

Nature Around Us

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Shades of Autumn

Ah, fall. What's not to like? The meadow grasses along the Maurice and Cohansey rivers have turned golden and the trees along the banks are awash with colorful foliage. Northern harriers (marsh hawks) teeter across the marsh surface—flap, flap, and glide—looking for rodent-sized meals. Breezy days move patches of clouds above the darkening treeline while bright rays of sunlight peek through the cloud cover, producing a beam of light that rapidly pans the landscape like a stage spotlight. Each year I look forward to these light shows. As fall storms produce skies of ominous beauty. I envision a famed orchestra leader waving his baton across the tree line controlling the rays of light, a *Fantasia* moment of sorts. Occasionally, I'm unabashed by my excitement about nature's special effects, reveling in them like a child at a fireworks show.

Autumn only enhances the overall effect with blasts of color. In the morning when the air is still, the trees reflect onto the water's surface, producing a double image for a second punch of brilliance. The sweetgums are the first to change to shades of maroon, red, and sometimes yellow. The swamp maples often turn a brilliant orange. Tulip poplars bring on yellows.

Photosynthesis, using sunlight to turn carbon dioxide and water into energy, sugars, or essential food, takes place in the spring. The leaves take on a green pigment called chlorophyll, providing nourishment to the tree and generating oxygen for all living things to breathe. In the fall when daylight diminishes, the tree returns these sugars into the trunk. This carries the tree through its winter dormancy. The leaves have pigments besides green chlorophyll: There are carotenoids that are yellow, orange and brown, and anthocyanin, which yield reds and purples. When the chlorophyll returns to the tree's trunk the other pigments are unmasked.

There is plenty of lore surrounding the annual cycle of trees. Native American stories speak of three great hunters and a dog chasing a bear that leads them from horizon to horizon and finally into the heavens. The hunters eventually slay the bear and its blood drips to earth, changing the color of the leaves. Today stargazers can still see the constellation that inspired this story, the Big Dipper. The four stars of the handle are the hunters and hound, and the bowl is the bear. There are many versions of this legend, all which involve the ladle producing the fall palette that we have come to enjoy.

In 2014 the Associated Press reported, "Officials say tourists spend upward of \$3 billion to catch a glimpse" of fall colors in six New England states and "the windfall is steadily rising." Besides raking in the dollars, there will be plenty of raking to be done when the leaves eventually turn brown and fall to the ground. Rather than dreading the great piles of leaves in your future, we have some great news for the gardeners. Leaves are the best mulch you can find! So don't put them to the curb; instead use them on your native plants. They will help to keep important insects available in your garden for wildlife. Bees, moths, butterflies, and other pollinators will be grateful that you did. The leaves also insulate your plant's roots during the winter and help to keep weeds in check. For more on the topic about the importance of leaves,

naturalist Pat Sutton suggests you check out xerces.org/2017/10/06/leave-the-leaves/. And for more about wildlife-friendly gardening we suggest you join Pat's Gardening Gang at patsuttonwildlifegarden.com/category/native-plants/.

You need not go to New England to see the splendor of autumn. If you would like to join CU members on a fall cruise, call our office at 856-300-5331 or visit CUMauriceRiver.org. You can also check out the Bayshore Center in Bivalve's sail schedule at bayshorecenter.org/sailing-schedule/.