

The Greatest of Lakes: The Chicago Lake Plain Bioregion

The Greatest of Lakes: The Chicago Lake Plain Bioregion

Bioregional Theory and Practice (ENV 5040)
Green Mountain College

by
April Galarza

September 24, 2012

The Greatest of Lakes: The Chicago Lake Plain Bioregion

14,000 years ago the Wisconsin Glacier, the most recent of the glaciers to shape the Midwestern region, began to recede to the northeast. The resulting ice sheets swept up the soft shale and crumbled it beneath them, leaving behind the sandy glacial till that makes up this region's soil. The deposits formed moraines; some of the most prominent are the Valparaiso, an eight-mile stretch of hills to the south in Valparaiso, Indiana and the Tinley ground moraine to the north, under what is now the O'Hare Airport. In the final burst of the recession, the Lake Border moraines were formed. This six-mile feature was the foundation for several northern suburbs including Highland Park, Deerfield and Park Ridge. The glacier began to melt and pool within the banks created by the moraines. This was predecessor to the Great Lakes, the prehistoric Lake Chicago. The waters overflowed creating spillways, giving way to Lake Algonquin and eventually Lake Michigan (Hill L., 2000). This crescent shaped flatland between the moraines—the exposed floor of the ancestral Lake Chicago is my bioregion.

Using Robert Bailey's *Description of the Ecoregions of the United States* I've determined that my bioregion lies within the Humid Temperate Domain. This domain, found within the middle latitudes of 30-60 ° north has pronounced seasons. Illinois is divided between the Hot Continental and the Prairie divisions but Chicago is on the west side of southern Lake Michigan so it falls in the Hot Continental Division. Just south, and not very far south, is the Prairie division. The Hot Continental Division is largely defined by cold winters and hot summers (1995). Regional associations to Chicagoland are often weather-related as our region is subject to extremes in our temperature, precipitation and wind (Greenburg, 2002). According to the National Climatic Data Center, Cook County experienced 61 or greater violent wind events (resulting in damage) from 2001 to 2009 compared to the surrounding areas which experienced between 1-15 events (NCDC, 2009). The summers are hot and humid averaging 75 ° F, but have

lately included frequent dangerous heat spells where the temperature has been above 100° for three days running (Esposito and Thomas, 2012). The winters are very cold at an average of 26 °F (Greenburg, 2002) which when coupled with the infamous Chicago wind-chill known affectionately as the “Hawk” can be bone chilling -10°F (Neely and Heister, 1987).

Chicago falls in the Eastern Broadleaf Forest (Continental) Province. This area follows the western bank of the great lakes north to the Canadian border. Chicago is cradled in a small strip of Eastern Broadleaf forest. To the south and west is Prairie Parkland (Temperate) Province, to the east and north is Lake Michigan. The Eastern Broadleaf Forest Province is characterized by its vegetation (Bailey 1995).

According to legend the city of Chicago was called thus because of the Illinois Indian word “checagou” (also “chicagou”) which referred to the nodding wild onion, cernuum. Although this allium did grow in abundance at the time of contact (and still does) sadly it is not a good indicator species (Greenburg, 2002). Distribution of Chicago’s namesake plant is far and wide in similar environs throughout the country (USDA, 2004). Since Illinois’s state tree, white oak is prevalent throughout the Province and beyond, I choose another oak as my indicator species. The northern pin oak which prefers moist well drained soils grows in this region of Illinois, and no others. It is found in the dry upland forests among the white and bur oaks. Its distribution covers Wisconsin, Minnesota and northern Iowa (Hill E.J., 2003). South of Hammond, Indiana where the Prairie Parkland (Temperate) Province begins the vegetation shifts toward prairie intermingled with patches of deciduous trees (Bailey, 1995).

Next I narrowed in on the variations that Bailey mentions can be found within the Province such as glaciation, soil composition and biota through the eyes of John E. Schwegman,

Botany Program Manager for the Division of Natural Heritage and his colleagues at the Illinois Nature Preserves Commission who divided the state into natural divisions for the sake of creating a plan for nature preserves. The report they compiled, *Comprehensive plan for the Illinois Nature Preserves System: Part 2, the Natural Divisions of Illinois* in 1973 could have been written for modern bioregionalists (1973).

The Natural Divisions of Illinois are comprised of 14 divisions and 33 sub-regions called sections. My bioregion falls in the Northeastern Morainal Division. This division is characterized by the glacial formed moraines and the soil composition that has poor drainage and thus led to the formation of bogs. Found exclusively in this portion of Illinois, the bogs are the habitats of many distinctive plants such as pitcher plant, sundew, cranberry, leatherleaf, poison sumac, winterberry, and dwarf birch. The blue-spotted salamander is indicative of the bog ecosystem (Schwegman, 1973) and its distribution in Illinois is limited to this division (Phillips, 2011).

The sub-region has a familiar name, the Chicago Lake Plain. For the purposes of my definition, I have decided to use the Des Plaines River to the north and the Kankanksee River to the south as the borders. The Eastern “border” is the shore of Lake Michigan. Schwegman (1973) notes the unique physiographic history of the section, “Long ridges of shore -deposited sands are conspicuous topographic features...The original vegetation was mostly prairie and marsh, with scrub-oak forests on sandy ridges” (p.13).

I originally thought that the final boundaries of my bioregion were going to lie within a twenty mile radius from my home. I was thinking in terms of Gary Snyder, “that brings you back into thinking more in terms of your human scope and your human scale: what can you do in

The Greatest of Lakes: The Chicago Lake Plain Bioregion

an area that you can ride a horse or walk on, and what are the things that you rely on in that case, what resources do” and also his recollection of Thoreau concerning twenty miles being enough for a lifetime of exploration (1990). A twenty mile radius is within the scope of which it is possible to gallivant by bicycle, my chosen form of transportation. However, when measured the radius on a map, the results cut off some of my favorite features of my bioregion such as the Tinley Moraine and Blue Island, now a neighborhood but once an actual island in the prehistoric Lake Chicago. So I expanded my definition along with my range. I think to relate to this bioregion as my “life-place” I will need to travel its length and width. I will need to visit the “wilderness” of Busse Woods, (14 miles east) which I discovered in the course of my research is a prime example (one of the few remaining) of the mesic and dry-mesic upland forest in the region (Friends of Busse Woods). I will become more familiar and protective of the “commons” such as our community garden (3 miles southeast). One mile pedaled at a time I will find my relationship to the natural world, grounded in my experiences and knowledge of my place, the Chicago Lake Plain.

REFERENCES

- Bailey, R. (1995). Eastern Broadleaf Forest (Continental) Province.pdf. Retrieved September 19, 2012, from www.fs.fed.us/colormap/ecoreg1_provinces.conf?570,247
- Greenberg, J. (2002). *A Natural History of the Chicago Region*. Center Books on Chicago and Environs (Vols. 1-2, Vol. 2). Chicago 60637: The University of Chicago Press.
- Hazard Events 2001-2009 - Wind. (2011, October). National Climatic Data Center. Retrieved from <http://nationalatlas.gov/mapmaker>
- Hill, E. J. (2003). NORTHERN PIN OAK *Quercus ellipsoidalis*. USDA NRCS National Plant Data Center & the Biota of North America Program. Retrieved from http://plants.usda.gov/plantguide/pdf/pg_quel.pdf
- Hill, L. (2000). *The Chicago River: A Natural and Unnatural History* (1st ed.). Lake Claremont Press.
- Neely, D., & Heister, C. G. (Eds.). (1987). *The Natural Resources of Illinois: Introduction and Guide*. Special Publication. Champaign, IL 61820: Illinois Natural History Survey.
- Phillips, C. A. (2011). *Caudata Ambystoma laterale* -- Blue-spotted Salamander. Illinois Natural History Survey. Retrieved from http://www.inhs.illinois.edu/animals_plants/herps/species/am_lateral.html
- Plants Profile: *Allium cernuum* Roth nodding onion. (2004). *United States Department of Agriculture: National Resources Conservation Service*. Retrieved September 24, 2012, from <http://plants.usda.gov/java/profile?symbol=alce2>
- Schwegman, J. E. (1973). *Comprehensive Plan for the Illinois Nature Preserve System.pdf* (The Natural Divisions of IL No. Part 2) (p. 44). Rockford, Illinois 61103: Illinois Nature

The Greatest of Lakes: The Chicago Lake Plain Bioregion

Preserves Commission.

Snyder, D. (1990). The Place, the Region, the Commons. *The Practice of the Wild*. San Francisco: North Point Press.

Snyder, D. (1992). On Earth Geography. *The Real Work*. New Directions.

The Friends of Busse Woods. (n.d.). *The Friends of Busse Woods*. Retrieved September 24, 2012, from <http://www.bussewoods.net/>

Thomas, M., & Esposito, S. (2012). After climbing to 103 degrees, Chicago “cools down” to 86 degrees - Chicago Sun-Times. Retrieved September 25, 2012, from <http://www.suntimes.com/news/metro/13619753-418/brace-for-another-record-high-temperature-friday.html>