

145702	March 12	5:00 P. M.	147192	March 19	7:30 A. M.
147647	March 17	8:45 A. M.	145628	March 21	

To carry the experiment farther, twenty of the same species, captured at Claremont, were released March 18, ten miles east of Victorville, on the Mohave Desert and on the opposite (north) side of the San Gabriel Range, about fifty miles by air line northeast from Claremont. None of these have reappeared as yet, which is perhaps not surprising, since migrating waves of this species are now moving north.

The behavior of these twenty birds on being released is of interest. Five flew to the ground and immediately started feeding. The other fifteen flew up into the air 50 to 75 feet and headed out across the desert in the direction of Claremont.—WRIGHT M. PIERCE, *Claremont, California, March 23, 1925.*

NOTE. When sufficient time has elapsed for complete returns from this experiment, and it will not be complete until the life cycle of these birds is ended, it will be of interest to analyze the result in the light of the recorded residence of the birds at the Claremont station. Different results might obtain with birds removed when first captured (if approximately at their first appearance at the station) from those obtaining with birds which had long partaken of the bander's food table. In any case, the results here recorded indicate a definite and blind orientation toward a chosen winter habitat, whether or not the magnet be an attractive supply of food.—J. E. L.

**Remarkable Localization.**—Early reports from two groups of stations seem well worth summarizing. From a total of 153 Gambel and Nuttall sparrows banded in the winter of 1923-24 by John McB. Robertson at his station near Buena Park, California, 44 returns have already appeared; 211 more were banded in the winter of 1924-25, up to March 21. James A. Calder has actively operated a station approximately  $\frac{3}{8}$  of a mile northwest of Robertson's since September 23, 1924. Both stations are situated in the midst of an alluvial plain devoid of nearby topographic variation. Calder has banded 146 Gambel and Nuttall sparrows at his station during the 1924-25 season. Not one of Robertson's "Zonos" has been captured at Calder's station, and just one of Calder's has been taken at Robertson's station. In other words, of 510 sparrows banded only one has found the second station  $\frac{3}{8}$  of a mile away.

At Claremont, California, the stations of Wright M. Pierce, Ernest Osborne and Selwyn Rich form a triangle, the sides of which are about 3, 2, and 4 city blocks long, respectively. Of 898, 145, and 164 Gambel Sparrows banded at their respective stations to March 23, 1925,

Pierce has captured 1 banded by Rich and 4 banded by Osborne,

Rich has captured 5 banded by Pierce and 3 banded by Osborne, and

Osborne has captured 4 banded by Pierce and 2 banded by Rich.

In other words, out of 1207 banded in 13 months, only 19 have so far forgotten themselves as to register at a station four blocks, or less, away.

**The Pattern of Feathers.**—Perhaps no factor in the life economy of a bird exhibits more extraordinary intricacies and marvels of creative art than does the pattern of its feathers. We contemplate the blended ensemble with the utmost admiration. But one who has not plucked the feathers from a bird, feather by feather, and examined their pattern as separate feathers and in relation to other feathers in the same tract and in other tracts, has in store for himself a whole new story in nature.

Banders, handling birds in series unheard of in collections, naturally find themselves analysing color pattern, color tones, and individual variation, and many are already looking for standards by which these values can be appraised. Obviously, an ample series of study skins, ready at hand for use in comparisons, helps to tie in these differences. Obviously, too, no series of skins possessed by any one collection is ample for this purpose.

While it is too early to hope for conventional standardization of observations on color and pattern made from live birds in hand, one's ability to analyse his observations is bound to be enhanced by more intimate studies of the individual feathers. Anyone who comes into possession of a dead bird may spread the feathers, plucked in order of attachment, on white paper, and fasten them there by means of narrow strips of adhesive tape, and then study them at his leisure.

For my own mounts, I use smooth white sheets of a rather heavy ledger bond, cut  $8\frac{1}{2} \times 11$  inches (letter-head size). Perhaps document size,  $8\frac{1}{2} \times 14$  inches, would be better. Folders, such as are used in vertical files for letters, serve as containers, a folder for each species. Adhesive plaster, manufactured for chiropodists, can be obtained in  $\frac{1}{8}$ -inch strips wound on 2-inch spools. This tape can readily be cut into 1/16-inch strips for the smaller feathers. Strips of gummed paper might do as well and would perhaps be more permanent. A pair of slender tweezers and a pair of long scissors completes the outfit.