NOTES ON THE FAMILY LIFE OF A PAIR OF AMERICAN PIPITS

BY HAZEL S. JOHNSON

Among the many species of birds recorded in migration throughout the eastern states, the American Pipit (*Anthus spinoletta rubescens*) is fairly common. Due, however, to the northern latitude of its nesting range much is yet to be learned concerning its breeding habits. While spending the summer of 1931 at Wolf Bay on the Labrador coast—a station near Cape Whittle, I made the following observations on the family life of a nesting pair of this species. These notes cover a period of five weeks but refer particularly to the time that the young were in the nest.

The nest was located on a southern slope somewhat protected from the weather by an overhanging mat of Crowberry vines which formed the ground cover.

Pipped eggs were noted on the evening of July 1. By the evening of the 2nd all six eggs had hatched. A blind was placed four feet from the nest, thus enabling me to make close observations even during dense fogs. The birds readily accepted the blind, showing no concern over wind movements of the canvas. Observations were made at various hours on different days to secure notes on the activities of the birds from early morning until they went to sleep at night.

While in the nest the young were fed at quite regular intervals throughout the long July days (see table). My notes show that they were fed as early as 4:30 A. M., (I believe that feeding started even earlier) and continued as late as 8:55 P. M. Rain and fog did not seem to retard feeding activities of the parent birds.

Sex differentiation between the old birds was at first undiscernible. But after studying the two close together it was evident that the coloring of one was a bit darker and that the fuscous splotches about the throat formed a more definite pattern. This darker bird did all the hovering according to my observations. It was presumed to be the female and is so designated in my notes. When the female went on the nest her manner of spreading the breast feathers indicated that the belly was bare (this condition was noted in a specimen collected).

Sometimes as I approached the nesting site I would be challenged by a Savannah Sparrow at a distance of a hundred yards. If this bird followed me with any insistence, the male Pipit would appear and with agitated chirpings would follow me to the blind. After the third day this action did not cause the female to leave the nest.

During the two weeks of the brooding period the growth of the young seemed uniform. No difference in size or plumage development

was apparent. On July 4 one young bird was found outside the nest, pushed out perhaps as the female left hurriedly. Although cold and seemingly lifeless when found, it was replaced in the nest. It recovered and grew normally. The female would frequently adjust the young in the nest by scooping under them with the beak. Brooding was frequently interrupted for this performance until the young were strong enough to compete for nest space themselves. On July 6 pin feathers were through the skin. By the 11th they were out of the sheaths. The birds now seemed crowded in the nest. They were last

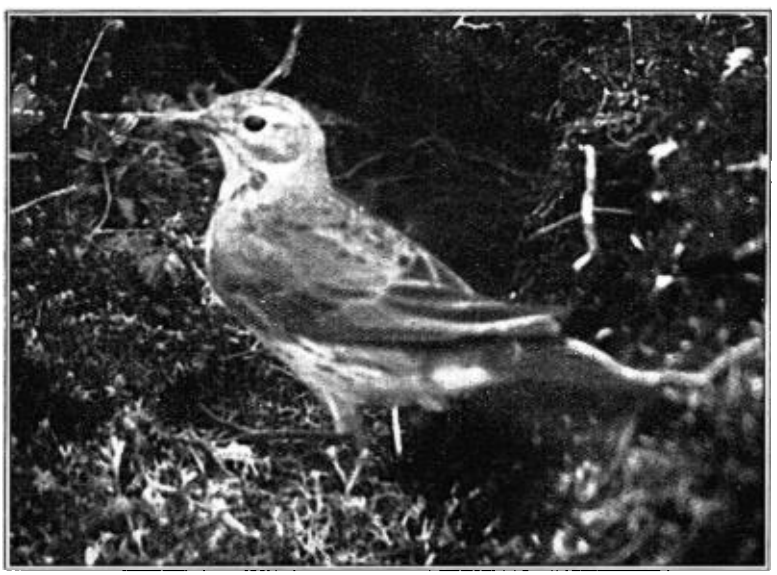

FIG. 8. Male Pipit leaving its nest. Wolf Bay County, Quebec.

seen in the nest in the late afternoon of the 15th. That evening they were out of the nest but nearby. Next morning a hawk was shot near the nest site and was reported to have been attacking young birds. This may account for the fact that but three of the brood were seen on the 17th, with the two parent birds.

Between July 16 and August 3 the family of three young with one or both parents was often seen about the woodpile and house of a local family about 300 yards from the nest site. Another family of Pipits was frequently seen in this same territory but there was no apparent intermingling of the two broods (the brood under study was identified by bands). During the first two weeks out of the nest the young birds seemed to make little effort to find food for themselves

but waited until the parent birds brought food and placed it in their mouths. Sometimes the old birds would utter a twittering chirp when food was found, whereupon one or more young would go to the parent to receive it.

Some change was noticeable in the actions of the old birds while the young were in the nest. During the first week the brood was aroused by a low gurgling chirp from the parent bird as it approached the nest with food. By the eighth day it was obvious that the young recognized the old birds or were aroused by their wing vibrations. As the female spent the greater part of her time on the nest, the male brought most of the food during the first six days. Flies and small larvae were the main diet. One large larva or from two to four smaller ones were brought at one time so that each trip represented a fairly constant quantity of food.

It was noted that late in the evening the female seemed reluctant to rise and allow the male to feed. He would thrust his beak full of food first on one side then the other of her head and neck before she would stand up.

The female often examined food brought by the male with her beak before it was given to the young. Sometimes one parent did all the feeding but more often the food was divided and both fed, placing all of it in the mouth of one young bird then removing bits which they gave to others. Very rarely did the female eat any of the food brought by her mate.

After feeding both birds would look expectantly at the nest. When a mass of excreta appeared it was promptly seized and consumed or carried away. In most cases the female secured it but evidently there was some competition between the parents for this privilege. During the last few days of the nesting period excreta were carried off and the nature of its disposal is unknown. Examination showed that it was enclosed in a membranous sac.

My notes record a few instances of the female leaving the nest apparently in answer to the call of her mate. Presently one or both birds returned with food. Once I saw her fly to him and both appeared to join in a struggle to extricate something from the lichens. Then both came to the nest, the male carrying an unusually large grub, which he fed to the young. Later in the brooding period the female would sometimes search for food a few yards from the nest. If the male approached her she would dart at him as though hostile.

As I could not see from the blind farther than a few yards about the nest, it was impossible to tell whether or not the male Pipit spent

DATA ON THE BROODING ACTIVITIES OF A PAIR OF PIPITS

Date	Hours of Observation	Total	No. of Feedings	Avg. Time Between Feedings	Weather	No. of Absences	Total Time Off Nest	Percentages Time in Blind
July 3	1:15-2:30 P. M. 2:55-4:00 P. M. 7:23-9:00 P. M.	3 hrs. 53 min.	21	8¾ min.	Heavy fog. Fair Light	4	42 min.	17.59
July 4	9:00-10:20 A. M.	1 hr. 20 min.	9	6½ min.	High wind followed by fog	2	27 min.	33.75
July 6	6:45-8:50 P. M.	2 hrs. 5 min.	19	6½ min.	Rain Wind	5	17 min.	13.60
July 7	8:10-10:06 A. M.	56 min	11	11 min.	Fog	1	At least 1 hr. 56 min.	100
July 8	11:02-12:05 A. M.	1 hr. 3 min.	11	5 min.	Rain Wind	2	23 min.	36.34
July 9	4:15-6:15 P. M.	2 hrs.	5	19 min.	Rain Heavy fog	1	At least 2 hrs.	100
July 11	8:20-10:30 A. M.	2 hrs. 10 min.	6	10⅔ min.	Fog Clear	1	At least 2 hrs. 10 min.	100

his time near the nest. He would utter a chirp as he approached the nest with food and a sort of excited twitter from the field at which the female would usually fly in his direction but I never heard him sing from the air.

The accompanying table shows the brooding routine during periods of observation. While the percentages of time spent off the nest can not be considered as satisfactorily indicating the intensity of brooding, they are nevertheless interesting in that connection. Due to the short periods of time spent in the blind and the various times of day at which data were recorded these percentages can be considered only in that they suggest a general trend.

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