

## KINGFISHERS — FAMILY ALCEDINIDAE

### Belted Kingfisher *Ceryle alcyon*

Forty million years ago, before the advent of the songbirds, members of the order Coraciiformes were the dominant small land birds in North America. Today, over most of the continent, only one is left: the Belted Kingfisher. Fishing by plunging into the water head first, Belted Kingfishers exploit any water, fresh or salt, clear enough that they can see fish in it. The kingfisher occurs in San Diego County largely as an uncommon winter visitor. Breeding birds are rare, and the county lies at the southern tip of the species' breeding range.

**Winter:** Nonbreeding Belted Kingfishers are widespread over the coastal slope of San Diego County wherever there is water. The largest numbers are in the coastal lagoons (up to eight at Batiquitos Lagoon, J7, 26 December 1998, R. Stone), in south San Diego Bay (up to four at Chula Vista, U10, 18 December 1999, E. J. McNeil), and at reservoirs (up to seven at Lake Hodges, K10, 27 December 1998, R. L. Barber). But the birds also search out small ponds and creeks, making their distribution at the scale of an atlas square look almost uniform over much of the coastal lowland. The birds are seen occasionally flying long distances over dry country. In the more rugged foothills and mountains they are sparser but occur even high in the mountains, up to 4600–4700 feet elevation at Doane Pond, Palomar Mountain (E14; one on 27 February 2000, P. Unitt), and Lake Cuyamaca (M20; four sightings of single birds, A. P. and T. E. Keenan). In the Anza–Borrego Desert wintering kingfishers are rare



Photo by Anthony Mercieca

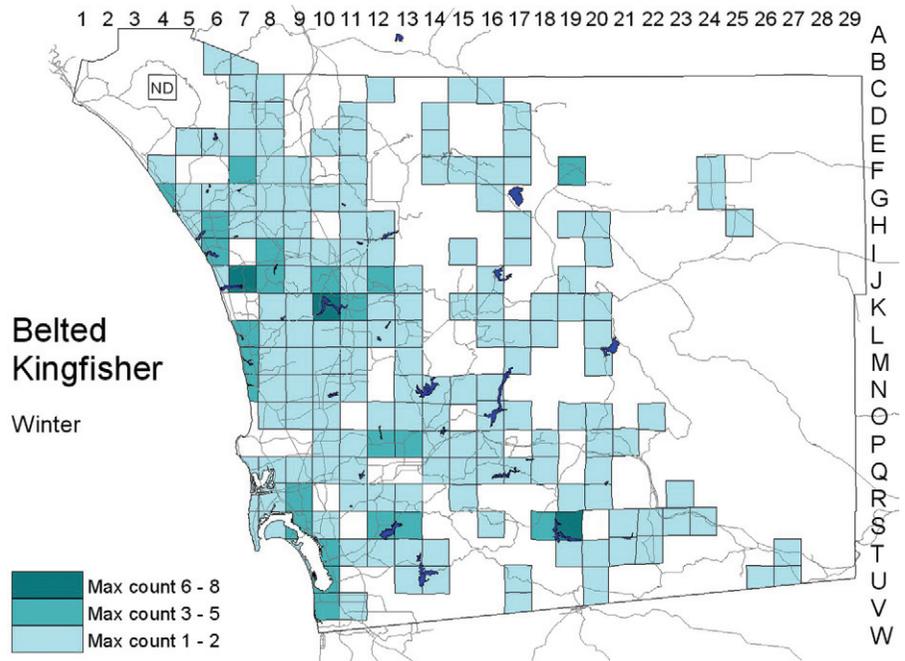
and restricted to man-made ponds in the Borrego Valley (F24/G24/H25). During the atlas period single birds were reported from this area 16 times, though some may have been repeated sightings of the same individual.

**Migration:** The Belted Kingfisher's migrations through San Diego County are not well defined because the species occurs year round. In the Anza–Borrego Desert, we encountered only one spring migrant away from wintering habitat during the atlas period, at Agua Caliente Springs (M26) 13 April 1998 (E. C. Hall). But 15 earlier records in the state park database range from 15 March (1981, one at Lower Willows, D23, A. G. Morley) to 15 May [1972 and 1976, single birds at Lower (D23) and Middle (C22) willows and in Cougar Canyon (D22), M. Getty, R. T. Patton]. Fall arrival is even less clear, as short-distance

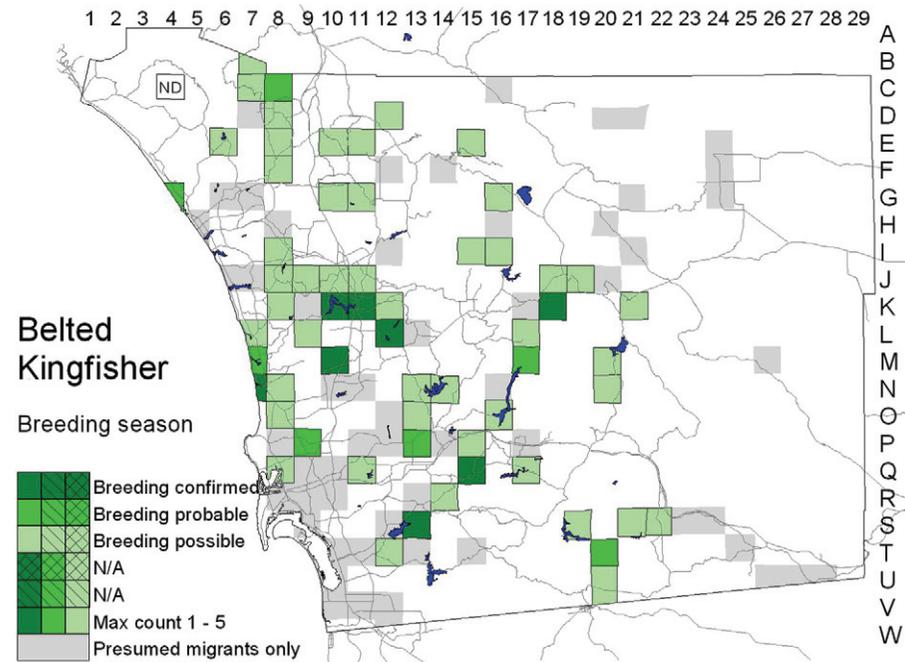
dispersal of birds breeding in southern California may begin much earlier than arrival of migrants from farther north. By the second week of July, however, kingfishers are showing up in many places where they were absent in May and June.

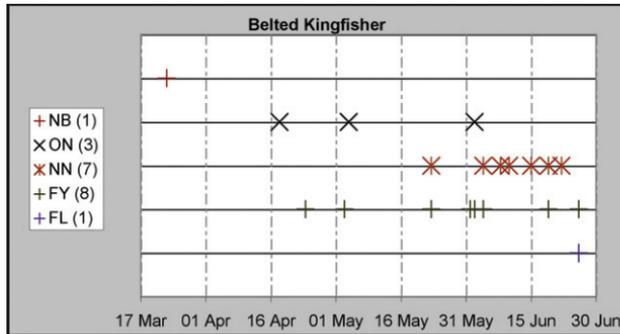
**Breeding distribution:** Before field work for this atlas began in 1997, very few Belted Kingfisher nests had been found in San Diego County, though scattered summering birds in northern San Diego County suggested some were being overlooked. In addition to the two older nesting records (Carpenter 1917; E. E. Sechrist in Willett 1933), a pair fledged young 2.1 miles north of Bonsall (E8) 25–29 May 1987 (J. C. and F. Aldrich).

From 1997 to 2001, we confirmed nesting eight times. A sighting of one carrying food to young at the east end of Lake Hodges (K11) 24 April 1998 (E. C. Hall) was perhaps one of a pair with two fledglings at Bernardo Bay, Lake Hodges (K10), 26 June 1998 (M. and B. McIntosh). An agitated pair in the gorge of the upper San Diego River, elevation 1500 feet (K18), 9 July 2000 was near a hole in a bank with fresh scrape marks and fish bones below it (L. J. Hargrove, R. C. Sanger). The male of a pair at Ramona Dam (L12) spent much time inside a burrow, probably still digging, on 23 March 1998. On 5 April, only the male was visible outside the burrow; the female was presumably inside incubating (M. and B. McIntosh). Along Chicarita Creek 0.4 mile south of Carmel Mountain Community Park (M10) a pair was attending a nest burrow with nestlings 30 May–22 June 1998 (K. J. Winter). In a bank on the southwest side of Los Peñasquitos Lagoon (N7), a pair was at a nest hole 4 May 1997 (A. DeBolt); one was seen feeding young in the same area 3 May 1998 (D. K. Adams). One was carrying a crayfish to a hole in a bank of the huge borrow pit in the Sweetwater River near Dehesa (Q15) 1 June 1999 (W. E. Haas). At the upper end of Sweetwater Reservoir (S13), a nest found occupied 18 April 1997 had nestlings on 23 May 1997; the birds probably nested there again in 1998 (P. Famolaro). The last site is the southernmost nesting locality known for the Belted Kingfisher in western North America.



It is likely that the species nests irregularly at other places in San Diego County as well. Sites where it was suspected of nesting or noted repeatedly in late May and June are the Santa Margarita River north of Fallbrook (C8) and near its mouth (G4/G5), near the confluence of the San Luis Rey River and Couser Canyon (E10), 1.5 miles northeast of Weaver Mountain (E11), in Moosa Canyon near the Castle Creek golf course (G10), along Escondido Creek in Olivenhain (K8), San Pasqual Valley (K12), the San Dieguito River estuary (M7), El Capitan Reservoir (O16), Loveland Reservoir (Q17), Barrett Lake (S19), and Hauser Canyon (T20). Some birds seen through the breeding season, however, are undoubtedly unmated nonbreeders. The single record from the east slope of the mountains during the breeding season is of one at Banner (K21) 3 June 1999 (P. K. Nelson).





**Nesting:** The Belted Kingfisher typically digs a burrow in a bank for its nest, and all sites described in San Diego County have been in such burrows. The burrow is often but not necessarily over or near water in which the birds can feed. The kingfisher's nest site is thus similar to that of the Northern Rough-winged Swallow; the pair nesting at Ramona Dam in 1997 had to defend its burrow against swallows attempting to take it over.

With data on Belted Kingfisher nesting in San Diego County so meager, the species' breeding season here remains uncertain. Observations during the atlas period

suggest egg laying at least from early April to early May. Carpenter's (1917) nest with young "fully feathered" on 6 May 1916 must have been started in mid March.

**Conservation:** The Belted Kingfisher presumably benefited from the importation of water and the installation of many ponds and reservoirs, then stocked with exotic fish. The introduction of the crayfish also gave the kingfisher another important food. The species' absence from undeveloped areas of Camp Pendleton contrasts strikingly with its wide distribution over most of the coastal slope. Nevertheless, San Diego County Christmas bird counts show no trend in kingfisher numbers. Channelizing of streams and stabilization of banks eliminates kingfisher nesting habitat, though this has not resulted in the species' breeding range retracting north, as it has for the Bank Swallow.

**Taxonomy:** The degree of overlap between the larger western and smaller eastern populations of the Belted Kingfisher is greater than the level appropriate for the populations to be recognized as subspecies (Rand and Traylor 1950, Phillips 1962).