Wild Guide
to The Last Green Valley

NATIONAL HERITAGE CORRIDOR

THE last green valley™

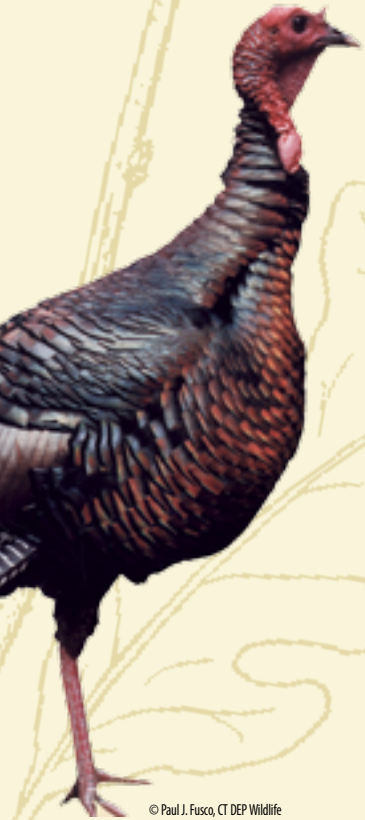
Welcome to the Wild Guide

Welcome to the ***Wild Guide***. The Last Green Valley, a National Heritage Corridor, is blessed with a rich diversity of natural areas that are well worth exploring. The ***Wild Guide*** was written to provide basic information about a few plants and animals that may be encountered during hikes along trails in the region, and about others you might prefer not to meet! Please keep in mind that many animal species are nocturnal - active at night - so while the animal itself might not be observable, watch closely for other signs, such as paw prints or homes.

When visiting a location, more extensive descriptions of the specific plants and animals may be available. Specific visitor's guides and species lists may be available at nature centers and trailheads. We strongly encourage the use of these excellent materials as a supplement to the ***Wild Guide***. And of course, books such as the Peterson Field Guides are available at local bookstores and libraries to gain additional information about the plant or animal of interest.

We offer these suggestions for your ***Wild Guide*** exploration:

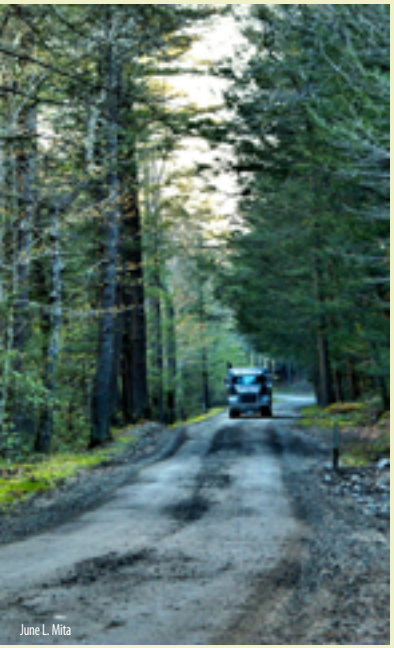
- Tell a responsible person the destination and estimated time of return for all trips.
- If you become lost – stay put and wait to be found.
- Wear footwear that provides proper support for hiking.
- Dress in clothing that protects against deer ticks, other insects and the weather.
- Include rain gear in your daypack.
- Carry water and supplemental snacks.
- Pack out your trash.
- Locate and use a trail map for the area.
- When walking or hiking to view wildlife, move slowly, calmly and quietly.
- Do not pick plants for specimens. Identify plants in their natural locations. Take time to draw or write about what you see. **Remember to take only pictures, leave only footprints.**
- **Caution should be used during hunting season and some areas should be avoided.**



Habitats


Chris Clazur

There is a critical interdependency between forests, plants and animals. Trees supply nuts and seeds for animals like turkeys, squirrels, deer and many bird species. In return, the nuts and seeds transported by the animal, or buried for later retrieval, sprout to become seedlings that regenerate the forest. Salamanders, frogs, chipmunks and mice thrive on the forest floor. In turn, they become prey to larger predators. Dead trees that remain standing as "snags" and downed logs provide cavity "homes" and food for many wildlife species. Important tree species described in the *Wild Guide* include the hardwood forest species of white oak and sugar maples and evergreen trees like the eastern white pine. *Some locations to visit include: any of the Connecticut or Massachusetts State Forests, Lester B. Williams Memorial Forest, Albert E. Moss Forest.*


June L. Mita

All plants and animals require special homes or habitats to survive. Habitats provide food, water, shelter and space so that a species can eat, rest and reproduce. Each species has special features to allow it to maximize use of its habitat. In the *Wild Guide*, the habitats have been categorized in terms of physical features so that beginning reference points can be identified. Not solely one or the other, habitats are mixtures and transitions from one type of environment to another. Sub-habitats exist within larger areas, thus providing homes for a wide array of species.

Forestlands

At one time, forestlands that now dominate The Last Green Valley were cleared as the early settlers moved to the area. With changing land use, forests reestablished themselves and now provide food and shelter for wildlife and plant species.

Wetlands

The State of Connecticut and Commonwealth of Massachusetts define inland wetlands as land consisting of any soil type that is poorly drained. These areas include bogs, freshwater marshes, vernal pools, swamps, lakes, ponds, rivers and streams. Each area has variations in features due to soil type, topography, climate, hydrology, water chemistry, vegetation, and other factors.


Alan Dabrowski

Wetlands support many species and have great ecological benefits. They provide an abundance of food, water and shelter for a large diversity of species including plants, insects, reptiles, birds, fish and mammals. Many of the species described in the *Wild Guide* require wetlands for survival.

Habitats continued on next page

Bogs are highly unique wetland areas that require special understanding. Organic materials in bogs decompose slowly and that rate of decomposition causes the formation of mats called peat. Peat mats in bogs support a variety of plants, some very rare, that are adapted to the lack of oxygen, water temperatures and acidic conditions in the habitat. Bogs do not often support large varieties of wildlife and tend to be located in remote, isolated areas. Deer, beaver, otter, raccoons, bats and other animals are driven to bogs for water and other needs as development increases in surrounding areas and reduces the available habitat for these mammals. *Some locations to visit include: Pachaug State Forest (Heron Bog, Griswold).*

Freshwater **marshes** are wet areas with a distinct lack of trees in which the water levels rise in the rainy season and drop or disappear during dry periods. Dominated by floating leaf plants such as lilies and other aquatic plants, a marsh is most often formed in depressions along the fringes of lakes or slow-flowing streams and rivers. Big brown bats, eastern cottontails, painted turtles, spring peepers, red-winged blackbirds and other wildlife all depend on marshes for food, water and shelter. *Some locations to visit include: James L. Goodwin Forest, Pachaug State Forest.*


James Stahr

Vernal pools are small, isolated, contained basins that hold water on a temporary basis, most commonly during the winter and spring. They have no above ground outlet for water and are extremely important to the life cycle of many amphibians (such as the spotted salamander), as they are too shallow to support fish, a major predator of amphibian larvae. *Some locations to visit include: James L. Goodwin Forest, Rock Spring Wildlife Refuge.*

Swamps are shrubby or forested wetland areas located on the edges of lakes and streams or habitats with high water tables. Water is present in swamps year round thus making these areas essential to the wildlife that inhabit the areas, such as spotted turtles, red-shouldered hawks, big brown bats, cottontail rabbits, deer, raccoons, skunk cabbage and a variety of shrubs. *Some locations to visit include: Mohegan State Park, Franklin Swamp Wildlife Area, James L. Goodwin Forest.*


Jim Gothreau

Lakes are deepwater habitats that do not have trees or shrubs growing above the surface of the water. Located in depressions created by natural processes or dammed river channels, lakes provide habitat for bullfrogs, snapping turtles, painted turtles, beaver, and river otter as well as a wide variety of fish and birds. All depend on lakes for their continued existence. *Some locations to visit include: Quaddick State Park, Wauregan Reservoir State Park, East Brimfield Lake, Lake Siog, Buffumville Lake, West Thompson Lake Recreation Area.*


Mary Hull

Habitats continued on next page


Bette Giordano

Ponds are shallow bodies of water with mud or silt bottoms that support a variety of aquatic plants. They are created by several forces including glaciers, human intervention and beaver activity. These changeable habitats support bullfrogs, northern spring peepers, eastern painted turtles, and beaver, and are rewarding areas to visit for wildlife viewing. *Some locations to visit include: Trailwood, Hubbard Sanctuary, Hopeville Pond State Park.*


Bruce Fink

River and stream habitats consist of three distinct zones, as indicated by James MacBroom in *The River Book*. These zones include the bottom of the streambed, the flowing waters within the stream and the adjacent areas know as uplands along the stream or river. These zones provide a variety of habitats for plants and animals. MacBroom explains that rivers are complex, open systems that are always changing. Wildlife such as great blue herons, red-winged blackbirds, beaver, raccoons, river otters, white-tailed deer, bullfrogs, painted turtles, and a large number of other species are frequently observed along streams and rivers. *Some locations to visit include: Bailey's Ravine at Ayer's Gap, Mashamoquet Brook State Park, Shelter Falls Park, Two Rivers Trail, Mansfield Hollow State Park, Green Briar Park.*


Jen Engle

Open Spaces

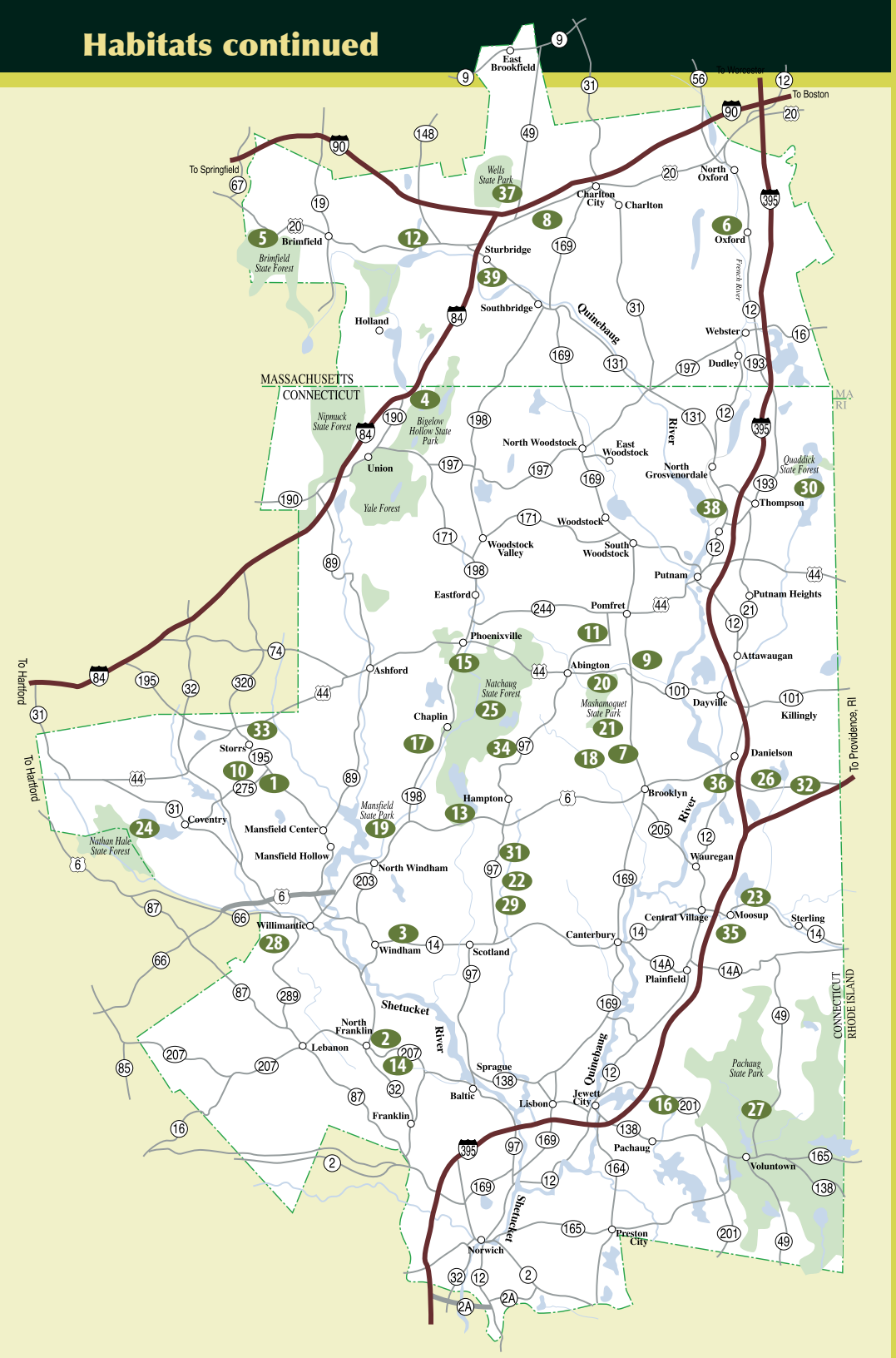

Jim Gothreau

Open spaces provide a variety of habitats for wildlife and include meadows, agricultural fields, early succession shrub areas, roadsides, and abandoned orchards. Between these areas and the habitats previously described there are transitional areas such as field-forest edges, rock walls and other features that also provide important habitats for many species. Red fox, raccoons, skunks, cottontails, chipmunks, many birds and plant species such as milkweed are often found in open space habitats. *Some locations to visit include: Connecticut Audubon – Bafflin Sanctuary, Capen Hill Nature Sanctuary, Hubbard Sanctuary, Mansfield Hollow State Park, Mashamoquet Brook State Park.*


Jim Gothreau

Habitats continued on next page

Habitats continued



Public areas for viewing animals, plants and habitats: (Click on list to highlight location on map)

1. Albert E. Moss Forest, Rtes. 195 and 275, Mansfield, CT.
2. Bailey's Ravine at Ayer's Gap, Under the Mountain Rd. (off Rte. 207), Franklin, CT.
3. Beaver Brook State Park Scenic Reserve, Back Rd. (off Rte. 14) Windham, CT.
4. Bigelow Hollow State Park, Rte. 171, Union, CT.
5. Brimfield State Forest (off Rte. 20), Brimfield, MA.
6. Buffimville Lake Recreation Area (off Rte. 12), Oxford, MA.
7. C. Vaughan Ferguson, Jr. Conservancy, Rte. 169, Brooklyn, CT.
8. Capen Hill Nature Sanctuary (off Rte. 20), Charlton, MA.
9. Connecticut Audubon – Bafflin Sanctuary and Grassland Bird Conservation Center, 218 Day Rd. (off Rte. 169), Pomfret, CT.
10. Connecticut State Museum of Natural History, The University of Connecticut, 2019 Hillside Rd., Storrs (Mansfield), CT.
11. Dennis Farm, Dennis Rd. (off Rte. 97), Pomfret, CT.
12. East Brimfield Lake Recreation Area (off Rte. 20), Sturbridge, MA.
13. James L. Goodwin Forest, Rte. 6, Hampton, CT.
14. Franklin Swamp Wildlife Area, Plains Rd. (off Rte. 207), Franklin, CT.
15. Friedman Memorial Forest, Bebbington Rd. (off Bicknell Rd. from Rte. 89), Ashford, CT.
16. Hopeville Pond State Park, Rte. 201, Griswold, CT.
17. Hubbard Sanctuary, Rte. 198, Chaplin, CT.
18. Lester B. Williams Memorial Forest, Herrick Rd. Brooklyn, CT.
19. Mansfield Hollow Park, Bassetts Bridge Rd., Mansfield, CT.
20. Mashamoquet Brook State Park, Rte. 44, Pomfret, CT.
21. Milo Appley Showcase Nature Trail, Wolf Den Rd. (off Rte. 6), Brooklyn, CT.
22. Mohegan State Forest, Rte. 97, Scotland, CT.
23. Moosup Valley State Park Trail, River St. (off Rte. 14), Plainfield, CT.
24. Nathan Hale Forest, South St. (off Rte. 31), Coventry, CT.
25. Natchaug Forest, Rte. 198, Eastford, CT.
26. Old Furnace State Park, Rte. 6, Killingly, CT.
27. BeaverPachaug Forest, Rte. 49, Voluntown, CT.
28. Pomeroy State Park Scenic Reserve, Rte. 289, Lebanon, CT.
29. Pudding Hill Wildlife Area, Rte. 97, Scotland, CT.
30. Quaddick State Park, East Putnam Rd. (off Rte. 44), Thompson, CT.
31. Rock Spring Wildlife Refuge, Rte. 97, Scotland, CT.
32. Ross Pond State Park, Ross Rd. (off Rte. 6), Killingly, CT.
33. Shelter Falls Park, Birch Rd. (off Rte. 44), Mansfield, CT.
34. Trailwood, 93 Kenyon Rd. (off Rte. 97), Hampton, CT.
35. Trolley Trail and Two Rivers Trail, Cady La. (off Rte. 14), Plainfield, CT.
36. Wauregan Reservoir State Park, Shepard Hill Rd., Killingly, CT.
37. Wells State Park, Rte. 49, Sturbridge, MA.
38. West Thompson Lake Recreation Area, Rte. 12, Thompson, CT.
39. Westville Lake Recreation area, Rte. 131, Sturbridge, MA

Plants and Animals

About the species selected – the plants and animals described in the *Wild Guide* are species one is likely to see while exploring The Last Green Valley or those of particular interest. There are hundreds of other plants and animals that live in the National Heritage Corridor but are not described in the *Wild Guide*.

White-tailed Deer *(Odocoileus virginianus)*

At one time, the white-tailed deer became nearly extinct due to clearing of the land and loss of habitat. Recently they have flourished due to reforestation. Now living in forest edges, thickets, fields and suburban areas, the white-tailed deer is one of the more common mammals in the area. Quietly taking a walk in deer habitat may provide the opportunity to see this widely distributed big game animal, especially during dusk and dawn when deer are feeding. The average adult female weighs about 120 pounds, males are larger weighing up to 150 pounds or more. Coloration changes with the season; summer coats are reddish-brown and winter coats are grayish-brown. Most people identify a white-tailed deer by the white underside "flag" of its tail as it bounds away in alarm. Young deer (fawns) up to six months old are identified by the white spots all over their coats. White-tailed deers are good swimmers, strong jumpers and agile runners, reaching speeds of up to 35 miles per hour.


Neal Eslinger

Eastern Coyote *(Canis latrans)*


Paul J. Fusco, CT DEP Wildlife

The eastern coyote is not native to New England but migrated east and occupied the former habitat of the gray wolf. It was first reported in Connecticut during the late 1950's. It has now become an important part of the ecosystem. The fur of a coyote is usually a grizzled-gray color with cream colored or white on the underbelly. The best identifying features are the black V-shaped shoulder harness and the a bushy black-tipped tail. Primarily nocturnal, the coyote is also observed at dawn or dusk and lives in a variety of locations. Fertile river valleys and agricultural lands are its prime habitat but the coyote is considered an "edge" species because it is sometimes observed in fields that are interspersed with thickets and marshlands. Coyotes have adjusted to both rural and suburban areas. More commonly seen in recent years, the distinctive call of the coyote is also often heard, especially on quiet nights during howling seasons. These seasons are January, February, September and October. In the winter coyotes will howl to find their life mates and in the fall female coyotes will howl to call their young.

Red Fox *(Vulpes vulpes)* and Gray Fox *(Urocyon cinereoargenteus)*


Lori A. Davis

Red and gray fox are important predators of prey species such as mice and rabbits. Although they are most often seen in the evenings, a female fox with young may hunt for food in the late afternoons. The gray fox is a grizzled-gray color, with reddish brown on the sides of the neck, back of ears, underside of chest, back of legs, and under surface of tail and feet. The upper part of the tail is black. The gray fox species

Plants and Animals continued on next page

prefers dense southern hardwood or mixed forests including thickets and swampy areas. More commonly found in northern latitudes, the red fox has an orange-red coat with black feet; a white tipped tail and white underside. Both fox species have elongated snouts, pointed ears and long bushy tails carried horizontally. They are small members of the dog family and weigh an average of 10 to 11 pounds.


Jim Gothreau

Bobcat *(Lynx rufus)*

Noted for its lack of a substantial tail, the bobcat is also recognizable by its distinctive cry, not unlike that of a human infant. The agile and graceful animal can live between 12 and 15 years in a large variety of habitats. The bobcat's fur ranges in color from light gray to yellowish or reddish brown, with darker colors found in the south and lighter coloration in those that live in The Last Green Valley. Adults are between 24 and 28 inches tall, can weigh up to 35 pounds and run up to 30 miles per hour. It is also a good climber and swimmer. The bobcat is a carnivore. It eats small animals like rabbits, squirrels, chipmunks, rodents and birds, but will adapt to hunt larger prey like deer in winter months. The bobcat hunts by day or night but usually at dusk and dawn, the times of day that most of its prey are active. Since it can only consume about three pounds of meat at one time, it will drag larger kills to a safe spot and cover them for future meals. The territory of a bobcat is about 5 to 50 miles long and varies in width.

Woodchuck *(Marmota monax)*

Known as a woodchuck in The Last Green Valley, the animal is also called a groundhog or whistle pig. The latter name is due to a distinctive whistling sound the woodchuck makes, especially when alarmed. It is a stout, chunky animal that can move with amazing speed. A woodchuck is mostly brown, or perhaps reddish brown, with black feet and can weigh up to 14 pounds. It appears quite long, due to the four to six inches of tail that is added to the body's 18 to 20 inches. The woodchuck prefers habitats like fence lines and fields near the edge of woods. It is a notable digger, living in burrows with a main entrance and an escape tunnel. Its abandoned tunnels are often used by other animals like foxes and rabbits for their homes. Unexpectedly for its body type, the woodchuck is also a good swimmer and climber. It lives a solitary life except in the spring when a litter of four or five pups is born. The young will remain with the mother until midsummer. A woodchuck lives on low growing greens, making it a bit of a nuisance to gardeners and farmers.


Eleanor Linkkila

Plants and Animals continued on next page


Lori A. Davis

Raccoon *(Procyon lotor)*

Once very common throughout the region, populations of raccoon have declined in numbers due to the spread of rabies. The raccoon has dexterous paws, making it an excellent climber. It has adapted well to a wide range of habitats but is most often seen in mature woodlands, along streams, near ponds and beside marshes. From these habitats, the raccoon finds a variety of food sources including frogs, crayfish, bird eggs, acorns and wild berries. Due to its adaptability to man-made changes in its habitat, the raccoon also lives in close association with human developments. It has short pointed ears, a long pointed snout and grayish-brown fur covering the body. The most identifiable features are the black mask around the eyes and black rings around the long, bushy tail. Seen in the evening during the spring and summer months, the raccoon will "den-up" for the coldest months of the year. It is not a true hibernator because during warm spells in the winter the raccoon will come out of its den to search for food.


Paul J. Fusco, CT DEP Wildlife

Skunk *(Mephitis mephitis)*

Usually spending daylight hours sleeping in underground burrows along field borders, in stone walls or under buildings, the nocturnal skunk is occasionally seen during the day. The skunk is a member of the Mustelid family that includes mink, fisher, weasels, and otter. All Mustelids produce a strong smelling scent but the skunk is the only member that can spray as a defense mechanism. The name *Mephitis mephitis* translates into "bad odor." The skunk is mild tempered by nature and will only spray if provoked. As a warning before spraying, the skunk will usually stamp its front feet and arch its tail over its back. If this behavior is observed, back away carefully and quickly! Distinct markings on a skunk include a narrow white stripe up the middle of the forehead with a broad white area on the top of the head and neck that usually divides into two stripes along the back over fluffy black fur. It weighs between 6 and 14 pounds, about the size of a house cat. With short legs, the skunk appears to waddle when it walks.

Cottontail Rabbit
Eastern species *(Sylvilagus flondanus)*
New England species *(Sylvilagus transitionalis)*

Two species of cottontail rabbit are found in The Last Green Valley and are normally active throughout the year. The Eastern and New England species are almost identical in appearance except for slight variations in color. They live in similar habitats that include farmlands with open fields, areas with dense, high grass or wood thickets, fencerows, and forest edges. A somewhat stocky animal, the cottontail rabbit has large hind feet, long ears and a short fluffy tail resembling a cotton ball. It has coarse hair that ranges in color from reddish-brown to black or grayish brown. The under parts of the rabbit are white. Normally moving slowly in short hops, the rabbit will respond when frightened by jumping at speeds up to 18 miles per hour for short distances or freeze until danger has passed. The cottontail rabbit is an important food for animals such as hawks and coyotes. As a defense, the rabbit will forage at night and spend the day hiding in dense brush from predators. The Eastern cottontail, an introduced species, is now much more common than New England's only native rabbit, the New England cottontail. Populations of the New England cottontail have decreased so dramatically that it is being considered for listing as an endangered species.


Paul J. Fusco, CT DEP Wildlife

Plants and Animals continued on next page

Paul J. Fusco, CT DEP Wildlife

Eastern chipmunk *(Eutanias minimus)*

With an average weight of only one to three ounces, the eastern chipmunk has the ability to move quickly and is often seen scurrying along the many rock walls in New England. These rock walls are a vital habitat and chipmunks will use the numerous burrows and holes in the walls to create their homes. Coloration of a chipmunk varies from muted yellow-gray with dark tan stripes to brownish gray with black stripes. The sides are generally orange-brown with a grayish-white belly. The call is distinctive and recognized as a series of high-pitched chirping notes. Acorns, seeds, fruits, berries and grasses are the chipmunk's main food. These small mammals are vulnerable to predators and are an important link in the food chain for larger mammals and hawks.

Alan Dabrowski

Tree Squirrel

There are actually four species of tree squirrels found throughout The Last Green Valley. These species, **Gray** *(Sciurus carolinenis)*, **Red** *(Tamiasciurus hudsonicus)*, **Southern flying** *(Glaucomys volans)* and **Northern flying** *(Glaucomys sabrinus)*, all have a keen sense of sight, smell and hearing. They are alert, nervous and wary, especially when on the ground. All are tree dwelling rodents and agile climbers and jumpers. The gray squirrel prefers upland hardwood forests and buries its winter supply of food at random. The red squirrel is less sociable, highly territorial, prefers mixed hardwood conifer forests and stores its winter supply of food in large underground caches. The two species of flying squirrel are strictly nocturnal so they are rarely seen but are well adapted for night-life. Both species of flying squirrels have large eyes for night-vision and loose folds of skin between the front and hind legs that allow for gliding through the air. A flat tail helps the flying squirrel navigate from tree to tree.

Sometimes when hiking at night one may get "rained" upon by the peelings of acorns dropped by flying squirrels. There have been reports of flying squirrels living in bird boxes and feeding at birdfeeders. All species of squirrels are active year round.

Bats

CT DEP Wildlife

As the only mammal capable of actual flight, the bat uses a technique called echolocation for navigation. There are seven species of bats in The Last Green Valley and the **little brown bat** *(Myotis lucifugus)* is the most common along with the **big brown bat** *(Eptesicus fuscus)*. Bats are nocturnal and some live in large colonies located in caves, hollow trees or attics of old houses. Others are solitary, living among the leaves and under the bark of trees. Their body sizes ranges from three to six inches. Bats have a wingspan of 8 to 16 inches. The bone structure in bat wings is similar to, but smaller than, human arms and hands. The fingers are extended and connected to leathery elastic skin that grows from the sides of the body. Thumbs are free from the wing membrane and have claws for griping. As the only major predator of night flying insects, a bat can eat 600 mosquitoes an hour which makes them beneficial for controlling pests that bother people.

Plants and Animals continued on next page

Beaver *(Castor canadensis)*

Active throughout the year and most often nocturnal, the beaver is the largest rodent in The Last Green Valley. Adult beavers can range in weight from 30 to 65 pounds. With webbed feet and a paddle-shaped, scaled tail, the beaver is uniquely suited to its habitat anywhere there is a year-round source of water such as streams, lakes, and other wetland areas. Unparalleled at construction, the beaver uses trees and limbs to build lodges and dams. The tail of the beaver is its most distinguishing feature. The tail is slapped on the water as a signaling device to warn other beavers, is used as a prop when standing and a rudder when swimming. During the winter, beavers will feed on bark and twigs of trees and supplement their diet in the summer with aquatic vegetation. Beavers are monogamous, often having only one mate for life.

James Stahr

River Otter *(Lutea candensis)*

Usually found in or near water, the river otter is well adapted for aquatic life. The ears and nose close when swimming. The otter has short legs with webbed toes that contribute to its excellent swimming abilities. As the largest member of the Mustelidae family, the river otter generally weighs 15 to 25 pounds and is from three to four feet long. Males are larger than the females. River otters have long slender bodies with prominent whiskers and nose pad. The upper body parts are dark brown with undersides that are gray to brown. Otters are completely covered with fur. The river otter exhibits playful behavior, including wrestling, chasing, diving and occasionally sliding. Sliding is an even more common mode of winter travel.

CT DEP Wildlife Division

Painted turtles *(Chrysemys picta)*

A small reptile, the painted turtle has an average size of four to six inches in length. Often observed basking in the sun on rocks and logs in rivers, lakes, vernal pools, and ponds, painted turtles are wary and slip into the water quickly when disturbed. Webbed feet facilitate both swimming and walking. The upper shell is generally dark olive, brown or black with red markings and the underside (plastron) is yellow. Unlike other turtles, the painted turtle will shed the outer layer of the shell in mid to late summer, revealing a brightly colored shell underneath. The neck, legs and tail are striped with red or yellow. Between May and July, females lay two to five clutches of 4 to 23 eggs in nests dug along roadsides and in cultivated fields. Hatchlings dig their way out in the fall of the same year. Painted turtles hibernate at the bottom of ponds for the winter.

Carl W. Rettenmeyer, CT Sate Museum of Natural History at UConn

Plants and Animals continued on next page


Paul J. Fusco, CT DEP Wildlife

Snapping Turtle *(Chelydra serpentina)*

One of the largest freshwater turtles, the snapping turtle can reach up to 18 inches in length and weigh more than 43 pounds. Its color appears greenish gray or dark green due to algae growth on the shell (carapace). Since the underside (plastron) is smaller than the carapace, the snapping turtle cannot protect itself by drawing into its shell. Rarely seen on land, it usually inhabits shallow lakes and streams with lots of plants. When in water, the snapping turtle is shy of humans and will swim away quietly. However, on land a snapping turtle should be left alone because if threatened or cornered it can be dangerous! It will come on land in late June or early July to dig a nest and lay eggs. The snapping turtle has a keen sense of smell and primarily eats fish, amphibians, and other water creatures.


CT DEP Wildlife

Northern Spring Peeper *(Pseudacris crucifer)*

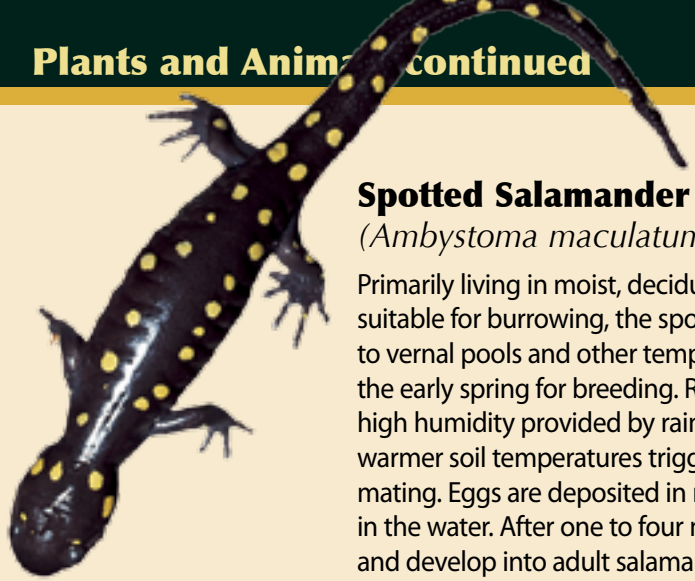
This frog is more likely to be heard than seen. It is one of the most familiar frogs in the east due to its distinctive mating call of "peep-peep." The peeper chorus is one of the first signs of spring. A good climber, the frog uses its sticky toe pads to climb small shrubs or swampland vegetation and other vertical surfaces in its habitat. It prefers moist wooded areas near temporary or flooded ponds, lakes, streams, swamps and vernal pools. It is one of the smaller frogs, averaging one to two inches. The color varies from light to dark brown or gray and there is a shallow 'v' shape pattern on the back of the head and a characteristic cross-shape pattern on the back.

Bullfrog *(Rana catesloeians)*


Kentwood Well, CT Museum of Natural History at UConn

Sometimes know as the American Bullfrog, these amphibians (an animal able to live on land and in the water), prefer the edges of water bodies that contain vegetation. Frogs are cold blooded and rely on the temperature of surrounding areas to regulate body temperature. Most often seen in lakes, rivers, brooks, ponds and marshes, the bullfrog uses the plants in these water bodies as cover. It is one of the most aquatic frogs since it takes its tadpole stage up to three years to develop. As an adult, it continues to stay close to the water. The bullfrog absorbs oxygen and water through the skin, which is why it is able to stay in water for long periods of time. It can be observed day and night. It will sun itself along the banks of water, plunging to safety at the first sign of trouble. Male bullfrogs can grow up to eight inches; females are generally smaller. The males are renowned for their loud, low bellowing croak. Their coloration varies from bright green to a muddy brownish green and occasionally black. They have fully webbed feet with strong muscled hind legs making the bullfrog a good jumper and strong swimmer. Bullfrogs will eat just about anything available including other frogs and small fish.

Plants and Animals continued on next page



CT Sate Museum of Natural History at UConn

Spotted Salamander
(Ambystoma maculatum)

Primarily living in moist, deciduous or mixed forest soils suitable for burrowing, the spotted salamander moves to vernal pools and other temporary pools of water in the early spring for breeding. Rising air temperatures, high humidity provided by rain or snowmelt, and warmer soil temperatures trigger salamanders to begin mating. Eggs are deposited in masses attached to twigs in the water. After one to four months, the young hatch and develop into adult salamanders. They then leave the pool and burrow underground for three years before reaching sexual maturity. The spotted salamander is variable in coloring but generally is black or olive-brown with striking yellow or orange spots on the head, back and legs.

Jim Gothreau

Canada Geese *(Branta Canadensis)*

Easily seen in The Last Green Valley today, Canada geese were nearly extinct in the 1950s and 60s. Over-hunting and the destruction of wetlands had driven them out of habitats. The species has been reintroduced and has thrived. Canada geese have become highly tolerant of people – both a blessing and a curse. They have adapted to urban and suburban environments becoming frequent visitors to golf courses, public parks and housing developments that include a water feature. There are 11 subspecies of Canada geese, the largest having a wingspan of six feet and weight up to 24 pounds. It is second only to swans in size. The birds have elegant long black necks, black heads, crowns and bills. The black is made especially sharp by the contrasting white cheek and throat area. Their undertails are white but the major portion of their upper body and wings are shades of brown. Canada geese travel in family groups with parents flying with the young of that year, teaching them migration patterns and routes that they will follow all their life. Their calls are quite loud when preparing to take flight. An interesting fact is that Canada geese will form gosling daycares where several families will pool their young into crèches where they will be looked after by one or two of the parents. Canada geese seen in the summer in The Last Green Valley head for Chesapeake Bay in the winter; those that appear in the winter breed in the Hudson Bay area in the summer.

American Bald Eagle
(Haliaeetus leucocephalus)

Alan Dabrowski

Native Americans considered the bald eagle a sacred messenger. It became the symbol of the United State of America when the Continental Congress adopted the Great Seal of the United States in 1782. It is a large bird of prey with a body length of 28 to 40 inches and a wingspan of up to 96 inches. Adult birds have a white head and tail with a brown body; immature eagles are all brown and may have some spotty white under the wings, breast, back, head and tail. Bald eagles are powerful, soaring on thermal convection currents and reaching speeds of more than 40 miles per hour when gliding and nearly 100 miles per hour when diving. It was on the verge of extinction in the lower 48 states in the late 20th century. It had been hunted relentlessly as settlers claimed farmland in the 17th and 18th centuries and its numbers decreased in the mid-20th century when DDT was used as a pesticide. The bald eagle was removed from the List of Endangered and Threatened Wildlife by the U.S. Fish and Wildlife Service in 2007. Bald eagles can be seen year round in The Last Green Valley.

Plants and Animals continued on next page

Mute Swan *(Cygnus olor)*

Mute swans are European birds that were introduced to eastern North America. They have graceful long necks, heavy bodies and big feet. The white of their body is broken only by a black knob at the base of an orange bill. They prefer a habitat rich in aquatic plants. They dip their head and neck into the water to feed on bottom vegetation or eat tender shoots of shore grasses. Mute swans are the least vocal of the swan family but will hiss and make soft snores or grunts. Their lack of noise should not be taken as complacency and they will repel an enemy with a triumphant noise much like a goose. Males are called cobs and females are pens; their offspring are cygnets. Courtship involves mutual dabbling or head-to-head posturing. They mate for life. The pen lays about six eggs in a nest on the shoreline and both parents cooperatively incubate the eggs. An adult mute swan can weigh 50 pounds, making it the heaviest flying bird. They take flight with great slow beats of their wings, their usually curved neck extended straight ahead like an arrow to the target. At first it seems unlikely they will lift off but as they do the swan's size is breathtaking. While its body is 47 to 67 inches long, it has an impressive wing span of between 79 and 98 inches.

Sandra Kay Mendes

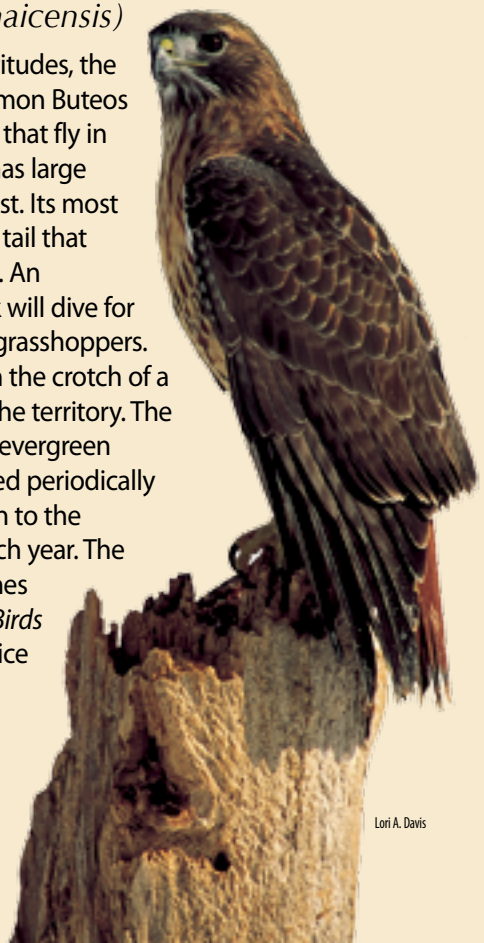
American Robin *(Turdus migratorius)* *(Connecticut State Bird)*

Robert Strindberg, CT State Museum of Natural History at UConn

This bird, a member of the thrush family, is seen in abundance in the spring when warmer weather brings earthworms close to the surface especially where ground is broken for planting. The male robin is olive gray with a black head, its chin and throat are white with black streaks and the most distinguishing feature is the reddish-orange underside. The female is grayer. American robins are usually 9 to 11 inches in size. It builds nests of mud, course grass and reeds and lays eggs that are "robins egg blue." The robin's preferred habitat is generally trees in forests and open areas.

Red-tailed Hawk *(Buteo jamaicensis)*

Commonly observed soaring at high altitudes, the red-tailed hawk is one of the most common Buteos (hawks with broad wings and wide tails that fly in wide circles). An adult red-tailed hawk has large wings, a dark brown back, and light chest. Its most prominent feature is a rusty orange-red tail that flashes in the sunlight on the underside. An important predator, the red-tailed hawk will dive for prey such as small rodents, snakes and grasshoppers. Using sticks and twigs, it builds a nest in the crotch of a large tree with a commanding view of the territory. The nest will be lined with inner bark strips, evergreen sprigs, and green leaves that are renewed periodically as the young grow. Females often return to the previous nesting area to raise young each year. The red-tailed hawk is generally 19 – 25 inches tall and *Peterson's Field Guide to Eastern Birds* by Roger Tory Peterson indicates the voice or call is a squeal, "keeer-r-r," slurring downward.



Lori A. Davis

Plants and Animals continued on next page

Red-Shoulder Hawk *(Buteo lineatus)*

A species of special concern, the red-shoulder hawk has declined primarily due to habitat loss. Recognized as a Buteo, this hawk has an ample tail, broad wings and a rusty breast. The tail has distinctive bands. There are broad red patches on each wing in the "shoulder" region, thus its colorful name. This patch is difficult to identify when the hawk is in flight. Red-shouldered hawks will soar, flap, swoop and dive while calling over their territory. Most commonly seen in woodlands either perched or soaring above trees, red-shoulder hawks forage for birds and small mammals of the forest. As a medium-sized hawk it is generally 17 to 24 inches tall. Red-shouldered hawks build similar nests to the red-tailed hawk.

Turkey *(Meleagus gallopavo)*


Paul J. Fusco, CT DEP Wildlife

Eliminated from Connecticut by the early 1800's due to habitat loss and subsistence hunting, the turkey was successfully reintroduced to its native range in the 1980's and has become quite prevalent in The Last Green Valley. Primarily found in mature forests, turkeys rely heavily on the fruits from trees such as oak, hickory and beech for feeding. They are sometimes observed foraging in agricultural fields that border forestlands and may range over several square miles in one day. Male "toms" are darkly colored. They have heads that are brightly colored with iridescent feathers and bright red waddles that can be up to 12 inches long. A hair-like beard hangs from its chest. The female "hen" is lighter in color and lacks the beard and bright coloration of the male. Turkeys are most often seen during the early mornings and early evenings.

Great Blue Heron *(Ardea herodias)*


Jim Gottreau

Living on earth for close to 14 million years, the majestic great blue heron is one of the tallest birds. It stands four feet, has a wingspan of six to seven feet and weighs five to eight pounds. Wary of humans, this bird usually is observed as a solitary bird and prefers to build its nest on the ground or in trees that are inaccessible such as those in wetlands. To hunt, the great blue heron will stand motionless in shallow water, wait for fish and frogs, and then strike at prey with its dagger-like bill. The great blue heron appears gray-blue, except for a cinnamon-colored and white neck, a white head and two white plume feathers. The best opportunity to see these birds is when they are feeding, both in the evening and during the day. They are also commonly seen flying overhead during spring and fall migration.

Red-winged Blackbird *(Agelaius phoeniceus)*

One of the first birds to migrate north, the red-winged blackbird can be a joy to hear when it returns in the spring. The call is a rich musical "o-ka-leee." It inhabits marshes, swamps, and meadows. The male is black with bright red shoulder patches, tipped with yellow. The female and young birds have dusky brown streaks. The red-winged blackbird nests in the reeds.


Robert Strindberg, CT State Museum of Natural History at UConn

Plants and Animals continued on next page


Kristin Orr

Praying Mantis *(Chinese Mantid)*

The most commonly found species of Mantid in this region is the Chinese Mantid.. A large insect, over one inch but also ranging in size from two to six inches, the "praying" mantis receives its name from its distinctive appearance. At rest, the mantis' front forelegs are held together in a posture resembling prayer or deep thought. But this posture is deceptive. The praying mantis is a predator and will usually lie in wait for prey with its front legs upraised. These front legs are equipped with rows of sharp spikes that the mantis uses to hold its prey. All praying mantis adults die in the fall but first the adult female mantis will mate and then consume the males. She lays eggs in a light brown frothy mass and in the following spring hundreds of young mantis' will hatch from the egg case as fully formed but smaller versions of the adults minus the wings.

Monarch Butterfly*(Danaus plexippus)*

While most insects hibernate, the monarch butterfly makes a remarkable journey in the fall, migrating from the U.S. and Canada to the Sierra Madre Mountains in Mexico. The trip may be as much as 2,000 miles south. However, in the spring monarch butterflies do not make the complete round trip. As warmer weather returns adult monarchs fly north and breed along the way. They pass the job of completing the migration to their offspring. This brilliantly patterned black and orange butterfly undergoes four distinct stages of change (metamorphoses) in its lifetime. The first stage, an egg, is translucent green. The second stage, larval, becomes a black, yellow and white caterpillar that is completely dependent on the milkweed plant for survival. During the third stage, the pupa becomes a brilliant green chrysalis with a gold band near the silk point of attachment to the leaf or branch. Finally,


T. Loring White

at the fourth stage, the monarch emerges as an adult butterfly. The entire process takes about a month. Adults feed on nectar and sap to build up fat stores prior to migration. Today, there is a large threat to the monarch's wintering grounds due to habitat destruction and logging.

Hummingbird Moth
(Macroglossum stellatarum)

The hummingbird moth is also known as a hawk moth. It is easily mistaken for a small bird because of its long proboscis and the manner in which it hovers near blossoms, making a humming sound. Hummingbird moths have as many as three or four broods a year. The female lays batches of pale green eggs that hatch in only six to eight days. The larvae feed on the host plant until it pupates in about 20 to 25 days. Then the cocoon, which is brown in coloration, rests in leaf debris on plants or on the ground until the moths are hatched. Hummingbird moths have brown wings with black striation in the front, and orange wings outlined with black in the

Plants and Animals continued on next page


Susan LaSante

back. Its body has more depth and breadth than is common to an insect, another feature that makes it appear bird-like. Its wingspan is less than two inches and the wings move with such speed that they appear nearly invisible. Adults are attracted to flowers with lots of nectar like primrose, violets, verbena and petunias. Entomologists have determined that hummingbird moths show the ability to learn colors. They can be seen flying anytime of the day. Once they discover a flower bed or hanging planter, they will return to it at the same time each day.

Dragonfly *(Libellula lustuosa)*

Dragonflies are commonly found near permanent bodies of water as opposed to vernal pools. They lay their eggs in the water or on the banks, and the eggs hatch into nymphs that live only in the water. Sinking to the bottom of the pond or stream, nymphs feed on aquatic insects, crustaceans and other prey. The nymphs have a specie-unique food collection process: they lay in wait and quickly snatch unsuspecting organisms with claw-like appendages located on their lower jaw. The nymphs have no gills, another feature not associated with other insects. They breathe by pumping air into a respiratory chamber in the intestinal system. The adult dragonfly is large but delicate with four elongated wings notable for their numerous veins and often brilliant colors. The eyes are large but their antennae are insignificant. Adults are great flyers and catch their food in flight. They position their legs to form a basket-like area to trap small insects like mosquitos, flies and gnats. When low levels of water expose ideal breeding conditions for many water insects, it creates an excellent feeding opportunity for dragonflies.


Melissa Hearnlaye

Bees *(Hymenoptera apoidea)*

Bees are part of the same family as wasps. However, bees can only sting once whereas wasps, like hornets and yellow jackets, can sting multiple times. The stinger on bees is pulled out of their bodies when they disengage from the sting and they later die from the act. There are social bees like bumblebees and

Plants and Animals continued on next page

honeybees, and those that do not secrete wax like carpenter, mason, leaf cutting or burrowing bees. All bees are characterized by their larger hind feet that are equipped with pollen collectors of stiff hair. They have dense hair on their heads and thorax and many species have a lip formed into a long sucking tube for pulling nectar from flowers. Nectar is a high sucrose substance produced by plants and is an important energy source for bees. It is that nectar that sustains them in the short and long term. Bees are essential for pollinating plants and are commonly found in the orchards throughout The Last Green Valley. Many gardeners and farmers keep hives to aid in optimal plant production.


Jasia Nachilo

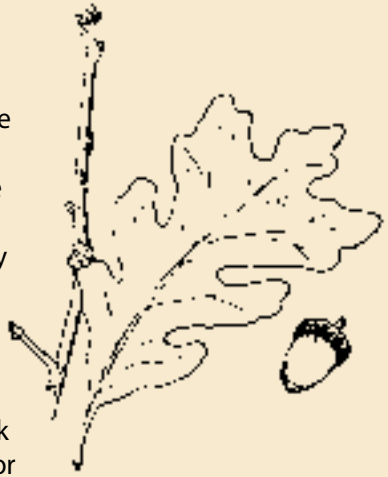
Eastern White Pine *(Pinus strobus)*

The white pine has a broad range and can be found in many locations. It thrives in areas from sea level to higher elevations in sandy loam soils, rocky ridges and sphagnum bogs. It has distinctive soft blue-green to silver-green needles that grow in clusters of two to five bundles with each wrapped around the base with a paper-like sheath. The needles shed at the end of the second growing season. Brown cones form from flowers, with most cones taking two or three years to ripen. The cones may cling to the trees for several years after ripening and have a fragrant gummy resin. Birds such as chickadees eat the ripe seeds and rabbits eat the bark of young trees. Highly valued as the largest pine in Colonial times, the white pines that grew over 24 inches in diameter were marked with the King's crown and reserved for England to be used as ship masts. Today the white pine is still a valuable timber tree and has been measured to reach heights of more than 75 feet at maturity.


Paul J. Fusco, CT DEP Wildlife

Oak – White *(Quercus alba)*
(Connecticut State Tree)

An extremely valuable and magnificent tree, the white oak provides an abundance of food and shelter for a wide variety of wildlife. The shiny acorns are a favorite for deer, wild turkey, songbirds, squirrels and small mammals and a large tree can serve as home to many species. Each leaf of the white oak has seven to nine rounded lobes that are bright green on top and pale green on the underside. The bark is grayish-white to greenish-brown and the crown of the oak tree is very large, making this an excellent shade tree. A white oak tree can grow over 100 feet tall and about three feet or more in diameter. Some white oaks can live 350 to 400 years. In autumn, the white oak is one of the last species to lose its leaves which turn a variety of colors including red, gold, yellow or purple with many colors on the same tree.



Plants and Animals continued on next page

Sugar Maple *(Acer saccharum)*

The sugar maple, best know as the source of sap for the production of maple syrup or sugar, has a dense round crown and is highly valued for its hardwood. The leaves are five-lobed with deep notches between lobes and they turn brilliant yellow and orange-reds in the fall. Pendant tassel-like flowers bloom in late April or May and wing-like seeds mature in the fall. The seeds are eaten by rose-breasted grosbeaks and the tree is used for nesting by birds such as the American goldfinch and cover for small mammals. The sugar maple grows 40 to 100 feet tall and its trunk can reach two to four feet in diameter

CT Museum of Natural History at UConn

Mountain Laurel *(Kalmia latifolia)* *(Connecticut State flower)*

Growing in close association with oaks, beech, sugar maple and white pine, the mountain laurel is a large shrub that reaches heights of 10 feet or taller. It prefers acid soils and grows in dense thickets mainly in higher elevations. Leaves are evergreen and leathery and the flowers are very showy clusters in pinks and whites. According to *Peterson Field Guide on Eastern Trees* by George Petrides, when a bee lights on the flower, one or more stamens spring out of their pockets and slap the insect with pollen which is then carried to other blossoms. The leaves are poisonous to cattle, sheep, and deer and eaten only when better foods are lacking.

Poison Ivy *(Toxicodendron radicans)*

The expressions "leaves of three, let it be" or "if hairy, be wary," could not be more true for this plant, the poison ivy. Belonging to the cashew family, poison ivy is one of three plants that cause a characteristic allergic reaction in people. The other two are the less common poison oak and poison sumac. Distinctive features of the poison ivy include a regular grouping of three leaflets in each leaf and a hairy vine that climbs tree trunks and shrubs or trails on the forest floor. The poison ivy has a lacquer-like resin in the sap that contains active substances that provoke a reaction in many people when contact occurs. It is not a good idea to handle this plant in any way. The fruit is a greenish-white berry that is an important food source for over 60 species of birds who seem to be immune to the irritating resin.

Mushrooms *(Fungi)*

Guidebooks describe thousands of varieties of mushrooms that are generally found during the months between April and November. The life cycle of a mushroom is a complicated system that produces spores. These spores germinate under special conditions, grow filaments underground in large mats and eventually produce the fruiting body or mushroom. The underground filaments, called mycelium mats, can cover huge areas sometimes up to several acres or more. Certain mushrooms are often found with certain trees and with favorable weather conditions, fungi occur in each of the land habitats – lawns, meadows, bogs, and forests. To identify mushrooms it is best to go on a hike with a mushroom expert and remember there are no general rules to identify an edible fungus from a poisonous one. Never try to eat a fungus that has not been positively identified by an expert.

CT Museum of Natural History at UConn

Plants and Animals continued on next page

Lichens

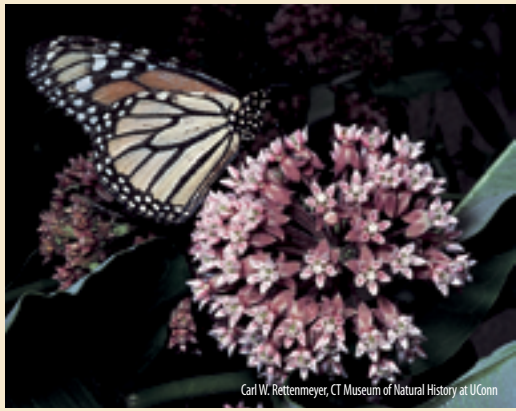
Surviving in three basic forms, the lichen grows in crust-like, leaf-like and stalked formations. Lichens are created by a complex chemical relationship between two organisms - fungus and algae. Fungus filaments surround and grow into the algae creating the lichen. Hardy plants, the lichen can dry out completely when moisture is unavailable then absorb moisture and become soft again. It grows almost anywhere a stable and well-lit surface occurs including soil, rock and even the sides of trees but it is not a parasite on trees. Instead, it undergoes a process of absorbing certain nutrients from trees, stones, and rock and feeds itself through the algae cells. Lichens can survive severe cold and remain dormant for long periods of time without harm.


Carl W. Rettenmeyer, CT Museum of Natural History at UConn

Pink Lady's Slipper *(Cypridedium acaule)*

The pink lady's slipper is a highly specialized plant that only grows in habitats that have a particular fungus below the soil. Even when growing in these specialized conditions, very few plants bloom and even fewer successfully pollinate. For that reason, the pink lady's slipper has become a rare species to find. The pink lady's slipper can live to be 150 years old and takes a very long time to produce one flower. When a flower blooms, it will produce up to 60,000 seeds. Viewing one of these plants is indeed a special event and the observer must not attempt to move the plant in any way. It grows only in acidic soils such as mature bogs as well as pine or oak forests. The bloom looks like a slipper and is designed to entice large bees to enter the flower, struggle through a tight chamber and squeeze out a small hole. In so doing, the bee gets covered with pollen that is wiped off in the next slipper that it visits.

Milkweed *(Asclepias syriaca)*


Carl W. Rettenmeyer, CT Museum of Natural History at UConn

Milkweed most commonly grows in dry soils of fields and roadsides and is often thought of as a common weed. However, this plant is extremely important to the larval stage of development in the monarch butterfly and one can often find the yellow, black and white caterpillar munching the leaves of this plant in the summer. Growing as a solitary, stout stem covered with fine hairs from June to September, the milkweed name comes from the thick, sticky, milky sap that oozes out of a cut or torn leaf. The plant grows up to six feet tall producing a large purplish-white flower that turns to a pod-like structure with large seeds inside. The seeds are attached to white hairs that are nearly two inches long. In the fall when these pods open, the wind spreads the seeds by blowing the white hairs. During World War II, the fluffy, white hairs of the pod were collected and used in emergency floatation devices.

Trout Lily *(Erythronium americanum)*

Blanketing moist woodlands, the trout lily usually blooms during trout season in April and May, thus providing one reason for its common name. Another reason is that the leaves of the trout lily resemble a trout with a mottled, spotted appearance. Bulbs grow deep in the ground and generate off-shoots in abundance, but new flowers often take up to seven years to form. The solitary flowers are composed of six yellow petals that tend to look as though they are nodding when mature. These show a brown or reddish coating underneath.


Carl W. Rettenmeyer, CT Museum of Natural History at UConn

Plants and Animals continued on next page


Jasia Nachilo

Water Lily *(Nymphaea odorata)*

The North American white water lily is also called a pond lily or toad lily. It is an important plant in a pond's ecosystem. Ponds are shallow enough so that the water lily can establish roots in the soft bottom and send up stalks to the surface. The leaves are round with a shiny, waxy surface and they float on the water. The stems also support large white cup-like flowers whose petals are arranged in a spiral fashion with a golden yellow center. They are very showy, almost like a floating peony. Generally, the flowers only bloom in the morning or early evening when they attract insects by their sweet scent. The plant also produces a fruit that ripens underwater. When it breaks open from decay or impact, it scatters its seeds that float away and eventually sink into the muck at the bottom of the pond. Water lilies provide support for frogs and dragonflies, as well as food for waterfowl. More than a dozen species of ducks feed on the seeds. Beavers, muskrats and moose dine on the greens.

Skunk Cabbage *(Symplocarpus foetidus)*

A true harbinger of spring, the skunk cabbage is often seen as early as March with its mottled purple, red, green or brown horn pushing up through the ice and snow. The horns are the flower of the skunk cabbage and it grows in abundance in moist areas. The common name refers to the resemblance of the young leaves to cabbage and the unpleasant odor emitted by the plant. The species name, *foetidus*, means "evil smelling." Both the smell and the reddish color of the plant help to attract carrion flies. As the plant grows, it produces heat recorded to be 27 degrees F warmer than the outside air temperature. This heat helps protect the bud from cold weather and intensifies the smell thus attracting pollinators. After pollination the leaves uncurl and grow to heights of two feet or more.


Ula Roemer

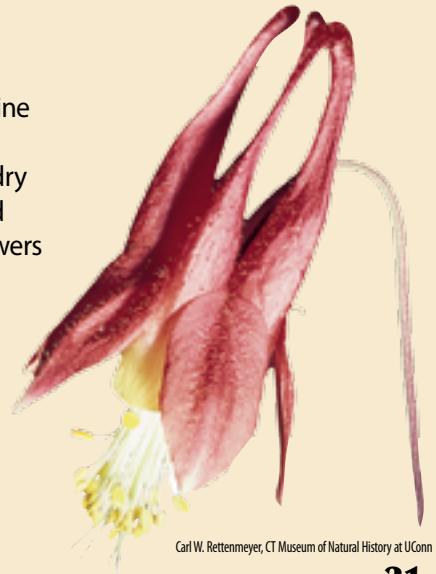
Jack-in-the-Pulpit *(Arisaema atrorubens)*

A very familiar plant in spring, jack-in-the-pulpit has distinctive flowers that appear from April to June. The "pulpit" or hood covers the "jack," giving the plant its name. Leaves are divided into three asymmetrical leaflets and the plant grows one to three feet tall. Clusters of green berries appear in the spring and turn dark red in the fall. Wood thrushes and other birds relish these berries, making it an important plant for wildlife. Turkeys dig the roots as a food source.


Paul J. Fusco, CT DEP Wildlife Division

Columbine *(Aquilegia canadensis)*

Inhabiting some of the harshest places, the columbine springs forth from rocky crags and steep hillsides. It prefers dappled shade of woodland clearings with dry open environments. The flowers of this plant are red and yellow and dangle downward with pointed flowers and five long spurs, blooming from late spring to summer. By blooming just in time, the columbine becomes an important food source for the ruby-throated hummingbird as it migrates. The plant grows three to four feet tall.


Carl W. Rettenmeyer, CT Museum of Natural History at UConn