BANDING HERONS IN APALACHEE BAY, FLORIDA

By Horace Loftin

Apalachee Bay is a poorly defined, wide, shallow bay on the Gulf of Mexico about 25 miles south of Tallahassee, Florida. Its western extremity is Alligator Point (Franklin County), site of the Florida State University marine laboratory; and its eastern extremity is approximately the mouth of the Fenholloway River (Taylor County). At its deepest, the bay is only about 20 feet at mean low tide. Broad stretches of the bay contain sand, mud and oyster reefs which are exposed at low tide, furnishing ideal feeding conditions for wading birds. The shoreline is largely one vast marshland which blends gradually into a broad, wild area of fresh water swamps and woods. The 65,000-acre St. Marks National Wildlife Refuge, famed for its abundance of herons, ducks and other water birds, is bordered to the south by Apalachee Bay.

Within the bay itself are several diminutive islands, built of old oyster bars and with marsh on their sheltered sides. These are scarcely above the high water mark, but their age is evidenced by the presence of Indian potsherds found on some of them. Three of these islets - Gull, Smith, and Palmetto - lie about a quarter of a mile from Shell Point in a small area called Oyster Bay. It was on the smallest of these, Palmetto Island, that I banded more than 400 nestling and fledgling herons in three short visits in 1959 and 1960.

H. L. Stoddard had reported a heron rookery on Gull Island and had seen the Cattle Egret nesting there. So on June 11, 1959, Storrs Olson, Lovett Williams and I made an exploratory trip to these islands to see what the prospects for banding might be. We found nothing on the largest and most seaward of the islets, Smith Island. Gull Island had no nesting birds, but old nests were abundant in the low bushes, indicating a rookery there in recent years. However, the small, horseshoe-shaped Palmetto Island was alive with birds. We did not have bands with us, so we had to be content with counting young birds on that first trip: some 500 Louisiana Herons, 100 Black-crowned Night Herons, 50 Snowy Egrets, and 10 Little Blue Herons. We saw several Cattle Egrets, but could not locate their nests. There were also about 100 young Laughing Gulls in nests on the higher marshland.

I was not able to return to Palmetto Island until July 3, 1959, at which time Storrs Olson, George Kontis and I banded 38 Snowy Egrets, 35 Louisiana Herons, and 10 Black-crowned Night Herons. The Laughing Gulls had already left the nest at this time. This was only half the job, however, for we had only covered part of the nesting area when we ran out of bands. We finished the task on July 6, 1959, banding another 75 Louisiana Herons, 25 Snowy Egrets, and two Black-crowned Night Herons.

The following summer, on June 18, 1960, Storrs Olson, Moshen Nejad,

and I made another visit to Palmetto Island (Gull and Smith Islands were still unoccupied). This time we were well prepared, and before the morning was over had banded 97 Snowy Egrets, 101 Louisiana Herons, 6 Little Blue Herons and 23 Black-crowned Night Herons.

To date, there have been only two recoveries of birds banded on Palmetto Island. A Louisiana Heron was found injured on the shore of Big Alligator Lake, just outside of Lake City, Florida, on November 22, 1959. This bird was banded by me on July 6, 1959; Lake City is about 100 miles east of Apalachee Bay. The second bird, a Snowy Egret, banded June 18, 1960, was found injured on July 28, 1960, near Panama City, Florida, about 100 miles west of the rookery.

The delight of Palmetto Island as a place for banding herons lies in the accessibility of the nests. Running the length of the islet is a narrow strip of Baccharis bushes in which the birds nest. Most of these bushes are only about five feet high, while the strips are only about six feet broad on most of the islet. Thus, to catch almost every nestling in such areas it is usually only necessary to reach out at about breast height. Fledglings present a somewhat bigger problem, since it is often necessary to chase them through the thickets. But with a man on either side of the narrow strip of bushes, even this is fairly simple and effective. Of course there are complications, such as the patches of cactus that crop up here and there in the thicket. It is a chastening experience to reach into a bush for a young bird and emerge with a handful of cactus spines.

These "ideal" conditions only hold for about three quarters of the islet. The southernmost bend of the "horseshoe" becomes relatively wide, with the result that here the Baccharis becomes much taller and thicker, and denser. Getting young birds out of this thicket takes, literally, a thick skin and a lot of stamina. Since one can hardly reach nests in this area, we do not normally attempt to band nestlings here; rather, we concentrate on the fledglings which can be flushed out of the thickets onto the marsh or into the water. Whereas almost every young bird can be caught and banded where the Baccharis thicket is narrow, here only a fraction of the birds were taken.

The herons show decided preferences for the kind of nesting areas they choose. For example, the Louisiana Herons are almost all found in the low, narrow strips of Baccharis. Most of the Little Blue Herons that were banded also came from this area. The Snowy Egrets and Cattle Egrets, however, were concentrated in the high, thick Baccharis. This difference in breeding site choice was noted in both years of banding on the island. The Black-crowned Night Herons were all found in nests on the ground, either under the Baccharis bushes or out in the marsh grass. Catching them was often a matter of charging at full speed across mud and waist high marsh.

These banding activities apparently have not acted detrimentally to the rookery. Our trips have been timed so that, as much as possible, most birds would be off the nest but not able to fly. Nestlings were placed back on the nest after banding, while the fledglings were released on the spot where they were caught. There has been only one direct casualty as a result of our efforts - a bird with a broken wing which we then killed. We have seen no evidence of **indirect** casualties from our activities. As we approach the island, the adult birds fly up, then settle back on or near their nests. We begin banding at the very first clump of bushes, working on to the opposite end of the island. The adults leave the area where we work, usually flying above or **behind** us where they remain until we move on, whereupon most of them seem to return to their nesting area.

The wonder of Palmetto Island as a rookery is, to me, that it has remained unmolested by human beings. While it is about one quarter of a mile from shore, this is a region of fishing camps and of fishing on flats near and around the island. However, either the fishermen are more conservation minded than might be supposed or else they remain ignorant of this breeding colony. In any event, there is no evidence of human interference with the birds on Palmetto Island. (But one wonders why the nesting site on nearby Gull Island was abandoned.) The rookery seems to be comparatively safe from predators. No signs of raccoons, rats, snakes were observed. Apparently crows, Boat-tailed Grackles and perhaps some other birds take a few young herons, as evidenced by a few picked carcases of nestlings and fledglings.

Largely on the recommendation of H. L. Stoddard, the Florida Audubon Society began to negotiate with the owner of Palmetto Island toward making it a protected sanctuary for herons. Recently, C. Russell Mason, executive director of the Florida Audubon Society, was able to announce the formation of the "Oyster Bay Audubon Bird Sanctuary", including Palmetto Island and some other small islands in the area. Thanks to this example of conservation in action, I am confident that the next breeding season will find us and my field companions plunging through thickets and plodding over marshes on an island full of birds.