

Helpful Characteristics for Identifying Shrubs (and a few trees) in Winter

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alternate-leaf dogwood (*Cornus alternifolia*) – Cornaceae

- Habit: shrub or sometimes small tree (up to 20' tall)
 Twigs: alternate, greenish to dark purple, pith white, buds 2-scaled
 Bark: younger growth often reddish, most specimens have yellow-orange dead wood
 Habitat: upland woods: UPL



American elm (*Ulmus americana*) - Ulmaceae

- Habit: rarely grows larger than small sapling ($\pm 30'$ tall)
 Twigs: alternate, brown, slightly hairy especially near terminal bud; buds brown, pseudoterminal bud at 45° angle to the stem.
 Bark: grayish-brown, diamond-shaped furrows, alternate layers of dark and lighter colored cork in cross section of bark ridges
 Habitat: mostly bottomlands: FACW-



beaked hazelnut (*Corylus cornuta*) - Betulaceae

- Habit: low shrub
 Twigs: alternate, tips slightly hairy (with hand lens); buds round, 2 pairs of bud scales – pair covering lower 1/3 of bud are dark, pair covering upper portion of bud are light-colored and often fuzzy (2-toned buds).
 Habitat: forest edges and thickets: FACU-

Similar species:

American hazelnut (*C. americana*): twig tips have erect, gland-tipped hairs; buds have 4 uniformly reddish scales. encountered infrequently.



black birch (*Betula lenta*) – Betulaceae

- Habit: tree (up to 75' tall)
 Twigs: alternate, slender, reddish-brown, twig tips hairless, strong wintergreen scent; buds two-toned.
 Bark: reddish-brown to black
 Habitat: drier woodlands: FACU
 Similar species:

yellow birch (*B. alleghaniensis*): twig tips hairy, subtle wintergreen scent



black cherry (*Prunus serotina*) - Rosaceae

- Habit: tree (up to 60' tall)
 Twigs: alternate, strong cherry odor, slender; buds not clustered at twig tips; bud scales pointed, reddish-brown and greenish yellow.
 Bark: young stems: smooth, horizontal lenticels. Older trees: small plated scales, cracking irregularly
 Habitat: woods and thickets: FACU

**black raspberry** (*Rubus occidentalis*) – Rosaceae

- Habit: arching shrub
 Canes: reddish-brown, round; thorns small and recurved, glaucous (whitish powder)
 Habitat: early successional, upland sites: UPL
 Similar species:
 red raspberry (*R. idaeus*): thorns are bristly

blackberry (*Rubus allegheniensis*) - Rosaceae

- Habit: upright or arching shrub
 Canes: stout, lower portion angled(not round in cross section); thorns large and recurved,
 Habitat: early successional, upland sites: FACU

**blueberry** (*Vaccinium* spp.) – Ericaceae

- Habit: low or medium height shrub
 Twigs: alternate, slender, green or reddish, covered with raised glandular speckles or warts (use hand-lens); buds are small and are of 2 types: slim leaf buds and swollen flower buds, bud scales usually have long, tapered tips.
 Habitat: dry woods to swamps, acidic soils
 Notes: difficult to distinguish between species in winter (without leaves), especially with small shrubs. NH Natural Heritage Inventory lists the following species as occurring in NH:

- highbush blueberry** (*V. corymbosum*): up to 12' tall, twigs hairy or hairless
early low blueberry (*V. angustifolium*): up to 2' tall twigs somewhat hairy or not hairy
late low blueberry (*V. pallidum*): up to 2' tall, twigs never hairy
velvetleaf blueberry (*V. myrtilloides*): up to 3' tall, twigs hairy
alpine blueberry (*V. boreale*): alpine meadows

*V. corymbosum***Chinese bittersweet** (*Celastrus orbiculatus*) – Celastraceae

- Habit: Vigorous twining vine or vine-like shrub
 Twigs: brown to tan, lenticels barely noticeable, bark not peeling; buds rounded, small, brownish; pith solid, white
 Fruits: Bright orange-red, borne on axillary cymes (clusters originating near lateral buds)
 Habitat: open woods and thickets: UPL



Similar species:

American bittersweet (*C. scandens*): fruits borne on terminal clusters, less common

C. orbiculatus

choke cherry (*Prunus virginiana*) – Rosaceae

Habit: shrub or small tree

Twigs: alternate, cherry scent, upper stems stout; buds large and pointed, may be crowded toward twig tip – but not clustered around terminal bud, bud scales rounded.

Bark: gray-brown and smooth

Habitat: young woods and thickets: FACU

Similar species:

black cherry (*P. serotina*): buds smaller and have pointed scales



common spicebush (*Lindera benzoin*) – Lauraceae

Habit: erect shrub

Twigs: alternate, spicy-scented; buds round, usually clustered; leaf buds 2- to 3-scaled. End buds pseudoterminal.

Habitat: wooded bottomlands: FACW-



Grape (*Vitis* spp.) - Vitaceae

Habit: climbing or trailing vine

Twigs: brown to green, hairy or not hairy, shreddy brown bark that shreds parallel to the stem; pith brown, discontinuous

Habitat: wetland edges, field edges and hedgerows, abandoned fields.

gray birch (*Betula populifolia*) – Betulaceae

Habit: small tree (less than 30' tall)

Twigs: alternate, slender, hairless, twig tips have obvious warty, whitish dots; buds two-toned (green and brown).

Bark: dark brown in young trees; older trees grayish white, not peeling, triangular black patches on trunk below branches

Habitat: early-successional, typically well drained sites, wetland edges, abandoned gravel pits: FAC

Similar species:

paper birch (*B. papyrifera*): present year's growth somewhat hairy



hawthorn (*Crataegus* spp.) - Rosaceae

Habit: dense shrub or small tree

Twigs: alternate, grayish; thorns long, stiff, sharp; buds small and roundish, smooth, reddish

Bark: dark red to gray, scaly or shallow furrowed

Habitat:

Notes: difficult genus to identify to species level. NH Natural Heritage Inventory



currently lists 12 species and hybrids of *Crataegus* in NH

hobblebush (*Viburnum alnifolium*) - Caprifoliaceae

- Habit: straggling shrub, often forming dense thickets
 Twigs: opposite, fine hairy; buds naked and hairy, yellow-orange in color
 Habitat: cool moist woods and shores of ponds and streams: FAC



honeysuckle (*Lonicera* spp.) – Caprifoliaceae

- Habit: climbing vines or erect shrubs, most in NH are erect shrubs.
 Twigs: opposite, grayish-whitish, often shiny, papery; have scales at the bases of twigs; opposing leaf scars are connected by lines. Erect shrubs with hollow pith are of Eurasian origin. Erect shrubs with solid pith are native in origin.

tartarian honeysuckle (*L. tatarica*)

- Habit: erect shrub
 Twigs: hollow pith; buds small and blunt
 Habitat: forest edges and thickets: FACU
 Similar species: 3 additional shrub honeysuckles have hollow pith:
 European honeysuckle (*L. xylosteum*): buds long and sharp
 morrow honeysuckle (*L. morrowi*): buds short and conical
 bella honeysuckle (*L. morrowi* X *L. bella*): hybrid having characteristics between tartarian and morrow honeysuckles



L. tatarica

Canada honeysuckle (*L. canadensis*)

- Habit: erect shrub
 Twigs: solid white pith; long greenish-purplish buds; twigs two-lined; lower bud scales shorter than buds
 Habitat: woods: FACU



L. canadensis

hop-hornbeam (*Ostrya virginiana*) – Betulaceae

- Habit: small tree (typically less than 30' tall)
 Twigs: alternate, buds two-toned (green-brown), round in cross section, buds egg-shaped, vertical striations on scales (like the lines on your thumbnail).
 Bark: brownish, grooved, shreddy
 Habitat: fertile woods: FACU-
 Similar species:
 muscledwood (*Carpinus caroliniana*): buds rusty brown, rectangular in cross section, no vertical striations on scales; bark of older trees gray and muscular in appearance.
 American elm (*Ulmus americana*): 45° terminal bud, twig tips often



O. virginiana

slightly hairy.

Japanese barberry (*Berberis thunbergii*) – Berberidaceae

Habit: low, upright shrub
 Twigs: alternate, brown, grooved; inner bark yellow; spines primarily single; buds small and brown
 Fruit: bright red oval berries, borne singly or on small racemes, persistent
 Habitat: typical in old-field sites, uplands and moist woodlands, wetland edges: FACU

Similar species:

European barberry (*B. vulgaris*): taller than *B. thunbergii* (up to 10' tall), spines usually in sets of three, fruits usually borne clustered on drooping racemes.



B. thunbergii

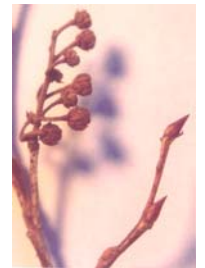
leatherwood (*Dirca palustris*) – Thymelaeaceae

Habit: erect shrub
 Twigs: alternate, look “segmented”; bark tough and pliable – difficult to break by hand; buds entirely surrounded by leaf scars, light gray
 Habitat: rich woods: FAC



maleberry (*Lyonia lugustrina*) - Ericaceae

Habit: shrub
 Twigs: alternate, twig tips often hairy; buds bright red, pointed, 2 bud scales
 Fruit: 5-parted brown “nutlets”, persistent
 Habitat: swampy thickets and sandy soils: FACW



mapleleaf viburnum (*Viburnum acerifolium*) - Caprifoliaceae

Habit: shrub
 Twigs: opposite, slender, velvety; buds long-pointed, greenish and purplish
 Fruit: round bluish black drupes, borne on flat top clusters, occasionally present into early winter.
 Habitat: forest understory: UPL



mountain-holly (*Nemopanthus mucronatus*) - Aquifoliaceae

Habit: shrub
 Twigs: alternate, twig tips purplish, lower portion of branches gray; buds pointed, somewhat pyramidal shaped and purplish, 2-3 scales
 Habitat: damp thickets and swamps: OBL



mountain maple (*Acer spicatum*) – Aceraceae

- Habit: small tree
 Twigs: opposite, greenish/reddish, twig tips velvety-hairy; buds stalked and have 2 scales.
 Bark: lower portion of stem brownish, fading in to reddish, not white-striped.
 Habitat: woodlands: FACU-

**multiflora rose** (*Rosa multiflora*) - Rosaceae

- Habit: large arcing shrub, often forming impenetrable tangles
 Stems: rounded, reddish-green; thorns stout, recurved, often paired.
 Fruit: ¼" globular, red hip, hips clustered, persistent
 Habitat: prefers dry sites: FACU
 Similar species:

Many varieties of *Rosa* spp. occur in NH. NH Natural Heritage Inventory lists 12 *Rosa* species as occurring in NH.

*R. multiflora***nannyberry** (*Viburnum lentago*) - Caprifoliaceae

- Habit: shrub or small tree (up to 25' tall)
 Twigs: opposite; buds reddish brown; flower buds swollen at base, completely covered by two leaf scales
 Habitat: wetlands, moist woodlands: FAC
 Similar species:

northern wild-raisin (*V. cassinoides*): buds yellowish brown, 2 scales on flower bud do not meet in center, but rather, expose center of bud

*V. lentago***northern arrowwood** (*Viburnum recognitum*) - Caprifoliaceae

- Habit: tall shrub, very branchy, often with long, straight arrow-like stems among older branches.
 Twigs: opposite; older branches grayish, present years growth light-brown and 4-angled; buds reddish-brown, pointed
 Habitat: wet sites: FACW-

*V. recognitum***northern wild-raisin** (*Viburnum nudum* var. *cassinoides*) - Caprifoliaceae

- Habit: erect shrub (up to 15' tall)
 Twigs: opposite, brownish-gray; flower buds only partly covered by the two scales – center of bud is exposed, buds yellowish-brownish and bumpy.
 Habitat: wet areas: FACW
 Similar species:

nannyberry (*V. lentago*): scales of flower bud meet in center, buds

*V. nudum* var. *cassinoides*

brownish

paper birch (*Betula papyrifera*) – Betulaceae

- Habit: tree (up to 75' tall)
 Twigs: alternate; reddish-brown with slightly raised whitish spots, present year's growth somewhat hairy; buds two-toned (green and brown).
 Bark: dark brown on young trees; older trees chalky or creamy white, peeling
 Habitat: typically on well-drained sites: FACU



pin cherry (*Prunus pensylvanica*) – Rosaceae

- Habit: shrub or small tree (up to 30' tall)
 Twigs: alternate, reddish-brown, cherry odor subtle; buds small, blunt, clustered at twig tips and spur branches, reddish brown
 Bark: shiny, reddish with large horizontal lenticels
 Habitat: pioneer species, young woods, thickets: FACU-



poison ivy (*Rhus radicans*) - Anacardiaceae

- Habit: erect shrub, trailing vine, or climbing vine
 Twigs: alternate; buds tan/yellowish, naked, elongated, often stalked.
 Fruit: yellow-white berry in compact panicles, occasionally persistent
 Habitat: moist woods, growing on field edges, forests, wetlands: FAC
 Notes: all parts of the plant can cause irritation all any time during the year.



red elderberry (*Sambucus racemosa* ssp. *pubens*) – Caprifoliaceae

- Habit: upright shrub
 Twigs: opposite, stout with warty lenticels, pith brownish; buds large, round, green and purple, often twin terminal buds.
 Habitat: moist, rich sites, roadsides and ditches: FACU
 Similar species:
 common elderberry (*S. canadensis*): small buds; white pith.



serviceberry (*Amelanchier* spp.)

- Habit: usually small shrub, sometimes small tree (up to 40' tall)
 Twigs: alternate, slender; buds pinkish, long, tapering; bud scales overlapping and twisted at the tip
 Bark: smooth, gray or brown, often with longitudinal stripes.
 Habitat: uplands to wetlands depending on species
 Notes: NH Natural Heritage Inventory lists 6 species in NH. Leaves are important for identifying to species level. Also known as shadbush, Juneberry.



silky dogwood (*Cornus amomum*) – Cornaceae

- Habit: upright shrub
 Twigs: opposite, dull purple/reddish with silky hairs on new growth, older branches blotchy and less red, brown/tan pith.
 Fruit: in flat-topped clusters
 Habitat: usually wet sites: FACW
 Similar species:
 red-osier dogwood (*C. stolonifera*): twigs very red all the way to ground, white pith.
 gray dogwood (*C. racemosa*): twigs light gray; pith of present year's growth white, pith of older branchlets light brown

*C. amomum***speckled alder** (*Alnus incana* ssp. *rugosa* or var. *americana*) - Betulaceae

- Habit: shrub or small tree (up to 18' tall), usually growing in clumps
 Twigs: alternate, olive-brown; pith greenish, triangular; buds large, reddish-brown, football shaped, stalked, coated in grayish/tawny down. Pseudoterminal bud.
 Fruit: small, persistent drooping cones
 Bark: smooth, dark brown or gray black; prominent, horizontal white lenticels.
 Habitat: wetlands, wet meadows, abandoned gravel pits: FACW+
 Similar species:
 smooth alder (*A. serrulata*): cones do not drupe, bark is relatively unspckled

*A. incana* ssp. *rugosa***sweet pepperbush** (*Clethra alnifolia*) - Clethraceae

- Habit: erect shrub
 Twigs: alternate, hairy; outer bark red-brown, separating into loose strips; large end buds with loose or shedding hairy outer scales
 Habitat: swamps and sandy soils: FAC+

**sweetgale** (*Myrica gale*) – Myricaceae

- Habit: erect shrub
 Twigs: alternate, brownish, covered in aromatic resin-dots (use hand lens); buds whitish and oval
 Habitat: swamps, pond edges: OBL



staghorn sumac (*Rhus typhina*) - Anacardiaceae

- Habit: shrub or small tree (up to 25' tall)
 Twigs: alternate, round, stout, very hairy, large pith; buds wooly; leaf scars U-shaped, enclosing buds.
 Fruit: red drupes in dense, hairy heads, persistent.
 Bark: dark, numerous raised cross streaks
 Habitat: upland, early successional, grows in clumps or patches in old pastures, open areas: UPL
 Similar species:

smooth sumac (*R. glabra*): twigs are not hairy; fruits heads less dense
 poison sumac (*R. vernix*): growing in wetlands, typically with red maple, high-bush blueberry; twigs not hairy; leaf scars crescent shaped, not enclosing buds; fruits white berries in loose clusters, often present in early winter.

*R. typhina***striped maple** (*Acer pensylvanicum*) – Aceraceae

- Habit: tall shrub or slender tree (up to 40' tall)
 Twigs: opposite, green, hairless; buds bright red, smooth, stalked, two bud scales
 Bark: green with whitish stripes
 Habitat: cool, moist shaded sites: FACU
 Similar species:

mountain maple (*A. spicatum*): twig tips and buds velvety, bark and lower portion of branches light brown, not white-striped

**willow** (*Salix* spp.) – Salicaceae

- Habit: shrub or tree
 Twigs: alternate, long and slender; inner bark yellow; terminal bud absent; lateral buds pressed tightly against stem, covered by single cap-like bud scale, buds covered in white hairs when bud scale is removed
 Habitat: wet sites
 Notes: NH Natural Heritage Inventory currently lists 26 species and hybrids of willow in NH

**winterberry holly** (*Ilex verticillata*) – Aquifoliaceae

- Habit: shrub, often growing in dense clusters
 Twigs: alternate, light gray-silvery, dotted with small lenticels; buds are small and round, small black stipules on edges of leaf scars.
 Fruit: bright red drupe, persistent.
 Habitat: wet sites: FACW+



witch-hazel (*Hamamelis virginiana*) - Hamamelidaceae

- Habit: shrub or small, irregular tree (up to 15' tall); often with several trunks in a group
- Twigs: alternate; buds stalked, naked and hairy, shaped like a colt's hoof
- Bark: smooth, brownish with lighter blotches
- Fruit: urn-shaped woody capsule, persistent yellow flower petals, blooms in autumn.
- Habitat: woodlands: FAC-

**yellow birch** (*Betula alleghaniensis*) – Betulaceae

- Habit: tree (up to 75' tall)
- Twigs: alternate, slender, yellowish to brown, twig tips hairy on young trees, subtle wintergreen scent, buds two-toned (green and brown), obviously hairy on scale edges.
- Bark: shiny, yellowish, often peeling slightly on young trees
- Habitat: moist woodlands: FAC
- Similar species:
black birch (*B. Lenta*): strong wintergreen scent, twigs hairless



Wetland Indicator Status:

US Fish and Wildlife Service. 1988. National list of vascular plant species that occur in wetlands. US Fish & Wildlife Service Biological Report 88 24pp.

OBL	Obligate Wetland	Occurs almost always (99%) under natural conditions in wetlands
FACW	Facultative Wetland	Usually occurs in wetlands (67%-99%), but sometimes occasionally found in non-wetlands
FAC	Facultative	Equally likely to occur in wetlands or non-wetlands (34%-66%)
FACU	Facultative Upland	Usually occurs in non-wetlands (67-99%), but occasionally found in wetlands (1%-33%)
UPL	Upland Obligate	Occurs almost always (995) under natural conditions in non-wetlands