

The history and breeding status of the Song Sparrow near Tucson, Arizona.

—In southeastern Arizona where watered areas are rare the Song Sparrow (*Melospiza melodia*), except for a few select areas, is only a winter resident and even the wintering birds are never found in great numbers. The breeding subspecies of this region is *M. m. fallax*. According to the latest (1957) edition of the A.O.U. Check-list, breeding localities are: Arlington in the Phoenix area, Maricopa County; Patagonia, Santa Cruz County, about 65 miles southeast of Tucson; the San Bernardino Ranch, about 18 miles east of Douglas, Cochise County, on the Mexican border; and intermediate points. At Picacho Reservoir, Pinal County, approximately 55 miles northeast of Tucson, birds belonging to the subspecies *fallax* can be found throughout the year and, although no specimens of eggs or juvenile birds are available for the locality, it seems safe to assume that at least a few birds breed there.

According to Allan R. Phillips (pers. comm.), the last birds of the population formerly breeding at Patagonia were seen in the summer of 1947, with no reports after that year. The destruction of streamside grass and brush by grazing cattle probably accounts for their disappearance from that locality. H. Brandt (*Arizona and its bird life*. Cleveland, Ohio, Bird Research Foundation, 1951; see p. 704.) reported only one breeding pair of the species at the San Bernardino Ranch (where it was apparently never common) in the summer of 1948.

Certain areas in the region, such as the Haskell Ranch (Binghamton Pond) on the northeast side of Tucson, the dam at the mouth of Sabino Canyon, the Tucson sewage farm, Canoa Ranch on U. S. highway 89 approximately 30 miles south of Tucson, and a marshy area produced by a permanent hot spring along the San Pedro River, Pinal County, approximately 55 miles north of Tucson, serve as favored wintering areas for the species but are unoccupied in the breeding season.

Birds of several subspecies winter in this region, *M. m. montana* being by far the most common, with records in the Tucson area from 18 September in 1938 (A. R. Phillips) through 19 April in 1886 (H. Brown); *fisherella* was recorded on 10 January in 1886 (H. Brown), 8 January in 1938, and 17 January in 1953 (A. R. Phillips), all near Tucson; *juddi*, 20 December in 1915 (A. B. Howell) near Tucson; *saltonis*, Tucson, large series 1915–1916 (A. B. Howell and L. Huey), also 6 February in 1943 at Tucson (L. L. Hargrave), and 22 February in 1947 at Picacho Reservoir (A. R. Phillips); *merrilli*, 24 November in 1960 at the marsh along the San Pedro River (R. S. Crossin); and *rufina* at Canoa Ranch 10 January in 1963 (J. T. Marshall, Jr.). *M. m. fallax* winters in small numbers throughout the region, but is not nearly as abundant as *montana*.

Late in the last century the Song Sparrow was a fairly common breeding bird along the Santa Cruz River in the vicinity of Tucson, as evidenced by clutches of eggs taken and notes recorded on the species by Herbert Brown, a veteran collector of the area at that time. Since then, heavy grazing by cattle in the entire region has resulted in depletion of grass, with floods, erosion, loss of streamside and aquatic vegetation, and eventual drying up of the river in its broader reaches, leaving bare sandy margins (except in the summer rainy season). These things appear to have caused termination of breeding. The last definite nesting record for the species near Tucson seems to be a clutch of two eggs taken by Brown on 23 May 1895. It therefore seems worthwhile to report new information concerning the species.

On 15 July 1961 I found a pair of Song Sparrows along the Santa Cruz River about three miles northwest of Tucson. Both birds were in a very excited state and may well have had a nest or young nearby. Joe T. Marshall, Jr., reported one bird singing

at San Xavier Reservation along the Santa Cruz River south of Tucson on 16 July 1961.

On 11 May 1962 I heard a male singing from a marshy area along the Santa Cruz River at Cortaro Road, approximately eight miles northwest of Tucson. Investigation showed a pair of birds which began calling excitedly upon my approach. I found a nest in the center of a large dead tumbleweed which had wedged amid a clump of tamarisk bushes (*Tamarix pentandra*) in the marsh. The nest was empty except for a dried-up, broken egg, but showed evidence that a brood had been reared in it. Further search revealed a bob-tailed young bird about 50 feet from the nest and still being attended by the parents.

The source of water for the marsh is a small stream which drains from the adjoining irrigated fields, winds along for approximately 600 yards, and then sinks beneath the dry sands of the Santa Cruz River. The vegetation consists of heavy clumps of tamarisk, cattails (*Typha* sp.), and various small grasses and sedges in the marsh proper, with dense tumbleweed (*Salsola kali*) and dock (*Rumex* sp.) along the edges. A few mesquites (*Prosopis juliflora*) and paloverdes (*Cercidium floridum*) are also found in places along the edge. The marsh at that time (spring, 1962) was providing nesting cover for about 75 Red-winged Blackbirds (*Agelaius phoeniceus*), which were using the cattails mainly for nesting sites.

On 12 June 1962, the pair of Song Sparrows discovered on 11 May was found to have another nest, constructed in the center of a dead tumbleweed about five feet from the site of the first nest. The new nest did not then contain eggs, but both parents were at the nest site. A careful search of the entire marsh revealed a second pair with bob-tailed young on the wing, about 550 feet from the first pair; and, approximately 700 feet farther up the stream, near its origin, I found a third pair which had a nest containing four eggs of the host and one Brown-headed Cowbird (*Molothrus ater*) egg.

A visit to the same area on 19 June 1962 revealed that pair no. 1 had a clutch of four eggs plus one cowbird egg. On 22 June 1962 I found a new nest of pair no. 2 containing one egg. This nest and most of the nests of the Red-winged Blackbird colony were destroyed within the next week by a large herd of cattle which were turned into the area to graze. Visits to the area in September and October of 1962 revealed no Song Sparrows at the marsh, but heavy autumn rains had provided a general greening of the vegetation over the entire region and the birds could have moved into adjoining areas at the end of the breeding season.

Considering the fact that three pairs established territories in the marsh in this breeding season, it seems possible that the species had been nesting there for some time. The marsh is hidden to view from the road, which probably explains why the birds were not discovered earlier. Probably this small colony is fairly well established and the species can be considered as breeding regularly once again in the Tucson area.

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