

A STUDY OF THE HOME LIFE OF THE NORTHERN
CRESTED FLYCATCHER (*MYIARCHUS CRINITUS*
BOREUS).¹

BY HENRY MOUSLEY.

Plate XII.

I SUPPOSE, if all home life studies had to be made under ideal conditions, very few indeed would ever be accomplished, for seldom, if ever, do ideal conditions present themselves. The present case was no exception to the rule, for, although the height of the nesting hole above the ground and its facing south, with a nearby "hide out" only fifty feet away, were all in my favor, especially, for photographic purposes, other things in general were not so good. The telegraph pole in which the nest was situated for instance was only six feet from a railway track, down which numbers of people wandered—as a short cut—to adjacent fields in which wild strawberries and raspberries grew, while the smallness of the entrance hole—only two and one half inches in diameter—prevented the insertion of my hand at the start, to ascertain the number, as well as—later on—the progress of the young each day.

It was on July 1, whilst waiting for a train, that I noticed a Great Crest fly to a telegraph pole some distance away, and then suddenly disappear. Upon investigation, an abandoned Flicker's (*Colaptes auratus luteus*) hole was found six feet above the ground, out of which the Great Crest came in a hurry, upon my tapping the pole. My train not being due for some time, I hid in a nearby bush, and soon ascertained there were young in the nest, as one of the parents—presumably the female—returned on two occasions with food, remaining to brood each time. The day following, I again visited the nest, but forgetting a time-table, I was obliged to set up the camera some seventeen feet from the pole, to avoid fouling the track with the shutter release, the result being that the pictures of the birds, although interesting, were naturally rather small. Two of the most interesting, depict the arrival of the parents at the nest almost simultaneously, the male on hovering

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wings waiting for the female—which was at the entrance hole—to go in and feed the young. They never, on this, or any subsequent occasion, entered the nest together. At this point, seeing that the sexes of this species are alike in colouring, it might be asked how was I to distinguish the male from the female. Well, to begin with, there was a difference in the size of the two birds, the female being somewhat the smaller, in addition to which, her actions and mode of behaviour were entirely different from those of the male. She always perched on a guide wire at the side of the pole, and from there flew to the mouth of the hole, at which she always alighted before entering the nest. The male, on the other hand, always used the overhead wires as a perch, and very often from there flew direct into the nest, without even pausing at the entrance, making the photographing of him a most uncertain business at any time. On the present occasion, the young were fed thirteen times in three hours, ten times by the female, and three by the male, no brooding being done—as on the day previous—by either parent, this giving me a clue to the age of the young, probably three or four days, as this is about the time I have generally found brooding to cease in other cases.

I now let three days go by before again visiting the site, on July 5, when the young were fed ten times in three hours, or at the rate of once in every fifteen minutes, nine times by the female, and three by the male. On this occasion, the camera was only four feet six inches from the entrance hole, yet it made little or no difference to the female, who acted just as she had hitherto done. The male, however, altered his tactics entirely, apparently, not liking that “big eye” staring at him, for instead of alighting at, or flying direct into the hole, he would hover five or six feet above it, then drop a foot or more, hover again, with another drop and hover, and then a final drop, and into the hole like a flash. Yet another method, was to go through this same performance only, at the back of the pole, with a final twist round it, and into the hole at the last drop. Up to now, I had not really made up my mind whether to go on with the study or not, in fact, I let another four days go by before again visiting the site, on July 9, when the wealth of interesting data then obtained, during the five hours I spent with the birds, finally settled the matter in the affirmative. To begin with,

I saw the little white sac or faeces removed for the first time by both birds, who up to now had more or less eaten them—no doubt. They were always carried a good distance from the nest before being dropped. The young were fed twenty-five times in the five hours, or at the rate of once in every twelve minutes, eighteen times by the female, and seven by the male. The absence of the camera on this occasion made no difference in the method and mode of approaching the nest, except, in the case of the male, who now gave up the hovering and dropping business before entering the hole, and did not again resort to it, even when the camera was in use. I should, however, have previously mentioned, that whenever the female alighted on the guide wire, or any other favorite perch, particularly a small post just in front of the nest on the far side of the railway track, she almost always kept up a continuous repetition of the harsh call note "wheeeep," no matter whether she had food in her mouth, or not. The male on the other hand was comparatively silent, but he always made use of the loud harsh note on arrival, followed by three other notes in rapid succession only in a lower key, these sounding something like "whip-whip-whip." The female gathered most of her food in the immediate neighborhood of the nest, this consisting for the most part of small insects. Only, on this, and one other occasion, did she bring a somewhat large soft green caterpillar. The male on the other hand, usually went further afield for his food supply, often being absent from the nest for long periods at a time, but when he did return, he generally brought much larger portions than his partner—the usual custom I find with males of the species so far studied—these often consisting of good sized moths and butterflies.

On four occasions, he brought a butterfly which I easily recognized as the Silver-bordered Fritillary (*Brenthis myrina*), an insect having a spread of wings of nearly one and three-quarter inches, which will give you some idea of what the young had to put up with. However I twice saw him quite easily dispose of this same insect, wings and all, at a gulp, so possibly the young were not much inconvenienced after all, especially when we are told by Prof. Herrick in his 'Home Life of Wild Birds,' 1905, p. 184, that he once saw a male water-grampus or Dobson-fly (*Corydalis cornutus*) measuring four inches from the tip of the jaws to the

extremities of the folded wings fed to a single young Kingbird (*Tyrannus tyrannus*) and it was swallowed—wings and all. On one occasion, the male remained on hovering wings at the side of the pole, whilst the female which had preceded him fed the young. Once, he chased off a Robin (*Turdus migratorius*) which had ventured to alight on the wires above the nest, but this was the only time I saw him aggressive, and this remark applies equally well to his partner, for I only once saw her drive off an English Sparrow (*Passer domesticus*) which had dared to make use of her favorite little post, just opposite the nest, and which I have already alluded to. This little post she only made use of when the young had been fed, after which, and before leaving, she would perch in the entrance hole, and from there fly down to the post. It was most interesting to watch her whilst perched in the entrance, where she often remained—quite silent—for six or seven minutes at a time, craning her neck as far as possible in all directions, in an endeavour—I feel sure—to try and locate her partner, for she always went through this same performance when perched on the outside of the hole, before going in to feed the young. Her very look and actions might have been interpreted as: Dear me, I wonder where that partner of mine can have gone to now, it is about time he was back. The day following, the 10th, saw me again at the nest, for another period of five hours watching, during which time the young were fed twenty-three times, or at the rate of once in every thirteen minutes, eighteen times by the female, and five by the male. Things went on much the same as on the day previous, the most exciting incident being the stooping of a Sharp-shinned Hawk (*Accipiter velox*) at the female, as she sat on the guide wire near the nest. I did not see the Hawk approaching, and wondered why the Great Crest made such a precipitous dive into some near-by bushes, where she remained for some time before again venturing into the open. The young could now be heard calling—for the first time—quite plainly, as I sat in my “hide out” some fifty feet away, the notes sounding like “twee-eet” “twee-eet,” given in a soft low key.

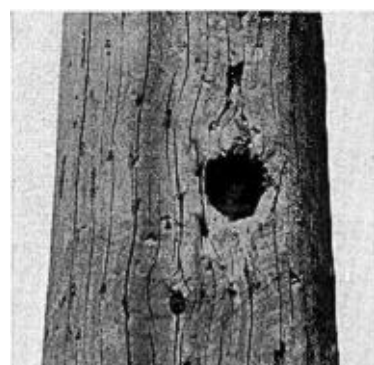
I did not visit the birds again until the 12th, the weather on this occasion being perfect for photographic purposes, and leading me to hope that somehow or other I might be able to circumvent the

male, and obtain another picture of him with a butterfly in his bill, if he again brought one, during the five hours I purposed spending at the nest. As it so happened, he was the first one to put in an appearance, and as he alighted on the overhead wires near the nest, I saw he had brought a ripe wild raspberry, the only one I had so far seen fed to the young, although, I afterwards saw him eat one himself when I was searching for the young in the open. This was interesting, as bearing out what Prof. Beal tells us concerning the food of this species, 6.3 per cent of it only being vegetal—largely wild fruit—the balance, or 93.7 per cent being animal matter, chiefly insects. Soon after this, the female fed to the young the second large soft green caterpillar—already mentioned. The most exciting moment, however, came some time afterwards, when the male brought a butterfly of the same species as previously mentioned, the Silver-bordered Fritillary (*Brenthis myrina*), but he gave me no chance of a picture, as he flew direct into the nest without a stop, and this he repeated twice afterwards when again bringing butterflies. So far, he had scored off me each time, but my turn came at last, when both birds arrived at the nest together, the female going in first, and the male—possibly owing to his somewhat unwieldy load—not hovering outside, as on July 2, but, instead, perching at the mouth of the hole, as on the 10th. As I released the shutter, I can remember saying to myself, I have you now, and I mean to get you again, as I rushed forward to prevent him from entering the hole, as the female came out. Luckily, I was just in time, and he got a bad scare, for he flew up onto the overhead wires and remained there for some time, in fact, long enough to enable his partner to gather some more insects and return to the nest, when he descended also, again perching at the mouth of the hole, and allowing me to obtain another picture of him, this time, not facing to the left, as previously, but, to the right, and with his tail fully spread, as on the 5th, and two other occasions—not hitherto mentioned—this habit of spreading his tail being apparently somewhat characteristic. Again I rushed forward, on the off chance of yet another picture, but this time he would have none of it, and almost in my very face he entered the nest, just as his partner left it, and, moreover, on leaving, actually carried away a faecal sac, thus proving what some birds will dare when they have

young to feed, whilst others, on the contrary, will not go near them, if they know anybody is at hand, or even in sight.

The female in this case was particularly courageous, often going to the nest and remaining at the entrance, notwithstanding the fact that I was only a short distance away and in full view. The rate of feeding increased on this day, the young being fed twenty-six times, or once in every eleven minutes, eighteen times by the female, and eight by the male. Whilst listening to the call of the young about noon, I suddenly became aware of an ominous and rapidly approaching buzzing which, with hardly a moment's warning, developed into a cloud of bees, apparently, intent on swarming on the willow bush under which I was hiding. Luckily, a strong wind was blowing at the time, this, no doubt, influencing them in moving on to a more secluded spot, but it is needless to say my exit at the moment was of a very precipitous and undignified nature.

The day following, I again paid a visit to the site, but owing to the unsettled state of the weather, and a heavy thunderstorm coming on, I only stayed three hours. During that time, however, the feeding of the young was a little more rapid than on the day previous, once in every ten minutes, thirteen times by the female, and five by the male. On two occasions, both birds were on the guide wire together, a thing I had not hitherto seen, the male never having made use of this perch before. It was only the female, however, who did the feeding, the male, apparently, only having come to look on, as he brought no food. Soon after this, the thunderstorm broke, and I had to leave, with the resolve, however, to come again the next day. This I did, it being July 14, or just a fortnight since the nest was discovered. On arrival, both birds were in the vicinity of the nest, and soon gave me to understand that things were going to be pretty lively, for during the first hour, they fed the young ten times, or at the rate of once in every six minutes, this rate, however, falling off somewhat later on, although, for the whole period of five and one-half hours, the time I was at the nest, it averaged once in every eight minutes. It was on this day that the female Great Crest drove off the English Sparrow from her favourite little perching post, which has already been alluded to. Once again, both birds were on the guide wire



NESTING OF THE GREAT CRESTED FLYCATCHER.

together, but on this occasion the male had food in his bill, which he ultimately fed to the young, several minutes, however, after his partner had left the nest. He again brought four of the butterflies previously described, but the female was unable to help me on the one occasion when she happened to arrive at the same time as her partner, for, he, instead of perching at the mouth of the hole, elected to do so some distance above it, and, although, I released the shutter, he must have been out of range of the lens, for he did not appear in the resulting picture. All this time, I was anxiously looking for the young to leave the nest, but it was not until about noon that I saw one of them bob up, apparently, in the centre of the hole. I took a chance with the camera, but no results appeared in the negative. About an hour or so afterwards, I came to the conclusion, from the actions of the female, who kept slowly flying past the entrance hole, that she was trying to induce the young to come out of the nest, but apparently, without any immediate results. However, some two hours later, or to be precise, four o'clock, a young bird once more appeared silhouetted in the centre of the hole, and this time I obtained a faint outline picture of it. Although I remained for another two hours, no more was seen of it, so I came to the conclusion that it would be the next day before the young would leave their home. This proved to be the case, for on arrival early the next morning, the 15th, the nest was empty and neither the old birds or the young were anywhere to be found. After a long interval, and without seeing any signs of them, I decided to extract the nest from the hole, which was eight inches in depth, by first raising it up with small sticks, and then pulling it out at the entrance, which proved by no means an easy task. However, I eventually succeeded, and was never so surprised in my life as to find it one of the most immaculately clean nests I have so far handled. Not a single mite was found anywhere, as I pulled it to pieces bit by bit. It was composed entirely of dry grass stems and rootlets as a foundation, whilst the lining consisted of four small feathers, a quantity of fine animal fur, a little vegetable fibre, but no signs whatever of the proverbial snake skin. Its average width was about six inches, whilst the approximate total depth was two and three-quarter inches. I shall never know the exact number of young it contained, although, I think it was not more than three,

this being the number I thought I made out some hours later, when I at last discovered the old birds about three hundred yards to the north of the nest. They were in a tangle of small birch-trees, willows, and other shrubs, the intervening spaces being covered with brushwood and very long grass, making it impossible to get about in a hurry, but forming a wonderful get-away for young birds. I really only saw one youngster quite distinctly at close quarters, in a small birch tree, and as it seemed disposed to remain there, I decided to risk a time exposure instead of a snap-shot, but as ill luck would have it, just as I was about to release the shutter, it flew off, and I was unable to follow quickly enough to locate it again, owing to the dense tangle of brushwood and tall grass already mentioned. What I can remember of it, however, was that its head—more especially—was perfectly free of any natal down, whilst the back and upper parts were of a darker shade than those of the parent birds, as well as being of a fresher tint. The reason it took me such a long time to find the old birds, was owing to their being perfectly silent, but when at last I did discover them, and appeared on the scene, they lost no time in warning the young, the female, especially, keeping up a constant repetition of the harsh “wheep” note. On one occasion, I saw the male eat a wild raspberry and obtained a picture of him. On another occasion—he swallowed a second Silver-bordered Fritillary wings and all quite easily making his thirteenth capture of the insect, eleven of which had previously been fed to the young. Summing up, I had been with the birds thirty-five hours, thirty at the nest, and five in the open. During this time, I had seen the young fed one hundred and sixty times, forty-two by the male, and one hundred and eighteen by the female, the average rate of feeding for the whole period being once in every eleven and one-quarter minutes.

The faeces had been carried away twenty-seven times, but how many had been eaten, of course it is impossible to say nor can I be sure how many times I may have missed seeing them being carried away, owing to the varying light at times, and the rapid exit of the birds from the hole, for they never paused for an instant at the entrance when engaged on this duty. As regards the incubation period for this species, I find it is generally given as from thirteen to fifteen days by most authors, whilst the shortest record

for the young to leave the nest that I can find, is that given by Mrs. Margaret Nice, in her 'Birds of Oklahoma,' 1931, where, on page 119, she gives a specific instance of five eggs being hatched on June 18 and the young leaving the nest on the 30th, a matter of twelve days only. On the other hand, Ora W. Knight in his 'Birds of Maine,' 1908, says on page 311, that the young are ready to leave the nest in about eighteen days after they are hatched, which more nearly coincides with my experience, for if I am right in assuming the young to have been at least three days old when I found them on July 1, they would be eighteen days old when they left the nest on the 15th. Even assuming they were only hatched on the very day when I found them, it was not until the 15th or possibly late on the 14th that they left the nest, an interval of a fortnight at the very least, this being the period given by both Bendire and Gentry in their respective works.

Looking back for a moment, it scarcely seems credible that these birds should have been allowed to bring up a brood, in view of the number of persons—mostly young ones, who knew of the nest, as on one day alone, I helped some twenty both over and under my release line. Is it any wonder then that I hesitated, at the commencement, whether to go on with the study or not?

Before concluding, I should like to draw attention to a matter I have not seen referred to so far, i. e., to the possible ventriloquial properties of this bird's voice. By this, I do not wish to imply that the bird is cognizant of the fact, and makes use of it for a purpose, but it certainly struck me on several occasions—for which reason I paid especial attention to the matter—that the bird did not appear to be in the exact spot from which the sound seemed to come. At present, apparently, there is no scientific explanation of the phenomenon of ventriloquism. To a large extent—as suggested by Mr. Aretas Saunders in his 'Bird Song,' 1929, p. 81—it may be due merely to a psychological condition of the hearer. However, be that as it may, the subject certainly seems to be attracting the attention of other observers, judging from the account given by Mr. Eric Parker in his 'English Wild Life,' 1929, pp. 107-08, of his experiences with a baby Moorhen (*Galinula chloropus*), which he sums up in the following words: "And so I discovered that a baby moorhen has the power of a ventriloquist; it can throw its

voice where it chooses, or anywhere without choosing. And is this for a purpose? Does it help to protect the little creature that if there are enemies about it can call to its mother and they cannot tell where the call comes from? I know no answer. I cannot find the fact that the young bird is ventriloquial mentioned in any book, and I know no one who has heard and looked for the bird calling."

In conclusion, I have appended a table of summaries of the principal happenings at the nest—as in former papers.

Period of Observation July 1–15, 1932.

Hours at Nest, 30.

Times Fed by Male, 42; Female, 118.

Times Brooded by Female, 2.

Times Faeces Removed by Male, 10; by Female, 17.

Average Rate of Feeding, Once in 11.25 min.

*4073 Tupper Street,
Montreal, Canada.*