

# Wintering Baltimore Orioles

"Banding Studies of Wintering Baltimore Orioles in North Carolina, 1963-1966" is the title of an article by John E. Erickson appearing in the July 1969 issue of Bird-Banding (40:181-198), the journal of Northeastern Bird Banding Association. John conducted the research on wintering orioles while he was a student at North Carolina State University, and the paper is a condensation of the thesis he submitted as partial fulfillment of requirements for a Master of Science degree. The work was done under the direction of Thomas L. Quay. After leaving State, Erickson attended the University of Washington to obtain his doctorate in zoology.

The Baltimore Oriole, a tropical-wintering species, was found by Dr. Quay to be present in winter in increasingly large numbers in the Atlantic coast regions, particularly in North Carolina (Quay, 1968, Wintering Baltimore Orioles in the Atlantic and Gulf States, in manuscript). John decided, with Dr. Quay's supervision, to undertake a three-year banding study of this wintering species, using the serially numbered U S Fish and Wildlife Service aluminum bands and various combinations of six colors of plastic bands coded for visual identification. This program of study for the winters of 1963-1964, 1964-1965, and 1965-1966 would clarify the relative numbers of those wintering in the urban and suburban areas of cities and towns in the lower piedmont and upper coastal plain within a radius of about 60 highway miles of Raleigh, N.C., hopefully contributing to the general knowledge of its status in the eastern United States in winter.

Cooperators were selected in eight locations to assist in trapping, banding, observation, and recording of data throughout the study. They were to determine relative numbers, rates of return to sites of banding, estimates of population size, sex ratios, extent of local movements, and general behavior.

Dr. Quay's records of wintering Baltimore Orioles show that all came from urban and suburban areas and have always been in association with feeding stations. Including Quay's Raleigh records kept prior to 1963-1964, Erickson and his cooperators banded 394, with 99 (25.1%) returning to banding stations. This unusually high percentage of returns indicates that Baltimore Orioles have become sufficiently common and regularly widespread in localities throughout the region to be classified as regular winter visitors.

Factors that have been favorable to the survival of these tropical-wintering birds have been found by this study to be the age distribution of the individuals, food supply, and habitat. This winter population consists of both adult and first winter birds. Being out of their natural tropical winter habitat removes them from their natural winter predators, but it also exposes them to new predators and the rigors of temperate winters. However, the winter population in North Carolina remained fairly stable and the species appears to have become well adapted to the cold winter climate.

The primary factor for survival seems to be the availability of proper food in sufficient amounts at numerous feeding stations in urban and suburban areas as no Baltimore Orioles have ever been observed in winter at any great distance from such feeding stations for any length of time. Flocks circulated in fixed patterns among several feeding stations, centering during cold weather around a few key feeding stations where sufficient food could be obtained. In warmer weather a larger number of orioles circulated among more feeders and fed fewer times at each. Small numbers of marked birds appeared as groups at several different feeding stations during the course of a day, representing only about 10% to 30% of the total number in a given flock. The small flocks consisted of three to five birds or more, always appearing at a feeder within a few seconds of one another, seemingly traveling together for the whole winter. Not all individuals were associated with fixed flocks. Loners came to feed as often as every 20 to 25 minutes or less, while the groups fed at intervals of 45 minutes to 2 hours or more.

A secondary factor in survival seems to be that the habitat of winter appears to be the yards in which the vegetation most closely approximates the forest edge. Evergreen shrubs and trees give the yards a park-like appearance comparable to the normal winter habitat of Baltimore Orioles in Mexico, Central and South America. Such shrubs as camellias, azaleas, nandinas, ligustrums, and magnolias are in greatest abundance in the eastern states. Conversely, with fewer trees and shrubs, there will be found fewer birds of this species.

Several theories were discussed as to why such large numbers of the orioles have become acclimated to form a winter population. Erickson attributes this behavior to a combination of the following: 1) some evolutionary change affecting either the behavioral mechanisms involved in migration or the immediate physiological basis for migration; 2) learning and social facilitation following the first appearance of the species in winter with the numbers gradually increasing to present levels; and 3) a change in the general climate over the eastern United States in which 1948-1949 marked a peak in a cycle of warm winters that culminated about 1952 with temperatures 4 to 10 degrees above normal. Then by the process of learning and social facilitation more and more Baltimore Orioles continued to remain longer and longer each year until the wintering habit became firmly fixed in the behavioral pattern of the species.

John expressed his sincere appreciation and thanks to his cooperators who contributed much time and effort to the banding and field-observation segments of his study: Mrs. L. H. Davis, Mrs. D. H. Fuller, Miss Fannie Gorham, Mrs. Roscoe Hauser, Mrs. R. P. Holmes, Mrs. Ernest Jeffreys, Mrs. Sarah Jordan, Mrs. J. B. Peacock, Mr. and Mrs. E. C. Speight, Dr. and Mrs. R. P. Teulings, Mrs. J. N. Walker, Mr. Byron Williams, and Mr. and Mrs. E. W. Winkler.—WMM

## **CBC** President is Busy Birder

Appearing each week in the Sumter Daily Item is a column called "Flight Feathers," written by Evelyn Dabbs. "I try to write timely articles on some phase of birding and our editor has been grand about publishing them on schedule. Also, Mrs. Annie Rivers Faver and I have been doing an irregular television series on birds," she reports. "With two or three good friends I go birding as frequently as possible. We try to make coastal trips at least once a month to study the shore and marsh birds." Mrs. Dabbs has also recently contributed instructions for finding the Red-cockaded Woodpecker around Sumter to Birding, the journal of the American Birding Association.

## "Like lacey wind the ibis fly."

We left the dock just after dawn on a cool, mid-Arpil morning that gave promise of a warm afternoon. We went against a rising tide, hoping when we reached the small island

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in the middle of Muddy Bay we could get the boat close enough to go ashore. This island is a heronry for more than 60,000 birds. There are White Ibis, Wood Ibis, herons, and egrets. Walking on this island is an unforgettable experience.

The tide was still too low, so we went down to the ocean thru Jones Creek. The water changes abruptly from muddy, opaque brown to gray-green crystal with spray like flying diamonds. Always a Belted Kingfisher waits in some scrub-oaks and flies ahead of the boat. Called "halcyon, halcyon" by the ancient Romans, he is a good-luck symbol for us. I have seen him catch a small fish in the water ahead of the boat and swallow it with a tremendous wriggling. Is it the fish giving him a final fit, or is it the kingfisher's ecstatic appetite?

We reached North Inlet and threaded our way carefully through the ever-changing shoals and oyster beds. The tide was now high enough to go back to Muddy Bay through Town Creek. We ran the boat up into the mud and jumped off, sinking 6 inches in the ooze. Plopping forward, we reached higher ground. The smell is overpowering—wet feathers and bird dung. The nests are everywhere, great flat plates of twigs in every bush and small tree, as well as on the ground. Egg shells and dead birds are strewn all over the ground. Some nests have shells in them; others carry fledglings, some still wet and struggling, others cheeping for food.

The adult birds fly up in front of us and come down right behind us as though we were walking through a curtain of live birds. The noise is deafening and ceaseless. Plunging through the bushes is slow, hot work. We do not want to disturb any nest, but it is hard to avoid the tough twigs and branches which are so completely entwined as to be almost impenetrable.

In spite of the heat, the smell, the scratching branches, the mud, it is an exciting experience. We learn from two men who are banding the young birds that the heronry must be above high tide, but small enough to give no shelter or support to predatory animals

Enclosed are some lines jotted down in the boat as we came home that beautiful day.

Like wind-whipped lace against the sky, Like lacey wind the ibis fly.

A chiffon strand across my eye,
The white wood ibis lazes by.
A flutt'ring movement like a sigh,
A dainty tracing without cry,
A gauzy whisper low and high,
The white wood ibis laces by.

RUTH H. HAZZARD (Mrs. W. B.) 1004 Highmarket, Georgetown, S.C.

## **Terres Receives Burroughs Medal**

John K. Terres has been unanimously selected to receive the John Burroughs Medal for 1971. While the award was made specifically for his book From Laurel Hill to Siler's Bog: The Walking Adventures of a Naturalist, it is also a tribute to Mr. Terres' outstanding career as an editor, author, and spokesman for conservation of natural resources. CBC members should be particularly pleased that the award honors a book based on Mr. Terres' field trips while he was a resident of Chapel Hill, N.C.

Begun in 1926 and given only in a year when a book really deserves recognition, the John Burroughs Medal has in the past honored writers like Edwin Way Teal, Rachel Carson, Roger Tory Peterson, Archibald Rutledge, Ernest Thompson Seton, and Joseph Wood Krutch. Congratulations to John K. Terres. May your contributions to the literature of natural history continue to add luster to the Burroughs Medal for many, many years to come.

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#### **CAROLINA BIRDS AND BIRDERS**

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#### A Jaunty Autumn Coastal Jaunt

The balmy September weather was made to order for a trip to the Outer Banks. We saw about 65 species, but we felt amply rewarded because, being mountain dwellers, we don't see the coast very often...not even on a clear day. Anything, except blackbirds and their ilk, would prove welcome surprises.

Pea Island National Wildlife Refuge seemed quietly braced for the seasonal influx of thousands of Snow Geese. Pheasant cackled in the tall grass. Numerous Cattle Egrets hunched motionless on the utility pole cross-ties like oversized insulators. On a shallow pond a squad of Black Skimmers, a few Canada Geese, and half a hundred ducks (mostly Blacks) dabbled or dozed. Suddenly they were swept skyward in cackling confusion by a Peregrine Falcon who, landing on a near-by mud bar, surveyed his now empty domaine.

A fresh ocean breeze kept all the small birds under cover but we flushed a number of Palm Warblers and a Yellowthroat. Immature Herring Gulls were everywhere and so were Laughing Gulls and a few, rather aloof, Great Black-backs.

On sandbars conveniently observable from the Hatteras Ferry, we saw many Brown Pelicans, several cormorants, a few turnstones, and assorted peeps.

From the bridge over Island Creek, one of Ocracoke's many tidal streams, we watched the antics of a social group of juvenile gallinules when, only a few feet below us, a snipe froze into rigid alertness. Two grebes played hide-and-seek and a tiny Least Bittern blended motionless into the brownish vegetation while two Semipalmated Plovers, bobbing politely now and then, continued their probing of the muddy shores unmindful of our presence. Farther downstream (if there is such a thing in a tidal creek) two herons kept minding their own business. What surprised us the most, however, were four nutria in and out of the water who, though watchful, seemed not overly perturbed.

Walking toward the beach we came across countless ghost crabs ranging in size from a dime to a silver dollar darting to and from their burrows which, with few exceptions, were in the lee of the dunes. Their sand-gray bodies made them almost invisible, were it not for their long-stemmed eyes protruding upward like a pair of burnt match sticks.

Sitting in the sand just out of reach of the surf's foamy fingers we watched several sandpipers scurrying about with the compulsive hurry of late Christmas shoppers while offshore Least Terns plummeted after their finny prey. Suddenly a clamoring multitude of about 40 Willets burst upon us from the sea, landing on the beach less than 100 feet away. After raising their wings overhead, they deliberately folded them as if for the last time.

The toll ferry provides a welcome alternative for the return to the mainland, depositing its passengers not far from the Cedar Island Refuge currently under development as another waterfowl wintering place. However, we continued toward Atlantic Beach and stayed not far from Old Fort Macon, surrounded by salt marshes. Of special interest here was a Marbled Godwit drilling his dark-tipped flesh-colored bill into the black ooze up to his eyes. Only once before had I seen this splendid bird...in the refrigerator of Ludlow Griscom, who had collected it the day before. To be able after these many years to add it to my "Life List" filled me with pleasure and gratitude.

By-passing the Wilmington beaches, we continued to South Carolina's Huntington Beach State Park, which more than fulfilled our expectations. While its beach was bare of man or creature in either direction, the dike road across the marshes proved very rewarding. In addition to nearly every possible species of heron we saw Clapper Rails and five, what I took for immature, White Ibises. In areas of possible overlap one cannot always be certain of one's identification, especially since shortly thereafter I nearly passed up an alligator by mistaking it for a partly submerged old snow tire.—RUDOLPH HOSSE, Route 3, Box 287A, Willow Road, Hendersonville, N. C. 28739

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