

in nest construction. Had the use of sloughs by this species been confined to the use of fragments in general construction, no especial problem in connection therewith would have arisen. The "mystery" arises because of the fact that entire sloughs or large pieces are either left hanging from the nesting holes or are conspicuously placed along the rim of the nests.

Since many species of birds have their young and eggs destroyed by snakes, and since old birds at nesting time are greatly concerned when a snake is seen near their nests, as I have often observed to be the case, it seems obvious that if such species, and presumably the Great-crest does not escape their depredations, in seeking nesting material recognized snakes' sloughs as sufficiently snake-like to act as scare-crows to other birds, or other animals, they would themselves be too much alarmed on discovering the sloughs to use them in nest building. Hence two corollaries appear to be justified: (1) that since birds gather snakes' sloughs, they do not associate the flimsy, lifeless material with their former wearers; and (2) that they themselves, not recognizing that sloughs resemble snakes, do not employ them in nest building as scare-crows, but in the same manner that birds occasionally use fragments of birch bark, leaves, strings, newspaper, etc., as nesting material.

Sloughs are conspicuous objects as seen from the trees and no doubt their availability as nesting material is investigated by many species of birds, but it is only the larger species that are able to utilize entire specimens, especially from our larger species such as the black snake, on account of the difficulty of carrying them to their nests and their manipulation afterwards.

If, in the process of nest construction, the casts be built into the structure inconspicuously, they would have little of the alarming aspects often attributed to them. If, however, birds happen to place the slough along the upper edge of the nest where it is likely to be easily displaced and consequently subject to frequent rearrangement by the sitting bird, as chronicled by Bolles,¹ it becomes a prominent object and consequently has given rise to a theory involving the matter of *purpose* in its use other than as nesting material, notably "to scare away intruders," as was suggested by him. This theory, however, fails to account for the fact that *crinitus* and four of its races, as well as birds of other genera, are not themselves frightened when they come across snakes' sloughs, but instead they collect them even as they collect other nesting material, and *crinitus* often includes also, as stated by Coues, a great variety of other objects, "trash of the most miscellaneous description, sometimes accumulated in astonishing bulk."—CHARLES L. WHITTLE, *Boston, Mass.*

Snakes' Sloughs as Nesting Material.—The Western House Wren (*Troglodytes aedon parkmani*) may be added to the list of birds mentioned

¹"Snake Skins in the Nests of *Myiarchus crinitus*," *The Auk*, 1890, p. 288.

by Mr. John K. Strecker in his article in 'The Auk' of October, 1926, "On the Use, by Birds, of Snakes' Slough as Nesting Material."

On May 31, 1921 in the Missouri River bottom near Kansas City, Missouri, Mr. Harry Harris discovered a nest of the Western House Wren in a cavity in a dead willow, six feet from the ground, made of twigs and in his notes remarks: "The lining of this nest was different from most Wrens' nests I have examined; it consisted almost entirely of a small cast snake skin." The next day he discovered another nest "lined with several pieces of cast snake skin."

During the nesting seasons of 1922, 1923 and 1924 Mr. Harry Harris and I gave particular attention to Wrens' nests in this locality and noticed that the majority of them contained snakes' sloughs in the linings of the nests. From Mr. Harris's notes on 23 nests examined, snakes' sloughs were found in 13 of them. From my own data on 7 nests, I noted finding snakes' sloughs in the linings of 6 of them. Of the total of 30 nests examined by us in those years 19 contained cast snake skins. This is approximately 63% of the nests examined. The amount of snake skin used varied from a nearly complete lining of the nest to a few fragments of snake skin in a lining of feathers; but in all cases it was used in the lining only.

The nests were all located in a deep stand of willows in the Missouri River bottom near Kansas City, Missouri. The many dead willow stubs furnished suitable nesting cavities in this place; food and snakes' sloughs were easily obtained and the Wrens were abundant.

I do not mean to say that the majority of the nests of Western House Wrens contain snakes' slough in the lining of the nest, but such was the case in this particular locality under these conditions.—DIX TEACHENOR, Kansas City, Mo.

On the Usage of Snake Exuviae as Nesting Material.—Mr. John S. Strecker in his article "On the Use, by Birds, of Snakes' Sloughs as Nesting Material" (Auk, XLIII, 1926, pp. 501-7) names several species which use snake skins as nesting material. He closes, however, without explaining this "bizarre peculiarity" as he justly calls it. In compliance with his closing request, I hope, by some observations made in 1925, to throw some new light upon the subject.

From my general observations another species can be added to Mr. Strecker's list, i.e., *Passerina cyanea cyanea* (Indigo Bunting.) I have collected during various seasons and in different localities several nests of this species composed partially of snake skin. None of these were lined with snake skin, but all had it combined in the lower portion of the nest, or woven in the sides and brim. One nest collected July 23, 1923, has the entire lower portion composed of snake skin. There are long strips of skins streaming from the bottom of the nest.

On June 12, 1925 my little niece found a nest in an old Martin box hung on the garden fence. I examined the box and found a set of five eggs of *Myiarchus crinitus crinitus* (Crested Flycatcher). On examining the nest