


APPALACHIAN HARDWOOD FOREST

SPECIES GUIDE





Appalachian Hardwood Forest: Species Guide

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THE NATURE TRUST OF NEW BRUNSWICK

Established in 1987, the Nature Trust of New Brunswick is a charitable land conservation organization which focuses on conserving and stewarding private land and engaging New Brunswickers about the importance of protecting our province's unique natural heritage and biodiversity.

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

By conserving land 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 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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NEW BRUNSWICK'S APPALACHIAN HARDWOOD FOREST

WHAT IS IT?

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 these forests, you will find basswood, elm, butternut, spring wildflowers, and other plants that are extremely rare in the Maritimes.



WHAT TO LOOK FOR:

Does your woodlot have wet, seeping areas and spring drainages that are sensitive to machinery? Look here for **Ecologically Sensitive Areas**, which are spots in the forest with the perfect conditions for unique plants. The photos on **page 8** show types of Ecologically Sensitive Areas that you might find.

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



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, forest songbirds, and even barred owls.

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



HOW YOU CAN HELP:

There are ways to conserve the Appalachian Hardwood Forest. Consider making a commitment to preserving your woods. 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 or conserve@ntnb.org.

ECOLOGICALLY SENSITIVE AREAS



WET SEEPAGE
ON SLOPE



WET SEEPAGE
DEPRESSION



SEASONAL STREAM/
DRAINAGE



ROCKY OUTCROPS



IDENTIFYING SPECIES

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

IMPORTANT!

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

GETTING STARTED:

When you're walking through the woods, look all around - especially down at the ground. Look for clusters of lush green vegetation on the forest floor, particularly where basswood, butternut, and white ash trees grow. Watch your step so you don't trample plants!

Rocky outcrops, wet soil, and places where water drains are the best places to search for unique species. Some of our rarest plants are known to grow in as few as five of these places.

Start with plants that catch your eye. It helps to focus on the flower, leaves, and shape of the plant. The leaf arrangement and margin samples on **page 10** will help you to identify plants like a pro. The species rarity chart on **page 11** tells you if you have found something common or truly rare in New Brunswick. Track your findings with the checklist on **page 70!**

PLEASE NOTE: The species listed in this guide are *indicators* of Appalachian Hardwood Forests. However, the presence of one or more indicator species does not guarantee that you are in an Appalachian Hardwood Forest. To be sure, contact us and set up a survey!

TYPES OF LEAF ARRANGEMENTS AND MARGINS

SIMPLE



COMPOUND



OPPOSITE



ALTERNATE



WHORLED

MARGINS



SMOOTH



LOBED



TOOTHED/
SERRATED



SPECIES RARITY AND SPECIES AT RISK STATUS RANKING CHARTS

S	RANK DEFINITION
S1	CRITICALLY IMPERILED Extreme rarity (often five occurrences or less) or some other factor(s) (such as very steep population 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 less), steep declines, or other factors making it vulnerable to extirpation from the province.
S3	VULNERABLE Restricted range, relatively few populations (often 80 or less). 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>)

PROVINCIAL SPECIES AT RISK RANKING DEFINITIONS	FEDERAL SPECIES AT RISK RANKING DEFINITIONS
EXTIRPATED Species that no longer exists in the wild in the Province, but exists elsewhere in the wild.	EXTIRPATED Species that no longer exists in the wild in Canada, but exists elsewhere in the wild.
ENDANGERED Species that is facing imminent extirpation from the Province or extinction.	ENDANGERED Species that is facing imminent extirpation or extinction.
THREATENED Species that is likely to become endangered if nothing is done to reverse the factors leading to its extirpation.	THREATENED Species that is likely to become endangered if nothing is done to reverse the factors leading to its extirpation or extinction.
SPECIAL CONCERN Species that may become threatened or endangered because of a combination of biological characteristics and identified threats.	SPECIAL CONCERN Species that may become threatened or endangered because of a combination of biological characteristics and identified threats.



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

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

LEAVES: Cradle 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.**



Canada Violet
Viola canadensis

S2 - IMPERILED
EARLY SPRING
WILDFLOWERS



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: The only white violet in New Brunswick that has flowers on the same stem as the leaves, rather than on separate stems. When viewed from the front, the flowers are white with a yellow centre. Dark purple lines radiate from the centre. The back of the flower is light purple.

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





DO NOT PICK!

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

FLOWERS: Has four white petals, appearing in late April to early May. Petals tend to spread on sunny days and droop when cloudy. Flowers are arranged in small clusters at the top of the stem.

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



Downy Yellow Violet
Viola pubescens

S4/S5 - SECURE
EARLY SPRING
WILDFLOWERS



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.





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

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

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



Hooked Buttercup
Ranunculus recurvatus

S4 - SECURE
EARLY SPRING
WILDFLOWERS



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

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 3-5 lobes, resembling a small maple leaf. Stems are also hairy.





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 stem. Mature plants can be two+ 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; ingesting it can cause choking or blisters.



Large Toothwort
Cardamine maxima

S3 - VULNERABLE
EARLY SPRING
WILDFLOWERS



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

FLOWERS: White, pinkish, or light purple with four petals. Long-stalked in loose clusters. Appear 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 coarse-toothed leaflets.





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. Persist all year and are not on the same stems as the flowers. Plant named for lobed leaves resembling the lobes of the liver.



Sharp-lobed Hepatica

Anemone acutiloba

S1 - IMPERILED
EARLY SPRING
WILDFLOWERS



LOCATION: Grows in rich calcareous soils found in the upland areas of the Appalachian Hardwood Forest.

FLOWERS: White, pink, or purplish coloured petals with a green to white center surrounded by white stamen. Behind the flower, three oval-shaped green bracts occur. The number of petals can vary widely from 5 to 12.

LEAVES: Three sharply pointed spade-shaped leaves grow at ground level. Leaves remain throughout the year turning a mottled red to brown in the fall and winter and withering once the flower blooms. New solid-to-variegated green leaves develop in the spring.





DO NOT PICK OR TRANSPLANT!

LOCATION: A very rare native wild orchid found in roughly ten locations in New Brunswick; not found 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, 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 rise from ground level and do not have a stalk at the base. The plant is small (up to 30 cm tall).



Spring Beauty
Claytonia caroliniana

S4/S5 - SECURE
EARLY SPRING
WILDFLOWERS



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

FLOWERS: White flowers with pink stripes and five petals. Appear in April and sometimes peek through the snow. Open on warm sunny days and close when cloudy and overnight.

LEAVES: Two leaves, located opposite one another on the stem below the flowers. 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. Grow 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 cluster of flowers lies flat, at roughly the same level. Appear from 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 hardwood forests, but sometimes occurs in partially-shaded grassy areas.

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

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

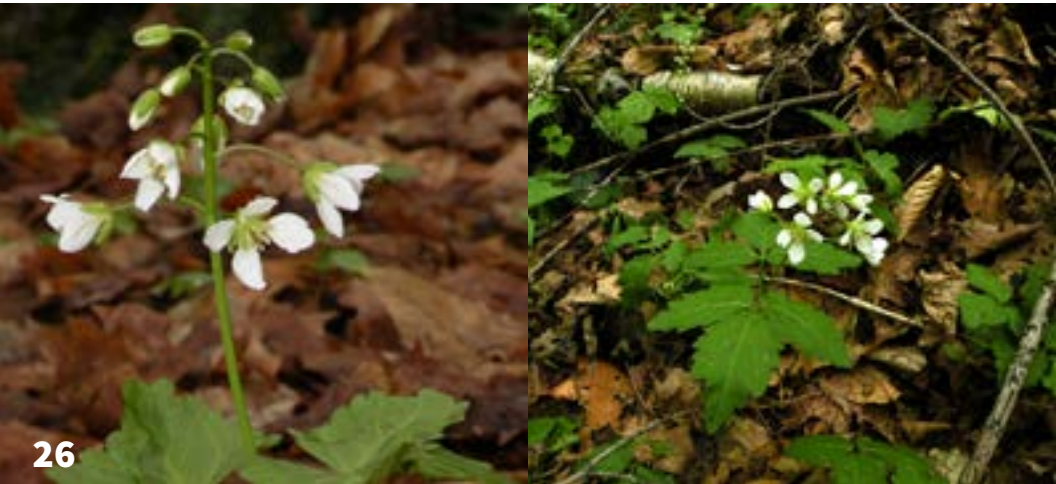




LOCATION: Prefers wet seepage areas of rich hardwood forests and river or stream floodplains. Sometimes found on rocky talus slopes. Often in large colonies.

FLOWERS: Small and white, with four 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 is divided into three coarse-toothed lobes that have hairy undersides. The plant can grow up to 40 cm tall.



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 3-5 leaflets with 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 five or six petal-like structures that appear in May to early June, often before the leaves unfurl.

FRUITS: Deep blue, resemble blueberries and occur in small clusters.

LEAVES: Have bluish-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 three-pointed 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.



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 six petal-like structures, at the tip of the stem. Appear in late spring.

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

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

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



Red Trillium
Trillium erectum

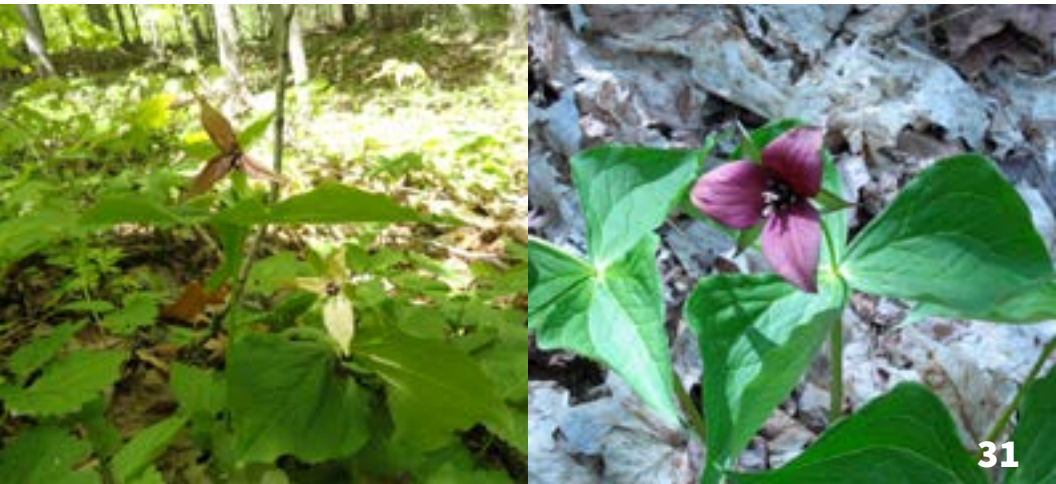
S5 - SECURE
EARLY SPRING
TO MIDSUMMER
WILDFLOWERS



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

FLOWERS: A single flower with three petals that are usually dark maroon to purple, but may (rarely) be pale yellow, off-white, pale green or pink. A faint pungent odour 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 20-40 cm (8-16 inches). Trillium gets its name from the prefix “tri” meaning “3” because of its three leaves and petals.





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

FLOWERS: Small white, yellow, or light green flowers with six 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: Long, large, deep green leaves alternating on a single stem.

NOTE: Flowers and berries are poisonous. Do not confuse it 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

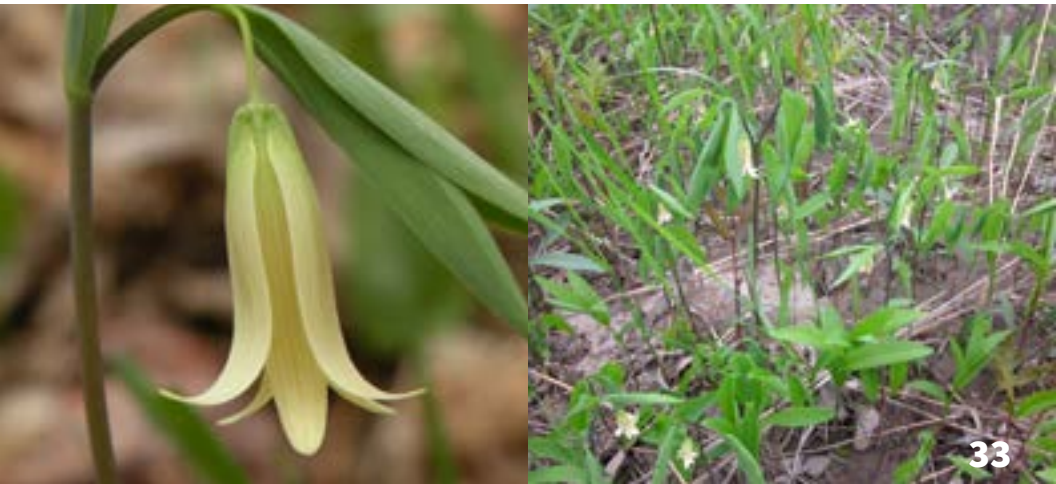


LOCATION: Prefers open woods, with rich, moist soils and good drainage.

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 with a pointed tip, and three distinct winged edges.





DO NOT PICK OR TRANSPLANT!

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

FLOWERS: Native wild orchid with a large, bright, charismatic, 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.

LEAVES: Have the long, deep, linear lines characteristic of all orchid species, and occur along the stem. Grows up to 80 cm tall.



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 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, and dark green, with long stalks and coarse teeth.





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

FLOWERS: White clusters bloom for two to three weeks in late spring or early summer.

FRUITS: Ripe berries are purple-black and, like red raspberries, have a hollow centre when picked.

LEAVES: Leaves have 3-5 leaflets with a white underside. The stem is bluish-white, round and not ridged, and will root at the tip where touching the ground. Thorns are small, broad-based, widely spaced, and hooked. They are 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, bluish-green with a dull lustre. They turn pale yellow in early fall. Branches are light beige and very bendable. This shrub can grow up to nine feet tall.





LOCATION: Prefers shaded and wet areas. Often found in sprawling colonies.

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

SEEDS: Teardrop-shaped, with hooked hairs that stick to clothing.

LEAVES: Arranged in opposite pairs, at right angles to the leaves below. Teeth on the leaves resemble teeth on beech tree leaves. Plant can be up to 60 cm tall.



Orange-fruit Horse-gentian or Wild Coffee

Triosteum aurantiacum var. *aurantiacum*

S3 - VULNERABLE

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. The 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-to-fully shaded areas in deciduous forests.

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

FRUITS: 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 the 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.



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



Sprengel's Sedge
Carex sprengelii

S3 - VULNERABLE
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, give this sedge a grass-like appearance.



American Spikenard
Aralia racemosa



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

FLOWERS: Small, greenish-white flowers formed in clusters at the end of branches. Appear in mid-summer.

FRUITS: 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 or 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 the underside of flat dark green needles, which are also **highly toxic**. Stems branch upwards and sprawl along the ground. This shrub can reach a height of approximately five feet.





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

FRONDS (LEAVES): Grow in a clump, from a single point. Leaves (called fronds in ferns) are lustrous and dark green. Each leaflet or pinna is “boot-shaped” like 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.

FRONDS (LEAVES): Grow 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, and is attached to the stem from the bottom end. This fern is evergreen, making it easy to spot when protruding through the snow.



S3 - VULNERABLE

MID TO LATE
SUMMER
FERNS, SEDGES
AND GRASSES

Goldie's Wood Fern

Dryopteris goldiana



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

FRONDS (LEAVES): Leaves are two-toned, bluish-green, and parallel-sided but abruptly taper to the tip. The leaf stalk has many dark brown scales. This distinctively large wood fern can grow up to 1 metre tall.



Northern Maidenhair Fern

Adiantum pedatum

S3 - VULNERABLE
MID TO LATE
SUMMER
FERNS, SEDGES AND
GRASSES



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

FRONDS (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.

FRONDS (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 or 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.

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



Hooked Agrimony
Agrimonia gryposepala



LOCATION: Rich forests and thickets.

FLOWERS: Small and dull yellow, with five petals.

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

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



Bottle-brush Grass

Elymus hystrix

S2 - 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 metre. Seeds are arranged in widely spaced pairs at the top of the stem, stick out sideways (at 90°) and are accompanied by elongated needle-like structures called awns, so the grass looks like a soft “bottlebrush.”





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

BARK: Young tree bark is grey, slightly rough overall with irregular downward stripes. Mature tree has a grey 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 tolerates shaded conditions. Often found scattered in moist, but well-drained, seeping areas and can have multiple trunks. It can grow up to 80 feet tall.

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

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

FLOWERS: Clusters of greenish-yellow flowers appear mid-summer.

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





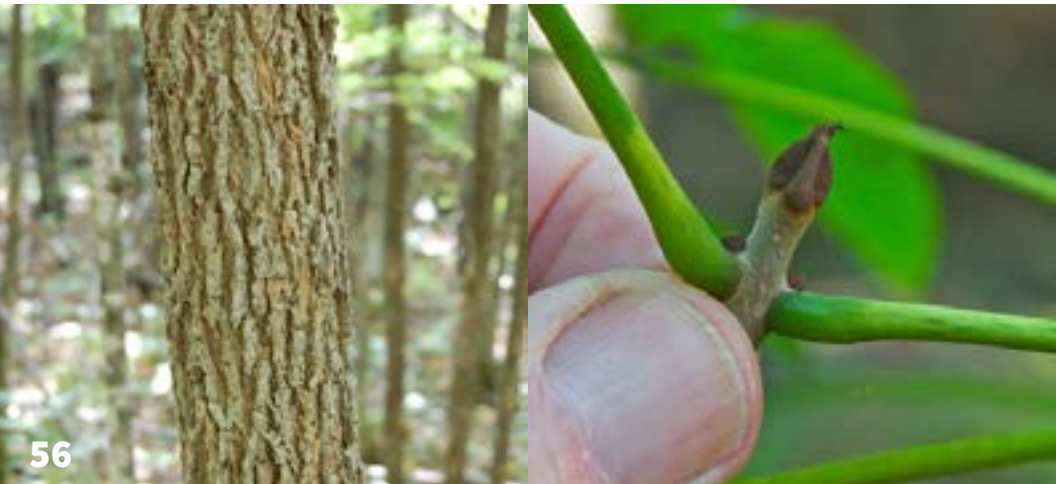
LOCATION: A slender, medium-sized hardwood tree that needs full sun. Grows in wet, rich soil along stream banks, wetland edges, and seeping areas.

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 begins and where it is attached to the stem).

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

SEEDS: Longer and broader than those of white ash.



Butternut
Juglans cinerea

ENDANGERED
(NB, CAN)
S1 - IMPERILED
TREES



LOCATION: A medium to large hardwood tree that tolerates shaded conditions. Often found in rich well-drained rich soils, often in seeps, near streams or in the floodplain.

FRUIT: Nuts which can be made into butter.

BARK: Ridged but flattens off. Cankers, which ooze black substance in the spring, are often visible on the bark.

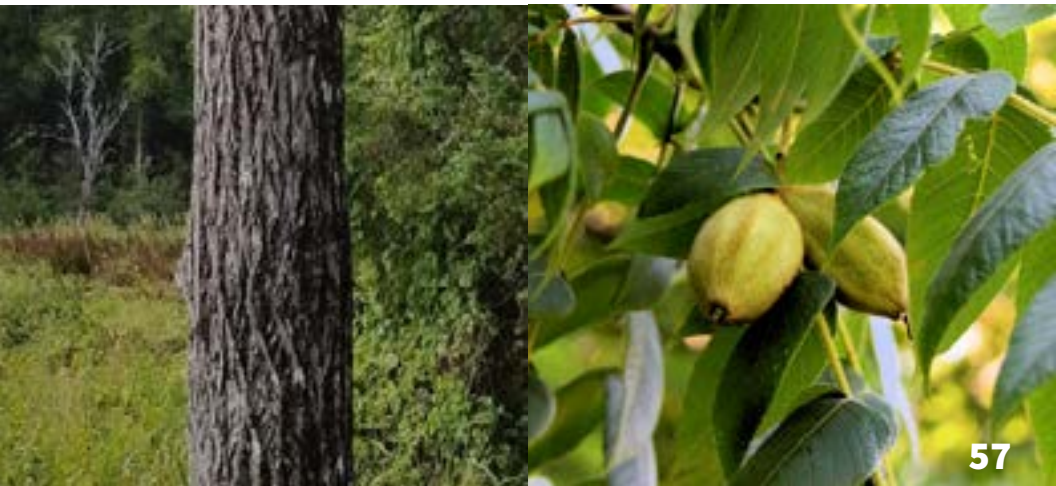
LEAVES: Compound leaves, with many leaflets (11-17 per leaf).

NOTE: If you find healthy butternuts in your woodlot, please contact:

The Nature Trust of New Brunswick
(506) 457-2398
conserve@ntnb.org

OR

Natural Resources Canada
(343) 292-6096
questions@nrca-nrcan.gc.ca



Ironwood or Hop-hornbeam

Ostrya virginiana



LOCATION: Found in the understory of tolerant hardwood forests (forest that contains hardwood species that grow well in shaded conditions). Prefers moist soil with slightly acidic conditions, but tolerates well-drained to dry soil. 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/centre lobe.





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.



Ruffed Grouse
Bonasa umbellus

S5 - SECURE
BIRDS



LOCATION: Foraging and nesting at ground level in hardwood and mixedwood forests with rich soils and thick brush layers, as well as in recently regenerating forests. During winter months, it prefers perching off the ground among tree branches.

PHYSICAL CHARACTERISTICS: Medium-sized game birds that are well camouflaged by their patterned feathers, which can be a mix of grey, red, and brown with dark spots. Their fan-shaped tail is marked by a broad dark band near the tip. Males can be distinguished by their larger and darker crest and neck feathers.

CALL: Males are recognized by their display called “drumming.” The sound starts slowly and builds to a blurred crescendo as the bird beats its wings back and forth from a perch, lasting 8-10 seconds.





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

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

CALL: “Who cooks for you?”



Broad-winged Hawk

Buteo platypterus

S5 - SECURE
BIRDS



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

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

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





LOCATION: Perched on branches in the mid-canopy.

PHYSICAL CHARACTERISTICS: Grey flycatcher with two narrow, white wing bars. Long tail, peaked head, and lacks pronounced eyering. Their light-grey chest slightly resembles a vest.

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



Ovenbird

Seiurus aurocapilla

S5 - SECURE
BIRDS



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.

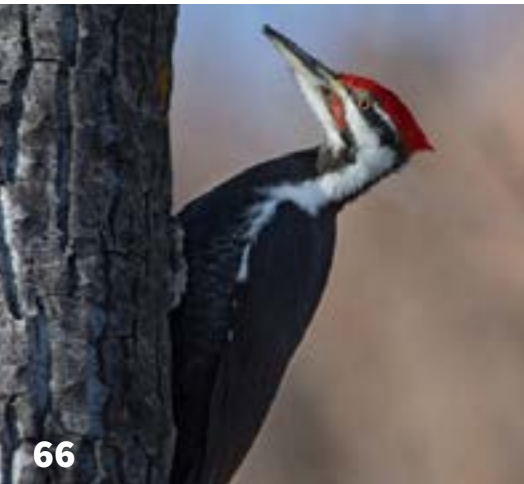




LOCATION: Boring on standing dead trees, stumps, or logs on the forest floor. Leaves oblong holes in trees when feeding.

PHYSICAL CHARACTERISTICS: Large, 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 piping calls that last several seconds. Drumming on trees lasts up to three seconds long, and is sporadic.



Veery

Catharus fuscescens

S4 - SECURE
BIRDS



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. Greyish face and lacks strong eyering.

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





DESCRIPTION: Long, slender body (2-4 feet). Short, muscular legs, with a triangular head, rounded ears, and a long tail. 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 prey including snowshoe hares, small rodents, and porcupine. Retreats to forests in the winter and travels extensively in summer, but is not migratory.

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

SCAT: Dark, twisted, with tapered ends. May contain porcupine quills.



Bobcat
Lynx rufus

S4/S5 - SECURE
MAMMALS



DESCRIPTION: Brown or brownish-red, with a white underbelly, long legs and bobbed tail with a white tip on the underside. Occurs in 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 kilometres while hunting.

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

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



WHAT'S IN MY WOODLOT?

- | | | | |
|--------------------------|--|--------------------------|---|
| <input type="checkbox"/> | Bloodroot
<i>Sanguinaria canadensis</i> | <input type="checkbox"/> | Canada Violet
<i>Viola canadensis</i> |
| <input type="checkbox"/> | Cut-leaved Toothwort
<i>Cardamine concatenata</i> | <input type="checkbox"/> | Downy Yellow Violet
<i>Viola pubescens</i> |
| <input type="checkbox"/> | Dutchman's Breeches
<i>Dicentra cucullaria</i> | <input type="checkbox"/> | Hooked Buttercup
<i>Ranunculus recurvatus</i> |
| <input type="checkbox"/> | Jack-in-the-Pulpit
<i>Arisaema triphyllum</i> | <input type="checkbox"/> | Large Toothwort
<i>Cardamine maxima</i> |
| <input type="checkbox"/> | Round-lobed Hepatica
<i>Hepatica nobilis</i> | <input type="checkbox"/> | Sharp-lobed Hepatica
<i>Anemone acutiloba</i> |
| <input type="checkbox"/> | Showy Orchis
<i>Galearis spectabilis</i> | <input type="checkbox"/> | Spring Beauty
<i>Claytonia caroliniana</i> |
| <input type="checkbox"/> | Sweet Cicely
<i>Osmorhiza claytonii</i> | <input type="checkbox"/> | Trout Lily or Dog-toothed Violet
<i>Erythronium americanum</i> |
| <input type="checkbox"/> | Two-Leaved Toothwort
<i>Cardamine diphylla</i> | <input type="checkbox"/> | Wood Anemone
<i>Anemone quinquefolia</i> |
| <input type="checkbox"/> | Blue Cohosh
<i>Caulophyllum thalictroides</i> | <input type="checkbox"/> | Canada Wild Ginger
<i>Asarum canadense</i> |
| <input type="checkbox"/> | False Solomon's Seal
<i>Maianthemum racemosum</i> | <input type="checkbox"/> | Red Trillium
<i>Trillium erectum</i> |
| <input type="checkbox"/> | Solomon's Seal
<i>Polygonatum biflorum</i> | <input type="checkbox"/> | Wild Oats or Bellwort
<i>Uvularia sessilifolia</i> |
| <input type="checkbox"/> | Yellow Lady's Slipper
<i>Cypripedium parviflorum</i> | <input type="checkbox"/> | American Lopseed
<i>Phryma leptostachya</i> |
| <input type="checkbox"/> | Black raspberry
<i>Rubus occidentalis</i> | <input type="checkbox"/> | Eastern Leatherwood
<i>Dirca palustris</i> |
| <input type="checkbox"/> | Enchanter's Nightshade
<i>Circaea lutetiana</i> | <input type="checkbox"/> | Orange-fruit Horse-gentian or Wild Coffee
<i>Triosteum aurantiacum var. aurantiacum</i> |
| <input type="checkbox"/> | White Baneberry or Doll's Eyes
<i>Actaea pachypoda</i> | <input type="checkbox"/> | Zig-zag Goldenrod
<i>Solidago flexicaulis</i> |
| <input type="checkbox"/> | American Spikenard
<i>Aralia racemosa</i> | <input type="checkbox"/> | Canada Yew or Ground Hemlock
<i>Taxus canadensis</i> |
| <input type="checkbox"/> | Braun's Holly Fern
<i>Polystichum braunii</i> | <input type="checkbox"/> | Christmas Fern
<i>Polystichum acrostichoides</i> |
| <input type="checkbox"/> | Goldie's Wood Fern
<i>Dryopteris goldiana</i> | <input type="checkbox"/> | Northern Maidenhair Fern
<i>Adiantum pedatum</i> |
| <input type="checkbox"/> | Rattlesnake Fern
<i>Botrypus virginianus</i> | <input type="checkbox"/> | Silvery Glade Fern or Silvery Spleenwort
<i>Deparia acrostichoides</i> |
| <input type="checkbox"/> | Hooked Agrimony
<i>Agrimonia gryposepala</i> | <input type="checkbox"/> | Bottle-brush Grass
<i>Elymus hystrix</i> |
| <input type="checkbox"/> | Plantain-leaved Sedge
<i>Carex plantaginea</i> | <input type="checkbox"/> | Sprengel's Sedge
<i>Carex sprengelii</i> |
| <input type="checkbox"/> | American Elm
<i>Ulmus americana</i> | <input type="checkbox"/> | Basswood
<i>Tilia americana</i> |
| <input type="checkbox"/> | Black Ash
<i>Fraxinus nigra</i> | <input type="checkbox"/> | Butternut
<i>Juglans cinerea</i> |
| <input type="checkbox"/> | Ironwood or Hop-hornbeam
<i>Ostrya virginiana</i> | <input type="checkbox"/> | Sugar Maple
<i>Acer saccharum</i> |
| <input type="checkbox"/> | White Ash
<i>Fraxinus americana</i> | <input type="checkbox"/> | Ruffed Grouse
<i>Bonasa umbellus</i> |
| <input type="checkbox"/> | Barred Owl
<i>Strix varia</i> | <input type="checkbox"/> | Broad-winged Hawk
<i>Buteo platypterus</i> |
| <input type="checkbox"/> | Eastern Wood Pewee
<i>Contopus virens</i> | <input type="checkbox"/> | Ovenbird
<i>Seiurus aurocapilla</i> |
| <input type="checkbox"/> | Pileated Woodpecker
<i>Dryocopus pileatus</i> | <input type="checkbox"/> | Veery
<i>Catharus fuscescens</i> |
| <input type="checkbox"/> | Fisher
<i>Pekania pennanti</i> | <input type="checkbox"/> | Bobcat
<i>Lynx rufus</i> |



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