Landscape Planning for Natural Areas: Protecting Habitat on Private Lands
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Growth and development are fragmenting natural land in Wisconsin. One glance from an airplane window shows a disjointed landscape with patches of field and forest—a pattern of ownership dividing much of the state into small, (less than 40-acre) parcels. One of our greatest environmental challenges is to protect large blocks of habitat and natural ecosystems spanning multiple ownerships.

Habitat fragmentation threatens many of Wisconsin’s rare and native species. Fragmentation divides natural areas and breaks up habitat into isolated “islands.” These pockets of natural land are often too small for native species to survive. Predators like wolves or bobcat need to roam large territories. Others, like frogs or turtles migrating to spring breeding ponds, need a safe path to travel without encountering roads or other hazards.

Fragmentation also changes habitat quality. Migrating songbirds, for instance, depend on large blocks of natural forest to raise their young. At the edges of the forest, songbird nests are more vulnerable to predators like raccoons, skunks, blue jays and dogs that haunt the perimeter. Forest islands separated by cropland and development have more edge habitat and less quality interior forest. The brown-headed cowbird dramatically illustrates the problem of edge habitat. This bird is a parasite that lays its eggs in the nest of other birds. Cowbirds thrive in a fragmented landscape since they feed in open fields and fly to nearby forests to lay their eggs. Some native songbirds lose up to 65% of their nests to cowbirds on the forest edge.

Protecting native species means protecting core habitat, wildlife corridors and large blocks of undeveloped land. Intact ecosystems also safeguard water, air and soil quality and preserve natural cycles. Although careful development can reduce the impact on wildlife and water quality, some ecologically sensitive places cannot tolerate any fragmentation.

Habitat fragmentation over time in the upper Midwest

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