

VERDIN AND PENDULINE TITS — FAMILY REMIZIDAE

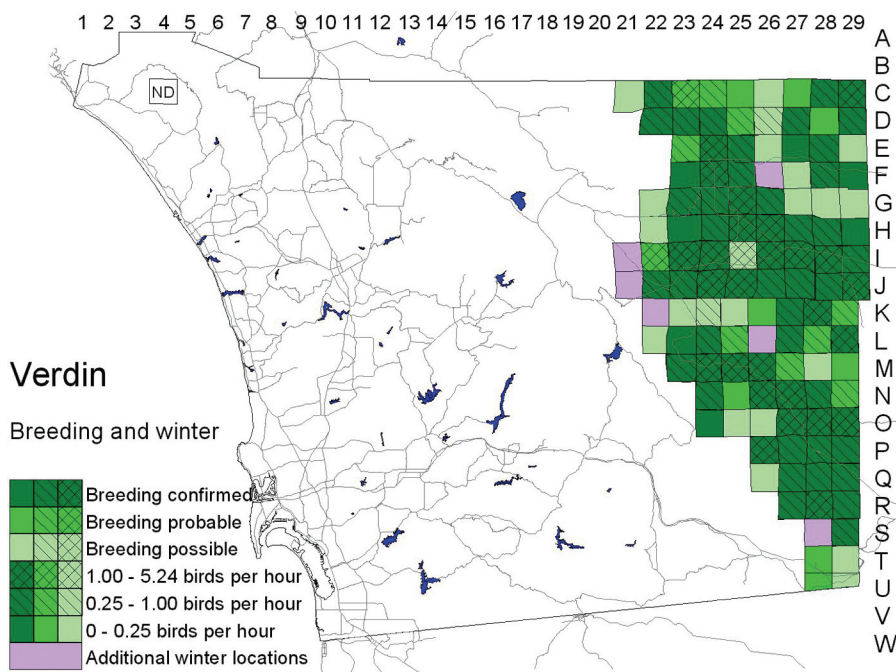
Verdin *Auriparus flaviceps*

Perhaps no bird is more characteristic of the Anza-Borrego Desert than the Verdin. Wherever thorny trees are common so is this little gray bird with a yellow head. It is a permanent resident, the birds maintaining their unique globular nests for roosting year round. The nests, placed conspicuously in the outer branches of spiny shrubs or trees, are sometimes more easily found than the birds themselves. If suitable nest sites are sparse, the Verdin is rare, and in desert scrub consisting of only creosote bushes or low halophytes it is absent.

Breeding distribution: The Verdin's breeding distribution in San Diego County is coextensive with the Anza-Borrego Desert. The birds occur on the desert slope wherever one finds the thorny shrubs in which they nest. The range extends west to Alder Canyon (C21; two juveniles 19–20 June 2001, P. D. Jorgensen), just north



Photo by Anthony Mercieca



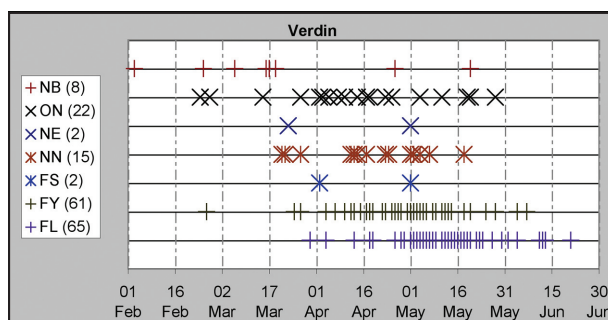
building the nest in spiny plants. The smoketree was the most frequent site of Verdin nests atlas observers reported; other sites noted were catclaw, desert ironwood, mesquite, desert lavender, desert apricot, and teddy bear cholla. In the Imperial Valley, where native desert shrubs are now rare, Verdins nest commonly in the exotic saltcedar, but in the Anza-Borrego Desert they preserve their primitive preference for spiny native species.

Verdins build and maintain nests for roosting year round, so the nests alone are no clue to the species' breeding cycle. The contents of the enclosed nests are secure from prying eyes, usually even from prying fingers, so typically one must wait until the young hatch and the par-

of La Ciénaga at the west end of Culp Valley (G22; one on 12 May 2001, P. D. Jorgensen; at 3400 feet the highest elevation where we noted the Verdin), the upper end of Vallecito Wash in Mason Valley (L22; one on 15 March 2001, R. Thériault), and Jacumba (U28; up to 10 on 20 March 1998, C. G. Edwards). The Verdin is most abundant in the gardens of Borrego Springs (F24; up to 65 on 20 March 2001, K. L. Weaver), in well-vegetated washes and on alluvial fans (up to 60 on Mescal Bajada, J25, 10 and 26 April 1998, M. and B. McIntosh), and at oases (up to 30 at Agua Caliente Springs, M26, 27 March 1997, E. C. Hall; 30 at Carrizo Palms, R28, 6 May 1998, J. O. Zimmer). It is lacking from the pinyon-juniper woodland of the higher elevations within the Anza-Borrego Desert and very sparse in badlands in which shrubs adequate to support a Verdin nest are few and far between. In such areas, the nests may be easier to find than the birds themselves. On the east slope of the Santa Rosa Mountains in square C27 Robert Thériault found two apparently active roosting nests between 2500 and 3100 feet elevation 9–10 January 2002 but never saw the birds themselves at any season. In four other atlas squares we found nests but saw the birds only in winter. In square M28 along Fish Creek Wash, in spite of 58.9 hours of effort, breeding season and winter combined, we found just one Verdin.

The Verdin appears to be less susceptible than many desert birds to the vagaries of the rains. As might be expected, the numbers counted per hour in the field were highest in the wet year 1998 and lowest after three years of drought in 2001, but the factor of difference was less than 2.

Nesting: The Verdin's nest is like nothing else: an ellipsoid bristling on the outside with spines, entered through a tiny hole on the bottom at one end. The birds make no effort to conceal their nests, relying for protection from predators on the nest's porcupinelike exterior and by



ents begin feeding them to confirm Verdin breeding. Such observations suggest that in San Diego County Verdins lay mainly from early March through early May. Unusually early laying, no later than 12 February, is implied by adults gathering insects near Borrego Air Ranch (H26) 26 February 1999 (M. L. Gabel).

Winter: The Verdin's pattern of distribution in winter is practically identical to that in the breeding season. The one area slightly outside the breeding range where the species was noted repeatedly during the winter was San Felipe Valley (I21/J21), though counts there never exceeded two individuals. The Verdin may be an irregular resident even here; on 6 May 1978 I noted one near Banner Queen Ranch (K21), where we did not find the species from 1997 to 2002.

From 1962 to 1975, a few Verdins occurred in fall and winter (12 September–14 February) in the Tijuana River valley. Single winter vagrants were reported also near Chula Vista (U10/U11) 22 January 1956 (AFN 10:284, 1956) and at San Elijo Lagoon (L7) 9 January–17 February 1975 (AB 29:743, 1975). There have been no coastal records since.

Conservation: In the Imperial Valley the Verdin has adapted to environmental change on a scale far beyond what it confronts in the Anza-Borrego Desert. In Borrego

Springs, native desert trees are commonly used in landscaping, so the Verdin needs to make little adjustment to development there. Prolonged drought disfavors the Verdin like all other desert birds. By 2002, after three years of drought, many of the shrubs on which Verdins rely were dormant or dying. Occasional flash floods are needed to renew the stands of smoketrees in washes that constitute prime Verdin habitat.

The Verdin is resident in the drainage basin of the Tijuana River at least at Valle de las Palmas in Baja California (Unitt et al. 1995). Presumably this area was the origin of the birds formerly reaching the Tijuana

River valley north of the international border, and presumably the growth of the city of Tijuana cut off former routes of dispersal. Further clearing of vegetation in northwestern Baja California may lead to the Verdin's range on the Pacific slope retracting south.

Taxonomy: All Verdins in California are *A. f. acaciarum* Grinnell, 1931. This subspecies is paler than most others and lacks any tinge of yellow on the breast, belly, or rump. Its usually four-noted song, "tew, tew, tew, tew," differs at least from that of the subspecies of central and southern Baja California.