

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

I found that it was composed of hog hair, grass, feathers, and six strips of transparent celluloid in addition to many smaller pieces of the same material. The strips of celluloid were from one-half to three inches in width and from five to six and one-half inches in length. In the same box just previously I had found a nest of *Thryothorus l. ludovicianus* (Carolina Wren) which did not contain any of the celluloid.

Transparent celluloid resembles snakeskin very much except in odor. Celluloid has a slight odor, especially noticeable when heated, whereas snake skins do not. I examined fifty snake exuviae and failed to detect any odor whether the skins were cold or heated.

Birds as a rule are attracted to shining objects and deport these objects whenever possible, as in the case of the common pet Crow. I have observed *Pici* (Woodpeckers), *Baeolophus b. bicolor* (Tufted Titmouse) and *Penthestes c. carolinensis* (Carolina Chickadee) investigating pieces of bright metal or glass hung in the sun.

Herein lies a possible explanation of birds' usage of snake skins. My experiment leads to the assumption that it is not because they have an offensive odor that would protect the nest, for snakeskins have none, but because birds are naturally attracted to shining objects.

Crested Flycatchers are very inquisitive birds, as most any oölogist has observed. If, then, birds act in accordance with neural impulses, why should this species, high in the plane of avian evolution, err so in mistaking celluloids for snake skin? If the odor theory were correct, the difference between the odors of snake skin and celluloid would certainly be perceptible if the avian olfactory nerves were sensible to either.

A possible experiment on this line which I have not been able, thus far, to conduct, would be to determine whether there is any choice between celluloid, or other shiny material with more or less odor, and snake skin when both are readily accessible. The relative attractiveness of shiny objects for different species should also be a stimulating and fruitful field for research.

Though I realize that a decision cannot be made scientifically on one case of behavior, yet I believe that the theory that birds use snake skin as a nesting material because of its shiny, attractive appearance is more logical than the theory of offensive odor. I hope at least, that my observations may open new channels of thought on this peculiar avian habit that may lead to more exhaustive research.—JAMES SUTHARD, 5515 Kimbark Ave., Chicago, Ill.

Birds and Motor Cars.—In connection with reports on the killing of birds by motor cars, particularly in the West, I took note when driving some twenty-five hundred miles, on highways and back roads in New Hampshire, June 21 to July 21, 1926, and noted the crushed bodies of only two birds.

The speed of flight of a few birds, as noted from my speedometer, may be worth adding to our rather meagre records; it is rarely that the three