

Preferred Session: Raptors and Regional Conservation Plans

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Paper title: *Nesting burrowing owls at two sites in the Altamont Pass Wind Resource Area in eastern Alameda and Contra Costa counties in 2006 and 2007.*

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We censused nesting burrowing owls (*Athene cunicularia*) on the East Bay Regional Parks District's Souza and Vasco Caves parcels (5.63 km<sup>2</sup>) and along a Department of Water Resources (DWR) reservoir/pipeline project (5.84 km<sup>2</sup>) in the Altamont Pass Wind Resource Area (APWRA) in eastern Alameda County in 2006 and 2007. We recorded 25 pairs of burrowing owls in 2006 and 21 pairs in 2007 on the Souza/Vasco Caves parcels and 31 pairs in 2006 and 46 pairs in 2007 on the DWR project. We estimated minimum 75% nesting success (percent pairs producing  $\geq 1$  young) in 2006 and 51% in 2007. We estimated minimum productivity of 3.59 young/pair in 2006 and 1.78 young/pair in 2007. Nesting burrowing owls were not uniformly distributed in the landscape and tended to occur on the lower portions of slopes around the margins of basins and drainages. Average density (both years) of burrowing owl pairs on the Souza/Vasco parcels was 4.1 pairs/km<sup>2</sup> and 6.6 pairs/km<sup>2</sup> on the DWR project. Both areas and years combined yielded an average density of 5.4 pairs/km<sup>2</sup> that suggests there could be several hundred pairs of burrowing owls nesting in the 165 km<sup>2</sup> APWRA.