

Flycatcher by 66.7 percent; Yellow-billed Cuckoo by 56.8 percent, Ruby-throated Hummingbird by 48.2 percent, Eastern Wood-pewee by 36.5 percent, Red-eyed Vireo by 36.5 percent, and Great Crested Flycatcher by 34.9 percent (Herkert et al. 1993). All of these birds were found in suitable breeding habitat during the breeding season at Ryerson Woods. All but the Eastern Wood-Pewee, Red-eyed Vireo, and Great Crested Flycatchers were recorded in extremely low numbers of breeding pairs (Table 1).

A layered forest with many levels of plants is crucial for these species. But deer over-browsing and the invasion of alien plants such as garlic mustard and buckthorn have greatly reduced this layering. These alien species lower the plant diversity, a necessary component to attract a

variety of breeding birds. To increase plant diversity, Lake County Forest Preserve District staff members as well as volunteers periodically remove buckthorn and garlic mustard. A deer management program to curb over-browsing of shrubby layers has been conducted at Ryerson, although not every year, since 1991. When areas are over-browsed, it makes it much easier for predators such as raccoons to get to the ground bird's nest and eggs (Herkert 1993).

Many of the forest-interior species such as Red-eyed Vireo, Yellow-throated Vireo, Wood Thrush, and Scarlet Tanager are plagued by the Brown-headed Cowbird, which lays its eggs in other birds' nests. Interior forest species traditionally did not have to contend with cowbirds because there was enough interior forest for them to keep out the cow-

birds. Cowbirds were heard or seen generally throughout Ryerson Woods.

The forested riverine habitat attracts many migrating birds; more than 25 species of warblers are recorded each spring during May at Ryerson Woods. During the breeding season, Canada Geese, Mallards, and Wood Ducks enjoy the riverine area as a place to rear their young. Wood Duck boxes set up by the Lake County Forest Preserve District staff attracted several pairs of Wood Ducks to breed during the census survey. A Prothonotary Warbler nested at Ryerson several years ago (pers. comm. Eric Walters), but none were found in 1995. Installing Prothonotary Warbler boxes may attract this species, which is seen along the river during migration, to remain to nest.

Grassland species are also sus-

Breeding Pairs refers to approximate number of birds of one species that potentially bred in Ryerson. Please note that Red-shouldered Hawk successfully nested just outside Ryerson, but is included because of its state-endangered status as well as the fact that it has nested at Ryerson in the past (1993, 1994) and chooses this area because of the large contiguous woodland habitat provided by Ryerson.

SPECIES	Breeding Pairs	FO	Locations
Black-capped Chickadee	13		A5,10,11,14,17,19,23,26, B1,2,5,7,15
Tufted Titmouse	1		A5
White-breasted Nuthatch	5 - 6		A8,10,12, B5,7,8
House Wren	3		B8,9,11
Blue-gray Gnatcatcher	7		A1,2,5,8,12, B4,18
Gray Catbird	7		B5,6,8,10,12, 16,17
Eastern Bluebird	3		A3,B3
American Robin	12+		A1,2,8,9,20, 11,19,23,24, B1, 2,14,15
Veery *	2 - 3		A6,11
Wood Thrush	6		A8,11,28, B4,11,16
Cedar Waxwing	2 - 4		A10,23,B3,5
Yellow-throated Vireo	3 - 4		A23,11,B2
Warbling Vireo	1 - 2		B6,17
Red-eyed Vireo	10 - 13		A3,7,8,12,15, 16,17, 21,B1, 12,13,14,15.
Black-throated Green Warbler	1 - 3		A8,10,13
Chestnut-sided Warbler	1		B11

SPECIES	Breeding Pairs	FO	Locations
Blue-winged Warbler	2		B4,12
Common Yellowthroat	4 - 5		A1,20, B4,11,17
Ovenbird	5		A5,7,12,14,20
Red-winged Blackbird	5 - 6		A12,B7,8
Brown-headed Cowbird	6+		A12,13,18,B2, 5,14, 17,18
European Starling	3		A3,B6,11
Baltimore Oriole	4 - 5		A10,28, B6,12,18
Scarlet Tanager	8		A3,4,6,7,12, 15,B2,15
House Sparrow	4		B4,7,VC
Northern Cardinal	7		A1,51,19,23, B5,6,16
House Finch	1 - 2		B7
American Goldfinch	2 - 6		A11,20,22,26, B6,15
Indigo Bunting	13		A1,3,4,6,11, 12,14,17,20, 26,B4,12,15
Rose-breasted Grosbeak	5		A25, B5,6,10,15
Chipping Sparrow	1		B7
Field Sparrow	1		B7
Song Sparrow	5 - 7		A1,24,B8,9,11
Savannah Sparrow	1		B18