

Ruby-crowned Kinglet

Regulus calendula

One of North America's most energetic and dramatic songbirds, with males displaying an exploding crown of crimson the Ruby-crowned Kinglet is infrequently documented as a breeder in Vermont. Remote coniferous forests across the northern portion of the continent and southward into the major mountain ranges of the West constitute the core of its breeding range (Swanson et al. 2008). In the East, Vermont lies at the southern edge of its range; most records come from northeastern and high-elevation sections of the state. Our knowledge of this bird as a breeder in Vermont has a short history. The first definitive breeding records were gathered during the first atlas. Before that, there were only general references to breeding in Vermont (Ellison 1985).

Widespread during migration, the Ruby-crowned Kinglet prefers mature coniferous forests for breeding. In Vermont, this includes woodlands dominated by balsam fir and red or white spruce (black spruce at high elevation). Northbound migrants move through Vermont in early April, peaking in numbers toward the end of the month. Confirmed breeding evidence of this species is scant. Nest building was recorded on two dates: 9 May and 7 June. Fledgling observations ($N = 6$) were recorded between 23 June and 1 August. The Ruby-crowned Kinglet's preference for relatively remote breeding habitat and an inaccessible nest placed high in dense, coniferous foliage, resulted in only 9 CO records in priority blocks.

The atlas data suggest Ruby-crowned Kinglet's habitat preferences in Vermont coincide with its nationwide predilections. The majority of CO and PR records come from the Northern Green Mountains, Northeastern Highlands, and Northern Vermont Piedmont; the southern half of the state produced only 3 records, all in the Green Mountains. This is unquestionably a bird of coniferous woods at high and low elevations.

Statewide, Ruby-crowned Kinglet distribution went unchanged from the first to the second atlas. In this atlas, it occurred in the Northern Green Mountains with greater frequency than in the first: the number of occupied blocks rose from 6 to 14, an increase of 133 percent.

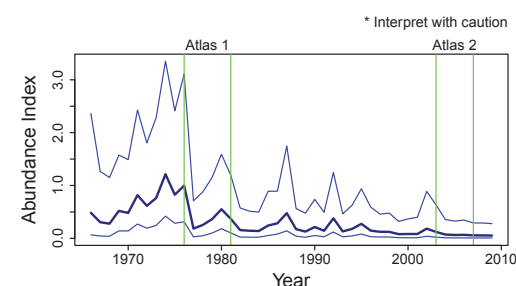


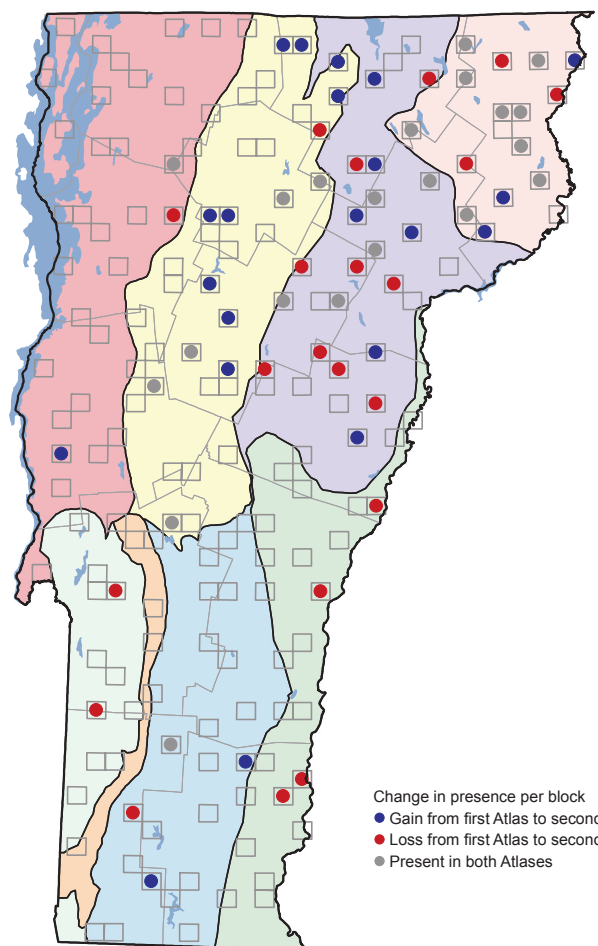
Although this kinglet was not recorded from the Taconic Mountains and Southern Vermont Piedmont in this atlas, it did occur there in a very few instances in the first atlas.

Other recent atlases offer evidence of localized distributional changes for Ruby-crowned Kinglet. The New York atlas found a 6 percent decline in block occupancy, attributable mostly to a cluster of blocks within the Adirondacks (McGowan 2008). The Ontario atlas revealed declines in southern regions and increases in northern regions (Crins 2007). Populations of this songbird appear to have been stable across eastern North America and in Vermont from 1982 to 2007. During the same period, however, they have declined significantly, by 1.8 percent per year, in the Atlantic Northern Forest (Bird Conservation Region 14; Sauer et al. 2011). Western populations have been on the rise, despite greater logging pressure (Swanson et al. 2008).

Logging, wildfires and, to a lesser extent, habitat fragmentation on breeding grounds can reduce abundance of Ruby-crowned Kinglet. Climate change presents another potential threat to boreal breeding habitat. Long-

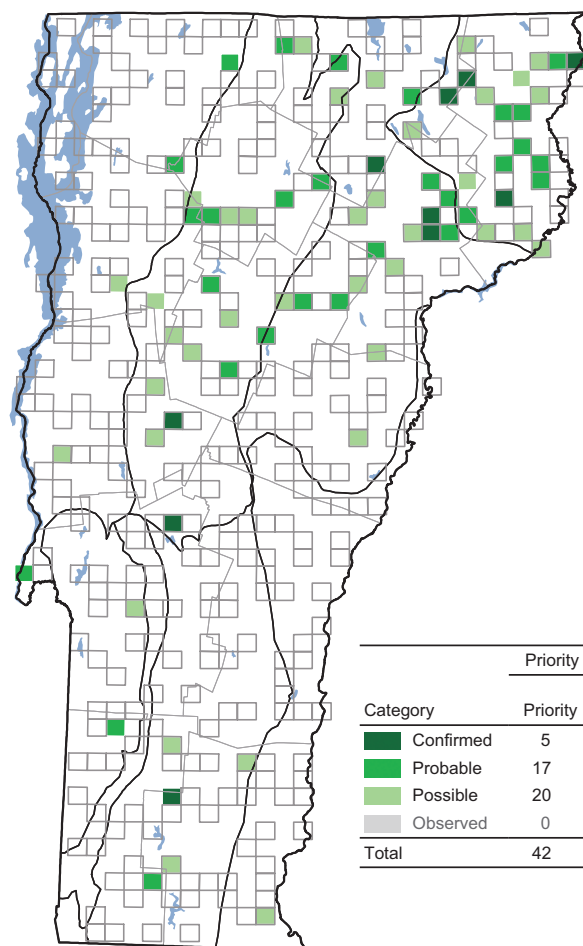
RELATIVE ABUNDANCE OVER TIME





CHANGE IN DISTRIBUTION BETWEEN ATLASES

Biophysical Region	First Atlas	Second Atlas	Change	% Change
Champlain Valley	2	2	+ 0	+ 0
Northeastern Highlands	12	12	+ 0	+ 0
Northern Green Mountains	6	14	+ 8	+ 133
Northern Vermont Piedmont	14	11	- 3	- 21
Southern Green Mountains	2	3	+ 1	+ 50
Southern Vermont Piedmont	4	0	- 4	- 100
Taconic Mountains	2	0	- 2	- 100
Vermont Valley	0	0	+ 0	+ 0
Totals	42	42	+ 0	+ 0



Category	Priority Block Count	
	Priority 1	Priority 1 & 2
Confirmed	5	9
Probable	17	26
Possible	20	32
Observed	0	0
Total	42	67

DISTRIBUTION IN CURRENT ATLAS

Biophysical Region	% of region species occupies	% of all records for this species found in region
Champlain Valley	2	3
Northeastern Highlands	54	30
Northern Green Mountains	29	28
Northern Vermont Piedmont	30	30
Southern Green Mountains	7	6
Southern Vermont Piedmont	2	1
Taconic Mountains	4	1
Vermont Valley	0	0

term pressures during migration and on wintering grounds may be less severe because of the Ruby-crowned Kinglet's relatively varied habitat preferences during the non-breeding season (Swanson et al. 2008). Despite its inclinations for diminishing boreal forest, and declining trends in the region, the Ruby-crowned Kinglet is considered globally and nationally secure. It is ranked as apparently secure in Vermont, and vulnerable in New York (NatureServe 2009).

Ruby-crowned Kinglet, despite being abundant and readily observable during migration, remains a diffi-

cult songbird to assess locally on its breeding grounds because it occurs at low densities. Encounters with Ruby-crowned Kinglet during Vermont's Forest Bird Monitoring Program and Mountain Birdwatch have been too few in number for any dependable population trend assessments (VCE unpubl. data). Yet with Vermont at the southern end of the species' range, and declining trends in the region, targeted monitoring and research may help discern underlying threats to statewide and regional populations.

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