

NESTING HABITS OF THE EVERGLADE KITE IN
FLORIDA.

BY DONALD J. NICHOLSON.

Plates III and IV.

It was not until April 17, 1925, that I had the pleasure and great satisfaction of seeing for the first time a live Everglade Kite. I was born in Orange County, Florida and have collected since 1903, and for the past sixteen years have constantly searched for this Kite on various trips into south Florida, but always failed to find this beautiful rare species. The cause of my failure to locate this bird is quite evident to me now, namely that I never searched in localities peculiarly adapted to it.

My notes read as follows: On April 17, 1925, southwest of Malabar, Brevard County, Florida, I saw for the first time a living female Everglade Kite, sitting on a surveyor's stake, in the water of the big St. John's marsh. As we neared the stake it flew up, hovering in the air a moment, dropped a snail it had been feeding upon, then sailed off like a Marsh Hawk to a myrtle clump, alighting in the top. As we passed, it flew out towards us in curiosity, circling low overhead as my guide whistled to attract its attention. It made no audible sound whatever the entire time it remained in the vicinity. Deciding that there must be a nest nearby we climbed to the top of a myrtle to await developments and watch the bird's movements. As I sat there watching, she flew low over my head, circling several times, then flew to another stake in the marsh, remaining about twenty minutes, when two more females arrived from a northerly direction and they, like the first bird, flew around me unsuspecting. Soon all three flew towards the south and were lost to sight, having never uttered a sound.

This was my first experience with the Kites and realizing that I was warm on the trail, I inquired of an alligator hunter, who told me to my great delight, that he had recently seen a number of Kites building nests about thirty miles southward. He also told

me of another place but said that someone had set fire to the sawgrass there and destroyed several nests with young.

Acting upon the information that Kites were still building, I made preparations to visit this place and if possible locate a nest.

My guide and I left Malabar about eight-thirty A. M. on the 27th of April, reaching our destination late that afternoon, and it might be well to describe part of this trip.

The birds nest in the extensive St. Johns Marsh that covers many miles, and to find the nesting place of so local a breeder is like looking for a needle in a haystack. The seven mile hike from the edge of the marsh to the nesting place was a terrible and strenuous ordeal taxing our strength to the utmost. We had to leave our car, and carry on our backs, cameras, blankets, canned goods and utensils enough to last for two days, and trudging through mud, water, and tangled grass for that distance, one can imagine such a trip. The weather was very hot, which added to our discomfort, but nothing could daunt us, with the prospect of seeing Kites in their nesting haunts, and perhaps securing some eggs and photographs.

When out about six miles we saw our first Kite, then another and another, until we had seen about seven, so we watched them patiently in hopes of locating nests. But at this point we found none, and it seemed to be a feeding place, as snails were abundant and the Kites could be seen sitting on dead stubs, and in the myrtle bush tops on the watch for moving snails. Some flew low over the marsh, dropping down to snatch up a snail, and if successful they continued westward. Several curious ones flew to us, circling low overhead, flying around and around until almost lost to sight, high in the air above.

As all the birds seemed to fly westward and return from that direction we concluded they must be nesting farther on, so acting upon this assumption we continued. Having gone about half a mile, I saw several Kites some distance out in the marsh near a Heron rookery, and several minutes later to my surprise, a female "snail hawk" flew from a clump of sawgrass fifty yards away, and then to the dead top of a myrtle growing in water. My guide saw it also and suggested it was merely feeding, but I was not overlooking any chance, so I plunged in, excitedly making

my way to the spot, and was pleasantly surprised to look upon my first nest of this elusive bird, built among the tall saw-toothed leaves of a round clump of sawgrass, well concealed. The nest was composed of dead twigs of myrtle bushes lined with a few green leaves of the same, as was generally found to be the case. The site was on the edge of open water near a patch of tall sawgrass where no myrtles grew. Several other species were breeding close around, such as Boat-tailed Grackles, Green Herons, Least Bitterns, Red-winged Blackbirds, and there was a nest with six eggs of the Purple Gallinule within twenty-five feet of the Kite's nest.

The nest contained two badly nest-stained eggs, which proved to be incubated about twelve days and as a bit of eggshell adhered to one of them it was evident that there had been originally three eggs, broken by the sitting bird or other agencies.

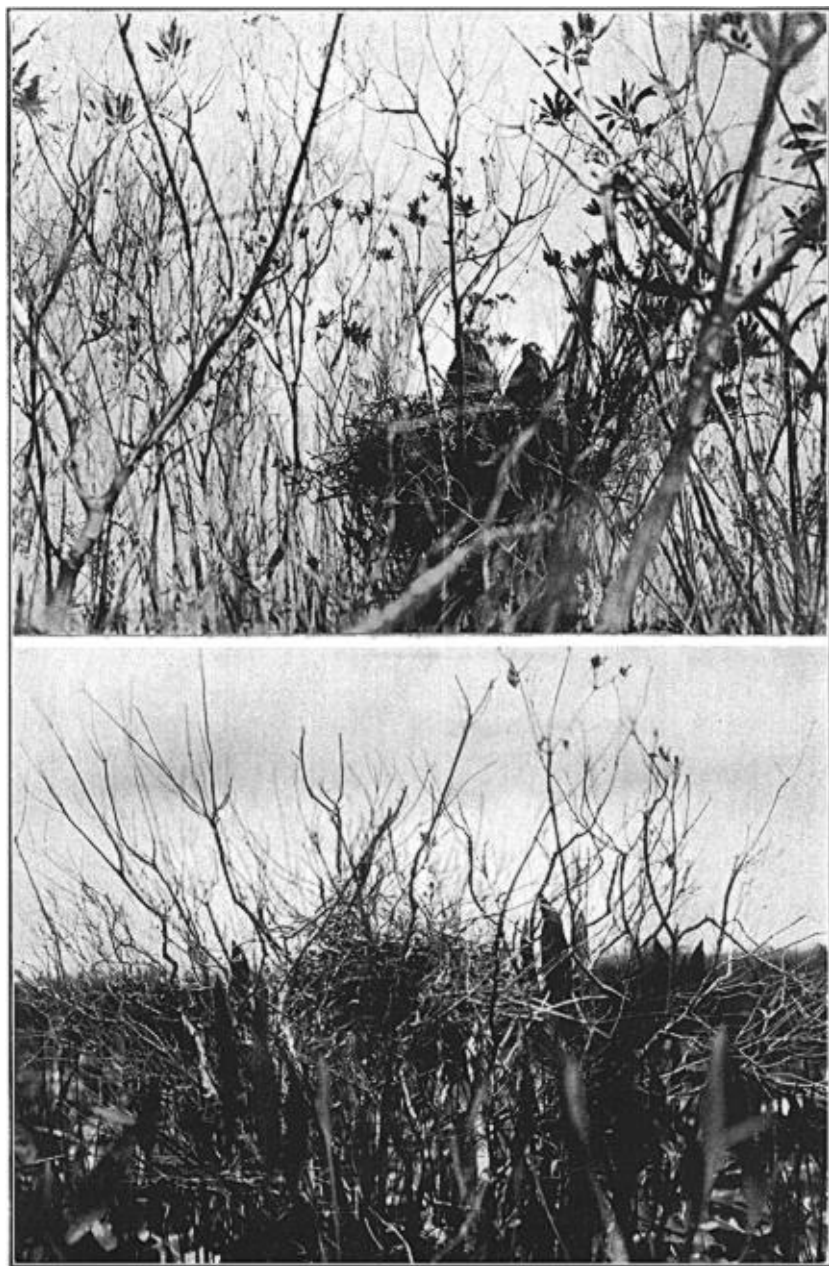
The nest was a fairly compact structure, about one foot deep, and fifteen inches across, with a hollow for the eggs, three and one-half inches deep.

Upon nearing the nest the female flew towards me with a cackling note similar to that of an Osprey, but finer in tone, and not so loud. Soon the male appeared, scolding with notes exactly like those of the female. At times they both circled around together, again only one flew around while the other sat perched on a myrtle nearby.

We sat on a knoll a short distance away eating our lunch and all the while this performance was repeated. While the coffee was brewing I took several snap shots of the flying male and female which turned out fairly well.

After collecting the eggs, we went in search of other nests which we had every reason to believe must be close by, judging from the actions of the birds seen in the distance. Within half a mile there were three Heron rookeries, consisting of Louisiana, Little Blue, Ward's, and Green Herons also Egrets and Water Turkeys; among these nested the Kites. The marsh at this point consisted of many patches of sawgrass interspersed with clumps of myrtle bushes, and the Kites would invariably choose a dead myrtle hidden among the sawgrass in preference to a live tree.

In three instances they built in sawgrass clumps; one of these



Photos by D. J. Nicholson.

NESTS OF THE EVERGLADE KITE (*Rostrhamus sociabilis*) IN MYRTLE BUSHES OVER WATER, ST. JOHN'S MARSH, BREVARD CO., FLORIDA, MAY, 1925.

nests was deserted before completion, but all others were built in dead or partly dead myrtles, from three feet to seven and a half feet above water.

As we approached the colony the birds came to meet us with cackling, scolding notes, but never showed any attempt to attack, or to swoop at intruders. As we moved about, the Kites both males and females perched in the tree tops; ten were seen at one time, and some would be hovering above scolding.

On April 27, the following observations were made: One nest with two eggs; two nests with three eggs; one nest with one young twelve days old and one infertile egg; one nest with three young a week old; nest with three young about six days old; another nest with three young about twelve days old; and three nests building. Three young just out of the nest and on the wing were seen flying about being fed by both parents.

There were two separate colonies about one hundred and fifty yards apart, and the first nest found was the only isolated one. On April 28, the pair belonging to the isolated nest were present, scolding and flying about over it.

Several old nests found were filled with empty snail shells, and around the base of the nest tree there must have been 300 empty shells. At none of the occupied nests did I find shells, either in the nest or below, showing that the birds carry them away. I saw shells dropped several times as the parents flew from the nests.

When a nest was found with young, the little fellows would remain perfectly quiet and still; sometimes one would squat in the nest as if to hide. The note of the young birds is hard to describe but is much different from that of the adult.

The male is a very beautiful bird, quite different in color from the female—a uniform deep slaty blue throughout, with the exception of a large white patch on the rump; the feet and legs are orange colored as is the bill, and the eyes are red. In the female and the young in nest the eyes are brown.

The female is fuscous with a streaked breast and white about the sides of head and a white rump patch; the feet are not as brilliantly colored as in the males. The young are very similar to females with the exception that they are brighter in color, a

richer chestnut, and also show the white rump patch while in the nest. The young have *no white* except the rump patch.

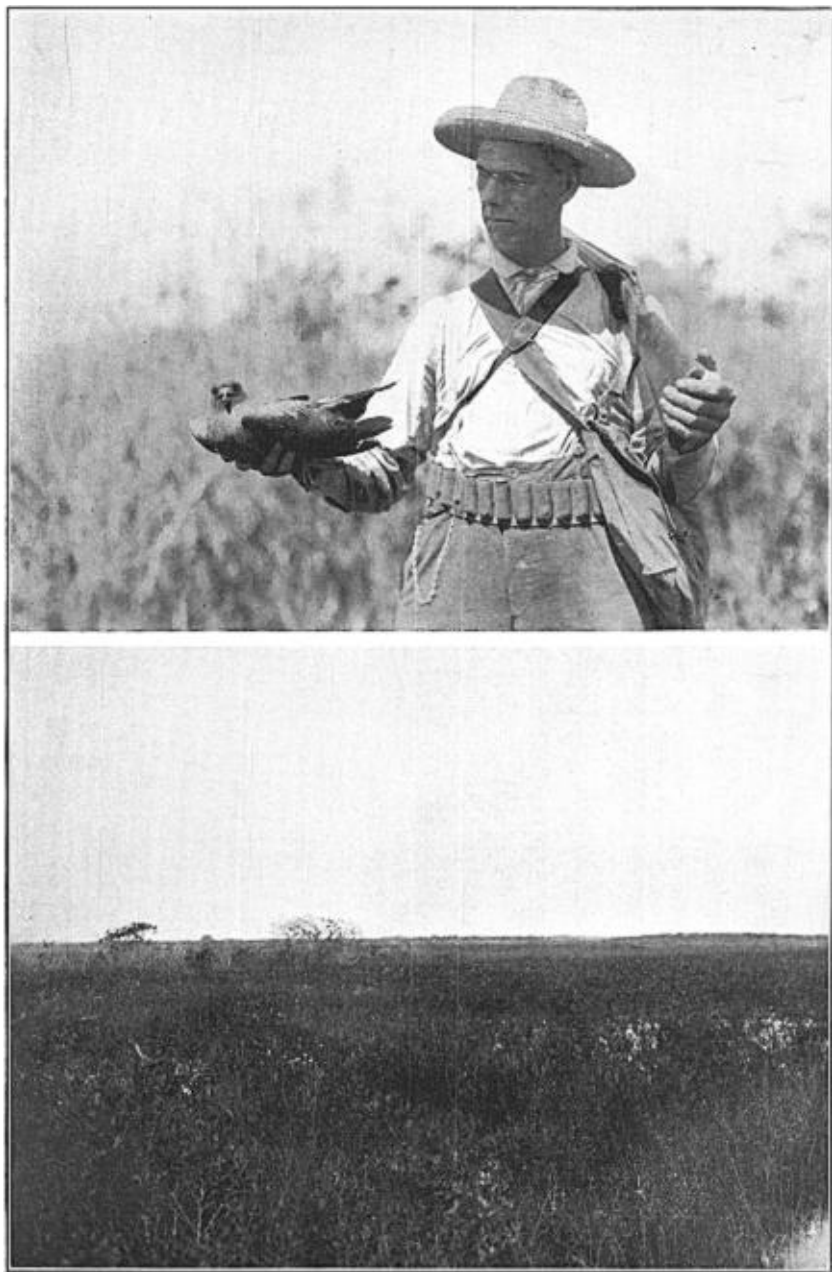
The food of both young and adults consists entirely of snails as found by examination of five stomachs of both young and old. Their prey is caught either by pouncing down upon it or else sitting quietly close to the water's edge and snatching the unsuspecting snail as it appears on top of the water.

The snail is eaten either while on the wing or more often while perched on some snag in the top of a bush, in old nests, or even while sitting on the vegetation. I have seen Kites extracting a snail while flying, and also while perched. The method of carrying food is either in the claws or in the bill. I saw them employ both.

The flight of the "snail hawks" is leisurely, and never seems hurried, reminding one of the marsh hawk. The wings are pointed downward in flight, reminding me of the Osprey, and when a female is perched it looks very similar to the Osprey; in fact, I took my first Kite to be of that species, so closely did it resemble one, but upon flying the difference in size distinguished the bird.

On May 12, 1925, I was visited by my friend A. H. Howell, of the Biological Survey, who was very anxious to see Kites nesting and if possible, secure several specimens of young and old birds. So on the above date we started out again for this interesting haven of birds, and spent two days in the marsh. That night it rained practically all night and all we had for shelter was a mosquito bar, so you can imagine what a wonderful night we spent, out on that mound in the vast marsh with a den of alligators within thirty feet off to our right and snakes of monster size all about us. The next morning we arose stiff and sore, but after several hot cups of coffee we felt like tackling the job. One four-foot alligator was passed within six feet and never offered to move; perhaps I was the first human it had ever seen, but I didn't feel any too secure, as he was too near for comfort.

On the twelfth we found one Kite nest with three heavily incubated eggs in a dead-topped living myrtle about seven feet above the water, in a dense growth of myrtles in a patch of sawgrass; the bird was not seen to leave the nest. A second nest was found with two heavily incubated eggs, but in an entirely different situation. This was built out in an open space in a lone dead



Photos by D. J. Nicholson.

FIG. 1. A. H. HOWELL WITH EVERGLADE KITE (*Rostrhamus sociabilis*).
FIG. 2. NESTING GROUND OF EVERGLADE KITE St. JOHN'S MARSH,
BREVARD CO., FLORIDA.

myrtle, two and a half feet above the water, and one could not see this nest until right upon it. A Kite was seen to rise out of the marsh at this point and curiosity prompted me to go to this spot. While the nest was being photographed she sat in a myrtle bush seventy-five yards away, scolding, and once flew over the nest. One other old nest was found in a similar situation.

The two nests found on this date were not second layings of those molested on the first trip for the birds could not have built nests in that length of time, nor could the incubation have been so advanced. Both sets must have been deposited shortly after we left on April 28. This proves that this species does nest in May, and it would have been towards the first of July before young would have left the nest.

On April 27, young Kites six days old were in the downy stage, and upon our return May 12 they were practically fully feathered and would have likely been able to fly by May 20. They showed a remarkable growth in sixteen days' time.

On May 13, we searched again but no nests were found, but on the 14th we saw five Everglade Kites feeding along the "fill" on the Kissimmee-Melbourne road about seven miles west of Melbourne, and it is very likely that they are to be found much to the northward of that point, for the marsh runs a considerable distance north.

In conclusion I will say that the Everglade Kite has a splendid chance to flourish and increase just so long as the marshes are not drained, for the snail is the sole food of this rare bird, and if drainage is complete in this region the chances are that they will move to the northwest, to suitable places in Lake County. If they do not, they will be starved out. But it is my opinion that there will be large enough wet spots for snails to breed even though irrigation is carried to the extreme. So there is hope that for many years to come we shall be blessed with this quaint bird as well as the Limpkin which breeds in places close by the Kite colonies.

Orlando, Florida.