

Cooper Mountain Nature Park

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1 Structural

1.0.1 Abiotic

There are many structures of this habitat that allow it to function. One such structure is the larder shown in figure 1. This particular larder was built by humans, but natural larders are found throughout the area.

Figure 1: A Man Made Larder



In this instance of abiotic structure a pile of rocks is a possible home to reptilian organisms. The sign in figure 2 reads please do not disturb. Sensitive reptile research underway.

Figure 2: Reptile Rocks



1.0.2 Soils

A proper soil mixture allows plants to take place after primary and secondary succession. This ecosystem underwent primary succession long long ago, but as I write about below, secondary succession is common to this ecosystem due to fire.

Today, the plants thrive in a healthy topsoil, and their root systems help to prevent erosion.

1.1 Biotic

This nature park was home to many organisms. Figure 3 shows a key to some of the tracks that can be spotted within the park grounds. From Deer to Bears, this park is home to a variety of creatures.

Figure 3: Tracks On Sign



Unfortunately the time of day I went there wasn't much wildlife present. As such, I wasn't able to get a good photo of any animals. I did see several birds though. Also, there were several very informative signs with pictures of animals.

Figure 4: Bear on Sign



Figure 5: Squirrel on Sign



Further still, there were many plants that provide both habitat and food as primary producers within the park. Some of them can be seen in figures 6 to 11

Figure 6: Evergreen Trees



Figure 7: Deciduous Tree

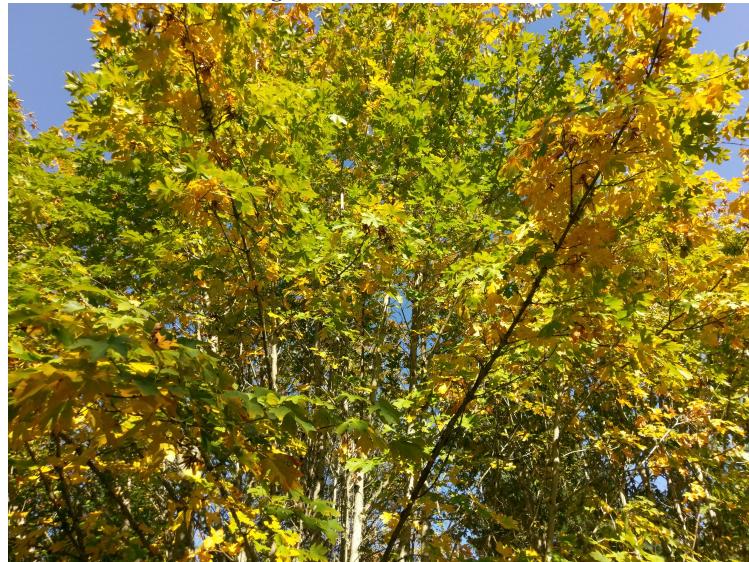


Figure 8: Fern



Figure 9: Flowering Grass



Figure 10: Grass



Figure 11: Bush with Red Berries



Still further detritivores are a big part of the parks ecosystem.

Figure 12: Fungi



Figure 13: Fungi on Wood



2 Controls

2.1 Weather

2.1.1 Temperature

Temperature clearly affects the animals and plants within the park. For example, deciduous trees lose their leaves in the winter as an adaptation to the cold. A warmer spring will cause plants to grow more quickly.

2.1.2 Precipitation

It was a bright and calm day when I visited, but all of the greenery wouldn't exist without precipitation. For that matter without the water cycle including transpiration, precipitation, and evaporation, none of this system would function.

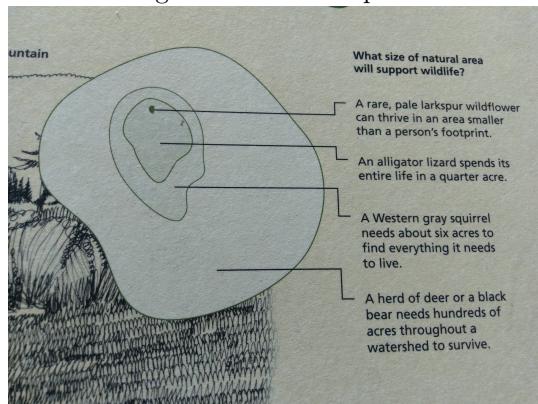
2.1.3 Wind

A lot of plants require wind to help them disperse their seeds. Beyond this, wind can help a fire to grow.

2.2 Area

The park is fairly large at 231 acres, but as shown in figure 14, 231 acres isn't exactly a large area when it comes to supporting the natural habitat of some species. This could also be considered an abiotic structural influence.

Figure 14: Area Required



2.3 Disturbances

2.3.1 Fire

Fires are a natural cyclical disturbance of this habitat. In this area a fire could be expected at least every five years. Today fires are controlled in many ways, and still used to control invasive species and help natural species to flourish. As shown in the sign below, fire is essential in maintaining this ecosystem.

Figure 15: Fire Sign



The sign in figure 15 states that the area was last burned in 2008.

Figure 16: Burnt Wood



Figure 17: Burnt Wood With Fungi



2.3.2 Invasive Species

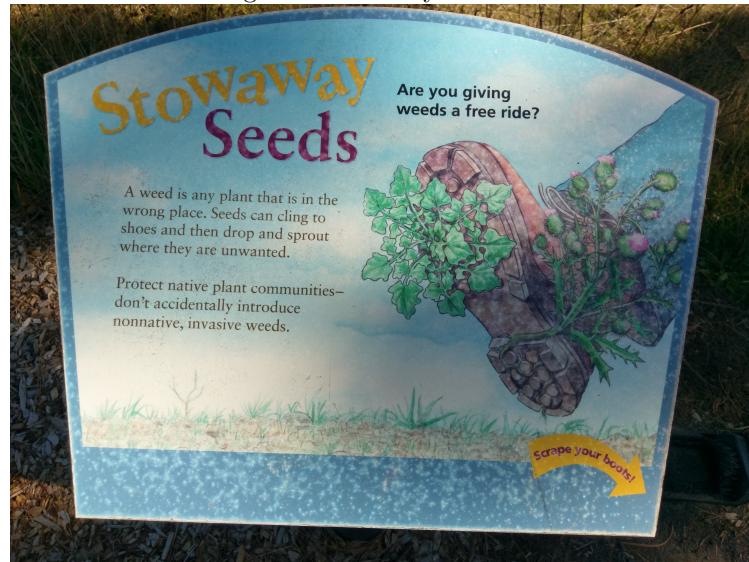
Shown in figure 18 is a dandelion found along the trail. At this stage in the park's development it seems fairly unlikely that dandelions would become a truly invasive species, but during secondary succession I'm sure the park is quite sensitive to invasive species like these.

Figure 18: Dandelions



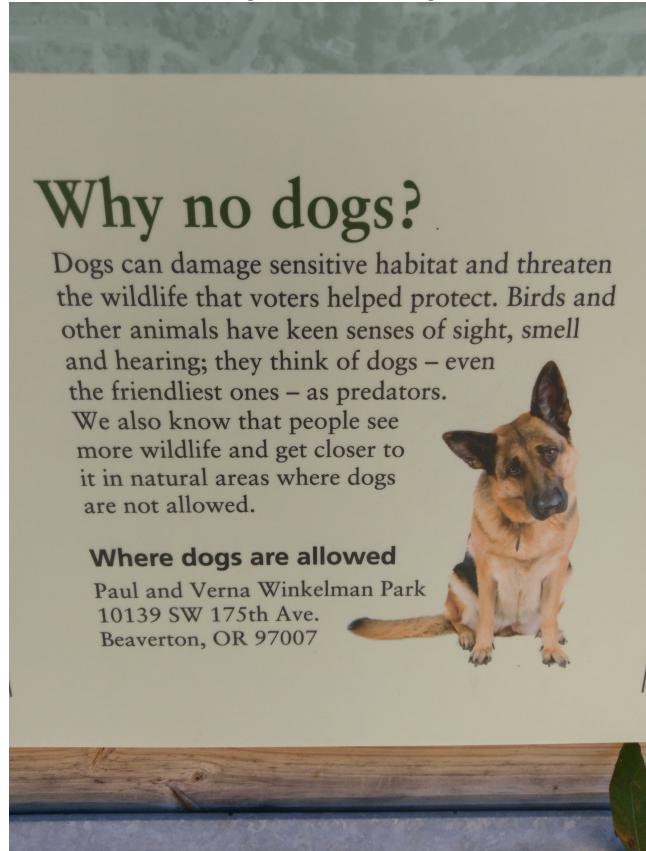
Invasive species is clearly a concern for the park's management as can be seen in figure 19.

Figure 19: Clean your Shoes!



And while not an invasive species, dogs aren't allowed in the park as much of the wildlife views them as predators. It is believed that dogs would make wildlife sparce.

Figure 20: No Dogs



3 Conclusion

I had no idea there was a park this cool less than 3 miles from my house! I'm really grateful to have learned of and about it because of this project. Beyond all of the awesome nature, it is simply a beautiful place to be.

Figure 21: Beatiful Oak Grove

