

Francis Z. ...

Report on the Study of a Spotted Sandpiper's Nest

The nest studied may be described as a typical spotted sandpiper's nest. It was situated on the shore on Grapevine Point about thirty feet from the water's edge and about four feet from the edge of the woods in the midst of a low growth of the sedge *Scirpus Americana*, the dogbane *Apocynum*, and a few scattered willow shoots. These of these were arched in taper fashion so as to conceal the nest beneath completely from the view of anyone standing more than three feet from it. The nest itself was a saucer-shaped depression in the sand, about one-half inch deep, and was lined neatly with dried sedges, with a few dried leaves washed in here and there. The eggs were four in number dark cream-colored and heavily spotted and blotched with rufous-brown (the broad end having larger and heavier markings) and were arranged so that the narrow ends faced the center and were directed downwards.

Other observers have quite definitely established that it is the male bird that incubates the eggs and cares for the young. In this study I had no way of determining the sex of the incubating bird by its appearance or behavior and took for granted that it was the male bird I was observing. Several times I noticed a group of three or four sandpipers feeding along the shore and at the time the bird under observation returned with a second bird but there was nothing in the actions of the latter bird to indicate that it was the mate. It did not stay on the shore in the vicinity of the nest for more than a couple of minutes.

It was interesting to note during the period of incubation that the orientation of the sitting bird was almost without exception facing towards the

lake and that he entered on the side of the nest nearest the woods. His approach to the nest except the evening before the eggs hatched was always more or less leisurely - after alighting on the shore he would casually feed over the distance to the edge of the woods and then run from there to the nest. The evening before the eggs hatched he went directly to the nest without any preliminary feeding. When leaving the nest - usually because of people walking along the shore - he slipped off quietly, rising in low flight only when about six feet from it. He seldom remained off the nest for more than ten minutes.

No call was made either in leaving or entering the nest except the evening before the eggs hatched when the bird gave a soft "peeta-weeta-weeta" call once just as he entered the nest. I usually found the bird off the nest feeding along the shore between the hours of five to seven P.M. In the evening he resumed sitting almost invariably a little after seven o'clock with the exception of the first night when my presence obviously made him nervous as he came up to the nest several times only to leave it again in a few minutes. After this he paid little attention to the observer either before or after the bird, which was placed three feet from the nest, was set up.

I did not know how many of the 18-21 days of the incubation period had passed when I began my study of the nest since the eggs had already been laid when I found it. A brief examination of the eggs the night before they hatched revealed no cracks or clipped places to indicate that they would hatch overnight. When I arrived at the nest the following morning about eight o'clock I found three of the eggs hatched - one chick was still apparently

out in the nest, the other two were a foot and a foot and a half away from the nest. The fourth chick was about a third of the way out of the egg and seemed to be working its way out backwards. During the nest life the parent bird paid no attention to this chick in spite of its desperate efforts to entangle itself from the shell and its feeble 'cheeps'. The three older chicks were already dry and covered with fuzzy down feathers. They were strong enough to run around nipping at the surrounding vegetation and catching insects within the nest twenty minutes but did not wander more than sixteen feet from the nest. The parent bird made no attempt to feed them but occupied himself also with catching insects. However, he kept the chicks within three or four feet of himself, using his soft 'peeta-weeta-weeta' call, which I soon found he always used to call the chicks to him, when any one of them became too bold and strayed too far. He frequently called the chicks to him and hovered them under his wings, altho several times the chicks seemed (from the observer's viewpoint!) reluctant to take their 'nest period'. At first he would squat down flat on the sand himself while giving his whistled call but very soon only the call was necessary to bring the chicks. The only time I saw the parent touch the chicks was when one would pass close enough to him so that he could run his bill lightly along its back from head to tail. During danger he never ran directly to a chick but would run close by it giving his alarm call as well as the 'peeta-weeta-weeta' call. During the time the other chicks were feeding, the 'cheeps' of the fourth chick were becoming increasingly more insistent, and as if suddenly struck with the thought of his regime

the parent bird hurried to the nest and at first attempted to hover the chick. He soon gave this up and using his feet and his bill disentangled the half shell from the chick's head and carried it to ~~the~~ in his bill to the edge of the woods about fifteen feet from the nest, where he dropped it; returning immediately to the nest. He had probably disposed of the ^{other} egg shells in a similar way, altho a search along the edge of the woods revealed no trace of them. He hopped over the chick in the nest and called the other three chicks to him. It was fully an hour before the chicks again left the nest, including the last one to hatch but this time they stayed within a few feet of the nest in-asmuch as the small bird stayed close by it. During this period he occasionally softly whistled and when hovering the chicks once or twice made deep, hoarse cluckings similar to that of a hen. The chicks often gave long drawn-out 'cheeps' shortly afterwards - at which time all the chicks were in the nest - I heard a rustling in the woods behind me and looked toward the nest to find the bird standing stiffly with head erect beside the nest. The noise in the woods ceased and the bird returned to the nest only to rise quickly from it a minute later and with folded wings raised vertically in a menacing manner and his tail spread and dragging along the ground, advance slowly in the direction of a chipmunk standing at the edge of the woods. The move was successful in routing the animal. The bird had made no sound while advancing toward the chipmunk but he gave a reassuring 'peep-peep-peep' as he returned to the nest. The chicks gave no evidence of fear during this performance. The chipmunk ran across the point once after that but did not molest the birds further.

The rest of the day was spent by

The chicks and adult feeding along the shore for the most part near the water's edge, except for the time I caused a great deal of excitement by picking up one of the chicks to take it into the blind with me for the purpose of obtaining measurements. All four chicks had been feeding on the shore close to the adult blind at the time the chick was picked up. The chick cheeped continuously while being measured during the next fifteen minutes. The parent bird showed considerably more agitation than he did when the chipmunk was so near to the nest running around the blind three or four times giving the characteristic alarm call of the sandpiper (the first I had heard him give) and finally going to the nest and calling the other chicks to him. When I finally set the chick down about a foot and a half from the nest, the parent made no attempt to get it but called it to the nest. The excitement of the parent bird was pitiable to watch as his throat visibly palpitated and he kept his bill dripping with saliva, opening and panting. It was almost an hour before he became calm and ceased to get up from the nest every few minutes to look around with nervous alertness. On subsequent days when I picked up a chick ~~at~~ I noticed that the parent ceased to call to it when I carried it off twenty-five feet or more. It is possible that at this distance he could not hear the chick's 'peep'.

Observations made as late as two weeks on the second, third and fourth nights after the eggs hatched, indicated that the nest was not used again, but that the chicks were hoveled somewhere on the shore during the night. I was unable to visit the nest the first evening but it was probably that the nest was not used that night.

either. Other observers report that the nest is not used again after the eggs hatch.

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