

# First Documented Nesting by the Purple Martin in Placer County, California, in nearly a Century

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In 2007, we found an active Purple Martin (*Progne subis*) nest site in Roseville, Placer County, California. This record appears to be the first documented breeding record by martins in the county in 98 years. This note describes the nesting circumstances and discusses the context for this record.

The Purple Martin is identified as a Species of Special Concern by the California Department of Fish and Game (Airola and Williams, in press). The species has been eliminated from the Central Valley of California, presumably by nest site competition with the non-native European Starling (*Sturnus vulgaris*), except in the City of Sacramento and adjacent areas within Sacramento County (Airola and Grantham 2003). Nesting in these areas is now restricted to bridges (including elevated freeways and overpasses) in urban settings. The Sacramento population has supported 106-172 nesting pairs at 10-12 colony sites during the period 2002-2007 (Airola and Kopp 2007, unpublished data).

Martins have not been documented to nest in Placer County since 1909 (Williams 1998), when "a few pairs" were reported nesting in Lincoln at "the pottery" (apparently the still-extant Glading McBean factory) and the Auburn Courthouse (Adams 1909). Repeated observations of martins in Auburn in the breeding season during the period 1959-1978 (Williams 1998) suggest that nesting may have occurred there until starling numbers increased (see Airola and Grantham 2003).

The 2007 nest site was in the underside of Highway 65 in Roseville, where it bridges Taylor Road and Antelope Creek. The 700-meter (2100-foot) long bridge is of the steel and concrete box girder design used by martins in adjacent Sacramento County (Airola and Grantham 2003). The "weep-hole" used to access the nesting area is approximately 9.5 m (30 ft) above the ground, higher than at most other Sacramento County nesting sites (Airola and Grantham 2003; Kopp, personal observation).

Kopp first observed activity at the nest site on 23 May. He then visited the site every 1-3 days over the nesting season. Nest building was observed during late May. Adults were observed carrying food to the nest hole from 25 June to 23 July, confirming the presence of nestlings. One 9-day old nestling, aged using photos in Hill (1999), was found beneath the nest hole

on 5 July. One nestling at near-fledging age was seen at the hole entrance on 26 July, the last date that young or adults were seen at the site. Thus, young were present at the site for 30 days, the typical nestling period for Purple Martins (Brown 1997), suggesting that fledging occurred.

The age of the pair's male was readily evident from its plumage. It showed the typical plumage of a second-year (SY; i.e., 1-year-old) male martin (Hill 1992), with a dark head and dark blue splotches on the chest. We were unable to age the female by plumage.

The Highway 65 nest site is 17.6 km (10.2 mi) from the nearest known site that supports nesting Purple Martins in Sacramento County. The nearest site, the Airbase Drive overpass of Roseville Road, has been occupied only irregularly by a single nesting pair (Airola and Kopp 2007, unpublished data). The nearest site with regular nesting occurrence and a relatively large population, and thus the closest likely potential source for the Highway 65 colonists, is the Roseville Road colony within Interstate 80 and adjacent Regional Transit overpasses (see Leeman et al. [2003] for location). This site is 21.5 km (12.4 mi) from the Highway 65 nest site and has supported 17-39 nesting pairs during the period 2002-2007 (Airola and Kopp 2007, unpublished data).

Following discovery of the nest, we surveyed four other sites within 8 km (5 mi) of the Highway 65 site in Roseville that were determined to be potentially suitable for martin nesting (i.e., concrete box girder design, greater than 80 m long, and with at least 6 m of available airspace beneath them (see Airola and Grantham 2003). These sites included:

- Roseville Parkway above Dry Creek, 0.1 mi west of Interstate 80,
- Galleria Boulevard above Atlantic St, and
- Foothill Boulevard over Subway Road and the Union Pacific Railyard.

We surveyed these sites on 26 May 2007, (a time of expected high martin activity) and field-verified them as suitable for martin nesting, but observed no martins. These sites all warrant future monitoring for nesting activity.

The longer-term contribution of this nesting attempt to martin conservation is unknown. The pioneering of new sites peripheral to existing colonies by martin pairs that contain SY males is typical of a pattern observed at other sites, including Davis, Yolo County, and several other small sites (Airola et. al. 2004). Often these pairs do not nest successfully, or even if they do so, the sites may be abandoned after a few years, presumably as a result of either mortality or attraction to larger, more established colonies. The successful nesting of the Highway 65 pair likely increases the chances that the adults will return to this site in subsequent years.

The lands immediately beneath the Highway 65 site are owned by Caltrans. While these lands are available for "airspace leasing," Caltrans

is aware of the need to protect adequate area for martin use at colony sites (L. Lambeth, pers. comm.). If use of the site continues, measures may be warranted to protect these and adjacent lands from incompatible uses, such as those that would block flight access.

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