

NOTES AND PHOTOGRAPHS OF THE DEVELOPMENT OF A BUZZARD.

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Throughout southwestern Ohio and southeastern Indiana the turkey buzzard, *Cathartes aura*, is a common bird, but the nests are seldom found. Accordingly we were glad to learn in April, 1905, that during each of the preceding four summers a pair of these birds had nested only a few miles away. We expected that the nest would be again used, and on the 22d of April visited the place; we found that two eggs had been laid and that incubation was in progress. The bird on the nest hissed when approached, and would not leave the nest until forcibly disturbed; she then ran out and flew away, but soared about overhead until we went away, when she almost immediately returned to the nest.

This nesting site is about four miles east of New Paris, Ohio; it is near a small creek and in a very hilly country. It is at least a half mile from any house or highway, on the edge of a rather open woodland. The nest itself was in a hollow sycamore log (Fig. 1) nearly five feet in diameter at the butt; the cavity extends back about eight feet, where it has a diameter of about two feet, and there it terminates abruptly. This cavity contained a quantity of dirt and rotten wood, but nothing from which to make a nest had been carried in. A hollow had been scratched in the debris at the extreme end of the cavity and the eggs laid in it. They were rather conical in shape, a little larger than a hen's eggs, and were white, splotted with brown.

On May 17th both eggs hatched. The young birds were very helpless; they could not stand in an upright position for about three weeks. That part of the head and neck usually bare in buzzards and a line down the center of the throat and breast were bare. The bill was very large and its tip was sharply hooked. After the young were hatched the old birds were never seen about the nest, though they were frequently seen "oozing" around overhead.

We were unable to learn when the young were fed. On May 27th we went with a party of students to examine and photograph the birds and

nest. After photographing the nesting place (Fig. 1) the camera was placed in the end of the log and a flash light of the young birds in the nest was secured (Fig. 2). The birds were then removed from the nest, photographed at closer range a number of times (Fig. 3), and replaced in the nest. They offered no resistance whatever and seemed little if at all frightened.

On June 3d and June 9th other photographs (Figs. 4 and 5) were taken. The birds had by this time become larger and much more active than before; on the latter date when they were placed in the end of the log they at once hurried to the darkest corner. Also on this latter date they first attempted to defend themselves by vomiting up a portion of their food. It may be easily guessed that this is a very efficient means of defense.

On June 13th, when we next visited the nest, we found but one bird in it. The tenant of the farm afterward told us that several days before he had noticed that one of the birds was dead and had removed it from the nest. The remaining one was in no way injured and we were unable to learn what had killed the other. We removed and photographed the living one (Fig. 6). At this time, 32 days after hatching, the black primaries and tail feathers were beginning to appear but were not conspicuous enough to show in the photograph.

By July 1st the black primaries had become very noticeable, as shown by Fig. 7. When the bird had been pulled to the end of the log with a stick, it was usually seized by the tips of the wings and carried out to the front of the camera, which had previously been set up in a suitable place. When it had been set down it would always stretch its wings to their full extent before folding them. Figure 8, taken when the wings were thus extended, shows well the black feathers in the back, wings and tail.

Figs. 9 and 10, taken July 9th, and July 15th, respectively, show the gradual change from white to black. By the latter date the back had become almost entirely black, but the breast and belly were still pure white. The bill had become more slender and more sharply hooked. The bird would now strike vigorously with its bill at anything that disturbed it.

Fig. 11 was taken July 23d. This was 67 days after hatching; the wings and back were entirely black and there were many black feathers

on the breast and belly. The head was bare with the exception of short down on the back part. The bill was still of a dark color, though changing toward reddish.

On July 30th, when we returned, the bird was in the stump at the butt end of the log; it was easily caught and placed in a position favorable for photographing, when suddenly it sprang off the log and flew away; its flight was difficult and at no time more than 20 feet above the ground; after flying about 100 yards it alighted on a fence; we at once followed it with the camera, hoping to get close enough to get a good picture, but whenever we approached within about 50 feet it would again fly. We finally secured a picture (Fig. 12) at about 40 feet distance. At this time, 74 days after hatching, the bird was almost entirely black, and fully as large as an adult bird; a little of the white down still remained on the sides, about the neck and legs and on the under sides of the wings; from a distance one would have been unable to distinguish it from an adult.



Fig. 1.



Fig. 2.



Fig. 3.



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Fig. 4.



Fig. 5.



Fig. 6.



Fig. 7.



Fig. 8.

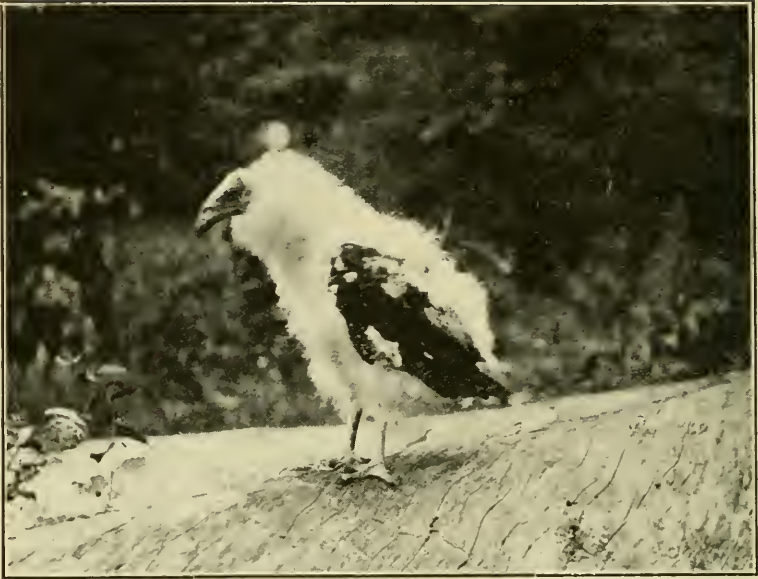


Fig. 9.



Fig. 10.

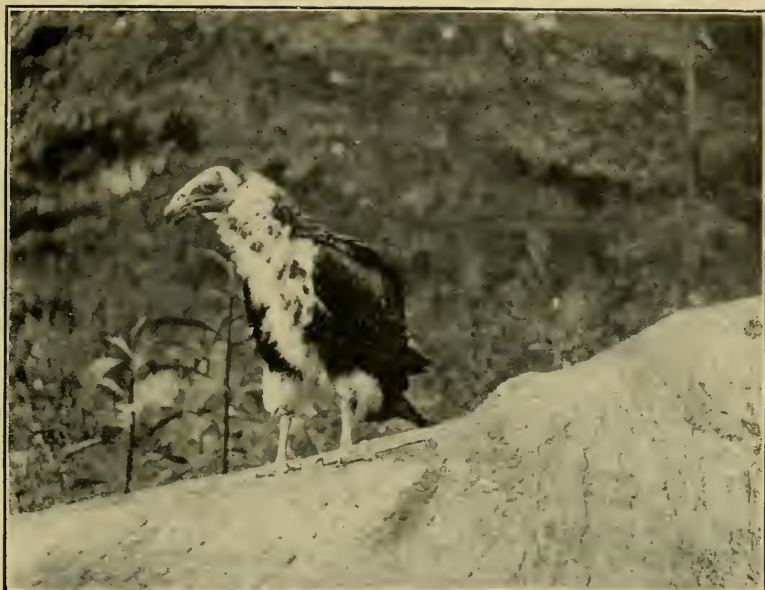


Fig. 11.



Fig. 12.

