## **ESSAI**

Volume 7 Article 38

4-1-2010

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## Recommended Citation

Podschwit, Harry (2009) "The Lost World: The Northern Illinois Wilderness," ESSAI: Vol. 7, Article 38. Available at: http://dc.cod.edu/essai/vol7/iss1/38

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The Lost World: The Northern Illinois Wilderness

by Harry Podschwit

(English 1102)

here is little doubt that humans have influenced the composition of native ecosystems since their introduction to Northern Illinois. The introduction of non-native species, devastation of native populations of flora and fauna and the expansion of urban and agricultural centers have all irreversibly contributed to the destruction of the tallgrass grass prairies and other ecological features of Northern Illinois. Hence, the purpose of this paper is to identify these early anthropogenic changes to the ecology of native ecosystems. However, before one can identify the historical changes that have occurred in Northern Illinois ecology, a model of pre-colonial Illinois must be reconstructed.

Prior to European habitation of Illinois, one would find that generally about eighty-five percent of DuPage County was tallgrass prairie and the remaining fifteen percent Oak-Maple forest (Thompson 9). One would also find large mammalian carnivores more commonly associated with the Western United States, such as bobcats, foxes, red and timber wolves near the forested belts that ran along streams (Hoffmeister 35, Allen 4-5). In this region that broke the vast expanses of prairie, robust winter grapes and Virginia creeper vines hung from sugar maples, elms, hickories, black walnuts and several species of oak and ash trees (Allen 583-584). River otters were observed in the waterways of Illinois (Hoffmeister 35) where soft-shelled turtles (Thompson 9) and more than seventy species of freshwater mussels inhabited (Hess, Parmalee 16). Beyond the forests that snaked through the expanses of prairie, large Elk and Bison browsed among the Indian Grass and Big Bluestem (Hoffmeister 47-48). In addition to these dominant grasses, the Northern Illinois prairies were home to flora like purple coneflower, leadplant, compass plant, and rattlesnake master (Allen 579-580). The diverse flora of the Northern Illinois likewise yielded diverse arthropod species of many families, namely Orthoptera, Lepidoptera, Odonata, Hemiptera and Neuroptera (Allen 7). Thus, as one can see Northern Illinois was once just as untamed as the North Cascades or the Olympic Forests of today. However, as will be all to salient shortly, the best days of the Northern Illinois wilderness are in the past due to the influence of European settlement and the expansion of agricultural and urban centers.

Historically, the far Eastern limits of the tallgrass prairie covered almost all of Illinois and part of Western Indiana in a region called the prairie peninsula (Prairie Peninsula). It was some of the first prairie that westbound Europeans encountered and consequently was some of the first prairie to be settled. These early pioneers by and large followed along river routes that led South and West from the original colonies. Thus, many of the oldest communities in Illinois were along the typically forested Ohio, Mississippi and Illinois River valleys (Moore 29). Generally, pioneers preferred to settle near the forested river bottoms because timber was abundant, which was a resource that was largely absent from the expanses of prairie in Illinois. As a consequence of settler's general reluctance to settle the prairies and the regional geography, settlement of Northern Illinois was sparse until the improvement of transportation facilities on the Great Lakes (Madson 204). But with the opening of the Erie Canal in 1825 people from the Northeastern region of the United States now had a direct waterway to the Great Lakes and by extension the largely uninhabited regions of the newly founded state of Illinois (Moore 19).

Settlers first trickled into Northern Illinois during the early 1830's and by 1832 the Naper colony in present day Naperville had one hundred and eighty permanent residents (Moore 15-16, 19,

Thompson 18-19). Like the earliest settlers, villages were founded and spread along the wooded rivers of Northern Illinois, but by 1837 much of this desirable land had been filled with new settlements and farming operations. However, just as the bottomlands were being filled to capacity, John Deere had successfully invented his self-scouring plow in 1837, though other steel plow models had been produced a few years earlier by other blacksmith (Thompson 24-25, Madson 207). Hence, the invention, improvement and marketing of the steel plow now allowed settlers to break the tough prairie sod easily which made prairies more desirable to farm (Madson 205-206). In addition to the increased accessibility of agricultural land, the nascent railroad industry encouraged the growth of agricultural and urban centers in DuPage county area beginning in 1849 with the expansion of the Galena and Chicago Union Railway (Moore and Bray 203-206). The expanse of this infrastructure required extensive amounts of timbers, which would come from Illinois woodlands. Thus, in the 1850's in conjunction with the growing railroads, whole forests were clear-cut to build railroad ties and fuel (Walters and Smith 19). As a consequence of the widespread investment and implementation of both technological advances, previously vacant prairies and forest began to open to settlement and by 1840 the whole state of Illinois had been settled (Gerhard 92).

The most dramatic change to the landscape was the conversion of prairie to agricultural land. By 1855 Illinois had established itself as the nation's leader in agriculture, yielding 170 million bushels of corn, wheat and oats annually (Gerhard 137). With lucrative economic opportunities available to farmers, demand for John Deere's plows increased and by 1857 John Deere was producing ten thousand plows a year, which was ten times his production a decade earlier (Kemmerer 107). These plows were no doubt the instruments that devastated the Northern Illinois prairies during the regions rapid expanse. Dr. J.A. Allen elucidated this ineffable quality when he wrote, "Since vast areas of the prairies offer no obstructions to the revolutionizing plow, the astonishing rapidity of the change in flora that follows its march can scarcely be conceived by those who have not witnessed its actual progress" (Allen 578). Thus, by 1870 Dr. Allen was already foretelling the prairies demise and by 1870 few areas east of the Missouri remained unfettered from human development (Allen 578).

The influence of human development often proved to be to stressful on the native ecology. Much to the dismay of contemporary naturalists, much of the large fauna of the Northern Illinois region has been extirpated from the state. The loss of these animals is largely a consequence of human's rapid movement into the prairies and the unmitigated disturbance of Northern Illinois ecology. For instance, state laws in the 1800's encouraged the killing of wolves and the state would pay bounties for dead wolves (Hoffmeister 33). Early county historians Richmond and Vallette have described the tragic methods in which farmers would kill off entire wolf packs during annual wolf hunts. According to both historians, farmers would form circles several miles in circumference and close in on wolf packs and kill as many as sixty wolves a day (Thompson 28). As a consequence of hunting practices and unmitigated growth of agricultural and urban centers, wolves had been extirpated from DuPage County by 1846 (Thompson 28) and sometime before the 1860's wolves had been extirpated from the state (Hoffmeister 47).

In addition to the loss of large carnivores such as wolves, Illinois now laments the loss of two large ungulates that were extirpated during early settlement, the elk and the American bison. In the early 1820's, Elk had become extirpated from most Northern Illinois counties (Hoffmeister 47). Its removal was likely caused by the ecological stress associated with human development, such as the conversion of prairie to agricultural land and the hunting of remaining Elk populations. Another impressive creature of the prairies was the American bison. Hunting of bison was a common practice of settlers and early settlers pushed the bison west. However, the systemic extermination of bison did not begin until the 1830's and by then bison were absent from Illinois and all areas east of the Mississippi river (Hornaday 484-487). Thus, it is apparent that Illinois settlers were not responsible for the systemic hunting of bison because the fauna had already been absent from the region.

However, this by extension means that Illinois settlers had driven bison out of the region like the elk and wolf.

Though it is impossible to know with certainty what effects the absence of these large ungulates have had to the Illinois tallgrass prairie, evidence can be extrapolated from where these populations do exist. According to research on reintroduced elk populations in Southeastern Kentucky, woody plants account for the most of the Elk's annual diet (Schneider 538). Thus, Elk may have mitigated the influence of somewhat aggressive native shrubs like Gray Dogwoods to the prairies of Northern Illinois. However, due to the subordinate role of forests in Northern Illinois ecology, the influence that the absence of elk in Northern Illinois was likely less dramatic influence to native ecosystems than the American bison which once grazed in the Northern Illinois' massive prairies.

According to research performed at the Konza Tallgrass Prairie, bison appear to serve a keystone role in Kansas tall grass prairies, as they will graze on the dominant grasses and while avoiding the forbs. Thus, American bison increase the floral biodiversity of the grazing patches they inhabit by removing the relatively aggressive stands of Indian Grass and Big Bluestem, so that the forbs could better compete with the grasses (Knapp 42-43). Furthermore, bison herds trample the ground and create moderate disturbances in the floral community allowing for patchiness in the ecosystem enhancing floral biodiversity (Savage 122). Thus, bison likely also served a keystone role in the tallgrass prairies of Illinois and there absence probably caused significant disturbances to the natural processes of the ecosystem.

Just as the disturbance of ungulate populations may have altered the botanical composition of Northern Illinois ecosystems, the decimation of predator populations may have likewise caused some changes in composition. For instance, if one uses coyotes as a model for predators in Northern Illinois ecology, according to data from populations from Southeastern Illinois, coyotes prey on herbivores such as Whitetail deer, woodchucks and prairie voles (Hoffmeister 267). Thus, the decimation of these predator populations may have consequently affected herbivore populations and by extension the floral composition of Northern Illinois similar to the ungulate populations.

In addition to disturbing native populations of prairie fauna, early settlers introduced plant species to the prairie that would later disturb the ecosystem. An 1893 article of <u>Science</u> described the many European plant species present in grass and clover seed widely used in pastures. Thus, to name a few, introduced species like Wild Radish, Queen Anne's lace, Curly Dock and Common Vetch were unwittingly distributed throughout the Midwest via farm seed (Williams 85). Furthermore, the earliest evidence of the hyper-aggressive weed Canada thistle in Illinois is in 1891 though it likely arrived earlier along with increased human settlement and agriculture (Halsted 289). All these alien species competed with native plants and consequently, began to degrade remnant prairies and wildlands in Northern Illinois.

In conclusion, though a Northern Illinois prairie of 1900 may appear to be relatively healthy ecologically speaking, once one is familiar with the local natural history, there is little doubt that the Illinois ecology had been maimed. Much of the damage to the Northern Illinois ecology was sustained during the period early settlement, as the rapid spread of urban centers and agriculture dominated the tall grass prairie and also decimated the remaining woodlands of the region. Thus, to the dismay of many modern naturalists, much of the ecology of the Northern Illinois was disturbed before its nuances could be fully understood. Furthermore, the decimation and extirpation of native mammals have altered the natural processes that influenced the native ecosystems. Additionally, introduction of non-native flora and fauna have tainted the stoic beauty of Northern Illinois wilderness. Hence, by 1900 the landscape of Northern Illinois had been abused and defeated, lamenting its fantastic, yet brief reign in North America.

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## Works Cited

Allen, Joel Asaph. "The Flora of the Prairies" *The American Naturalist* 4.10 1870: 577-585.

---. "The Fauna of the Prairies" *The American Naturalist* 5.1 1871: 4-9.

Gerhard, Frederick. Illinois as it is Chicago: Keen and Lee, 1857.

Halsted, Byron D. "What Station Botanists are Doing." Botanical Gazette\_16.10 1891: 288-291.

Hess, David F. "Freshwater Mussels in Illinois." 2002. 24 May 2009.

<a href="http://www.jaxshells.org/dhess.htm">http://www.jaxshells.org/dhess.htm</a>

Hoffmeister, Donald Frederick. Mammals of Illinois. Urbana: University of Illinois Press, 1989.

Hornaday, William Temple. *The Extermination of the American Bison*. Washington D.C.: Smithsonian Institute Press, 2002.

Kemmerer, Donald L. "Financing Illinois Industry 1830-1890." *Bulletin of the Business Historical Society* 27.2 1953: 97-111.

Knapp, Alan K., John M. Blair, John M. Briggs, Scott L. Collins, David C. Hartnett, Loretta C. Johnson and E. Gene Towne. "The Keystone Role of Bison North American Tallgrass Prairie." *BioScience* 49.1 1999: 39-50.

Madson, John. *Where the Sky Began: Land of the Tallgrass Prairie*. Boston: Houghton Mifflin Company, 1982.

Moore, Jean A History of Wheaton, Illinois: From Tower to Tower. Mendota: Wayside Press. 1974.

Moore, Jean and Hiawatha Bray. *DuPage at 150 and Those Who Shaped Our World*. Wheaton: DuPage County Sesquicentennial Steering Committee, 1989.

Parmalee, Paul W. *The Fresh-water Mussels of Illinois*. Springfield: Illinois State Museum Popular Science Series 8. 1967.

Prairie Peninsula "Illinois State Museum." 2000, 7 April 2009. <a href="http://www.museum.state.il.us/muslink/prairie/htmls/eco">http://www.museum.state.il.us/muslink/prairie/htmls/eco</a> pen.html>

Savage, Candace. *Prairie: A Natural History*. Vancouver: Douglas & McIntyre Publishing Group, 2004.

Schneider, Jennifer, David S. Maehr, Karen J. Alexy, John J. Cox, Jeffery L. Larkin and Brian C. Reeder. "Food Habits of Reintroduced Elk in Southeastern Kentucky" *Southeastern Naturalist*. 5.3 2006: 535-546.

Thompson, Richard A. DuPage Roots. Wheaton: DuPage Historical Society, 1985.

Walters, William D. and Jonathan Smith. "Woodland and Prairie Settlement in Illinois: 1830-70." *Forest and Conservation History*. 36.1 1992: 15-21.

Williams, Thomas A. "Introduction of Weeds in Grass Seed." Science 2.550 1893: 1-45: 85-86.