How Birds Leave the Nest

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Anyone who undertakes to follow the activities of a pair of nesting birds until their offspring become self-supporting sees much of interest and beauty. But perhaps the most exciting event in the history of the family is the departure of the young from the nest. This is, indeed, the climax of the whole fascinating drama. It is the moment of triumph for the parents, who by the exercise of diligence and caution have brought their eggs and chicks through many perils to which neighboring nests may have succumbed. To reach maturity, the young must still escape many dangers, but they are not so likely to be lost all together as while they lay in a helpless cluster in the nest.

The young birds are commonly divided into two groups by the circumstances of their development. In one are those (precocial, or nidifugous) which, like domestic chickens, are covered with down when they hatch, and leave the nest before they receive food; in the other (altricial, or nidifugous) are the birds which escape the eggshell in a less developed state and must, for a week or more and sometimes for months, be fed and protected in the nest by their parents. No sharp dividing line can be drawn between these two groups, which are joined by transitional forms, yet on the whole this is a useful classification.

Let us begin with a species in the first group. In Costa Rica I studied a Marbled Wood-Quail’s nest which was situated on the ground in tropical forest and roofed with dead leaves and twigs. The hen alone incubated the four white eggs, taking
each day a single outing which began around sun-
rise and lasted between one and a half and three
hours. Her mate came every morning to call her
from the nest, and at the end of her excursion he
escorted her back to it, but he always prudently
stopped short some yards away, thereby dimin-
ishing the probability of revealing its exact position
to hostile eyes.

The four eggs hatched in the interval between
the hen’s return from her recce at half past eight
on one morning and the following dawn. On this
day the mother lingered in her nest well past her
usual hour for departure, while her mate, who
had come for her at sunrise, moved impatiently
through the undergrowth and called with grow-
ing insistence. At last the hen answered softly and
increased his suppressed excitement. Then, with
more low cooing, she rose and pushed half-
way through her doorway. The chicks, whose
soft, variegated down was already dry, needed no
urging to come forth. One pushed out beneath
her while she hesitated in the entrance. When at
last she stepped forth, four chubby creatures
tumbled out around her. As she slowly advanced
to join her partner, they followed with short runs
punctuated by brief pauses. Her way led across a
long, low, decaying log, which opposed a forni-
dable barrier to chicks who had escaped from
their shells less than twenty-two hours earlier.
Three soon managed to scramble over and their
mother led them off, while the father returned
to encourage the weakest one until it, too, found a
place where it could surmount the obstacle. Then
all vanished into the dark undergrowth of the
forest.

The majority of chicks which leave the nest
carry are hatched in nests on or near the ground
or close above water, so that they may easily walk
or swim away. But in a number of species, in-
cluding some of the guans of tropical America,
and a few ducks, they are hatched well above the
ground, either in an open nest or in a cavity in
a tree. Five of these chicks, without flight feath-
ers on their stubby wings, manage to reach the
earth? One might suppose that the parent would
carry them down, perhaps in its bill, one at a time.

But few birds seem able to transport their young.
The downy chicks simply jump from their nest;
they are so light and fluffy that their apparently
reckless plunge is rarely fatal.

In Iowa, Frederic Leopold watched many
broods of Wood Ducks jump, on the day after
hatching, from high nest-boxes in response to
their mother’s call, and he never saw a duck-
ling to be disabled. Sometimes one struck the
ground so hard that it bounced up a few inches
and was momentarily stunned, but soon it recov-
ered sufficiently to follow its mother. These
amazingly hardy ducklings were then led down a
steep bluff a hundred and thirty feet high, across
a railroad track, and over a stretch of the Minis-
intermediate between the two groups. The ani, hunky black birds with long tails and high-arched bills, construct bulky open nests of sticks which are often the work of several pairs. The eggs of the pairs are laid in a single heap and incubated by all the male and female parents in turn, and the young are reared as a single family. Newly hatched anis are blind and naked, but their development is amazingly rapid. If disturbed when they are less than a week old but already bustling with long pinfeathers, they scramble out of their shallow nests and climb away through the close-set boughs of the supporting bush or tree, often leaping their hills over a twig to avoid a fall. At times they drop to the ground. When all is quiet they return, if they can, to their nest, where they are fed and brooded by the parents like any helpless nestling. Similarly, fuzzy young Hoot- zins, whose nests of sticks are placed in bushes above the margins of South American rivers and lagoons, dive into the water when danger threatens. They return to the nest when it has passed, climbing by means of feet and bill and claw-like fingers at the bend of each wing, as Dr. William Beebe has so graphically described.

Birds that require more or less prolonged care in the nest (the true nidicolous group) include practically all the weebills, pigeons, herons, hawks, hummingbirds and nearly all those birds which breed in holes and burrows, such as woodpeckers, trogons, toucans, kingfishers and motmors. If undisturbed, the young of these nidicolous birds most frequently leave their nests in the forenoon, when they are most energetic and active. Yet they may do so at any time of day, and once I watched a seventeen-day-old Yellow-bellied Elanias, a small tropical flycatcher, make its exit on an afternoon of long-continued, drenching rain. It did this by climbing up among the close-set leaves of the supporting branch until it was well above its nest, and there it fell asleep in the rainy dusk. Presumably it left at this unusual hour because its downy nest had become slippery and uncomfortable.
Birds that grow up in open nests have ample opportunity to stretch and exercise their wings before they take their first flight. One may see young hummingbirds standing in their downy nest and beating their well-feathered wings into a haze, clinging with their feet to avoid being carried off. Many nestlings rest on their nest's rim, or even venture a few inches beyond it over the surrounding branches, then return to their familiar home. Rarely they take longer excursions, only to rejoin their nestmates who have stayed behind. But my impression is that the majority of true nidicolous birds never leave contact with their nest until the final leaf-taking, and then do not return to it save in those relatively few species which use the nest as a dormitory—certain woodpeckers, swallows, wrens, and other birds.

Young birds reared in open nests are not only able to exercise their wings before they enthrone themselves to them, but their nests are usually closely surrounded by vegetation, so that their first flight need not be long. Those which grow up in holes and burrows frequently lack space to exercise even fully expand their feathered wings, and moreover their doorway often faces the empty air high above the earth or else a wide expanse of open water, so that a weak, inept fluttering from the nest would be disastrous to them, and their first flight must necessarily be strong and long. To witness the emergence of one of these birds is highly dramatic, especially when one reflects that its safety depends on the efficient performance of an activity which it never had an opportunity to practice.

One morning, soon after sunrise, I saw a young Ringed Kingfisher come to the mouth of his long burrow in the bank of a Guatemalan river. For a while he rested there, gazing across the broad stream which sparkled in the sun's earliest rays. At intervals he bobbed his head up and down and uttered a loud rattle. Then suddenly he launched forth, turned downstream, and rose to perch in a willow tree. I estimated that his first flight carried him two hundred feet, with a rise of about forty—not a bad performance for a bird who had passed all his days in the dark earth, unable to exercise his wings.

This kingfisher took the decisive step spontaneously, while his parents were out of sight.
There are numerous accounts of parent birds coaxing or luring their reluctant or timid young from the nest, often by withholding food from them. Since I have, from concealment, or from a good distance, watched the departure of many young birds, from kingfishers and thrushes to magpies and finches, yet have never witnessed a successful attempt of untaught parents to persuade fledglings to leave, I am skeptical about the interpretation of some of these episodes. Apparently, in some of these cases, the observer’s presence excited the parents, which would greatly alter the course of events.

How difficult the interpretation of birds’ behavior can be was impressed upon me some years ago while I watched a burrow of a Red-tailed Jacamar, a starling-sized bird with a long, sharp bill and plumage that glitters like that of a hummingbird. When the first nestling came to the mouth of the tunnel in a burrow, its mother, approaching with a dragonfly, twice lowered in the air in front of it, then flew off without delivering the food. This may have been an attempt to lure the youngster from the burrow; but more probably the parent did not deliver the dragonfly simply because the fledgling was now filling the mouth of the tunnel and left her no place to alight. The next meal that the parents brought was taken to the stay-at-home rather than to the fledgling who meanwhile had come forth, and this seemed to indicate that it was indifferent to them whether their young ones stayed in the nest or emerged.

Similarly, I have seen Southern House Wrens, on coming with food, push past a fledgling who was at the entrance of the nest box, on the point of departure, and take the meal to another side, probably because the one halfway through the opening was in a position where it could not conveniently be fed. After the first of three young Black-crowned Tityras left their nest in an old Woodpecker hole, high in a branchless trunk on a steep mountainside, the parents seemed eager to bring the other two into the open. But all their coaxing in front of the hole was of no avail. The three youngsters left on three consecutive mornings, all at very nearly the same hour, and this regularity in the time of their departure was to me convincing evidence that they took the decisive step in response to inner prompting.

Although it is by no means the usual way, some parent birds do tempt their young with food to leave the nest, and in a few species this may be customary procedure. Colonel Münchertzen published a vivid account of how parent Owls at a Swedish lake displayed food to their nestlings from a distance, until the latter were forced by hunger to fly from the nest and receive it. Mrs. M. K. Brown reported that it was the regular practice of the Red-winged Starlings who nested on her porch in South Africa to withhold food from their young when the time for their departure was at hand. When one brood, which had clung to the nest longer than usual, failed to respond to this enticement, the father lost patience and proceeded forebodingly to evict the fledglings. Despite his mate’s effort to shield her offspring from his rough treatment, he lifted two of them bodily out of the nest and dropped them on the floor of the verandah. Then he pecked and pushed them over the edge of the high perch into the sheltering vegetation of the garden. No comparable instance of forcible expulsion from the nest has come to my attention. In my experience, parent birds lead or lure to a safe place fledglings who have already ventured forth, far more often than they try to make them leave the nest.