

Nesting of Salvin's Barbet.—It was my good fortune to observe two nests of Salvin's Barbet, *Eubucco bourcierii salvini* (Shelley) at El Volcan, Province de Chiriqui, Panama, in June and July, 1937. Since there appears to be no published record of the nesting of any of the New World barbets, it may be worth while to mention my own notes on the subject. Both nests were situated in woodpecker excavations in decaying fence posts. The holes were of a size suggesting the work of *Centurus*.

The first nest, at El Volcan, 4100 feet elevation, was in a fence-row at the edge of the jungle. The entrance hole was five feet from the ground, and 1.25 inches in diameter. It extended downward, increasing in diameter rapidly, with the floor of the chamber only seven inches below the entrance. The male was seen to enter this nest during the day, and I collected the female at night, so that the incubation appears to be shared by both sexes. There were two eggs, plain white in color. One contained an embryo of about five days development; the other was scarcely incubated. No developing eggs were found in the female's reproductive tract, so that the clutch was complete. The eggs were 16 x 25 mm. and 17 x 24 mm. Date: June 22. The female's iris was a deep reddish orange; bill pale greenish yellow, yellow at tip; legs and feet greenish slate, with yellow soles.

On June 26, I found a second nest, also at El Volcan, 4100 feet. On several occasions I had flushed a barbet from a certain bush along an old overgrown trail. Sometimes it was a male, at other times a female, and I concluded that a nest must be nearby. After searching for some time, I found it.

I have observed that tropical birds make less demonstration when intruders approach their nests than do birds in a temperate region. If I surprised the barbets near their nests, they gave no evidence of being disturbed by my presence, either by vocal outcry or by excess motor activity, injury-feigning, or other device for drawing my attention to them, and away from their nest. When I appeared, the barbets would quietly withdraw to another thicket, not approaching the nest until I had sat quietly but unconcealed several yards away for about half an hour. Then they resumed their activities as if I were not there at all.

The second nest was in a post of an old fence, surrounded by heavy undergrowth, and again next the jungle. The entrance was only two feet from the ground. There were newly hatched birds in this nest. On July 3, the fledglings were becoming noisy. Both parents brought food to them; so far as I saw this consisted only of insect fare. The youngsters did not discriminate between the arrival of the parent and my tapping on the stump—both phenomena were followed by loud squeaks from within the post. On July 7, the young still responded in the same way to my tapping, but by July 9, when they were at least thirteen days old, they kept perfectly silent during my visits, while still calling the incoming parents loudly.

The parents never went directly to the nest. Arriving with their beaks full of insects, they usually sat in a small bush about twenty feet away, seeking the inner twigs next the main trunk. Here they waited perfectly silent and motionless for five or ten minutes, appearing almost owl-like and ludicrous with their insect moustaches. Finally at no discernible stimulus, one would fly quite openly to the post and enter it at once. In a moment it would pop its head out, minus the insects; finding the coast clear, it would disappear into the hole once more, to be gone for some time. I assume that it dropped the insects at first, then returned to deliver them to the young. Eventually it would fly out, carrying droppings from the nest. Returning to the bush twenty feet away, it would relinquish the droppings, and then disappear into the forest. I could never follow the birds once they left the nesting site, for they moved only in the densest thickets, and then to some purpose; there was none of the constant nervous motion so common among passerine birds.

I finally collected this entire family on July 11. There were three young ones, about two-thirds fledged, and appearing very nearly equal in age. The young resembled the female parent in plumage.

Carriker states that Salvin's Barbet inhabits the highest jungle tree-tops in Costa Rica, but I never detected it anywhere in Panama except in dense thickets. Here it may easily be overlooked in consequence of its habit of perching quietly for long periods. It occasionally turns its head slowly from side to side, peering cautiously at the onlooker. It allows itself to be closely approached before flying away. I never heard an adult utter any note.—C. BROOKE WORTH, *Swarthmore College, Swarthmore, Pennsylvania.*

Arkansas Kingbird in South Carolina.—On November 19, 1937, during the occasion of the annual field trip of the A. O. U. meeting, an Arkansas Kingbird (*Tyrannus verticalis*) was seen by the majority of more than two hundred visitors. This constitutes the second known occurrence of the species in South Carolina, the former specimen having been secured on December 16, 1913 (Auk, 31: 248, 1914). Though this second instance is a sight record, the bird was seen by so many Fellows, Members and Associates of the A. O. U., that securing the bird was unnecessary. This was out of the question anyway, as the locality involved was Bull's Island, a part of the Cape Romain Federal Migratory Bird Refuge.

The bird was seen by the first arrivals on the Island, and it remained in the oak trees near headquarters for the rest of the day, where it was seen at frequent intervals by highly interested groups. It was one of four very rare species observed that day, which, in many ways, made ornithological history for South Carolina.—ALEXANDER SPRUNT, JR., *R. F. D. No. 1, Charleston, South Carolina.*

Arkansas Kingbird in Florida.—On April 2, 1938, I saw three Arkansas Kingbirds (*Tyrannus verticalis*) at close range in a bush at the edge of the southwestern shore of Lake Okeechobee, Florida. The birds were all tame and allowed themselves to be studied closely through an eight-power binocular. Their light gray upper parts, black eye-stripes, gray breasts, and yellow bellies were all clearly apparent. They did not act as if they had recently flown far, but behaved quite normally. But inasmuch as there had been recent hurricanes in the Mississippi Valley, it is possible that the birds had been blown out of their normal range.—C. BROOKE WORTH, *Swarthmore College, Swarthmore, Pennsylvania.*

Barn Swallow's nest without mud.—During field work on South Fox Islands in Lake Michigan on June 23, 1937, I entered a deserted dwelling in which were seven mud nests of the Barn Swallow (*Hirundo erythrogaster*) attached to the walls, and two House Wren nests in crannies. Three of the above swallows' nests contained eggs and during my inspection the birds flew in and out of the empty windows and through the house. A nest was found in a circular flue opening in the wall, seven feet from the floor. Because the makers could not be easily guessed, I waited a quarter of an hour for the return of the birds, but they did not come into the room so I took the nest and eggs away with me. Comparison of the eggs shows them to be beyond doubt those of a Barn Swallow. The nest, however, is unique in that no mud was used in its construction, for the floor and sides of the chimney flue offered ample support for a nest corresponding to the usual lining of a Barn Swallow's nest, albeit, better and more massively made. The main mass of the nest measured about seven inches across, with rootlets, grass and feathers continuing well beyond this limit. The cup was firmly woven, chiefly of fine rootlets, but with coarse rootlets and some grass on the outside. A few of the rootlets had small globules of sand adherent