

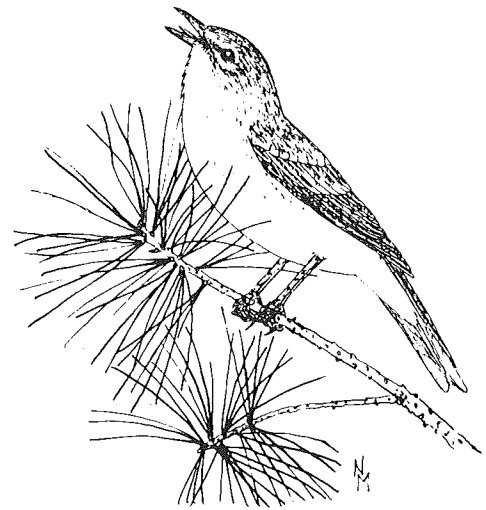
## Pine Warbler

*Dendroica pinus*

The Pine Warbler is most common among the extensive hard-pine woodlands of southeastern North America. In New England, it is most prevalent in coastal pine barrens. Pine Warblers are needle-gleaning specialists that forage in the outer shell of the canopy (Emlen 1977). In the Green Mountain State, this warbler is found in tall stands of white pine, generally higher than 21.3 m (70 ft), with little undergrowth. In studies by Anderson and Shugart (1974) and Conner et al. (1983), the species selected areas with closed canopies, high percentages of mature pine, and sparse undergrowth.

As with many warblers, the easiest way to detect Pine Warblers is by their song, a soft, surging, fast-paced trill. However, their trill may be confused with those of the Chipping Sparrow or the Dark-eyed Junco by observers unfamiliar with this warbler's song, which is characterized by the soft, slurred quality of the notes. The Pine Warbler's high-ranging habits, low population densities, and well-hidden nests impede confirmation. The most reliable method of finding a nest is to locate a pair and watch them until one of the birds reveals the nest's position; watching for parents carrying food for their young is the best way of gaining breeding confirmation.

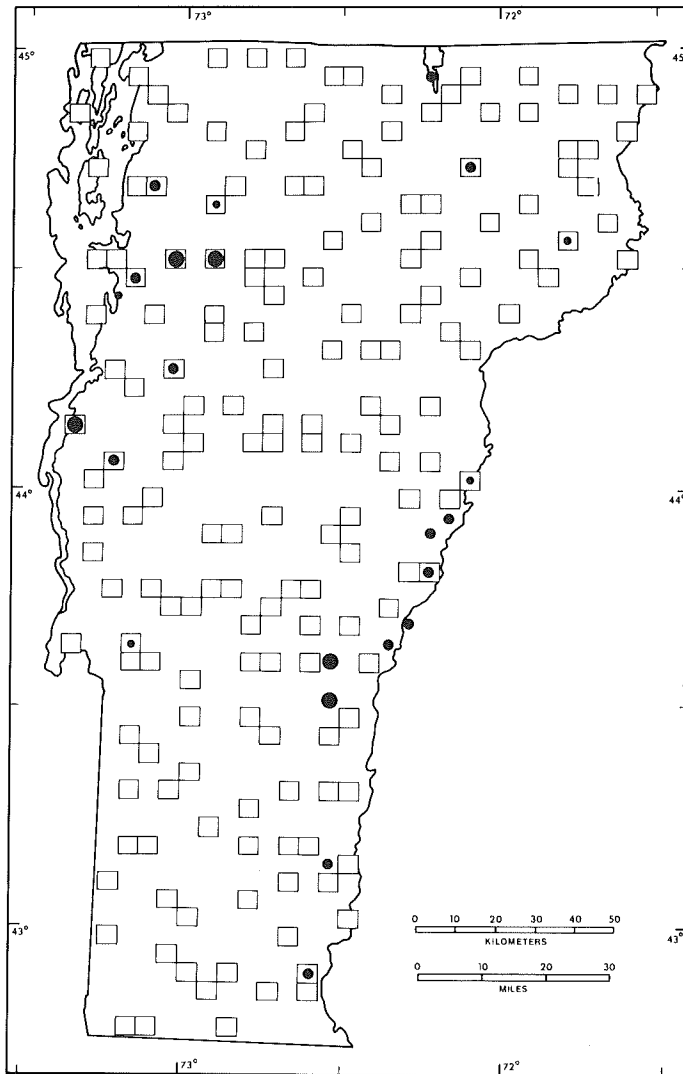
The Pine Warbler withdraws to its southeastern U.S. stronghold in winter and returns to northeastern breeding areas early in the spring. In Vermont, the first Pine Warblers arrive in early to mid April. Most have established territories by late April or early May. The nest is a compact cup constructed of stems, bark strips, pine needles, and twigs bound together with webbing and lined with chaff, hair, needles, or feathers. The nest is placed on a horizontal side limb of a pine, often in a cluster of needles. Nest heights above ground are 2.4–24.4 m (8–80 ft); most are recorded at 9.1–15.2 m (30–50 ft) (Bent 1953). The eggs are white with a wreath of brown spots at the large



end; they number from 3 to 5, with an average of 4 per clutch. There are no egg or nestling dates for Vermont. Egg dates for other northeastern states range from early May to late June (Bent 1953; Bull 1974). Nestlings have been reported for New York State from the third week of May to the third week of June (Bull 1974). The incubation and nestling periods of the species are unknown. The autumn migration of the species in Vermont apparently starts in late August and continues until late October.

The Pine Warbler is scarce and local in Vermont as it is almost limited to tall, open stands of white pine at low elevations. The species may have declined over the last 50 years. Fortner et al. (1933) listed it as "tolerably common" in the southern half of Vermont and in the Champlain Lowlands, where it is now very local; in light of other historical references, such as Kirk (1911), this assessment of the species' status may have been optimistic even at that time. In view of the fact that in Vermont the species is near the northern limit of its distribution, and that white pine probably constitutes suboptimal habitat (Griscom and Sprunt 1957), it is not surprising that the Pine Warbler is scarce in Vermont.

During the Atlas Project the Pine Warbler was reported principally from two of the state's physiographic regions, the Champlain



**No. of priority blocks in which recorded**

TOTAL 14 (8%)

- Possible breeding: 4 (29% of total)
- Probable breeding: 7 (50% of total)
- Confirmed breeding: 3 (21% of total)

**Physiographic regions in which recorded**

	no. of priority blocks	% of region's priority blocks	% of species' total priority blocks
Champlain Lowlands	8	26	57
Green Mountains	0	0	0
North Central	1	5	7
Northeast Highlands	1	6	7
East Central	0	0	0
Taconic Mountains	1	6	7
Eastern Foothills	3	12	22

Lowlands (57% of the priority block records) and the Eastern Foothills (22% of the priority block records and 44% of all block records). The species is more widespread in the Champlain Lowlands than in the Eastern Foothills, where it is largely restricted to the Connecticut River valley; this distribution indicates a larger potential population in northwestern Vermont. The species may have been underreported, especially in the Taconic Mountains, because of its undistinguished song and specialized habitat requirements.

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