

It was again taken November 24th with a nearly white tail. On September 24th the normal tail was 2.52 inches in length, and no change was noticed on the next dates when the bird repeated, but on November 24th, the tail being white and short, I examined it closely. The tail feathers perhaps should not be called pure white, but rather gray, as there was a little dark pigment in them. There were five of these light feathers on the right of the tail and four on the left. As I proceeded to measure them, I found the stumps of three old broken feathers on top of the light ones. The new feathers measured 2.05 inches, the three old feathers .90 of an inch.—Mrs. KENNETH B. WETHERBEE.

Color Variability of the Rump Plumage of the Eastern Purple Finch.—As an example of a not uncommon phenomenon it seems worth while to place on record some plumage-color variations of a female Eastern Purple Finch during a period of approximately two years. B69309 was banded at my Peterboro, New Hampshire, station on May 5, 1931, as a bird whose sex was unknown and of an undetermined age, although it was at least a year old and may have been much older. In my notes, Purple Finches not adult males are commonly indicated at the time of banding by the male and female sex symbols joined together. If such a bird's plumage varies from the normal, the unusual coloration will probably be on the rump, sometimes, but not always, with accompanying unusual colorations elsewhere, such as on the crown, throat, sides of breast, tips of greater coverts, etc. B69309 when banded presented nothing unusual in the above respects, excepting that the rump was especially of a yellowish-olive color, a quite common variation but not one indicative of sex, as shown by the fact that such birds may later take on the adult male or normal female plumage.

On the following July 3d the bird repeated, and it was inferred to be a female because the band was polished, no doubt by frequent contact with her eggs during incubation. She repeated again on the first day of the following October after the post-nuptial molt was over. A marked change had taken place: her rump feathers and upper tail coverts were now of a pale rosy color, and scattered feathers on the breast were of similar coloration, while as a whole she had assumed a general buffy cast.

In 1932 she was taken as a return-1 on April 18th. Her rump now had become distinctly more rosy, no doubt because of abrasion of the barbules. Her crown feathers now, viewed tangentially, were also seen to be pale rosy. On the following June 18th she repeated, her band being again well polished. Since adult plumage would have been assumed the previous fall, it was of course obvious that the bird was a female. During the summer and the following fall she repeated frequently up to August 10th, on which date no visible molt was under way.

This spring (1933) on April 5th she was recaptured as a return-2, but all the rosiness of the previous year had disappeared, and her rump had become conspicuously yellow, the entire bird retaining her faint buffy cast.

Since Jonathan Dwight, Robert Ridgway, and Witmer Stone¹ do not mention color-changes in any way similar to the above, or, indeed, mention the common variable coloration of the rump tract in young males or fe-

¹ See Dwight: *The Sequence of Plumages and Moults of the Passerine Birds of New York*, pp. 173 and 174; Ridgway: *Birds of North and Middle America*, Part 1, pp. 128 and 129; and Stone: *The Molting of Birds with Special Reference to the Plumages of the Smaller Land Birds of Eastern North America*, pp. 139 and 140.

males of any age, it seems patent that such colorations, were lost by fading or were never present in the skins examined. If the bird-skins studied by the investigators mentioned were originally without rump-colorations of the sorts described, then such colorations noted at present may be due to the nature of the food eaten at banding stations, for Dwight (*ibid*, p. 174) writes that caged male Purple Finches often lose their brilliant color, which is never regained while the birds remain in captivity, a fact believed to be due to the loss of some ingredient in their food. He reports that the colors assumed by such males are "bronzed or golden."

This circumstance lends some support to the view that the loss of rosy plumage described may have had a similar explanation—which, if true, would make it likely that the change from yellowish to rosy was caused by the qualities of the food eaten. However, it so happens that we caged one of Mrs. Whittle's Purple Finches (B50051) in October, 1928, which was unable to fly well when banded, a juvenile bird which we kept captive till the spring of 1931. His food during this period was largely sunflower seeds with some ash and Indian currant seeds, rose seeds, and red maple and lilac buds. In the fall of 1929 he assumed a faintly rosy plumage, which was replaced at the 1930 molt by a much more rosy plumage, though not of the intensity or normal old males. That variable rump-coloration is common among olivaceous birds (immature males and females) and sufficiently so to warrant mention in my notes at the time of banding is shown by the figures for April, 1933. Out of twenty-five birds (not including adult males) twelve were so described, and thirteen had rump of normal coloration. These birds were banded as they reached here from their winter quarters, and so far as known they had never before eaten sunflower seeds, so that, if the variations noted were due to their food, other kinds than sunflower seeds were the cause.

The conclusion of Dwight and the plumage-history of B50051 are conflicting. The occurrences of varied rump-coloration are numerous, and many appear to occur among birds not having previously visited banding stations, so that I am disposed to believe that the artificial food-supply played little part in the changes described in case of B69309, and that in general it does not account for the variously colored rump feather tracts observed.—CHARLES L. WHITTLE, Peterboro, New Hampshire.

RECENT LITERATURE

The Birds of Newfoundland Labrador.—by Oliver Luther Austin, Jr. This well printed quarto volume, Number VII of the Memoirs of the Nuttall Ornithological Club, supplies a very welcome addition to the regional lists of North American birds. Dr. Austin has brought to his task a wide knowledge of the subject treated, for he spent three summers in exploring and collecting along the Labrador coast and has in addition read very extensively the literature on the region and has also made careful studies of much ornithological material in museums and private collections.

In his introductory chapters Dr. Austin gives a brief review of ornithological explorations in Labrador from earliest accounts to the present time, and then gives the itineraries of his own three trips to the region. The first of these, in 1926, consisted largely of reconnaissance work in preparation for the collecting trips of the next two summers but in 1927 and 1928 intensive studies, including considerable bird-banding, were carried on by Dr. Austin, ably assisted and abetted by his father, Dr. Oliver L. Austin, Sr.

Then follows a very interesting discussion of the origin and history of the