

American Kestrel

Falco sparverius



This small falcon is the most colorful of Vermont's birds of prey and one of a few species in Vermont that hovers in the air while foraging. The breeding range is one of the most extensive of any of the species nesting in Vermont, reaching well north into Canada and as far south as Tierra del Fuego in southern South America (Smallwood and Bird 2002). This species has been present in the state since at least the latter half of the nineteenth century (Cutting 1884). Limited evidence from banding indicates that New England birds do not usually winter north of South Carolina (Bird 1988). It is listed as "very uncommon" in Vermont during winter (Murin and Pfeiffer 2002).

The American Kestrel nests in open country with low vegetation that allows good visibility for capturing prey; farms often provide a suitable setting. As an obligate secondary-cavity nester, the kestrel requires a site usually from 2.74 to 9.75 meters (9 to 32 feet) off the ground (Baicich and Harrison 1997). Nest cavities include woodpecker holes, crevices on farm buildings, as well as constructed nest boxes (Smallwood and Bird 2002). During the second atlas, a single nest with eggs was found on 10 April. Ten nests with young were located with dates ranging from 15 June to 10 July. Fledglings were found on 51 blocks between 8 June and 8 August. This species is relatively conspicuous, often using high exposed perches such as utility wires. The atlas map is likely an accurate representation of its current distribution in Vermont.

The first atlas showed kestrels nesting in all regions of the state but with fewer reports in the highest elevations of the Green Mountains and the Northeastern Highlands, where suitable habitat is scarce. The second atlas revealed a 26 percent decline statewide, with the greatest losses in the Northeastern Highlands and the Southern Vermont Piedmont.

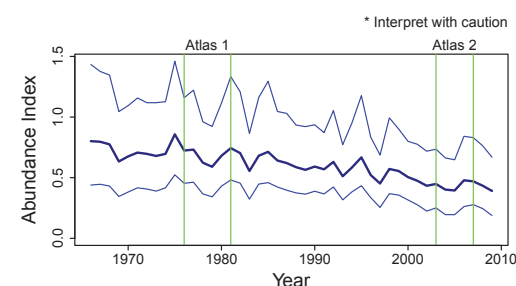
In eastern North America and the continent as a whole, kestrel numbers have been declining significantly during the past four decades (Sauer et al. 2011). Counts of fall migrants have declined significantly since 1974 at major eastern hawk-watching sites (Farmer et al. 2008a). Second atlases in Pennsylvania (Wilson et al. 2012), New

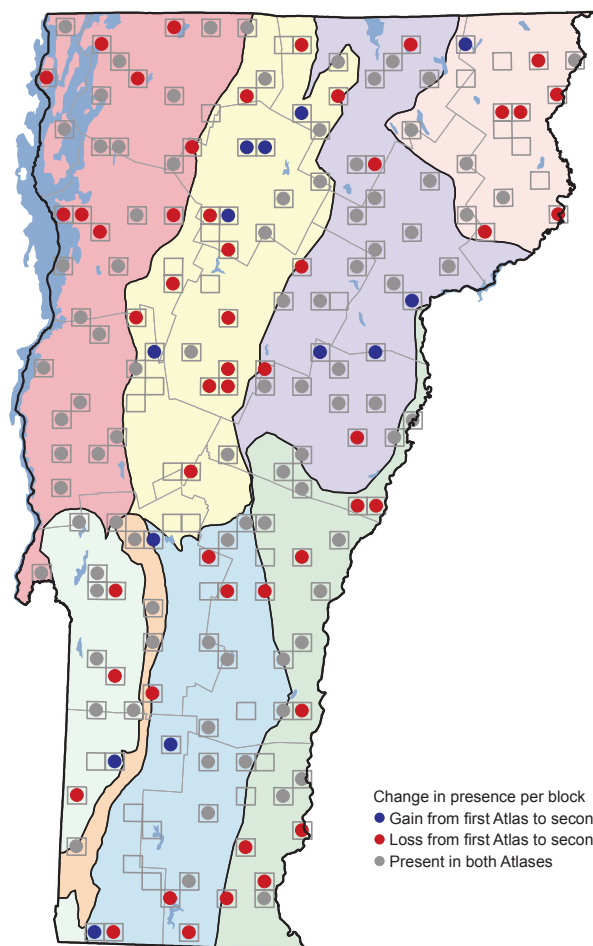
York (McGowan and Corwin 2008), and Maryland (Ellison 2010) all showed declines of 13 to 33 percent, and Ontario found consistent declines, ranging from 9 to 88 percent, throughout its regions (Cadman et al. 2007). The Breeding Bird Survey population trend in Vermont—a decline of 1.4 percent per year from 1982 to 2007—is not significant, but significant declining trends in the region coupled with a decrease in habitat availability earned the American Kestrel a place on Vermont's list of Species of Special Concern in 2009. In Connecticut, the species has been declining since the 1970s and is listed as threatened (Bull 2009).

Given the loss of farmlands to development and the succession of fields to forests in recent decades, it is not surprising that a bird of open lands may have become less common. Other concerns for kestrel populations include mortality from West Nile virus (Medica et al. 2007), and changes in farming practices that eliminate hedgerows and trees as nest sites (Smallwood and Bird 2002). Predation from an increasing Cooper's Hawk population may also be contributing to declines (Farmer et al. 2006).

Since 1995, as many as 19 kestrel nest boxes have been maintained on the backs of signs along a 160-kilometer (100-mile) stretch of interstate highway from Bethel

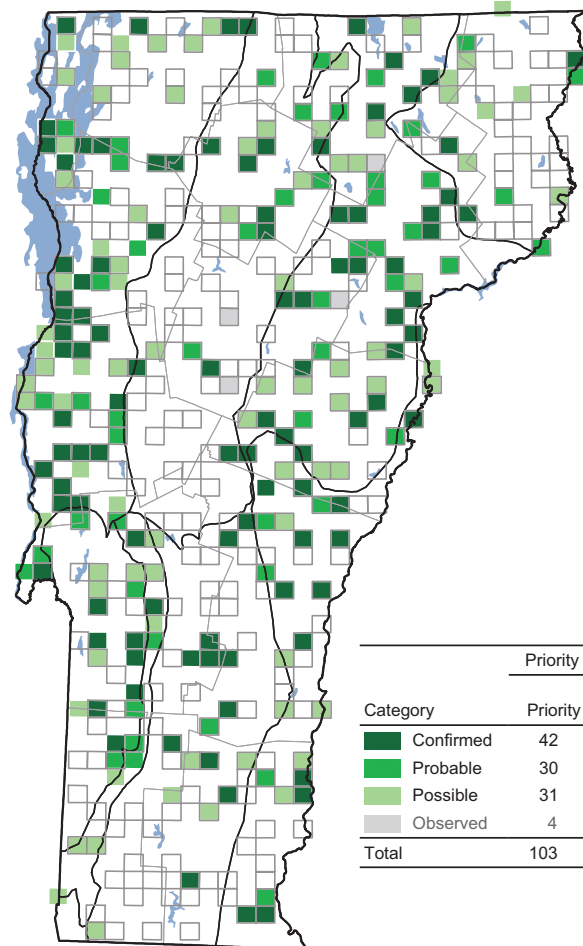
RELATIVE ABUNDANCE OVER TIME





CHANGE IN DISTRIBUTION BETWEEN ATLASES

Biophysical Region	First Atlas	Second Atlas	Change	% Change
Champlain Valley	32	23	- 9	- 28
Northeastern Highlands	11	6	- 5	- 45
Northern Green Mountains	21	14	- 7	- 33
Northern Vermont Piedmont	26	24	- 2	- 8
Southern Green Mountains	17	13	- 4	- 24
Southern Vermont Piedmont	19	11	- 8	- 42
Taconic Mountains	9	7	- 2	- 22
Vermont Valley	5	5	+ 0	+ 0
Totals	140	103	- 37	- 26



Category	Priority Block Count	
	Priority 1	Priority 1 & 2
Confirmed	42	91
Probable	30	47
Possible	31	60
Observed	4	4
Total	103	198

DISTRIBUTION IN CURRENT ATLAS

Biophysical Region	% of region species occupies	% of all records for this species found in region
Champlain Valley	68	25
Northeastern Highlands	32	6
Northern Green Mountains	36	12
Northern Vermont Piedmont	80	26
Southern Green Mountains	32	9
Southern Vermont Piedmont	60	12
Taconic Mountains	52	6
Vermont Valley	87	4

(Windsor County) to Highgate (Franklin County; Slesar 2009). Although such efforts resulted in 80 fledged young (Slesar 2009), experience elsewhere has indicated that kestrels, especially recently fledged chicks, are particularly vulnerable to collisions with vehicles (Smallwood and Bird 2002, P. Nye pers. comm.). Providing nest boxes in the vicinity of favorable agricultural habitats and away from roadways might produce more fledglings and increase their chance of survival (Rohrbaugh and Yahner 1997).

GEORGE A. CLARK, JR.