

## HABITS OF THE LIMPKIN IN FLORIDA.

BY DONALD J. NICHOLSON.

*Plate XI.*

I HAD been searching for the nests of the wary Limpkin for many years but it was not until April 12, 1922 that I found my first occupied nest of this quaint bird. My companion, Fred Walker had shot a Louisiana Heron for mounting and the dead bird fell in the saw-grass close to me, startling a Limpkin which flew silently away. Thinking that this probably had a meaning I went to the spot from whence it arose and in a cluster of saw-grass found the nest imbedded in the clump with four eggs slightly incubated. The nest was composed entirely of dead saw-grass blades, deeply cupped and well concealed from view when a foot away. The site was a huge marsh miles in extent with patches of saw-grass, willows, lily pads, and grass, leading from Lake Apopka, in Lake County, Florida. The nest-clump was on the edge of open water, giving the bird a view and a chance to escape in case of danger. This is the usual position chosen.

There are a few pairs of Limpkins in the big marshes around this lake but they are by no means common. Several years before I had explored the Wekiwa River which runs between Apopka and Sanford in Orange and Seminole counties and found several old nests built up in the overhanging branches of trees along the river containing egg shells which I identified as belonging to the Limpkin. Years ago the Oklawaha River was a favorite breeding ground but few are now to be found there.

It was not until April 27, 1925, that I found a secluded, wild spot where Limpkins were to be found in considerable numbers. On this particular day it rained practically all day and my guide and I waded through mud and water for four hours searching for the nests. This was in the big St. Johns Marsh at the head of the St. Johns River where the Everglades begin. The marshes were many miles in extent and so similar that it was an easy matter to become confused and lost. The birds were breeding in the flags,

grass and saw-grass which were surrounded by hundreds of clumps or islands of myrtle.

We found five occupied nests which held five and six eggs and one with eight eggs. Two distinct nesting-sites were used. The majority of the birds nesting in the grass or among flags with the bottom of the nests touching the water, with no concealment from above. Invariably the nest was placed on the edge of an alligator cave, whether it was in saw-grass, or among grass or flags. This custom is undoubtedly one of protection against racoons or other animals which can smell the alligator and dare not venture too near, at least this is what I attribute this habit to, but nevertheless we found that three of the nests had been rifled and the eggshells scattered nearby. The partial sets were being cared for by the parent. I believe the eggs were broken by water-rats which are numerous and not by Crows as the latter usually carry the eggs away and do not eat them at the nest.

On this date some eggs had hatched and the young had gone. My guide told me that in comparatively dry seasons the birds nested mostly in the grass or flags on top of the water, but when much rain occurs and the water is high the saw-grass clumps are utilized. The nesting grounds are generally out about a mile from the edge of the marsh and thence on many miles beyond.

On the trip it was impossible to take any pictures because of the rain, and I was especially desirous of obtaining photographs of nests touching the water as this form of nesting, I believe, is known to but few ornithologists. So late in March 1926, I arranged to take an eight day trip with this same guide to this same locality. This time I arrived right in the midst of the breeding season and everything was in full swing. March evidently is the height of the nesting season, or at least it was this year, and I had the opportunity of examining full sets, partial sets, nests in construction, young just emerging from shells, and young swimming. As these young had left the nests several days prior, the birds must have commenced nesting by the middle of February.

The number of eggs ranged from four to eight in complete sets, but only one this year was found with eight eggs, although three nests were found with seven. Six was the common number. Several nests were found with young emerging from the shell but



Photo by A. A. Allen.

1. A FLORIDA LIMPKIN OVER IT'S NEST.

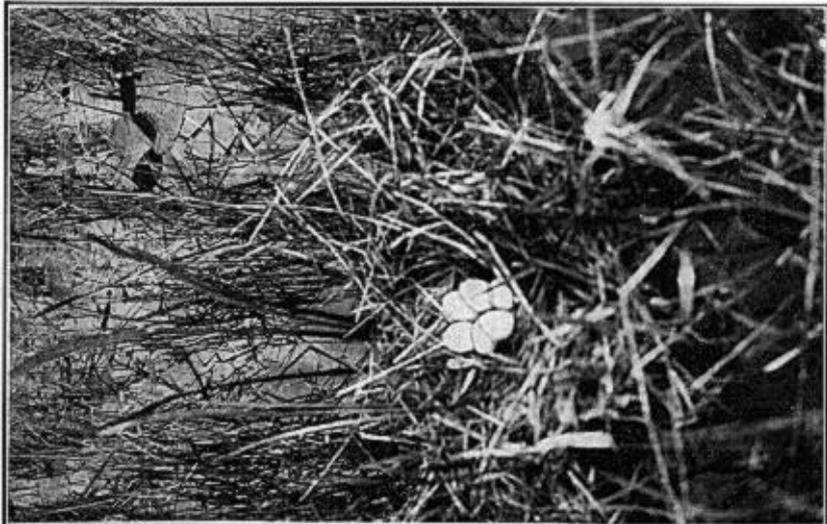


Photo by D. J. Nicholson.

2. NEST AND EGGS OF LIMPKIN, BREVARD CO., FLA.

it was raining each time, and desiring pictures of young in the nest, I returned next day, only to find that they had left to explore their new world. It is interesting to know that the eggs are not sat upon until the last one is deposited, in practically all cases, regardless of the size of the set. This is in direct contrast with the Purple Gallinule which commences to incubate as soon as the first egg is laid. Whether the sun is too strong for their eggs, as the Gallinule seldom has shelter for its nest, or because its eggs are often eaten by Crows I cannot say, but I believe it is due to the latter cause. However, nearly every set of Gallinule's eggs taken, shows a wide variance in the incubation, while in those of the Limpkin it is about equal in each egg. It might be well also to compare eggs of the Wayne's Clapper Rail to those of the Limpkin. This Rail like the Gallinule begins setting before all the eggs are laid and shows great difference in incubation in many sets examined. Limpkins differ from Clapper Rails in the matter of the disposal of empty egg shells. The former leave the shells in the nest after the young have gone, but the latter do not, and no shells are found. The Gallinule leaves its shells in the nest.

Limpkins are not suspicious about their nest, as was proven in two cases where partial sets were collected. Having occasion to return next day, I took a look at the nests and found that another egg had been deposited in each nest. In this respect they differ greatly from the Clapper Rails, for they desert the nest and break the remaining eggs.

There are two types of Limpkin eggs; a light grayish-white ground-color and a buffy-brown type, the shades varying slightly in different sets between these two colors. The markings differ greatly, and quite different patterns occur in the same set, but I have never found light and dark-colored eggs in a set. Shapes vary considerably from long even-ended eggs, to almost spherical ones, but most have blunt points. The shell is smooth and with a slight gloss in most cases, whether fresh or incubated, but some eggs will be found with no gloss.

When you invade their domain your presence will be announced by the loud weird cries of the birds, which carry for a considerable distance, when uttered from the top of some bush or while in flight, and are constantly repeated until you leave the territory.

They rise from the ground and do not have to get a running start like the Sandhill Crane, and with a quick upward stroke exactly like a Crane, fly low over the water and alight on some bush or elevated spot, sometimes crying as they go. Early in the morning the marshes resound with their peculiar cries, and they call throughout the day, especially before rains. All through the nesting season their calls are heard at night everywhere over the marshes and seem even more incessant than by day. In flight, which is slow and measured, the legs are kept straight out behind with the neck stretched full length, and you would have to take a second look to be sure the bird was not a Crane.

Limpkins nest in colonies but the nests are not really close together, though at times you will find three or four around one waterhole. In one particular colony near Fellsmere they nested mostly in Myrtles, growing in water, the nests being a few inches above the water. These nests were made of dead myrtle sticks and were lined with a few grasses or unlined, with the eggs lying on the bare twigs. This type of nest prevailed in this particular district as the water was higher at this place and heavy rains frequent, which accounted perhaps for the tree-nesting habit. However, several nests were found in saw-grass clumps, but in all cases on the edge of the myrtle clumps, or on the edge of saw-grass patches, giving a clear view for the sitting birds.

Sitting birds were rarely flushed; they either flew off the nest while you were at quite a distance, or else sneaked off unseen. Several times however, a female flushed at a distance of eight feet from a nest containing incubated eggs and also, from fresh eggs. If young are about, they will use the trailing wing ruse and endeavor to lead you away, and in one instance during a severe downpour of rain, I came upon a Limpkin mothering young on top of grass over the water. She uttered her call notes rapidly and fluttered around close to me, while the black, downy young swam to hiding places. This was about April 4 and the young were about a week old. Two other nests contained seven eggs each which were hatching.

The young are very similar in color and general appearance to Rails and Gallinules. They are shiny black with soft silky down, dark mandibles, legs and feet.

Limpkins are found only where a certain species of snail breeds as it constitutes their principal, if not their sole food. However, as I have never examined the stomachs of any specimens I cannot say positively. Scattered over the expansive marshes in their domain, one finds piles of empty snail shells here and there on top of grass where it has been bent down to support the feeding bird, but never have I found an empty shell in a nest with eggs unless they were hatching. This I saw once and it seemed evident that the young were being fed upon snails at a tender age. As the Everglade Kite feeds solely upon these snails the two species are frequently found nesting together, and, apparently, without discord. I have never seen the Limpkin in combat with any other species, nor have I seen it quarrel with its own kind. Evidently it is not of a pugnacious nature. The Horned Owl is likely its only feathered enemy.

The breeding period probably ends in May, as my guide who is in the marshes much of his time, stated that they were through laying by June and no nests were found that late.

As long as the snails have a chance to breed, the Limpkin will exist as it seeks the wildest and most remote places to nest, and we shall have this bird with us for many years to come unless the ingenuity of man contrives a way in which to reclaim all our watered areas. That is not probable, and barely possible. We have plenty of tillable land without trying to reach out for more, but "progress" supersedes ornithology, and our voice of protest is drowned, when it comes to fighting the millions of dollars used by the capitalists in their drainage projects in Florida.

Dr. A. A. Allen has kindly consented to my using his excellent picture of the Limpkin leaving the nest, which was taken in Brevard county.

*Orlando, Florida.*