

Dogwood Trail

1) The exposed bedrock opposite sign #1 serves as an unlikely growth medium for this small **pitch pine** (*Pinus rigida* : 3 needles to a bundle). Gradual weathering of the rock resulted in small cracks where soil and leaves collected. Here, pine and beech seeds were dropped, perhaps by a squirrel or chipmunk, eventually germinated, and grew. The ferns were planted by spores released from a sporophyte, the first stage of a fern.

2) These **Eastern white pine** (*Pinus Strobus* : 5 needles to a bundle) flourish in an area which was an open field over thirty years ago. Their needles, a form of leaves, make up the canopy, or top layer of this small forest. The types of plants found growing in the understory layer and on the forest floor are dependent on the amount of sunlight shining through the canopy. This is an example of forest succession, as the area begins to develop from shrubbery and grasses into a forested environment.

3) Evergreen **Christmas ferns** (*Polystichum acrostichoides*) can be found year-round and are named for the Christmas stocking shape of the individual leaflets or pinnae. Mosses and leathery aromatic **wintergreen plants** (*Gaultheria procumbens*) provide ground cover under the fast-growing but relatively short-lived **white birch trees** (*Betula papyrifera*).

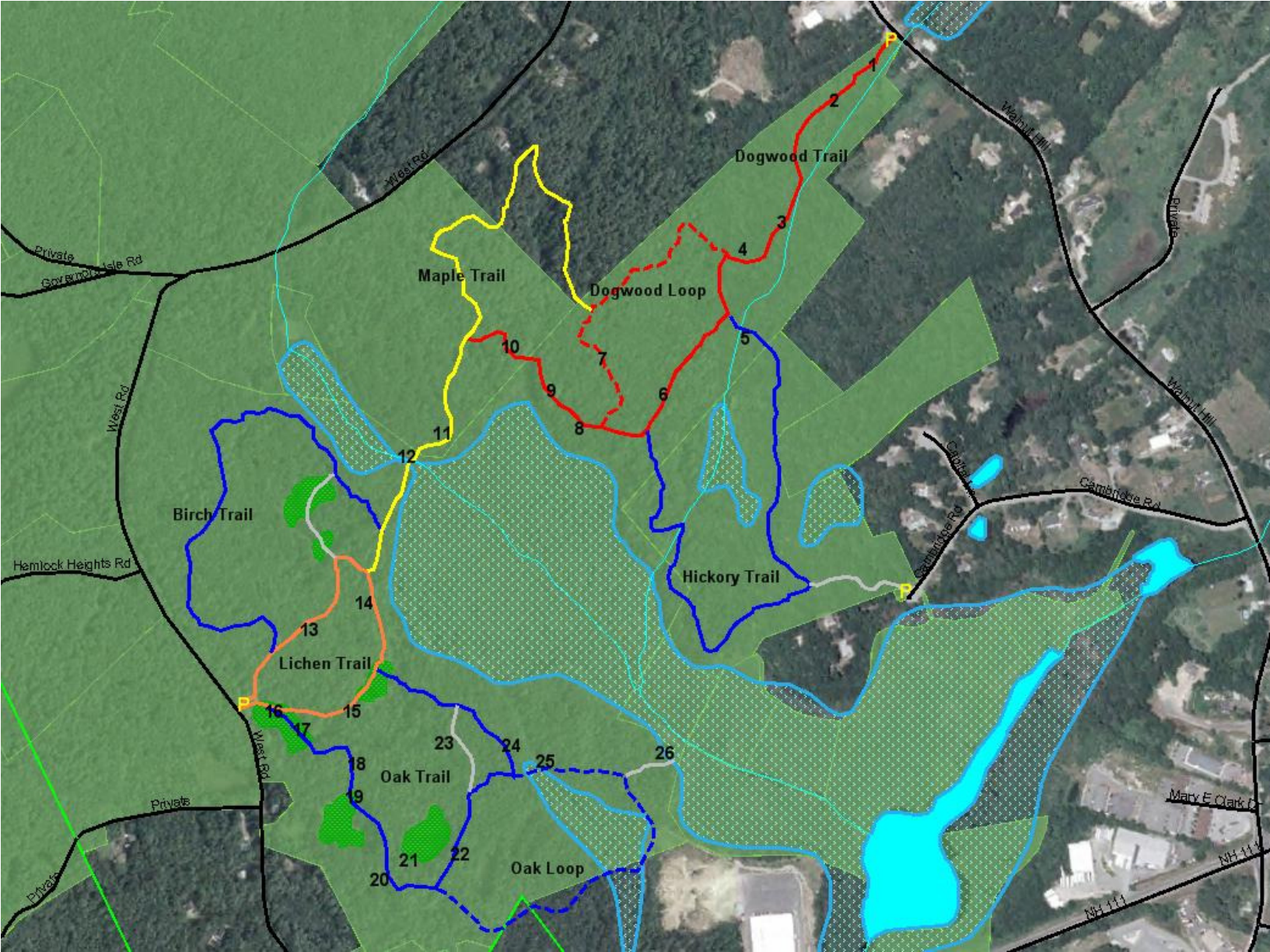
4) This station was once the site of a portable **sawmill**. The fire of 1947 burned an area from West Road to Atkinson, including this site. Sawdust piles, remnants of the slabs which held lumber, and an exhaust pipe for a sawmill engine are the only remains. These remains are deteriorating, and the forest is returning to what it once was. Natural or Ecological succession of an area is somewhat predictable changes in the plants and animals living there. It also includes environmental change, such as geography, weather, and chemical decomposition.

5) A short distance off the main trail to the south is a **seasonal waterfall** which runs from mid-fall through mid-June, depending on the rain and snow fall. The constant flow of water has eroded the rock to a smooth surface on which various mosses and algae thrive. This is a good place to test your powers of observation. Within one minute's time, how many natural can man-made sounds can you hear? *Try shutting your eyes.*

6) This large **boulder** was possibly deposited here by a glacier—a slow moving sheet of ice and snow—which covered New England at least 10,000 years ago. Natural forces such as water action and seasonal temperature changes gradually split the rock. The crusty green **lichens** covering the surface are so-called “pioneer plants,” surviving on bare rock to further prepare its surface for the growth of other plants, such as mosses and ferns.

7) A shallow soil layer in this extensive area of **rocky ledges** support the growth of club mosses, brittle reindeer moss (a lichen), and other non-flowering plants. The roots of some small hickory, oak, maple, an pine trees were able to locate soil-filled cracks in the rock. It is obvious by the size and variety of growth where the ledge are begins and ends.

8) At this site, two **oak** types are growing, Northern Red (*Quercus rubra*) and White (*Quercus alba*). The leaves of a Northern Red Oak have points, whereas White Oak leaves have rounded edges. The acorns of a Northern Red have a crimson color, and the White has greener acorns. The White Oak has vibrant orange leaves in autumn.



Maple Trail

9) The rocky ledges opposite the sign are composed of natural cavities, ideal homes for **porcupines**. When you are unable to explore dens in search of quills, a sure sign of recent porcupine activity is foot-long sections of hemlock branches on the ground with chewed off tips. This ground “litter” aids deer, providing winter browsing they could never reach. Porcupines eat the inner bark of the hemlock, chewing high on the tree and never penetrating the wood, unlike the beaver.

10) Bridges make a closer study of wetland plants possible. **Red Maples** (*Acer rubrum*) are the dominant tree here and their red buds and leaves provide stunning color in spring. The branches grow opposite each other and the flight of their winged fruit is like a helicopter's. **Jewelweed** (*Impatiens capensis*) with its succulent stems and spotted orange tube-shaped blossoms is praised by many as a “before-and-after” poison ivy remedy. Deer browse on these flowers. Another plant nickname, “touch-me-not,” refers to the spring-loaded green seed pods spontaneously released when touched lightly.

11) This area was once covered with charred tree stumps from the **1947 fire**. Although the fire was a destructive agent in this forest, controlled burning of certain areas as a management tool is used to develop certain shrub communities, such as blueberries, and to stimulate various evergreen cones to release seeds. Clearly, the forest has recovered. Among the newborn greenery, Doll's Eyes (*Actaea pachypoda*) can be found. Rock walls can be found in many places here. These walls were sometimes built by farmers trying to plow land. Using the rocks to mark the property line, these walls went up all over New Hampshire.

12) Many of the plants and animals found in streams are different from those living in ponds, as water movement, oxygen content, water temperature, and available food, vary. Creatures living in fast moving streams must be able to hold onto rocks or vegetation. The **caddisfly larva** (a caterpillar-like stage) builds a “house” on its back of rocks or sticks. The weight of these materials prevents the larva from being washed away in the stream currents. Look to the bottom of this stream among the rocks and see if you can spot the crawling houses of the caddisfly larva. A noteworthy event here is the July-September blooming period of the **cardinal flower** (*Lobelia cardinalis*). The 2 to 4 foot plant produces a slender spike of intense scarlet flowers which must be seen to be appreciated. At the other end and upstream side of the bridge the tall yellow **Canada lily** (*Lilium canadense*) blooms from June through August.

Lichen Trail

13) **Black birch** (*Betula lenta*), one of the five types of birch found in New Hampshire, is a common tree in the Conservation Area. Also known as “Sweet Birch,” its sap is rich in the oil of wintergreen, obtained by distilling the inner bark and twigs. Other distinctive features are red-brown bark with horizontal lines (lenticels), small fruiting catkins, and bright yellow fall foliage. The tree is hardy throughout New England, but prefers moist rocky slopes and gravelly soil.

14) The large trees with furrowed gray bark on the opposite side of the trail near the opening in the stone wall and on the hillside are **sugar maples** (*Acer saccharum*). During the early part of March when the days are warm and the nights are cold, sugar maples are tapped. The watery sap is collected and boiled down to yield maple syrup. On the average, it takes 35-40 gallons of sap to make 1 gallon of syrup. The fall leaves of the sugar maple contribute orange, red, and yellow to the landscape.

15) The pioneer plants that first began to grow on this exposed granite bedrock are called **lichens**. They are composed of microscopic algae and fungi cells. The algae manufacture food used by the fungi and the fungi in turn supply the algae with minerals and a protective covering. This cooperative plant relationship is called “**symbiosis**.” There are three types of lichens: foliose, or foliage-like; crustose, which are crusty in appearance; and fruticose, appearing to bear fruit. The British Soldier or Redcoat lichen with red tips and the Pyxie cup lichen resembling miniature cups are two examples of fruticose lichens growing on the bedrock. The best known use of lichens has been in litmus paper and Harris tweed dyes. Look for lichens on trees, rocks, sand, and bare soil in unpolluted environments.

16) As late as 1957, these fields were actively grazed by cows. When the constant trimming of the vegetation ceased, shrubs, small trees, and herbaceous plants began to grow in the fields, the first phase in a process called “**succession**.” In time, sun-loving trees would flourish and in turn will be shaded-out by mature forest trees such as oak and white pine or hemlock. The fields in this Conservation Area are now maintained as fields through occasional mowing.

17) These open fields are active, living communities day and night. Most small nocturnal field rodents such as mice, moles, and voles feed on a variety of plant and animal materials including seeds, berries, nuts, roots, worms, caterpillars, and snails. The rodents in turn serve as meals for larger night hunters such as owls and foxes. A complete list of “who-eats-who” is termed a “**food chain**,” which quickly expands to interconnected “food webs.” You observe many animals are dependent on the same foods. A simple field community food chain might be: owl→ mouse→ caterpillar→ plant leaves

24) Try looking down and around you to discover the variety of plant materials here. You may find tree “fruits” such as acorns, hickory nuts, and maple “helicopters” (samara). The many types of leaves on the ground are in well-defined layers—the newest being on top. Pick up a few layers and observe the older, bottom leaves are crumbling and decomposing, eventually becoming part of the soil layer. When leaves have fallen from the trees, the rock ledge is visible across the low wetland area. Porcupine activity has been noted in the natural caves there.

25) A few paces behind you under the trail is a “stone bridge,” which is not at all what we think of today as a bridge, but a **stone culvert**. It was constructed many years ago to convey water so a lane or path could be used in this low area. Crouch down near the culvert to locate **sphagnum moss** with its palm tree-like structures. It is capable of storing quantities of water in its leaves and was used during the Civil War to effectively pack wounds. Another wetland plant, **Winterberry** or **Black alder**, (*Ilex verticilata*) is in fact a member of the holly family, but loses its leaves in autumn. Bright red berries remain on the stems throughout the winter. The leaves are egg-shaped with pointed teeth, and small, white flowers may be seen at the base of the leaves in the early summer.

26) Follow this trail to the end and you will overlook a small portion of **Hogg Hill Meadow**, an interconnected wetland system totaling 100 acres. In earlier days, Hogg Hill, also known as Parsonage Meadow, was owned by the Church as one parcel of land. In 1752 it was voted to sub-divide the land into 16 lots to be sold. Hay was harvested in the meadow portions to feed horses and sheep.

Today, this wetland area is one of the largest in Hampstead. It performs critical functions such as trapping sediments, filtering pollution, recharging the water table, storing and then gradually releasing flood waters. A great variety of plants and animals live in our wetlands. Among the plants are unusual orchids and insectivorous plants as well as trees, shrubs, vines, flowering and non-flowering species. Spectacular egrets, herons, various waterfowl, songbirds, certain mammals, amphibians, reptiles, insects, spiders, fish, etc. rely upon the wetlands for food and shelter. Our wetlands are living ecosystems where hands-on lessons of their values may be taught. New Hampshire wetlands are a fast-disappearing resource due to intense development pressures. We cannot afford to overlook their critical ecological, geological, recreational, and educational roles in our community.

Trail Rules

- 1. No hunting or target practice; no firearms or bow and arrow.
- 2. No motorized vehicles.
- 3. Organized groups who desire campfires will coordinate the location with the Conservation Commission first, and then apply for a permit from the Hampstead Forest Fire Warden.
- 4. No overnight parking at trail heads.
- 5. Please keep our trails and parking areas clean: do not litter, and pick up any litter that you come across.

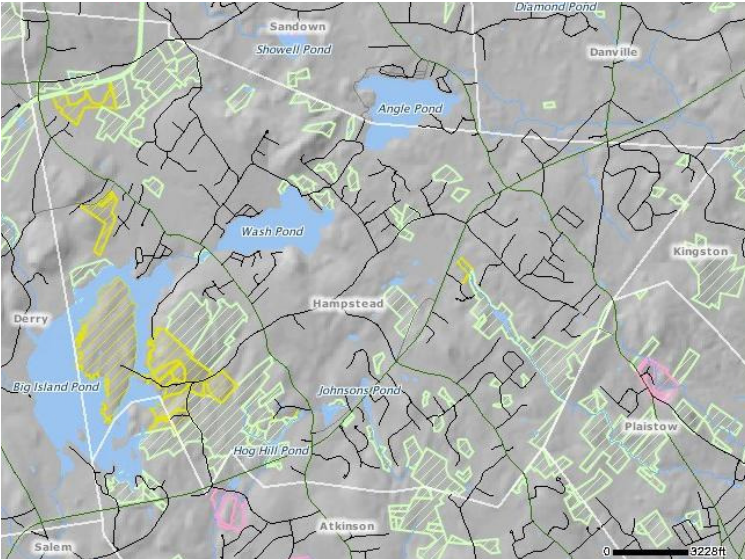
Text by Kathe Cussen written in November 1986. Revised by Kathe Cussen, Nathan Sarapas and David Treat in May 2007. Mapping and brochure by David Treat.

Conservation in Hampstead

Hampstead is blessed to have almost 1600 acres, or 18% of the town’s land area, set aside as open space; see the map below. 1050 acres of this are town owned land (green shaded); 510 acres are privately held land that is protected from development by conservation easements (yellow shaded).

Some of this land is idle open space, much of it is wetland, and some has been developed for recreation: hiking, biking, horse-back riding, snow shoeing, cross country skiing, or simple enjoyment of nature.

All of it contributes to the rural character of our town, helps preserve the quality of our air and water, and supports a diversity of wildlife.



West Road Conservation Area

The WRCA is Hampstead’s largest conservation area, consisting of 255 acres of land. It is located north of Route 111, west of Stage Road, and south and east of West Road. The WRCA encompasses a great diversity of terrain, including streams, swamps, the town’s largest wetland, open fields, mixed forest types, gentle rolling hills, and steep rocky outcrops.

Roughly 8 miles of trails crisscross the property, only a few of which are depicted on the map in this brochure. Full trail maps are available in the Town Office Building. Parking for access is available on Stage Road (immediately south of the Town Garage), on West Road (1.3 miles west of Stage Road), or in the cul-de-sac at the end of Cambridge Road.

The WRCA was created in 1980 with the purchase of the Mathes (29 acres) and Picard (115 acres) lots (with assistance from the Federal Land and Water Conservation Fund), and the establishment of a conservation easement on 24 acres of adjacent land by the Williams family. The Currier parcel (24 acres) was added in 1989 with help from the Society for the Protection of New Hampshire Forests. Subsequent land purchases and donations include: Hurley (8 acres) in 1997; Bailey (7 acres) in 2003; Schreiber (9 acres) in 2005.

Hampstead, NH

West Road Conservation Area



A five mile self guided Nature Walk

Oak Trail

18)The expanse of wetland are you are overlooking and the adjacent fields are the feeding and courtship territory of the **woodcock**. This nocturnal bird is stocky with short legs and neck and a long hinged bill used in probing the ground for earthworms. The male woodcock's spring “Sky Dance,” a courtship display, is performed for approximately an hour at dawn and dusk in the months of April and May. Depending on rainfall and season, this area may look more like a swamp than a wetland.

19) This diverse area with a forest edge, shrubby growth, and field is used by a variety of animals for food and shelter. The thorny, barberry shrub opposite provides a ruffed grouse's favorite food. Rabbits, mice, and other small mammals reside in the brambles and field grasses. Animals and plants from these three habitats occupy the area. The abundant variety of life found here is referred to as the “**edge effect**.”

20) At the top of this slight rise you will see the remains of an overgrown **cellar hole**. The assorted stones used in the construction help to date the hole back to the mid-1700's. After that time, it was common for cellar holes to be built with cut stones. In 1768, Mr. Job Kent bought these 65 acres in Hampstead and Atkinson from his father. It is likely he built this house shortly after that, circa 1770. It is interesting to note that after the home was abandoned, a tree grew to great size inside the stone perimeter, died, and is slowly decomposing. If you continue past the #20 sign post, you will see the old **well hole** used for the household water supply.

21) This **Northern Red Oak** (*Quercus rubra*) was about 25 years old when the Declaration of Independence was signed in 1776! It measures 13.5 ft in diameter, provides a large supply of acorns, shelter inside the hollow areas of the trunk, and countless nesting sites in its many branches. **Artist** or **Bracket fungus** may be seen growing on the trunk. Artists carve pictures on the flat white underside of the fungus.

22) To some, **dead trees** may not be an attractive part of the forest, but they are nevertheless important to its ecology. Woodpeckers are primary cavity nesters; they excavate their own nesting holes and rarely use artificial nesting boxes. Secondary cavity nesters, which use holes previously excavated, include such birds as the chickadee, nuthatch, house wren, and screech owl. Squirrels and raccoons are mammals who prefer hollow trees for their dens. Through the process of **decomposition**, the dead wood will be decayed by bacteria, fungi, and insects. In time it will help make new soil allowing other plants to grow.

23) Twenty paces left of sign post #23 is a high portion of land overlooking a steeply wooded slope. This **scenic outlook** is noteworthy throughout the year. After the leaves have fallen, autumn is the time to notice how unique tree bark patterns are...young black birch is smooth and black with horizontal ridges; shagbark hickory is scaly, gray and peels upward in in a shaggy sections; while the bark of a mature white pine is composed of small, gray, rectangular blocks. The snows of winter make a field easier to locate in the distance, while close by it enables us to observe the tracks of small animals traveling along the stone wall in search of food. In early summer, the outlook is transformed into a shady “tree house,” lacking a distant view. Then, black birch leaves change to gold and intermittently drop as autumn approaches.