

West Sister Island  
Home of the Herons

The increasing incidence and numbers of certain herons in the Ottawa National Wildlife Refuge and Magee Marsh Wildlife area complex in the last four years peaked my interest last summer in West Sister Island.

Snowy egrets and cattle egrets plus ibis, little blue herons and Louisiana herons were all suspected of breeding on this island. (See table of occurrence in appendix A.)

Of course there are 22 islands in western Lake Erie some of which have reported heron populations but West Sister Island is the closest (14km) to this marsh complex. For example, cattle egrets were first reported nesting on Pelee Island on July 11, 1975 (15 to 20 nests)<sup>1</sup>. Great blue herons, black-crowned night herons and great egrets have been reported nesting on East Sister and double-crested cormorants on Big Chicken<sup>2A</sup>. However, 95% of the heron flight lines from the marsh complex go to West Sister Island<sup>2B</sup>.

I made two trips to West Sister Island in 1982: June 26, and July 2. I was totally unprepared for what I found on the first trip. I had never before been in a heron colony. Some kind soul had told me to wear a hat as the young night herons had a habit of regurgitating on those passing under but they didn't tell me of the awful fish smell when struck on the hat or back with these missiles.

Five of us had planned this trip and acquired the necessary permission but the waves were 2 to 3 feet on the big day so only two of us boated the 8½ miles to the island. The nauseating and body jarring chop of the waves should have been sufficient warning to me (as it must have been to those with more experience who stayed home).

The island is best described by Scharf<sup>3</sup>:

"West Sister Island is an island of approximately 34 ha in Lake Erie, 14.5 kilometers from the Ohio shoreline and is composed of glacial fill on top of a limestone shelf. The limestone shelf protrudes along the edges of the island, and in one case forms a crumbled rock beach. The soil contains a great amount of clay and loam. West Sister Island is in the Ottawa National Wildlife Refuge and has also received protection as a Wilderness Area. Tall hackberry trees are the predominant vegetation on the northern and western parts of the island. In these hackberry trees (nest the great blue herons and great egrets). Rarely, other species of trees, including elm and oak, are found among the hackberry trees. The understory vegetation includes Canada rye along the perimeter of the island, along with jack-in-the-pulpit, burdock, and poison ivy. Intermixed are some false solomon seal, some very small (shrub-size) Kentucky coffee bean trees, a few small chokecherries, and some extremely large jewelweed and figwort. Fleabane, catnip, wild lettuce, mullein, nightshade, chickweed, herb robert, curled dock, "nettle," and bedstraw were also found in the understory. Toward the nesting area of the great blue herons and great egrets, a great deal more of the polkweed is evident, growing to great heights of 2 m, along with stalks of poison ivy over 3 m tall. There are also some small areas of blue grass and other small openings with sumac, Virginia creeper, and

milkweed closing in, apparently through normal plant succession, at a rapid rate.

Toward the south and east of the island toward the lighthouse, a change in vegetation is apparent, and it is in this one-third of the island where smaller hackberry trees are found, as well as a large number of mature but short plum trees. This area was completely open when the lighthouse keeper had rabbits here. . . . black-crowned night herons are found nesting here. The understory of the black-crowned night heronry is particularly devoid of vegetation because of the thickness of the overstory and perhaps because of droppings from the birds. Historically, the island was nearly cleared of vegetation by former agricultural practices. After the farmers left the island, the lighthouse keeper had rabbits which kept at least the southern and eastern one-third of the island relatively free of woody vegetation. The rabbits persisted even after the lighthouse keeper left the island prior to World War II. When the island first became accessible after the war, after its use as an artillery range, the nesting herons and egrets were noted by Laurel Van Camp. It is important to realize that there is continued ecological succession of plants occurring on this island and that as the succession moves to taller trees, the black-crowned night herons area will be diminished. Also occurring at the same time is a loss of openings important as staging areas for herons and egrets."

Jack Ross and I landed on the island at the crumbled rock beach. We saw many herring gulls and their young around the limestone shelf edges of this part of the island. (Estimate, method unknown, of Parris<sup>4A</sup> in 1978 was 299 pairs.) Upon stepping onto the shore any part of our bodies not covered was set upon by swarms of black biting flies. They actually covered the backs of our hands and circled our faces much as a beekeeper must experience. They also bit through single layers of clothing. We immediately climbed to the top of the lighthouse to avoid them. It helped some and gave us a view over the tops of the smaller hackberry and plum trees. We saw little heron or egret activity in the air and could not see through the canopy. This was not surprising as it was about 11:00 a.m. and in general herons and egrets are more active during early morning and evening surveys (6:00 a.m. to 8:00 a.m. and 6:00 p.m. to 8:00 p.m.)<sup>2C</sup>. However, flights in July are the highest of the season<sup>2D</sup>. (Conversley less time is spent in the colony during this month by the adults than any other time during the breeding season <sup>4B</sup>.)

Jack remained at the top of the lighthouse to observe flights while I explored generally the island under the canopy.

Once under the canopy the flies became tolerable. The island was as described above. The black-crowned night heron colony was in the smaller hackberry and plum trees in the one-third of the island nearest the lighthouse. I found no openings of any size remaining in this vegetation. As I walked northward across the island under the canopy I came to the tall hackberry trees. As I passed through an area of intergradation of vegetation where the taller hackberry existed with the smaller tree I found great egret nests but no great blue heron nests. The great egret nests began at or in the edges of the night heron colony. Some great egret nests were low in the smaller hackberry but once in the intergradation

zone them seem to prefer the higher mature trees. This zone gave way to all mature trees which also included great blue heron nests. The majority of the great egret nests were in this area. Uprooted trees in this area made passage more difficult and the vegetation under the trees was thicker than the smaller hackberry. Apparently, a severe northeast storm on May 25, 1979 uprooted about 5% the trees in this area<sup>2E</sup>. Here in the major great egret - great blue heron colony I saw my first adult cattle egrets. There were approximately two or three adults in breeding plumage sitting singly on the uprooted trees. I tried to follow them thinking that their nesting colony was in this area (it wasn't) but they were wary to my approach and flew to other parts of the forest. Later, on my return through the night heron colony I found a small colony of cattle egret nests. You can't see up through the canopy in the night heron area, but there was a small open area immediately before the cattle egret area which allowed me to see several adult cattle egrets roosting above the canopy very near to where I found my first white young in the low nests usually occupied by the brown young of the night heron. I was excited but my time was running out. I hadn't seen Jack in four hours and he was my transportation. I took the remaining two pictures on my roll and made a straight line from this area directly to shoreline to mark the location. Once inside the canopy, it is difficult to keep any bearing of direction due to the sameness of the vegetation.

The flies again greeted me and I made a beeline (flyline?) to the top of the lighthouse where I ate lunch. I was wondering where Jack was when his boat pulled up. The flies had driven him to walleye fishing off shore. He pointed to an area where he had seen an adult snowy egret enter the canopy. It seemed to be the same area where I had seen the nest with the white young. I made plans to return.

On July 2, I returned alone prepared to census accurately as possible the black-crowned night heron colony. I had hoped others could come with me to help with the job but no one was available. The flies for some mysterious reason had subsided. I arrived at 8:00 a.m. on the island and entered the black-crowned night heron colony.

#### BLACK-CROWNED NIGHT HERON

Inside the canopy all but a few of the young birds were out of the nest and "clambering among the branches"<sup>5</sup>. It was near the end of the breeding season as young night herons first fly at about six weeks<sup>6A</sup> and only 208 live young remained in 1300 nests. Of these nests only 17 of them had young actually in the nest. The remainder of the young birds were out on branches near the top of the canopy. Not once did I see an adult night heron.

Night herons are not big on nest sanitation. Most of the defecation occurs on part of the nest, the branches of the nest tree and the ground beneath. The canopy was thick enough to exclude most direct light. The height of the canopy seemed about twenty feet and the nests ranged from six feet from the ground to the canopy. I made no direct measurements. Predators such as racoons, foxes and muskrats are not a problem, as they are not common on the island since it lacks their suitable habitat<sup>7</sup>. Many trees and shrubs had multiple nests but