

From Second Nature, October 2009

## The Shape of Things that Fall

Autumn in New England beckons all, even the least observant of us, to witness the changing of the season as it is reflected in our trees. Besides being bathed in the beauty of the reds and oranges and yellows that paint our world right now, it is also the perfect time to get to know the names of trees in your yard or along your favorite trail. As the leaves change color and drop to the ground they provide us with two very accessible characteristics for identifying the tree that they come from: their shape and their autumn color.

When sitting under a large tree, with its canopy far beyond our reach, it can be hard to determine the shape of its leaves. But if the leaves of the tree that you are sitting under are floating down around you in a rainbow of fiery colors, your job just got easier. Hop up and try to catch them as they fall ... it is not as easy as it sounds! You will likely find yourself running to and fro, no longer an observer of only one tree. This is a good thing, because now you will have a fine collection of leaves from many different trees, and you can begin sorting and identifying them. If the leaves in your collection have fallen off trees then they are not from *evergreen trees*: pine, hemlock, balsam or spruce, which hold onto their leaves all year round. Instead they are from *deciduous trees*: maple, oak, beech, birch, cherry, ash or aspen – trees that lose their leaves every fall. Because nature isn't simple, there are numerous different kinds of maples and oaks and every other kind of tree. Maple refers to the genus of the tree, and sugar maple is the species within that genus. Other species of maple in our area include: striped maple, red maple, silver maple, and Norway maple, to name a few. Let's look at the difference between two common native maples in our area: the red maple and the sugar maple:

{diagrams of sugar and red maple leaves}

Notice that while the sugar maple has five lobes and a graceful u-shaped edge, the red maple has only three lobes and the edge is more jagged. What color differences do you notice between your red maple leaf and your sugar maple leaf?

We have fewer types of oak trees in our area: primarily red oak and white oak, with red oak being the more common on the west side of the Connecticut River. What differences do you notice between the shapes of these two leaves?

{diagrams of red and white oak leaves}

If the oak leaves you are catching are yellowish brown or orange they are from a white oak. If they are red, they could be from either a white or a red oak tree. You will need to check the shape of the leaf in order to make a definitive identification.

Birch trees that you may find along your trail in our area include: yellow birch, black birch, paper birch and gray birch. Their leaves are all of similar shape and each add a touch of yellow to our New England autumn landscape. The brightest golden yellow splash that you see is likely coming from the nearly rounded, very finely toothed edge of the quaking aspen leaf.

{diagram of quaking aspen leaf}

These tips will get you started on your autumn treasure hunt of golden hues and varied shapes. And next spring you will be able to welcome back these deciduous trees that you now know by name, as old and familiar friends greet each other after a long time apart.