

Pine Siskin

Spinus pinus



The Pine Siskin is highly nomadic, with a breeding season that is less rigidly fixed than most other songbirds. Availability of an adequate food source determines both its geography and its breeding schedule. In the Northeast, major invasions appear to be biennial (Yunick 1981), with some individuals present every year. Pine Siskins breed from Newfoundland and Labrador across Canada and the Northern Tier states to central Alaska, and southward through the Intermountain West and Appalachians to Georgia. In the West, Pine Siskins are most abundant in northwestern Canada, although they can range much farther south in suitable habitat—all the way to Guatemala (Sauer et al. 2008).

The Pine Siskin most often breeds in open coniferous habitat when cones are abundant (Bock and Lepthien 1976), but will occasionally breed while feeding on tree or weed seeds. In Massachusetts and Pennsylvania, nesting has been documented near feeder stations (Forster 2003, Wilson et al. 2012). Flight displays and courtship feeding precede nesting (Dawson 1997). Nests are saddled on conifer branches and difficult to see. Nest building was observed only once during the Vermont atlas, on 20 May, but in New York nesting is known to begin as early as March (Messineo 1985, Peterson 1988); early nesting efforts were likely missed by atlas workers. Vermont dates for nests with eggs range from mid-April through mid-May (Ellison 1985). While incubating and brooding, the female is fed by the male. Parents regurgitate seeds to their young, making it unlikely that an atlaser will see an adult carrying food for young. After fledging, chicks are attended by both parents for three weeks (Dawson 1997). Observation of fledglings was the most frequent confirmation code ($N = 14$), with reports from 25 April to 15 August.

Atlas data showed an irregular distribution of Pine Siskin in the northern half of the state and throughout the Green Mountains. The species appeared to be lacking from the southwest and is rare in the Connecticut River Valley. Though the number of Pine Siskins breeding in any region of Vermont in a given year is highly dependent upon local food sources, the general breeding

distribution appears to be governed by the distribution of coniferous forest. Though Pine Siskins were reported in every year of the atlas, over half of the records for this species were from 2005.

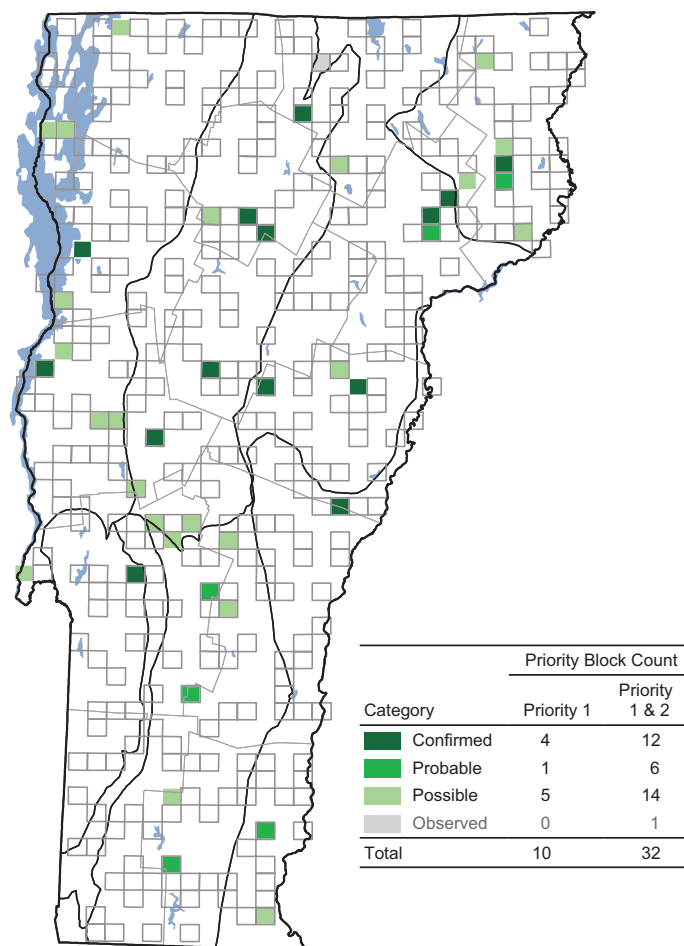
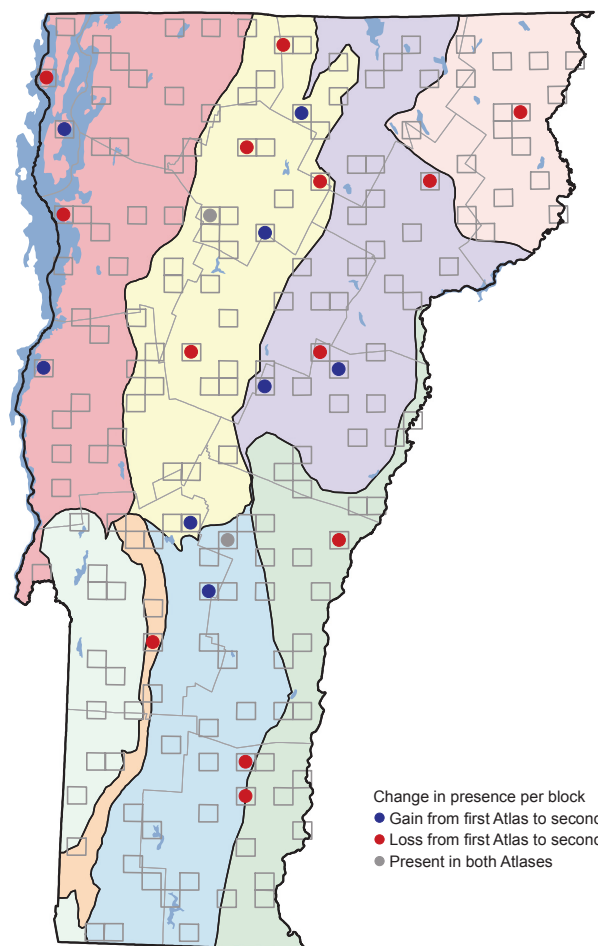
As in the first atlas, most breeding records in the second atlas occurred in the Green Mountains and the Northeastern Highlands. As a nomadic species that keys on fluctuating resources, Pine Siskin was likely underreported in areas where atlasers visit most blocks in only one or two years. Within Priority 1 blocks, the Pine Siskin decreased by a third compared to the first atlas.

Not surprisingly, other atlases revealed a range of trends. In New York, there was essentially no change in the number of blocks occupied (Young 2008), while in Pennsylvania an increase of 37 percent was found (Wilson et al. 2012). Ontario documented declines of 23 to 66 percent in the probability of observation across the province (Cadman et al. 2007).

Outbreaks of disease such as salmonellosis, which is spread by contact with feces, have been identified as a potential threat to Pine Siskins (Locke et al. 1973, Rodgers 1991). Although some people may periodically sterilize their bird feeders, measures to prevent possible buildup of pathogens under the feeding station are not typically employed (Kibbe 2010).

Because Pine Siskins depend on a Vermont staple—mature conifer forest—the species will likely continue to appear whenever its food sources are available.

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CHANGE IN DISTRIBUTION BETWEEN ATLASES

Biophysical Region	First Atlas	Second Atlas	Change	% Change
Champlain Valley	2	2	+ 0	+ 0
Northeastern Highlands	1	0	- 1	- 100
Northern Green Mountains	5	4	- 1	- 20
Northern Vermont Piedmont	2	2	+ 0	+ 0
Southern Green Mountains	3	2	- 1	- 33
Southern Vermont Piedmont	1	0	- 1	- 100
Taconic Mountains	0	0	+ 0	+ 0
Vermont Valley	1	0	- 1	- 100
Totals	15	10	- 5	- 33

DISTRIBUTION IN CURRENT ATLAS

Biophysical Region	% of region species occupies	% of all records for this species found in region
Champlain Valley	6	16
Northeastern Highlands	8	9
Northern Green Mountains	13	28
Northern Vermont Piedmont	9	19
Southern Green Mountains	8	16
Southern Vermont Piedmont	7	9
Taconic Mountains	4	3
Vermont Valley	0	0