

12 June 1958, by C. O. Handley, Jr., was found to have tarsi and toes that were identical in color to those of the two females. Herbert L. Stoddard of Thomasville, Georgia, in recent correspondence reports that he has examined the tarsi and toes of four freshly killed male Black Rails, and that "all had legs practically the same color as those of the King and Virginia Rails; a dull chocolate blackish."

The existence of this discrepancy between the actual coloration of legs and toes of Black Rails recently examined, and the descriptions of these parts in the literature, was verified by Dr. Herbert Friedmann and Mr. Herbert G. Deignan of the U.S. National Museum, and Dr. John W. Aldrich and Mr. Thomas D. Burleigh of the U.S. Fish and Wildlife Service. Possibly, these recorded differences could be related to age or race. However, we are not aware of any concrete evidence that would support such a supposition.—BROOKE MEANLEY AND ROBERT E. STEWART, *Patuxent Research Refuge, Laurel, Maryland*.

The Basis of Color Dilution in an Albinistic Blue Jay.—In March 1955, an albinistic Blue Jay (*Cyanocitta cristata*) was collected near Milford, New York, by Mr. Chester Sweet. The bird was with a flock of jays when collected and appeared to be normal except for coloration.

Color was evident only in areas corresponding to those of heaviest pigmentation in the normal bird. Thus the hard parts, neck band, and parts of the wings and tail were the only parts of the aberrant bird that were at all strongly colored. The bill, feet, legs, the area around the eye, and the neck band, which are all black on normal jays, were brown on the light-colored one. Areas which are normally light-colored, such as the breast and throat, are even lighter on the aberrant one. The top of the head and the back, normally gray-blue or dusky blue, are dirty white in the albinistic specimen. The portions of the primaries, secondaries, and tail feathers, normally blue and black, are in the present specimen respectively very light blue and light brown.

The blue color of the Blue Jay is due to scattering of light through a modified layer of transparent cells in the barbs (the so-called box cells) containing gas-filled vacuoles, which lie above cells containing a brown melanin pigment (see Gower, 1936, and Frank, 1939). The question was whether the unusual coloration in this specimen was due to a deficiency of pigment, or to a structural abnormality in the blue-producing cells. Ten micron cross sections were made of the barbs in order to determine the cause. Basically the process of Gower (1936) was used, but the feathers were not bleached. They were imbedded in paraffin, then mounted in Canada balsam. Corresponding secondary wing feathers were selected because of their range of color. The sections showed the pigment to be greatly reduced in the feathers of the light-colored bird, as compared with the normal (Fig. 1). Although seen in only one feather, it was assumed that this difference would hold throughout the bird. No structural difference could be detected, but the box cell layer was very indistinct in both birds, the vacuoles not being visible at 970X.

According to the classification proposed by Pearson, Nettleship, and Usher (1911-1913), and used by Mueller and Hutt (1941), this bird is an imperfect albino, as there is a partial inhibition of pigment formation in the feathers. I have been unable to find other records of imperfect albinism in the Blue Jay or other blue birds.

Acknowledgments. The author is indebted to Dr. L. D. Uhler for help in preparation of material, and to Dr. C. G. Sibley for suggestions.

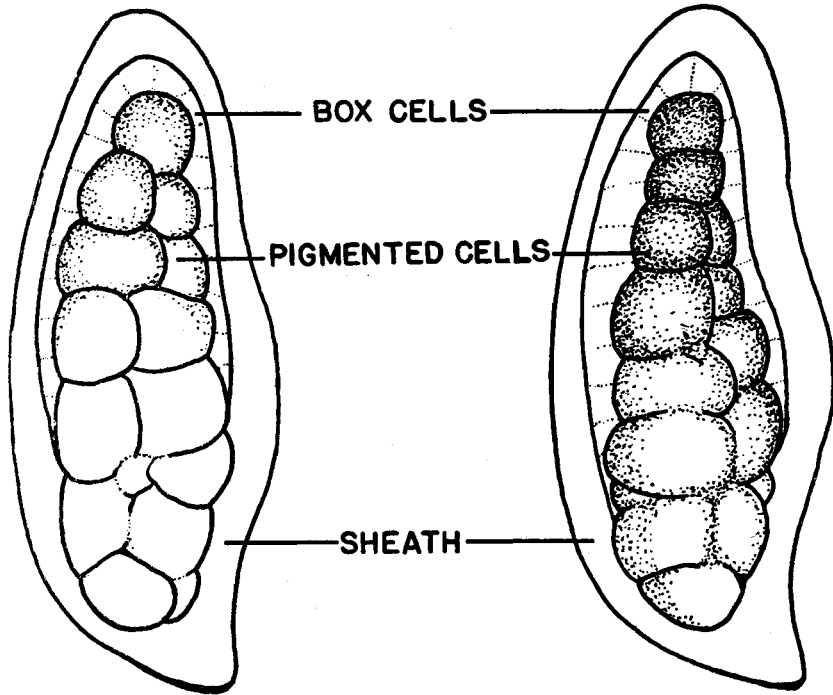


Figure 1. Cross sections of barbs of Blue Jay feathers, comparing the imperfect albino (left), with the normal. Drawings were made at 970X.

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Egg Replacement by a House Wren: Incubation Period.—In Baltimore in 1959 a House Wren (*Troglodytes aëdon*) began laying eggs in my nest box on June 13. On June 16, when there were four, all disappeared. Nevertheless, new eggs appeared on the next two days, so that on June 18 the bird completed what would have been a set of six. Then on June 23, laying was resumed through June 26, the four new eggs, along with the two remaining from the first laying, again