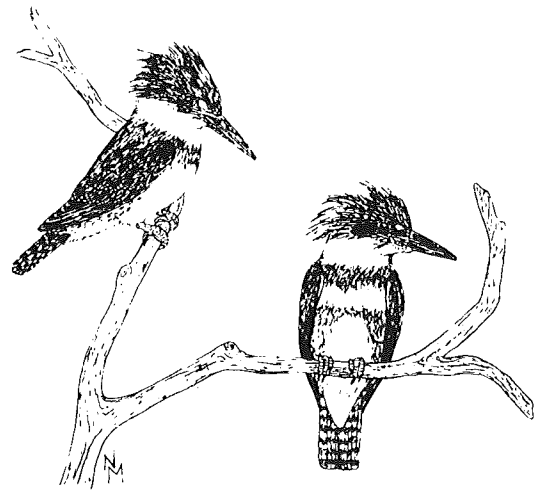


Belted Kingfisher

Ceryle alcyon

The Belted Kingfisher may be found anywhere there are clean waters well stocked with small fish. During the breeding season, the species is limited by the need for un-vegetated earthen banks to serve as sites for nest burrows, which are dug 1–2 m (3–6 ft) into the banks. In districts where such banks do not occur naturally, man-made sites such as road cuts and borrow pits may be utilized. Nests along streams are often located directly above water, but nests associated with lakes and ponds may be up to 1.6 km (1 mi) away from water. Populations are more dense along streams than by lakes (Cornwell 1963), apparently a result of differences in the availability and vulnerability of fish in these habitats. Davis (1982) found that kingfishers prefer to fish in riffles in streams rather than in pools, and postulated that riffles provide cues for habitat selection for the species. Along streams, the territories of this species are linear and usually include the nest site (Davis 1982), while in areas where the nest site and the foraging sites are removed from each other a different arrangement is necessary.

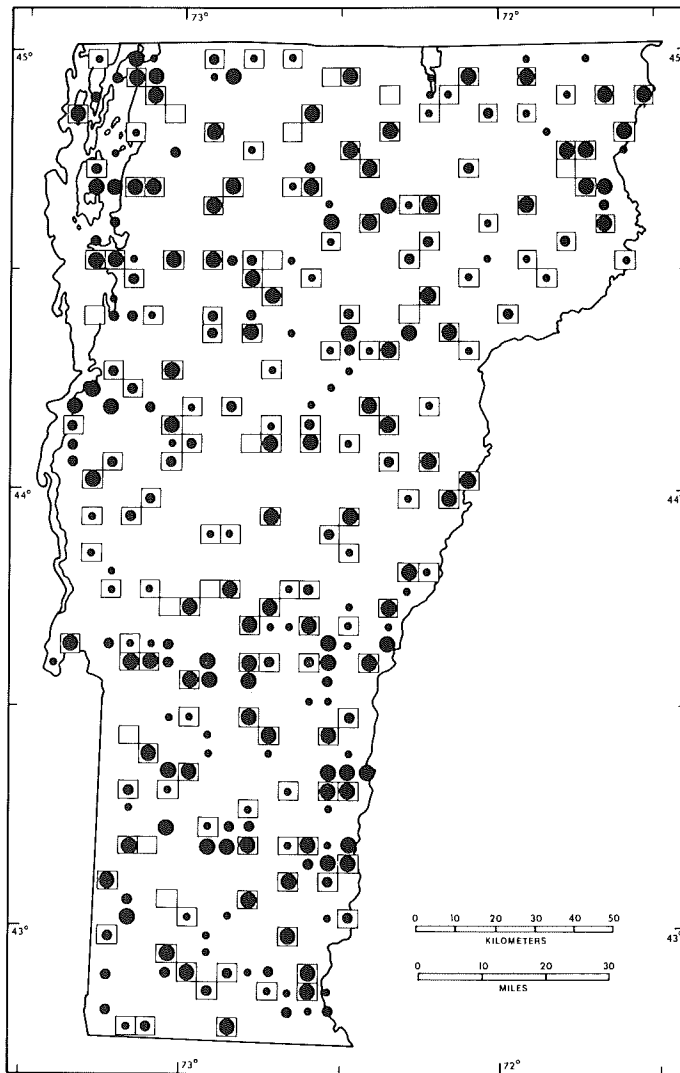
Observing Belted Kingfishers is usually easy. They are high fliers, perch conspicuously on wires and snags, and are noisy. The call, a clattering rattle, is unmistakable once learned. Confirmation of breeding may be obtained in a variety of ways. Many Atlas Project observers located used burrows in gravel pits and along streams in areas of known occurrence; these provided 17% of all proven breedings. Active nests provided most of the confirmations (40%); with most of these records observers used the ON code (28%) to indicate active nests of unknown contents. Sightings of parents with food for young (FY) constituted 31% of confirmed breeding records; since Cornwell (1963) found that some pairs with nests far removed from water commonly traveled up to 3.2 km (2 mi) to forage, a small amount of error may be involved in the use of this code



away from stream habitats. Because many fledglings are not evident until late July, dependent young did not provide an important source of confirmation.

A few male kingfishers overwinter along stretches of open water, presumably to hold on to choice territories. Most kingfishers return to Vermont in late March and early April, when major watercourses become free of ice. Burrows are dug or reclaimed in April, and nesting commences in earnest in early May. Six dates for eggs in Vermont range from May 11 to June 15. The eggs are white, and number from 4 to 8; the average size of 31 New York State clutches was 6.1 eggs, with 55% of them containing 7 (Bull 1974). The incubation period is from 23 to 24 days (Bent 1940). Seven dates for nestlings in Vermont range from June 12 to July 16. The young remain in the nest for about a month (Mousley 1938; Bent 1940). Dependent young have been reported in Vermont from July 16 to August 10 (three records). The majority of kingfishers depart from Vermont in the autumn; most are gone by the end of November.

The Belted Kingfisher was located in 92% of the 179 priority blocks in the state. Most of the 14 blocks from which the species was absent lack major streams or ponds, and those that do possess suitable bodies of water seemed to lack nest sites. A survey of historical accounts from Thompson (1853)



No. of priority blocks in which recorded

TOTAL 165 (92%)
 Possible breeding: 48 (29% of total)
 Probable breeding: 36 (22% of total)
 Confirmed breeding: 81 (49% of total)

Physiographic regions in which recorded

	no. of priority blocks	% of region's priority blocks	% of species' total priority blocks
Champlain Lowlands	29	93	18
Green Mountains	47	87	28
North Central	18	95	11
Northeast Highlands	15	94	9
East Central	19	100	11
Taconic Mountains	13	81	8
Eastern Foothills	24	100	15

to Spear (1976) indicates that the species' status has changed little over time. Most Atlas Project blocks contained one or two pairs. The species' presence in most blocks with adequate water indicates the overall high quality of the state's waters. Hall (1983) stated that the species had disappeared from badly polluted waters in West Virginia. Future monitoring of this species' numbers may provide a clue to water quality in Vermont.

WALTER G. ELLISON