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## Tree Invasion

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*Foggy Reflections*  
Dave Leiker

## TREE INVASION

*I think that I shall never see ...*

*A poem lovely as a tree.*

These first lines of Joyce Kilmer’s poem “Trees” reflect deeply-held values for generations of Americans.

No doubt, I stand among those who place great value on trees. As a boy I climbed them, drew them, and explored kid-sized wilderness wherever I could roam in even an acre of them.

Perhaps we who live in prairie states value trees more than most. Those roots run deep. Who hasn’t heard of European settlers cursing the incessant wind, the blazing summer sun, and sheer exposure of the Great Plains? They and their descendants were determined to change that. And how better to do it than with trees? As early as 1873, Nebraska Senator Phineas Hitchcock introduced the Timber Culture Act, a federal law that offered 160 acres of prairie to anyone who would plant forty of those acres to trees. Years later, University of Nebraska botany professor Charles Bessey advanced the idea that the vast grasslands of the Nebraska Sandhills should rightfully be pine forest. The level of enthusiasm with which his idea was embraced, then and now, is evidenced by the Nebraska National Forest near Halsey. There, about thirty square miles of man-planted forest, in the heart of one of North America’s greatest remaining grasslands, attest to our love for trees, and to our ignorance of grassland.

True, the weather of the Great Plains can be harsh and the beauty of our grasslands is sometimes subtle. But I think Joyce Kilmer would have also waxed poetic had he seen a bluestem prairie's rosy glow in the refracted light of an October sunset. Too few of us appreciate their beauty or comprehend the true value of our Great Plains grasslands. This and our culture's love of trees have sown the seeds of change that threaten our signature landscape – the prairies – like nothing since John Deere's invention of the moldboard plow.

For over a century we have planted trees all across the Great Plains. Windbreaks for farmsteads, crop fields, livestock, and wildlife allowed us to bring the more moderate conditions and wildlife of the East onto the plains, at least on small scales. By themselves tree plantings have altered but perhaps not seriously threatened our remaining prairie ecosystems. But our collective failure to understand prairie ecology has resulted in grassland management or, more correctly, lack of management that has allowed some species of trees to escape their original planting sites. Fire, the prairie's natural ally, was often suppressed and grazing sometimes misapplied, leaving a

weakened prairie community vulnerable to an onslaught of invasive trees that is now swallowing our grasslands at an alarming rate.

No prairie is immune. Eastern red cedar, hedge, and blackjack oak have invaded much of the Kansas Flint Hills. Russian olive, cedar, black locust, and honey locust have consumed our central sand prairies. Red cedar is devouring the prairies of the Red Hills. In the Smoky Hills, cedar and hedge are the main culprits. They are a metastasizing cancer on our prairies.

Prairies, often taken for granted, are among Earth's most threatened landscapes. The prairie's unique assemblage of wildlife is a rare treasure on the global scale. Yet many of us who live here suffer from the delusion that meadowlarks are somehow ordinary. Grassland birds have shown steeper and more widespread declines than any other guild of birds in North America. Foremost among these species are prairie chickens, amazing creatures of wide-open spaces and clear horizons. Eons of adaptation have favored the survival of those birds that avoided trees, the hunting perches of hawks and owls, and habitat for many predators. This avoidance means it won't take a sweeping front of woodland, but only widely-scattered trees, to



*Bottle and Water*  
Shreepad Joglekar

eliminate prairie chickens from otherwise suitable landscapes. And tree invasion is just as much the enemy of bobwhite, grassland songbirds, and the exquisite upland sandpiper.

Prairie chickens are disappearing from lack of fire in some places and from too much fire in others. Annual spring burning of vast sections of the central Flint Hills has left greater prairie chickens and other ground dwelling birds with little

or no nesting cover. Neither extreme is what's needed. Most prairie wildlife are adapted to a shifting mosaic of burned and unburned areas. Suffice it here to say that burning frequently, but not annually, would go far toward improving prairie health, while leaving nesting cover and suppressing tree invasion.

Conservation is an ongoing journey with frequent course corrections. The first step in making those corrections is



*Hover (detail)*  
Matthew Regier

to acknowledge we've made mistakes. Inevitably, as our ecological knowledge grows, hindsight shows some practices were not as clearly beneficial as once believed. Tree plantings at the hand of man, no matter how good the intentions, have been the source of invasive trees throughout the Great Plains. More troubling is the fact that inappropriate tree plantings still continue.

More landowners and land managers must recognize the magnitude of this threat, and soon. Many cases of tree invasion are rooted in an inadvertent failure to recognize the problem, but just as many stem from simple failures to act. It's just too easy to ignore little tree seedlings scattered around a pasture. But with tree invasion, the old axiom, "an

ounce of prevention is worth a pound of cure," is very much an understatement.

Ranchers are stewards of the prairies. Most recognize their interest in preventing invasive trees from taking over grasslands. We must join with them as allies to turn back this invasion. It will take money, time, and effort. The soldiers can range from ranchers to boy scouts, from government officials to private entrepreneurs. They must wield weapons like tree shears and pruning shears, chain saws and bow saws, drip torches, and Tordon. In the process they will better understand the value of prairie and the value of helpful friends.

Of paramount importance is the need to assure that invasive trees advance no further. Complacency toward our remaining uninvaded prairies would prove a huge mistake. Focusing on the worst-invaded grasslands could leave our resources and resolve exhausted if we rise from our task to see two new acres invaded for each one reclaimed.

There are good uses and appropriate places for trees on the plains. But we have planted trees on the prairie with a near-religious fervor, only to discover that some spread like hell. Those of us living on the Great Plains must come to realize it is as

much an act of redemption for us to kill trees that invade our prairies as it is for others to plant trees in urban parks. We must realize that for the prairie, occasional fire is an act of renewal, not destruction. We should applaud, not deride, those who properly and carefully apply it.

It is not for us on the plains to grow third-rate versions of the great deciduous forests of the East or the conifer forests of the West. Our responsibility is to guard our precious remaining prairies for ourselves and our children, for spectacular prairie chickens and tiny grasshopper sparrows, and for the other people and creatures of the Earth. Maybe you remember the chorus of an old Joni Mitchell song: *Don't it always seem to go that you don't know what you've got 'til it's gone?* When it comes to our prairies, I hope the answer is "No!"

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