

GENERAL NOTES

Conducted by O. A. Stevens

Eastern Warbling Vireo in Colorado.—The Eastern Warbling Vireo (*Vireo gilvus gilvus*) is a breeding bird in southeastern Colorado (Trinidad, Las Animas County, and Manzanola, Otero County) and occurs at Holly, Prowers County in migration, according to Dr. Harry C. Oberholser. The specimens listed below, identified by Dr. Oberholser, are in the collection of the Colorado Museum of Natural History.

No. 2190—♂ Trinidad, Las Animas County, May 24, 1910, L. J. Hersey.

No. 2844—♀ Holly, Prowers County, May 16, 1913, F. C. Lincoln.

No. 6160—imm. ♂ Holly, Prowers County, September 12, 1916, F. C. Lincoln.

No. 13889—♂ Manzanola, Otero County, June 17, 1904, H. G. Smith.

No. 13893—Cresswell, Jefferson County, June 9, 1887, H. G. Smith.

No. 14725—♀ Manzanola, Otero County, June 17, 1904, H. G. Smith.

—ALFRED M. BAILEY, *The Colorado Museum of Natural History, Denver, Colorado.*

A Prairie Falcon and American Rough-legged Hawk Fight.—An interesting battle between a Prairie Falcon (*Falco mexicanus*) and an American Rough-legged Hawk (*Buteo lagopus s. johannis*) was witnessed by the writer on the Crescent Lake Waterfowl Refuge in Garden County, Nebraska, January 31, 1937. For several weeks each bird had occupied a rather definite feeding territory, the two areas being contiguous; but on this day the smaller but swifter falcon attempted to drive away the other bird. One might expect him to win but it wasn't a short battle at all. The falcon would fly up above his larger relative, to seek the same position of advantage that one airplane wants over another in war, but instead of raking with bullets at each sweep he intended to do it with his powerful talons. The rough-leg, however, trained in war for his own existence, met each swoop by skillfully turning over on his back in mid-air, maintained his upside-down attitude with hovering wings and met the falcon's talons with ones even more powerful. It was a pretty battle between two expert aviators! Time after time the falcon attacked, and time after time the rough-leg repulsed, until the former gave up and flew northward to his own feeding grounds leaving the latter to proceed leisurely on his own food quest. His precious territory had been saved!—WALTER W. BENNETT, *Ellsworth, Nebr.*

A Plucking Experiment with White-crowned Sparrows.—The two common post-juvenile plumages of the White-crowned Sparrow (*Zonotrichia leucophrys*) are characterized by black and white crown stripes in the one case, brown and buff in the other. The former is generally recognized as characteristic of birds past the first prenuptial molt, the latter of birds in their first winter plumage. At Davis, California, the immature type of crown in *Z. l. pugetensis* is replaced by black and white feathers between February 25 and April 10. A similar though somewhat extended season of crown molt is described by Law (*Condor*, 31, 1929, pp. 208-212) for *Z. l. gambeli* in Southern California.

In handling some 366 live specimens of *Z. l. pugetensis* at Davis during the winter seasons of 1935-36 and 1936-37, it was noticed that a large percentage of

the brown-crowned individuals possessed a scattering of black feathers in the head stripes. Since these were particularly noticeable in the regions of heaviest wear, it was assumed that they were replacements growing where the normal immature feathers had been lost through accident. As a check on this assumption, the feathers of the right coronal stripe were removed on three brown-striped (immature) birds taken on October 27, 1936, and on three taken on November 22, 1936.

Banded birds with asymmetrical black and brown crowns were noticed in the vicinity of the traps on December 21 and were seen on numerous occasions during

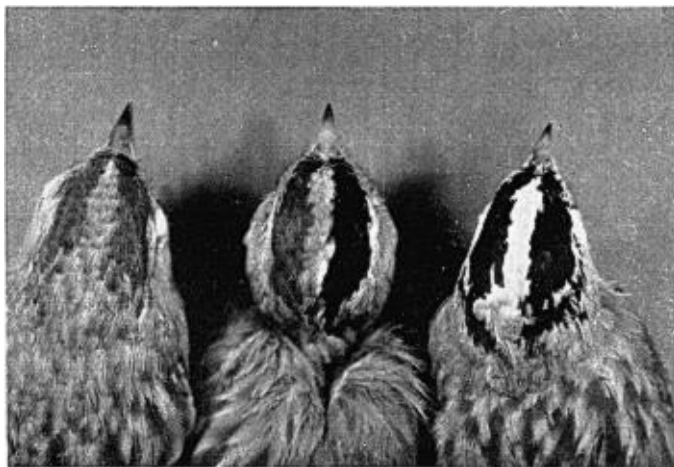


FIG. 14. Dorsal view of the heads of winter specimens of Puget Sound White-crowned Sparrows (*Zonotrichia leucophrys pugetensis*) taken at Davis, California. The first is a normal immature bird, with a few black feathers in the crown; the second, an immature bird in which the right crown stripe had been plucked; and the third, a normal adult bird.

January and February. One of these (37-120625), collected on February 10, 1937, proved to be one of the plucked birds banded October 27; another (37-120652), trapped and liberated on February 17, was originally taken and plucked on November 22. In both cases the plucked brown feathers of the immature type had been replaced by jet black feathers indistinguishable from those found in typical adult birds. The contrast between the normal brown stripe on the left and the artificially induced black stripe on the right was very striking (Fig. 14). "Bicolored" birds were seen on three subsequent occasions before March 20 when the normal crown molt had practically obliterated these artificial marks of identification.

This simple experiment suggests that the physiological or genetic factor which determines the plumage type (whether immature or adult) is potentially present in the White-crowned Sparrow by the time the bird has reached five months of age, and will produce typically adult crown feathers at least four months before the first prenuptial molt would normally exteriorize it.—JOHN T. EMLEN, JR., *Division of Zoology, University of California, Davis, Calif.*