

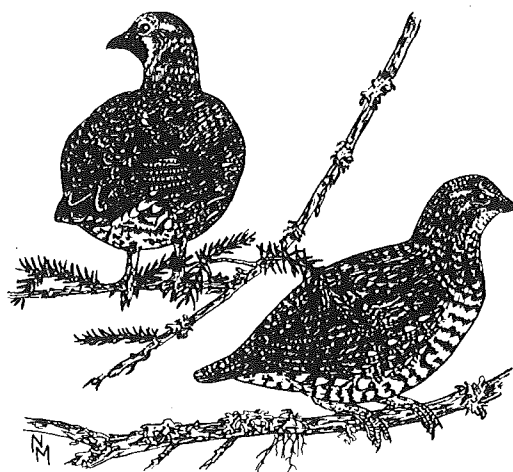
Spruce Grouse

Dendragapus canadensis

The Spruce Grouse is one of Vermont's rarest resident birds, and is proposed for the state's Species of Special Concern List. Early accounts (Thompson 1842; Cutting 1884) indicate that the Spruce Grouse was once fairly widespread in Essex and Orleans counties. Now this boreal zone species is confined to a very small area of the Northeast Highlands. Since 1932 the Spruce Grouse has been reported only once outside its limited current range in northern Essex County: in the summer of 1977, 3 Spruce Grouse were observed on Wheeler Mountain, Sutton, on the northwestern edge of Caledonia County (ASR, E. Cronin).

The Spruce Grouse requires extensive, dense stands of spruces (in Vermont, apparently black spruces) in cool, wet areas with openings supplied by bogs, swamps, or clearings. These boreal conditions exist only in the far northeastern corner of the state, where the species is restricted to approximately 104 sq km (40 sq mi); there a coniferous forest partly fills the large, wet bowl about halfway between the villages of Island Pond and Bloomfield. While extensive clear-cutting since 1977 has reduced other forest tracts in the area, the Wenlock Wildlife Management area provides a refuge for the Spruce Grouse. This area was created by acquisition of an 809 ha (2,000 a) tract (including Moose Bog) by the Vermont Fish and Game Department, through the aid of The Nature Conservancy.

In New York State, the species is listed as Threatened, and occurs almost exclusively in spruce bogs, with black spruce, tamarack, and balsam fir the dominant tree species. In New York, the species' habitat has been reduced greatly by logging and the resulting conversion of spruce-fir forest to hardwood or mixed-hardwood-conifer forest; its decline is linked to its occurrence in isolated "islands" of spruce bogs separated from each other by hardwood or mixed-hardwood forest, which apparently prevents

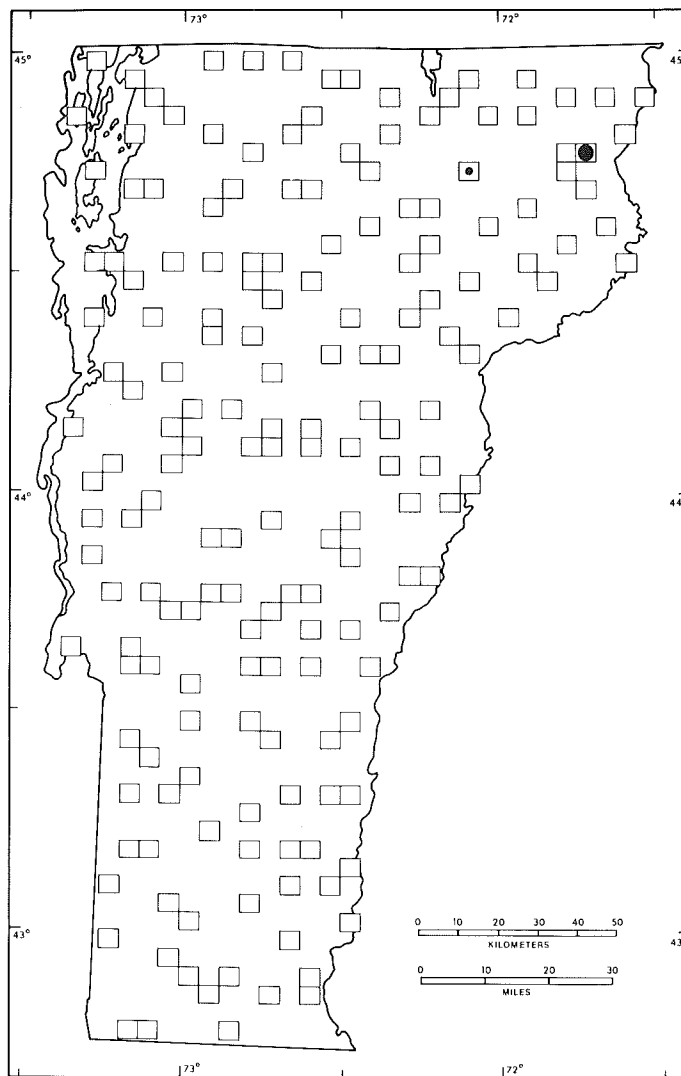


the remaining populations from intermixing (Chambers 1980; P. E. Nye, pers. comm.).

Nests of the Spruce Grouse consist of shallow depressions on the ground, often in moss, which are well concealed by overhanging spruce branches. Clutches number 4 to 10 eggs, typically 6 to 8 (Harrison 1975). The female incubates alone for about 24 days (Harrison 1978). The young leave the nest soon after hatching; by 1 week of age they can fly into low bushes (Rue 1973). As with other precocial young, fledglings begin feeding themselves almost immediately, relying initially upon insects for food.

Only four breeding records exist for Vermont: July 2, 1972, a female with young in Ferdinand, near Moose Bog (L. N. Metcalf, pers. comm.); June 29, 1978, a female with 4 to 5 tiny young in Moose Bog (ASR, G. F. Oatman and A. Pistorius); July 20, 1978, a female with 4 young in Moose Bog (ASR, W. G. Ellison); and June 14 and 15, 1980, a female with 7 to 9 tiny young in Moose Bog (ASR, G. F. Oatman). The breeding season is the most opportune time to see the Spruce Grouse in Vermont, as females allow a close approach while attending to their broods of precocial young.

The Island Pond Christmas Bird Count covers almost all of the species' current habitat; yet between 1973 and 1983 only 12 Spruce Grouse were located (five records): December 18, 1976, 2 seen; December 23,



No. of priority blocks in which recorded

TOTAL 2 (1%)

Possible breeding: 1 (50% of total)

Probable breeding: 0 (0% of total)

Confirmed breeding: 1 (50% of total)

Physiographic regions in which recorded

	no. of priority blocks	% of region's priority blocks	% of species' total priority blocks
Champlain Lowlands	0	0	0
Green Mountains	0	0	0
North Central	1	5	50
Northeast Highlands	1	6	50
East Central	0	0	0
Taconic Mountains	0	0	0
Eastern Foothills	0	0	0

1978, 1 seen; December 23, 1979, 3 seen; December 18, 1982, 4 seen; and December 27, 1983, 2 seen (CBC, 1974-84).

The Spruce Grouse is much more arboreal than the Ruffed Grouse; conifer needles and buds, usually taken from high up in the trees, constitute a substantial part of the species' diet, especially in winter. At other seasons Spruce Grouse eat berries, mushrooms, seeds of grasses and weeds, insects, herbaceous leaves, and fern fronds (Bent 1932; Johnsgard 1973). In summer Spruce Grouse frequent bogs, heaths, and other more open areas, though they always take to the trees when disturbed.

In many wild areas the Spruce Grouse is almost absurdly tame, allowing approach nearly within touching distance, thereby earning its popular name of "Fool Hen." Vermont birds of this species are more wary, normally flying up in a burst of wings upon human approach and disappearing into thick spruce-fir cover (G. F. Oatman, pers. observ.).

G. FRANK OATMAN