

NOTES ON SOMERSETSHIRE RAVENS.

BY

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THE following notes are simple records of what the Ravens (*Corvus c. corax*) did at the cliffs at Cheddar, Somerset, in the early spring of 1919. Soon after my observations commenced I discovered that the fourth primary was missing in the left wing of the male bird and this helped me considerably in making sure of the sex of either bird when it had to be done quickly; for although the male was decidedly larger, there were times when after a momentary glimpse this gap, for so it appeared, turned an otherwise useless observation into an interesting one.

Both birds are resident in the Mendips all the year round, and one or both have daily regular beats over well-stocked rabbit-warrens. The bleached heaps of rabbit bones here and there speak plainly of how the appetites of these monstrous crows are appeased. When on these hunting excursions the Raven flies low, not exactly skimming the ground, but as compared with its usual altitude. I noted this on February 15th at Blackdown on a very foggy day, and again on April 1st at the old Priddy mines; the male bird passed at a height of about forty to fifty yards. Before and during nidification both birds often hunt together, as I have seen them on several occasions, miles from home.

The first nesting material was carried on February 4th. The birds selected a vertical fissure in one of the turret rocks, at the bottom of which reposed a lot of dead sticks, no doubt the remains of a former nest, probably the 1917 structure. On this old site they began to construct their new one, about 300 feet up from the roadway and forty sheer from the top.

Ravens are abroad at the first streak of daylight, making the cliffs resound with their defiant barks, those of the male syllabled by me as "Konk, Konk, Konk," which at the distance may be likened to the echoing sounds of a horn of a motor coming up the cliff road. Nest-building is shared equally by both sexes during the early morning and afternoon. In the middle of the day they are absent from the cliffs hunting their beats for food, returning (early February) about 3 p.m. The male arrives first, for they go off singly and come back singly, but usually in the same direction. On one occasion the female was very late in returning home, and the male treated me to a wonderful display of his vocal

powers ; he was evidently calling his mate, and perched where he was, on the top of the wind rock, must have been audible miles away. She came in at 4 p.m., flying straight to the newly started nest, and followed closely by her mate. From below I could hear bubbling notes as of pleasure, much like the cooing of the Turtle-Dove, but rather louder and stronger and differing from the bubbling or musical notes which both birds utter occasionally.

Afterwards just a little nest-building was undertaken, and then at 4.30 p.m. both settled for the night, touching each other, on the branch of a deciduous shrub near the cliff top facing N.W. I cannot imagine why they should have chosen to roost in such an open situation, in the teeth of a piercing north wind and sleet, when so many sheltered nooks were near. Other spots were selected at times, one was quite a sheltered position farther up the road, between two fifty-foot cliffs and about 400 yards from the nest. This was occupied for many nights in succession, one of the birds always flying out over the road and in again the very last thing to see that all was safe.

When building, both birds often arrived at the nest together carrying the requisite materials. Each in turn hopped in and placed its burden, perhaps a stick, a lump of moss, wool, grass, leaves or rabbits' fur, as the case might be, and turning round and round worked hard at forming the cup-like portion of the structure ; sometimes the male would not wait, but simply dropped his stick to the female or she took it directly from his beak. No live sticks were used in its composition, although there were plenty of small trees available, such as rowan, whitebeam, ash, as well as evergreens, yew and holly. Many stems of gorse were carried, and quite two-thirds were picked up from amongst the ivy growing on the headland above an old quarry on the opposite side.

As they went to and fro, both used the rippling musical notes, and another favourite note was, "Wort, wort, wort," uttered quickly two, three, and four times. I may here mention the tumbling antics of both—when the bird turns completely over on its back from a side movement, drifts along thus, and resumes its former position. Once both birds pitched close to each other, and for twenty minutes the male was in a very amorous mood ; he persistently and gently stroked his mate on the mouth, around the eye and the side of the head, both meanwhile bowing their heads as ducks do ; then he gently pecked again the side of her face, and suddenly attempted coition. She resented this behaviour

by waddling a few feet away, making a chattering noise. The male at once picked up a dead stick, and in a few seconds was across and into the nest with it. Nest-building was then again resumed by both ; I saw the male on three other occasions during nidification act in a similar manner, but without the head nodding and attempted pairing.

Weather seems to have had little effect upon their nest-building activities, for my notes show a succession of gales and storms, and during the whole period of watching these Ravens in February, March and April the wind hardly ever ceased its fury day or night. I have seen them carry sticks in a blinding snowstorm with half a gale of wind blowing ; come up over the ravine and wheel round, Buzzard-like, into the nesting cleft just as calmly as though the sun were shining. On some days they do not leave the cliffs at all, when it is evident that feeding has taken place not very far away.

During my watching I did not see either bird rob their last year's eyrie of any materials, neither did they settle on it, although the side of the nest protrudes from the horizontal ledge of rock and they passed it closely dozens of times. One morning a Kestrel persistently mobbed both birds on the opposite headland, where, as I have already pointed out, most of the nesting materials were picked up. As the Raven approached, the Kestrel flew up from his perch on the rocks, swerved and came almost in contact with it, swooping up above and resting for a second in the wind ; then as the huge crow, with dangling legs, poised a yard or so over the headland to pitch, down stooped the Kestrel, dodging under him and away up into the air again. The Raven uttered hoarse, but not very loud, cries and followed the hawk, both dodging and swerving about, the Kestrel always getting clear away without harm. The same thing went on in the afternoon, the Raven apparently enjoying the fun.

Building ceased on February 22nd, having occupied a period of eighteen days, and on the 25th the first egg was deposited. The nest contained its full complement of four on March 1st and incubation certainly commenced with the first egg laid, but not in earnest, for besides the time occupied in feeding, which never took place at the nest, the bird very often vacated the nest for short flights. Thus on March 3rd between 7.5 a.m. and 9 a.m. she indulged in five short flights and one of longer duration, the same thing happening again and again throughout the day ; finally at 5.45 she

again left and went northwards but soon came back, the male having returned in her absence. At 6.15 p.m., when I left, the female was quietly sitting on the eggs and the male squatting down closely on a jutting piece of rock about twenty feet above her.

For convenience, I may now state that incubation was undertaken entirely by the female, but for the sake of accuracy I must not omit to mention the solitary exception of a few seconds' duration that proves fairly conclusively that the male Raven does not incubate :—

March 3rd (extract from note) : “ The female comes off again with the ‘ Kawk, Kawk, Kawk, Kawk ’ note quickly repeated ; the cock answers from above, to her surprise I think, and they both fly off together across over the quarry and out of sight. The male returns in five minutes and flies on to the nest ; female arrives and circles Buzzard-fashion overhead with vibrating notes ; the male, perched on the nest side contemplating the contents, utters a few hoarse notes, steps down into the nest, tail in view, and apparently attempts to squat or else he is busy placing something. The female flies on to the nest and at once begins to settle down in it, pushing the male gradually, for I can see his tail all the time, sideways out of her way ; his body is close to the rock and side of the nest, for his right wing is partly opened and flattened up against the cliff. The hen settles fairly on the nest, and the cock flops off and flies away.”

During the period of incubation the male bird's duties are to clean himself, feed himself, announce to the female the approach of an intruder and bring in food for her. All these he carried out faithfully and well ; when he was on guard it was impossible to get to my station without his sending forth an alarm ; there were times, of course, when he was away hunting.

Some days the weather was simply vile, very cold north winds with a mixture of rain and snow, and on some days of this description the male was very silent, and would sit for an hour at a time on the branch of a bush close to the nest, and thoroughly clean himself. He usually announced his arrival with food by uttering a loud “ Kawk ” or “ Wauk,” when his mate, as a rule, immediately left the nest and flew to him. The following is an extract from my notes taken at the time :—

“ March 6th : Mendips clothed with three inches of snow on the highest parts. At 4.15 p.m. the male came up on the opposite headland and pitched well in sight, calling

'Kawk, Kawk' twice, the female immediately left the nest, answering him similarly, and flew straight across and pitched beside him, both well in view. The male at once picked up something from the ground in his beak and hopped once towards her, and I clearly saw her take whatever it was and swallow it. She did not wait longer, but came back at once and again settled on the eggs.'

Extract of March 14th says: "Rise at 6 a.m., fine morning, bike to the cliffs, in station 6.15, male arrives 6.25, I can distinctly see food in his mouth, he pitches on the sloping ground of the opposite side of the ravine and calls the female. She does not come; he calls several times—no response; leaving food there he flies towards the nest and, sweeping close by, utters vibrating notes. Female flies off, uttering same notes, and both fly to the place where food is left; female feeds and immediately returns to the eggs."

Once or twice when coming in he alighted on the nest, when this happened they left the nest at once and flew away together.

As my station was above and fairly close to the nest, it was interesting to watch the hen resume her position on the nest after leaving it. She pitched first on the rim, looked in for a second, then stepped down, or waddled like a duck would convey a better idea, amongst the eggs, squatted down and rocked herself with sideways movements apparently placing the eggs with her breast, and was then still. When I watched from this position she did not show the slightest concern at my presence and we spent hours watching each other, the bird blinking continually at me; sometimes she sat with her head outwards from the rock, at another with her tail outwards, the change taking place after a flight. I did not see her change position whilst sitting. When leaving the nest and well away from it, one leg would be stretched down to its full length, her chin or throat scratched and often excrement would be voided.

On March 19th, 20th and 21st, a gale was blowing from the N.E., with snow and rain, and it was unsafe to venture on the cliff head, consequently no notes were taken on these dates, but on the 22nd I distinctly saw movements of her body as though chicks were hatched—she would shift her position slightly and put her beak towards the bottom of the nest beneath her breast. On this date chicks were no doubt present, but not fed. Reckoning from the last egg laid, my incubation-period coincides with that given in the *Practical Handbook of British Birds*.

March 31st was the last date I saw the female brood the young. No brooding was attempted by the male, neither did he ever feed the young, he seldom came to the nest even to remain a few seconds. I cannot say if my presence in any way affected him ; I should not think it did, as I was fairly motionless and well hidden by the rock. I watched the female several times search amongst the grass where she would find and swallow something. The grass abounded with a small black beetle, they were crawling slowly over the grass everywhere ; no doubt a source of food supply, at times, for herself and chicks. When feeding young no food could be observed. Her throat and neck were crammed so much at times that the mandibles could be clearly seen a little open as she winged her way towards me ; and the feathers of the neck stood out as though she wore a ruff, giving her quite a grotesque appearance. Alighting always on the rim of the nest she faced the four wide open mouths, down went her large bill well into the throat of chick No. 1, then out and well down into the throat of No. 2, out and down into No. 3, and feeding was over ; the mouths remained open for more, they still cried. From my point of view I did not know whether they had been fed or not, as I did not see any food. On one occasion after alighting on the nest she vomited perceptibly, lurching forward her head, and it appeared as though food came up into the mouth ; her beak was at once thrust down the open gape of a youngster. I never saw all four receive food at the same meal, sometimes one only was fed, sometimes three ; but it seemed that all four would have liked much more food than they got.

After feeding came cleaning. Extract from notes April 7th : " She steps with one foot only just down into the nest and commences to tug and pull strongly at the lining of it ; the nestlings scramble towards the inner part of the nest in a helpless moving bunch, for they try but fail to stand up. She continues to peck all over the bottom of the nest, ceasing for a few seconds gently to peck off something from one of the young. Now she is taking something from the inner sticks at the top of the nest and bites it up with the tips of the mandibles ; she wipes both sides of her bill on the outside sticks and is away across the gorge." On this date the young frequently pecked or tried to clean their backs, which showed darker than the wings owing to the quills on the latter. Ever and anon the female made vicious dashes at the Jackdaws when they approached to enter the cleft a couple of yards above the nest.

Extract from note April 9th : " Now she pecks and swallows something six times from the bottom of the nest ; as she swallows, her bill is pointed into the air ; now she pecks bits of fæces apparently off the young, and as she cleans their posteriors they scramble away to the other side of the nest ; she turns round and the white substance is adhering to the sides of her mandibles, quite a contrasting colour, then she flies away, pitches opposite, quite in view, and wipes each side of her bill in the grass."

One youngster, more forward than the others, was constantly wriggling, and with half-open mouth, stretching his neck over the side of the nest, so that the under part of his beak rested on the sticks of the rim, he pecked his back often. He failed to stand on this date (April 9th), but by propping himself up against the others was able to peck his breast. As the Jackdaws entered the cleft over the nest, they all opened their mouths and cried, mistaking them for the parent, so I presume that they could see.

On April 11th I clearly saw them shoot out their excretions over the rim of the nest, and the outside was fast putting on the appearance of being whitewashed, but the inner part was kept scrupulously clean by the female, who picked up every bit and ate it. Her favourite utterance when leaving the nest was " Kuk-kuk-kuk-kuk-kuk," eight to twenty times, very quickly repeated on the wing.

On April 20th, the young were feathered, while two, stronger than the others, were perched on the nest rim, preening themselves continually, and flapping their wings as though trying to fly. The parent came with bulging throat, and on this one occasion a conspicuous white lump held between the mandibles, this went into the first open mouth as she stood on the nest rim right amongst them ; they all stood to receive food. At 7 p.m. the two strongest young ones, after standing for some time on the nest rim with their beaks tucked in their wing-coverts, walked down into the nest, and all four cuddled together for the night. The female came and settled on a little rocky prominence a foot or so higher, but to one side of the nest, and as she did so they made feeble noises—just a good night, no movement. At 7.45 the male had not come in. The tails of the young on this day were noticeably rounded.

April 21st, weather fine, three young on nest rim. This afternoon the female after feeding the young, flew across the gorge to the male and lit on a slab of stone about a foot away. She pecked gently all the feathers of his back, nape and side

of the head, also around the gape, then walked round and did the same on the other side. Whilst being thus caressed, the male sat in a crouching attitude with head and neck pressed down to the body and beak pointing to the sky, but not vertically. I am quite sure it was the female caressing the male, as he was already perched on the stone when she fed the young; and my gaze was riveted on her every movement when she alighted near him.

On April 25th a very remarkable and tragic occurrence had taken place. One of the strongest chicks was hanging from the nest, head downwards, quite dead, its feet having apparently become entangled in the lining of the nest. I afterwards recovered this dead one, and on dissection it proved to have died from exposure: length $21\frac{1}{2}$ in., wings, from tip to tip $41\frac{3}{4}$ in., weight 1 lb. 13 ozs. After preserving it as a skin, I sent it to our county museum at Taunton.

Two of the young left the eyrie on April 27th, both following the female after feeding.

April 28th: Mendips covered in snow, and half a gale of wind blowing. The last occupant of the nursery appeared to feel its loneliness acutely; it passed a lot of time between meals pecking all over the nest, now hopping with flapping wings on to the rocky prominence or looking down as though it would fly at any moment; it even attempted to do so, then, as if on second thoughts, it clung with flapping wings to the bottom of the exterior of the nest and struggled up on to it again. It clung to every foothold near the nest, and finally flopped round the cliff face, and the eyrie was abandoned. The fledging-period was almost exactly five weeks.

On April 29th, I watched two young fed as they were resting amongst some flowering scurvy grass half-way up the cliff face.

The deep sounding "Wauk," "wauk," of this species, as it wings its way high overhead, immediately arrests the attention, and together with the appearance of the huge bill and outstretched neck at once reveals its identity; but many of its notes are difficult to syllable correctly. Those of the female, as she drove the Jackdaws off, were "Cluck, cluck, cluck," and "Wort, wort, wort."