

# Yellow-bellied Flycatcher

*Empidonax flaviventris*



The Yellow-bellied Flycatcher is the last of Vermont's four species of *Empidonax* to arrive in the spring and the first to depart for Central America in the fall, spending less than 70 days on the breeding grounds (Gross and Lowther 2001). Their "reputation for concealment stretches from the days of oology to the era of breeding bird atlases" (Gross and Lowther 2001). The yellow-bellied breeds across boreal Canada from Newfoundland to the Northwest Territories, expanding southward into the United States around the western Great Lakes region and into northern New England. Vermont lies on the southern edge of the range. Remnant populations occur in the mountains of eastern New York, northern Pennsylvania, and West Virginia (Gross and Lowther 2001).

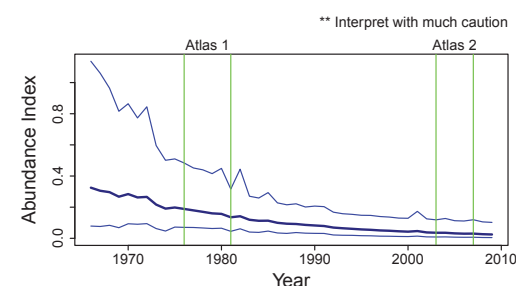
Arriving in Vermont in late May, the state's only ground-nesting flycatcher constructs its nest on moist tufts of sphagnum moss, uprooted tree roots, and cliff faces. Although its preferred canopy is mostly spruce or balsam fir, up to half the trees may be deciduous. A dense understory is normally present (Gross and Lowther 2001). The nest, lined with dry grass and moss, is hidden in a dark depression, making it exceedingly difficult to find. The confirmation rate for this species in 13 atlases was barely 1 percent (Gross and Lowther 2001). During the second Vermont atlas, nest building was recorded once, on 6 June, and a nest with young was found on 27 June. From 1995 to 1999, egg-laying began on Stratton Mountain and Mount Mansfield as early as 7 June, and hatch dates ranged from 26 June to 6 July (N = 12; K. McFarland pers. comm.). Although the young may remain with the parents for more than a week (Gross and Lowther 2001), there were only two reports of fledglings, on 12 and 20 July. The song and call notes of the Yellow-bellied Flycatcher can be mistaken for other species of *Empidonax*, particularly the Least Flycatcher (Norse and Kibbe 1985). In the Northeastern Highlands, the bird can occupy wet, dense habitat that can be difficult to access.

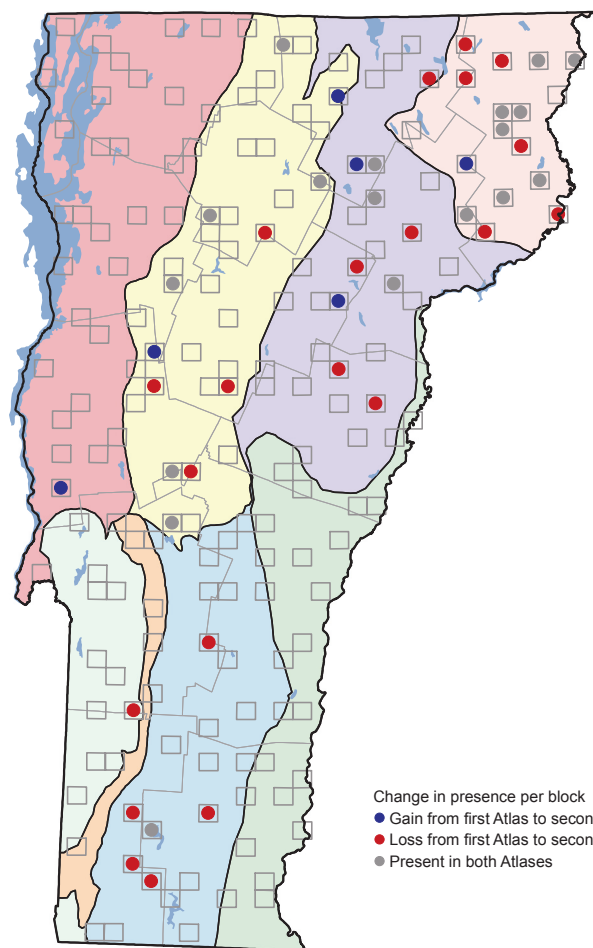
The Yellow-bellied Flycatcher is distributed in a narrow band along the length of the Green Mountains. In the northeast portion of the state, where spruce bogs are

common, the species is generally found where sphagnum moss proliferates. The number of occupied blocks dropped by 38 percent between atlases. A decrease occurred in every region where the species had been recorded during the first atlas, suggesting that the change is not due to a difference in survey effort. The persistence of Yellow-bellied Flycatchers in all regions occupied during the first atlas indicates that these losses could reflect an overall population decline, not a range contraction. Breeding Bird Survey data showed a significant declining trend of 6.1 percent annually from 1982 to 2007, although the number of birds detected is generally small and these data should be interpreted with caution (Sauer et al. 2011).

Evidence from nearby areas indicates that the species is maintaining its range and may actually be increasing. The second New York atlas found a 42 percent increase in block occupancy (Peterson 2008), and the BBS data for Maine has shown a significant 2.8 percent annual increase from 1982 to 2007 (Sauer et al. 2011). In Ontario the probability of observation more than doubled, perhaps in part due to a greater awareness of the species (Crins 2007). Observer bias could have contributed to the decrease indicated in the Vermont atlas—perhaps fewer people were familiar with the species during the second

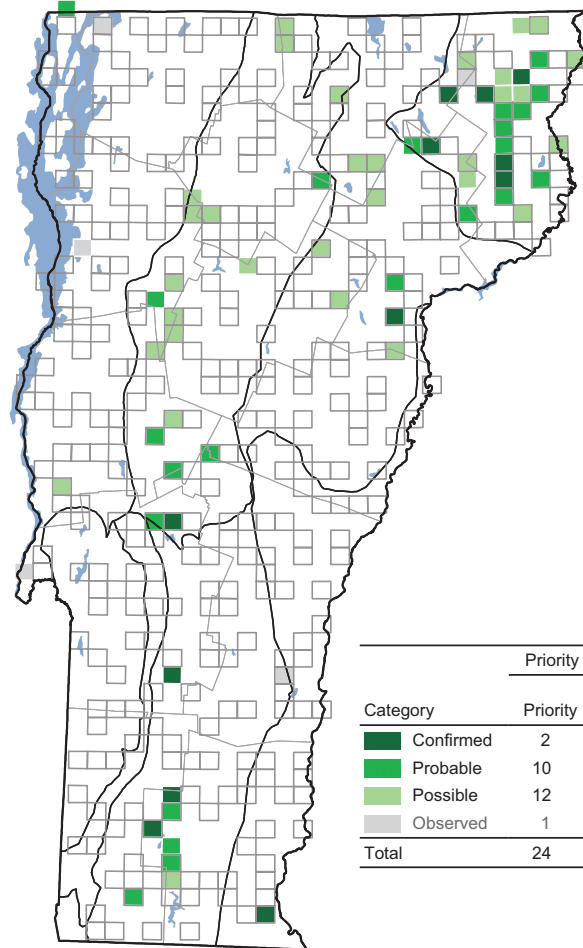
RELATIVE ABUNDANCE OVER TIME





**CHANGE IN DISTRIBUTION BETWEEN ATLASES**

| Biophysical Region        | First Atlas | Second Atlas | Change | % Change |
|---------------------------|-------------|--------------|--------|----------|
| Champlain Valley          | 0           | 1            | + 1    | + 100    |
| Northeastern Highlands    | 14          | 9            | - 5    | - 36     |
| Northern Green Mountains  | 10          | 8            | - 2    | - 20     |
| Northern Vermont Piedmont | 8           | 5            | - 3    | - 38     |
| Southern Green Mountains  | 6           | 1            | - 5    | - 83     |
| Southern Vermont Piedmont | 0           | 0            | + 0    | + 0      |
| Taconic Mountains         | 1           | 0            | - 1    | - 100    |
| Vermont Valley            | 0           | 0            | + 0    | + 0      |
| Totals                    | 39          | 24           | - 15   | - 38     |



| Category  | Priority Block Count |                |
|-----------|----------------------|----------------|
|           | Priority 1           | Priority 1 & 2 |
| Confirmed | 2                    | 9              |
| Probable  | 10                   | 17             |
| Possible  | 12                   | 23             |
| Observed  | 1                    | 3              |
| Total     | 24                   | 49             |

**DISTRIBUTION IN CURRENT ATLAS**

| Biophysical Region        | % of region species occupies | % of all records for this species found in region |
|---------------------------|------------------------------|---------------------------------------------------|
| Champlain Valley          | 1                            | 2                                                 |
| Northeastern Highlands    | 51                           | 39                                                |
| Northern Green Mountains  | 24                           | 33                                                |
| Northern Vermont Piedmont | 12                           | 16                                                |
| Southern Green Mountains  | 7                            | 8                                                 |
| Southern Vermont Piedmont | 2                            | 2                                                 |
| Taconic Mountains         | 0                            | 0                                                 |
| Vermont Valley            | 0                            | 0                                                 |

atlas, or other species were mistaken for Yellow-bellied Flycatcher during the first atlas.

The Yellow-bellied Flycatcher is a regular breeder in the montane fir forests of the Green Mountains and throughout the Northeast Kingdom of Vermont. Potential threats to the species include breeding habitat alteration from climate change and mountaintop development, as well as loss of habitat on wintering grounds (Petit et al. 1993). Because Yellow-bellied Flycatcher can be difficult to identify or detect and often occurs in remote areas, targeted monitoring would likely be needed to properly ascertain

whether trends in Vermont truly differ from those elsewhere in the region.

DOUGLAS P. KIBBE