

4-1-2008

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### Recommended Citation

Canaday Howard, Victoria (2008) "Conservation Ecology Hits Close to Home," *ESSAI*: Vol. 6, Article 16.  
Available at: <http://dc.cod.edu/essai/vol6/iss1/16>

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## Conservation Ecology Hits Close to Home

by Victoria Canaday Howard

(Honors English 1102)

**T**allgrass prairies are a natural biome found in the Midwestern United States that regulate underground aquifer levels, supply a living environment to a wide range of species, and provide the necessary interaction between humans and the earth. However, with the never-ending need for expansion throughout the United States many of these tallgrass prairies that once covered over 1.5 million square kilometers of the nation are becoming industrialized warehouses and athletic fields in the suburbs. Today, less than 1% of the native prairies remain (Ritter NP). The Downers Grove Park District has recently begun its newest project to turn the tallgrass prairie in Patriot's Park into soccer fields. This essay will argue that Patriot's Park in Downers Grove, IL, like many other natural prairie grass areas across the Midwest, should not be destroyed for the implementation of soccer fields and other recreation areas due to the biodiversity crisis caused by the decreasing amount of natural biomes in Illinois, the detrimental effect it will have on the wildlife that live within it, and how the area's survival will be threatened when the flood plain rises due to the absence of the tallgrasses.

There are many different types of biomes that can be found worldwide and each variation serves as a home for the variety of species that inhabit them. In the Midwestern United States, the prairies and forests are what all of the animals found here thrive upon. Tallgrasses that are found within the prairies help to produce a nutrient-rich soil which many industrialists have found appealing for the agricultural advancement in the United States. From 1830-1900, the tallgrass prairie was melded into farmland where less than 99% of the tallgrasses that once covered this land are now demolished for the implementation of corn and soybean fields (America's Lost Landscape NP). The native species of grasses and forbs, along with bison and elk, can no longer be seen naturally.

Many individuals, except for scientists and environmentalists, do not realize the severity this issue. With the rising problem of global change, a crucial fact that needs to be thought of is how the increasing amounts of carbon are going to become depleted. The majority of the tallgrasses found in these prairies are C4 plants. A C4 plant bases its energy processing cycle on the intake of carbon dioxide from the atmosphere (Campbell 96). Although with only a few sets of grass the decrease in the amount of carbon dioxide in the atmosphere may not be noticeable, so decreasing the density of these tallgrasses would result in a monumental increase of carbon dioxide in the air.

Along with the C4 process these tallgrasses go through, society will also lose the necessary interaction between plants and humans that is shown to prove the mental and physical well-being known as biophilia. Scientist E. O. Wilson states that during human developmental years biophilia encouraged the survival of species with advanced critical thinking by their close connection to the environment and a practical appreciation of plants and animals (Campbell 1229). With the increasing absence of natural surroundings, the concept of biophilia is unable to thrive. As opposed to looking at the planet as a gift from those before this time, it needs to continue to be preserved so that it can be enjoyed by those coming in the future. For many individuals it used to be hard to imagine an earth without landscapes of native plants and animals, but now it seems that this is exactly what is happening.

Although the preservation of biomes is a pressing issue around the globe, there seems to be a continual need for industrialization and expansion in both rural and more populated areas. The demands that individuals have in today's society seem to be never-ending and the stakes are high.

New factories and warehouses line the outskirts of many major cities to provide for the people. There is limited space for growing areas and it is a natural trend for cities to expand and become more industrialized (Slotkin 322). Unfortunately, society is unable to insert land where they feel there is a need to expand so they are forced to tear up the natural land.

This issue can now be examined on a more specific level. An e-mail was dispersed through a chain of residents in Downers Grove to provide awareness about the local Patriot's Park and the landscaping demolition that has occurred. Dan Cermak, the Park District Administrator, indicated that the prairie grass in front of the area where recent landscaping had taken place will be mowed, top soiled and filled with grass for the purposes of having open spaces for a soccer field. Cermak believes that this is best for the community and neighborhood of Patriot's Park (Cermak). On the contrary, the community believes that "the neighborhood will change as [they] know it" along with extinguishing the quality of life that once existed there (Thomas). *The Downers Grove Reporter*, a local newspaper, felt that the two sides were so adamant about the issue that they had one of their writers do an article on the issue revealing the basis of feud. Resident Dale Faber said that [the residents] get mixed answers about the plans at the park, which makes them more skeptical and untrusting of the issue (Marchmont NP). The Park Board President, Bob Gelwicks, ensured the reporter that there were no definite or large scale plans that were set. Both sides have a reason to believe in what they do, but one must be more influential and important than the other.

The Downers Grove Park District site currently begins with the display of happy-go-lucky spring and summer colors advertising all of the fun activities and events that they have planned for the upcoming months (Downers Grove Park District NP). The main attractions that it highlights are those that incorporated the natural plant life at the local Lyman Woods, the golf course, and the land and parks that equal up to 600 acres. With the activities that are offered through the Park District, there is plenty to do and fun to be had.

Also on the Downers Grove Park District site a comment is made about how "you won't need to go elsewhere to find your fun" (Downers Grove Park District NP). Competition between suburban cities and the recreational areas (and activities they provide) has been an issue since individuals began settling in major cities. The development and success of one may mean that one of their neighboring towns may not follow in the same footsteps as them. The Park District must continue to expand to provide not only for its residents but also for others from towns nearby to ensure long-term interest and stability over others. Although this may provide and serve the industrial and business side of the town, how it affects the neighborhood life is quite different.

The neighborhoods in Downers Grove have been known to be quiet and cozy allowing an environment for kids to grow and develop. Gloria Walsh-Rock, a Downers Grove resident behind Patriot's Park, states that quiet weekends are a key point to why they moved into the area, not to mention the natural scenery just off their back porch (Walsh-Rock). Art Jaros, another community member, commented to the board on this issue, stating that the community should have at least been warned about the actions that have taken place due to the fact that additional noise and recreation level will effect them more than any other group (Jaros). The simplicity and purity that residents once cherished so much will no longer be present for them and others, including the wildlife that nests and feeds within the prairie of Patriot's Park.

A discussion displaying both sides of the issue at Patriot's Park was necessary and took place on April 17th, 2008, at the Downers Grove Town Hall Meeting. A gathering of 28 residents, met a half-hour before the meeting to ensure the council was aware that this issue was very important to them. Once the meeting began, each individual stood up, stated their name, followed by their position on the issue. With the amount of people that showed at the meeting, they were hoping that it would show how close to their hearts this problem was. Park District representative Dan Cermak spoke next.

Cermak began by apologizing for not preparing the surrounding residents of Patriot's Park

about the new construction that had taken place. He then followed by saying that it was an agreement made between the Park District and Board of Downers Grove due to the belief that an additional sports recreation area on the southeast end of town would attract more people from Westmont. Cermak claims that they only had the interest of the town's well-being and advancement, and that the sacrifice of the prairie would be worth it with the profit that would be made from the games being held there (Cermak). When the community representative, Art Jaros, proposed the question as to what they would do to preserve the lives of the various species that inhabit the prairie, Cermak stated that animals are known to be great at adapting to their environment for their survival. Unfortunately, history shows differently as shown by the numerous species that can be found on both the extinct and endangered species lists.

The adaptations a species makes throughout its evolutionary cycle are crucial towards its survival. Through natural selection, a species accumulates characteristics that enhance the organisms' ability to survive and reproduce in specific environments (Campbell 438). When climates or environmental issues alter, the species should be able to adapt to these changes so that it can reproduce and survive. In the situation of the prairie at Patriot's Park, the species would undergo a rapid change in their environmental situation, perhaps to the point of driving the compilation of species to become absent in the area. Along with their habitats being rapidly depleted, there would be no area for them to adapt to. Wildlife needs natural settings to be able to remain an energy processing unit or remain as a balanced community (Campbell 1191). The alteration of the prairie environment will throw off the wildlife interactions as well as the rising of the water table.

Simply put, a water table is the area at which water settles into the Earth. In many areas around the globe the levels are naturally controlled by streams, keeping the level of water evenly distributed. However, in the native prairie areas, the water table is kept low by the tallgrasses that recycle that water back into the atmosphere due to their natural processes (Mack 242). With the absence of the tallgrasses in Patriot's Park, the excess water that is currently being absorbed by the grasses will result in a rise of the water table. The soccer fields will spend a great deal of their time being flooded, perhaps accompanied by an overflow of water on the streets nearby due to an inadequate amount of drains. A retention pond could not be created to hold the surplus water due to the minimal amount of area provided. Unfortunately, there is not a solution that can sufficiently replace the loss of the tallgrasses.

The importance of the wilderness seems to exceed what most of society realizes. By disturbing the natural flow of water and the cycles and habits that each species in this area go through, there is a dramatic change in how life will thrive. Carbon dioxide levels will slightly rise, the wildlife seen today will not be as abundant, and the management of water flow will become increasingly important. Instead of taking down another native prairie area, conservation is what should be focused upon.

Dave Forman, a conservational author, believes that there needs to be a comprehensive plan to protect the land from further fragmentation and protection for all native species and habitat types (Forman 126). To achieve this, the goal needs to become a mind-set for all organizations and groups, as it cannot be achieved by one single group. Instead, all who realize the danger that nature and wildlife faces need to pursue this goal—making it a local, regional and continental effort.

The need for tallgrass prairie conservation becomes vitally important in today's world that is losing all of its diversity and habitat. Conserving and restoring the tallgrass prairie in the Midwest is just as important as doing the same for the aquatic and tropical rainforest biomes. The prairie has its own characteristics, personality and story. They are vital not only to the survival of the plants and animals that live within it, but they are the roots of culture for the people of the Midwestern United States. Conservation and restoration needs to be advanced throughout this area.

The beginning of the restoration process has just begun, along with the continual push for conservation across the original prairie grass states. In Wisconsin, the first restoration began with the

inspiration of Aldo Leopold in 1934 (America's Lost Landscape NP). Leopold founded the Wilderness Society and wrote a compilation of entries called the Sand County Almanac which discussed the importance of the tallgrass prairies. Twenty miles east of Des Moines, Iowa, the Neal Smith National Wildlife Refuge spans over eight thousand acres with native plants and animals that once roamed free from human disturbance over two hundred years ago (America's Lost Landscape NP). This wildlife refuge, along with the birds and other species that have been able to adapt through this time, are now joined by a herd of bison and elk, in hopes that they may also be restored to healthy quantity someday (Buffalo NP). These few restoration areas are only the beginning of what could be a giant step forward in the recreation of this great natural biome that once covered the entire Midwest.

The confrontation of two sides—one that sees the need to industrialize and commercialize for the betterment of a town, and one that sees that nature is simply not a necessity that can be passed off—raise a very important issue in today's roaring society. Both have significant points that are necessary for the advancement and continuation of life, but a decision has to be made.

Instead of tearing down the tallgrass prairie in Patriot's Park, the Park District should, instead, find a different area in Downers Grove that has already been flattened and planted with grass in previous years. Places like these would include the fields by schools, or larger areas of meadows in the middle of town. If additional space is needed, creating a partnership with schools or organizations that have fields in place already would also work well. The prairie within Patriot's Park is surely not the only potential place for the implementation of soccer fields. The loss to the already scarce amount of the tallgrass prairie biomes, the decrease of species diversity, and the additional time and money that will have to go into controlling the water level near Patriot's Park is not worth it in the slightest amount. The tallgrass prairie needs to remain in full; the soccer fields and recreational areas can go elsewhere.

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