

A GUIDE TO THE OUTDOORS
at the

FORT ROBERDEAU NATURE TRAILS

Audubon Creed

Audubon is for people and a better world for people to live in.

We believe in the wisdom of God's design.

We know that soil, water, plants and wild creatures depend upon each other and are vital to human life.

We believe that persistent research into the intricate patterns of outdoor life will assure wise use of Earth's abundance.

We recognize that each living thing links to many others in the chain of nature.

We condemn no wild creature and work to assure that no living species shall be lost.

We believe that every generation should be able to experience spiritual and physical refreshment in places where primitive nature is undisturbed.

We dedicate ourselves to the task of opening the eyes of all so they may share the beauty of the outdoors.

Please Conserve: Use only one booklet per party.

This booklet is provided

by the

Juniata Valley Audubon Society

with thanks

to

Al Burd

Truth Close

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Mary Slippey

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FOLD OUT TRAIL MAP

TRAIL NAME - PARTRIDGEBERRY TRAIL
WALKING TIME- 20 - 30 minutes

The markers along the trail correspond to the numbered texts in this booklet.

Dust off your senses and explore the world of large oaks, tiny flowers, salamanders, squirrels, birds and deer.

Station 1 - The White Oak

Station 2 - The Pond

Station 3 - The Den Tree

Station 4 - Island of Light

Something about Oaks

Station 5 - Pioneer Species

Station 6 - Sounds of Life

Station 7 - The Soil Factory

Station 8 - Outdoor Classroom / State Tree

Something about Tracks

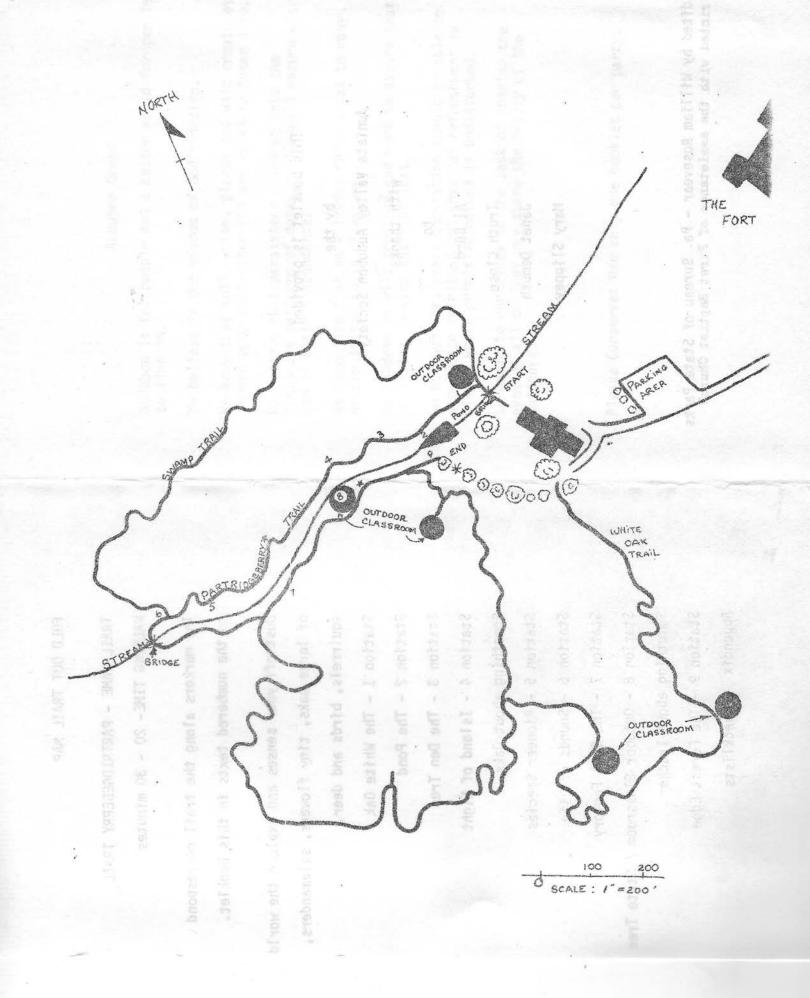
Station 9 - The Forest Edge

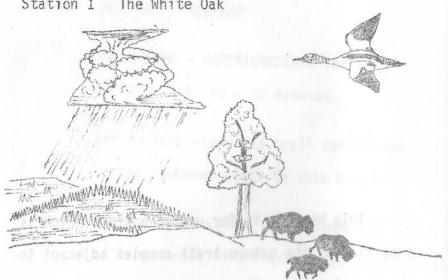
Appendix - Checklists

This booklet is for use on a trail which is a portion of the nature trail complex adjacent to the Fort Roberdeau Historical Site.

The historical and natural areas are owned and operated by the County of Blair.

Please observe the county rules and regulations which govern the usage of the area.





Ecology is the study of the interrelationships of the living and non-living components of the environment.

We hope that by walking this trail you will begin to better understand some of the components of our environment and then try to live in better harmony with it.

One of the more obvious parts of the environment here is the plant life which surrounds you. If you look to your right rear you will see a White Oak tree which has been taking and giving with the environment for over 229 years. Can you think of two things which it has given to its surroundings?

What do you give to your environment?





If plants are one part of the environment then water is another one.

One of the "rules" by which ecosystems work is that they are never still.

Here at the pond we see that it is slowly filling in with sediment. This is a natural process and is often considered harmful by man. However, many fertile valleys are there for us to use, because old beaver dams filled in with sediment and finally became lush meadows.

While you are here, sit quietly and see how many different forms of life are in and near the water Will the same kinds and amounts be found further up stream? Will the water temperature be different in the stream?





With plenty of water, air and plant life around what other requirements are needed for life?

Shelter is certainly one of the requirements which you should consider.

This Den Tree meets that requirement. Black Gum is often hollow and provides excellent quarters for raccoons, wood ducks, squirrels and opossums to name just a few. What do you think lives in this tree?

Black Gum has been used by man for many different purposes. In some places the hollow logs were used as pipelines. They were laid end to end and tar was applied to the joints.

Another use of the Black Gum was to keep Bees in. The trunk was cut into convient lengths and then holes were drilled in the sides for sticks which were inserted through the hollow section. The sticks would later support the honey comb. The whole affair was then set on end and a slab roof was placed on top and weighted down with rocks.



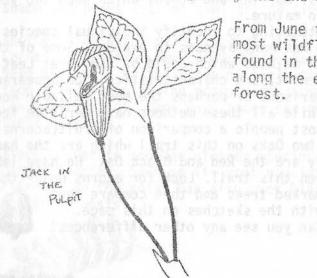
Before you leave closely examine the bark. It has a texture like the skin of an alligator. See if the bark has any critters which have made their homes there.

There is a hole in the sky near here. Can you find it? Look at how crowded the bottom of the hole is! The forest canopy (the top of the trees) blocks out a lot of the sunlight. Sunlight is another part of the environment. Because of the need for light plants "race" for the light. That is why forest trees are so tall and have few limbs low on their trunks.

However, if you look around you may see some trees and shrubs alive and growing underneath the larger trees. They are able to live under the shade of the big trees because they are "tolerant" and do not need full sunlight.

In the springtime before the leaves on the trees are very large, another race is taking place. The many and beautiful wildflowers make their appearance. They must blossom, become fertilized, make and store food and then wilt, before the light is shut off by the leaves on the trees.

While some forest flowers will be evident during thesummer, most will be gone by the end of June.



From June through October most wildflowers will be found in thefields and along the edge of the forest.

SASSAFRAS





Located along this trail and throughout the area are several species of oak trees. For the serious naturalist we have included this section.

The oaks are divided into two main groups. The first group is the "White Oak" family. Most of this family have rounded leaf lobes, and their fruit take one year to fully mature. The second family is the "Red or Black Oak" family. Most of this family has pointed leaf margins and acorns which need two years in order to mature.

In attempting to identify individual species the naturalist has many avenues to explore. Some of the more common methods which could be used are: Leaf shape and arrangement, Bark characteristics, Bud appearances, Fruit comparisons or perhaps the most reliable Wood anatomy. While all these methods have merit we feel that for most people a comparison of fruit(acorns) is best. The two Oaks on this trail which are the hardest to identify are the Red and Black Oak. We have labeled two trees on this trail. Look for acorns under the



marked trees and then compare them with the sketches on this page. Can you see any other differences?



BLACK OAK NORTHERN RED OAK

Considered by many to be a weed tree the Sassafras is an important member of the forest community. It can be identified by the aromatic twigs, as well as by its distinctive leaves. Often all three shapes can be found on the same tree.

Can you find leaves that look like these?

This tree is a "pioneer species". That means the tree is usually the first to start growing in old fields, burned over areas or where the soil has been disturbed. As soon as other trees start growing around Sassafras you can expect it to start dying. The reason is sunlight. Sassafras is not tolerant of shade and needs lots of sunlight to live.

Another tree which needs lots of light is the Black Locust. There are some growing near here. Two of them have big scars on the sides of their trunks. Can you find them. We think the scars were caused by lightening. Can you think of other ways trees can get scars on their bark?

Black Locust is another pioneer species, but it is rather special, because its root nodules help add Nitrogen to the soil. Man also uses Black Locust for fence posts.

BLACK LOCUST

Here at the trail junction you may rest a bit and let the sounds of the forest seep into your pores.

Shut your eyes and listen to the wind sigh in the branches of the Black Birch trees.

Can you hear the sound of the water in the stream as it gurgles and tumbles its way through the valley and on to the Atlantic Ocean.

As you listen you may hear the sounds of some of the birds and insects which visit the area.

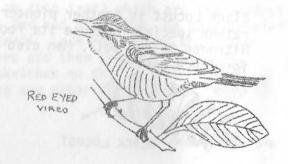
Many of the birds which are listed in the back of this booklet are rarely seen, but we know they are here. Each species of bird has its own special sounds and are often more distinctive than their colors and shapes.

Of all the sounds which you can hear which are the most persistent?

Can you separate the random sounds of nature from the intentional sounds of communication.

How many sounds can you count in two minutes?

How many sounds did you hear that were manmade?



Here in the trail area we have found that the soils are very thin and that the bedrock is close to the surface of the ground. The nature of the soil ranges from a silty clay loam to

BRACKET a gravelly loam. Because of this the

water table is close to the surface of the ground. In order to survive the trees in this area often have shallow, wide spreading root systems. Here we see the effect of a shallow root system. However the death of a tree is not the end of growth. The wood of this tree is being recycled back into the soil. In the process the fallen tree is food and shelter for many forms of life. Some of the workers at this "soil factory" are: Fungi, Lichens, Mosses, Ferns, Bacteria, Rain, Frost, and Wind.

Station 8 Outdoor Classroom / State Tree

Stop and rest a moment beneath the State Tree of Pennsylvania. It is the evergreen at the back of the clearing. The tree is not poisonous but because of its name- The Eastern Hemlock- many people mistake it for the small herbaceous Poison Hemlock.

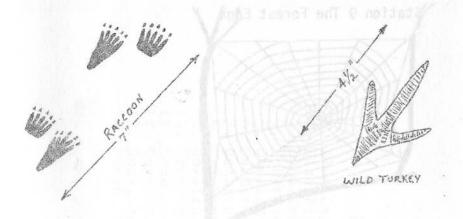
There are many ways in which this tree is affecting its surroundings. Can you find one? If you look carefully you will find a hemlock branch which is rubbing against the bark of a nearby Cucumber



If the bark of the Cucumber Tree is like our skin then what will happen to the bare spot on the tree?

While you are looking at the Cucumber Tree see if you can find the seeds of the tree. They are green during the summer and are in a fruit which looks like young cucumbers. If you find one, break it open and smell the pleasant aroma from this very interesting tree.

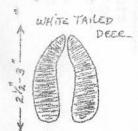
As you leave this station you will find a trail branching off to the right. This trail is part of the White Oak Trail and leads you past some of the giant trees which are found in the nature area.



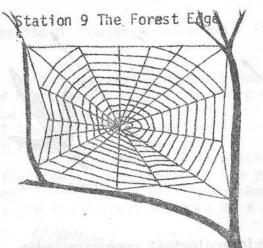
A member of this ecological community which we have not mentioned yet is the animals which live here. They toohave their role to play in keeping the environment in balance.

Each animal whose tracks, are shown here helps the environment. For example- The squirrel o he digs them up for always misses some. On the winter. Then buries acorns for during the winter food. But he The ones he miss and may become food for the rabbit or the deer. If the little oak trees survive and grow they may provide a roost for the turkey or the raccoon, or hiding place

Look for the tracks of these animals near the water, along theedge of the woods or bare spots in the grass.







This is the final station and your affairs draw upon you. Before you go pause a moment and examine the area around you. It is rich in plants and animals. Any area where ecosystems meet is rich in the essence of life. We hope that you are a little richer in the knowledge of life and We hope that as you leave this place you will take that knowledge and share it with others. We are all part of the Web of Life. We cannot live without it. It is strong yet fragile, help take care of it.