

did I again see a Blue-winged Warbler or even hear a call that could have been either the Blue-wing or Nashville Warbler.

The Nashvilles are rather rare in these woods, indeed although I collected a great deal there during the year I did not meet with another during the spring or entire summer short of five miles from the nest, I particularly searched in the immediate vicinity of the Blue-wings' nest for them, in order to completely do away with the possibility of there being a Nashvilles' nest in the neighborhood. The nest is composed of dry oak leaves and coarse grass lined with strips of grape bark and an inner lining of fine grasses; but slightly raised from the ground (not more than two inches) in a tussock of grass in the center of a small hazel bush. The cup is very deep, nearly 2 1-2 inches, and only 2 1-4 across at the top. Six eggs seems to be an unusually large clutch for this bird, but one finds so few records of the nesting of the species that it may be more usual than supposed.

I could not help but regret that in my eagerness and anxiety to make positive my identification of what is probably the only record of the nest and eggs of *Helminthophila pinus* in Wisconsin that I had destroyed such possibilities of further interesting hybrids of the species with allied forms, as I am as well satisfied in my own mind that the Nashville Warbler is the male parent of the set as though I had shot him from the nest.

Since then I have taken two more specimens of the Blue-wing in the same county—a male May 28, 1899 and a female May 13, 1900—the latter within twenty rods of where the young were found. Neither of these were apparently breeding yet when taken.

N. HOLLISTER, *Delavan, Wis.*

THE COLD WAVE OF FEBRUARY 1899, IN DeKALB COUNTY, GEORGIA.

Having received a few enquiries regarding the cold wave of 1899, and its effect upon bird life in this locality, I have decided to place before the readers of the BULLETIN the results of my observation.

On Sunday the 12th at 6 A. M. the mercury had fallen from 30 degrees of the night before, to ten degrees above zero. During the night of the 11th there was a fall of snow, covering the ground to the depth of three inches. This continued with a few scattering flakes till 3 P. M. of the 12th when a high wind arose turning into a lilliputian blizzard, making the snow almost blinding to persons who happened to be exposed to it. There was but little variation in the temperature during the day, there being a rise to 14 degrees at 12 M., with a dropping back again to 10 degrees at 6 P. M. On Monday the 13th at 6 A. M. the mercury registered 12 degrees below zero, slowly climbing to zero at 12 M. rising to 6 degrees above zero at 6 P. M.; Fair and calm all day.

On Tuesday the 14th at 6 A. M. the mercury stood at 2 degrees above zero, after which there was a steady rise in the temperature to 26 degrees above zero at 12 M., showing no variation at 6 P. M.

The temperature of the following days was about normal, there being no extreme cold weather experienced; the averaged temperature for the remaining fourteen days of the month at 6 A. M. being 37 degrees above zero.

On the morning of the 12th the rough weather began to show its effect upon the birds. They were driven from the woods to the shelter of barns, sheds or any old place, where they could find protection from the cold. Many of them in these places were wantonly slaughtered by thoughtless boys, who really did not comprehend the enormity of the act they were committing. These were Juncoes, Song Sparrows, White-throated Sparrows, Chipping Sparrows, and Vesper Sparrows.

On the morning of the 14th, about 10 o'clock, I noticed that the birds had abandoned the barn, and other outbuildings belonging to my home, and I immediately started out to find them.

Leaving the public road which passes directly in front of my house, I turned into a little foot path between two old fields, the remains of an old neglected Cherokee rose hedge forming the dividing line between the fields. This old rose-hedge which had been a much frequented resort for such birds as Song

Sparrows, White-throated Sparrows, and Juncos, was now entirely deserted. Turning from the path, and walking through a small growth of woods, a few Juncos, not more than a half dozen, flew from an old brush heap, which had partly sheltered them from the snow, and lit on a low thorn bush, only a few yards away.

Adjoining these woods is a low marshy field, commonly known here as bottom land, where Indian corn had been cultivated the previous year.

This land had become overgrown with crab, johnson and some other kinds of grasses the names of which I do not know.

At haying time the season was so wet that the grass could not be harvested, so it was left uncut upon the field; thus making a tempting feeding ground for all seed eating birds; but not a bird, not a vestige of a feather was found.

Winding in an irregular manner through the field is a ditch overgrown with briars, sumach, alder, elder, wild grape vines, and other kinds of growth generally found in kindred places. In the eastern side is a small cane brake covering an area of about two acres, while immediately beyond, the ground forms a slight incline or hillside, from which the underbrush has been cleared, making a high open wood.

In making a detour of this spot I failed to see a bird, and although I searched carefully for dead or frozen specimens not a single one did I find.

During the night of the 15th, it began raining, and on the morning of the 16th, the glass showed one fourth of an inch of rain fall, at 6 P. M. the thermometer registered 42 degrees, and though it had been cloudy throughout the day, the snow had melted very fast.

At ten o'clock on the morning of the 17th I heard the plaintive notes of a White-throated Sparrow. In a few moments afterward I saw several of these birds perched among the branches of the plum trees in my orchard. Tramping through the soft ground, and melting snow, I made my way to a swamp a short distance west of my home. Here I counted five Song Sparrows, one Cardinal, and one Towhee. On my return I passed through a low pine thicket where I saw three

Blue Jays. This completed my very weak horizon for the day. After this the birds begun to straggle back, but at least two-thirds of them failed to return, while a total disappearance of the Juncos was noted.

The 21st of the month was warm, pleasant and spring like. Making a tour through the woods upon this date I noticed a decided falling off again of the birds, particularly, those which are known as winter residents. This was no doubt caused by the entire destruction of nearly all plant life, thereby wiping out the food supply and compelling the victims to migrate to more favorable feeding grounds.

Everything in the shape of a leaf or a bird had been killed; the leaves of the cane which remain green throughout our severest winters, had been frozen and dangled like scalded strings from their stems.

The grasses in the swamps, and other moist places, where the birds not only found protection from the weather, but an ample supply of food as well, were lying flat in the mud and water.

It is remarkable that while the cold wave undoubtedly eliminated large numbers of birds, I did not in all my tramps discover a single verification of the fact.

A plausible reason for this might be that the birds foreseeing their coming danger attempted to escape to a better protected locality, many of them in their flight perishing from hunger and exhaustion. This theory is partly substantiated by an article (*Auk*, April 1899, page 197) written upon this subject by Mr. Arthur T. Wayne, of Mount Pleasant, S. C., who says in his article as follows: "To say that Fox Sparrows, and Snow-birds were frozen to death by the *millions*, is not an exaggerated statement, but a conservative one." "There was a tremendous migration of Fox Sparrows, on Monday 13th, following the coast line of the mainland." "The Woodcock arrived in countless thousands." "Prior to their arrival, I had seen but two birds the entire winter." "Tens of thousands were killed by would-be sportsmen, and thousands were frozen to death."

It is reasonable to suppose that these birds were driven to

the coast line by the extreme cold, coming down from the North to Charleston in very large numbers. After reaching that point, and finding no food to nourish them, many died of starvation, while others weakened by exposure to the cold, fell an easy prey to the vandal hands that sought to destroy them.

A short time after the occurrence of the cold wave, I endeavored to obtain some information regarding it from other parts of the State.

I am sorry to say that the details were meagre and unsatisfactory. Out of about a dozen letters written, only two were answered, and these answers came in an indirect manner through the efforts of a minister of Kirkwood, into whose heart I had instilled a very weak solution of enthusiasm on birds.

ROBT. WINDSOR SMITH, *Kirkwood, Ga.*

THE REDPOLL ACANTHIS LINARIA IN SOUTH CAROLINA.

I have seen the Redpolls once more. When I was a small boy, in the days of my box traps and flintlock musket, they, with the Chickadees, were among my intimates at the woodhouse door or over "back of the sandbank" in the coldest corner of old cold Massachusetts. A Tree Sparrow or two, a Nuthatch or a Blue Jay, about filled the bill for that favored afternoon, as a general thing. The rediculously tame Grosbeaks, parrot Crossbills, and skimming Snowbirds were episodes; our Redpolls and Chickadees quite every day affairs.

Now all is changed. The snow and the cold, except on rare occasions, are things of the past. When they do come along as they did last week, they are merely reminders of the pleasanter episodes of the past; and the little boreal bird or two that gets swept along in the bitter blizzard to find a few days rest in our sparkling sunshine, I hope, will carry away a happy thought of his sojourn about our Barrack Yard in exchange for the wholesome pleasure he has given me.

This is a regular bird paradise. We have hot enough at times for any tropical bird, besides having the fag end of a blizzard