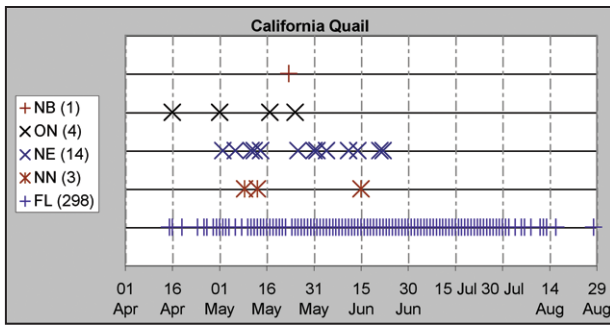


California Quail *Callipepla californica*

Over much of San Diego County, the California Quail remains common, occurring year round in sage scrub, broken chaparral, open woodland, and desert oases. In rural areas where buildings are scattered amid natural vegetation the quail persists. But once the natural areas are surrounded by development the quail begins to disappear. Habitat fragmentation is accompanied by an increase in disturbance, exotic weeds, predators, and other negative factors still to be identified, bad news for all birds, like the California Quail, that nest on the ground.

Photo by Anthony Mercieca



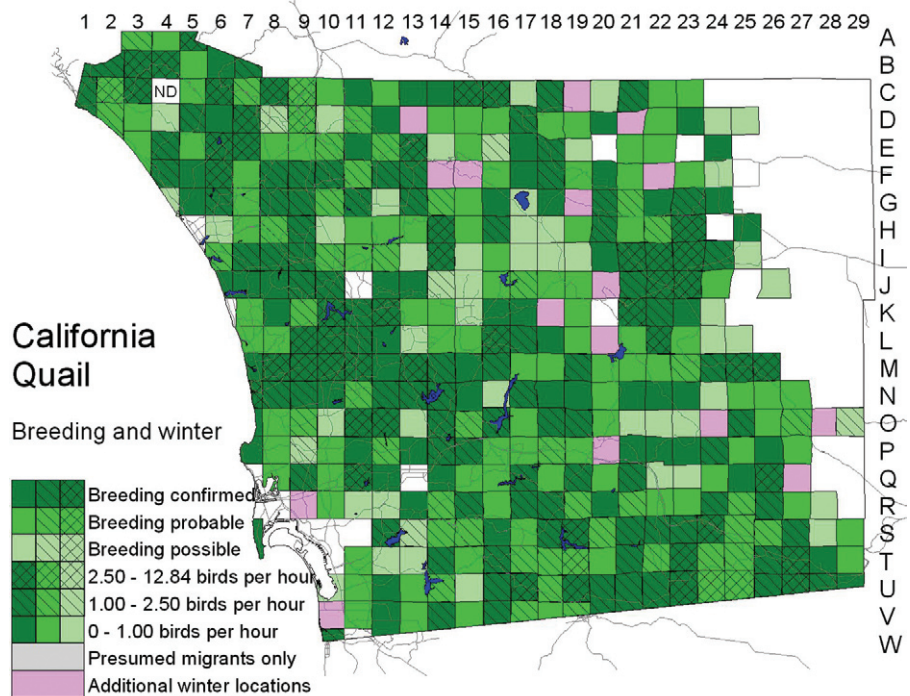
Breeding distribution: The California Quail is found throughout San Diego County’s coastal slope except in extensively forested areas and where it has been eliminated by development. Our daily counts on the coastal slope ran as high as 200 in Boden Canyon (I14) 13 April 2000 (R. L. Barber) and 136 at Barrett Lake (S19) 18 June 2000 (R. and S. L. Breisch). The quail is at least as abundant on the desert slope, concentrating in large numbers around water (up to 200 around Scissors Crossing, J22, 22 March 2000, E. C. Hall; 150 at Vallecito County Park, M25, 12 May 1999, M. C. Jorgensen). It does not reach the summits of Hot Springs Mountain or Cuyamaca Peak but ranges uncommonly up to nearly 6000 feet in the Laguna Mountains (two near Wooded Hill, P23, 21 June 1998, A. E. Klovstad, C. L. Mann).

The California Quail extends onto the floor of the Anza–Borrego Desert, where it overlaps the range of Gambel’s Quail. From 1997 to 2001, we found the species to be even more widespread than reported and mapped by A. G. Morley (in Massey 1998). The distributions of both species are dynamic, changing over rather brief periods, probably as a result of cycles of wet and dry years and in response to the artificial availability of water at human settlements. During the atlas period, we found the California Quail regularly east to Coyote Creek, to all developed areas in the Borrego Valley (male with six chicks at the Borrego sewage ponds, H25, 25 May 1998, P. D. Jorgensen), Tamarisk Grove, and Vallecito and Carrizo creeks east to Carrizo Marsh (O29, up to 25 on 25 April 2001, M. C. Jorgensen). Occasional birds occurred slightly farther east even in the breeding season: one on the north side of Clark Dry Lake (D25) 19 April 1998 (P. K. Nelson), 20 at San Felipe Narrows (I25) 10 April 1999 (P. K. Nelson), one in Harper Canyon (J26) 18 April 2000 (M. B. Mulrooney), and one along Pictograph Trail (L25) 21 June 2001 (R. Thériault).

Nesting: The California Quail nests usually on the ground, concealing the nest in leaf litter, a clump of grass, or a hollow under a shrub. Its nesting season varies with rainfall. The quail usually begins nesting about the end of March, as chicks are seen regularly from the last week of April. In most years the last clutch is laid around the end of June, but in wet years the birds continue later. In 1998 we noted chicks still flightless near Iron Mountain (M13) as late as 28 August (M. and B. McIntosh), implying egg laying near the end of July. The quail occasionally nests at other times of year, as reported by Belding (1890). From 1997 to 2001 our only record of unseasonal breeding was of fledglings along Forester Creek (Q14) 3 March 1999 (J. E., and K. Berndes).

Winter: The California Quail’s pattern of abundance in winter is much the same as in the breeding season, as expected for a sedentary species. The birds can be seen in large coveys from the time the young fledge through the winter. Our highest winter count was of 160 in Thing Valley (Q24) 25 December 2001 (J. R. Barth).

Conservation: Though the California Quail comes into backyards in residential areas if these are adjacent to native vegetation, it is unable to adapt to urbanization. Furthermore, it suffers from habitat fragmentation, disappearing from patches of native scrub surrounded by development. This sensitivity was shown well by Crooks et al. (2001), who found the quail in 13 of 30 isolated canyons in San Diego surveyed in 1987 but only four of these canyons when they were resurveyed in 1997. No canyon where the quail was absent in 1987 was recolonized ten years later. Crooks et al. (2001) projected that the quail has a 95% chance of surviving 100 years only in habitat fragments of 173 hectares or larger. The quail persists on Point Loma (S7), where about 365 hectares of scrub remain, isolated for decades. Outside San Diego, atlas



results show the California Quail already gone from areas as large as an atlas square in El Cajon (Q13), Escondido (J11), and Oceanside (H5).

In contrast to its retreat from urbanization along the coast, the quail has evidently benefited from settlement in the Anza–Borrego Desert. The species' spread through the developed areas of the Borrego Valley may be quite recent. In the 1970s only Gambel's Quail was known in

this area (Unitt 1984), though the California has always occurred down to the eastern bases of the county's mountains.

Taxonomy: The subspecies of the California Quail in San Diego County is *C. c. californica* (Shaw, 1798), intermediate between a darker, browner subspecies in coastal northern California and a paler one in Baja California.