

one male cowbird was present from 5 June through 10 July at Cottonwood Campground, 80 miles up river from Rio Grande Village. On 27 June I found a juvenile Bronzed Cowbird begging from a female Summer Tanager (*Piranga rubra*), and on 4 August a juvenile cowbird begging from an Orchard Oriole at Rio Grande Village Campground.

These data suggest the Bronzed Cowbird is increasing its range westward in Texas. Wolfe (Check-list of the birds of Texas, 1956) considered it as resident only within the lower Rio Grande Valley, and "rarely north as far as Bexar County." However, Webster (Audubon Field Notes, 16:493, 1962) reported that the Bronzed Cowbird is "now regular in small numbers" in San Antonio, Bexar County.

Webster (Audubon Field Notes, 14:466-467, 1960) also reported that "A Bronzed Cowbird in juvenal plumage, fully grown, was collected by Selander southeast of the Austin city limits (Travis County) in July, climaxing several recent reported observations from that area. This marks a northward range extension of this species in central Texas. Expansion is occurring also in the west. Kincaid, who has observed birds in Uvalde County since 1927 (mostly between 1937 and 1939), saw his first Bronzed Cowbird there on May 17, 1960. They appeared well distributed in Uvalde County, on May 25, and were present at Fort Clark (Kinney County) on June 8 (EBK)."

Francis Williams (pers. comm.) reported that C. C. Wiedenfeld found Bronzed Cowbirds at San Angelo, Tom Green County, Texas in May and June 1972; Wiedenfeld observed a juvenal cowbird being fed by a male Cardinal (*Cardinalis cardinalis*) there on 18 May.—ROLAND H. WAUER, *Natural Science, National Park Service, Southwest Region, Box 728, Santa Fe, N.M. 87501, 9 October 1972.*

Further notes on Rosy Finches wintering in Utah.—Three kinds of Rosy Finches occur in winter in northern Utah, namely two races of the Gray-crowned Rosy Finch, *Leucosticte tephrocotis tephrocotis* and *L. t. littoralis*, which are distinguishable in the field on the basis of the color of the cheek patch, and the Black Rosy Finch (*L. atrata*). Probably some representatives of the black species are altitudinal migrants since the species breeds in the nearby Wasatch Mountains east of Salt Lake City as well as in the Uinta Mountains of northeastern Utah (French, Condor, 61:18-29, 1959). The Gray-crowned representatives are all migrants from the north or northwest. King and Wales (Condor, 66:24, 1964) state that the three kinds appear to arrive and depart concurrently, most arriving within a span of three weeks in late October and early November and leaving during the last two weeks of March. Their evidence suggested a relatively precise annual regularity of migration, particularly in spring. However, dates of observation of Rosy Finches in Salt Lake Valley extend beyond these intervals. The earliest date on which they have been observed is 20 September while the latest date of occurrence is 20 April.

In the middle of winter, during daytime hours, Rosy Finches commonly frequent areas of sagebrush or scrub oak, on the benchlands and foothills foraging in snow-free sites where ground litter and food items are exposed. Flocks observed by the writer consist either of *L. atrata* exclusively or of *L. tephrocotis*. When the latter is the case, representatives of both races occur side by side. Whether some diurnal flocks are made up of both species and hence all three kinds, has not been ascertained, but all three kinds definitely intermingle at their roosting sites. For these they commonly seek warmer areas sheltered from the wind such as cave entrances, strings of standing railroad cars, sheds, and buildings (French, Auk, 76:173-175, 1959 and U.S. Natl. Mus. Bull., 237, pt. 1:

365-372, 1968 = Bent Series). Killpack (Audubon Field Notes, 12:298, 1958) found a flock of 500 Black Rosy Finches using the full depth of a 50-foot-deep well at Roosevelt in northeastern Utah. He also stated that they utilize Cliff Swallow nests to roost in, a feature reported by several others. The two most significant winter roosting sites in Salt Lake Valley have in years past been the outbuildings of the Hercules Company installation at Bacchus and the resort of Saltair on the southeastern shore of Great Salt Lake.

At these two sites several observations have been made on the relative proportions of the three kinds. Behle (Condor, 46:207-208, 1944) found in a sample of 48 birds captured at Bacchus in 1942-43 that 20 were *L. atrata*, 17 were *L. t. tephrocotis* and 11 were *L. t. littoralis*. French (Auk, 76:174, 1959) found 30 *L. atrata*, 3 *L. t. tephrocotis* and 16 *L. t. littoralis* making up the complement of 49 recaptured birds that he had banded earlier at Saltair. King and Wales (op. cit.:26) on the basis of data collected during nine intervals at Saltair extending from January 20-31 through 21-31 December 1960 and 1-10 February 1961, showed that the proportions of the three taxa vary within a single year as well as from year to year. The changes were particularly evident for the Black Rosy Finch which they therefore concluded was the most mobile constituent of the three kinds. The population changes observed from time to time were correlated with weather conditions. One additional random sample obtained at Saltair during the evening of 1 February 1966, showed seven *L. atrata*, 14 *L. t. tephrocotis*, and five *L. t. littoralis*. Incidentally the resort of Saltair burned to the ground on 12 November 1970. House Finches as well as Rosy Finches used to roost there extensively.

Some additional data on banded birds have now been obtained. A female Black Rosy Finch obtained on 4 February 1966 at Saltair carried a band (No. 291-55489) that had been applied at the same location on 31 December 1960 by James King during the course of his studies on photoperiod regulation and fat deposition of Rosy Finches (see King and Wales, Condor, 66:24-31, 1964 and Physiol. Zool., 38:49-68, 1965). Dr. King wrote me about another banded bird, a specimen of *L. t. littoralis* banded at Saltair on 25 November 1955 by French which was trapped and released on 25 January 1960. French (Auk, 76:174, 1959) cited another case where a banded bird returned to the same roosting site at Saltair but the interval was only 13 months in contrast to almost five years in the other two instances.

A noteworthy specimen is a male taken at Bacchus by Michael Hess during the night of 3 March 1968. It has rough, horny, protruding growths at the bases of both upper and lower bill that are similar in appearance to lesions in doves caused by fowl pox (see Kossack and Hanson, Amer. Vet. Med. Assoc. J., 124:199-201, 1954). Otherwise it seems to be a normal bird. It weighed 22.9 g, had a slight amount of fat and its testes measured 1×1 mm.

Another remarkable example of a Rosy Finch, not obtained inadvertently at night as the others were, but rather which was taken from a daytime flock, is a partial albino male taken by Kenneth Myrick, five miles north of Dutch John, Dagget County, northeastern Utah on 16 December 1968. It was in a small flock of 35-40 birds feeding on the ground. A normally pigmented specimen taken from the same flock at the same time is an example of *L. atrata*, so presumably the albino represents the same species. It was Myrick's impression that all the birds in the flock were Black Rosy Finches. The albino specimen weighed 25.7 g. Its testes measured 2×1.5 mm. Its bill was yellow which is the normal winter color for the species, but seemingly a brighter yellow than usual. This color has persisted to date in the specimen. The eye color was a normal brown. The feet and legs were slightly tinged with yellow but have since bleached to white. The body plumage is essentially all white but there is a prominent wash of strawberry red on the forehead and

crown. A faint tinge of red appears on the throat, with an even lesser amount on the rump and bend of wing areas. The outermost primary on each wing is all white but the next six primaries in sequence show on each wing a narrow, delicate line of pink along their exterior margins.

Our series of wintering Rosy Finches show considerable color variation which is probably a manifestation in large part of geographic variation, since various representatives doubtless came from widely situated breeding areas. Three examples seem worthy of comment. Two males taken by the late Gary Lloyd at Echo Canyon, 6000 feet elevation, Summit County, Utah on 19 March 1964, seemed different from the other wintering example of *L. t. tephrocotis* and so were submitted for identification to Richard E. Johnson, who is revising the group. He reported that they possess characters which are the same as those of the breeding population of *L. t. tephrocotis* from Montana rather than the northern Alaska population which all our others represent. Another example examined by Johnson which was taken on 23 March 1938 at Bacchus is a hybrid between *L. atrata* and *L. tephrocotis*, being slightly closest to *atrata*. French (Condor, 61:18-27, 1959) found two areas where hybridization occurs and as a consequence individuals show mixed characters of *L. atrata* and *L. t. tephrocotis*. These areas are the Bitterroot mountains of the Montana-Idaho border and the Seven Devils Mountains of western Idaho. Presumably this winter example originated in one of these two areas.—WILLIAM H. BEHLE, *Department of Biology, University of Utah, Salt Lake City, Utah 84112, 16 October 1972.*

Leaf bathing in three species of emberizines.—During the dry summers of coastal California, when water may be locally scarce, the use for bathing of moisture collected on vegetation may be an important aspect of feather maintenance. Sources of water at these times can be from dew, condensed fog, or water drops from a garden sprinkler. There appear to be few observations on record of this method of bathing. The present note describes my observations on leaf bathing in three species of emberizines.

In Strawberry Canyon, Berkeley, California, at 09:41, on 24 May 1971, I observed a Rufous-crowned Sparrow (*Aimophila ruficeps*) bathing on leaves of a eucalyptus about five feet in height. The leaves of the tree were covered with water droplets from a sprinkler which had been on earlier that morning. The sparrow would bend forward, touching the wet leaves with the breast and belly, and flutter the wings rapidly. It continued this behavior for about three minutes, at which time its body feathers appeared quite soaked. The crown seemed to have remained dry. The bird then flew to the ground beneath the eucalyptus, ruffled its feathers, preened, and scratched its head. The sparrow remained squatting on a sunny spot on the ground with the feet hidden by its feathers which were fluffed in such a way as to make it look dorsoventrally compressed. It stayed in this position for some 13 minutes. The wings during this time were constantly flicking out and in, its head constantly was turning as it continually looked around. All this was interspersed with short bouts of preening. At 09:57 a bus was driven by, scaring the bird away. The sparrow now appeared quite dry. I have often observed captive White-crowned Sparrows (*Zonotrichia leucophrys*) after a bath, resting in a flattened posture similar to that described above for the Rufous-crowned Sparrow. The posture adopted after a bath in water is quite different from that during sun-bathing when the feathers of the back and rump are ruffled so as to expose the apteria. The head does not turn constantly about, but is held quite still. The open bill points skyward at an angle of about 45 degrees while the wings droop and the tail is spread.