

### Lucy's Warbler *Vermivora luciae*

Colonizing only in 1990, Lucy's Warbler is a recent addition to San Diego County's breeding birds. It is still rare and confirmed nesting at only one site, the thicket or bosque of mesquite in the center of the Borrego Valley. Its stay in the area is only three months, from mid March to early June. Though a few sightings elsewhere in the desert suggest that Lucy's Warbler could colonize additional stands of mesquite, the future of the bosque in Borrego Valley is clouded by continued pumping of groundwater that could lower the water table until the trees can no longer reach it.

**Breeding distribution:** Lucy's Warbler has one of the most limited distributions of any breeding bird in San Diego County, confined to the mesquite bosque on the floor of the Borrego Valley. Its numbers are low, the maximum count of singing males per day being seven on 8 April 1997 and 23 March and 27 April 1998 (R. Thériault). All were seen within atlas square G25, with only one singing male on the southeast side of Borrego Sink in G26 (1 May 2000, P. Unitt). Vegetation maps of the area show the habitat covering about 2500 acres, but



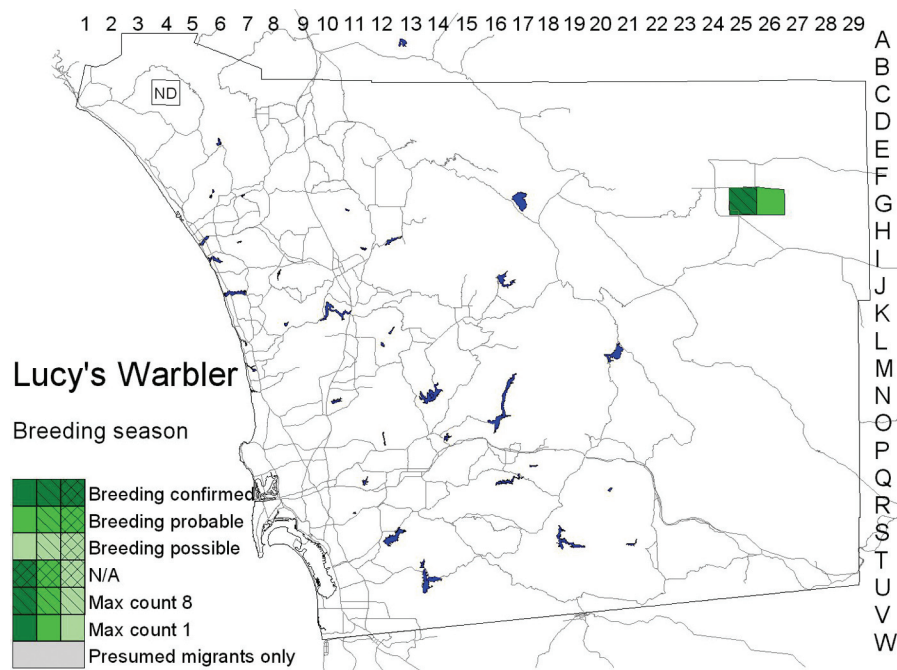
Photo by Anthony Mercieca

the warblers occupy it only sparsely. The total population is no more than a few dozen pairs, and probably less.

The possibility of Lucy's Warbler colonizing additional sites in the Anza-Borrego Desert is raised by one at Tamarisk Grove Campground (I24) 1 May 1997 (P. K. Nelson) and one in Vallecito Valley (M24) 5 May 2002 (J. R. Barth). Though extensive mesquite thickets suitable for the species are at both sites, in both cases the

birds were evidently unmated and could not be found on subsequent dates.

**Nesting:** Atypically for a warbler, Lucy's usually nests in tree cavities, old Verdin nests, or behind slabs of loose bark (Johnson et al. 1997). The one certain nest found in San Diego County was being built in a cavity of a mesquite 6.5 feet off the ground 22 April 1997 (R. Thériault). On this day, four independent juveniles were foraging together near the adult female gathering nest material, suggesting the adult was starting a second nest. Another probable nest, from which a bird was flushed, was about 15 feet off the ground under a section of bark loosened by a mesquite branch that had partially broken (G26,



1 May 2000). Earlier observations of breeding activity include a bird carrying an insect larva 10 May 1993 and a family group the following day (P. Unitt).

**Migration:** Dates for Lucy's Warbler in the Borrego Valley extend from 11 March (1997, two singing males) to 4 June (1998, three singing males and one independent juvenile, R. Thériault). The arrival date agrees with that in southern Arizona (Phillips et al. 1964) and along the lower Colorado River (Rosenberg et al. 1991). The late date may not be completely representative, the birds becoming less detectable when singing ceases. But Thériault's visits to the same site on 11 and 15 June 1998 did not reveal any, and Lucy's Warbler is a famously early migrant. Johnson et al. (1997) found its numbers near Phoenix greatly diminished even by late June.

Lucy's Warbler also occurs as a rare fall vagrant near the coast, with over 50 individuals now reported. Most are found in August and September, though dates range from 19 July (1982, Tijuana River valley, R. E. Webster, AB 36:1017, 1982) to 12 November (1979, same locality, G. McCaskie). Inland, fall migrants have been found also at Borrego Springs (F24/G24; 12 October 1969, AFN 24:100b, 1970) and Jacumba (U28; two on 26 August 1967, AFN 22:91, 1968). An especially unusual record, outside the species' migration periods, was of one at Point Loma (S7) 2 June 1982 (R. E. Webster, AB 36: 895, 1982).

**Winter:** Lucy's Warbler is a casual winter visitor around San Diego with four records, of one at Coronado (S9) 15–20 December 1979, one in the Tijuana River valley 15–25 December 1979, one on the San Diego Christmas bird count 17 December 1983, and one in San Diego 7 January 1986 (R. E. Webster, AB 40:335, 1986).

**Conservation:** As a breeding species, Lucy's Warbler is a recent arrival in San Diego County, first noted in the Borrego Valley in April 1990 (J. O'Brien, AB 44:498, 1990). It is certain that the species colonized about this time, for birders had visited the site regularly in spring since the Crissal Thrasher was discovered there in the 1950s. Since the original colonization, however, the warbler's numbers have remained low. With further development of the Borrego Valley and overdraw of the water table, the mesquite bosque, a habitat unique in San Diego County, could be killed and Lucy's Warbler extirpated—just as dramatized near Tucson by Johnson et al. (1997). Throughout its range, Lucy's Warbler has had a checkered history, extirpated from the Salton Sink (Patten et al. 2003), crashing then recovering partially along the lower Colorado River (Rosenberg et al. 1991), spreading in the Grand Canyon (Johnson et al. 1997) and elsewhere in Arizona as mesquite supplanted grassland (Phillips et al. 1964).