

APPALACHIAN HARDWOOD FOREST

SPECIES GUIDE



NATURE TRUST
of NEW BRUNSWICK

Fondation pour la
PROTECTION DES
SITES NATURELS
du NOUVEAU-BRUNSWICK



THE NATURE TRUST OF NEW BRUNSWICK

The Nature Trust of New Brunswick was founded in 1987 as an incorporated, charitable land trust active in establishing and maintaining nature preserves for the benefit of present and future generations of New Brunswickers. The Nature Trust also educates people about the significance of conservation to the future well-being of the community.

Since its founding, the Nature Trust has protected many unique natural areas in New Brunswick – spectacular places of scenic beauty, pristine places untouched by saw or plow, and quiet places that shelter rare and endangered species.

By acquiring conservation lands and by working with landowners and government agencies to encourage responsible stewardship, the Nature Trust is helping to establish a network of protected natural areas in New Brunswick.

WHAT DO WE DO?



CONSERVE

CONSERVE AREAS IN NEW BRUNSWICK THAT ARE **ECOLOGICALLY SIGNIFICANT**, ESTABLISHING NATURE PRESERVES THAT REMAIN PROTECTED **FOREVER**;



STEWARD

STEWARD THE NATURE PRESERVES THROUGH A NETWORK OF **VOLUNTEERS** AND **SUPPORTERS**;



ENGAGE

ENGAGE WITH THE PUBLIC ON THE IMPORTANCE OF **LAND CONSERVATION**, NEW BRUNSWICK'S NATURAL HERITAGE, **BIODIVERSITY**, AND SPECIES AT RISK.

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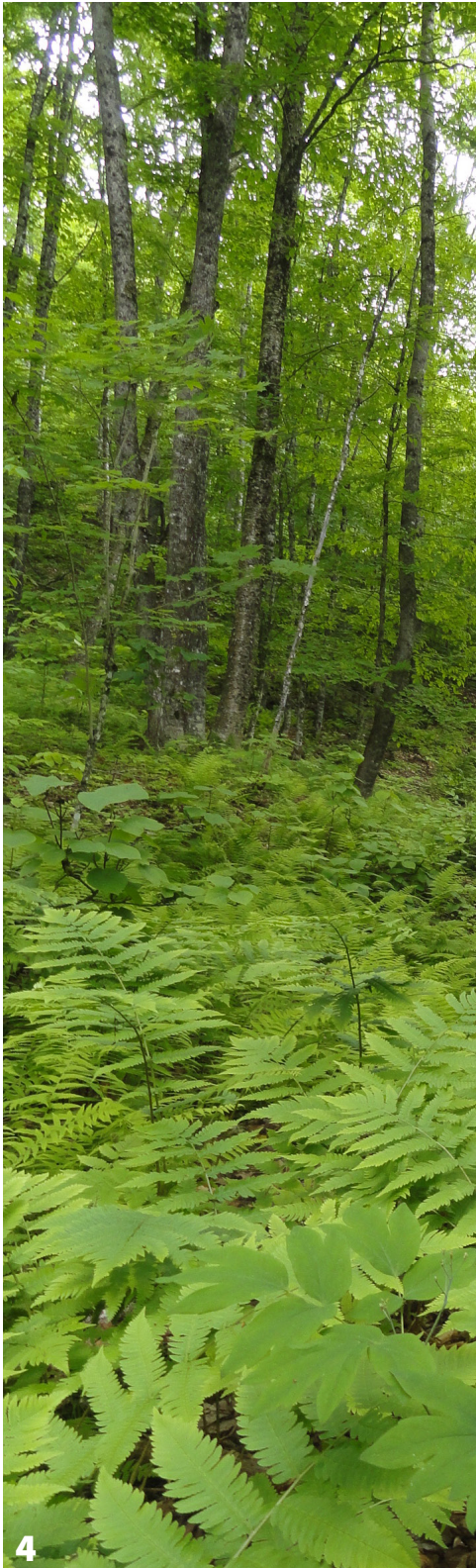
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NEW BRUNSWICK'S APPALACHIAN HARDWOOD FOREST

What is the Appalachian Hardwood Forest?

The Appalachian Hardwood Forest is the name given to the hardwoods of the Saint John River Valley between Keswick Ridge and Grand Falls.

They're different from all other hardwoods in New Brunswick. In them you will find basswood, elm, and butternut, along with spring wildflowers and other plants that are extremely rare in the Maritimes.

You will know you're in Appalachian Hardwood Forest when you see tall forests of sugar maple, beech, and ash with cool, shady conditions and a lush green understory.



What to look for in your woodlot

Does your woodlot have wet, seeping areas and spring drainages that are sensitive to machinery? This is where you will find ecologically sensitive areas that host rare plants including trees like butternut and basswood.

Does your woodlot have both young and very old hardwood trees, snags, and cavity trees? You may have great wildlife habitat for bird species like barred owl and many forest songbirds.



Why Appalachian Hardwood Forests are worth protecting

Appalachian Hardwoods are not just home to rare plants – they are wildlife sanctuaries for black bears, fishers, pileated woodpeckers, many songbirds, and even barred owls.

Appalachian Hardwood Forests are one of the most threatened types of forest in New Brunswick. We stand to lose something very special in the Carleton, Victoria and York Counties. These forests once covered 500,000 acres before settlement, today less than 1% is left.



What can you do

Consider making a commitment to preserving your woods. There are ways to conserve the Appalachian Hardwood Forest. You can have a woodlot management plan that balances harvesting and forest conservation – the Nature Trust of New Brunswick can help! Please refer to our Conservation Options brochure to learn more.

If you're interested in having a field survey of your woodlot to identify Appalachian Hardwoods and wildlife habitat, please contact us at (506) 457-2398.

HOW TO USE THIS GUIDE

This guide will help you identify some of the **rare** and **unique** plants, trees, and wildlife of the Appalachian Hardwood Forest in New Brunswick. You will find these species are grouped by type (wildflowers, birds, and mammals) and the time of year (early spring, late summer).

IMPORTANT!

Please do not pick wildflowers – you may end up killing the plant if you do!

When you're walking through the woods, try looking all around you especially down on the ground. You will often find the species in this guide in Ecologically Sensitive Areas, which are sensitive spots in the forest that provide perfect conditions for these unique plants and trees.

Look for wet soil, places where water drains, or rocky outcrops – these are the best places to search. The photos on **page 9** show some types of Ecologically Sensitive Areas that you might come across. When you find them, always watch where you step so you don't trample plants!

Some tips to get you started:

Look for wet hollows in the ground or clusters of lush green vegetation on the forest floor, especially where basswood, butternut, and white ash trees grow.

Start with plants that catch your eye and try to identify them using this guide - its best to focus on the flower, leaves, and shape of the plant.

Some of our rarest plants are known from five places or less! The species ranking table on **page 10** tells you if you have found something truly rare or common in New Brunswick.



ECOLOGICALLY SENSITIVE AREAS



WET SEEPAGE
ON SLOPE



WET SEEPAGE
DEPRESSION



SEASONAL STREAM/
DRAINAGE



ROCKY OUTCROPS

SPECIES RANKING SYSTEM

S	RANK DEFINITION
S1	CRITICALLY IMPERILED Extreme rarity (often five or fewer occurrences) or some other factor(s) (such as very steep declines) making it especially vulnerable to extirpation (local extinction) from the province.
S2	IMPERILED Rarity due to very restricted range. Very few populations (often 20 or fewer), steep declines, or other factors making it vulnerable to extirpation from the province.
S3	VULNERABLE Restricted range, relatively few populations (often 80 or fewer). Recent and widespread declines, or other factors making it vulnerable to extirpation.
S4	APPARENTLY SECURE Uncommon but not rare. Some cause for long-term concern due to declines or other factors.
S5	SECURE Common, widespread, and abundant in the province.

*Table Species ranking definitions (Source: <http://accdc.com/en/rank-definitions.html>)



Bloodroot

Sanguinaria canadensis

S4 - SECURE
EARLY SPRING
WILDFLOWERS



LOCATION: Rich hardwood forests, often near butternut trees or with other rare plants. Frequently forms large colonies.

FLOWERS: Appear in April to mid May. White with yellow centres, usually opening only on sunny days. The white petals are shaped like daisy petals and usually only remain on a flower for a few days before dropping off.

LEAVES: Are cradled around the flower buds and flowers when developing, but spread after flowering and persist until fall. Have multiple irregular lobes on their margins.

NOTE: Name originates from the root colour. **Root sap is poisonous.**





DO NOT PICK OR TRANSPLANT!

LOCATION: One of the rarest flowers of rich Appalachian hardwood forests in the province. Found in depressions and on slopes, often in seepy areas, and at the base of rocky slopes, ledges, or outcrops.

FLOWERS: Is the only white violet in New Brunswick that has flowers on the same stem as the leaves, not on separate stems. When viewed from the front, flowers are white with a yellow centre and dark purple lines radiating from the centre. The back of the flower is light purple.

LEAVES: Heart-shaped with a long pointed tip and a light green colour.



Cut-leaved Toothwort
Cardamine concatenata

S1 - IMPERILED
EARLY SPRING
WILDFLOWERS



DO NOT PICK!

LOCATION: Prefers wet seepy areas in rich hardwood forests and river/stream floodplains. Grows very low to the ground in colonies.

FLOWERS: Have 4 white petals, appear in late April to early May, and tend to spread on sunny days and droop when it's cloudy. Flowers arranged in small clusters at the top of the stem.

LEAVES: Dark green, divided into 3 to 7 long narrow lobes, with many coarse teeth along their edges. Leaf shape is important for differentiating from other species of toothworts. Leaves are found half-way up the stem of the plant and turn pale yellow in late spring before disappearing by summer.





LOCATION: Rich hardwood forests, often among other understory plants.

FLOWERS: Yellow with purple veins radiating from the centre. Flowers occur on the same stem as the leaves. Blooms from early May to June. This tall violet is New Brunswick's only yellow species.

LEAVES: Broad, heart-shaped, and dark green.



Dutchman's Breeches

Dicentra cucullaria

S4 - SECURE
EARLY SPRING
WILDFLOWERS



LOCATION: Often found on slopes and ledges, in ravines, and along streams with spring beauty, trout lily and red trillium.

FLOWERS: Primarily white flowers with some pink and yellow toward lower end. Resemble upside-down pants on a clothesline. Appear in April and May.

LEAVES: Are deeply cut, lacy and dark grey-green. Turn yellow and disappear by mid June.





LOCATION: Prefers damp to wet soils, including seepage areas in partial to full shades.

FLOWERS: Small (with petals under 5 mm) and yellow with green centre. Located in loose clusters at top of stem.

SEEDS: Seeds form a round ball-like cluster and have prominent hooks at the tip.

LEAVES: Large and hairy with three to five-lobes and resemble a small maple leaf. Stems are also hairy.



Jack-in-the-Pulpit
Arisaema triphyllum

S5 - SECURE
EARLY SPRING
WILDFLOWERS



DO NOT PICK!

LOCATION: Prefers low open woods and wet areas. Only found in rich soil with high organic content.

FLOWERS: An aptly named charismatic wildflower with a cylindrical rod located within a hooded vase-shaped structure adorned with green and/or maroon-brown stripes. Begins to bloom in early to mid May.

LEAVES: Look for the three broad teardrop-shaped leaflets connected to the tip of the sidestem. Mature plants can be up to two (or more)-feet tall.

NOTE: The leaves, berries, and roots contain calcium oxalate, a chemical compound that takes the form of tiny crystalline structures. Touching the plant will cause irritation, and ingesting it can cause choking or blisters.





LOCATION: Prefers wet seepage areas of rich upland hardwood forests and river/stream floodplains. Forms large colonies.

FLOWERS: White, pinkish, or light purple with 4 petals. Long-stalked in loose clusters. Appears in mid May.

LEAVES: The 3 (rarely 4) leaves are arranged alternately on the stem, not directly opposite one another. Each leaf is divided into 3 coarsely toothed leaflets. **Leaves and roots are edible.**



Round-lobed Hepatica

Hepatica nobilis

S2 - IMPERILED
EARLY SPRING
WILDFLOWERS



LOCATION: Low to the ground. Prefers rich soils in dry, mixed, or hardwood forests. May also occur in pine-oak forests.

FLOWERS: White, lavender-blue or pink, occur singly on hairy stalks. Appear in late April or early May and open only on sunny days. The 6 or more coloured structures resembling petals are actually sepals.

LEAVES: Unique shiny and bright green with 3 lobes and hairs underneath. Last all year long and are not on the same stems as the flowers. Plant named for lobed leaves resembling the lobes of the liver.





DO NOT PICK OR TRANSPLANT!

LOCATION: A small (up to 30 cm tall) very rare native wild orchid found in roughly ten locations in New Brunswick, but not in other Maritime provinces. Prefers rich, moist clay soils and is often found near streams and within seepage areas.

FLOWERS: Have a lower “lip” that is usually white and points downward, and is overtopped by a pink “hood” resembling the helmet of Spanish conquistadors. Appear in early to mid-June.

LEAVES: The two glossy, thick, dark green leaves arise from ground level and do not have a stalk at the base.



Spring Beauty

Claytonia caroliniana

S4/S5 - SECURE
EARLY SPRING
WILDFLOWERS



LOCATION: Often grows in large colonies low to the ground. Prefers well drained soils in partial shade. Often found with trout lily and red trillium.

FLOWERS: Pink-striped white flowers with 5 petals appearing in April and sometimes peeking through the snow. Open on warm sunny days and close when cloudy and overnight.

LEAVES: Two in number, located opposite one another on the stem below the flowers. Are narrowly diamond-shaped with rounded margins. Leaves, stems and flowers completely disappear by mid-June.





LOCATION: Found in rich mixed-hardwood forests and prefers partial or full shade. May be common on shady hillsides. Grows in small clumps and large colonies.

FLOWERS: Each tiny white flower occurs separately on a long stalk but the stalks are joined together so the clusters of flowers lie flat, at roughly the same level. Appear in May to June.

SEEDS: Long, curved seeds at the end of stems.

LEAVES: Flat and fern-like, divided into multiple triangular leaflets with jagged or serrated edges. Stems and stalks contain many dense hairs.



Trout Lily or Dog-toothed Violet

Erythronium americanum

S5 - SECURE
EARLY SPRING
WILDFLOWERS



LOCATION: May grow in expansive colonies that can cover large portions of the forest floor. Prefers moist soil in hardwoods, but may sometimes occur in partially shaded grassy areas.

FLOWERS: Yellow flowers that point downward and have six long pointed petals. Flowers are closed at night and on cloudy days. Appear in late April or early May.

LEAVES: Leaves are blotchy and with green-brown speckles, resembling green-brown camouflage or trout markings. Flowers, leaves and stems disappear by mid-June.





LOCATION: Prefers wet seepage areas of rich hardwood forests and river or stream floodplains. Sometimes also found on rocky talus slopes. Often in large colonies. Can grow up to 40 cm tall.

FLOWERS: Small and white, with 4 petals, and multiple flowers branching out from the top of a single stem.

LEAVES: Two, bright green and arranged opposite one another on the stem below the flowers. Each leaf divided into three coarsely toothed lobes that have hairy undersides.



Wood Anemone

Anemone quinquefolia

S4 - SECURE
EARLY SPRING
WILDFLOWERS



LOCATION: Hardwood to mixed forests, often on floodplains and slopes. May grow in large colonies, low to the ground.

FLOWERS: Each stem bears a single flower with five petals that are white on the top surface and often pale lavender beneath. Appear from early May to June. Sometimes 'droop' downward, especially on cloudy days.

LEAVES: Leaves are divided into 3 to 5 leaflets that have fine hairs and deeply serrated edges.





POISONOUS!

LOCATION: Rich moist hardwood forests, often among ferns and other ground plants.

FLOWERS: Clusters of small purple, brown or yellow flowers with 5 or 6 petal-like structures appear in May to early June, often before the leaves unfurl.

BERRIES: Deep blue, resemble berries and occur in small clusters.

LEAVES: Have blueish-green tinge and multiple leaflets, each shaped like a 3-toed footprint (may resemble a duck's foot).



Canada Wild Ginger

Asarum canadense

S4 - SECURE
EARLY SPRING
TO MIDSUMMER
WILDFLOWERS



LOCATION: Prefers cool, moist hardwood forests. Grows low to the ground and can form large colonies on the forest floor.

FLOWERS: Reddish-brown, shaped like a 3-point star and grow at ground level. Appear in late April to mid-May.

LEAVES: Two deep-green, heart-shaped leaves, with smooth edges, downy hairs and noticeable veins. Roots smell and taste like ginger.



S5 - SECURE
EARLY SPRING
TO MIDSUMMER
WILDFLOWERS

False Solomon's Seal
Maianthemum racemosum



LOCATION: Prefers partially shaded to shaded stream areas, and moist woods.

FLOWERS: A cone-shaped cluster of white, star-shaped flowers, each with 6 petal-like structures, at the tip of the stem. Appears in late spring.

FRUITS: Berries are located at the tip of the stem, are white and speckled when developing and turn red when ripe.

LEAVES: Long and distinctive with parallel veins, growing from a single arching stem which zigzags from leaf to leaf.

NOTE: It can be confused with Solomon's seal, which has blue berries and yellow flowers located along the stem, beneath the leaves (not at the tip of the stem).



Red Trillium
Trillium erectum

S5 - SECURE
EARLY SPRING
TO MIDSUMMER
WILDFLOWERS



LOCATION: Prefers cool, moist, and well-drained soils in shaded woods.

FLOWERS: A single flower that has three petals and is usually dark maroon to purple flower but may rarely be pale yellow, off white, pale green or pink. Its faint pungent odor gives this flower its nickname, “Stinking Benjamin” or “Wet Dog Trillium.” Appears in late April or May.

LEAVES: Three large diamond-shaped green leaves, arranged around a single stem. The height of the plant is 20 to 40 cm (8 to 16 inches). Trillium gets its name from the prefix “tri” meaning “3” since it has three leaves and petals.



S5 - SECURE
EARLY SPRING
TO MIDSUMMER
WILDFLOWERS

Solomon's Seal
Polygonatum biflorum



LOCATION: Prefers partial-sun and light shade often in well-drained woods.

FLOWERS: Small white, yellow, or light green flowers with 6 petal-like structures dangling below the leaves and arising from where the leaves join the stem. Appears in late Spring or early Summer.

FRUITS: Berries are dusty blue-black and hang below the stem, beneath the leaves.

LEAVES: Large, long, and deep green leaves alternating on a single stem.

NOTE: **Flowers and berries are poisonous.** Do not confuse with False Solomon's seal, which has reddish berries and white flowers located at the tip of the stem (not running along and below the stem).



Wild Oats or Bellwort

Uvularia sessilifolia

S5 - SECURE
EARLY SPRING
TO MIDSUMMER
WILDFLOWERS



LOCATION: Prefers open woods, with rich, moist soils and good drainage.

FLOWERS: A perennial plant with small, pale yellow, “nodding,” bell-shaped flowers appearing in May. Found dangling below the leaves.

LEAVES: Alternate leaves along a twisted stalk.

SEEDS: Oval or round shape with a pointed tip, and 3 distinct winged edges.



S4 - SECURE
EARLY SPRING
TO MIDSUMMER
WILDFLOWERS

Yellow Lady's Slipper
Cypripedium parviflorum



DO NOT PICK OR TRANSPLANT!

LOCATION: Found in small patches in hardwood forests with rich soil and also in wetlands dominated by white cedar.

FLOWERS: Native wild orchid with a charismatic, bright, large, yellow flower appearing in late May until July. Flowers resemble a slipper or pouch with one over-hanging petal (hood), and two long twisted side petals. It grows up to 80 cm tall.

LEAVES: Have long, deep, linear lines, a characteristic of all orchid species, and occur along the stem.



American Lopseed
Phryma leptostachya

S2 - IMPERILED
MIDSUMMER
WILDFLOWERS



LOCATION: Found in small patches in hardwood forests with rich soil, often beneath Butternut.

FLOWERS: An array of tiny pinkish flowers arranged in pairs that are well spaced apart and occur toward the top of the stem. Appear in mid to late July and early August.

SEEDS: Pointed downward, closely hugging the stem and in pairs, one on either side of the stem.

LEAVES: Broad, slightly longer than wide, dark green with long stalks and coarse teeth.





LOCATION: Found in shady woodlands and in open/sunny glade, especially where trees have recently fallen.

FLOWERS: White clusters White clusters blooming for two to three weeks in late Spring or early Summer.

FRUIT: Ripe fruit are purple-black and, like red raspberries, have hollow centres when picked.

LEAVES: Leaves have three to five leaflets with a white underside. Stem is blueish-white, round and not ridged, and will root at the tip when touching the ground. Thorns are small, broad-based, widely spaced, and hooked, much smaller than blackberry thorns and not fine and narrow like those of red raspberry.



Eastern Leatherwood

Dirca palustris

S2 - IMPERILED
MIDSUMMER
WILDFLOWERS



LOCATION: Woodlands, such as those with damp seepage areas in rich hardwood forests; however, they can be found in a variety of forests.

FLOWERS: Yellow and forming in pairs, which hang down from a small leaf cluster on branches. Appear in late April and early May.

LEAVES: Alternate leaves, smooth, and blueish-green with a dull luster. They turn pale yellow in early Fall. This shrub can grow up to nine feet tall. Branches are very bendable and are light beige dark colour.





LOCATION: Prefers shaded and wet areas. Is often found in sprawling colonies. Plant can be up to 60 cm tall.

FLOWERS: Small, in a white to pink elongated cluster pattern. Both flower and stalk are hairy.

SEEDS: Tear-drop shaped, with hooked hairs that often get stuck to clothing.

LEAVES: Arranged in opposite pairs, at right angles to the leaves below. Teeth on the leaves resembles teeth on beech tree leaves.



Orange-fruit Horse-gentian “Wild Coffee”

Triosteum aurantiacum var. *aurantiacum*

S2 - IMPERILED
MIDSUMMER
WILDFLOWERS



LOCATION: Rich forests and thickets.

FLOWERS: Blue/purple and pink/red, just above where the leaves join the stem. Appear in June

FRUITS: Fleshy and orange, occur just above where a leaf begins.

LEAVES: Opposite leaf arrangement. Edge of leaf is smooth. Plant can grow up to one metre-tall.



White Baneberry or “Doll’s Eyes”
Actaea pachypoda



WARNING: HIGHLY POISONOUS!

LOCATION: Prefers rich soils, and partially shaded to fully shaded areas in deciduous forests.

FLOWERS: Small, white flowers resembling fireworks, forming a cluster at the tip of the stalk appears in May to June.

BERRIES: White berries with a large black spot at their outer tip. Resemble doll’s eyes and occur on thick, red stalks.

LEAVES: Divided into multiple sharply serrated leaflets.



Zig-zag Goldenrod
Solidago flexicaulis

S5 - SECURE
MIDSUMMER
WILDFLOWERS



LOCATION: Prefers fertile, loamy soil in shaded forests. Usually found in small patches or colonies.

FLOWERS: Small yellow flowers growing along entire stem in clusters where the leaf joins the stem.

LEAVES: Broad, sharply-serrated leaves grow alternately along a single stem which bends slightly at each leaf attachment, creating a “zig-zag” shape.



American Spikenard
Aralia racemosa



LOCATION: Often on wooded slopes, ravines, and moist shady ledges. Prefers moist, fertile, organic loams.

FLOWERS: Small, greenish-white flowers, in clusters at the end of branches. Appears in mid-Summer .

FRUIT: Berries turn dark purple upon ripening in early Fall.

LEAVES: Large, heart-shaped leaves with serrated edges, and pointed tips on bamboo-like stems.



Canada Yew/Ground Hemlock

Taxus canadensis

S5 - SECURE
MID TO LATE
SUMMER
FERNS, SEDGES
AND GRASSES



LOCATION: Prefers moist soil, in full to partial shade in mixed woods. Forms dense, sprawling colonies by layering its branches.

BERRIES: Distinctive, bright-red seed cover with a prominent opening exposing the seed. The dark brown, oval seeds are **highly toxic**.

LEAVES: Characteristic yellow mid-vein on underside of flat dark green needles, which are also **highly toxic**. This shrub can reach a height of approximately five feet. Stems branch upwards and sprawl along the ground.





LOCATION: Grows in shaded, cool, moist hardwood forests, especially along streams and in ravines.

LEAVES/FRONDS: Grows in a clump, from a single point. Leaves (called fronds in ferns) are lustrous and dark green. Each leaflet or pinna is “boot-shaped,” similar to the Christmas fern, but is further subdivided into smaller segments. Fruitdots on the underside of the leaf are kidney-shaped and light beige. The leaf stalk is very chaffy and hairy.



Christmas Fern

Polystichum acrostichoides

S5 - SECURE
MID TO LATE
SUMMER
FERNS, SEDGES
AND GRASSES



LOCATION: Rich woods, may occur in both dry and moist areas. Partial to fully shaded areas on hillsides, in moist ravines, and along shorelines or embankment areas.

LEAVES: Grows in a clump originating from a single point. Leaves are shiny, dark green, and leathery, resembling the houseplant Boston fern. Each leaflet is shaped like a Christmas stocking attached to the stem from the bottom end. This fern stays green throughout the winter, making it easy to spot when protruding above snow.





LOCATION: Prefers cool, moist shaded areas in hardwood forests with rich soil, often with northern maidenhair and blue cohosh.

LEAVES: A distinctively large wood fern up to 1 m tall and often growing in large colonies. Leaves are two-toned and bluish-green and parallel-sided but abruptly taper to the tip. Leaf stalk has many dark brown scales.



Northern Maidenhair Fern

Adiantum pedatum



LOCATION: Prefers cool, shady areas in hardwood forests with rich soils. Often grows with blue cohosh, showy orchis and Goldie's wood fern, and forms large colonies.

LEAVES: Bright green, delicate oblong to fan-shaped leaflets forming a semi-circle or horse-shoe shape.

STEM: Shiny, thin and purple-brown to black, forking at the top into two branches.



Rattlesnake Fern
Botrypus virginianus



LOCATION: Prefers partial sun to light shade, and moist well-drained soils in rich woods.

LEAVES: A small, short fern up to 50+ cm tall with three main leaves arranged evenly around a single stem or fertile stalk. Each leaf has a triangular outline but is lacy, finely divided, thin and papery. The tip of the fertile stalk bears clusters of round yellow spore cases that resemble a rattlesnake tail.



Silvery Glade Fern/Silvery Spleenwort

Deparia acrostichoides

S4 - SECURE
MID TO LATE
SUMMER
FERNS, SEDGES
AND GRASSES



LOCATION: A medium-sized fern, preferring moist, deciduous woods. Often found in wet areas, along streams and ravines.

LEAVES/FRONDS: Fronds have a silvery sheen, as do the comma-shaped fruitdots which are located on the backside. Stems very hairy and sprouting from a single point.



Hooked Agrimony
Agrimonia gryposepala



LOCATION: Rich forests and thickets .

FLOWERS: Small and dull yellow with 5 petals.

FRUITS: Cone-shaped, bristled (velcro-like) seed pods.

LEAVES: Leaves arranged alternately (not opposite one another) along the stem. Each leaf divided into 5 to 9 leaflets with large teeth along their edges.



Bottle-brush Grass
Elymus hystrix

S1 - IMPERILED
MID TO LATE
SUMMER
FERNS, SEDGES
AND GRASSES

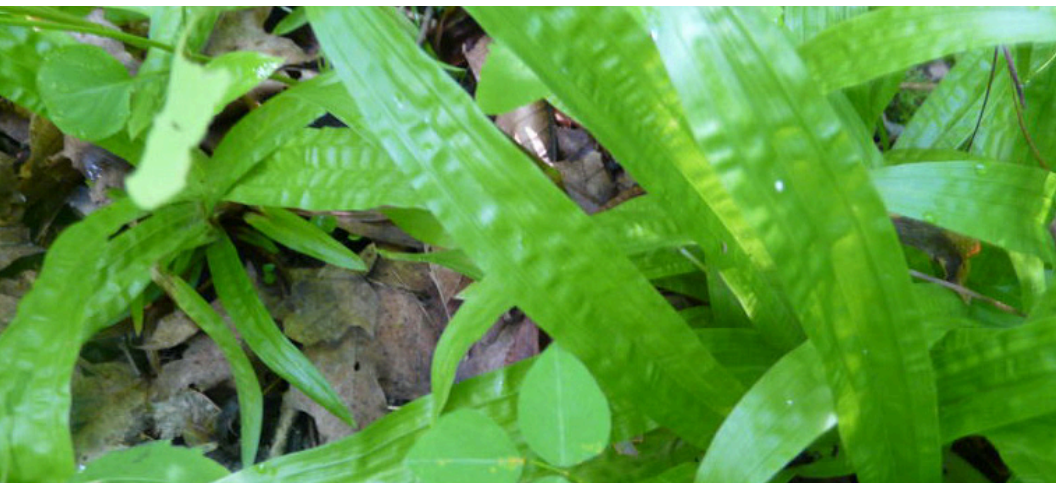


LOCATION: Grows in rich seepage areas, often among ferns and other understory plants.

STRUCTURE: Tall (often exceeding 1 m) and unique looking. Seeds are arranged in widely spaced pairs at the top of the stem, stick out sideways (at 90°) and are accompanied by elongate needle like structures called awns, so the grass looks like a soft “bottlebrush.”



Plantain-leaved Sedge
Carex plantaginea



LOCATION: Moist, shaded woods, wet seepage areas, ravines, and along banks of seasonal streams.

FLOWERS: Stalks have dark reddish-purple spikes at the tip, and appear from May to early June.

LEAVES: Distinctive trait – Look for clumps of wide (1.2 to 4 cm), wavy leaves that look wrinkled, with three sharp folds running along the length. Leaves are long, evergreen, red at the base but otherwise yellowish-dark green in colour, and easily visible in early spring.



Sprengel's Sedge

Carex sprengelii

S2 - IMPERILED
MID TO LATE
SUMMER
FERNS, SEDGES
AND GRASSES



LOCATION: Prefers shaded to partially shaded areas. Found in a variety of habitats including floodplains, shores, river bluffs, meadows, rock outcroppings and woods.

SEEDS: Fruiting bodies arranged collectively in a unique elongate 'drooping' pattern. In sedges, each seed is enclosed within a protective vase-shaped structure (called a perigynium). In this species the perigynium has a prominent narrow 'beak' at its tip.

LEAVES: Thin leaves, only 2.5 to 4 mm wide, giving this sedge a grass-like appearance.





LOCATION: Prefers rich bottomlands, floodplains, stream banks, and swampy ground on well drained soils. Also found along roadsides.

BARK: Young tree bark is gray, slightly rough overall with irregular downwards stripes. Mature tree has a gray trunk with more furrowed bark.

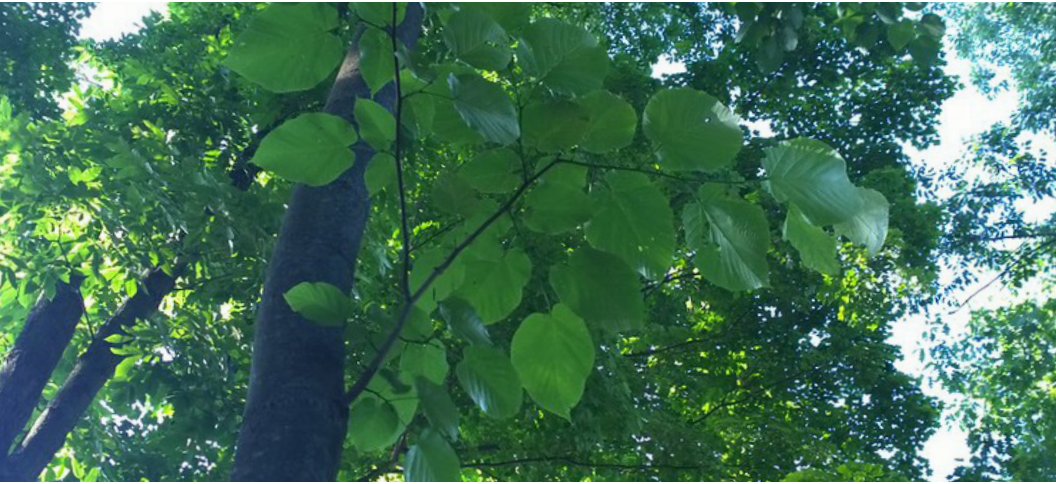
LEAVES: Shiny, dark green leaves are oval shaped with saw-toothed edges. Base of leaf is characteristically asymmetrical .



Basswood

Tilia americana

S4 - SECURE
TREES



LOCATION: A large, full-canopy hardwood tree that tolerate shaded conditions. Often found scattered in wet seeping areas and can have multiple trunks, it can grow up to 80 feet tall.

BARK: Gray-brown with long narrow ridges, often having rows of yellow-bellied sapsucker holes.

LEAVES: Large and heart-shaped with serrated edges and a short point.

FLOWERS: Clusters of greenish-yellow flowers appearing mid-Summer.

SEEDS: Small, round, and gray-brown in colour.





LOCATION: A slender, shade-intolerant, medium-sized hardwood tree often found in wet areas. Grows in wet, rich soil along stream banks, wetland edges, and seeping areas.

BARK: Scaly, light brown, and soft/spongy.

LEAVES: Compound, opposite leaves. Individual leaflets have no stalk at main leaf-stem (no space between where leaf beings and where it is attached to the stem).

FLOWERS/BUDS: End buds are very large and a dark brown-black.

SEEDS: Longer and broader compared to those of white ash.



Butternut
Juglans cinerea

**S1 - IMPERILED
TREES**

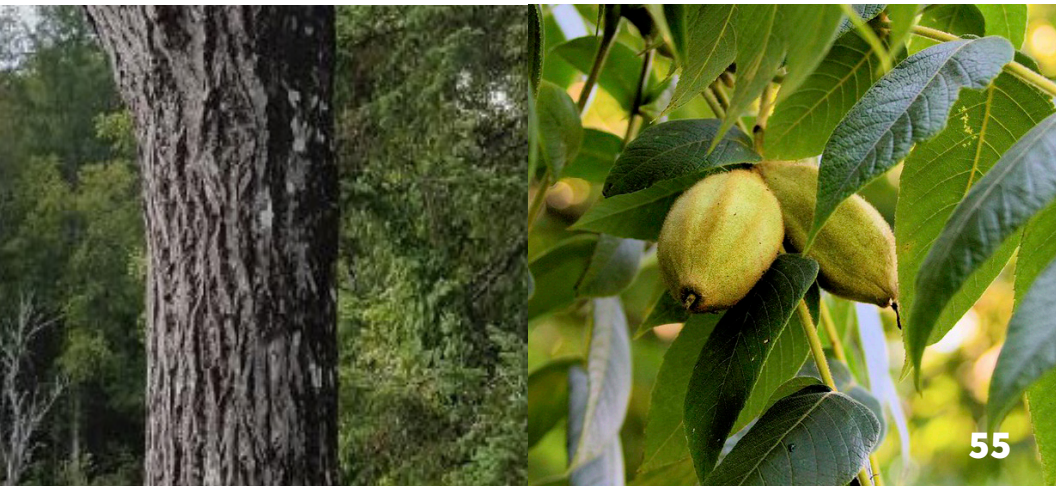


LOCATION: Shade intolerant.

FRUIT: Fruits are nuts and can be made into butter.

BARK: Bark is ridged but flattens off. Cankers, which ooze black substance, are often visible on the bark.

LEAVES: Compound leaves, with many leaflets (11-17 per leaf).





LOCATION: Found in the understory of tolerant hardwood forests. Prefers moist, but well drained to dry soil, and slightly acidic conditions. Very shade-tolerant, often found beneath a sugar maple\beech\ash canopy

BARK: Light, greyish-brown with long, flat, flaking ridges. Often with moss and lichen growth. Trunks are small but “muscular-looking”.

LEAVES: Sharply toothed with deep veins.



Sugar Maple
Acer saccharum

**S5 - SECURE
TREES**

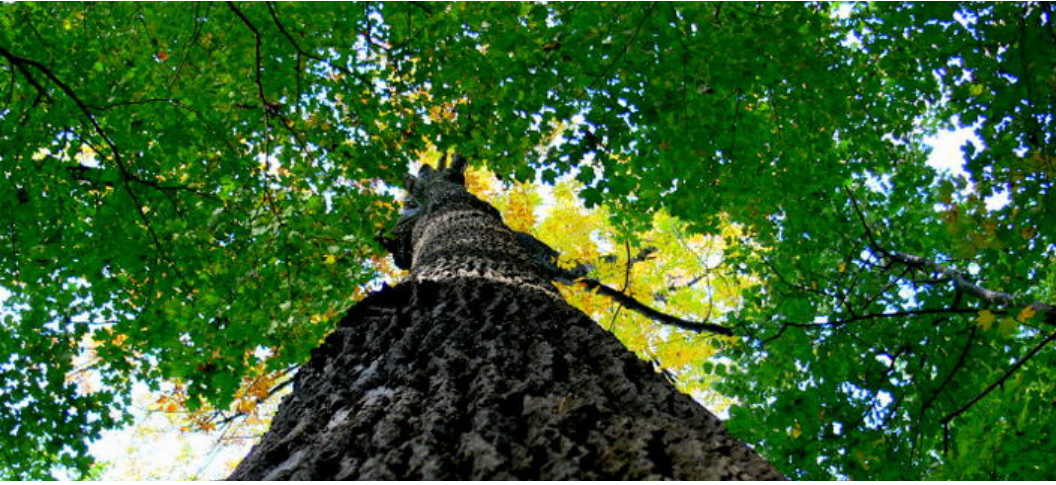


LOCATION: Deep, fertile, moist, well-drained soils with some lime content. Very shade-tolerant, often found with beech/ash canopy.

BARK: Dark grey to grey-brown, with long, irregularly shaped, thick scales.

LEAVES: “U” shape between leaf tips, distinct box shape in the top lobe (see leaf photo).

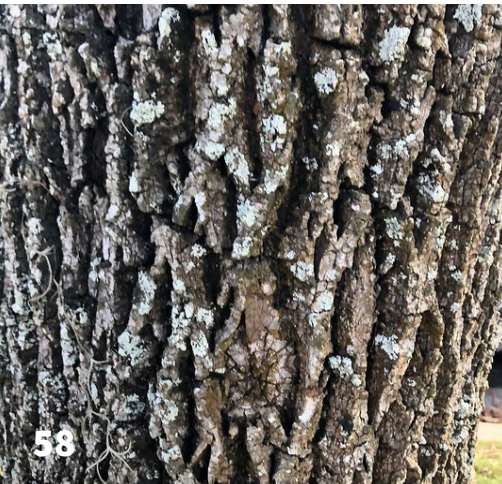




LOCATION: Prefers full sun, but tolerates partial shade. Prefers moist, rich soils and does not mind growing in wet areas. Often found among rare plant populations of the Appalachian Hardwood Forest.

BARK: Dark grey with deep, thin, linear ridges, resembling diamonds or corduroy material.

LEAVES: Compound, opposite leaves. Leaflets have small stalks attached to the main stem (there is a small space between where the leaf begins and where it is attached to the stem). The underside of the leaf is white.



Barred Owl
Strix varia

S5 - SECURE
BIRDS



LOCATION: Perching on tree limbs. They are a common species in New Brunswick, but hard to find.

PHYSICAL CHARACTERISTICS: Large owl, with brown stripes going lengthwise on a white chest. Brown back with mottled white. Has a yellow bill and dark eyes. Lacks ear tufts.

CALL: “Who cooks for you?”





LOCATION: Flying above the forest canopy, near forest openings. Common species in New Brunswick but hard to find.

PHYSICAL CHARACTERISTICS: Slightly pointed wings with a wide band on the tail. The under-wing pale with a dark outline on the trailing edges and tip.

CALL: Shrill, high pitched, “pwe-eeeeee” or “kee-eeeeee.”



Eastern Wood Pewee

Contopus virens

S4 - SECURE
BIRDS



LOCATION: Perched on branches in the mid-canopy.

PHYSICAL CHARACTERISTICS: Gray flycatcher with two, narrow, white wing bars. Long tail, peaked head, and lacks pronounced eyering. Light gray chest that slightly resembles a vest. The vest is less pronounced than the Olive-sided Flycatcher.

SONG: Distinctive “pee-a-wee,” slurring down.





LOCATION: Nesting or foraging on the forest floor.

PHYSICAL CHARACTERISTICS: Warbler with bold black stripes/spots on chest, a black and orange striped crown, and a pronounced white eyering.

CALL: Rapid “TEACHer, TEACHer, TEACHer,” growing in volume and repeating eight to twelve times.



Pileated Woodpecker

Dryocopus pileatus

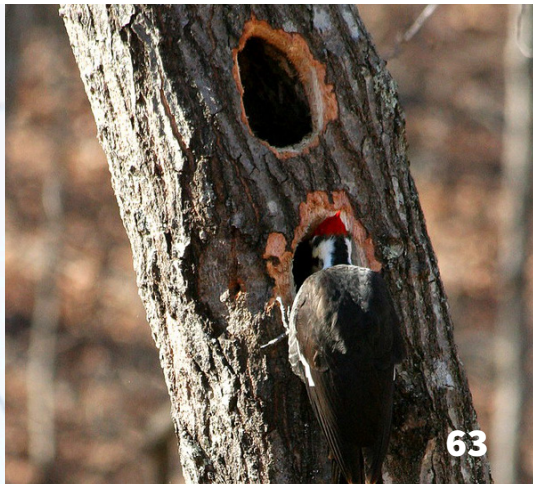
S5 - SECURE
BIRDS



LOCATION: Foraging on standing dead trees, stumps, or logs on the forest floor. Leaves oblong holes in trees when feeding.

PHYSICAL CHARACTERISTICS: Large bird with a chisel-like bill, long neck, black back, and bright red crest. Males have a red stripe on their cheek.

CALL: Single, loud “kuk” notes or loud piping calls that last several seconds. Drumming on trees last up to three seconds long or sporadic.





LOCATION: Upper or mid-canopy or foraging on the ground.

PHYSICAL CHARACTERISTICS: Rusty/cinnamon-brown back, with distinct spotting on a white chest. Spots on chest fainter than other thrushes. Grayish face and lacks strong eyering.

CALL: Distinct “*vee-ur, vee-ur, veer, veer,*” descending slightly in pitch and wheeling downwards.



Fisher

Pekania pennanti

S5 - SECURE
MAMMALS



DESCRIPTION: Long, slender body (two-four feet). Short, muscular legs, long tail, triangular head, round ears. Prefers thick mixed coniferous and hardwood forests. It is a common species in New Brunswick, but hard to find.

HABITS: Solitary and nocturnal. It hunts snowshoe hares, small rodents, and porcupines and caches its prey. Retreats to forests in the winter and travel extensively in Summer but are not migratory.

TRACKS: Five digits, unclear claw marks, two-by-two pattern, with one foot slightly behind the other.

SCAT: Dark, twisted, tapered ends and may contain porcupine quills.





DESCRIPTION: Brown or brownish-red, with a white underbelly, long legs and bobbed tail with a white tip on underside. Prefers many habitat types from Southern Canada to Central Mexico. Common species in New Brunswick, but hard to find.

HABITS: Elusive, solitary stalkers. Hunts mice, rabbits, and even deer. Travels up to 80 kilometers while hunting.

TRACKS: Slightly larger than house cat with four digits, large pads, and retractable claws.

SCAT: Dark brown, highly segmented, and contains the hair or bones of prey.



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