## Wintering Tree Swallows at Jones Beach Fall and Winter of 1937 and 1938 By John J. Elliot

On the west bank of the pond in the Jones Beach Sanctuary, Long Island, N. Y., where the bordering marsh gives way to higher ground, is a large bed of phragmites; this, in turn, is bordered to the north by a mixed tangle, consisting mainly of high bayberry bushes (*Myrica*), interspersed with an occasional cedar; sheltering this from the northwest winds is a height of land, a long windrow of dune formation. At dusk, early this winter, I counted twenty-eight Tree Swallows flying low and silently in a long straggling flock along the pond from the east, and watched them disappear for the night into the border of this bed of reeds.

I could not help comparing this apparently hopeless little band of birds wintering through, perhaps, for this first time on record in New York State, with the birds I encountered in early summer. They, in a defensive mood, dashed downward at me as I was walking in this locality, and as they shot upward, a few feet from my head, with a quick snapping of their bills, I found I was entirely unwanted in their immediate vicinity. Once again, on September 12, a huge migrant flock of thousands covered the area with resting and flying birds, and everywhere myriads scattered over the surrounding marshes.

I want to relate an incident that shows the Tree Swallow's quick conception of danger and versatile nature which was to carry it on through many dangers and problems during the long winter. A Pigeon Hawk [Merlin] appeared along the west fringe of the flock, as they rested and maneuvered through the sky in an apparently disconnected fashion, when suddenly, with a great rush of wings, audible for a hundred yards or more, the birds flew eastward, and in a minute not a Swallow was to be seen anywhere on the horizon. How thousands of birds got into such rapid motion and removed themselves so completely from danger was a marvelous procedure, and could only be executed by Swallows, those creatures of the sky whose every motion is one of symmetrical grace and matchless form. Another incident, on October 17, showed the spirit of the bird, when a Tree Swallow attacked a Duck Hawk [Peregrine Falcon] over the pond, and made that flying terror jerk slightly to one side each time the Swallow dived, high on the head from the rear. After five or six such attacks the Hawk gained speed and left the Swallow. Keeping in contact, seeing such interesting happenings, and noticing the birds lingering late into the fall, I decided to give this flock, which to all appearances was going to winter, as much of my time as possible, and to learn of their winter habits and peculiarities. To this end I made 78 trips and spent 131<sup>1</sup>/<sub>2</sub> hours. The frequent trips had the advantage of permitting me to observe the actions of the birds in many types of weather. I found cold rains, windy and snowy weather, extremely discouraging for flying birds, and after hours of watching, saw not a bird in the air. During these periods they remained in their sheltered situations, chiefly north of the pond, subsisting principally on bayberries. Cloud days, especially if cold, also discouraged them to a certain extent from taking the air. In fact, I found that, generally, the brighter the sun, the more I saw of flying birds, and the warmer the sun and surrounding air, the higher their flight, both proportionately, except during windy days.

At no time did they use telephone wires or any high exposed perch, as in summer; no long flights high in the upper air, no chasing Hawks, no extended flights to escape the quartering Marsh Hawk [Northern Harrier] (which I found killed and ate a number in the large migrant flock mentioned above). Energy must be spent for food, and food alone, till the warm days of March and April raise their spirits, as they increase the food supply. Before, these little winged creatures, whose every moment in the air is enhanced with beauty and grace, were subject to the caprices of the wind. Now, like little grounded planes, they spent much of their time close to the surface, and got the greater part of their food on or near the earth, while their southern-most relations were catching insects on the Gulf of Mexico, or in the Tropics of Cuba. My heart went out to them as I watched their diminutive pointed wings swing them into the wintry sunlight, in December and January, and back again to their perches on the low stubs. They seemed too discouraged to continue on days when, exposed from my point of observation, the wind bit fiercely at my ears, and gloved fingers grew numb holding the binoculars. Every few minutes the birds flew out and tried the air but knew it was to no avail. The middle of December was cold for about a week, also the second and third weeks in January, when there were three to four inches of snow. The thermometer dropped to five degrees above zero and icebreakers were operating in Great South Bay.

Not unusual was it to see a Snowy Owl perched on a frozen muskrat house, or a Roughlegged Hawk hovering, Kingfisher-fashion, over the snowy marshes, and on the same scene several Tree Swallows, lending a touch of summer. On the east end of the pond on January 2, just before sundown, the birds were flying 6 inches to a foot above the water, in serried ranks. At a certain point the wheeled and started over the same course again and again, always inside this limited area; whatever insects were about were in this limited area, and the birds knew it. As darkness came on the flew to their favorite roosting-place at the west end of the pond.

On the morning of January 10 the pond was covered with ice, and the thermometer read twenty above; there was no wind. The birds were hungry, and I saw to what means they will go to obtain food. They flew over the ice and frequently lit on it, also hovering over objects imbedded in it, appearing puzzled that they could see, but not obtain them. One bird, finding something apparently edible, had to defend itself from several hungry companions as they hovered over it. This was one of the rare occasions when I have found birds that take most of their food in flight, showing a collective interest in a grounded object. Another rolled the quill end of a feather in its bill, perhaps for a trace of nourishment. After the birds searched over the pond, they again alighted along a line of refuse left by the Ducks, but that was the only day I ever saw Swallows on ice. Their flights in the periods of severe cold is more suggestive of the Rough-winded Swallow, slow and less erratic than usual, with sluggish wing-movements.

They are given to much resting in sunny sheltered places, in little huddled groups of four or five birds each, and resort to low broken stubs of bayberry bushes, strong blackberry canes, squatting on the sand, or on boards imbedded in the sand. They are usually silent but on occasion utter a cheery, reedy, double-noted twitter when sunning themselves and in moderate weather.

In the less severe weather they also show resentment to each other when in a close group, if one attempts to crowd in, the perched bird snapping its bill loudly and in rapid succession. I was very intimate with these little birds inJanuary on these occasions, and photographed them while I stood on the frozen pond. I tried hard for a close-up, but the birds seemed to regard the near-by camera with suspicion, and circumvented it. Approaching the birds on foot, as the ice protested noisily at each step (where the sun had weakened it near the bank), I was able to advance to about six feet from the sleepy mites, and could see them dozing in the warm sunlight, protected by the high banks. When I had come too near, they flew a few feet and lit again. They presented their backs to the sun, and some opened their wings slightly, thereby presenting a greater surface to the sun's rays and, holding their bodies at right angles, they received the full benefit of it.

On January 28 I found the flock of twenty-eight birds intact. They were all there that morning, not a bird missing, from the early winter. Contrary to what one would imagine, the complete flock was together on comparatively few occasions during the day, and as the first part of February came with milder weather, their habits changed. Separating somewhat, one band of half a dozen birds took a liking to the oceanfront and used the space between the causeway and the ocean for their feeding-grounds. In cold and cloudy spells the birds made no attempt to flock together for their morning and evening meals, but occasionally a few stragglers would appear toward nightfall and drift into the reeds on the shore of the pond.

I made a startling discovery regarding their food. The birds in early winter used low perches while sunning themselves and, watching closely, I was able to collect their excrement. Mr. Denslow, of the Children's Museum, Brooklyn, reported the contents as full of the skeletons of small crustaceans, but did not recognize the species. Analysis of the fecal material bu the U.S. Biological Survey showed that crustacean material (*Orchestia platensis*) formed the bulk of the food, along with water-boatmen, spiders, bulrush, sedge, bayberry and smartweed seeds, and fragments of rose thorns. I can find no record of these articles of food in the Tree Swallows' diet. By watching carefully I found the birds obtained these near the ocean front. They were extremely adept at locating edible matter if it were exposed to view. The food-supply diminished as the winter advanced, and the excellent crop of bayberries, which kept many birds north, was their standby. The many intervening warm days, however, gave them an occasional supply of winged insects, as on February 2, when little black flies abounded, and on February 14, when the Swallows were making side sallies in mid-air, and snapping their bills on their winged prey.

Their spirits rose, and on February 4, with a touch of spring in the air, three Catbirds were calling, Fox Sparrows uttered their sprightly whistle from the thickets, Song and White-throated Sparrows added their melodies, and a Tree Swallow flew across the sky, calling a cherry twitter till it was out of sight.

Except for a terrific northwest wind the last of February, sending the glass to ten degrees, the birds encountered little difficulty the rest of the winter. On cold days they fed in the bayberry bushes. Hovering and dropping lightly, they would partly denude a berry. Similar to their search in the air, a little bite here and there seems to suffice. On these occasions they are rather shy; a close approach, and away they go. Sometimes a loud twitter from a flying bird gives the alarm.

Mid-March saw the birds greatly changed. Mornings and evenings they collected regualarly, and after the evening meal the flock, now comprising nineteen birds, used the same tactics as observed by the great Audubon. He describes the birds, in Louisiana, as rising from the lakes to a great height and swooping down to their roosts, while wintering there. On my native Long Island I had the pleasure of witnessing the birds in late March rise from the pond, a few at a time, climb into the upper air, and swirl in great circles in the evening sky until all were in the flock. This took about twenty minutes as the birds

joined in small groups, with intervals between. Then from a height of nearly 200 feet they swooped down to their roosting-place north of the pond. In the air they reminded me of a flock of swirling mosquitoes on a summer evening. Their morning actions were very interesting, although different from those of the Louisiana birds, which were described as flying low. The first bird in the air rose to about 150 feet, twittering loudly as he circled over the roosting grounds. When the ascending birds rose from the bushes below, the upper bird descended rapidly and met them, then all rising, they went off high in the sky in an aerial chase through the early dawn. What different actions from midwinter's! The Tree Swallow is an adaptable bird, accepting conditions as they come and adjusting itself to suit its environment. Not knowing what interesting antics to expect next, I experienced many hours of enjoyment, not to mention apprehension, for the safety of the birds. A prolonged icestorm, I believe, would have terminated their existence.

Why did Tree Swallows stay this past winter? That is hard to answer. I believe these birds lingered, as in several other locations (see 1937 Christmas Census, Bird-Lore), during the mild fall weather here, with plenty of insects and a bumper crop of bayberries at the Sanctuary. Finding things to their liking, they stayed until the migrants had left, then the migration urge ceased and they remained.

Now, on March 28, I will conclude this report. This morning there are 23 birds, 4 of which I believe are new arrivals from farther south. Late March often brings them. I could find only 19 birds before this week. The flock is clinging to a wire netting erected for banding purposes at the Sanctuary. Attached to the wire are remnants of suet that I fastened there in midwinter. Much of it disappeared, but I believe the Swallows took none of it.

A big male (I assume) is chattering loudly on top of a man-made bird=box by the water's edge. Another bird is singing a musical, bubbling warble, part of which resembles the liquid notes of the Cowbird, but is softer. (I find no reference to this song in the ornithological works, but it is entirely unlike the common song, which is drier, harsher, and, on occasion, louder). I step out into the open beneath, and several birds lunge at me, as in the previous summer. The cycle is almost complete.

Feeding high in the warm sunlight; checking themselves in midair, sallying sideways at right angles, and capturing insects in January and February; taking advantage of the warm passages of air on the leeward side of every windrow and sand dune, forestalling Mother Nature in her every whim and caprice; eating bayberries in a half-bashful way, as if ashamed of such fare, and only of necessity – the Tree Swallow is indeed the little gleaner of the winter sunshine, an example of courage to us all.