

though at complete liberty—for more than one season, never lost the breeding plumage, but displayed it all the winter.

Turning to birds which spend their lives on the ground, as opposed to arboreal and aquatic forms, we find that two Oriental resident bustards, the florican (*Houbaropsis bengalensis*) and the likh (*Sypheotides auritus*) show a remarkable seasonal change in the males, the plumage of which becomes chiefly black in the breeding season. It is interesting to note, however, that some males of the florican appear to retain this livery permanently.

In the game birds of the family Phasianidæ seasonal changes are almost unknown in the males, though so many are brightly coloured, even among species inhabiting regions of snow and deciduous foliage. A change, however, albeit a small one, does occur in two tropical species, the red and the grey jungle fowls of India (*Gallus bankiva* and *G. sonneratii*), which after breeding lose their gay-coloured hackles and the long "sickles" of the tail, the hackles being replaced by short black feathers for a considerable period. The green jungle fowl of Java (*Gallus furcatus*) is, however, exempt from this change, as I had an opportunity of observing in a specimen kept at the Calcutta Zoological Gardens, nor does it appear to occur in the Ceylon species (*G. lafayettii*). In the domestic fowl, the descendant of *G. bankiva*, this change of hackle for short feathers does not usually occur even in India, but I once observed it there in a case of a Langshan cock imported from China.

The little group of hemipodes furnishes an example of a tropical bird undergoing a seasonal change, Mr D. Seth-Smith's recent observations on *Turnix tanki* (*Field*, Sept. 5), having shown that the rufous collar in the female of this species, formerly considered as a sign of complete maturity, is really a seasonal character.

Taken collectively, the above cases are sufficiently numerous to prove that colour change is no exclusive attribute of the birds of temperate or cold climates; but there is reason to believe that in some cases the change of plumage is tending to disappear. The facts mentioned with reference to the permanent retention of nuptial plumage in the Indian dabchick and the florican point in this direction. At the same time, it must be remembered that the occurrence of full-plumaged birds at a season when winter plumage should be the fashion does not disprove a change of plumage unless the individual birds have been watched. In the Calcutta market I have been able to observe males of the domestic duck in full plumage at all seasons; but observation convinced me that the ordinary drake goes into the "eclipse" stage in India just as he does in England. From the occurrence of young ducks all the year round in the same market, however, it was obvious that the birds might have been bred at different times, and

BURCHELL'S RHINOCEROS ON THE UPPER NILE.

The evidence for the existence of Burchell's rhinoceros (*Rhinoceros simus*) in the country of the White Nile is incontrovertible. It was long believed that this species was confined to the country south of the Zambesi; and the first account of any value of its occurrence north of that river came from Dr Gregory, who in his *Great Rift Valley* mentions that he saw in Leikipia three examples which he considered belonged to this species, though he failed to secure a specimen. Major Gibbons in his journey from the Cape to Cairo put the matter beyond dispute, for in the Lado district he shot one, the skull and horns of which were exhibited at a meeting of the Zoological Society on Dec. 18, 1900. Unfortunately this specimen, the first authentic record of the existence of the animal north of the equator, was allowed to pass into the possession of an American museum. At the zoological meeting on Tuesday, Dr Sclater exhibited a mounted horn obtained in 1902 from the officers of the Belgian post at Lado by Capt. C. J. Hawker, who presented it to the Natural History. This trophy is mentioned in the last edition of the *Records of Big Game*; the measurements are 30½ in. along the outer curve, and 25½ in. round the base. Dr Sclater said that the basal part of the front horn in Burchell's or the white rhinoceros was broad and flattened in front, while in the common African rhinoceros (*R. bicornis*) it was more or less rounded with a projection in front. Applying this criterion to the five front horns which Mr Gerrard had kindly sent for comparison, four belonged to Burchell's rhinoceros and one to the common form. These were the property of Col. Sparkes, who obtained them in Khartoum. Mr Scherren said that five other animals had been shot in that district since Capt. Hawker obtained his specimen. Three were entered in the *Records of Big Game*, and he hoped to exhibit at the next meeting, by the courtesy of Mr Rowland Ward, the largest horn yet sent to this country from the Soudan, measuring a yard along the front curve. Mr Oldfield Thomas seems to be the only zoologist who has recognised the importance from the point of view of geographical distribution of the occurrence of this rhinoceros so far north. Writing in 1900, he laid stress on the fact that Major Gibbons's discovery of *R. simus* in the Nile watershed brought it geographically nearer to the woolly rhinoceros (*R. antiquitatis*) of Europe and Siberia, and that both were probably offshoots of the broad-nosed rhinoceros (*R. p'atyrhinus*) from the Pliocene of the Sivalik hills. Its fossil remains may yet be found in the Fayum.

ABNORMAL CLAWS OF LOBSTER AND CRAB.

could hear, every now and then, the social whisper "you"—the call for the keeping together of the flocks. On the following night I heard more redwings going over, but as the wind had changed from a quiet N.W. wind to a S.W. breeze the migration was not so large. Since Oct. 19 I have not heard any of these birds; yet they were flying over on the evening of Nov. 2. On foggy nights the call of the redwing is more distinct.—CHAMELEON.

TREATMENT OF CHAMELEON.—Will any correspondent tell me from experience how to feed and tend a chameleon; I am told to give it mealworms and flies, but at present it will take nothing voluntarily, and we have to open its mouth, and push the fly in. Should it be given a piece of flannel in the cage to keep it warm?—R. HERBERT. [If the temperature of the room in which it is kept is properly maintained, no flannel will be required. As to food, mealworms and insects of all kinds, when procurable, would be the most natural, but perhaps some one of our readers can give advice from experience.—ED.]

GREENLAND FALCON IN YORKSHIRE.—According to report, a Greenland falcon (*Falco candicans*) was recently shot at Hurst, in Swaledale, and is said to have measured 22 in. and weighed 2½ lb. If this should meet the eye of anyone who may have seen this particular bird, may I ask them to examine the specimen again, as possibly it may be an Iceland falcon (*Falco islandus*). The length—22 in.—agrees with that of the Iceland falcon, the Greenland falcon measuring 23 in. in length. It is easy to distinguish between the two birds at all ages by the Greenland species having a yellow bill and no bars on the flanks, and the Iceland species a blue bill and barred flanks. These characteristics appear in the immature as well as in the adult of both species.—H. W. ROBINSON (Lancaster).

ROOK TOYING WITH AN ACORN.—I had an experience that was new to me when passing through Stapleford Park the other day, though, possibly, you may be cognizant of records of similar incidents. I noticed a rook, when I was some distance from it, hovering about in mid-air in a peculiar way, and then suddenly dipping down a few yards as if in pursuit of something, after which it would mount again to its former altitude. On getting tolerably close to the bird, and without the aid of my field glasses, the puzzle was solved, when I clearly saw an acorn let fall, only to be deftly and quickly recovered a moment later.—H. S. DAVENPORT. [Rooks habitually carry off acorns. Usually they pick them to pieces and swallow the fragments, but sometimes they bury them. Instances have been recorded in which they have left them where buried, and in course of time a grove of young oaks has sprung up. A detailed account of such a proceeding may be found in Robinson's *Natural*