

## APPENDIX D: Northeastern Breeding Bird Atlas Conference Recommendations

### *Grid Recommendations*

The Northeastern Breeding Bird Atlas Conference held in November 1981 at the Vermont Institute of Natural Science adopted the following guidelines for choosing an atlas grid:

There are four basic Atlas grid systems in use in North America: latitude-longitude (latilong); Universal Transverse Mercator (*UTM*); modified, state *UTM*; and section/township. The Northeastern Breeding Bird Atlas Conference recognized that each system has its own regional advantages, and that it is impractical to recommend any one type of grid exclusively.

Important considerations for a state or province choosing an Atlas mapping grid system are:

1. the grid's compatibility with neighboring states and provinces
2. a grid that is likely to be repeatable in 10, 20, or 40 years, by which time all maps may be metric
3. a grid that is available on existing maps
4. the grid's compatibility with land use classification mapping programs in the state or province, or in adjoining states or provinces.

For the Northeastern United States, we recommend a standard block 5 kilometers on a side (25 square km area) which is one-sixth of a 7.5 minute (latitude and longitude) *USGS* map quadrangle, with the option of dividing the one-sixth into quarter blocks if any state so decides. For Canada, five or ten kilometer blocks (100 square km) are recommended, depending on the size of the geographical area to be surveyed, and the available survey force.

In a state or province, or portion of a state or province, where it is not possible to obtain complete coverage using the recommended block, the Conference recommended that randomly or systematically selected "priority blocks" be surveyed, rather than adopting a larger block size.

### *Standardized Breeding Criteria Codes Recommendations*

Recommended by the Northeastern Breeding Bird Atlas Conference of November 1981 (for codes used in Vermont Atlas Project see p. 25)

	CODE <sup>1</sup>	EVIDENCE
OBSERVED	o	Species (male or female) <i>observed</i> in a block during the breeding season but believed not to be breeding
POSSIBLE	✓	Species (male or female) observed in suitable nesting habitat during its breeding season
	x	Singing male present in suitable nesting habitat during its breeding season
PROBABLE	p	<i>Pair</i> observed in suitable habitat during its breeding season

<sup>1</sup> The letter code is entered by the fieldworkers in the appropriate space on the field report form. POSSIBLE and PROBABLE categories are represented by single letters or a symbol, CONFIRMED by double letters. Letters have been selected as a mnemonic aid, keyed to italicized words in criteria definitions.

	T	Permanent <i>territory</i> presumed through defense (chasing of other birds, or song at the same location on at least two occasions a week or more apart)
	C	<i>Courtship</i> behavior or <i>copulation</i>
	N	Visiting probable <i>nest site</i>
	A	<i>Agitated</i> behavior or anxiety calls from adult
	B	Nest <i>building</i> by wrens or excavation of holes by woodpeckers
CONFIRMED	NB	Nest <i>building</i> by all except woodpeckers and wrens
	PE	<i>Physiological evidence</i> of breeding (vascularized, edematous incubation [brood] patch or egg in oviduct) based on bird in hand
	DD	<i>Distraction display</i> or injury feigning
	UN	<i>Used nest</i> or eggshells found. Caution: These must be carefully identified if they are to be accepted
	FL	Recently <i>fledged young</i> (of altricial species) incapable of sustained flight <sup>2</sup> or downy young (of precocial species) restricted to the natal area by dependence on adults or limited mobility
	ON	<i>Occupied nest</i> : adults entering or leaving nest site in circumstances indicating occupied nest (includes high nest or nest holes, the contents of which cannot be seen), or adult incubating or brooding
	AY	<i>Attending young</i> : adult carrying fecal sac or food for young, or feeding <sup>2</sup> recently fledged young
	NE	Nest with <i>egg(s)</i> <sup>2</sup>
	NY	Nest with <i>young</i> seen or heard <sup>2</sup>

<sup>2</sup> The presence of cowbird eggs or young is confirmation of both cowbird and host species.

*Caution must be used in approaching nest sites to minimize disturbance*: most confirmations can be accomplished without locating actual nests.

## APPENDIX E: Orders and Families of Birds Confirmed as Breeders in Vermont

Gaviiformes .....	30-31
Loons—Family Gaviidae .....	30-31
Podicipediformes .....	32-33
Grebes—Family Podicipedidae .....	32-33
Ciconiiformes .....	34-45
Hérons—Family Ardeidae .....	34-45
Anseriformes .....	46-69
Geese and Ducks—Family Anatidae .....	46-69
Falconiformes .....	70-87
Vultures—Family Cathartidae .....	70-71
Hawks—Family Accipitridae .....	72-85
Falcons—Family Falconidae .....	86-87
Galliformes .....	88-95
Grouse and Pheasants—Family Phasianidae .....	88-95