

## INCUBATION.

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Few birds so timid and defenceless as the Flicker, sit so closely and persistently. While occasionally it may be seen to fly from its nest at a near approach, it is usually very hard to drive out; shouting and pounding upon the base of the tree having little effect, and often it is necessary to prod the bird with a stick or reach in and pull her out by the beak. She is gentle and harmless, never offering to claw, bite or strike, although capable of inflicting a painful wound if disposed to use her strong beak. When caught she will struggle violently for a moment or utter a long wailing, despairing shriek which will be answered by the mate if within hearing distance. In one instance described by Mr. Jacobs the female returned and entered the partly destroyed cavity, emerging only to re-enter and re-examine her home the second and third time; and at another time when the female was flushed and set collected after dark, she came quite near and alighted on his back acting as if very much dazed or blinded. Prof. Jones has found it occasionally making fierce dashes at the intruder and also relates an incident of his first experience with it as a close sitter, taking it for an Owl and dropping three large stones upon it in the vain hope of causing it to vacate. When the nest was opened she was found pinned down by the stones but so carefully protecting the eggs that not one was broken, and happily she seemed unharmed also. For a bird habitually nesting in dark situations, it seems strange that it exhibits such a dislike and inaptitude for movement after the sun has set, acting stupidly and deserting the nest for good if disturbed at such a time. Incubation may commence soon after the first egg is deposited, or in accordance with the great majority of birds, after the set is completed. More than 90 per cent. of the sets of which I have data show the latter condition, and curiously enough, all but two instances (Louisiana and Kentucky) of irregularly incubated eggs occur in the New England and

Middle States ; from which we may infer that this species, as well as the Cuckoos and Kingfishers, are more addicted to this sort of thing, for which I believe no cause has yet been assigned, in the east than in the west. Most birds incubate by squatting upon their eggs in an upright position. One observer suggests that the Flicker may assume the posture of a Screech Owl while upon the nest, as in every case where he has opened the chamber it has been found lying upon the eggs ; but it is more than possible that the parent lay close but momentarily to avoid the falling *debris*, protect the young or eggs, or in the vain hope of escaping notice. Mr. Sinclair has had exceptional opportunities of observing the bird on her nest without disturbing her in the least, in the garret of the school building alluded to under the head of *Position* ; the loft being pitch dark excepting the light entering the rough entrance, in front of which the female sat upright like any ordinary bird. I have ample proof that it is doubly monogamous, though the observers with few exceptions have not found the male taking his turn at covering the eggs. It may be a more common trait in the east, where the bird is frequently lifted from a set of eggs well along in incubation. Sometimes near the middle of the day the male appears and utters a few love notes, when he is at once joined by his brooding mate, who soon hurries off in search of food, while the devoted male takes her place on the eggs. On June 12, '97, I was in the vicinity of a nest placed 35 feet up in the dead top of a chestnut tree in the woods, while the change was being effected. Time, 1:45 P. M. ; birds on tree ; short duet of *wick-a-wick* or breeding song ; both flew away, male returning in five minutes, alighting 12 feet below entrance, and after a thorough reconnoitre in which he undoubtedly observed me, ascended almost imperceptibly, halting four times to look about. Silent and very cautious, taking 25 minutes to get within a foot of entrance. Still suspicious and will not enter, but noiselessly flying to a bare limb and dropping from it to a lower and yet lower branch and back to main stem. As I stole softly away from the foot of the tree, unable to remain longer, he peeped shyly around the trunk at me. On May 28, '98, at 12:30 P. M., I took a male from a nest containing 7 eggs, in which incubation varied from commenced to small embryos, the absence of abdominal feathering proving

that it was a regular task. The female was feeding at the opposite side of the grove. Prof. Lynds Jones has one record of the duration of incubation, which was 14 days. Major Bendine gives it as about 15 days in his *Life Histories of North American Birds*. It doubtless varies to some extent, according to locality and season.