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e Royal Silver Wedding: Princess Alice. Extract from ON THE PICTURE BY PHILIP A. DE LASZLO, M.V.O. REPRODUCED BY COURTESY OF THE ARTIST. (COPYRIGHT RESERVED.) Illustrated London News. 23 FEB. 1929 Date.....

MARRIED ON FEBRUARY 10, 1904: H.R.H. PRINCESS ALICE, COUNTESS OF ATHLONE, WIFE OF THE GOVERNOR-GENERAL OF THE UNION OF SOUTH AFRICA.

Princess Alice, who celebrated the twenty-fifth anniversary of her wedding on February 10, is the daughter of Prince Leopold, first Duke of Albany, fourth son of Queen Victoria, and was born on February 25, 1883. Her husband is the third son of the late Duke of Teck and the late Duchess of Teck, daughter of the first Duke of Cambridge. By Royal Warrant dated July 14, 1917, he discontinued the use of the style and title of "Serene Highness" and "Prince," and assumed the

surname of Cambridge. He was created Viscount Trematon and Earl of Athlone in the Peerage of the United Kingdom. He served in Matabeleland in 1896; in South Africa in 1899-1900; and during the European War, 1914-1918. He was appointed Governor-General of Canada in 1914, but did not take up the duties. In 1923 he became Governor-General of the Union of South Africa and High Commissioner for South Africa, and was reappointed as from January last.



## <u>alisaa</u>

## THE WORLD SCIENCE. OF



## THE BARE FACED ROOK.

By W. P. PYCRAFT, F.Z.S., Author of "Camouflage in Nature," "The Infancy of Animals," "The Courtship of Animals," etc., etc.,

WAS once told, by one who regarded himself as A an authority on the subject, that "we know all there is to know about British birds"; and no doubt he believed that this was so. In making this extraordinary statement he probably meant that we know precisely how many of the species on the official list of British birds are resident and breeding

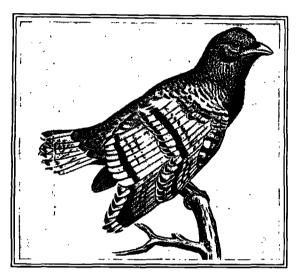


FIG. 1. THE COMPLEX PATTERNING OF THE ISABELLINE ROOK: AN ANCESTRAL PLUMAGE.

This figure of an Isabelline rook, drawn some years ago by the wellknown bird-artist, Mr. Frohawk, shows a complex patterning, which is to be interpreted as an ancestral livery, now masked by the intensification of the melanin pigment, which has made this bird, in its normal plumage, "as black as a crow."

species: how many are spring and autumn migrants; where we may seek their nests-and eggs; the number of sub-species which are to be recognised, and so on. Yet, when all these facts are noted we have but laid the foundation for the study of our native birds. And, though he rise early and live laborious days, the most a man can hope to do ere his time comes is to bring out a few scraps of knowledge from the Great Unknown.

My friend would probably have told me that we most certainly know all that is to be known about the rook, surely one of the commonest of our native birds. We can most of us recognise a rook at sight, even when on the wing; we know its habit of following the plough; we take at least a passing interest 'rookeries"; we know at least something of its nest and eggs and young—some, even, enjoy

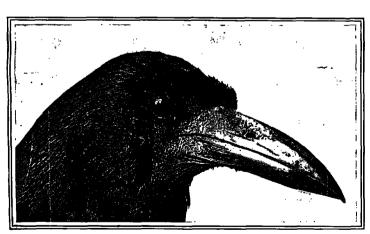


FIG. 3. THE FEATHERLESS FACE OF THE ADULT ROOK. In the adult stage the beak is relatively much longer and more arched, and the bristles covering the nostrils and the feathers of the fore-part of the face are wanting. But these are present in the East-Siberian rook, which shows, however, an incipient tendency to lose these feathers, as in our British bird.

shooting." What more would any reasonable man want to know about rooks?

But there have been unreasonable men in the past, and the like are with us still: inquisitive spirits who venture to ask, "Why has the rook a bare face?" A hundred years ago this was the subject of heated debate. Rennie, the editor of "Montagu's Ornithological Dictionary," held that the rather untidylooking white face of this bird was due to its habit of thrusting its beak down deep into the soil for

worms, so that, in the course of time, the feathers became worn away to stumps. This seemed to him not merely a "rational" explanation, but the only possible one. One marvels that he could have been so easily satisfied.

To appreciate the problem, one must remember that the rook, when launched into the world to fend for himself, has a face as well feathered as that of the crow or the raven. At the base of the young rook's beak will be found long, somewhat bristle-like feathers, covering the nostrils on each side of the base of the beak, as shown in the adjoining photograph (Fig. 4). By continuous digging, Rennie contended, these feathers were gradually worn away, though neither he nor anyone else had ever seen a bird in which, say, half of this patch of bristles had been worn off. But, more than this, he ought to have expected to

find birds with the beak and face well up to the forehead caked with mud and broken feathers; for, eventually, not merely the beak-bristles, but the feathers of the forehead and throat, disappear, leaving the bare, white skin by which we distinguish the rook at sight. Rennie's contemporary, Charles Waterton, took him to task in one of the essays published in his delightful "Essays on Natural History,' a book, unfortunately, nowadays seldom read. He poured scorn on Rennie's arguments, though he could offer no better explanation of the facts than that it was the bird's nature to shed its feathers after this fashion. Their disappearance had nothing

whatever to do with the bird's mode of feeding. Nor have we to-day any better explanation.

If one wanted to refute the theory of the loss of these feathers by abrasion, as the result of digging in the soil for food, one could point to the fact that the bristles are the last, not the first, to disappear. The process of denudation begins with the feathers of the forehead; and this does not begin until the youngster's

second moult. During all this time, he digs as assiduously as his barefaced elders, yet shows no trace of the fact in damaged nose-bristles-as the theory demands he should Again, every adult bird, at each succeeding annual moult, makes what one might call a sickly attempt to regain the feathered face, since a few degenerate spines and bristles

make a temporary appearance. They are vestiges of once perfect feathers.

There is one peculiarity of this shedding of the face-feathers which seems to have escaped notice. In all other birds which have developed a featherless face --- and there are manythe feathers bor-

dering the bare area have neatly finished appearance. This is never so with the rook. They always expose the grey, semiplumous base of the vane; as if the small feathers which should cover them, to give "finish," had been plucked out. This particular feature does not appear in the accompanying photograph (Fig. 3)

of the head of the adult, owing to the absence There is, indeed, no real reason why of colour. we should regard the bare face of the rook as more in need of explanation than that of, say, the guinea-fowl, or the bell-bird, or a dozen or so other species.

It is worth noting that the incipient stages of this process of denudation are to be found in the rook which inhabits Eastern Siberia, and ranges thence to China and Japan. In this only the region of the nostrils and the sides of the lower jaw are bare. There is another singularly interesting thing about the rook, to which I think I first drew attention when writing my "Camouflage in Nature." In that volume, I gave a figure of an "Isabelline rook," showing an elaborate patterning, answering, I suggested, to an ancestral

coloration masked in normal birds by the intensification of the melanin pigment, "watered down" in this variety to a pale coffee-colour.

I now find that this same pattern can be traced in the normal rook, just as one can trace the spots, in certain lights, on the flanks of the black leopard, or the stripes on the flanks of a black "tabby-cat." In the accompanying photograph (Fig. 2) of the adult rook, traces of this pattern can be seen, as narrow, transverse lines, in some of the wing-feathers above the disc-like stump of the bough on which the bird is perched. But when one can handle this specimen,

and turn it, in a strong light, now this way, now that, concentric lines and transverse bars can be seen all over the back and wing-feathers. The heavy bands which, on the thumb-feathers of the jay, are marked with alternating bands of glorious blue and black, are found, as in the Isabelline rook shown here (Fig. 1).

The secondaries and the quill-feathers of the

normal rook, "black as a crow," have much the same form as in this Isabelline bird. And I find similar masked markings in the raven, concerning which, and the interpretation of these masked markings, I hope to say something on another occasion. But enough, I think, has been said to show that there is more in the rook than meets the eye, and that we cannot all claim, as yet, to know everything there is to be known about this familiar bird.

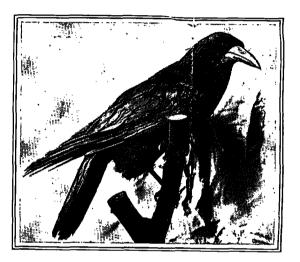


FIG. 2. SHOWING TRACES OF AN EARLIER COLORATION FORMING PATTERNS: AN ADULT ROOK. If an adult rook be turned about in a strong light and carefully ex-

amined, traces of an earlier coloration forming patterns will be found.

Some feathers, thus marked, will be seen just above the cut surface of the bough on which this bird is perched.

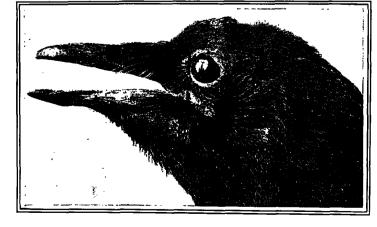


FIG. 4. THE HEAD OF A YOUNG ROOK, SHOWING THE BRISTLY FEATHERS ON THE NOSTRILS.

In the head of the young rook it will be found that the nostrils are covered with long, bristle-like feathers pointing from the base to the tip of the beak, as in the carrion-crow and the raven, and, indeed, all other members of the crow tribe.