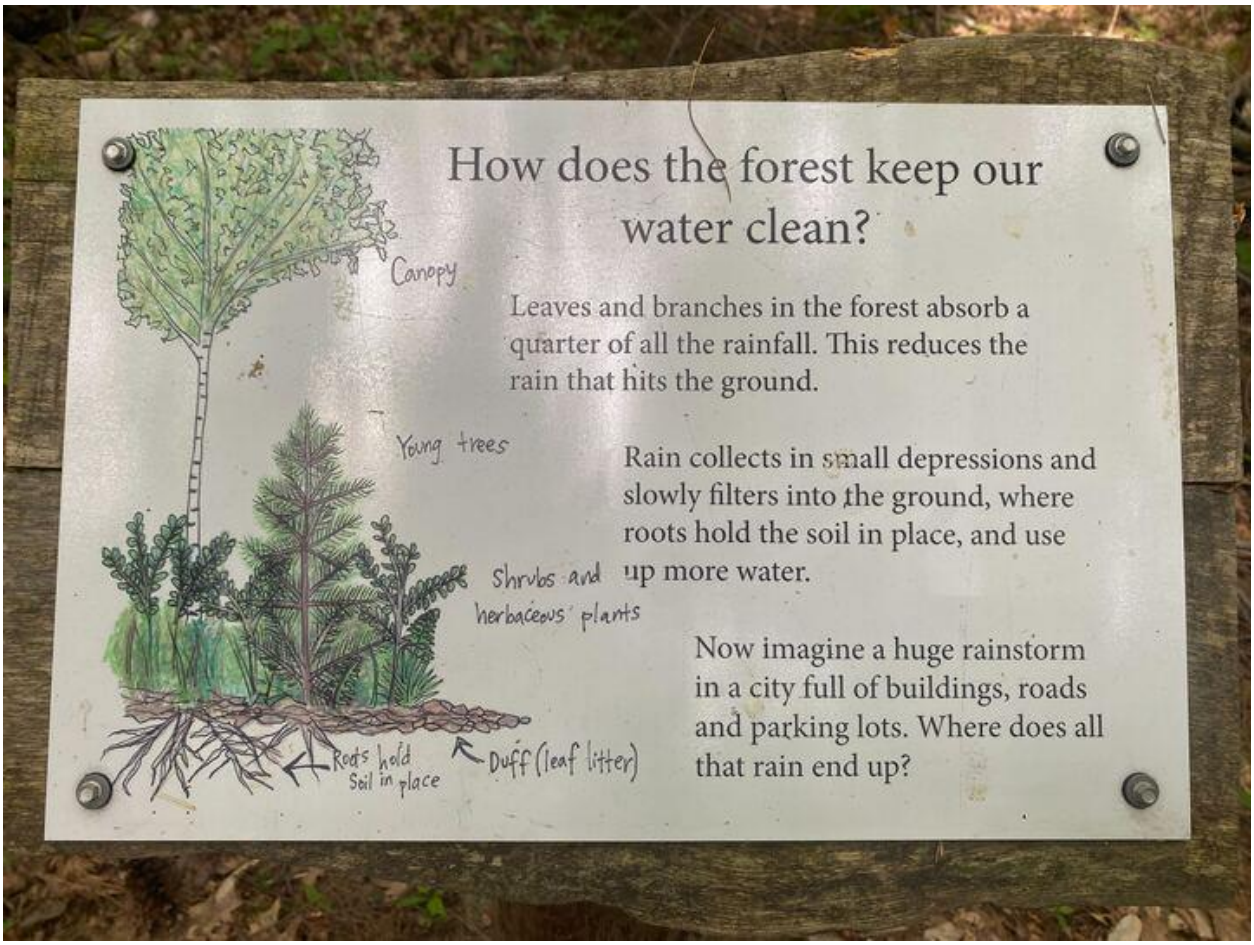
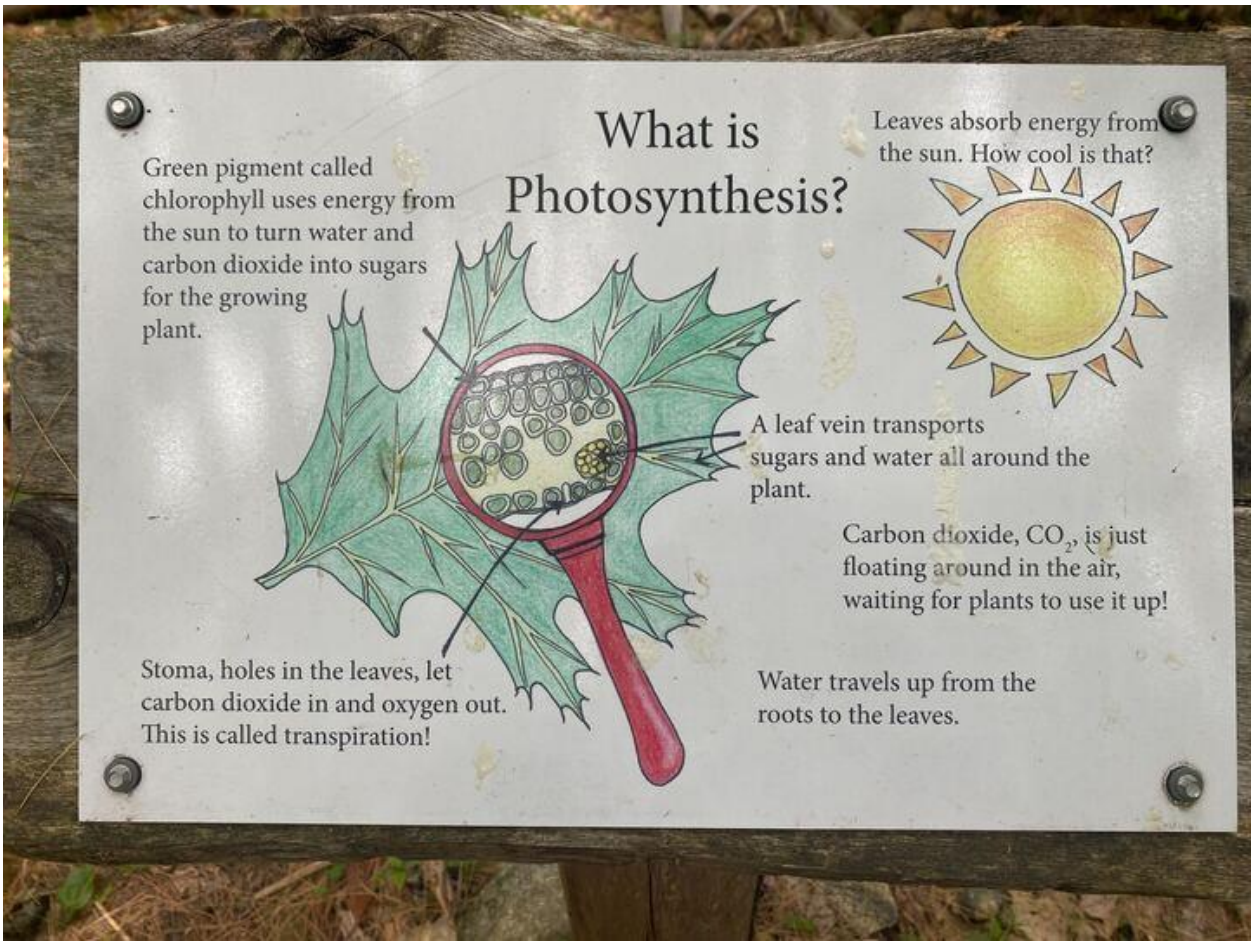

American Beech
Fagus grandifolia
Typically, the bark of the American beech is smooth and gray, but most of our beech trees are infected by a fungus spread by a sap-feeding scale insect, which causes the bark to be blistered.
Beech nuts are an important food source for Maine wildlife such as turkeys, bear, deer, grouse, rodents and fox.
Young beech leaves tend to be marcescent– they hold on to their leaves in the fall– so you might see the papery tan leaves clinging to the branches all winter.


How does the forest keep our water clean?
Canopy
Leaves and branches in the forest absorb a quarter of all the rainfall. This reduces the rain that hits the ground.
Young trees
Rain collects in small depressions and slowly filters into the ground, where roots hold the soil in place, and use up more water.
Shrubs and herbaceous plants
Now imagine a huge rainstorm in a city full of buildings, roads and parking lots. Where does all that rain end up?
Roots hold Soil in place
Duff (leaf litter)

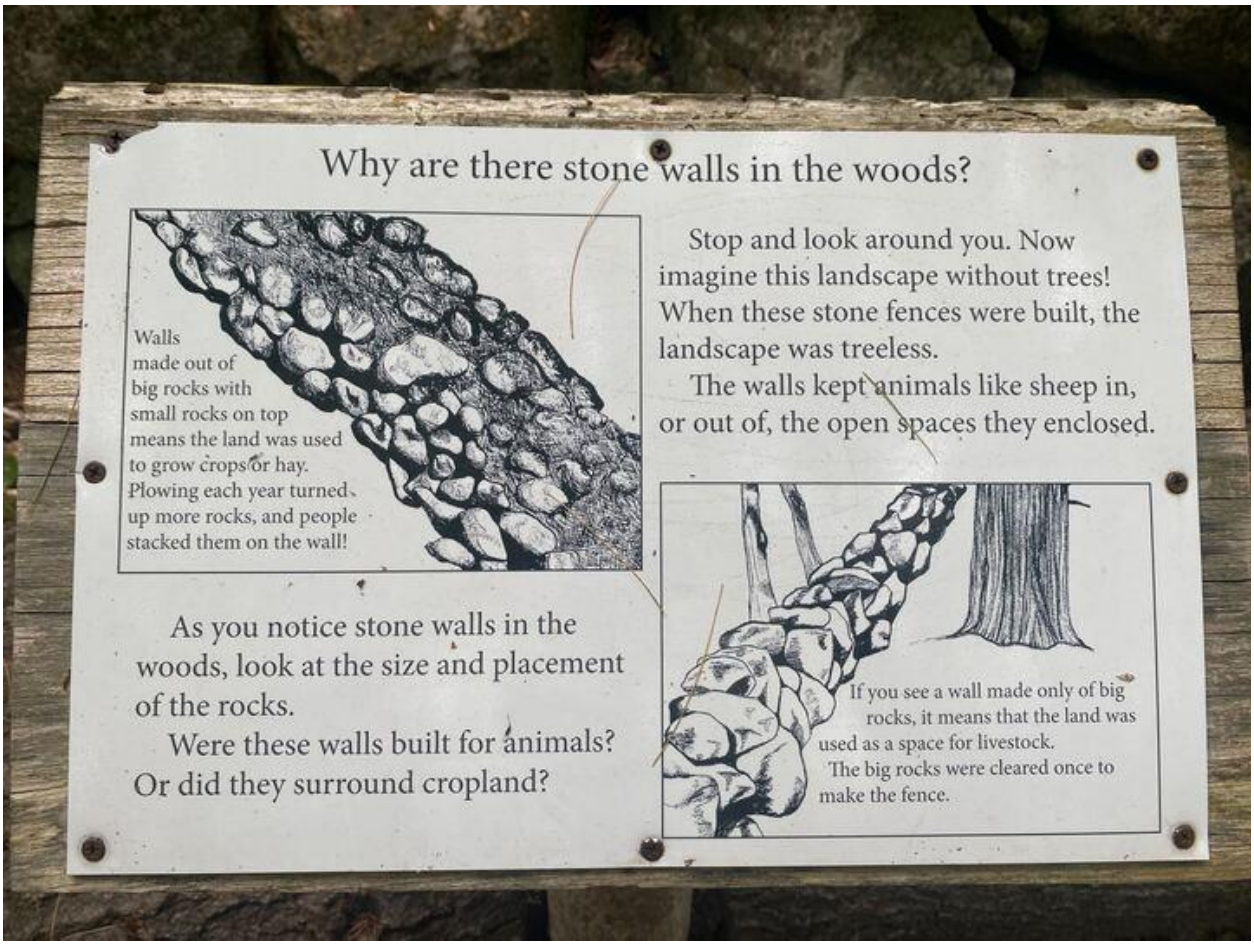

Hemlock
Tsuga canadensis
Eastern Hemlock cone
One of Maine's widespread conifers, the hemlock is long lived and grows in shaded, moist areas.
It was used extensively by indigenous people to treat a variety of ailments, including arthritis and colds, and more recently was used as tannin in leather production.
Hemlock provides excellent winter cover for grouse, deer, and snowshoe hare and is an important winter food source for deer, porcupine, and rodents. They also provide breeding habitat for birds, such as the wood thrush, dark-eyed junco, and chickadee.


Mmmm... Pass the mast please!
We all know that seeds from trees make more… trees! But, did you know they are also an important food source for our forest friends? Check this out!
Seeds, nuts and berries in the forest are known as "mast". All sorts of wildlife like mice, squirrels, chipmunks, deer, turkeys and other birds rely on mast to survive.
What kinds of "mast" do you like to eat?
White ash samara
White pine cone
Red oak acorn
Eastern hemlock cone
Red maple samara
American beech nut


What is Photosynthesis?
Green pigment called chlorophyll uses energy from the sun to turn water and carbon dioxide into sugars for the growing plant.
Leaves absorb energy from the sun. How cool is that?
A leaf vein transports sugars and water all around the plant.
Carbon dioxide, CO_2, is just floating around in the air, waiting for plants to use it up!
Stoma, holes in the leaves, let carbon dioxide in and oxygen out. This is called transpiration!
Water travels up from the roots to the leaves.


Red Maple Acer rubrum
Also known as swamp maple, this tree does not mind "wet feet" and is found throughout Maine in and around wetlands.
The red maple is one of the first trees to flower in the spring. You'll see the small, bright-red flowers fill the tips of the branches before the leaves appear, which aid in wind pollination.
The leaves are light green with a white underside, opposite, and turn scarlet in the fall. Peek at the leaf stem (petiole) to see the red!


Red Oak
Quercus rubrum
Northern red oak is a valuable hardwood tree used for flooring, furniture and previously in ship building. The bark has vertical, smooth strips separated by deep furrows that are often reddish.
Oak is an excellent shade tree with a beautiful shape and can often be found lining town main streets. In the forest it is an important habitat and food tree for birds, deer, squirrels and other animals.
It is shade tolerant, grows in the understory as a late succession tree, and prefers well drained, rich and loamy soils in the forest.
Red Oak acorn


Why are there stone walls in the woods?
Walls made out of big rocks with small rocks on top means the land was used to grow crops or hay. Plowing each year turned up more rocks, and people stacked them on the wall!
Stop and look around you. Now imagine this landscape without trees! When these stone fences were built, the landscape was treeless.
The walls kept animals like sheep in, or out of, the open spaces they enclosed.
If you see a wall made only of big rocks, it means that the land was used as a space for livestock. The big rocks were cleared once to make the fence.
As you notice stone walls in the woods, look at the size and placement of the rocks.
Were these walls built for animals? Or did they surround cropland?


BLACK BEAR
MINK
OTTER
DEER


White Ash
Fraxinus americana
White ash samara
White Ash
One of the Maine tree species with compound leaves, ash is a durable and strong wood used for baseball bats, tool handles and oars.
Ash is threatened by the emerald ash borer, a dime-sized metallic green beetle from Asia, capable of killing trees within several years of infestation from larvae boring under the bark.
The ash bark is corky feeling and has regular furrows or "ski trails". Ash seeds are wind-distributed and have a small "sail" to be carried away from the mother plant and can be seen waving in the wind in the spring.


White Pine
Pinus strobus
The white pine is our Maine state tree, and the pine cone and tassel is our state flower! Starting in the 1750's, any large, straight pines within 10 miles of a navigable waterway in New England were marked with the sign of a broad arrow, destined for ship masts for King George's navy.
Today, white pine is used for millwork, construction, trim and pulp and is an important marketable tree for the Maine timber industry.
There are several pine tree species in Maine and the needle clusters can help us determine a species: white pine has a cluster of five needles, while red pine has two, and pitch pine has three.