

## GRAY VIREOS WINTERING IN CALIFORNIA ELEPHANT TREES

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The Gray Vireo (*Vireo vicinior*) winters primarily in Sonora and Baja California Sur (e.g., Barlow et al. 1999). There are scattered winter records from the Mexican states of Durango (Leukering and Bradley 1997), Coahuila (Howell and Webb 1995), and San Luis Potosí (Fry et al. 1996). North of the Mexican border the only winter records are from the Big Bend area of Texas (Barlow and Wauer 1971) and southern, primarily southwestern, Arizona, north to the Kofa Mountains (Phillips et al. 1964). There are no published winter records for Upper California.

On 4 May 1999, as part of a field survey for the San Diego County bird atlas, Lori Hargrove visited the canyon of Alma Wash, 6 miles south of Ocotillo Wells and 3 to 5 miles west of Split Mountain Road. She reported to me large numbers, perhaps a few thousand, of the Elephant Tree (*Bursera microphylla*), a concentration far greater than any reported by Dice et al. (1992). The five stands of the Elephant Tree enumerated by Dice et al. in the Anza-Borrego Desert of eastern San Diego County exhaust the tree's known distribution in Upper California. A survey by helicopter on 21 January 2000 confirmed the Alma Wash population as by far the largest in the state (J. C. Dice pers. comm.)

*Bursera microphylla* is locally common in Baja California and Sonora (Turner et al. 1995). Bates (1992a) found Gray Vireos wintering in Sonora to be closely linked to it, feeding primarily on its fruit and being, with the Ash-throated Flycatcher (*Myiarchus cinerascens*), the primary disperser of its seeds, via regurgitation. He noted that the winter range of the vireo closely matches the distribution of the tree, except in the Anza-Borrego Desert and a few canyons in Arizona. There are no definite previously published winter records for Baja California north of 28° N (Grinnell 1928, Wilbur 1987), but the species occurs in Elephant Trees at least in Guadalupe Canyon at the east base of the Sierra Juárez (8 February 1997, R. Fischer; 12–13 March 2000, J. Morlan and R. Fischer; 5–6 April 2000, R. E. Webster).

Since the largest stand of the Elephant Tree in California had never been visited in winter by ornithologists or birdwatchers, I reasoned that an undiscovered population of wintering Gray Vireos might occur there. Therefore, to test the hypothesis, I organized an expedition on 4 and 5 December 1999. Lori Hargrove made supplementary visits to the bajada below the mouth of the canyon on 27 November and 6 December.

We found a minimum of five Gray Vireos, all in areas of concentrations of Elephant Trees, mixed with Desert Lavender (*Hyptis emoryi*), Catclaw Acacia (*Acacia greggii*), and Creosote Bush (*Larrea tridentata*)—the same habitat in which Gray Vireos winter in Sonora (Bates 1992a). At least two were along Alma Wash on the bajada below the canyon (33° 03' 11–23" N, 116° 07' 53–08' 09" W; 33° 03' 22" N, 116° 08' 35" W), two were inside the canyon (33° 03' 39–41" N, 116° 10' 6–16" W), one near the upper end known as Starfish Cove (33° 03' 39–43" N, 116° 10' 46–57" W), and one was 0.7 mile south of Alma Wash in another canyon (33° 02' 47" N, 116° 09' 19" W) (Figure 1). Alma Wash and Starfish Cove are not named on U. S. Geological Survey topographic maps but are on maps of the Anza-Borrego Desert, e.g., that of Earthwalk Press (1994). The bajada labeled "Elephant Tree Area" on the USGS maps actually has very few Elephant Trees except along the broad rocky wash.

The birds were in small mixed-species flocks with Black-tailed Gnatcatchers (*Poliottila melanura*), Verdins (*Auriparus flaviceps*), Black-throated Sparrows (*Amphispiza bilineata*), and Bewick's Wrens (*Thryomanes bewickii*). Barlow et al. (1999) also reported wintering Gray Vireos in mixed flocks, though this does not

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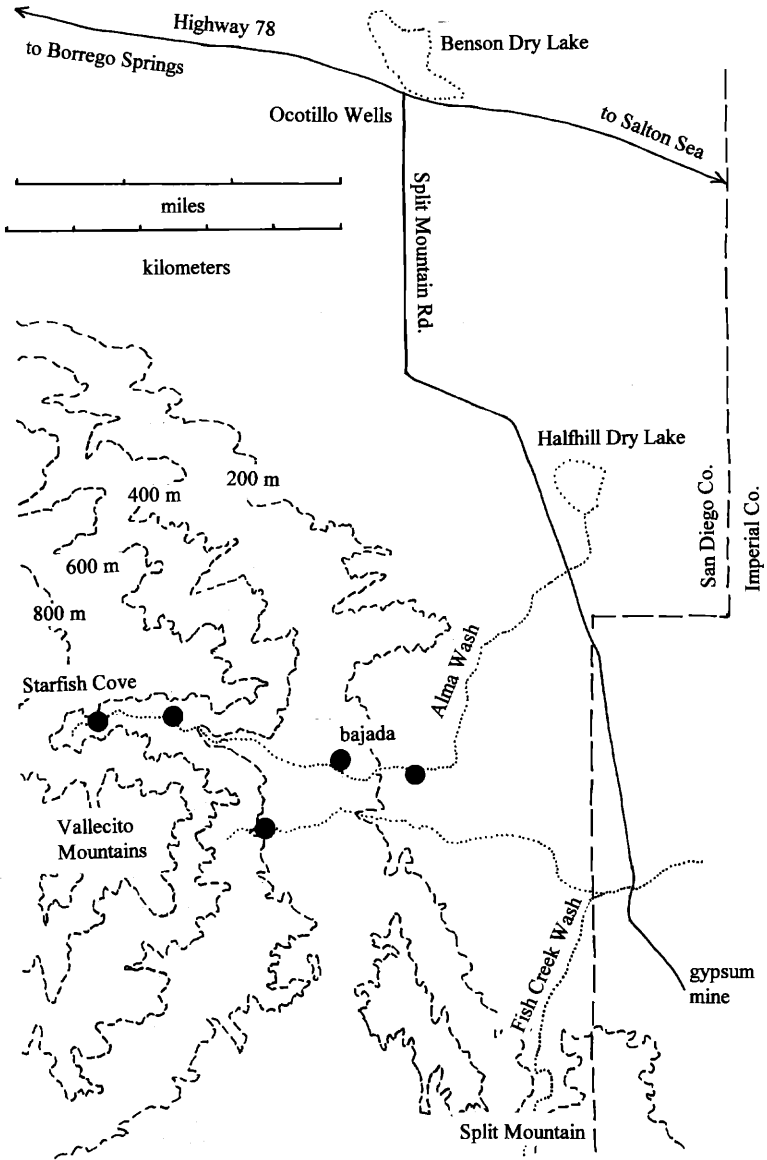


Figure 1. Locations of Gray Vireos sighted in stands of the Elephant Tree south of Ocotillo Wells, Anza-Borrego Desert State Park, December 1999.

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preclude winter territoriality as described by Bates (1992b). Though we were unsuccessful in taking any photographs, we saw all the birds extremely well, noting their size slightly smaller than a Black-throated Sparrow, bill short and thick for a vireo, uniformly gray upperparts, whitish underparts, complete narrow white eye ring, lack of white lores, single narrow white wing bar, and narrow white edges on the secondaries. Though we did not observe the vireos feeding, they were all near numbers of female Elephant Trees (the plant is largely dioecious), well festooned with fruit (Figure 2).

We broadcast a taped recording of the Gray Vireo's song from time to time but located all but one of the birds visually, and the exception was singing spontaneously. Another sang in response to the tape after being sighted. One bird gave a scolding call resembling the scold of Hutton's Vireo (*Vireo huttoni*), and two gave the brief high-pitched trill described and illustrated by Barlow et al. (1999), a call unlike those of other vireos occurring in California. Bates (pers. comm.) found this trill to be the most frequent vocalization of Gray Vireos wintering on the coast of Sonora.

The number of Gray Vireos we observed, and their being found readily on a first attempt, imply that the species is a normal winter visitor in the area. There had been no unusual rains that might induce an irregular species to extend its range north into this extremely arid region; indeed, annual rainfall in the Anza-Borrego Desert has been well below normal since the wet El Niño winter of 1997-98. We noted only the last remains of ephemeral vegetation that proliferated after cloudbursts on 11, 12, and 23 July 1999.

Our discovery might be construed as supporting other reports, published and unpublished, of the Gray Vireo in the Anza-Borrego Desert. Nevertheless, only one of these is well supported, a sighting of an apparent migrant at Yaqui Well on 10 April 1988 by D. R. Willick (*American Birds* 42:482). The species is easily confused with either the Plumbeous (*V. plumbeus*) or Bell's Vireo (*V. bellii*), both known to occur in the



Figure 2. Fruiting Elephant Tree (*Bursera microphylla*) frequented by a Gray Vireo in Alma Wash, Anza-Borrego Desert State Park, 4 December 1999.

Photo by Jack W. Schlotte

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the Anza-Borrego Desert in winter (the Plumbeous in planted pines, winter 1998-99, pers. obs.; Bell's in mesquites, 24 January 1984, SDNHM 42925). The Gray Vireo is virtually unknown away from its breeding and wintering ranges as a migrant. The sole record of a migrant from California listed by Grinnell and Miller (1944), of one collected at Mecca, Riverside County, on 26 March 1911 (van Rossem 1911) is in fact in error. Michael A. Patten and I examined the specimen (UCLA 10697) and found it is a Bell's Vireo, as specified on its label, apparently not the original. Since van Rossem (1911) reported collecting only one specimen of any vireo on his trip to the Salton Sea region, this must be the specimen he originally identified as the Gray. I suggest that the Gray Vireo normally makes the commute between its breeding and winter ranges in a single nonstop flight. Undoubtedly much remains to be learned of the Gray Vireo's distribution; for example, the species extends farther north in Nevada, presumably as a breeder, than reported by Johnson (1972)—J. V. Remsen (pers. comm.) noted one at Lida Pass on 29 May 1976, and M. A. Patten (pers. comm.) noted another at Lida on 27 May 1995. The distribution of the Elephant Tree in northern Baja California, local along the east base of the sierras Juárez and San Pedro Mártir, widespread between latitudes 30° and 28° N (Turner et al. 1995), suggests that wintering Gray Vireos may be found at many places there in addition to Guadalupe Canyon.

Our observations in the Anza-Borrego Desert thus support Bates' hypothesis of a mutual dependence of the Gray Vireo and Elephant Tree. The Gray Vireo has long been recognized as a seriously declining species in California, owing to brood parasitism by the Brown-headed Cowbird (*Molothrus ater*) (e.g., Remsen 1978). The Elephant Tree itself is considered endangered in California by the California Native Plant Society (Skinner and Pavlik 1994). Quite possibly, the Gray Vireos wintering in California, at the northwestern end of the winter range, breed in California, the western end of the breeding range. The viability of the Elephant Tree in California could be affected by an interaction between vireos and cowbirds that takes place far from the trees themselves.

I thank John Bates for providing a taped recording of the Gray Vireo he made in Sonora. Thanks to the other participants in the expedition to search for the vireos, Maryanne Bache, Lori Hargrove, Mark David Hoefer, Ginger Rebstock, Robert Sanger, Jack W. Schlotte, David Seals, and James O. Zimmer. They enabled us to split into several groups and cover more areas, some repeatedly, than would have been possible otherwise. Thanks to CalTrans and Pam Beare for the funding toward the San Diego County bird atlas that provided for Hargrove's initial visit. Thanks to Fritz Hertel, University of California, Los Angeles, for the loan of van Rossem's specimen. Thanks to Robbie Fischer, Joseph Morlan, and Richard E. Webster for their observations from Baja California. Thanks to John Bates and Kathy Molina for their reviews.

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