

Third in Fuertes print series

THE ACCOMPANYING plate was first published in *Bird-Lore*, Volume XV, No. 1. January-February, 1913, facing page 1. The original size of the vignетted print was 4-1/4 by 6-1/2 inches. The original text by Frank Chapman, for the Snow Bunting only, is printed in its entirety. Chapman apparently knew little about McKay's Bunting, for his text, of five lines only, contains no plumage descriptions. Our text, assimilated from several sources, has been reviewed by Dan Gibson and Henry Springer of Alaska. Fuertes was on Hall Island in July, 1899, with the Harriman Alaska Expedition, and his other painting of McKay's Buntings, male and female, was published in the Proceedings of that expedition, Smithsonian Institution, Vol. 1, p. 110, 1910.

Another Fuertes print will appear in the March, 1980 issue of *American Birds*.

Notes on the plumage of North American sparrows

by Frank M. Chapman

Snow Bunting (*Plectrophenax nivalis* Figs. 2-5). The plumage changes of the Snow Bunting are most interesting, few birds presenting a more striking illustration of differences in appearance which are due solely to wear, and not to molt of the feathers.

The nestling is brownish gray, above indistinctly streaked with black in the center of the back; the breast is grayish, the belly soiled white. Even at this age, the sexes may be distinguished by the greater amount of white in the wing of the male; the primaries, as well as the secondaries, having white areas. As yet these feathers in the male are white only on their concealed basal portion; but it may be said here that as the birds grow older the amount of white increases, until in fully mature birds it occupies the basal third of the feathers.

At the postjuvinal molt, which, in Greenland, begins in the latter half of July, the body feathers are molted, the tail and wing-quills being retained, and the bird passes into first winter plumage (Fig. 4). Males and females, immature and adult birds, now look much alike; but the male differs from the female, as in the juvenal plumage, by having more white in the wing and also by having the feathers of the crown sub-basally white. That is, in the female the crown feathers are black tipped with brown, while in the male these feathers are white with narrow black bases and sufficiently wide brown tips to completely conceal the white which is so conspicuous in breeding plumage (Fig. 2).

Aside from a little feather-growth about the head, there is no spring molt, and the change from the brown fall plumage (Fig. 4) to the black and white breeding plumage (Fig. 2) is due entirely to a wearing off of the brown tips of the winter plumage. This occurs gradually (Fig. 5), and feathers taken from October, January, March and June specimens show how the change in color from black to brown is produced.

The female (Fig. 3) passes through the same series of changes as the male, but does not become so pronouncedly black and white, in part because her feathers are basally not so purely black and white and in part because they do not wholly lose the brownish (now faded to grayish) tips of the winter plumage. The breeding female is apparently more protectively colored than the male, though the differences between their plumages are due to an external mechanical cause rather than to an internal physiological one.

McKay's Bunting (*Plectrophenax hyperboreus* Fig. 1) This beautiful species is found during the breeding season only on Hall and St. Matthew islands in Bering Sea and sometimes on St. Lawrence Island, migrating in winter to coastal western Alaska. Fuertes' painting is of the breeding-plumaged male, on average slightly larger than, but similar in appearance to the breeding ♂ Snow Bunting, but lacking the black everywhere except for primary tips and tips of the inner rectrices. Bill and eyes black, as in breeding *nivalis*. Breeding-plumaged females are similar to ♀ *nivalis*, except that the pileum and hindneck are all white, or (rarely) with faint streaks on the pileum, and the dark areas of the back and scapulars are paler and less extensive. Juvenile birds are much like those of *nivalis* with "general pattern somewhat like that of the adults, with the pure whites replaced by grays, obscure dusky streaks on the breast, and primaries dusky rather than black. In winter the adult male has more or less of a brownish or rusty wash on the head and back, but otherwise is much like the summer bird. The adult female has more black and dusky streaks and patches on the back and scapulars and a brownish wash over most of the back."¹ Juveniles "not with certainty distinguishable" from *nivalis* juveniles.² Henry Springer, of Nome, Alaska, who has been studying the buntings, reports that juvenile male McKay's have lighter backs than juvenile ♂ Snows, and are much like the adult females.

The Alaskan race of the Snow Bunting, *P.n. townsendi* is reported to be "identical in color to the nominate race and differs only in size, being larger-bodied and with notably larger bill."¹

¹GABRIELSON, IRA N., in Bent, A.C. *et al.* 1968. Life Histories of North American Cardinals, Grosbeaks, Buntings, Towhees, Finches, Sparrows, and Allies, U.S. Nat'l Mus. *Bull.* 237, Part 3. pp. 1675, 1677-80.

²____ and FREDERICK C. LINCOLN, 1959. The Birds of Alaska Stackpole, Harrisburg, Pa. p. 823.

McKay's Bunting *Plectrophenax hyperboreus*

1. ♂ summer

Snow Bunting *Plectrophenax nivalis*

2. ♂ summer
3. ♀ summer
4. ♂ fall
5. ♂ spring

