

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

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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 White-crowned 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

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. gambelii* 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.

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RECENT BREEDING OF COMMON RAVEN IN WEST-CENTRAL TEXAS

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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

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

raven's nest in a bat cave in Edwards' County (about 50 miles west of the nesting cliff mentioned above). This nesting site proved to be most unusual, and it is believed to be worthy of record. On 5 April 1958, we journeyed along a dim trail in rolling hill country that was covered with clumps of cedar and scattered small live oaks. On a fairly level ridge we suddenly came to what appeared to be a huge sink hole with vertical sides that went down about 60 feet. As our truck neared the edge, a croaking raven flew up out of the hole. Examination of this sink hole disclosed that at some time in the distant past there had been an underground cavern, and at one comparatively small place the entire roof had collapsed. This left a rounded, oval sink hole about 30 feet by 40 feet in diameter. On one side the wall was nearly vertical, but on three sides the wall rapidly arched back under the limestone ledge at the surface. The bottom of the sink was covered with debris and broken slabs that had once supported the roof. By means of an extension ladder and ropes we managed to get down to the bottom. The inside chamber was bell-shaped. Opposite the vertical side wall a dome-shaped cavern extended back into an underground cavity for an unknown distance. On one side wall, back under the surface overhang and about midway from the bottom to the ground surface, there was a small ledge on which the ravens had managed to wedge an accumulation of sticks for their nest. This ledge was 32 feet up from the bottom, and it was estimated to be about 35 feet back from the edge of the opening. A raven when going to the nest had to dive down into the sink hole and then curve up under the overhanging roof to the nesting ledge. The nest was composed of dry sticks and twigs mixed with strips of inner bark from cedars. It measured 32 inches in diameter and averaged about 10 inches in height. The actual nesting depression was 4 inches deep and lined with bits of burlap and wool. It contained six eggs that appeared to be slightly incubated.

Since 1958 I have checked very closely on the ravens in this area. They seem to be increasing. Another pair has been observed in Edwards County (adjacent west) and two pairs in Kimble County (adjacent north). Until this year I knew of four pairs in Kerr County, but on 12 April 1967, I found a fifth pair with well-grown young in a sink hole somewhat similar to the one described above. All are nesting on ledges or in sink holes. They certainly cannot now be considered rare in this area.

I know of only a few published records of the raven nesting in Texas. Lloyd (Auk 4:290, 1887) reported a nest with six eggs in a mesquite found on 15 May 1883. However, this is certainly questionable as the date is far too late for the Common Raven, and both the date and nesting site are typical for the White-necked Raven (*Corvus cryptoleucus*) that is common in that locality. Van Tyne and Sutton (Birds of Brewster County, Texas, 1937, p. 62) reported the observation of two nests but gave no other details. Apparently this extension of the breeding range to Kerr County is more than 250 miles east of any formerly known locality.

While no specimens have been collected, the identification of this species would seem to be unquestionable for several reasons. The only similar species is the White-necked Raven, which is only a very rare winter straggler. However, it does nest some 150 miles north and west of here. The White-necked Raven is well known to be a late breeder, and normally nests in late May or June. The Common Raven normally nests in late March or early April. The White-necked Raven has never been known to build its nest on a cliff or ledge, whereas the Common Raven nests on a cliff or rocky ledge more often than in a tree. Finally, the eggs of the two species are much different in color and can be distinguished at a glance.

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YELLOW-BILLED MAGPIE DROWNS ITS PREY

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At about 13:00, on 3 May 1967, at Hastings Reservation, 2.5 miles east of Jamesburg, northern Monterey County, California, I watched a Yellow-billed Magpie (*Pica nuttalli*) as it foraged near some buildings. The bird was walking rather slowly when it suddenly pounced on an object at the edge of some rocks and prostrate daffodil leaves. Then, carrying a small,

squeaking mouse in its bill, it flew within 10 feet of me to a *Ribes* patch bordering a nearby stream, gliding down out of sight behind the thicket. I followed quietly and found the bird on a rock at the stream edge, holding a limp, dripping-wet mouse in its bill. The magpie became disturbed by my presence and flew to another rock some 20 feet downstream where it dropped the mouse and began to peck at it. Several deer mice (*Peromyscus maniculatus*) and a California vole (*Microtus californicus*) had been trapped three days before in the previously mentioned daffodil patch, and the mouse was the proper size for either an adult deer mouse or a young vole. The capture in daytime suggests the latter. This appears to be an unusual example of a passerine predator drowning its prey.

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