

Northern Harrier *Circus cyaneus*

Long known in America as the Marsh Hawk, the Northern Harrier is as much a bird of grassland as of marshes. In San Diego County it is found year round but is more numerous and widespread as a winter visitor than as a breeding bird. The Northern Harrier's status as a breeding species in San Diego County is threatened by habitat loss and fragmen-

tation, to which grassland birds that nest on the ground are especially susceptible. The local breeding population undoubtedly varies much with rainfall and the abundance of prey but is between about 25 and 75 pairs.

Breeding distribution: In San Diego County breeding Northern Harriers are scattered, as patches of suitable habitat are separated by stretches of chaparral or urban

development. Camp Pendleton, with its extensive grasslands, functions as a refuge for the harrier; from 1997 to 2001 we noted possibly breeding birds in 17 of the 28 atlas squares fully or partly within the base. Originally, this grassland spread over much of northwestern San Diego County. Harriers nested in remaining undeveloped areas in Carlsbad (I7) at least until 2000 (fledglings on 15 June, D. B. Mayer) and at Guajome Lake (G7) at least until 2001 (female carrying a twig 25 June, K. L. Weaver). In central San Diego County the most important area for breeding harriers is Los Peñasquitos Canyon (N8/N9); five pairs nested there 1998–99 (J. Hannan), but none remained by 2001–02 (Wildlife Research Institute 2004). The Tijuana River estuary and valley evidently have the largest concentration of nesting harriers in San Diego County, with up to 13 pairs in the Border Field State Park (W10) alone in 2002 (Wildlife Research Institute 2004). Despite sprawling scattered industrial development, perhaps four to six pairs still nest on Otay Mesa. In southwestern San Diego County, north to the San Dieguito River and east to San Pasqual, Alpine, and Dulzura, the Wildlife Research Institute reported 11 pairs in 2001, 24 in 2002. The harrier's numbers vary greatly with rainfall.

In the foothills and mountains harriers are few and scattered through the breeding season, and we did not

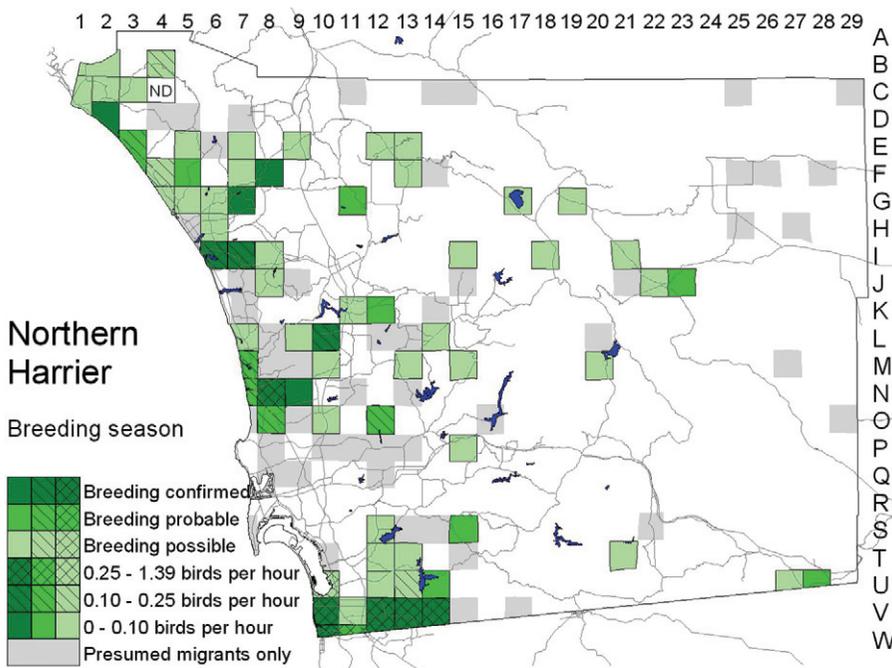
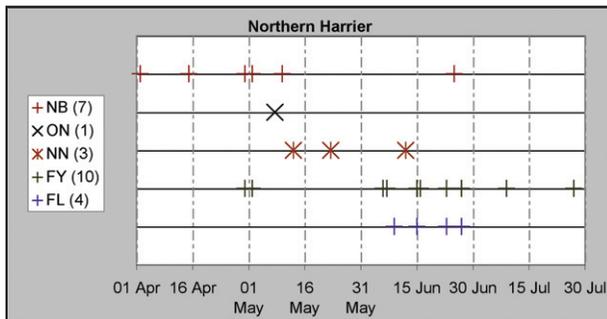


Photo by Anthony Mercieca

confirm nesting there. On the east slope of the mountains the harrier is apparently irregular in San Felipe Valley, where we noted it repeatedly in the springs of 1998 (after El Niño rains) and 1999, including a male in display flight at Sentenac Ciénaga (J23) 11 March 1999 (R. Thériault). But after four years of drought, in 2002 and 2003, the harrier was absent there. Similarly, an apparent pair in the Jacumba Valley (U28) 28 February 1999 (F. L. Unmack) was our only suggestion of breeding in southeastern San Diego County. The only late spring or summer record from the Anza–Borrego Desert is of a single bird at Lower Willows (D23) 4 July 1994 (M. Getty).

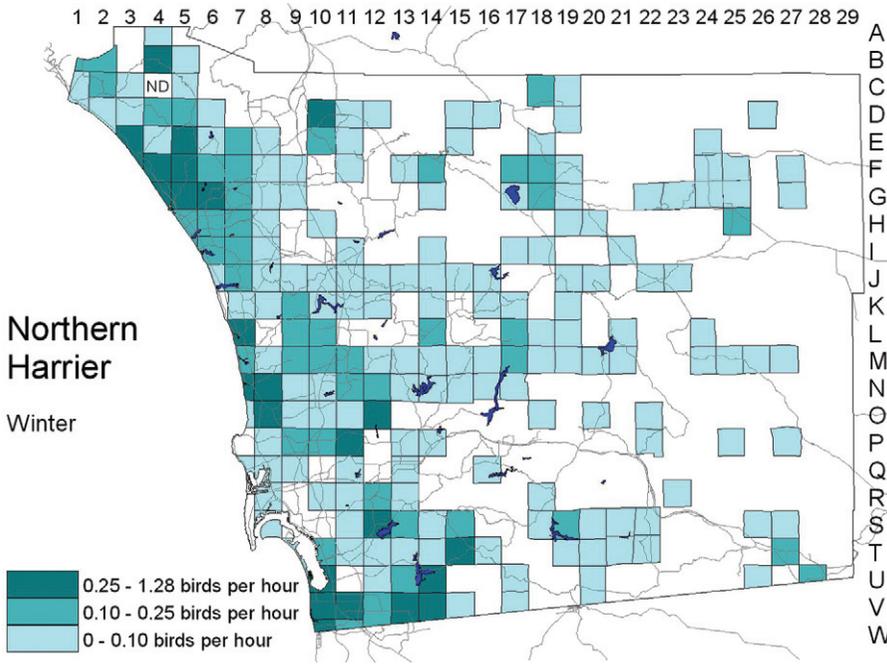
Nesting: The Northern Harrier nests on the ground, with the nest concealed within a marsh or other dense vegetation. Our relatively few observations of nesting activity imply the birds lay eggs at least from 1 April to 1 May, an interval little different from the 5 April–11 May documented by 12 egg sets collected 1918–44.

Migration: Winter visitors occur mainly from September to March. Except for the one July record, the harrier has



been noted in the Anza–Borrego Desert from 6 September (1999, one at the Ram's Hill sewage ponds, H25, P. D. Jorgensen) to 1 May (2001, one at the north end of Clark Valley, C25, H. E. Stone).

Winter: Though the Northern Harrier is considerably more numerous in San Diego County in winter than in spring or summer, it is still generally uncommon. We found no communal roosts. Our highest counts were of nine in Los Peñasquitos Canyon (N8) 1 February 1998 (D. K. Adams), eight in Sycamore Canyon (O12) 8 December 1998 (W. E. Haas), and eight at Border Field State Park (W10) 19 December 1998 (K. Aldern). Wintering birds are strongly



drought-plagued 2001–02 was barely a third that in 1998–99, the year following El Niño rains.

Conservation: Early in the 20th century, the Northern Harrier was a common breeding resident (Willett 1912, Stephens 1919a). With urbanization, especially of floodplains, the harrier lost most of its habitat and became rare as a breeding species. Loss of foraging habitat and disturbance of nest sites are both likely factors. Unfortunately, data to quantify the change do not exist. Christmas bird counts suggest that the numbers of wintering birds remained more stable through the final third of the 20th century.

The Northern Harrier exemplifies the conundrum of rare wildlife with conflicting needs

concentrated in the coastal lowland, especially in the same regions with breeding birds. At higher elevations we found no more than three harriers per atlas square per day, even in extensive grasslands such as those near Lake Henshaw and Lake Cuyamaca. In the Anza–Borrego Desert wintering harriers are scarcer still, with only a few sightings of as many as two individuals at a time. The average on Anza–Borrego Christmas bird counts is 2.4.

Wintering as well as breeding birds vary in number with rainfall, which controls the abundance of the harrier’s prey. The number atlas observers reported in

being squeezed together into small remnants of habitat. In the Tijuana River estuary, some harriers learned to specialize on the Clapper Rail as prey (P. D. Jorgensen); some prey on Least Terns (R. T. Patton). The Wildlife Research Institute (2004) reported that the most frequent issue confronting nesting harriers is disturbance from people walking near nests, dogs allowed to run free, and off-road vehicles.

Taxonomy: The Northern Harrier comprises an Old World and a New World subspecies; *C. c. hudsonius* (Linnaeus, 1766) inhabits the latter.