



Cedar Ridge Preserve: Species Living on the Edge

This land was among the first properties permanently preserved by D&R Greenway Land Trust in 1992.



Red-bellied woodpecker
(*Melanerpes carolinus*)



Spicebush swallowtail
(*Papilio troilus*)

Blue jay
(*Cyanocitta cristata*)

Ebony jewelwing damselfly
(*Calopteryx maculata*)

The Cedar Ridge Preserve is a large mosaic comprised of meadow, grassland, shrubland, young and mature forest, streams and floodplain that provides habitats for a special type of wildlife – “edge species.”

The “edge effect” is an ecological concept of greater species diversity where the edges of two adjacent ecosystems overlap. At this “ecotone”, some species from both ecosystems occur, plus other species that are only found in that particular ecotone. As opposed to forest-interior species that shy away from edges, edge species benefit from having different habitats near one another, moving between them to obtain resources needed at different stages of their life cycle.

Birds found near edges include red-tailed hawk, American woodcock, Baltimore oriole, northern flicker, eastern towhee, indigo bunting, and brown-headed cowbird. Butterflies such as the northern spicebush and tiger swallowtail nectar as adults in open fields and lay their eggs on certain trees along the forest edge where the caterpillars will feed and grow. Dragonflies and damselflies begin their lives as aquatic insects but require the vegetation of the adjacent floodplain to emerge and transform into winged adults. Mammals adapted to edges include white-tailed deer, raccoons, skunks, and red fox.

Negative Effects of Edges

Sharp edges caused by clearing or development create poor habitat. When there is no ecotone buffer, strong winds can cause damage to the forest edge. Increased sunlight and decreased moisture cause rapid climate changes, exotic plant invasions occur, and there is increased nest predation and parasitism of forest-interior birds. These negative effects are most severe when there is more edge than interior forest, thus a rectangular-shaped forest is more vulnerable than a circular-shaped forest.

Good Land Stewardship

Stewardship for this preserve involves maintaining a healthy mosaic of habitats: creating wider ecotones with native sun-loving shrubs and small trees between open meadow and forest habitats and re-connecting small forest fragments to avoid the negative effects of edges. Stewardship practices include annually mowing the meadows; removing invasive shrubs; and managing deer to prevent the over-browsing of the forest understory. A seven-acre area, formerly a monoculture of invasive autumn olive, was replanted to benefit species that need young forest in their life cycle.

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Common yellowthroat
(*Geothlypis trichas*)



Eastern towhee
(*Pipilo erythrophthalmus*)

Indigo bunting
(*Passerina cyanea*)



Northern flicker
(*Colaptes auratus*)



Baltimore oriole
(*Icterus galbula*)



Common green darner dragonfly
(*Anax junius*)



Brown-headed cowbird
(*Molothrus ater*)



American woodcock
(*Scolopax minor*)