

its presence feeding in the upper branches of a large tupelo gum. As there was a very good possibility that there was a nest close by, it was carefully watched for some thirty minutes as it fed overhead. During this interval it occasionally approached close enough to permit me to follow its restless movements without using my binoculars and to note its distinctive plumage with the naked eye. Rather unexpectedly it suddenly flew some distance away, and although I followed the direction it had taken I was unable to locate it again. Still hoping to find a nest with either eggs or young I spent the rest of the morning searching the numerous cane thickets that were a prominent feature of this swamp, but with no success. I was equally unsuccessful in seeing a female Bachman's Warbler. However, although this species has not heretofore been known to nest in Mississippi I feel that under the circumstances it is not improbable that it did breed in the Trincane Swamp in 1940, and possibly in previous years as well.—THOMAS D. BURLEIGH, *U. S. Fish and Wildlife Service, Moscow, Idaho.*

Robins Use Same Nest for Three Sets of Eggs in One Season.—On the Cranbrook Estate, Bloomfield Hills, Oakland County, Michigan, May 16, 1955, I found the nest of a Robin (*Turdus migratorius*). This nest was in the vertical fork of an eight-foot Tartarian honeysuckle (*Lonicera Tatárica*) 69 inches from the ground. The female was sitting on four eggs. At the next observation on June 3, the nest was empty, but showed feather scales from fledglings and the normal wear of the grass nest-lining materials. This nest was observed again on June 18 at which time the female was incubating three more eggs. The lining of the nest showed no signs of repair. At a later observation on July 23, this nest held three eggs and one young to which the egg shells were still clinging. On July 27, three 4-day-old young and one not more than two days old were in the nest. On July 30, the small young, which was dead, was removed from the nest and the remaining three young were banded. These banded young were still in the nest on the late afternoon of August 5. The total time from the discovery of the nest until the last observation was 82 days. Probably, the first two sets of egg produced young, which left the nest successfully as, in my experience, destruction of eggs or young causes the adults to abandon the nest immediately. Plate 6 shows the extreme wear of the nest during a period of an estimated 100 days without shelter from the time of its construction and without any noticeable repair. However, the season was much drier than usual so that the nest's mud cup was subjected to less softening than during a rainy season. Another factor which may have strengthened the nest was the well-constructed nest of a Catbird (*Dumetella carolinensis*) which served as its foundation.

The only other report of three nestings of a Robin in the same nest in one season I have found in the literature was by Edward A. Preble (MS) in Bent (*U. S. Natl. Mus. Bull.* 196: 21). No details were given.—WALTER P. NICKELL, *Cranbrook Institute of Science, Bloomfield Hills, Michigan.*

The Function of the Concealed Throat-patch in the White-necked Raven.—On 22 April 1955, while driving from Rio Grande City to Laredo in the Rio Grande Valley of Texas, I first made the acquaintance of the White-necked Raven (*Corvus cryptoleucus*). It was the courting season, and the some 40 birds observed during the day were mostly in pairs or threes, and were generally seen perched on the cross bars of telephone poles. The first birds seen were a pair billing and "carking"—it could not be called cooing—on a telephone pole near Falcón. Every now and then the breast, and at times also the throat, of one bird would flash out brilliantly white, especially, it seemed, when the other bird caressed its beak with its own. Later, of three birds on top of a telephone post, only the middle one showed the white, and

there was no evident courtship going on. A single bird "scratching" himself by the wing with his beak also revealed the white. The next day in the vicinity of Crystal City three separate pairs were seen, in each case sitting close together. We stopped to watch one pair and noted the white throat on both, appearing broad in one, narrow in the other; there was no billing. The birds were nearly always silent, but one that flew near at lunch time called "quarck" several times in a subdued, very flat tone, between the voice of a Fish Crow and that of a duck.

These observations indicate that the concealed patch of white on the throat and breast of the White-necked Raven functions in courtship and is not there merely to be revealed when the wind is blowing in the right direction, as some authors would suggest. I find no previous observation of this sort in any of the references dealing with the life history of this bird in Ridgway's *'Birds of North and Middle America'* or in any of the later works consulted. In fact, references to the observation of the concealed white feathers in living birds are so few that all of them that I could find have been brought together in the following paragraphs.

Herbert W. Brandt (*Texas Bird Adventures*, pp. 144-145, 1940), who is quoted by Bent (*Bull. U. S. Nat. Mus.* 191: 216, 1946), says: "It is then [early April] that the community takes to the sky, and the male especially is wont to perform in the air. . . . At that time his snowy-lined neck-piece becomes so enlarged that the feathers stand straight out like a fluffy boa, while those on his chin upturn at an acute angle, and the over-weening, black-bewhiskered rogue is then the picture, to his ebony admirer, no doubt, of a handsome, chivalrous swain." This poetical description of his appearance would lead one to believe that Brandt had observed the white on the birds while they were in the air, but two paragraphs further on (p. 145) he states: "Of the thousand [sic] of them that I have enjoyed watching, not one displayed to my eye other than jet." In his later and more elaborate work, *'Arizona and its Bird Life'* (1951), there is no mention of the observation of the white in life in any of the numerous text references, and in his systematic catalog (p. 671) he says: "In the field the thus termed 'white neck' of this raven never suggests itself to the eye." Evidently his description of the condition of the neck quoted above was based on specimens collected.

Shaler E. Aldous, who has made a more detailed study of this bird in the field than any other biologist, does not refer to any display of white in his brief account of courtship activities, but does say, when writing of field marks: "Occasionally, also, the white bases of its neck feathers can be seen when the plumage is ruffled by the wind." (*The White-necked Raven in relation to agriculture. U. S. Dept. Int., Fish and Wildlife Serv., Research Rpt. 5: 4, 1942.*)

Bendire (*Life Histories*, 1: 402, 1895) likewise does not refer to the exhibition of the white throat-patch except in a somewhat casual way, when remarking on the familiarity of the individuals around his camp near Tucson. "I remember one bird in particular (easily recognized by a white patch on the throat caused by the loss of some feathers) which visited my kitchen tent regularly."

Bradford Torrey, who had excellent opportunities for watching the bird in Arizona (but only in the winter), thought it worth while to make a special footnote record (*Nature's Invitation*, p. 191, 1904) of a bird he observed on top of a telephone pole facing a stiff breeze which blew the feathers of the throat apart to expose a snowy white patch the size of a silver dollar.

Since this note was written Miss Adele Koto of Beloit, Wisconsin, has shown me 2 or 3 kodachromes she took at Brownsville in January, 1956, which show the white of the throat revealed in a small patch by a strong wind.—S. F. BLAKE, *3416 North Glebe Road, Arlington, Virginia.*