

Natural connections



Conservationists tout wildlife corridors as a means of protecting climate-sensitive species like the American marten. Photo by Shannon Mercurio

Scientists see wild corridors as essential for the long-term health of wildlife and plants.

By Erika Schielke
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Once extirpated from the region, moose began trickling back to the Adirondacks in the 1980s and now number around eight hundred. It's thought that they migrated here from Vermont or Ontario.

"They did come in from somewhere. Where did they come from is the big question," said Zoe Smith, director of the Wildlife Conservation Society's Adirondack program.

Whatever the answer, the moose's resurgence demonstrates that the Adirondack Park is not an island. What's more, although the Park encompasses 5.8 million acres, it may not be big enough for wide-ranging species such as moose.

Indeed, one moose outfitted with a radio collar traveled from the Adirondacks all the way to Algonquin Park in Ontario, over two hundred miles away.



The resurgence of moose demonstrates that the Adirondack Park is not an island.
Photo by Nancie Battaglia

Given the wanderlust of wildlife, scientists and conservationists are exploring ways to preserve natural corridors that provide migration routes between wild habitats. Typically, such corridors traverse both public and private lands.

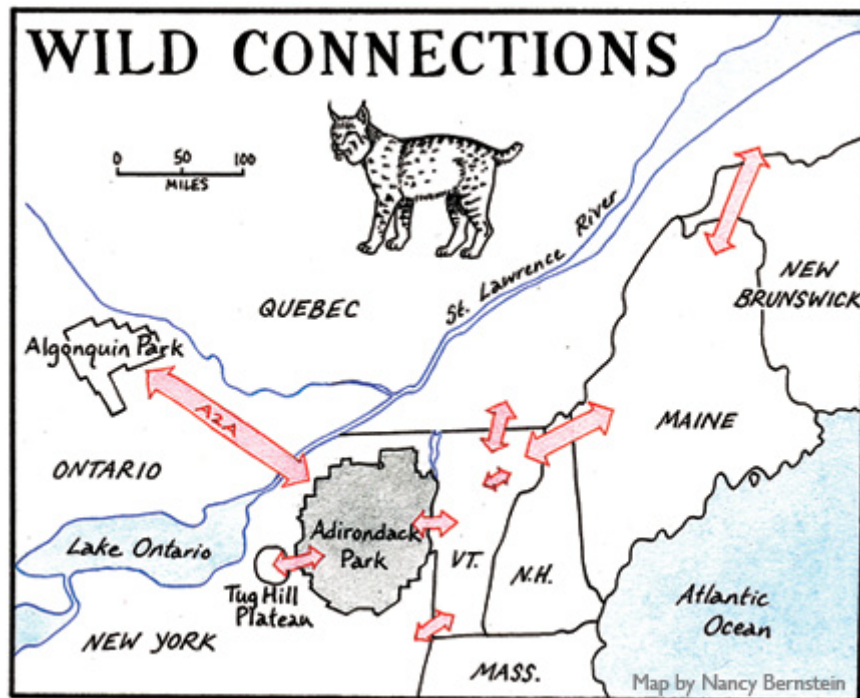
“The conservation community has shifted away from looking just at protected areas,” Smith said, “so most of our work is thinking about how wildlife move across the landscape and how their needs are met, as opposed to looking at sort of a ‘fenced-off’ area.”

The Adirondack Park figures in plans for wild corridors that would connect the region to Algonquin Park to the north, New England to the east, and the Tug Hill Plateau to the west. If all goes well, the corridors would allow moose, bear, bobcat, and other species to travel throughout the northeastern United States and southeastern Canada in search of food, mates, or new territory.

Wildlife movement between distinct populations helps maintain genetic variation, which is critical to the health of a species. Without genetic mixing, a species may suffer from inbreeding, which can lead to harmful recessive traits that limit its ability to respond to disease.

These days, conservationists also tout wild corridors as a way to protect species—plants as well as animals—likely to be affected by climate change. The idea is that habitat linkages will enable species to migrate as the planet warms.

“We may have a very different climate in the coming decades, and many of our plants and animals may need to move far to the north or far upward in elevation in order to meet their habitat needs,” said John Davis, a co-founder of the Wildlands Network and the former conservation director of the Adirondack Council.



The American marten, for example, prefers cold, snowy habitat and thus is often found at higher elevations in the Adirondacks. If the climate warms, Davis said, the fisher may take over the marten's territory. The region's loons and snowshoe hares, now at the southern limit of their range, might move north. Likewise, the Adirondacks might lose northern trees such as spruce and balsam fir.

Davis described the Adirondacks as "arguably, at least, the most intact landscape in the eastern United States." Nevertheless, he pointed out that the region lacks two top predators that once lived here: wolves and cougars. The Wildlands Network wants to preserve habitat linkages that could allow them to come back someday.

"They are unlikely to return to our area unless those habitat connections are in place," Davis said.

"I think we have a much better chance of regaining wolves if we have a viable habitat connection northwest to Algonquin Park."

The Algonquin to Adirondacks Conservation Association, or A2A, based in Ontario, is working on protecting a corridor between Algonquin Park and the Adirondacks. Another binational organization, Two Countries, One Forest, has identified several habitat linkages in an 80-million-acre region that stretches from northern New York to Nova Scotia and the Gaspé Peninsula. It includes the Adirondacks and Tug Hill.

Bill Weber, executive director of Two Countries, One Forest, said the habitat corridors could provide a pathway for the Canada lynx to return to the Adirondacks. The cats now can be found in Maine and adjacent territory in Canada. Two decades ago, biologists released lynx in the Adirondack High Peaks, in the hope of re-establishing a population,

but the animals scattered and failed to breed.

Given the vast amount of land that needs to be protected, preservationists are not calling on governments to buy it all. Rather, they rely largely on conservation easements and similar agreements with private landowners. A conservation easement prohibits development but allows some other uses, such as forestry. In return for giving up their development rights, landowners receive property-tax breaks.

Still, easements cost money. Until recently, little funding has been available to preserve habitat linkages over a large region. Instead, local organizations typically focused on smaller projects, often within the boundaries of a single state.

One example of a smaller linkage is the Split Rock Wildway, which Davis helped start. When completed, it will preserve a wild corridor between the Champlain Valley and the High Peaks. With a range of elevations, this linkage contains a variety of habitat and harbors many native species. Davis got the idea for the Wildway after he climbed a pine tree on his property near Westport and saw large tracts of forest.

"I realized I was in the middle of a wildlife corridor," he said. "When I realized that I started suggesting to colleagues that really we ought to try to get protection along this swath."

Davis said the Wildway could serve as one route for the migration of moose to the Adirondacks from Vermont. He estimates that twelve thousand to fifteen thousand acres need to be protected. So far, the Wildway is halfway to completion.

Bigger projects are in the works. In 2009, the U.S. Fish and Wildlife Service awarded \$993,000 to Staying Connected, a project that seeks to develop six habitat linkages in the Northeast. Matching funds from the Doris Duke Charitable Foundation and other groups brought the total to around \$1.7 million. Among the organizations involved with the project are the Nature Conservancy, Wildlife Conservation Society, Tug Hill Tomorrow Land Trust, Tug Hill Commission, New York State Department of Environmental Conservation, and New York State Department of Transportation.

One of the linkages would connect Vermont's Green Mountains to the southern Lake Champlain valley in the Adirondack Park. Another would connect the western Adirondacks to Tug Hill. The others would connect wild lands within northern New England and between New England and Canada.

To get a sense of what's involved in protecting a habitat corridor, I joined Michelle Brown, a scientist with the Adirondack Nature Conservancy, on a flight over the Black River valley, which lies between the Adirondacks and the Tug Hill Plateau. Our pilot was Bob Keller, a Boonville resident who volunteers his time for Lighthawk, a nonprofit group of pilots who support environmental causes.

Before our flight, Brown unfolded a map showing different land-use categories. In between two large forested areas—Tug Hill and the Adirondack Park—lay a patchwork

of woodlands, farmland, and towns. Once we get in the air, we can almost trace the boundary of the Park: inside the Blue Line, swaths of nearly unbroken forest slope gently up toward low mountains; outside it, we can see smaller tracts of forest that serve as steppingstones for wildlife crossing the Black River valley.

We fly west across the valley to Tug Hill, passing over an expansive wetland with streams winding through brilliant-green marshes. About 175,000 acres of the Tug Hill region are protected from development, thanks to state holdings, conservation easements, and purchases by the Nature Conservancy. In contrast, most of the land in the Black River valley is privately owned.

Instead of buying up large tracts, the Staying Connected partners collaborate with landowners.

The aim is to promote human communities as well as preserve wildlife habitat.

Keller, who serves on a steering committee for the Tug Hill/Adirondack linkage, said local residents have raised concerns about public access to land and the availability of land for logging. "We felt that for this project to be successful, we had to be sensitive to the people who live and work in the area," he said. "You have to be sure that they don't look at this project as a threat to the practice of sustainable forestry or their right to hunt in the woods," he added.

In addition to protecting land, the Staying Connected groups hope to make it easier for wildlife to cross over or under roads. One idea is to place large culverts in areas of high wildlife traffic.

Also, Brown said culverts can be made more wildlife-friendly by leaving the bottoms open, so animals walk on dirt rather than metal.

There are other challenges. Many regional politicians favor constructing a high-speed highway between Watertown and Plattsburgh. John Davis contends that the so-called Rooftop Highway would be "ecologically disastrous," because it would create a barrier between the Adirondacks and southern Canada.

Davis envisions connectivity on an even larger scale. This year he is undertaking a 4,500-mile odyssey by boat, bike, and foot to research and promote the Eastern Wildway, the Wildlands Network's ambitious campaign to connect habitats in eastern North America, from the Florida Keys and Canada's Gaspé Peninsula. He also hopes to build connections between conservation organizations in the region.

"All over the country there are people trying to protect places," he said, "and yet there's not all that much communication or cross-pollination between different groups, especially between groups in different parts of the country."

Davis began his trek in early February in Key Largo. If all goes well, he'll arrive in the Adirondacks in late summer of 2011. With luck, he'll see a moose.