The Red-breasted Nuthatch

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A bird that has been a resident on Great Spruce Head Island for as long as I can remember -- never abundant but always present in small numbers -- is the Red-breasted Nuthatch. The name is misleading; how misleading I did not discover until recently when I had the opportunity to photograph and observe the bird closely. The most that can be said in support of the name is that the under-plumage of the male, more strongly than on the female, is washed with pale buff. The color is distributed non-uniformly from the throat to the under-tail coverts with especial emphasis on the bird's flanks. This description is based in truth on the close observation of one pair of birds only, but if the species can legitimately be considered red breasted the designation must be accepted as weakly distinguishing it from its larger whitebreasted relative. There are other more distinct characterizations than this one: the white stripe over the eye, for example, small size, and the squeaky nasal calls, higherpitched than the yank yank of the white-breasted nuthatch.

For many hours in spring and summer for many years I hunted in vain for the nest of a red-breasted nuthatch. Time and again I would find a pair of birds feeding together, chittering and <u>anking</u>, back and forth, in the habitual affectionate pattern of behaviour they always display towards one another. But never was I able to track them to a nest; they always eluded my pursuit

by disappearing into the thick spruce forest or on a sudden impulse flying away over the tree tops. Not until 1969 did I succeed at last and then only because of the fortunate concurrence of circumstances. I started looking that year in late May before they could possibly have started to nest. Several pairs had already arrived on the Island and were seen hopping along the branches of the larger trees feeding and carrying on a steady flow of nuthatch conversation. One pair in particular I watched for many minutes on different occasions working over a large white birch for dormant and newly metamorphosed insects. The tree seemed to have an especial attraction for them for they returned to it again and again over the course of several days, until I began to wonder whether their interest centered primarily on the insect life the tree provided or because it was conveniently near their nest site. I ruled out the birch itself as a nest site since it was seemingly healthy and free of dead wood. The male bird was very busy ingratiating himself with his female companion to whom he returned at frequent intervals with particularly succulent morsels which he placed in her open bill. She would cease her own foraging as he approached and with quivering wings and upraised head assume the juvenile begging posture. All the time this went on they both were making conversational chitty sounds. The unremitting attentiveness of the male was touching to observe. He seemed to be trying to do everything

within his powers to please her, feeding being only one aspect of his solicitude. One day I came upon both birds exploring the cavities made by woodpeckers in the still standing, branchless and decaying trunk of a balsam fir. They crept around the trunk poking into the holes of which there were five or six excavated only an inch or two into the trunk. In one, however, deep enough to conceal a nuthatch, the male spent a long time digging out wood. He would disappear inside for a few seconds, reappear with a large chip in his bill which he dropped outside, and then would go back for more. Eventually his mate came to inspect the work, peered in, bobbed her head inside a few times and flew off. The site was apparently not to her liking for I never saw either of them there again.

A few days later in the same general locality, for which reason I assumed they were the same pair, I found the two nuthatches working on a dead birch stub about twenty feet tall that had broken off at its base and had fallen against a spruce tree growing a few feet away. Most of the bark had peeled off the stub and near its top were a group of shallow woodpecker holes. In two of these separated vertically by little more than a foot the nuthatches were busily at work chipping out wood from the interior. As each bird worked away inside only the tip of its tail was visible. Every few seconds it would back out to drop the chips. The male bird worked intermittantly in the upper hole and the female worked alternately in both but concentrated most of her efforts in the lower one. In human terms her conduct seemed patronizing and didactic to a laughable degree. She was much more persistant than her mate, who went off from time to time

to forage and would always return with food which he would give her before resuming his excavating. Both holes seemed to be equally deep and it was impossible to predict which one -- if either -- would become the nesting cavity. No pitch was smeared around the edges of either hole, but this practice typical of red-breasted nuthatches may not begin until excavation is completed or possibly until egg laying has started. This habit of working on unfinished woodpecker diggings, that goes on throughout the month of June, I have observed with other pairs of nuthatches and it seems to be an abortive activity related to pair formation and courtship rather than to the start of nest construction. When I did ultimately find a nest, the entrance diameter was much smaller than any of these woodpecker holes, strongly indicating that the entire excavation from start to finish in that one case at least had been made by the nuthatches and was not an adaptation to a pre-existing cavity.

As seems to be the way these things usually happen, bird's nest discoveries occur when least expected. Often when I have been concentrating on finding the nest of a particular kind of $the nest \circ f$ bird I have found a quite different nest of a species that I did not have in mind at the time. That one does unexpectedly find nests this way reflects on one's state of alertness which does not permit the dismissal of any activity in the bird world without taking the chance of failure to observe an important event or make a significant discovery. Such was the situation when I found the nuthatch nest.

On July 3rd I was hunting for Magnolia warblers through the new growth of evergreen seedlings and young birches which were filling the forest vacuum created by a blow-down several years before. Most of the fallen trees had been cleared away for fire wood soon after the storm that leveled them, but the survivors of the blow still stood in scattered clusters or as solitary momentos of the forest that had disappeared. Tall, slim, and branchless below a high evergreen crown, they held a precarious footing, having lost in one powerful gust of winter wind the collective support afforded by their neighbors. They had, however, acquired new importance in the scheme of things by providing an ideal habitat for the Olive-sided flycatcher, a bird that prefers the lofty perches left behind after the wreckage of a coniferous forest and builds its nest in the top foliage of these stark sentinels of devastation. The flycatchers were announcing their proprietary rights on this day in July as they had been doing since early spring and every year since the blow-down occured with that persistent peremtory peep-peeppeep which is an unequivocal indication of nesting. I found a nest several years ago high in one of these solitary trees and photographed the birds, but it was not easy.

A few gaunt remains of trees also still stood in this natural clearing; topless, broken trunks, forty or more feet tall, whose scaling bark, a favored nesting site for brown creepers, still clung between the stubs of branches to the fungus-softened wood. I was standing waist deep in a tangle of young balsam firs and raspberry vines near one of these

skeletons when a small bird flew straight and purposefully to it; alighting near the top. My first though was of a brown creeper, but the action was uncharacteristic of this bird which generally creeps up a tree trunk from below a flies off from higher up. I didn't see where the bird went and lost sight of it until it suddenly flew away. On examining the tree foot by foot through my binoculars I found no sign of a creeper's nest. Shortly the bird returned and I was able to keep it in view. It was a red-breasted nuthatch, and it was carrying food. It worked its way down the tree on my side until it reached a black spot, which I had mistaken for a knot, and there above this hole paused; the striped head of a small gray bird appeared and received the morsel of food from the bill of the bird above. The bird that brough food was clearly a male nuthatch and the one inside I mistook for a juvenile. For some time I watched this feeding process, wondering where the female was, and thinking that the young were so well grown that it would be hopeless to try to do any photography at this nest because the disturbance caused by building a scaffolding for my camera would surely bring about their fledging. But then after a visit by the male, the bird inside came out, looked around, and without hesitation flew straight away. This bird was no juvenile but an adult; in fact it was the female whose whereabouts had puzzled me. Now I realized that the breeding cycle was not as far advanced as I had feared and that the nest contained either eggs or very small young.

The entrance hole was much smaller than I had expected judging by the woodpecker diggings with which the nuthatches had been so engrossed in June. But I recognized, of course, that a red-breasted nuthatch is much smaller than a downy woodpecker and would not need nearly so large an opening. Another rather surprising feature was the nearly rectangular shape of the opening as compared with the almost exactly circular one woodpecker make. The bark around the hole I now saw was smeared with globules of shiny pitch to which bits of dry grass and lichens were stuck, in all probability this was some of the nesting material the birds had brought to line the cavity with. The sight of the pitch exeited me as do the first personal confirmations of well authenticated but up to that moment never experienced phenomena, such as the first telescopic view of the rings of Saturn, the green flash at sunset, or witnessing the emergence of a moth from its cocoon. These first experiences arouse a sense of justification for the awe and doubt that the incomprehensibility of events in nature cause one to feel. Awe that what others have described are indeed so; and skepticism about the accepted interpretations of these phenomena.

After a few minutes absense, the female returned without food and entered the nest where she remained. It now seemed most probable that she was incubating eggs, and that the diligence of the male bird in providing her with a constant supply of food was a continuation of his devotions during the courtship period. His steadfastness was a most affecting characteristic

of his behaviour.

The height of the nest measured twenty eight feet. There being no nearby trees and owing to the shakiness of the nest tree itself, to photograph the birds required that a tower would have to be built. This I did with the help of my son Stephen. We cut slender spruce trees for poles and scrounged all the scrap lumber we could find. When completed the camera on its tripod was level with the nest hole and could be set at a distance of three to four feet away. Building the tower seemed to disturb the birds very little, and when completed I sat on the small platform on top to test their reaction to my presence so close to the nest. In a remarkably short time the male nuthatch was feeding the female as though I simply did not exist. Setting up the camera, and especially the lights, caused an additional short period of adjustment by the birds, but these too they quickly accepted and then ignored. I took all photographs, with the exception of the first two or three, while fearlessness sitting beside my camera. Once, to test the adaptability of the male when he returned with food I placed my hand over the hole. He tried to poke through between my fingers. During the last of the incubation period, and repeatedly after the eggs had hatched I took many pictures. But I never saw the young birds because I had to leave Maine before they fledged. Apparently, and perhaps as do other hole nesters, they stay in the nest longer than do the young of most passerine birds.