Virginia Rail

Rallus limicola

Vermont's cattail marshes are among the state's most diverse and exciting birdwatching hotspots. However, these wetland habitats remain one of our least known and seldom-visited natural communities because they are difficult to access and their avian residents are typically reclusive. The Virginia Rail, a common resident of cattail marshes, certainly fits this description. The species' breeding distribution extends from southern British Columbia through central Alberta and Quebec's Gaspé Peninsula in the north, southwards to Baja California, Kansas, northern Ohio, and North Carolina (Conway 1995).

The Virginia Rail is a skulking breeder in most of Vermont's larger marshes and many smaller ones, even those of 0.1 hectares (0.25 acres) in size (Kibbe 1985); however, the species is most common in marshes greater than 1 hectare (2.5 acres; Brown and Dinsmore 1986). Residents return to their wetland breeding sites shortly after ice thaws in mid to late April, and most birds are on territory by early May. Nests are typically situated in dense, emergent vegetation over water greater than 30 cm (3 to 10 inches) deep (Conway 1995). During the second atlas, Vermont's two reported clutches were found on 13 and 22 June. Dependent young were reported from 17 June through 19 August (N = 17).

The Virginia Rail is far more often detected aurally than visually. Survey methods for rails invariably suggest the use of recorded calls to elicit responses (Conway and Nadeau 2006, Conway 2007), and Vermont atlasers were encouraged to broadcast recorded vocalizations to find territorial birds. Although this approach increases the likelihood that an observer will hear a bird, it does not guarantee that the bird will respond. In Ontario, Tozer et al. (2006) documented a 60 to 68 percent response rate by Virginia Rails to call broadcasts. Rails are more responsive in the evening or early morning (Reynard 1974, Conway 2007, Nadeau et al. 2008); atlasers generally surveyed for rails during mornings.

Given the difficulty in sighting a Virginia Rail, much less confirming breeding via direct observation of a nest or brood, it is remarkable that confirmations were obtained in more than 29 percent of priority blocks where the species was found. Most confirmations (74 percent) were sightings of recently fledged young. Statewide, atlasers documented the species in 36 percent more priority blocks than in the first atlas. The increase is likely the result of more frequent use of recorded calls during the second atlas period (D. Kibbe pers. obs.). Block occupancy remained consistent or decreased only in the Northern Vermont Piedmont, Southern Green Mountains, and Northeastern Highlands, where habitat (and atlasers) are in relatively short supply. Determination of changes in the species' distribution and abundance will require targeted, long-term monitoring using standardized protocols.

A continental decline in Virginia Rail populations was noted in the early 1990s (Conway and Eddleman 1994) and in the Great Lakes Basin in the subsequent decade (Crewe et al. 2005), but evidence regarding actual changes in abundance or local occurrence is inconclusive. As in Vermont, data from the second New York and Pennsylvania breeding bird atlases show substantial increases in block occupancy (21 and more than 17 percent, respectively). The second Ontario atlas depicts an even greater increase (72 percent), but Tozer (2007) concluded that this may be due to increased survey effort in the second atlas. Medler (2008) and Tozer (2007) recommended targeted call broadcast surveys to further assess the population status of Virginia Rails in New York and Ontario, respectively. Application of standardized surveys as proposed by Conway (2007) to several of Vermont's larger marsh systems would help track changes in abundance of this secretive marsh inhabitant.

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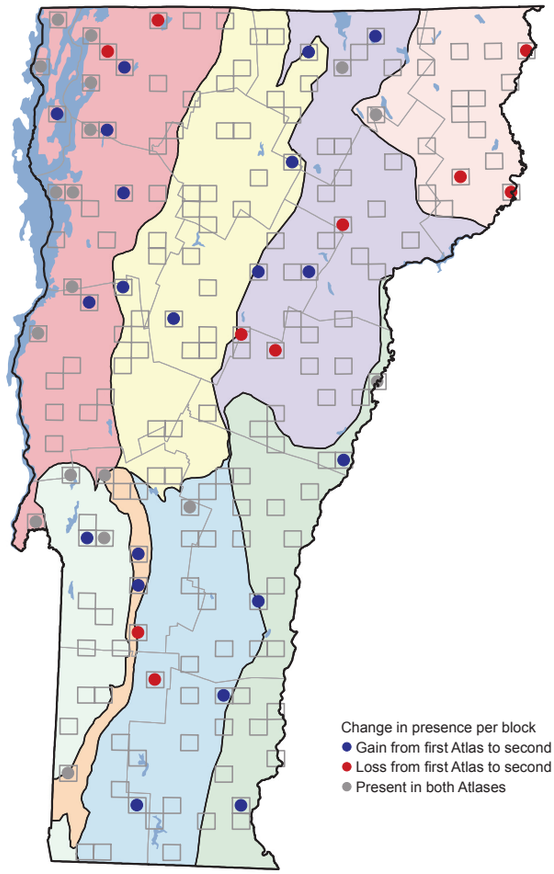

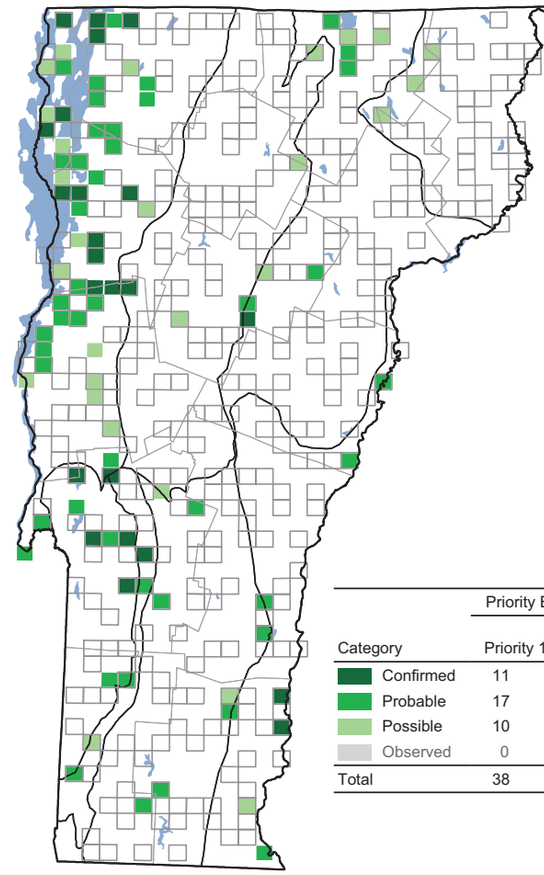

Category	Priority Block Count: Priority 1	Priority 1 & 2
Confirmed	11	19
Probable	17	32
Possible	10	18
Observed	0	0
Total	38	69

CHANGE IN DISTRIBUTION BETWEEN ATLASES

Biophysical Region	First Atlas	Second Atlas	Change	% Change
Champlain Valley	12	15	+ 3	+ 25
Northeastern Highlands	4	1	- 3	- 75
Northern Green Mountains	0	4	+ 4	+ 400
Northern Vermont Piedmont	4	4	+ 0	+ 0
Southern Green Mountains	3	3	+ 0	+ 0
Southern Vermont Piedmont	1	4	+ 3	+ 300
Taconic Mountains	2	3	+ 1	+ 50
Vermont Valley	2	4	+ 2	+ 100
Totals	28	38	+ 10	+ 36

DISTRIBUTION IN CURRENT ATLAS

Biophysical Region	% of region species occupies	% of all records for this species found in region
Champlain Valley	43	46
Northeastern Highlands	8	4
Northern Green Mountains	6	6
Northern Vermont Piedmont	10	10
Southern Green Mountains	12	10
Southern Vermont Piedmont	15	9
Taconic Mountains	23	7
Vermont Valley	62	7