusky grey ; some feathers on mantle and wing-coverts tawny buff, laterally margined dull black, nape and ear-coverts wholly thus ; feathers on crown and forehead dull blackish with buffy centres ; lores dull blackish ; basal half of lower mandible dull yellow.

**Bessonornis anomala macclowniei* (Shell.).

Young female, 23rd January. Crown, forehead, lores and ear-coverts blackish, latter two areas flecked tawny ; feathers of mantle, back and wing-coverts dull brown tipped black, a few feathers flecked rufous ; rump and upper tail-coverts rufous ; underside dull rufous, throat whitish, feathers of chest and upper abdomen heavily laterally margined black.

Chlorophoneus nigrifrons manningi (Shelley).

Male, chest pale buff—the colour-phase originally known as *C. munzneri* Reichw.

This species has certainly never been collected in northern Nyasaland, but obviously must occur, judging by this specimen and that recorded Ann. Trans. Mus., 21, p. 173, 1949.

Nectarinia famosa cupreonitens (Shelley).

Two males, in full breeding dress, 22nd January.

Jali Makawa reported an almost completed nest, still being added to, same date. The breeding season of this sunbird on the Nyika above 7,000 ft. seems to be the opposite of that at lower altitudes in northern Nyasaland. See also "Ibis," p. 577, 1937, p. 26, 1941, p. 325, 1942. Under the last reference I recorded males in breeding dress from the Nyika at 8,000 ft. on 10th November. I have made similar subsequent observations there at 7,000–8,000 ft. on 10th October, 1947 and 27th February, 1948. But further observations from the Vipya below 7,000 ft. confirm those already published, males being in breeding dress only from mid-March to early September. The position in all areas below 7,000 ft. seems to be similar. On the slopes of the Nyika at 6,000 ft. males were noticed in breeding dress in July ; likewise at 6,000 ft. in the Masuku Mts. in May and August and on Mussissi Mt. in May. In the Mafinga Mts. at 6,800 ft. in late October, all seen were in off-season dress, but with elongated central rectrices.

Specimens in the British Museum are in keeping with the above observations. In particular, a male collected by Young, Nyika 7,500 ft., October, is moulting into breeding dress. Two collected by Whyte, "Kombe, Masuku 7,000 ft., July, 1896," "Nyika Plateau 6,000–7,000 ft., June, 1896" are in breeding dress, the former without elongated central rectrices. From my local knowledge of the area, it is unlikely that the Masuku bird was collected above 6,000 ft., hence the Nyika bird probably even lower.

At Njombe, southern Tanganyika Territory the season may again differ. Three males collected by Lynes between 24th November and 20th December are in breeding dress, but a fourth, 5th December is in almost complete moult off-season dress. I have not had the time to investigate the position elsewhere, but see also Mackworth-Praed & Grant's paper, "Ibis," 1945, pp. 145-158, 1945. In particular, the differences in seasons given above may be due to differences in the season of flowering of shrubs on which this sunbird is dependant for food; see Roberts, "The Birds of South Africa," 1940, p. 319.

**Cinnyris afer whytei* (Benson).

Eight males, four females (and three males coll. Button, September).

Females of this race previously unknown. Wings 57-58 mm. Apart from the shorter, less curved bill, they are darker above and below than in *C. chalybeus intermedius* (Bocage) or *C. c. bractiatus* (Vincent). Also compared with three females of *C. a. graueri* (Neum.) and one of *C. a. ludovicensis* (Bocage). The female of *C. a. whytei* differs from those of both these races in having the feathers of the chin, throat and chest with dark centres, giving a slightly mottled appearance; while the abdomen is less uniform, the olive wash being restricted to the centre, not extending onto the flanks. The female of *C. a. graueri* has the outer webs of the primaries and secondaries margined dull orange rather than dull olive as in the other two races.

In the original description of *C. a. whytei*, Bull. B.O.C., 69, p. 19, 1948, it was stated that the male differs from that of *C. a. graueri* in having the narrow band above the red band on the chest more deep blue than violet. This also applies to the upper tail-coverts.

Altogether twenty males of *C. a. whytei* in full breeding dress have now been collected, in June and September-January inclusive. The eight for January above all had gonads small, as had the females and the only suggestion as to the breeding season is that a male collected 5th October had testes enlarged.

Coliuspasser psammocromius (Reichw.).

Male, 25th January, in full breeding dress (and one coll. Button, 27th September, moulting into such dress). I prefer to place this form as a full species, see also Bull. Mus. Comp. Zool., 106, p. 112, 1951.

Three specimens of *Parisoma lugens clara* (Meise) were obtained on the western escarpment of the Nyika circa 6,000 ft., actually in Nyasaland, where also recently obtained as far south as Tambo, near Neno, at 15° 25' S. It surely must occur in Northern Rhodesia, associated with trees of *Acacia woodii* Burt & Davy (Bull. B.O.C., 70, p. 35, 1950). An immature specimen of *Pachycoccyx validus* (Reichw.) was obtained at Musenjere, in the extreme north of the Lundazi district, circa 4,000 ft., 30th January.

(3) Other interesting specimens in Mr. Button's recent collections are:—

**Ixobrychus minutus minutus* (Linn.).

Male, 13th February, near Lundazi boma.

Hieraaëtus dubius (Smith).

Male, 18th September, Vuu river near Lundazi boma. At nest with two eggs.

Accipiter ovampensis (Gurney).

Female, 21st July, Lundazi boma. In uniform dark sepia plumage, moulting into similar dark slate plumage; underside unbarred. Wing 253 mm.

**Camaroptera brachyura fuggles-couchmani* (Moreau).

A specimen from Mwanda hill, on the Nyasaland boundary. Others, from the Luangwa valley, are *C. brevicaudata noomei* (Gunning & Roberts).

Button informs me that the records of *Chlorocichla flavicollis flavigula* (Cabanis) and *Phyllastrephus fischeri cabanisi* (Sharpe), see White, *loc. cit.*, Bull. B.O.C., are from west of the Luangwa valley, on the Muchinga escarpment, at about 12° S. And *Quelea cardinalis rhodesiae* (Grant & Praed) was obtained in the Luangwa valley, at the Luangwa/Luwumbu confluence.

On geographical variation in the Monal Pheasant, *Lophophorus impejanus* Latham.

By COLONEL R. MEINERTZHAGEN.

Among birds, those from the western Himalayas are usually slightly paler than those from the eastern Himalayas. The Monal Pheasant is no exception and it is surprising that neither Beebe nor Delacour in their monographs of this group make any mention of it.

The type locality of Latham's bird is "India" but as the bird came from the Himalayas north of Calcutta and was given to Lady Impey, whose husband was first Governor of Bengal, in all probability it derived from Sikkim which I designate as a more exact type locality.

In 1884, Marshall described *Lophophorus chambanus* (Ibis 1884: 421, plate X) from Chamba near Simla, basing his description on a variant male with a bronze lower back and green breast. The type is in the British Museum; no mention is made of any differences in the females.

I have examined a large series of females from Sikkim; also a female from Dharmasala, a female from Kashmir and two females from Astor. Sikkim females are more rufous and more richly coloured above and below than the greyer birds from west of Simla; Marshall's name *chambanus* must therefore stand for the western birds though his description is based on an aberrant male without mention of females. There is no difference between the males from western and eastern Himalayas.

Notices.

STOCK OF THE "BULLETIN."

It is proposed to reduce the stock of the "Bulletin," but before this is done members are given an opportunity to acquire parts at 2/6 each. Applications should be made to R. A. H. Coombes, Esq., Zoological Museum, Tring, Herts. No reply will be sent if parts are not available.

BACK NUMBERS OF THE "BULLETIN."

Members who have back numbers of the "Bulletin" which they no longer require, are requested to kindly send them to R. A. H. Coombes, Esq., Zoological Museum, Tring, Herts.

DINNERS AND MEETINGS FOR 1952.

January 16th ; February 20th ; March 19th (at the Zoological Society, in conjunction with the B.O.U.) ; April 16th ; May 21st ; June 18th ; October 15th ; November 19th ; December 17th.

SEPARATES.

Contributors who desire six free copies of their notes should state so on their MS., otherwise these will not be ordered.

PUBLICATION OF THE "BULLETIN."

Members who make a contribution at a Meeting should hand the MS. to the Editor at that Meeting. As the proofs will be corrected by the Editor, it is essential that the MS. should be correct and either typed or written very clearly with scientific and place names in block letters. The first mention of a scientific name should be spelt out in full, i.e., genus, specific name, racial name (if any), and author. Any further mention of the same name need only have the initial letter of the genus and no further mention of the author.

If no MS. is handed to the Editor at the Meeting, a note will be inserted mentioning the contribution.

Communications are not restricted to members of the British Ornithologists' Club, and contributions up to 1,500 words on taxonomy and related subjects will be considered from all who care to send them to The Editor, Dr. J. G. Harrison, Bowerwood House, St. Botolph's Road, Sevenoaks, Kent.

Communications relating to other matters should be addressed to the Hon. Secretary, N. J. P. Wadley, Esq., 14, Elm Place, London, S.W.7.

BULLETIN

OF THE

BRITISH ORNITHOLOGISTS' CLUB.



Edited by

DR. JEFFERY HARRISON.

**Volume 72.
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Diamond Jubilee Meeting.

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BULLETIN
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Volume 72.

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The five-hundred and fifteenth meeting of the Club was held at the Rembrandt Hotel, Thurloe Place, S.W.7, on Wednesday, 16th October, 1952, following a dinner at 6.30 P.M. at which the Diamond Jubilee of the Club was celebrated.

Chairman : SIR PHILIP MANSON-BAHR.

Members present, 38 ; Guests 16 ; Guests of the Club, Dr. and Mrs. Ludwig Koch ; Total, 56.

The Chairman began by announcing with the deepest regret the death of Dr. GEORGE CARMICHAEL LOW, M.D., F.R.C.P., a former Secretary and Treasurer of the Club. Members stood in tribute.

Sir PHILIP MANSON-BAHR gave a Jubilee address, describing briefly the story of the Club, an account of which follows :—

It may be remembered that sometime ago we celebrated in this room the 500th meeting of the British Ornithologists' Club. It is therefore not surprising that it is now regarded as a well-established Institution and that tonight we are celebrating its Diamond Jubilee. On January 17th, 1951, the task was given me of relating a history of this club, so that on this occasion, an attempt will be made to remind this audience of its great past and to record some of its many activities.

The B.O.C. was established by some of the great ornithologists of those days, including Professor Alfred Newton, Philip Lutley Sclater, Bowdler Sharp, H. E. Dresser, the Du Cane Godmans and others. The primary underlying idea was that it should serve as a dining club where those members who had travelled to London to attend meetings of the parent body, the British Ornithologists' Union, could dine and wine together and at the same time, discuss ornithological matters dear to their hearts. The initial intention was, in fact, that it should stand in much the same

relation to the B.O.U. as the Zoological Club does to the Zoological Society. Soon, however, regular meetings were arranged at which ornithological rarities were displayed and described, whilst a Bulletin of the proceedings was issued, in which the descriptions of new species were made and a summary of the papers read at the Club given. It has therefore come about that many type species and races are to be found recorded in the Bulletin, which has become therefore an official medium for systematic ornithology.

In the meantime the B.O.U. and its offspring the *Ibis*, looked with a kindly eye on the hatching of this *Ibiculus*. The Club has never interfered with its more bulky parent and in no way intends to usurp its functions, so it is very pleasant on this occasion, to record that the relationship between mother and daughter are of the most proper and pleasant character and that henceforward we will be able to plan for combined meetings in the spirit of family affection. Throughout all its sixty years it can justly be said that the B.O.C. has upheld the torch of ornithology in London. At times, it is true that during and in the aftermath of two great wars it has flickered; but now, replenished with fresh fuel, it has flashed forth again and burns with a steady gleaming light and, as the present occasion shows, the Club is on a firm foundation and all is well.

For this satisfactory position we have to thank, in great measure, our capable and energetic secretary, Mr. N. J. P. Wadley and our most efficient treasurer, Mr. C. N. Walter.

There are a few who still have recollections of this Club in its early days, such as Colonel R. Meinertzhagen who was already a distinguished ornithologist half a century ago. He treasures still vivid memories of the great Seebohm, who was known to me only by repute. Bird lovers in those days were not always so polite to each other as are the present generation. They addressed each other in forcible language so that he was stigmatised on one occasion by Newton as a "sciologist posing as a scholar." My own memories go back nearly forty years to that grand old naturalist, Philip Lutly Sclater and to those odd productions of the Bird Room at South Kensington, the bustling Bowdler Sharpe and the soldierly, monocled Ogilvie Grant, who resembled a cavalry colonel and those egg-men of the Genesee—H. L. Popham, and the scholarly Edward Bidwell—who radiated the spirit of the tundra and of Wolley.

H. E. Dresser, the timber merchant from the Baltic, was also there with his early Victorian manner and an ear-trumpet, which converted the meetings into a shouting match. Soon too, there appeared that oddly assorted couple from Tring—Walter Rothschild and Ernst Hartert—a masterly association. Of these two I retain still the most lively recollections, for who could forget the somewhat hesitant, and, at times, stumbling pronunciations on some new Cassowary or Bird of Paradise from New Guinea by the former, only to be reminded by his scientific lieutenant that he had already described them in the *Novotates* under quite different names. Then came Harry Witherby with the Reverend F. C. R. Jourdain (*Pastor pugnax*) in attendance. Here were

indeed two great field ornithologists to whom British ornithology will always remain in debt, and with them came too, that clear-spoken, open-faced, gentle sailor—Rear Admiral Hubert Lynes, to whom the hunt of the *Cisticola* became a Holy Grail, and we must always remember that, in so doing he sacrificed a career of outstanding distinction in the Royal Navy.

In the scholarly Percy Lowe, who had a doctor's training and in P. W. Pycraft we must recognise two pioneers who brought scientific osteology into the realm of systematic ornithology, while B. W. Tucker and H. E. Howard opened up to us the mysteries of breeding biology and bird behaviour. Still, amongst the great field zoologists of all time, the name of Charles Oldham stands high, as those who knew him so readily admit.

Some allusion should be made to the lighter interludes. There was the Bunyard episode and his Cuckoo controversy, which ranged over several years, till the subject was tabooed by the Chairman. For the first thirty years of its existence the B.O.C. was a 'stag party' and it is only latterly that women were admitted to its ranks. Formerly their interest in ornithology was supposedly confined to wearing bird skins in their hats, but now, thanks to the campaign waged by Newton, Lord Lilford and Rothschild, they have abandoned that practice and have invaded the B.O.C. instead. From 1921 onwards they have joined in increasing numbers and they have brought with them charm, dignity, learning and refinement to our proceedings. Now they represent some of our best observers, and so from being unwitting destroyers of bird life, they have been transformed into ardent exponents of biology and behaviour.

It is therefore a pleasant duty to be able to state that British ornithology is now in a vigorous and virile condition and that in keenness, accuracy and learning our younger ornithologists can compare favourably with the pundits of the past.

Bird Songs.

Members were enthralled by a talk from Dr. Ludwig Koch, illustrated by many recordings of bird song, commencing with his first, of a Shama, made on an Edison cylinder in 1889, shortly before the founding of the B.O.C., and another made soon afterwards of the Siberian Jay.

The introduction of the microphone in 1920 marked a milestone in Dr. Koch's career, and the chorus of Golden Orioles made at this time delighted everyone, but it was interesting to learn that to obtain records of 25 song birds in those days cost him 261 wasted records, which is surely testimony to Dr. Koch's patience and skill.

Dr. Koch then demonstrated very clearly the different geographical variations in the songs of a number of birds, including the Chaffinch, Continental and British Song Thrush, Blackcap Warbler, Whitethroat and Lesser Whitethroat, and played examples of mimicry by the Starling of species such as the Blackbird, which was excellent, and the Golden Oriole.

Some of the most fascinating recordings were made on the Continent of such species as the White-spotted Bluethroat (another mimic), the Ortolan, the Sprosser and a delightful Icterine Warbler that punctuated its song with cries of "ludwig . . . ludwig . . . ludwig."

The talk ended with the cries of various sea-birds made on the coasts of Britain. Cormorants and Shags must surely be among the most primitive of birds, if their coarse cries are any criterion, and at the finish we could almost feel the Manx Shearwaters and Stormy Petrels as they even settled on the recording apparatus during their amazing midnight flights.

Variation in the Karroo Robin, *Erythropygia coryphaeus*.

By Mr. J. D. MACDONALD.

It is not unusual in bird taxonomy to come across examples of dimorphic sexes, and seasonal and developmental changes in plumages, being first identified as different species. These almost inevitable errors, which have gradually been eliminated as data accumulated, are part of the interesting history of many birds. But it is unusual to come across the reverse, or nearly the reverse, namely differences originally regarded as sexual dimorphism turning out to be geographical variations of the same species. In my opinion this has happened in the case of the Karroo Robin, *Erythropygia coryphaeus*, of South Africa.

The name *Sylvia coryphaeus* was given by Lesson to Levaillant's "Le Coryphée," plate 20, figure 1. This figure is said by Levaillant to represent a male, and figure 2, which has a distinctive colour difference, is said to represent the female. It is now known that there are no obvious colour differences between the sexes of this species. In the text the "male" is described first and is stated to have russet-brown under-parts. The "female" is said to be like the "male" except for the grey-blue under-parts. Greyish rather than brownish under-parts, and also to some extent greyer upper-parts, I find to be characteristic of specimens from western coastal districts, from the Cape north to the mouth of the Orange River. Greying of the plumage in this region in species which are more reddish-brown in other parts of Cape Province has already been shown to occur in a number of cryptic species, such as the Long-bill and Karroo Larks (*Certhilauda curvirostris* (Hermann) and *C. albescens* (Lapesuaye)). What would appear to be important factors influencing the occurrence of this colour variation are the lighter coloured sands and cold fogs which are features of this coast line.

The recognition of polytypic variation in this species in Cape Province gives rise to the questions, which is the nominate race and where is its type locality? It seems clear that Levaillant's "male" or dark brown bird must represent the nominate race. He states that he found the species in mimosa woods along the Sondag (or Zontag—now Sundays) and Zwarte-kop rivers. These rivers are near Port Elizabeth, the Sundays River flowing into Algoa Bay. He must have found it elsewhere in his travels but these are the localities mentioned. Fortunately there

are in the British Museum specimens collected by Rickard at Port Elizabeth and they are quite clearly a close match with Levaillant's darker figure. According to the route shown on his map (1796) Levaillant reached the Sundays River at about the present Uitenhage, and I propose that this place should be regarded as the restricted type locality of the species. The British Museum specimens from Port Elizabeth are therefore practically topotypical. The general colours of these birds are sepia on the back and rump with a slight greyish tint on the head and nape; and wood-brown on breast and belly. These colours remain fairly constant east to the Kei River, north through Deelfontein and Bloomfontein to the Molopo River and then east to Seeheim and Kleinkaras in Great Namaqualand. There is a slight indication that birds in coastal districts, from Port Elizabeth and the Kei River, are a shade richer in colour, but a specimen from Berseba in South West Africa is practically indistinguishable from specimens from Deelfontein and Bloomfontein. This tendency to lose a little of the rich colours towards the north and west becomes established as a clearly recognisable geographical variation in the Cape Flats and Little Namaqualand. There is an appreciable greying of the plumage, both above and below: the upper-parts are mainly dark brownish drab and the under-parts about hair-brown. In the series of specimens I have examined this greying reaches its maximum development around Port Nolloth. Several specimens from the coastal flats in the vicinity of that locality have only a very slight wash of brown on otherwise grey under-parts and the upper-parts are correspondingly greyer also, the head and nape being dark grey with very little brown colour. In my opinion it is only worth while at this stage to recognise a widely distributed dark brown race and an appreciably greyer race in western coastal districts. Friedmann (1932: 65) described a race, *E. c. abbotti*, from Berseba in Great Namaqualand. The only distinguishing characteristic he gave for it is the smaller amount of terminal white, less than half, on the outer tail feathers. In the specimens I have examined there is no group which can be distinguished in this way. Some specimens from the Cape Flats have less white and others more than birds from Great Namaqualand. I propose therefore to regard *E. c. abbotti* as synonymous with the nominate race. No name is available for the greyish race and it is described as follows:—

ERYTHROPYGIA CORYPHEUS CINEREUS, new race.

Description.—Plumage much greyer than the nominate race; upper-parts mainly drab brown, but greyer on head and nape; under-parts mainly hair-brown to ashy-brown.

Distribution.—Western coastal districts of Cape Province from Cape Flats to Little Namaqualand and lower Orange River.

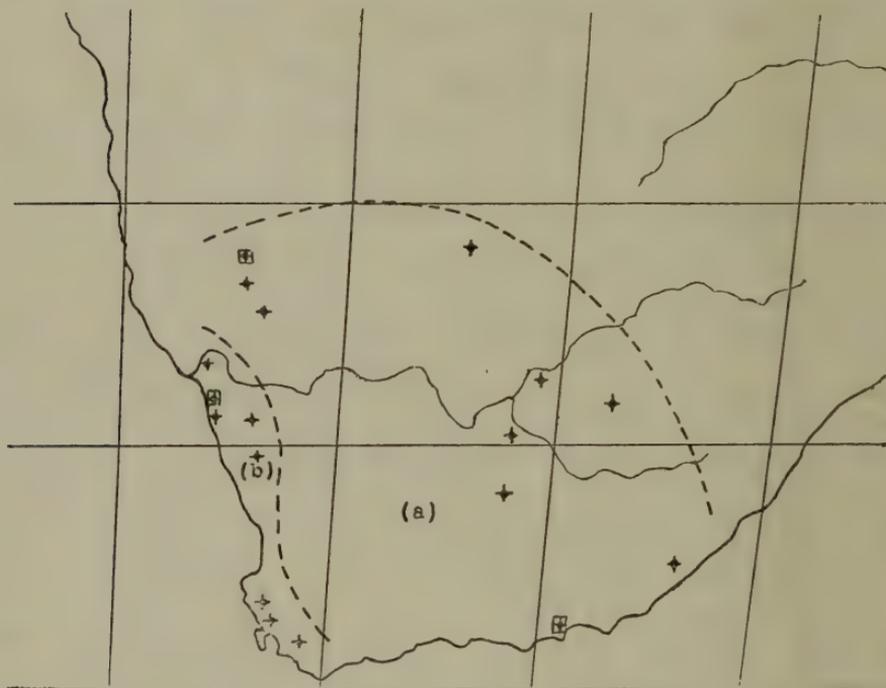
Type.—An adult female nearing completion of post-breeding moult, from 16 miles north of Port Nolloth, Little Namaqualand. Collected by the British Museum South West Africa Expedition on 19th December, 1949. Brit.Mus.Reg. No. 1950: 50: 355. Measurements of type: Wing 70, tail 68, bill 16 mm.

Remarks.—The distribution of this species is indicated on the accompanying map. The racial nomenclature may be summarised as follows :—

(1) *Erythropygia coryphaeus coryphaeus* (Lesson).

Sylvia coryphaeus Lesson, Traite d'Orn. 1831 (419): ex Levaillant, Ois d'Afr. pl. 120, fig. 1: Uitenhage, C.P.
Erythropygia coryphaea abbotti Friedmann, Proc. Biol. Soc. Washington, 45, 1932 (65): near Berseba, S.W.A.

(2) *Erythropygia coryphaeus cinereus* Macdonald, (herewith).



Races and distribution of *Erythropygia coryphaeus* in South Africa.

(a) *E.c. coryphaeus*; (b) *E.c. cinereus*. Type localities shown in square dots.

Distribution of the Noisy Robin.

By Mr. J. D. MACDONALD.

It is frequently stated in literature, for example recently by Sclater in the "Systema Avium Æthiopicarum" part 2, 1930, and by Hoesch and Niethammer in "Die Vogelwelt Deutsch-Sudwestafrikas," 1940, that the Noisy Robin, *Cossypha dichroa* (Gmelin) occurs in South West Africa.

I think these statements are wrong. They are all based on the same item of information, namely, a specimen in the British Museum collection. It is stated on the label that this specimen was collected by C. J. Andersson at Otjimbingwe, on the Swakop River, west of Windhoek, on 11th December, 1865. Apart from the evidence of this specimen the Noisy Robin is only known to occur in the moister and more heavily wooded localities of south and south-eastern coastal districts.

In the first place therefore, it seems rather improbable that a non-migratory species of limited distribution in the most densely wooded region of South Africa would also occur about a thousand miles outside its normal range and at the edge of the desert. There are of course patches of fairly thick bush and tree vegetation along the banks of the Swakop River, but not enough even for the Cape Robin, *Cossypha caffra* (Linnaeus) which does occur in relatively drier conditions. So far as I know there is no other record of occurrence on the Swakop River, or any other locality in South West Africa.

It does seem reasonable, therefore, to question the evidence. The specimen does not now possess a collector's original label. Andersson, who is said to be the collector, usually attached his labels under the wings of his birds, and though they were often flimsy it is remarkable how many have survived in this protected position. The original label may have been removed by Sharpe, who had it in his possession before it came to the British Museum, for some owners of private museums made a habit of removing original labels, with the obvious consequence of increasing the risks of mistakes being made.

There are also indications that the specimen may not have been collected by Andersson. I have handled many of his specimens and in my opinion this one does not bear the stamp of his style in taxidermy. It may have been remodelled at a later date. But even if it was one of his specimens there is positive proof that it could not have been collected by him at Otjimbingwe in December, 1865. Andersson was bedridden at Cape Town at that time. Wallis, in his biography of Andersson, "Fortune my Foe," 1936, points out that Andersson left Walvis Bay by boat on the 14th of May, 1865, and did not arrive back there until the 9th of May, 1866. He spent most of that year in Cape Town with his brother-in-law, George Aitchison, at Green Point. He was more or less completely incapacitated with a bad leg which his doctors wanted to amputate. It was not until early in 1866 that he was able to get about on crutches. Even supposing Andersson could have moved around to a limited extent in December, 1865 it is unlikely that he would have found this species in the vicinity of Green Point for the nearest approach of the Noisy Robin to Cape Town, so far as I can determine, is the Knysna Forest, where it lives in very elusive seclusion.

With so many inaccurate and doubtfully accurate elements in the foundation of the statement that the Noisy Robin occurs in South West Africa I have no hesitation in recommending that it should not be accepted.

On the Relationship of the European and African Great Grey Shrikes.

By Captain C. H. B. GRANT and Mr. C. W. MACKWORTH-PRAED

Sclater, in *Syst. Av. Æthiop.* 2, p. 607, 1930, and many other authors, have placed all the Great Grey Shrikes under *Lanius excubitor* Linnaeus. An extensive examination of this group shows that in all the European and northern Asiatic birds the female and young birds are barred below, the tail feathers are wide and the outer one has some black at the base. Even *L. e. meridionalis* Temminck, from Spain, Portugal, and the south of France, has in many females some barring below and the tail feathers are broad and the outer one has black at the base.

In the birds resident in west, north, and east Africa to Palestine, Iraq, Iran, Socotra Is. Arabia, India, the Aral Sea and Transcasian areas, the sexes are alike, with no barring below, the tail feathers are narrower and mainly wholly white, and the young bird is not barred below.

We are of opinion these two groups are best treated as separate species, i.e. *Lanius excubitor* and races, and *Lanius elegans* Swainson, and races.

Probable parasitisation of *Parisoma plumbeum* (Hartlaub) by *Chrysococcyx klaasi* (Stephens).

By Mr. C. W. BENSON.

With reference to the *Bull. B.O.C.*, 72, p. 64, 1952, I recorded a clutch of two eggs of *Parisoma plumbeum* from Sekwere, Nyasaland. This clutch has subsequently been examined by Captain C. R. S. Pitman, who is of the opinion that the egg measuring 17 x 13 mm. is of a cuckoo. He points out that it is glossier and harder shelled than the other egg. The host egg has ground-colour pale greenish; that of the cuckoo is apparently white, though the overlying markings are so plentiful as to practically obscure the ground-colour. Incidentally, Captain Pitman also points out that the host egg is quite distinct from those of *P. lugens* (Rüppell) and *P. subaeruleum* (Vieillot) in his collection, which somewhat resemble each other; (these two species are not hole-nesters, as is *P. plumbeum*).

According to the measurements given by Belcher, "Nature in East Africa," ser. 2., no. 2, pp. 14-20, 1949, and in *Journ. E.A. Nat. Hist. Soc.*, vol. 20, pp. 443-444, 1952, the cuckoo's egg is not in the least likely to be attributable to any species except *Chrysococcyx klaasi* or *C. cupreus* (Shaw). The former is much the more likely, since the nest was not in dense scrub or rain-forest, the normal habitat of *C. cupreus*, but in open *Brachystegia* woodland, a normal habitat for *C. klaasi*.

Unusual plumage variation of the Whitethroat *Sylvia c. communis* Latham

By Mr. BRYAN L. SAGE.

On 15th May, 1949, at East Lulworth, Dorset, I trapped an adult bird of this species which exhibited an unusual variation in the plumage of the under-parts. Each of the feathers forming the white patch on the chin and throat had a distinct black tip, giving this area a black speckled appearance as opposed to the normal white colour. This specimen also differed from typical individuals of this species in having distinctly reddish legs and tarsi instead of the usual pale brown.

The bird was otherwise normal in appearance, behaviour and measurements. The wing was 74 mm., tail 62 mm., tarsus 21 mm. bill greyish-brown with the usual bluish-flesh tinge on the basal half of the lower mandible, measurement from the skull 13 mm.

I watched this bird for some time after I had released it; the song was normal and it associated freely with two normal individuals but I was unable to ascertain whether or not there was a nest in the vicinity. I have been unable to find any mention of variations of this nature in the published plumage descriptions of the species.

A change of name for a Green Pigeon from the Philippine Islands.

By the MARQUIS MASA U. HACHISUKA.

According to the modern classification *Sphenurus*, 1837 and *Treron*, 1816 are united, thus the former name becomes a synonym of the latter. Biswas has already given the reason for such a change in Bull. B.O.C. 70, p. 34, 1950.

This action invalidates the use of *Sphenurus formosae australis* (McGregor) (*Sphenocercus australis* McGregor, *Philip. Journ. Sci.*, 2, sect. A, p. 344, 1907 from islands between Formosa and Luzon) as we already have *Treron australis* (Linnaeus) (*Columba australis*) Linnaeus, *Mantissa*, p. 526, 1771 from Madagascar). I, therefore, propose:—

Treron formosae filipina nom. nov. for *Treron formosae australis* (McGregor), *Philip. Journ. Sci.* 2, sect. A, p. 344, 1907, NOT *Treron australis* (Linnaeus), *Mantissa*, p. 526, 1771.

A new race of *Nicator* from Angola.

By Dr. WILLIAM SERLE.

Nicator vireo tando, new race.

Description.—Distinguished from *Nicator vireo vireo* Cabanis by the lighter grey of the forehead, by the brighter green of the occiput, mantle, back, rump, and upper tail-coverts, by the lighter grey of the breast and belly, and by the paler yellow under tail-coverts.

Distribution.—N'Dalla Tando in northern Angola.

Type.—In the British Museum. Adult male, N'Dalla Tando, Angola, 15th October, 1908. Collected by Dr. W. J. Ansorge. B.M. Reg. No. 1909 : 8 : 5 : 112. *Dimensions.*—Wing 83 ; tail 88 ; bill (from base of skull) 19. *Colour of soft parts.*—Bill, upper mandible brown, lower purplish-grey ; legs greenish-blue ; iris brown-ochre.

Remarks.—The type of *Nicato vireo vireo* Cabanis was collected at Chinchoxo, Portuguese Congo. I am indebted to Professor Stresemann who sent it from Berlin for comparison, and to Mr. J. D. Macdonald of the Bird Room, the British Museum (Natural History) who compared it with the series of *Nicato vireo vi eo* in the British Museum.

Dr. J. P. Chapin tells me in a recent letter that he had already noticed the lighter colouration of the specimens of *Nicato vireo* collected by Ansorge in the north of Angola.

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OF THE

BRITISH ORNITHOLOGISTS' CLUB.



Edited by
DR. JEFFERY HARRISON.

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No. 9.

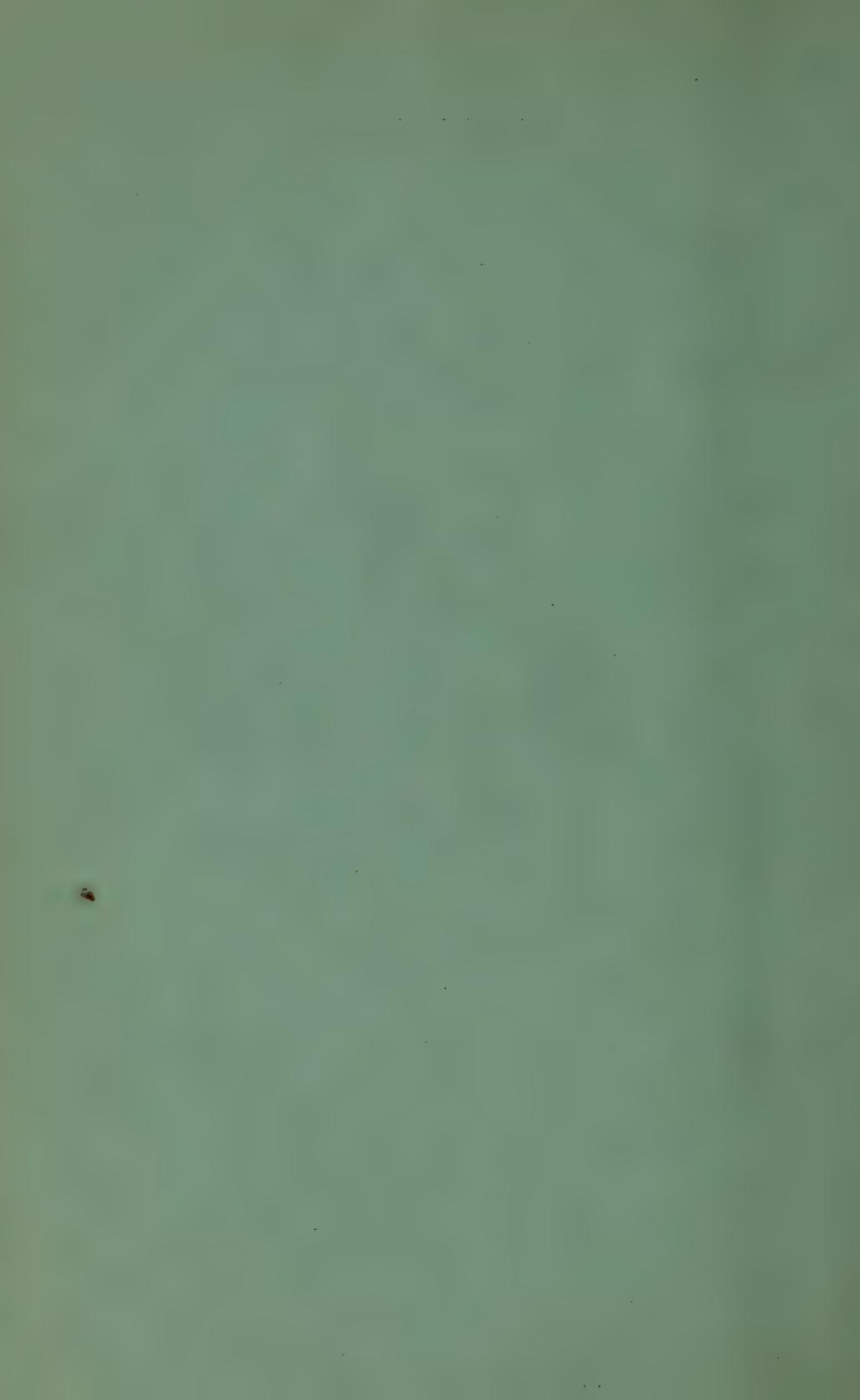
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Vol. 72

BULLETIN
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The five-hundred and sixteenth meeting of the Club was held at the Rembrandt Hotel, Thurloe Place, S.W.7, on Wednesday, 19th November, 1952, following a dinner at 6.30 P.M. The meeting was held jointly with the B.O.U.

Chairman : SIR PHILIP MANSON-BAHR.

Members present, 42 ; Guests 37 ; Guest of the Club,
Dr. N. Tinbergen ; Members of the B.O.U., 32 ; Total, 112.

The Chairman began by announcing with the deepest regret the death of Mr. R. Preston Donaldson, a Committee member. Members stood in tribute.

The Behaviour of the Black-headed Gull.

Dr. N. TINBERGEN gave a talk on this subject, illustrated with films and lantern slides, of which the following is a summary :—

Observations on this species were carried out in collaboration with Mrs. R. Weidmann and Mr. M. Moynihan in 1951 and 1952. The work was supported by the Nuffield Foundation and by a U.S. Government Fulbright grant. The observations are part of a programme of comparative studies of gull and tern behaviour. The ultimate aim of these studies is the establishment of homologies in behaviour and, through it, a description of adaptive radiation of releasers in this group. So far, only the Herring Gull and the Black-headed Gull have been studied in some detail ; studies of the Little Gull, the Kittiwake, the Australian Silver Gull and the Arctic Tern have been started in 1952, and it is hoped to extend the work over various other species. Similar work on this group is in progress in Holland and in Finland.

Reproductive behaviour consists of fighting and threat, courtship and coition, nest building, incubation, and care of the young.

Fighting and threat in the Black-headed Gull resemble that of the Herring Gull. Threat postures are either preparations for attack, inhibited by the tendency to escape, or displacement nest building movements. The Black-headed Gull has a "forward threat posture" which is absent in the Herring Gull, and in which the brown mask is displayed. Courtship consists of initial mutual threat followed by an appeasement ceremony in which the face is emphatically turned away from the partner. Appeasement ceremonies are also found in the Herring Gull and in the Kittiwake, but they are different. In all three cases they are more or less the opposite of the most frequent threat posture. In all species the female becomes "submissive" after a while and is then accepted.

Incubation behaviour provided a splendid opportunity for a quantitative study of displacement nest building as the result of thwarting of the incubation drive.

A beginning has been made of an experimental study of the stimuli releasing begging in newly born chicks.

Natural Barriers.

By Mr. J. M. D. MACKENZIE.

Smythies, in the *Birds of Burma*, gives a scheme for the division of the country into faunal districts. I am not a taxonomist, and am not competent to deal with his areas; I failed in an attempt to make out lists of birds peculiar to one or more of them. Stanford's various papers about the birds of Myitkyina and north-east Burma further convinced me of this. But the two combined left me uncertain as to the relationship between natural barriers and distribution limits.

Factors limiting distribution are many. One curious case is the Elf Owl, *Micropallas whitneyi* (Cooper) in arid North America. It nests in the holes of two woodpeckers, *Centurus uropygialis* Baird and *Colaptes chrysoides mearnsi* Ridgway in Giant Cactus, *Cereus giganteus*. The woodpeckers make holes in other species and places, but the owls do not use them; not all cactus areas are within the range of the woodpeckers, but outside it the Elf Owl is not found (Allee et al. p. 234). Birds of really high altitudes occur in north-east Burma only; it seems essential for them to be near snow. The same applies to a gazelle, the Takin *Budorcas taxicolor*. At the other extreme, many tropical birds extend into Burma in Tenasserim, sometimes as far north as Karenni. The limiting factor seems to be temperature and/or humidity. In the south there is no physical barrier although with the Blood Pheasants etc., in the north it might be held that the low ground—a comparative term as their low limit seems to be about 7000'—forms a barrier and prevents spreading. At lower altitudes, many hill species do not descend below a certain level, often 2,500 to 3,000 feet, while other forms do not go higher than this. The Dry Zone is a special case where a few birds and a deer, the Thamin, *Cervus eldi*, seem to be limited to areas of excessively small rainfall, in fact to conditions nearing those of a desert.

A temperature or humidity change when it is a matter of latitude is difficult to see as a physical barrier to the extension of the range of a species. One requires at least a rainfall map with isotherms. The factor may operate on the animals themselves in that they do not thrive outside certain limits, or on their food or their habitats. Certain Hawaiian Honey Eaters, Drepanids, live in dense tropical rain forest. A road was cleared through, and although they live on both sides, they are said never to cross the gap. An American humming bird *Agyrtria boucardi* (Mulsant) is common in one place for a month when a particular flower is in bloom. In nearly 100 years it has not been found elsewhere, nor in the other eleven months of the year (Griscom, p. 49, 73). There are other similar cases. We can see a gap in dense forest or a blooming flower; they are limiting factors but hardly natural barriers.

The most obvious natural barrier is the sea. We can understand that an animal cannot cross it unless it can fly—there are exceptions, animals dispersed on drifting rubbish—and that powers of flight must be of a special kind; but the Willow Warbler *Phylloscopus trochilus* (Linnaeus) for instance looks an unlikely candidate for crossing the English Channel, and a small gull with a broken wing once *swam* the Atlantic Ocean (Hickey, p. 38). In the case of Penguins and Seals, etc., it is the land which is the barrier. The Amazon, and even its bigger tributaries limit some birds, and the Grand Canyon, a mile deep, has different subspecies of some small mammals on each side. When we come to mountains, we seem to be on solid ground. One cannot very well miss the Himalayas, the Rockies or the Andes with their altitudinal changes in vegetation. We can see these and the change in temperature may be obvious in a day's march. The same applies in a lesser degree to the Chin Hills and the Maymyo plateau. But it is not a physical impossibility for a bird or a mammal to cross mountains. They can fly in short hops or walk the whole way—we do it ourselves. Small warblers have been found dead at very great altitudes (18,000') on migration, although many migration routes run along instead of over hills. It is not the mountains in themselves which set limits, but the conditions which they produce. It is the same with the Dry Zone; the Irrawaddy-Chindwin valley is bounded on the east and west by high ground, but from the south northwards we get first tropical conditions as far as Prome, then extreme aridity to Monywa followed by a wet subtropical belt in the north, without any obvious physical change in altitude or conformation.

One is driven to the rather illogical conclusion that a natural barrier must be something which can be seen and which is a natural feature which can be shown to limit the range of a number of species. Latitudinal changes in temperature are gradual while the tolerances of different species vary; so their limits also vary and do not result in the more or less definite demarcation line found with altitudinal changes. This does not perhaps apply to the far north where a certain isotherm not very much above freezing point thaws the ground and/or allows vegetation and insects to become active and so provides cover and food which is absent below it.

A mountain range while it is a barrier to a species of the plains, forms a dispersal route for those of higher altitudes, and the same is true of other barriers.

The author of a new race would help ecologists if he could insert a note about any differences in habitat or for example food, to account for the differences on which he proposes his new form. This is sometimes but not always done, and the author is the most likely person to have noticed them. I would go further, although it is not perhaps permissible. I would allow a definite difference in habits or habitat to influence the desirability of naming new forms, although they cannot be a primary cause for separation. Two forms living in different habitats or eating different foods are more likely to be genetically distinct than two forms with similar habits separated in space only.

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Notes on the Races of *Pitta Soror* Wardlaw Ramsey, in Southern Indo-China.

By Mrs. B. P. HALL.

In Sir Walter Williamson's fine collection of birds from Siam and Indo-China is a female *Pitta soror* Wardlaw Ramsay¹ from Kompongsum-Bon, Cambodia. This specimen, while showing a great similarity to the type of *Pitta soror*, did not appear to me to fit with a large series from Central Annam which had been identified as *P. s. soror*. This led me to wonder whether *P. annamensis* Oustalet² from Quangtri, Central Annam, might not be a valid race, though the name has for some years been placed in the synonymy of *P. s. soror*. I therefore felt it desirable to re-examine all the available material of this species from southern Indo-China. Through the kindness of Professor J. Berlioz and Dr. W. Bergstrom I have been able to study specimens from the Paris and Stockholm Museums, together with those in the British Museum and Sir Walter's collection, thirty-one specimens in all.

Before discussing details of this material there are two characters of this group of Pittas (the old sub genus *Hydrornis*) which are constantly referred to in literature, whose significance is not always fully understood.

The first is the occurrence of a pink phase in which the chin, cheeks forehead, upper breast, and sometimes the flanks and crown, are suffused with a rosy pink. This phase is often found among individuals in an otherwise plain series from one locality and cannot be related to season or age as it also occurs in some juveniles. The second concerns immature plumage. Variations in colouring other than pinkness have frequently been put down to immaturity, but a study of a large series of juveniles in the British Museum shows that there is no intermediate dress between

the brown and yellow spotted juvenile plumage and full adult dress. The moult takes place in a posterior-anterior direction, the juvenile plumage being retained last on the head and wing-coverts.

The type of *Pitta soror* is in the British Museum. It is said to come from Saigon, Cochin China. In the original description Wardlaw Ramsay said that Oustalet had expressed some doubt on the accuracy of this locality and had suggested it might even have come from Malay. However, it resembles the Kompong-sum-Bon female so closely that there now seems little doubt that it came from the same avifaunal region and that Saigon might well be the correct type locality. The type is not sexed but appears to be a female. It is not in the pink phase. The crown and nape are green-blue with some olive in the crown and forehead; the mantle is olive green; the rump patch greenish-blue, the colour being widespread in the lower back but mixed with the green of the back and so not forming a patch of solid colour. Wing 112 mm.; tarsus 44 mm.

In my opinion only two other specimens I have seen match the type. They are:—

(1) Williamson's specimen from Kompong-sum-Bon. This is very similar to the type, but is in a very pale pink phase, and is slightly larger. Wing 119 mm.; tarsus 49 mm.

(2) A male from Bokor, Cambodia, in the British Museum, collected by Delacour and Jabouille³; it was mentioned by them as being not quite like any of the other birds they got. It is not in the pink phase; it is not fully adult, having still some spotted juvenile plumage on the wing-coverts; the crown and nape are a bright pure blue, unmixed with pink; the back is green mixed with olive. The rump is unfortunately damaged but, as far as can be judged, is similar to the type and Williamson's specimen in that the blue does not form a solid vivid patch. Wing 121 mm.; tarsus 49 mm. (My wing measurement is slightly smaller than that given by Delacour who probably took his measurement when the bird was fresh).

Two other specimens in the British Museum differ only from the type of *P. soror* in having the crown brownish, merging into the green-blue of the nape. Both come from Southern Annam. One, unsexed, was collected by Dr. J. J. Vassal at Nhatrang; it is not in the pink phase. Wing 116 mm.; tarsus 46 mm. The other, collected by Robinson and Kloss at Dran, is in the pink phase. It was described by the collectors⁴ as immature, but it has no spotted juvenile plumage. It is too badly damaged for measurement and has lost rump and tail. Though the difference between these two specimens and the type is slight, the colour of the head appears to be an important taxonomic character in this group of Pittas, and they might prove to represent another race of *P. soror* when more specimens, particularly males, are available for examination.

All other specimens I have examined that have hitherto been referred to *P. s. soror* come from Thua-Lua, Col des Nuages, and Hué, Central Annam, and Ban Kok, Paleng and Thateng, Bas Laos. They are remarkably constant in size and colour and differ from all other series of the *Hydrornis* group which I have seen, in that every single specimen is in the pink phase, and this pink invades the blue of the head giving it a

lilac tone. In addition, this series differs from the specimens already described in having rather less olive in the green of the mantle, the difference being especially marked in the females. The rumps in the males are bright blue, the colour spreading into the lower back and forming a solid, vivid patch; this character is less marked in the females, but in most cases the rump patch is considerably brighter and more solid than in the females of typical *P. soror*. The series averages smaller than those from further south: wing, males 110–116 mm.; females 108–111 mm.; tarsus, males 44–45 mm.; females 42–45 mm. These constant differences in a sample of a population widely separated geographically from the nominate form appear to me to warrant recognition of a separate race. As these characteristics are found in Oustalet's *P. annamensis* which was taken at Quangtri, less than 100 miles north of Thua-Lua, it is clearly the correct name for this race. When Oustalet described *P. annamensis* he was familiar with the type of *P. soror* and was confident that he was dealing with a different though closely allied bird. I have not seen the type and the description is not very complete, but Professor J. Berlioz of the Paris Museum, has very kindly sent me detailed notes. In his view the type of *P. annamensis* is an adult female in worn plumage, and is very like one of the females from Thua-Lua, but lacks the pink shade on the throat and neck. As Oustalet, in his original description, made special mention of the pink shade, Professor Berlioz thinks that this colour probably faded out when the specimen was exhibited as a mounted bird. He gave this description of the type: "The head, worn and faded, shows some remnants of lilac and bluish tinge; the face, throat, and neck and breast are of the "grey" type, not of the pink phase; the rump is largely marked with light blue. There are no traces of black spotting anywhere, nor of yellowish spots on the wing coverts." The measurements he gives are approximate owing to the type being mounted: wing 105 mm.; tarsus 46 mm.

It seems therefore that specimens from Central Annam and Bas Laos are racially distinct from the nominate *P. soror*, and that the name applicable to them is *P. s. annamensis* Oustalet. There is an indication that there may be another recognisable race in Southern Annam.

I am indebted to Mr. J. D. Macdonald and Captain C. H. B. Grant for examining the specimens with me, and to Sir Walter Williamson for the privilege of working on his collection.

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- [1] *Pitta (Hydrornis) soror* Wardlaw Ramsay, Ibis, p. 496, 1881.
- [2] *Pitta (Hydrornis) annamensis* Oustalet, Bull. Mus. Hist. Nat. Paris, 2, p. 315, 1896.
- [3] Oiseaux de l'Indochine Francaise, 3, p. 20, 1931.
- [4] Ibis, p. 442, 1919.

The Relationship of *Mesopicos johnstoni* (Shelley) and *Mesopicos ellioti* (Cassin).

By DR. WILLIAM SERLE.

These two forms have hitherto been regarded as specifically distinct. *Mesopicos johnstoni* inhabits the forests of the mountainous parts of West Africa in the Cameroons and Fernando Po, and *Mesopicos ellioti* the

lowland forests of West Africa from the British Cameroons to western Uganda. In the British Cameroons where the lowland and mountain forests meet, the ranges of the two forms approach each other but do not overlap.

They are distinguished by their under-parts. *M. ellioti* is heavily striated with blackish from the chin to the under-tail coverts. *M. johnstoni* is unstreaked below except for a few dark shaft streaks on the breast.

The colouration of the head in the immature bird differs from the adult in the two forms in the same way. In the immature female the hind crown is red of a slightly duller shade than the adult male and with the black bases of the feathers showing in places. In the immature male the red of the hind crown is again duller in shade and extends further forward than in the adult, in some examples even to the forecrown.

In size *M. johnstoni* and *M. ellioti* are similar. Measurements of thirty-five *M. johnstoni* collected by me on Cameroon Mountain, the Rumpi Hills, Manenguba, and the Bamenda Highlands (including Oku) are as follows:—

15 males, wing 88–95; tail 51–66; bill 17–23; tarsus 18–21 mm.

20 females, wing 85–95; tail 54–68; bill 17–20; tarsus 17–21 mm.
and of twenty-three *M. ellioti* collected in lowland British Cameroons as follows:—

12 males, wing 88–94; tail 54–64; bill 22–24; tarsus 17–20 mm.

11 females, wing 88–94; tail 59–68; bill 19–23; tarsus 17–19 mm.

In size therefore there is no significant difference between *M. johnstoni* and *M. ellioti*, and the adult and immature plumages are similar except for the streaking of the under-parts.

On the strength of this last character the two forms might well be regarded as specifically distinct were it not for a link which shows that they are conspecific. This link is the population found on Kupé Mountain for which I propose the name

Mesopicos ellioti kupeensis, new race.

Description.—Distinguished from *Mesopicos ellioti ellioti* (Cassin) by having the streaks on the under surface narrower and sparser particularly on the belly and under-tail coverts, and distinguished from *Mesopicos ellioti johnstoni* (Shelley) by the heavier striations of the under-parts.

Distribution.—The forests of Kupé Mountain at an altitude of 5,000' to 6,000'.

Type.—In the British Museum. Adult male, Kupé Mountain, 4° 50' N., 9° 40' E., at altitude of 5,500', British Cameroons, 6th April, 1948. Collected by Dr. William Serle. Collector's No. C. 1857. Brit. Mus. Reg. No. 1952.30.1.

Measurements of the type.—Wing 90, tail 60, bill 19, tarsus 18 mm.

Soft parts.—Iris dark red, feet olive-grey, upper mandible grey, lower mandible greyish-white.

Remarks.—The seven other examples collected on the upper slopes of Kupé Mountain have the same characters as the type. They form a uniform series and can be distinguished at a glance from *M. e. ellioti* on the one hand and *M. e. johnstoni* on the other hand. They measure:—

4 males, wing 93, 92, 91, 91; tail 61, 63, 62, 63; bill 19, 20, 20, 23; tarsus 18, 20, 19, 18 mm.

3 females, wing 91, 90, 88; tail 60, 61, 60; bill 17, 18, 17; tarsus 18, 19, 18 mm.

In the field *M. e. kupeensis* behaves like the other races. It is usually encountered as a member of a mixed bird company. A female with a greatly enlarged ovary with yolking eggs was shot on 13th November, and an immature bird with a partially ossified skull was shot on 23rd January, so as in *M. e. johnstoni* breeding probably takes place early in the dry season.

Dr. J. P. Chapin kindly examined this series of *M. e. kupeensis* and gave me his opinion on them. I am indebted to him.

On *Struthio camelus* Linnaeus.

By Mr. C. M. N. WHITE.

Messrs. Grant and Mackworth-Praed in Bull. B.O.C. 71, p. 45, 1951 propose to rename the North African Ostrich as they consider that *S. camelus* Linnaeus should be restricted to the Syrian population. It may be doubted whether this shift of name serves any useful purpose since there is no rule that the first of a series of localities mentioned simultaneously has any priority. There is however I believe a more definite objection to the proposed shift of name.

Struthio camelus Linnaeus was a composite of two races until Rothschild split in in 1919; the International Rules of Zoological Nomenclature at Articles 29 and 31 lay down procedure where a genus or a species respectively is divided into two or more restricted genera or species; there is no reference to the division of a subspecies, but the same procedure would by analogy apply. It appears to me that Rothschild as first reviser of the composite *S. camelus* was fully within his rights in restricting *S. camelus* to the North African Ostrich; once this restriction has been made it must stand unless it can be shown to be a mis-identification; certainly juggling with the type locality will not provide this evidence of a mis-identification since there is no rule that the first mentioned locality has any priority. Thus it appears that Rothschild in 1919 is correctly covered by Article 31 of the Rules in his restriction of *S. c. camelus* and that *S. c. rothschildi* Grant and Praed is a needless synonym.



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