



Meadows



Creating Diversity

In the spring of 2002, Prince William Forest Park began a program called "Meadows". Its purpose: To increase nature's diversity within this National Park. If you want to see birds, butterflies, insects and flowering plants, meadows are among the park's richest areas. The majority of the land within Prince William Forest Park is Piedmont Forest consisting of mixed hardwoods. Picnic areas, parking lots, roads and mowed lawns occupy most of the remaining land. But here and there along the fringes, meadows have created swaths of deep grass and wildflowers. These areas have been purposely left to grow on their own to provide an environment that is neither lawn nor forest.

The meadows are small and scattered, representing a fraction of the park's 15,000+ acres. They provide added habitat for plants and animals within the park. In the Washington D.C./ Metropolitan area abundant rainfall encourages the growth of trees. If left entirely alone, the meadows would revert to woodland. So once each spring, mowers cut down the dead stalks and woody sprouts.

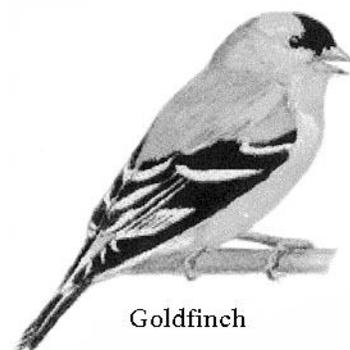
Aside from that degree of management, the meadows are natural areas, demonstrating a succession of growth in interesting ways. Naturalists have identified more than 400 species of sun- loving plants in meadows. Tall grasses have gained a foothold. Birds gain a place to nest and perch. Butterflies, additional support for their life cycle. Meadow flowers and grasses attract pollinators, insects, in turn, feed the small mammals scurrying through the weeds.

Winter

The dry stalks of native Purpletop Grass stand three to five feet tall with seeds borne on stiff stems. Among the mammals the Short- Tailed Shrew, keeps up its quick pace day and night foraging for insects. Though it measures four to five inches from the end of its whiskered nose to its tail, it weighs less than half an ounce.

Fair prey if not well hidden, the Pearl Crescent Butterfly hibernates in larval form on the ground in winter. The Goldfinch, a yellow- green bird with two white bars on its black wings, keeps a sharp eye out for seeds and larvae. In February it begins to molt and the male's bright yellow summer plumage

comes in, along with his low- slung black cap. Dangling from a twig is the tear- shaped egg sac of the black and yellow garden spider, packed with hundreds of eggs. During the late winter thaw, the eggs begin to hatch and a small spider can be seen slowly pulling itself up its silken dragline.



Goldfinch

Spring



Garden Spider

Spring is noisy with life. Leaves unfurl and newborn creatures take their first breaths. Seed cases swell and sprout; caterpillars begin chewing again. The main color is green- all shades of green.

Cool season plants start growing and flowering early, but Purpletop Grass needs a minimum temperature of 60- 65 degrees F. for its roots to spread. The shrews are building their breeding nests of dry leaves and grass. During mating and for the 17- 21 days of gestation, mother and father shrew share quarters. When the young are born an inch long, pink and hairless- the male is driven out. But after a month, the young are weaned and pushed from the nest as the mother briskly prepares for her next litter.

Tiny black and yellow garden spiders shed their skins just before coming out of the egg sac. They move up plant stalks, face into the wind, and lift

their abdomens. Air currents pull silk thread from their bodies and soon the spiders launch themselves on their silky kites to travel a few feet or even miles. Hundreds hatch but most are eaten before they are grown.

The black caterpillar with yellow dots and strips and eight rows of spines pulls itself up an aster plant and starts munching voraciously. It is a Pearl Crescent and soon after it stuffs itself, it will spin some silk to suspend itself, head down, inside its chrysalis. Two weeks later at the end of April, the first adult butterfly breaks out of its cage. Its wings are less than an inch and a half wide, patterned in orange and black. A small silver crescent shows on the underside of its hind wing. Meantime the Goldfinches have been chasing each other and singing. "Perchicoree" is one of the male's courting songs, but breeding and nesting will come later in summer. All the birds are signaling their presence in the meadow with singing.

Summer



Pearl Crescent Butterfly

The warm- season plants grow tall, Goldenrod and Aster as much as four to five feet. Purpletop Grass turns up everywhere that has not been mowed. Colors are bright in the meadows. A bundle of energy, the Short- Tailed Shrew may eat three times its weight per day, finding plenty of insects, snails, beetles, and even small frogs and birds. Their slate-colored fur and tiny eyes are seldom seen because it darts along runways under the leaf litter.

At the center of her two- foot circular web, the female black and yellow garden spider has placed her zigzag signature. She spins her web in early evening in about an hour; the spokes are smooth but the sticky spiral threads can trap an insect flying by. A host of butterflies sip nectar from the meadow flowers, floating from Aster to Milkweed to Clover. The resting Pearl Crescent Butterfly holds its wings out and slowly fans them up and down.

Fall

Preparing for winter is the theme of the season, whether by storing food, growing winter coats, laying eggs, or dispersing seeds. The wear and tear of summer's work can be seen in missing feathers, tattered butterfly wings, chewed leaves, or insects short a leg or two. Purpletop Grass starts its dormant time, though the seeds persist on the stalks. Some flowers are still blooming in October: Asters, Goldenrod and Sweet Everlasting.

Owls hunt shrews, which give out high- pitched squeaks if captured. The male garden spider comes to mate with the female on her web, a signal for her to build her egg sac. She spins it of brown and yellow silk, then lays hundreds of eggs in the middle. Mission complete, the adult spider's life comes to an end.

Selecting an Aster leaf, the female Pearl Crescent Butterfly lays her pale eggs. In a week or two, tiny

caterpillars hatch to do what they are born to do, eat. This brood, grandchildren of the spring butterflies, will hibernate on the ground until spring. The adults generally die after mating. The stay- at-home Goldfinches look alike again after their fall molt. The nest is empty for now only to begin again next season.



Aster