Subtle Thrills: Rewards for the Birding Atlaser

Rosalind Renfrew

Ever play "spy" when you were a kid? Read Nancy Drew or The Hardy Boys, or watch Inspector Clouseau? We humans love the challenge of being presented with a puzzle and figuring it out. Perhaps it's a vestige from our ancestors, left over from the days when we had to clue in to the habits of our prey to track them down. Regardless of the reason, curiosity isn't just for cats: just look at our pop culture, steeped in mystery TV shows and novels.

Breeding Bird Atlases are the epitome of bird spying and present the best opportunity a birder can find to satiate those human cravings to solve mysteries. At first this may seem like a stretch, but think about it: after watching something move in the brush for what seems like hours, do you not feel a tinge of excitement when suddenly the bird pops out, and you exclaim, "Ah! It's a towhee!" That instant of discovery, when you've just unraveled that little mystery, gives us a brief moment of joy, even an adrenaline rush, as does the beauty of the bird itself.

Indeed, birding is no stranger to mystery, and we birders are not far removed from the classic pipe-toting inspector who pokes around with his gloves. We even have our own specialized magnifying lenses.

Atlassing is especially gratifying because the delight of discovery doesn't end with locating the bird. You've only just begun! Peering into the private world of a bird is at the heart of every Breeding Bird Atlas. What is the bird up to? What is it communicating? How is it interacting with other birds and its environment? This is where the real spying starts. Wait patiently, and it will offer clues right before your eyes. You'll find that deepening your birding experience, just by watching, will teach you so much more about the world of birds. The payoff? There's no feeling quite like it.

Atlassing is birding with a purpose, and that purpose is conservation. To atlas, birders select a specific area and keep track of what species they find and whether they saw evidence that the species is breeding there. Multiply this small act by hundreds of volunteer birders, and you have the fodder for statewide maps depicting the distribution of each bird species, otherwise known as a Breeding Bird Atlas. Think of it as a snapshot in time that gives us the avian version of "the state of the state." Atlases are public information, often found in libraries as well as the offices of planners, managers, and landowners interested in bird conservation – and you won't find any dust on them.

It's no wonder that atlases are one of the most frequently used tools for bird conservation. Because they provide basic, widespread data about where a species occurs in a state, they convey information that is useful yet easy to grasp. And because atlases are more thorough than most other bird surveys, they often provide the most complete information available on rare species. Vermont's first atlas,

published in 1985, was the first comprehensive resource on birds in the state for planners, state agencies, and nonprofits alike.

Massachusetts and Vermont earned the distinction of being the first states in the U.S. to conduct an atlas, bringing the tradition across the ocean from Britain in the 1970s. Typically conducted every twenty-five years, atlases are carried out over a five-year period. The participation of hundreds of volunteer birders makes the Atlas Vermont's most comprehensive birding extravaganza.

Vermont's Breeding Bird Atlas, Round 2

In 2003, Vermont became one of the first states to initiate a second state atlas. Heading into its third of five years of bird espionage, the Vermont Breeding Bird Atlas has already taken great strides. Based on 6000 hours of volunteer effort so far, the current atlas already indicates changes in the distribution of some species since the first atlas twenty-five years ago. Because of the small human population in Vermont, complete state coverage was impossible for the first effort; instead, blocks of land were randomly selected throughout the state, and one-sixth of the state's land mass was atlassed. Thanks to the growing popularity of birding, we've doubled the survey effort for Round 2. We're covering the blocks surveyed in the last atlas, plus another whole set of randomly selected blocks, for a grand total of one-third of the state to be surveyed by the end of 2007.

In order to compare apples and apples, here we present results only from blocks covered in the first atlas that are being repeated in Round 2. Limiting our comparisons to blocks covered in both the first and second atlas ensures that any changes we see aren't just an artifact of our increased effort this time around.

Because each state is covered so comprehensively, atlases are filled with exciting new discoveries. In Vermont, we're finding new nesting records of Merlins as this species expands its range southward. In 2004 Great Egrets were documented nesting for the first time ever in the state. Biologists watched adults feeding chicks at two nests on the same island in the Mississquoi National Wildlife Refuge. It will be interesting to see whether next year brings more.

Some of the changes already seen since the first atlas are not surprises. Populations of some species considered to be quite rare in the first atlas, such as Tufted Titmouse, Carolina Wren, Canada Goose, and Double-crested Cormorant have increased dramatically and expanded their range in Vermont. Breeding Red-bellied Woodpeckers are a relatively new phenomenon in Vermont as well. Species recovery programs have brought back the Wild Turkey, Common Loon, Osprey, and Peregrine Falcon. On the other hand, we expect some species to be comparatively rare this time around, such as Whip-poor-will and Common Nighthawk, and initial results from this atlas lend more evidence for the disturbing downward trend in their populations.

Although we won't be able to draw any conclusions until the full five years of the atlas are completed, some interesting trends are appearing. For example, there is already evidence suggesting that some species now have more limited distributions in Vermont than they did twenty-five years ago. Results thus far suggest a more limited

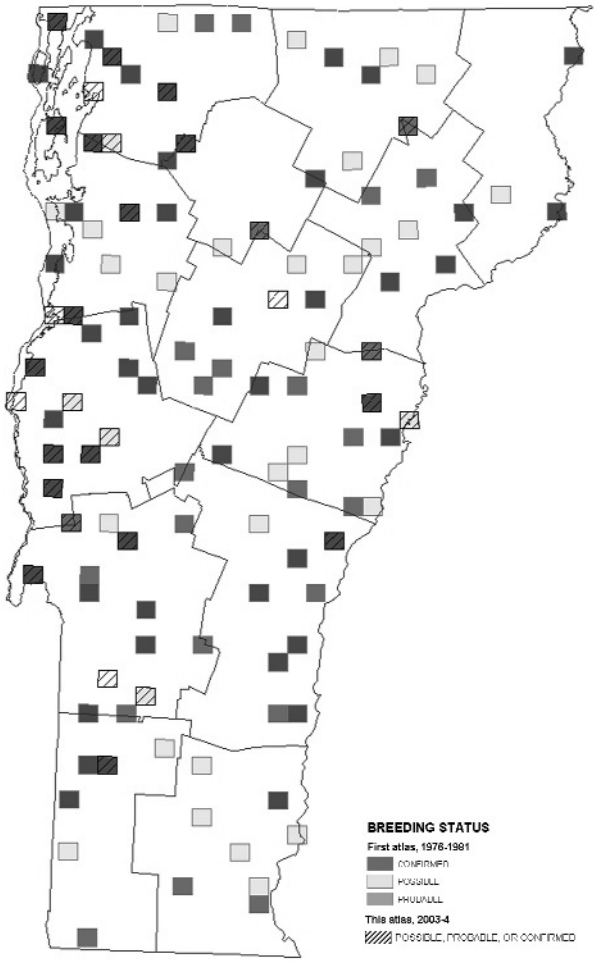

Figure 1: Has loss of farmland reduced the range of Eastern Meadowlarks in Vermont?

Eastern Meadowlark distribution (Figure 1). Loss of farmland in the state may be restricting this species to the Champlain Valley where the most extensive grasslands remain. Vermont has lost shrub habitat in the last twenty-five years as well, so we might expect a decrease in shrub-dependent species such as Brown Thrasher. Although our current data suggest that there are fewer areas occupied by thrashers, many of the areas without thrashers are those areas with low block coverage so far (Figure 2). Undoubtedly, more thrashers will be found during the next three years, and it will be interesting to see whether their distribution pattern remains more limited compared to the first atlas.

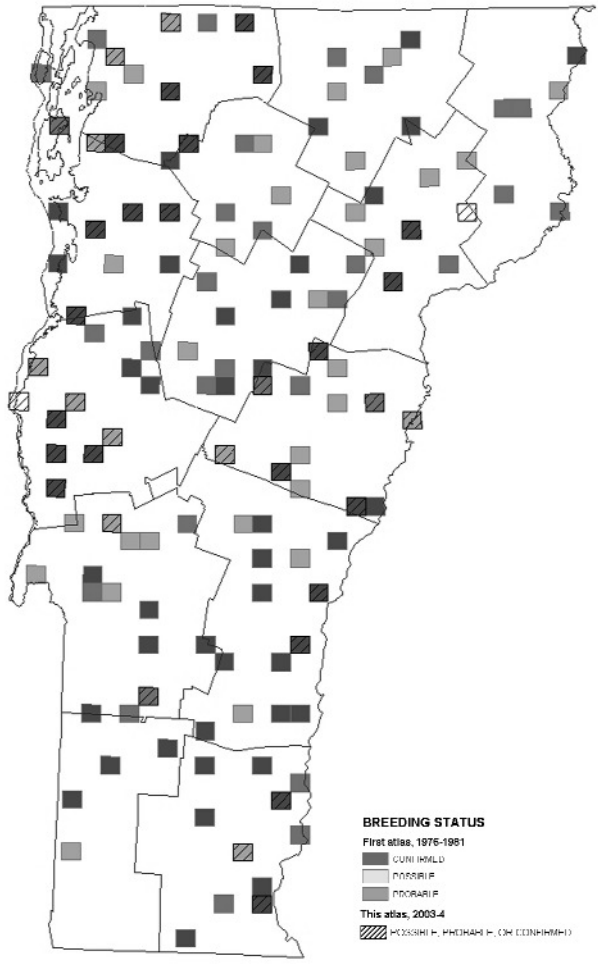

Figure 2: Initial results suggest that Brown Thrashers may have declined, but limited atlas coverage so far, particularly in the northeast and northwest sections of the state, makes this a premature conclusion.

Yellow-throated Vireo presents a more complicated story. Based on data collected through the North American Breeding Bird Survey (BBS), their populations are stable in North America, and population increases or decreases occur at local or regional levels. Despite the stability of populations on a continental scale, they still are of conservation concern in the northeast.

According to BBS data, the Yellow-throated Vireo has been declining significantly in Vermont since 1980, despite apparent increases in the northeastern part of the state. As logging declines in the Northeast Kingdom, the regeneration of mature forests will likely benefit this species, but expansion of urban and suburban

areas will hinder overall population growth. Threats to wintering populations in Central and South America due to logging are suspected to be contributing to the decline in numbers, but such threats have not been studied. Additionally, the Yellow-throated Vireo is closely associated with wooded floodplains along streams. BBS surveys are conducted along roadsides, and therefore may not provide the most accurate profile of this vireo's local occurrence. Because atlassing requires venturing away from roads to find as many species as possible, the atlas may well provide more accurate data on this species.

So far, our results echo the BBS trends for Yellow-throated Vireo. It was recorded in sixty-five blocks in the first atlas, but so far only fourteen priority blocks have

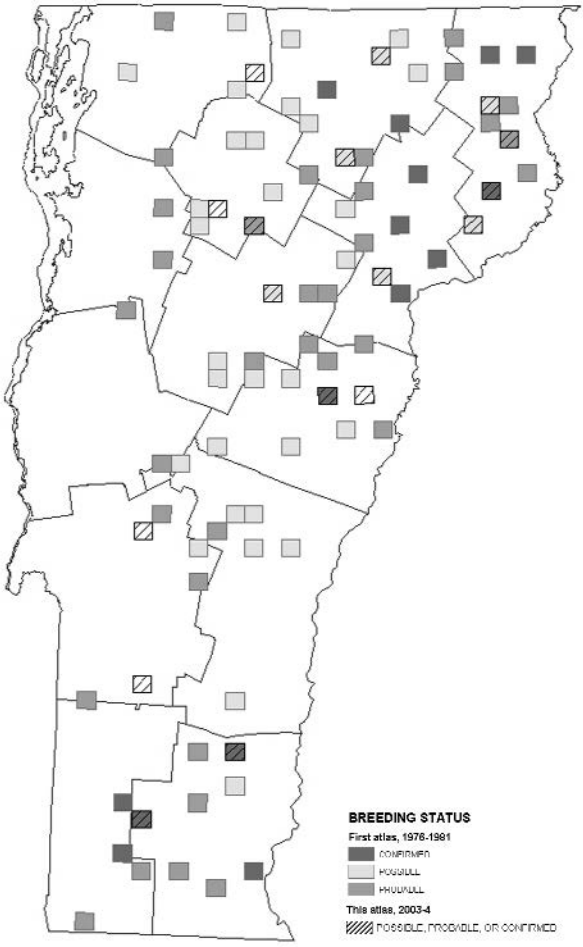

Figure 3: Because of the decline in Olive-sided Flycatcher populations in the Northeast, we can expect this atlas to produce fewer sightings of them than the first atlas, but their range appears to have changed little.

reported this species in the 2003–2007 atlas. Sightings in the Northeast Kingdom are almost nonexistent, but this may be due to low block coverage in that part of the state so far. However, Yellow-throated Vireos are even missing in counties that have been covered fairly well at this point in this atlas, such as Orange County. Atlasers will need to make sure they're not overlooking this species so we can be confident that their range in Vermont really has become smaller.

The beloved Olive-sided Flycatcher is of particular interest to conservationists because it has been declining throughout its range, including in the Northeast. According to the Breeding Bird Survey, its *quick-three-beers* song is fading in its northern boreal habitat, including Vermont's coniferous forests. In this round of the Vermont atlas, atlasers have found this species on only seventeen priority blocks so far, compared with eighty-five blocks in the first atlas (Figure 3).

Results from the second Vermont Breeding Bird Atlas cannot come too soon. Regional planning efforts are currently underway to develop comprehensive wildlife plans for many taxonomic groups, including birds. The plans will be revisited and revised based on new information, and planners are looking to the atlas to help guide this process for the avifauna in the state.

Rosalind Renfrew *is headquartered in Woodstock at the Vermont Institute of Natural Science, where she is Director of the Vermont Breeding Bird Atlas. In addition to the many monitoring and survey projects that she has participated in, both in Vermont and Wisconsin, she serves as the Principal Investigator for the Bobolink Wintering Ecology Project. She is working with collaborators in Paraguay, Bolivia, and Argentina, with the ultimate goal of determining how to best conserve Bobolink wintering habitat. She also serves as Co-chair of the Vermont Bird Records Committee.*

Come to Vermont for a weekend!

Atlassing provides a great excuse to escape the bills, the laundry, and the leaky sink and go out birding instead. Even if you can only come up for a weekend or two, Vermont needs experienced birders to lend a hand in order to complete the atlas. If you're interested in attending a "blockbusting" weekend in the Northeast Kingdom, or would like to take on a Vermont block closer to home, please contact Rosalind Renfrew at rrenfrew@vinsweb.org, or 802-457-1053 X127. Visit the atlas website to learn more: <http://www.uvm.edu/vbba>.