

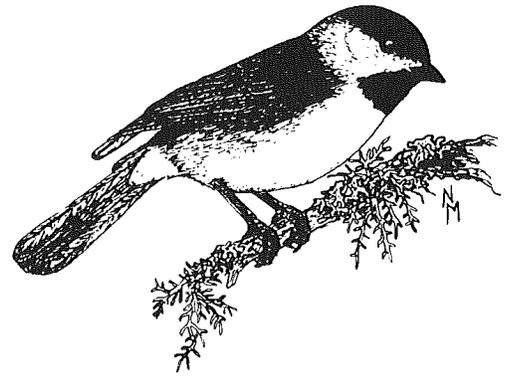
Boreal Chickadee

Parus hudsonicus

The Boreal Chickadee occupies the boreal forest zone of the Nearctic region. It reaches a southern limit of its breeding range in northeastern Vermont, where it is uncommon, locally distributed, and often overlooked. Unlike the Black-capped Chickadee, the Boreal usually sticks close to dense spruce woods and avoids human settlements; it is generally more retiring and less inquisitive than the Black-capped.

The best technique for locating this species is to listen for it in appropriate habitat. Its version of the *chick-a-dee* call is a hoarse, somewhat nasal, drawling *sick-a-day*. Once learned, the song is easy to remember and to distinguish from that of the Black-capped; the two species often forage together in winter, so the calls may be compared directly. The Boreal also has several chip notes, uttered in a petulant tone, and a short warbled song that is seldom heard (Pough 1949).

This species may be found in somewhat wet coniferous forests, especially those containing black spruce. The Boreal is most numerous in the boreal black spruce-balsam fir forest east of Island Pond. However, even there, in the state's most suitable habitat, a single observer is unlikely to find more than six to eight Boreals in a single day at any season. Boreals are somewhat migratory, moving southward in some years in fairly large irruptive flights that begin in October. During years of chickadee irruptions, Boreals may be found as scarce migrants or winter residents in any section of Vermont, where they utilize red and white spruces, cedars, and other conifers. Irruptive events are unusual, however, and during most winters Boreals stick fairly close to their breeding range. In winter Boreals tend to move about in flocks, which sometimes consist only of themselves and at other times are of intermixed species, and may include Black-capped Chickadees, Golden-crowned King-

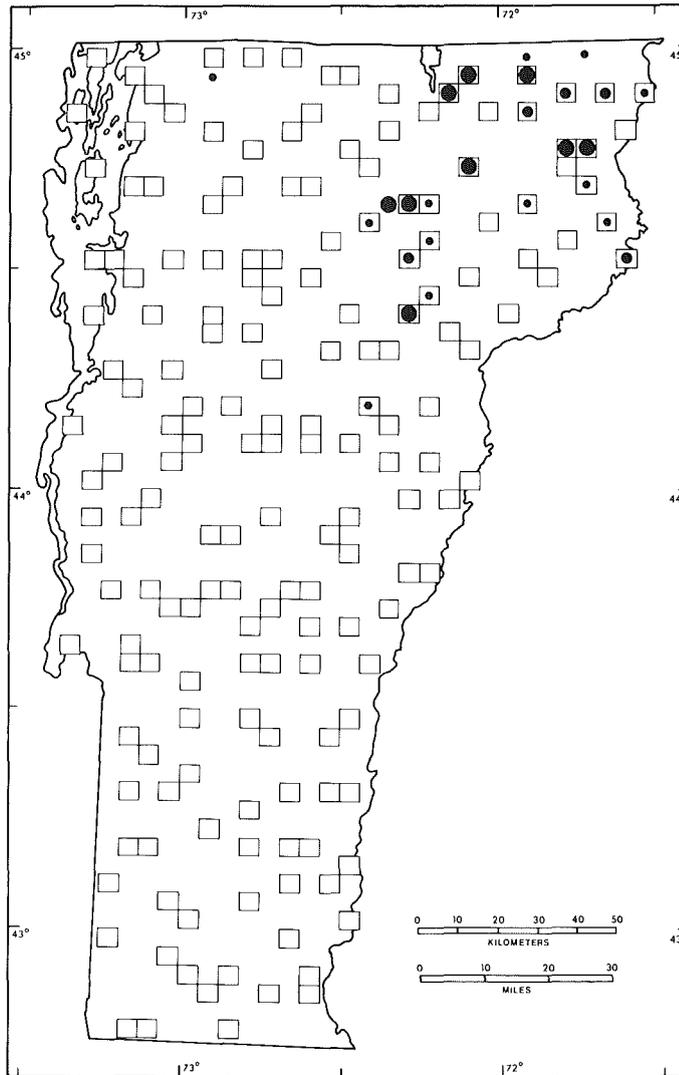


lets, Red-breasted Nuthatches, and Downy Woodpeckers.

Boreal Chickadees feed principally on tree-infesting insects and spiders, their pupae and eggs, some fruit, and the seeds of conifers and birches. Though less active and vocal than Black-capped Chickadees, Boreals forage busily over tree twigs and branches, often out of sight among dense conifer needles. In early spring, pairs often come to the ground where melted snow has uncovered edible material dropped from the trees (McLaren 1975). In winter Boreals may visit feeding stations, where they are partial to fatty foods.

During the Atlas Project, the Boreal was confirmed as a breeder as far south as Cabot and as far west as East Craftsbury. Reports of possible breeding came from as far south as East Barre and as far west as the black spruce bogs at Bear Swamp in Wolcott and at Lake Carmi. Boreals were found in a substantial number of priority blocks in the Northeast Highlands and the North Central regions.

McLaren (1975) found territories of breeding Boreal pairs to be larger than 4.9 ha (12 a). As territories do not seem to be advertised vocally or patrolled regularly, boundaries are undoubtedly trespassed (McLaren 1975). Courtship behavior includes begging of food (mostly by females), accompanied by wing fluttering. Males continue feeding females until the eggs hatch, a period of 4 to 5 weeks (McLaren 1975). The



No. of priority blocks in which recorded

TOTAL 22 (12%)
 Possible breeding: 9 (41% of total)
 Probable breeding: 5 (23% of total)
 Confirmed breeding: 8 (36% 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	10	53	45
Northeast Highlands	11	69	50
East Central	1	5	5
Taconic Mountains	0	0	0
Eastern Foothills	0	0	0

nest hole is most often excavated by Boreals in a dead stump or snag that contains a soft core surrounded by hard outer layers; the cavity is placed 0.3–3 m (1–10 ft) above the ground. Natural cavities and abandoned woodpecker holes are also used. The female alone builds the nest, which nearly fills the cavity, from moss, plant down, lichens, and animal hair; the eggs and young are closely cupped in a denser mass of the same materials. Four to 9 (usually 6 to 7) white eggs dotted with brown are laid and incubated by the female, normally for 15 days. Both parents feed the young, which fledge at

about 18 days after hatching (McLaren 1975).

Nest building by Boreal Chickadees has been observed in Vermont as early as May 9, and adults have been seen feeding fledglings as late as July 7. There are no egg dates for Vermont, but dates for New York—June 1 to July 17—may be applicable (Bull 1974).

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