

SOME OBSERVATIONS ON THE NESTING OF A PAIR OF
YELLOW-CROWNED NIGHT HERONS.¹

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The "sloo" woods, two miles south of Norman, Oklahoma, on the second flood plain of the South Canadian River, is one of the few places in that region which can be called deep woods; while most of our best bird haunts are being destroyed, this place is preserved with jealous care by the Olivers, because of their love for nature. It comprises fifteen acres of primeval trees—cottonwood, elm, black walnut, green ash, box elder and persimmon; much of the time about a fourth of the area is flooded. To some people it might seem a gloomy, forbidding spot with little but the great trees, the muddy water, the fallen tree trunks and the hosts of mosquitoes, but in reality it is an admirable and wonderful place because of the rare birds that choose it for their homes. Here it was that the only Pileated Woodpeckers we ever saw in Cleveland County wintered in 1925-26, here is the farthest west the Red-shouldered Hawk has been known to nest in Oklahoma and the most easterly record for Swainson's Hawk. This is the only place in the region where we know of the Acadian Flycatcher, the Prothonotary and Sycamore Warblers summering, while in the next patch of woods Florida Barred Owls raise their young. The most abundant breeders in these woods are the Red-bellied and Downy Woodpeckers, Crested Flycatchers, Wood Pewees, Cardinals, Red-eyed Vireos, Tufted Titmice, Plumbeous Chickadees and Blue-gray Gnat-catchers. But it was the Yellow-crowned Night Herons that held the greatest interest for me, both because of their curious ways and also because so little seems to be known of their home life.

The first *Nyctanassa violacea* in 1926 was seen in the sloo, March 20. Two pairs nested in neighboring trees about a hundred yards from the water in nests that had been used before. The upper nest, forty feet from the ground in an ash, had been adopted by

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April 6, the lower nest, thirty feet up in an elm, having been greatly depleted of its sticks for the benefit of the other. On April 19 there were at least eight Herons in the woods. The nest in the ash had young in it May 11 and 25, but was empty June 8; the young may have left in safety. The other nest had not been rebuilt April 25, but on May 4 a bird was incubating. On May 25 there were small young and on June 21 six enormous birds; four days later the nest was empty. The sloo had dried up completely in early June bringing to an end the ample supply of crawfish and frogs, so the parents had to fly a third of a mile northwest to Persimmon Pond for provender.

I did not find nests of the second brood; both pairs may have moved over to the pond. On May 25, Eugene Lutrell, who lived above the sloo, told me he saw Herons flying every evening with sticks in their bills from the sloo to the pond; these might have been the pair in the ash preparing for the second nesting before the first was finished. I saw no more Herons at the sloo, but on July 26, noted three adults at Persimmon Pond and on August 1 an immature bird.

In 1927 the first of these Herons was seen March 29 and the next on the 30th, while on April 5, three were noted in a pool in woods to the south of the sloo. At the time of my next visit, April 10, a pair had taken the higher of the two nests.

On this date I watched the nest from 8:00 to 9:00 in the morning seated on a log fifty yards to the east. The female¹ was sitting on the nest; at 8:02, the male flew into the tree and alighted fifteen feet to the south. In a minute he started towards the nest with his crest and the plumes on his wings erect; the female displayed also and rose; the male stepped in beside her, both dropped their plumes, the female yawned. Both stood perfectly still for twelve minutes, then the male changed his position so as to face south like his mate instead of north. The female preened her wing once. Both came to attention to watch a high-flying Dove. They both preened a very little. The female stepped out of the nest, stretched one wing, then the other; ten minutes later she slowly returned to the nest with her plumes up. Her mate

¹ I distinguished the parents by assuming that the female incubated and brooded at night and this proved to be true.

did not display but preened her a little when she entered the nest; she put her head under his breast. He stepped out and preened and scratched himself while she picked up twigs and dropped them. There is the most astonishing difference between the slim, sleek, quiet-looking Heron as ordinarily seen and the resplendent creature with all its plumes erected.

Five days later occurred one of the most interesting sessions of all with these birds. At 7:00 A.M. the female was incubating and the male standing a few feet to the south and a little above her. Suddenly at 7:19 he struck his bill straight up, and crouched down with all his plumes erected, uttering a loud whoop, then immediately returned to the standard Heron attitude. This performance was repeated nine times taking place about once a minute; the bird went through it quickly, nearly overbalancing himself sometimes as he made the very low bow. The female seemed entirely oblivious. He took a few steps toward her, looked down at her and whooped and bowed again, then preened himself, repeating the process once more. He then started to walk slowly and majestically towards the nest, while his mate watched him alertly. He gradually raised his crest and wing coverts and she did the same; when he was about two feet from the nest, she stepped off in a hurry, nearly bumping into him, and flew down to a fallen tree with her crest still up. He deliberately came to the nest, stepped in, sat down, stood up, turned over the eggs and settled down to brood.

In nine minutes she returned with her feathers up, he displaying in turn; he stepped off the nest and she on. A third Night Heron alighted ten feet below the nest, and stood there, but the others paid no attention to it.

On the 18th, I again watched from 7:00 to 8:00 in the morning but very little happened; perhaps the whoop and bow had occurred before my arrival. One bird was incubating on the upper nest and the mate was not present. Two Herons stood on the lower nest and I thought that I should see some courting, but here again I was disappointed. Occasionally one lifted its plumes a little and ran its bill along the neck and side of the other, which reciprocated in like manner. Each preened its own self, scratched its own self and yawned, but for the most part they stood perfectly

motionless. Both flew away at half past seven and I did not see them again, the lower nest remaining unoccupied this season. Life was so very deliberate at these Herons' nests that every yawn was important, every scratch an event.

On April 28 and May 5 I traversed the sloo and noted each time an incubating and watching Heron, but I dared not tarry as the mosquitoes were overwhelming in numbers and the most ferocious of any I ever had the misfortune to meet. Later they diminished in abundance and rapacity to a point where they could be endured by a bird lover fortified with fly-dope.

My next opportunity to visit the nest was from 5:00 to 7:00 A.M. on May 19, a cloudy, windy day. At 5:00 the female was standing in the nest, seven minutes later she settled down; at this time it was too dark to see her clearly. Since the leaves had come out, I had to leave my log and stand with my back against a tree a hundred feet from the Herons; of course they saw me plainly, but apparently they did not mind my presence. During the first hour the female alternately brooded and stood erect, preening herself to a small extent and apparently manipulating the young with her bill. The nest looked larger than it had been before. At 6:19 the male arrived and walked to the nest in a stately manner with his plumes up; his mate watched him but did not display. As he stepped on the nest, she picked at a twig, walked past him and flew off. He regurgitated into the bill of a young bird, working his throat muscles the while. He billed the young, poked and jabbed into the nest and settled down carefully to brood. At 6:28 the female returned and presented her mate with a slender twig, which he added to the nest; she stood a moment, turned and flew away. Neither bird displayed. At 7:00 the male was still brooding and the female had not returned. I went over to the nest tree and beneath it found four egg shells; the male looked down at me but made no protest.

Six days later I again watched from 5:00 to 7:00 A.M. finding the female standing erect on the nest. At 5:07 the male came to the tree and walked slowly to the nest without displaying, his mate in the meantime leaving; he deposited breakfast in the nest, the young fluttering their wings and rooting it up. He then left and took up his post in the tree to the south, where another

Heron was also perched. At 5:45 the female returned to the south tree, came to the nest branch and stood by the trunk five feet from the nest. The five young who were now clothed in juvenile plumage had been very quiet, but at their mother's approach they looked expectant and opened their bills. Soon however, they subsided into the nest and watching became slightly dull since it was enlivened by nothing but attacks of mosquitoes.

At 6:25 I thought something was surely going to happen, for the female shook herself and all five young appeared on top of the nest, stretched, flapped their wings and stepped about, one examining a twig; for ten minutes the nest was a scene of mild animation. However, the female merely preened herself a little; then at 6:38 stepped over to the nest and stood beside it, her offspring gathering hopefully about. A Red-shouldered Hawk screamed and all the Herons turned their heads in its direction, the young quickly disappearing. For the next half hour they rested, only occasionally lifting a head, while the parent stood like a statue beside them. It was a mystery to me how that large brood made such rapid growth when, so far as I could see, they were so seldom fed.

On June 2, late in the afternoon we visited the nest and found there six great young, nearly as large as their parents, all standing erect on the nest but one that crouched inside. One parent stood beside them, the other alighted near. We came close to the tree and this second adult ejaculated loudly *quáck, quack, quack, quack; quáck, quack, quack, quack*, for about two minutes, then fell silent. The other parent and the young were perfectly quiet.

June 4, I watched the nest from 4:55 to 6:25 A.M.; the female was standing near, two young were in the nest, two on the branch beside it and two near the female. At 5:09 the male came, displaying a little as he approached; he dropped the food into the nest where two young had a slight tussle over it. Again raising his plumes in the same manner he stepped away and sat in the next tree. The female flew away at 5:13 and returned at 6:00, stepping to the nest with her crest up; then without feeding the young, she returned to her favorite post one yard from the nest. I came near the tree and she uttered a low, grunty, *guck, guck, guck, guck*, quite different from the quack two days before. As

I walked under the nest she stepped about nervously saying "*wah, wah, wah.*" The young during this hour and a half had been practically motionless; they certainly practice their main occupation in life—absolute immobility—from babyhood up.

The chief interest of this visit, however, did not lie in the mild activities of this family group, but in the extraordinary noises made by a number of new Yellow-crowned Night Herons, that kept continually flying through the woods with loud and startling flaps, in the meantime uttering uncouth cries.

My last visit, June 7, from 6:30 to 7:30 P.M. was most rewarding. During the first 40 minutes there was little to see for the young, five on the nest and one nearby, stood like Patience on a monument and the most profitable thing to do was to record the astounding squawks that came from the visiting half dozen or more Herons.

At 7:10 the male came to the tree to the south, but did nothing at all except a little preening and scratching of his head for ten minutes; then his mate arrived. At once both displayed so near to each other that they bumped breasts and she was knocked off, alighting five feet to the west. He then went through his song and dance as he had done on April 15, the young in the meantime becoming excited, walking about, and all voiding excrement. The male whooped and bowed again while the female went near the young who climbed about from branch to branch. She then walked rapidly to the nest and stood there; four of the young hurried to it, crouched down and worked their bills in the bottom, one fluttering its wings. She disgorged twice into the nest and flew to a perch ten feet to the south while the young gobbled up their repast. The male performed once more and then flew away. I went near the nest for a last look and the female objected with a low and grumbling note—*wok, wok, wok.*

There had been so much rain this season that the water in June nearly reached the nesting tree. Mr. Fred Oliver found this pair nesting again three hundred yards to the north of their first nest, sixty feet up in an ash; on August 8 there were five large young in the nest and nearby. The other Herons could not have stayed long as he wrote he never noticed them.

As to the notes of these visitors, I recorded twenty different

utterances and the interesting point about them was their variability in pitch and tone. Some were sharp, even shrill: *wak*; *ick*; *ark*; *owk*; *yack*. A common note was a gruff, loud *owk* which I sometimes described as harsh and angry and again as very loud, sudden and disagreeable. There was a low, grunty *walk*, *walk*, *walk*; a similar *wok*, *wok*, *wok* and a subdued *guck*, *guck*, *guck*, all somewhat like the alarm notes of the nesting female. There was an annoyed *gowk*, *gowk*; a gruff *jack*, and a low *pedóre*—a kind of a quawk. Other sounds which I recorded without annotations were *yowk*, *yowk*; *quork*, *quork*; *wowk*, *qwowk*; *quock*, *quock*, *quock*; and *cawk*, *cawk*, *cawk*, *cawk*. But the best of all was a deep, low and most expressive *woe*, which was at time prolonged to *woe-ugh-ugh* and *woe-oh-oh*.

It was with a great deal of pleasure that I learned from Mr. Oliver that on June 10, 1928, there were five pairs of these Herons nesting in the woods; the young had already left from one nest, and were nearly ready to leave the others.

SUMMARY.

1. The male Yellow-crowned Night Heron has a special display when courting and during the early days of incubation, viz. a very low bow with all plumes extended and a loud whoop uttered with his bill pointed straight up.
2. The egg shells were dropped below the nest both in 1926 and 1927.
3. These Herons were very quiet around the nest, the only notes I was sure came from them were the "whoop" and four kinds of alarm notes.
4. In two cases six young were raised; in one, five. The nesting cycle from the building or adoption of the nest to the leaving of the young lasted about two months.
5. In early June of 1927 there were six or more visiting Yellow-crowned Night Herons that uttered the most extraordinary variety of squawks.

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