

Remember, Everything's Connected

Only a few of the relationships found along the trail were discussed in this brochure. Since everything's connected, many more relationships are present. How many more can you find? Here are some others you can search for:



Dead Trees: Good?

Dead trees, called snags, can often provide for more life than living trees. This is because many types of insects live inside dead trees providing a valuable food source for animals such as woodpeckers and bears. As dead trees decompose,

they release their nutrients back into the soil for use by future generations of plants and trees, thus completing the circle.

Killing Trees Softly

The tiny tufts of "cotton" you see on the underside of hemlock leaves are actually the egg sacs of the hemlock woolly adelgid. These parasites suck the phloem ("food") out of the tree, slowly killing it. In an attempt to save the hemlocks, the US Forest Service and other agencies are treating hemlock roots with an insecticide that kills the adelgids. As you finish the trail, take time to visit the grove of treated hemlocks near the trailhead.



People and Nature

People have a relationship with nature. The next time you go to the market to buy an apple, remember that the apple was once a flower that was pollinated by insects. Your home, constructed of wood, rock or brick, came from items harvested from nature. As you finish your hike, take the time to slow down and experience your natural world; and remember, everything in nature is connected... even you!



TRACK and **KIP**
want You to become a
Trail **TRACKer**

Thank you for joining us on the trail today.

We want you to join the Trail **TRACKer** Team. It's fun, healthy and free.

Best of all, by keeping TRACK of your trails on our website, you can earn prizes. For more information about the Trail TRACKer Team, or TRACK Trail adventures near you, or for general information about the Kids in Parks program, please visit our website at:

Kids in Parks program, please visit our website at:

www.kidsinparks.com

The TRACK Trail program is part of the larger **Kids in Parks** initiative sponsored by the Blue Ridge Parkway Foundation, the Blue Ridge Parkway and the Blue Cross and Blue Shield of North Carolina Foundation. Working together with Pisgah National Forest, the Appalachian Regional Commission, the National Park Foundation and other partners throughout the community, our mission is to increase physical activity of children and their families, improve nutritional choices and get kids outdoors.

Kids in Parks...

for the Health of our Kids, our Communities and our Mountains.



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PISGAH NATIONAL FOREST'S

Nature's Relationships: Everything's connected

"When we try to pick out anything by itself, we find it hitched to everything else in the universe."

-John Muir



Discover how
everything
in nature is
connected

Although this brochure will not guide you to specific locations, it will tell you a story to help you discover some of the relationships found along the trail. Use the pictures and text to try to locate as many of these relationships as you can. Have fun, and see how many different relationships you can find.

Guiding Pollinators

Many flowers depend on relationships with pollinators to reproduce. A flower's size, shape, color and smell attracts unique pollinators. Some flowers, such as the flowers of rhododendrons, have nectar guides that are visible to insects through ultra violet light. These guides act as road signs, directing pollinators to the flower's sweet nectar.



How many pollinators can you find?



How many types of flowers can you find?



Smell a wildflower.

Making Connections

We are an intricate part of nature's relationships. Our actions affect everything, from the bees that pollinate our flowers and food to the soil we walk on as we hike through the forest. During your hike today, take your time, stop to smell a flower and...



Feel the sun beaming through the trees.



Can you spot trees with storm damage?

Open... Canopy!

During strong wind storms or cold winter ice storms, treetops often crash down to the forest floor, opening holes in the canopy. These holes allow more sunlight to reach plants on the ground (understory plants) such as rhododendrons and wildflowers. For some plants, the change is good, for others it can spell their doom.



Can you find a vista of the forest?

A Healthy Home

Mountain forests are home to a variety of plants that require different amounts of nutrients, water and sunlight. Each plant finds its preferred home among the slopes, valleys, peaks and streambanks. Sometimes though, even the perfect forest home can be suddenly changed by the weather.



Can you find any mycelium?



Can you find a spider on its web?

Caught in the Web of Life

On their daily journeys to find food, many flying insects get caught in the web of life - the spider's web that is. A spider's web is not its home, but a trap for its food. Like snowflakes, each web a spider makes is different.



Can you spot a bird's nest in a tree?

Chuck Summers

Connecting Nature's Building Materials

Not only do many bird species eat spiders, some depend on their webs to build their homes. Many species of hummingbird construct their nests by connecting spider webs and lichens. They use the sticky spider webs to weave materials together and to anchor their nests to the tree's branch. Spotting a hummingbird's nest in a tree is tricky since they're about the size of a golf ball.



Find a lichen growing on a stick or rock?

Get Connected

I Lichen You!

Some fungi and algae "lichen" each other and help each other survive. In this relationship, the fungus protects the algae from adverse conditions, and in exchange, the algae provides the fungus with food. This is an example of mutual symbiosis (when two different organisms help each other survive).



How many types of mushrooms can you find?



Can you find a "Turkey Tail" fungi?

Fungi Feed Forests

Fungi help break down and decompose everything in the forest, from dead trees and fallen logs to leaf litter. After decomposing fallen logs and leaf litter, fungi feed the forest. Fungi have large, underground networks of "roots" called mycelium that attach themselves to the roots of plants and trees, helping to deliver valuable nutrients to the forest.