

Louisiana Waterthrush

Parkesia motacilla



A forest interior species, the Louisiana Waterthrush nests beside shaded streams, issuing a ringing song that rises above the sound of rushing water. Its breeding range extends from southern Maine westward to Minnesota and southward to the Gulf Coast (Mattsson et al. 2009). The species is most abundant in the northern Appalachian Mountains (Sauer et al. 2011). Although Vermont is situated at the northern edge of the breeding range, the state offers more than 5000 miles of rivers and streams as potential habitat. At the time of the first atlas, the Louisiana Waterthrush had recently expanded its range in Vermont (Kibbe 1985); since then, it has continued to hold its ground in the state.

In Vermont, the Louisiana Waterthrush frequents the margins of rocky streams in deciduous upland forest, where it sings from overhead boughs from mid-April into mid-May; only unpaired males continue to sing into the early summer. The nest, built by the pair, is hidden in a cavity in the stream bank or at the base of a nearby tree or log. The female incubates for nearly two weeks. Ever cautious when leaving the nest, she may lead intruders up to 73 meters (240 feet) away with her distraction display (Mattsson et al. 2009). Both sexes feed the nestlings and, when they leave the nest after about 10 days, the brood is divided between the male and the female. Nestlings were found during the Vermont atlas on 29 May, 31 May, and 4 July; the last probably followed a failed nest attempt, although double-brooding does occur rarely (Mulvihill et al. 2009). Fledglings were recorded as early as 20 June. Fewer than 15 percent of the atlas records were of confirmed breeding. By early August, most Louisiana Waterthrushes are en route to their wintering grounds in the Caribbean and Central America (Mattsson et al. 2009).

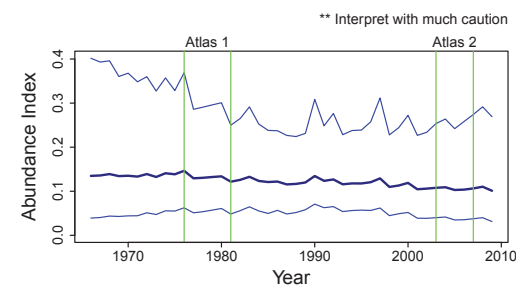
The Louisiana Waterthrush breeds in all biophysical regions of Vermont, following the presence of forested streams with steep gradients (Kibbe 1985). It has always been uncommon at higher elevations in Vermont and is generally absent from the spruce-fir wetlands that dominate much of the Northeastern Highlands, although it did appear in 2 new blocks there during the second atlas. The

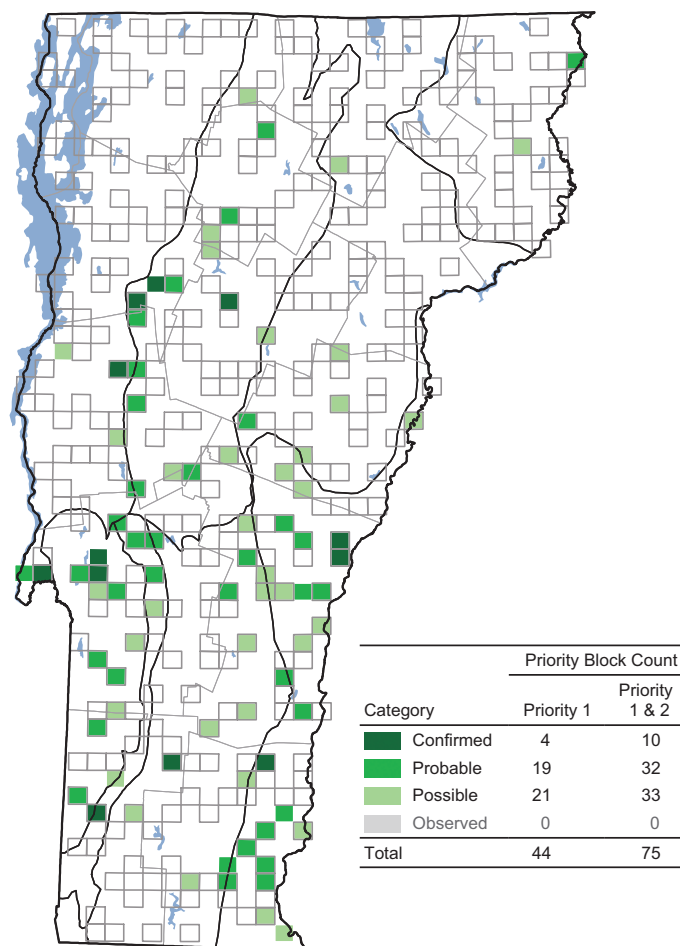
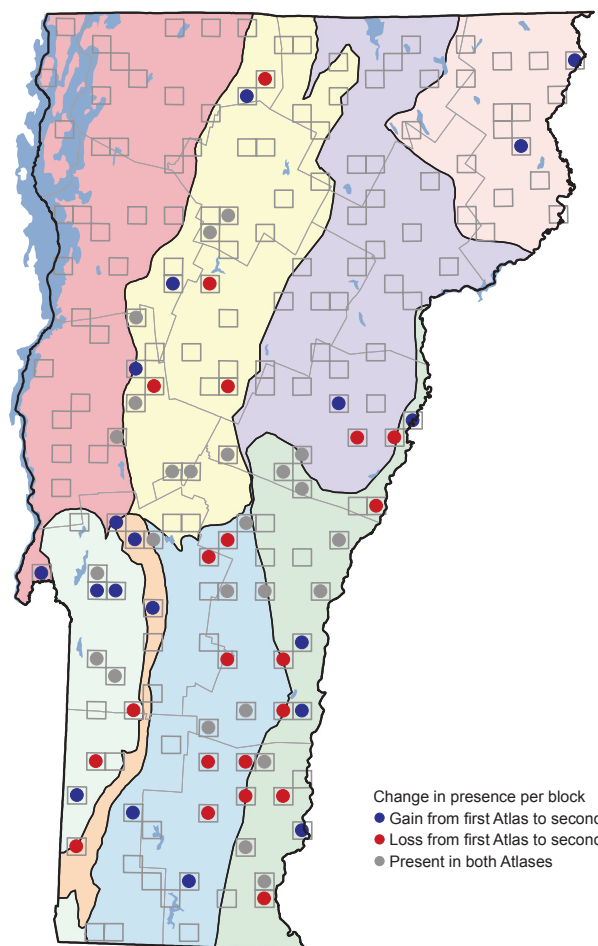
species continues to be uncommon in the Champlain Valley as well, where streams meander through open fields dedicated to crops, hay, and pasture. The Southern Green Mountains was the only biophysical region to lose Louisiana Waterthrush from more than 1 block.

Breeding Bird Survey data show a slight and not significant decrease for Louisiana Waterthrush in Vermont from 1982 to 2007 (Sauer et al. 2011). In New York, the second atlas recorded a decline in block occupancy of 21 percent (McGowan and Corwin 2008), though BBS data do not show significant changes in the state between 1982 and 2007 (Sauer et al. 2011). Louisiana Waterthrush counts in the eastern BBS region increased significantly by 0.8 percent per year (Sauer et al. 2011), and increases were seen in second atlases in Pennsylvania (29 percent; Wilson et al. 2012) and Maryland (2 percent; Ellison 2010). Surveys focused specifically on the species in Ontario found essentially no change in overall distribution, although individual site occupancy varied from year to year (McCracken 2007).

Concerns have been raised regarding the potential adverse impact of acid deposition and hemlock woolly adelgids on the species' habitat in the Appalachian Mountains (Mulvihill et al. 2008, Mattsson et al. 2009), and in New York's Wildlife Action Plan, the Louisiana Waterthrush is

RELATIVE ABUNDANCE OVER TIME





CHANGE IN DISTRIBUTION BETWEEN ATLASES

Biophysical Region	First Atlas	Second Atlas	Change	% Change
Champlain Valley	1	2	+ 1	+ 100
Northeastern Highlands	0	2	+ 2	+ 200
Northern Green Mountains	11	10	- 1	- 9
Northern Vermont Piedmont	3	2	- 1	- 33
Southern Green Mountains	14	8	- 6	- 43
Southern Vermont Piedmont	11	11	+ 0	+ 0
Taconic Mountains	5	6	+ 1	+ 20
Vermont Valley	1	3	+ 2	+ 200
Totals	46	44	- 2	- 4

DISTRIBUTION IN CURRENT ATLAS

Biophysical Region	% of region species occupies	% of all records for this species found in region
Champlain Valley	4	4
Northeastern Highlands	5	3
Northern Green Mountains	23	20
Northern Vermont Piedmont	9	8
Southern Green Mountains	25	19
Southern Vermont Piedmont	50	27
Taconic Mountains	47	13
Vermont Valley	62	7

a Species of Greatest Conservation Need. Although populations appear stable in the Northeast, it is of conservation concern in other regions. An indicator of stream quality, the species is dependent upon mayflies and other aquatic invertebrates that are sensitive to sedimentation and pollutants. Early-season surveys along streams, directed at known and potential breeding sites, could help to fill in apparent gaps within the state's known distribution, or further document the absence of this early spring nester, particularly at higher elevations.

DOUGLAS P. KIBBE