## A SECOND LARGE WINTERING POPULATION OF WHITE-CROWNED SPARROWS, ZONOTRICHIA LEUCOPHRYS GAMBELII, IN WASHINGTON

R. ALAN LEWIS, MARTIN L. MORTON, and DONALD S. FARNER

Department of Zoology University of Washington Seattle, Washington 98105

During the autumn and winter months of 1965–67, we searched extensively for wintering White-crowned Sparrows in central and south-central Washington. The race gambelii has been recorded as casual during winter throughout most of this region (Cortopassi and Mewaldt, Bird-Banding 36:141, 1965; Jewett, et al., Birds of Washington State, p. 647, 1953). Only in the Snake River Canyon of southeastern Washington has this race been reported to winter in appreciable numbers at this latitude (Mewaldt and Farner, Condor 55:313, 1953; King et al., Condor 67:489, 1965). However, we now find Z. l. gambelii to be abundant in winter also along the Yakima River from Parker southward to Prosser wherever suitable habitat occurs. The greatest concentrations occur in Alfalfa Township, Yakima County. We have also observed a disjunct population in Yakima State Park approximately five miles north of Parker.

The Yakima River population was first observed on 21 October 1965. At that time hundreds of Whitecrowned Sparrows were present in patches of weeds and in truck-crop areas southwest of Toppenish. They were abundant throughout this area when next visited on 6 February 1966. We have no information concerning autumn arrival dates. In 1967 large numbers of gambelii were observed throughout the winter in this region. On 15 April many were molting heavily, and only a few individuals had immature head stripes. By 24 April birds in fully adult plumage were present in abundance, and it appeared that the population was significantly larger than had been observed at any time during earlier visits. It is not clear whether this

## RECENT BREEDING OF COMMON RAVEN IN WEST-CENTRAL TEXAS

L. R. WOLFE P.O. Box 11 Kerrville, Texas 70828

The A.O.U. Checklist (1957, p. 378) gives the range of the western race of the Common Raven (*Corvus corax sinuatus*) in Texas as ". . . western Texas (Pecos, Fort Davis, formerly east to Tom Green County)." Apparently in recent years the western form has extended much farther east. Howard Lacy who wrote of the birds of Kerr County in 1911 (Auk 28:200, 1911) did not mention the Common Raven. Austin Paul Smith, who was a professional collector and a good field observer, collected in Kerr County in 1914–15 (Auk 33:187, 1916), and he did not note the raven. More recently Helmut K. Buechner made a study of the birds of Kerr County (Trans. Kans. Acad. Sci. 49:357, 1946), but he made no mention of this increase was due to "swelling" of the population by influx of migrants or was only apparent because of a concentration of birds nearer the roads as a result of observed restriction of food and cover. Migrant Z. l. gambelii were observed in small numbers on this date in the Kittitas Valley, approximately 50 miles northwest of Parker.

Sex and age ratios (together with 95% confidence intervals for a binomial distribution) of samples taken in mist nets from Alfalfa Township, Yakima County, during winter and spring of 1967 are given below. Sex was determined by laparotomy, and age was established on the basis of plumage. These ratios lie within the range of those reported by King *et al.* (Condor 67:489, 1965) for winter flocks of Z. *l. gambelti* sampled in mist nets in the Snake River Canyon in southeast Washington over a period of 12 years.

Date	% Male	% Immatures	No. of Individuals
21 Jan.	74(64-82)	65(55-74)	77
24 Jan.	75(65-83)	52(42-62)	60
28 Jan.	74(64-82)	74(64-82)	113
11 Feb.	72(62-81)	71(61-80)	135
12 Feb.	73(63-81)	73(63-81)	134
15 Mar.	81(61 - 92)	66(47-83)	35
17 Mar.	89(70-86)	67(57-76)	87
30 Mar.	87(69–96)	75(56-89)	33
31 Mar.	87(69-96)	53(34-72)	32

In 1967 prenuptial molt had not begun by 12 February but was in progress in 26 of 35 individuals examined on 15 March. On 17 March each of 21 individuals examined exhibited light to moderate body molt (cervical only in 13 individuals; cervical plus abdominal in eight). Prenuptial molt was incomplete in many birds observed on 15 April, but appeared to be essentially complete by 24 April.

These records are of particular interest with respect to establishing the northern limit of the wintering range of Z. l. gambelii east of the Cascade Range of mountains.

Accepted for publication 8 June 1967.

species. Wolfe (Check-list of the Birds of Texas, 1956, p. 51) indicated that the species occurred in winter in Kerr and Bexar counties. From these records it must be assumed that the raven is somewhat new in this area as a nesting species and did not breed here, or at least very rarely, until after 1946. In the summer of 1955 I was investigating some cliffs along the upper Guadalupe River and was surprised to find what appeared to be a raven's nest on a ledge. This nest had been recently used, but no birds could be found. On 15 May 1956 the late E. Stringham and I visited this cliff and found the nest occupied by a pair of ravens. Young birds could be seen in the nest, and as a parent raven came in one climbed out on the ledge at the edge of the nest. From a concealed cedar thicket across the river from the cliff we spent several hours watching this nest and observed one or both parents make several trips to the nest with food. The following year this nest was not occupied but the ravens were observed nearby and were probably nesting, although the nest could not be found. In early April 1958, R. B. Davis told me that he had seen a