SUPPLEMENT TO KEY TO COMMON WETLAND SHRUBS OF WISCONSIN

L.A. LEITNER

Note: unless otherwise stated, ranges and habitats refer to distribution in Wisconsin

Alnus rugosa (Betulaceae)

Common names: tag alder, speckled alder
Synonym: *A. incana* subsp. *rugosa*

This species is now often included with the European *A. incana*. It is a common tall (to 5 m) shrub of older zones of bogs, lake shores, river margins, and extensive mucky swamps. It is a dominant species of alder thickets. A northern species, it ranges across the northeastern U.S. and Canada. In the Midwest, it ranges southward only to the northern counties of Illinois, Indiana, and Ohio. In Wisconsin, it is found primarily north of the Tension Zone. It has ascending trunks usually growing in clumps, rarely tree-like. Leaves are often double-toothed. The bark is dark gray with prominent pale, linear lenticels. It is fast-growing, short-lived, easily damaged by fire, and doesn't survive dense shade. Its greatest importance probably is the shade it affords trout streams.

***Amelanchier* spp**. (Rosaceae)

Common names: juneberry, shadbush, serviceberry, shadblow, sarvisberry

For our purposes, this taxonomically difficult genus includes a number of similar species (i.e., *A. arborea, A. interior*, and *A. laevis*) which may hybridize, making definite identification problematical. The genus includes about 25 species worldwide, a number of which are planted as ornamentals. These are tall shrubs or small trees of upland woodlands, thickets, and swamps. White flowers bloom early in the spring, before leaves appear, and before chokecherry (*Prunus virginiana*) flowers. Bark is often relatively smooth and light gray. The fruit is a berry, usually very tasty.

Andromeda glaucophylla (Ericaceae)

Common name: bog-rosemary

This is a small (0.5-4 m) erect shrub of acid bogs, often on floating mats, and is a relic in conifer swamps. Relatively common in northern Wisconsin, it is rare and local in the southern part of the state. Leaves are evergreen; leathery; ± sessile; alternate; linear (2-5 cm long); conspicuously pale blue-green above (not glossy); margins revolute; and undersides white with minute pubescence. The corolla is urn-shaped, consisting of five nearly completely united petals on long stalks in terminal clusters. The small white or pink flowers appear in May and June. Stamens are ten. The fruit is a many-seeded subglobose capsule.

Aronia melanocarpa (Rosaceae)

Common name: chokeberry
Synonyms: *A. x prunifolia, Pyrus melanocarpa*

This is a thornless shrub to 1.5 m tall, more common in the coniferous forest area in such habitats as bogs, tamarack swamps, marshes, and thickets. It occasionally may be found in dry sandy oak—pine woods. It is widespread, but usually not abundant. Alternate leaves are glandular on

the midrib on the upper side. Flowers are white, with five petals. The rather astringent fruit is a small, globose, black or dark purple berrylike pome. Currently, authorities consider this to be a hybrid with *A. arbutifolia.*

Betula pumila (Betulaceae)

Common name: bog birch, dwarf birch, swamp birch

This is a distinctive medium-size (to 3 m), erect, branching shrub of bogs, fens, conifer swamps, and shrubby peatlands that often forms large colonies. Generally a calciphile, it grows under both acid and alkaline conditions. It is common in the north, more local south, and is the only shrubby birch in the Midwest. Leaves are elliptic to round (to 4 cm long), with large, coarse teeth. It often hybridizes with *B. papyrifera* to produce *Betula x sandbergii*.

Cephalanthus occidentalis (Rubiaceae)

Common name: buttonbush

This fast-growing, short-lived shrub grows 1-3 m tall and is characteristically found in standing water in hardwood swamps, wet thickets, river borders, and marsh edges. It may form dense stands. It is found in eastern North America, but not very far northward. It is more common in the south. In Wisconsin, it is found primarily along river systems. Leaves are entire, petioled, ± ovate, 7-14 cm long, and opposite or often whorled in threes or fours. Flowers are white, sessile, small, found in a dense globular ball-like inflorescense, blooming June-August. Fruits are obconic. It is the only shrub with whorled leaves and flowers and fruits in spherical heads.

Chamaedaphne calyculata (Betulaceae)

Common name: leatherleaf

This circumborel species is the most abundant acid bog shrub, forming nearly monotypic clonal stands among sphagnum. It often covers vast acreages in the north. It can persist even after drying or burning or succession to swamp. A short (3-15 dm), much-branched, erect shrub, its leaves are oblong (0.5-4 cm long), alternate, petioled, evergreen, leathery (hence the common name), yellowish beneath, and scaley. They are russet-colored in winter. Numerous axillary flowers, which open in April-May, are clustered in leafy racemes. Cylindric corollas consist of five white united petals. Stamens are ten. Numerous small seeds are found in globose capsules.

Clematis virginiana (Ranunculaceae)

Common name: virgin’s bower

This somewhat uncommon, long, very soft, semi-woody vine climbs over shrubs and fences. It occurs in damp woods, thickets, riverbanks, swamp borders, and marshes. Trifoliolate leaves are opposite. White flowers, in leafy panicles, bloom June-July. Fruits are feathery (“plumose”) achenes.

Cornus alternifolia (Cornaceae)

Common names: alternate-leaf dogwood, pagoda dogwood

This is a distinctive dogwood due to its alternate leaves (all other *Cornus* spp. have opposite leaves). It is a fast-growing, short-lived shrub or small tree (to 6 m tall at full size). It is found throughout the northeastern U.S. in moist, rich soils in upland woods, floodplains, swamps, and riverbanks. It is vulnerable to fire because of its thin bark. Branches are nearly horizontal, curving upwards at the tip (hence the “pagoda” epithet). Even if the compact clusters of leaves are difficult to see, the branching pattern is clearly alternate. Pith is white. Newer branches are greenish. It is rather showy in flower, and is commonly planted as an ornamental. It is a striking plant in fall with scarlet foliage and blue-black berries.

Cornus amomum (Cornaceae)

Common name: silky dogwood, blue-fruited dogwood
Synonym: *C. obliqua*

This is a medium-sized shrub (1-3 m tall) that often forms dense thickets at borders of wetlands, such as marshes, swamps, shrub-carrs, bogs, and fens. It resembles *C. stolonifera*. Berries are dark blue, and the pith is brown.

Cornus racemosa (Cornaceae)

Common name: gray dogwood
Synonym: *C. foemina*

The most common dogwood, this is a much-branched, 2 m tall shrub that frequently forms extensive vegetative colonies mostly at edges of dry upland woods, but also in wetlands (e.g., wet prairies). The stems are ash-gray, young twigs are reddish, and pith is brown (but often white in two-year old twigs). Fruits are white and the fruiting pedicels are bright red. This species typically shows a “mounding” profile (i.e., a clone with older, taller plants towards the center).

Cornus rugosa (Cornaceae)

Common name: roundleaf dogwood

This shrub or small tree (to 3 m) is less common than other dogwood species. It is found in deciduous and mixed woods, wetland borders, rock outcrops, and wooded bluffs. Stems and branches are yellow-green to grayish; fresh young branchlets have purple flecks on green bark. Leaves are large, nearly circular (to 13 cm across). Pith is white, and the berries are light blue.

Cornus stolonifera (Cornaceae)

Common name: red-osier dogwood

This is a characteristic species of shrub-carrs, but also occurs in a variety of other wetland habitats (e.g., swamps, bogs, fens, low prairies). Taxonomically, it is sometimes included with *C. sericea* or *C. alba*. It occurs across northern U.S. and southern Canada. It is a medium-size shrub, to 3 m (but usually shorter). Often spreading by stolons and forming dense thickets, it is striking with its bright red branches that become pale green with time. A yellow-twigged form is sometimes cultivated. Stems contain large, conspicuous lenticels. Pith is white and large. Leaves have 5-7 pairs of lateral veins. Berries are white or dull gray. This species often invades herbaceous wetlands as water levels decline.

Crataegus calpodendron (Rosaceae)

Common name: sugar hawthorn, pear hawthorn

In general, the species of *Crataegus* are taxonomically complex and hybrids are common; exact identification thus tends to be difficult.

This species is found along rocky streams and in lowland and upland woods, roadsides, fencerows, and pastures, but not as commonly as other hawthorns. It occasionally reaches small tree size (to 6 m). Young twigs are greensih, ± tomentose, becoming orange-brown and then gray with age. Thorns are few, straight, about 3-5 cm long. Leaves are bright green above, paler below, and ± woolly pubescent. Anthers are pink. Fruits are orange-red and urn-shaped, about 1 cm diameter.

Crataegus crus-galli (Rosaceae)

Common name: cockspur hawthorn

This species of riverbanks, disturbed woods and wood edges, fields, and pastures commonly reaches small tree size (to 8 m tall). It is found throughout the southeastern U.S., north to southern Wisconsin. Young twigs are glabrous and yellow-brown, turning glossy and then gray-brown. Thorns are very large (5-10 cm long), stout, straight to slightly curved. Shiny, leathery leaves are dark-green above and duller and paler beneath. Greenish to dull red fruits are about 1 cm diameter.

Crataegus mollis (Rosaceae)

Common name: downy hawthorn

This common hawthorn species of woods and edges, roadsides, floodplains, overgrazed pastures, and fields often reaches tree size (to 12 m tall). It is particularly common in regions of limestone throughout the eastern U.S. Among the hawthorns, this species is characterized by large flowers, fruits, and leaves. Young twigs are villous, turning glabrate with numerous conspicuous pale lenticels. Ovate leaves are densely short-hairy above when young, becoming glabrous. The relatively few thorns are found mostly on younger growth; they are black-brown, nearly straight, and about 4-6 cm long. Scarlet fruits are 1.5-2.5 cm diameter.

Ilex verticillata (Aquifoliaceae)

Common name: winterberry, Michigan holly

This deciduous holly may reach small tree size (6 m). It is a slow growing species found in bogs, swamps, and lake margins in the eastern U.S. and southern Canada. Leaves are lanceolate to nearly circular, and may be downy below. Flowers bloom in May-June. The bright red berries lie scattered along the twigs, often persisting well into the winter. Flowers and fruits are nearly sessile.

Kalmia polifolia (Ericaceae)

Common names: bog laurel, swamp laurel, pale laurel

This is a sparingly branched, low straggling shrub (< 1 m tall) found in acid bogs, some fens, and bog forests. It prefers semi-open areas, and is confined to the region of coniferous forests. Young twigs are sharply two-edged. The opposite leaves are sub-sessile, 1-3 cm long, evergreen, leathery, dark green, glossy, and strongly whitened beneath. The showy pink-purple flowers, 1.5 cm across, are found in terminal umbel-like clusters and bloom from mid-May to July. The corollas are flat, with five united petals, and there are ten stamens. The fruit is a many-seeded, globose capsule. Winter buds are naked.

Ledum groenlandicum (Ericaceae)

Commonname: Labrador-tea

This is a charcteristic bog shrub found north of the Tension Zone in acid peat bogs, wet shores, and conifer swamps. It is erect, reaching 1 m tall. Twigs are densely villous. Leaves are alternate, evergreen, ± sessile, entire, revolute, and about 2-8 cm long. Fragrant when crushed, the leaves have long been used to make a tea. Leaf undersides are covered with woolly white pubescence when young, turning rusty brown with age. White, 5-petaled, free flowers bloom June-July. The inflorescence is a dense terminal raceme. There are 5-7 stamens. The fruit is a slender septicidal capsule.

Lonicera dioica (Caprifoliaceae)

Common name: red honeysuckle

This is a twining vine found in deciduous and coniferous woods, thickets, rock outcrops, clearings, fencerows, cedar swamps, and other wetlands. The leaves are often quite glaucous. Corollas are deep maroon or yellow. Fruits are red.

Lonicera morrowii (Caprifoliaceae)

Common name: Morrow’s honeysuckle

This very hardy Japanese shrub is widely cultivated and frequently escapes to roadsides, woods, old fields, thickets, swamps, and meadows, the fruits and seeds distributed by birds. It is a spreading, multi-stemmed shrub to 2 m tall. The leaves are hairy beneath, and the foliage lasts from early spring to the first hard freeze in the fall. Twigs are finely pubescent. The corolla, maturing May-June, is white, yellowing with age. The fruits are bright red berries.

Lonicera prolifera (Caprifoliaceae)

Common name: yellow honeysuckle, grape hawthorn
Synonym: *L. reticulata*

This is the common sprawling, climbing, or trailing native honeysuckle vine, found typically in calcareous woods. In Wisconsin, it is only found in the southern half of the state. It has very glaucous leaves, the uppermost ones connate forming a circular disc. Yellow flowers are produced May-June.

Lonicera tatarica (Caprifoliaceae)

Common name: Tartarian honeysuckle

This is a very hardy Eurasian species, originally native to southeastern Russia and central Asia, that has been widely cultivated and naturalized in North America. It hybridizes freely with other *Lonicera* spp. (especially *L. morrowii*) to produce fertile offspring (*L. x bella*). It commonly escapes to upland woods, thickets, swamps, fields, roadsides, and waste places. It is a many-stemmed, upright shrub (to 3 m), with glabrous twigs. Corollas are pink or white, but do not yellow with age. Flowers and the red berries occur in pairs. As with other introduced *Lonicera* shrubs, this species is ecologically invasive.

Lonicera x bella (Caprifoliaceae)

Common name: hybrid honeysuckle, showy fly honeysuckle

This plant is the result of hybridization between two introduced species—*L. tatarica* and *L. morrowii*—that in their native ranges never came into contact. The name is actually applied to a swarm of fertile hybrids. It commonly escapes from cultivation to waste areas such as old fields, roadsides, and fencerows, but also to natural habitats such as woodlands and wetlands where it has become a serious invasive pest. It is an upright, many-stemmed shrub, with somewhat pubescent twigs. It tends to be more upright than *L. morrowii*. Leaves are slightly hairy beneath. Corollas are pink or white, fading to a dull yellow. As with other *Lonicera* species, flowers and fruits (berries) occur in pairs.

Menispermum canadense (Menispermaceae)

Common name: Canada moonseed

Moonseed is a dioecious climbing vine found in swamps, rich upland woods, thickets, and especially along rivers. The fruit is a glaucous drupe, resembling a small, wild grape. Seeds are ± crescent-shaped. The fruits are said to be poisonous.

Nemopanthus mucronatus (Aquifoliaceae)

Common name: mountain holly
Synonym: *Ilex mucronata*

This is a shrub (to 4 m) found mostly in the coniferous forest area in swamps and bogs, especially in the high shrub zone at the outer margins. Leaves are elliptic, ± entire. Flowers are small and whitish. The flowers and red drupes are found on slender axillary pedicels. This is a monotypic genus.

Parthenocissus inserta (Vitaceae)

Common names: Virginia creeper, grape woodbine, thicket creeper
Synonym: *P. vitacea*

This high-climbing or trailing woody vine is commonly found on rock outcrops, upland woods, swamps, fencerows, thickets, and streambanks. Leaves are 5-7 palmately compound. Undersides of leaflets are usually completely glabrous (but occasionally puberulent). Tendrils, with 2-5 long branches, are found opposite leaves. Berries, often 4-seeded, are produced routinely. Aerial rootlets are wanting. Leaves turn a brilliant scarlet in the fall.

Parthenocissus quinquefolia (Vitaceae)

Common names: Virginia creeper, woodbine

Very similar to *P. inserta*, this is a very common vine of upland woodlands, thickets, and swamps. As opposed to *P. inserta*, this species climbs by means of adhesive discs on the ends of 5-12 tendrils. Leaves are 5-7-foliate on long petioles. Undersides of leaflets (at least on main veins) and petioles are usually ± pubescent (but may be completely glabrous). Blackish berries contain up to three seeds, but fruits are produced only infrequently.

Physocarpus opulifolius (Rosaceae)

Common name: ninebark

This is a shrub of riverbanks, fens, swamps (usually calcareous), and rock outcrops and slopes, about 1-3 m tall. Bark on older stems peels off in strips. The large, round, continuous pith is tan with an orange tint. Leaves are ± three-lobed. Flowers are white, and the follicles are conspicuous when ripe. Although ocasionally used for ornamental purposes because of the attractive inflorescence, this species offers little value to wildlife.

Potentilla fruticosa (Rosaceae)

Common name: shrubby cinquefoil
Synonym: *Pentaphylloides floribunda*

An indicator of alkaline conditions, this low, bushy (to 1 m), circumboreal shrub is found in wet, open ground and thickets, such as fens, bogs, wet-mesic prairies, and open tamarack swamps. It tends to increase as water levels decline. Leaves are numerous and pinnately compound, with 5-7 fuzzy gray-green leaflets. Numerous bright yellow flowers are present; in fact, a horticultural variety is commonly used for landscaping.

Prunus virginiana (Rosaceae)

Common name: chokecherry

This nearly ubiquitous and typically abundant tall shrub/small tree (to 4 m) occurs mostly in upland situations, such as deciduous woods, but also occasionally in swamps and shrub-carrs. It is widely distributed across the northern half of the U.S. and much of Canada. In fact, it is one of the most widely distributed native trees on the continent. It is basically a fast-growing, short-lived pioneer species rapidly establishing on cutover land or old farmland. Also, it tends to form clones. Pith is white. Long drooping clusters of white flowers bloom in May. The deep red-purple drupes are very astringent and nearly inedible; nevertheless, thay are sometimes used for jelly.

Rhamnus alnifolia (Rhamnaceae)

Common name: alder buckthorn

This short (3-6 dm) native shrub is found in conifer swamps and bogs; generally a calciphile, it is also a good indicator of alkaline fens. It also occurs on rocky openings and outcrops. It is common in the north, but very local in the south. It is unarmed. The alternate, toothed leaves are similar to those of *R. cathartica*.

Rhamnus cathartica (Rhamnaceae)

Common names: common buckthorn, European buckthorn

Originally planted as a hedge, this Eurasian species is now naturalized throughout much of the northeastern U.S. and southern Canada. In the Midwest, it has become an obnoxious weed, typically forming dense thickets in (formerly) open woods, old fields, fencerows, and swamps and other calcareous wetlands. It is especially abundant in oak forests and drained peatlands, where the ground beneath may be nearly barren. The presence of this species is a good indicator of human-induced environmental change. It may reach small tree stature (to 6 m), often multi-trunked. Economically, it causes severe crop loss as the alternate host of oat rust. Bark is dark brown, the inner bark is yellow, and branches tend to end in short thorns. The finely toothed, nearly circular leaves may be both alternate and opposite on the same twig, and remain green well into fall. The deep leaf veins curve towards the leaf margins. Plants are (usually) dioecious. The black berrylike drupes contain four stones. In humans, they cause nausea if eaten (due to acrid glycosides), but, though not a preferred food, the fruits are often by birds.

Rhamnus frangula (Rhamnaceae)

Common name: glossy buckthorn, European alder buckthorn
Synonym: *Frangula alnus*

A Eurasian species, commonly planted here as a hedge, this is a tall (7 m) shrub that is a very aggressive escape into bogs, fens, swamps and other alkaline wetlands. It also invades upland woods. It differs from *R. cathartica* in the following ways: entire (or wavy-edged) leaves that are shiny; leaf veins go nearly straight to leaf margins; it is unarmed; flowers are perfect (i.e., bisexual); smoother, pale gray bark; and fruit a red-becoming-black berrylike drupe with 2-3 seeds.

Rhus radicans (Anacardiaceae)

Common name: poison ivy
Synonyms: *Toxicodendron radicans, Toxicodendron rydbergii, Rhus toxicodendron*

This all-too-common low shrub and climbing vine grows throughout the state in woods (upland and lowland), thickets, and open ground, often in disturbed areas. There is a shrubby variety and a vine variety, which tends to be more southern. The climbing vines may have spectacular horizontal branches, extending several meters away from the trunk of the supporting tree, and numerous hair-like aerial rootlets. The leaves, with three leaflets, tend to be glossy. Flowers are green and inconspicuous; the subglobose fruits are whitish and persisitng. Poison ivy is the commonest source of allergic disease in the U.S. Resin canals in <u>all</u> parts of the plant contain a poisonous, non-volatile oil (urushiol) to which many people are allergic on contact to various degrees. The plant must be bruised to break these canals, but oil can be carried on shoes, clothes, animal hair, smoke droplets, and on the surface of water. Itching and blistering usually occurs 1-2 days after contact, but this varies from person to person. Note: There is no plant in Wisconsin with the name “poison oak;” this is properly applied to species of the Pacific coast and states in the southern U.S.

Rhus vernix (Anacardiaceae)

Common name: poison sumac
Synonym: *Toxicodendron vernix*

This shrub or small tree (to 8 m, but usually 2-4 m) is fast-growing and short-lived, often branching from the base. Bark is gray. It is usually found in tamarack swamps, bogs, and swampy woods. As with *R. radicans*, all parts of the plant are poisonous (in fact, it tends to be more virulent than poison ivy). It is found in the eastern U.S., but in the Midwest it tends to be more southern in its distribution. It is absent from northweastern Wisconsin. Leaves are pinnately compound, with 7-13 entire leaflets; these turn a spectacular flaming red in the fall. Tiny greenish-yellow flowers are produced May-June, with the male and female flowers in separate clusters. The fruits are gray-white dry drupes which persist in large panicles. Poison sumac differs from the common, non-poisonous roadside sumacs thusly: habitat (strictly wetland); white fruits; no teeth on leaflets; and absence of winged stalks between leaflets.

Ribes americanum (Saxifragaceae)

Common name: wild black currant

The *Ribes* genus is often particulary taxonomically difficult.

This is an erect, unarmed shrub, to 1.5 m tall, found mostly in damp areas, such as woods, thickets, swamps, and marshes. Leaves are 3-5-lobed, and are usually golden gland dotted on both sides. Flowers are relatively large, conspicuous, and numerous in many racemes. The fruit ia an edible black berry. Note: All plants of this genus are alternate hosts of the destructive white pine blister rust.

Ribes cynosbati (Saxifragaceae)

Common name: pasture gooseberry, prickly wild gooseberry, dogberry

A compact, prickly, erect to spreading, multi-stemmed shrub to 1.5 m, this species is found in upland woods, swamps, thickets, and conifer swamps. It is easily distinguished by its long pedicels and peduncles. Usually at least the younger internodes are smooth, where the only spines are 1-3 at nodes. Leaves are pubescent (at least above) and eglandular. Tubular green flowers mature into edible red-purple bristly berries.

Ribes hirtellum (Saxifragaceae)

Common name: swamp gooseberry, northern gooseberry

This variable species may be found, primarily in the coniferous region, in mixed low woods, shrubby streamside thickets, and conifer swamps, where it often grows with tamarack. It is a low shrub (t6-12 dm) and may be armed, but the prickles are weak and few. Leaves are ± densely pubescent beneath, less so above. The fruit is a purple-black berry, and is the source of some cultivated gooseberries.

Ribes sativum (Saxifragaceae)

Common name: red currant, cultivated garden currant
Synonym: *R. rubrum*

This erect, unarmed, 1-2 m tall shrub is a native of western Europe; here it is widely cultivated, sometimes escaping to fields, fencerows, woods, and thickets. It is easily confused with *R. triste*. Leaves are firm and five-lobed, and the fruit is a bright red berry.

Ribes triste (Saxifragaceae)

Common name: swamp red currant

This low, unarmed, straggling or reclining shrub is found primarily in the coniferous forest area in swamps. It is absent from southwestern Wisconsin. The reclining stems may sprout and produce fertile shoots. Leaves are five-lobed, thin, and glabrous to softly hairy beneath. Pinkish to red, very flat flowers are found in drooping racemes. Red berries are a good source of acid fruit for preserves.

Rosa multiflora (Rosaceae)

Common name: multiflora rose, Japanese rose

A native of east Asia that here has long been recommended as a “living fence,” but that has subsequently escaped to become an annoying, persistent, and generally obnoxious weed in many parts of its adopted range. It is mostly found in dry places (roadsides, disturbed woods, thickets, fencerows, fields), but may occur in wetlands. It is armed with stout, curved prickles on canes which may reach 3 m in lenrth. Pinnately compound leaves have 7-9 leaflets. Stipules are conspicuously serrate. Flowers are white and fragrant. Clusters of numerous small red fruits (hips) are conspicuous late in the season. It is used commercially as root stock for grafting cultivated roses; this may sprout below the graft, replacing the cultivated variety.

Rosa palustris (Rosaceae)

Common name: swamp rose

This much-branched native rose species grows in bogs, wet conifer swamps, thickets, and lake margins; it often forms a nearly impenetrable zone around bogs where there has been disturbence. Canes are covered with curved infranodal prickels. Twigs are deep red in winter. The seven leaflets are very finely serrated. Flowers are very fragrant. This is the only wetland rose with seven leaflets and large pink flowers.

Rubus allegeheniensis (Rosaceae)

Common name: common blackberry, Allegheny blackberry

The genus *Rubus* is a very complex one, with numerous varieties, subspecies, and hybrids making accurate identification problematical.

This taxon represents a complex of varieties and subspecies. It is the most common tall blackberry, found in woodlands, clearings, old fields, roadsides, and habitat edges. This very prickly plant forms thickets that rip clothes and scratch skin. From a perennial rootstock, course, nearly erect (to 50 cm tall), biennial canes arise. In the first year, only leaves are produced. Flowers and fruits are produced during the second year. The stoutly ridged, reddish stems are covered with prickles, not thorns. Leaves are five-palmately compound. The large white flowers are mostly pollinated by bees, particularly bumblebees. The black fruits are actually an aggregate of drupelets; if they are picked green, they won’t ripen. Ripe fruits have an excellent flavor, and are commonly used in pies, jellies, jams, and wine. They are very high in vitamin C and are a remedy for diarrhea.

Rubus occidentalis (Rosaceae)

Common name: black raspberry

This species is common in disturbed woods, fields, thickets, and wet ground, especially along edges. Arching biennial stems often root at the tips. Terete canes are glaucous, and have fewer but larger prickles than *R. strigosus*. Leaf undersides are strongly whitened. The purple-black fruit has an excellent flavor. There are many horticultural varieties.

Rubus pubescens (Rosaceae)

Common name: dwarf red raspberry

This is a short (to 50 cm), unarmed, nearly herbaceous semi-shrub common north of the Tension Zone in low woods, bogs, and swamps (frequently with conifers). At intervals the creeping horizontal stems give rise to herbaceous stems with three leaflets. These vertical stems are not prickly, but may contain a few bristles. Flowers are white. The bright red fruit is edible with the flavor of wild raspberries, but not very tasty.

Rubus strigosus (Rosaceae)

Common name: red raspberry
Synonym: *R. idaeus* var. *strigosus*

This species is similar to the Old World *R. idaeus* (with which it may be combined); both are sources of numerous cultivated red raspberries. It occurs in all kinds of dry and wet places, usually ± open; it is especially common following disturbance. The terete biennial stems, to 2 m long, are erect, spreading, or decumbent. Leaves, with 3-5 leaflets, are strongly whitened beneath. Prickles on the canes are fine and numerous. Fruit is red, with an excellent flavor.

Salix bebbiana (Salicaceae)

Common names: beaked willow, Bebb's willow

This is a locally common and relatively large shrub (to 10 m) of swamps, thickets, shrub-carrs, wetland borders, fens, and sedge meadows. It is very common across Canada and Alaska, and is frequently found in the northeastern U.S. and south in the western mountains. It is fast-growing and short-lived, readily invading any moist, cleared area. Its appearance is very variable, especially after hybridization with other *Salix* species. Typically, there is one or a few main stems. Leaves are gray-hairy on both sides; blades are < three times as long as wide. Stipules are small or wanting. Male and female catkins are produced on separate plants (dioecious).

Salix candida (Salicaceae)

Common name: sage willow, hoary willow

This willow is typically found scattered and local in bogs, fens, low prairies, calcareous tamarack swamps, and other ± open calcareous sites. It is a low shrub, to 1 m tall. Leaves are entire and revolute. Branches tend to be full of bud scars. Stipules are lanceolate. It is easily recognized by the densely white-tomentose twigs and the white-tomentose pubescense on the undersides of leaves.

Salix discolor (Salicaceae)

Common name: pussy willow

This is a very common and very variable willow, often hybridizing with other species of *Salix*. A shrub or small tree (to 5 m), it grows in bogs, swamps, shrub-carrs, streambanks, wet thickets, and other wet areas across the northern U.S. and southern Canada. Relatively short-lived, it often grows in nearly pure stands. Each plant has only a few stems. It is usually the first willow to flower in spring; the staminate catkins, produced before the leaves, are very distinctive. Twigs are stout, reddish to dark-brown, and buds are large, to 1 cm long. Stipules are large and rounded. Leaves grow to 4 cm long, and are dark green above and whitened below. The pussy willows used in the florist trade for Easter decorations are usually *S. caprea* and *S. cinerea*, both European species.

Salix eriocephala (Salicaceae)

Common names: diamond willow, heart-leaved willow, Missouri River willow
Synonym: *S. cordata, S. rigida*

Sometimes a difficult species to distinguish, this shrub or small tree (to 12 m) can be found across the northeastern U.S. and southeastern Canada in swamps, shores, swales, and streambanks. It is particularly common in calcareous sites, and often grows in dense, ± pure stands. It is fast-growing, but somewhat longer-lived and more durable than most willows. It is important in stabilizing streambanks against spring floods. Vegetative parts are all ± pubescent, including young twigs, which are densely gray-tomentose.

Salix glaucophylloides (Salicaceae)

Common name: bayberry willow, blue-leaved willow
Synonym: *S. myricoides*

A shrub growing 1-4 m tall, this willow is typically found on Great Lakes shores and dunes. Twigs are yellowish to dark-brown, and stipules are semi-ovate.

Salix humilis (Salicaceae)

Common name: prairie willow

Although this willow may be found occasionally in moist areas, it is usually found on dry sites, such as upland prairies. In fact, it is the only Wisconsin species of *Salix* to regularly grow on dry upland sites. To 3 m tall, it consists of clustered stems with yellowish to brown twigs. Young twigs are gray-tomentose. Stipules are lanceolate and often deciduous.

Salix interior (Salicaceae)

Common name: sandbar willow
Synonym: *S. exigua*

This wide-ranging species may be found across northeastern and central U.S., and north through Canada and Alaska. It is probably the most common willow species in our region. It can grow on fresh sandbars of streams, shores, dunes, and stream margins, and may invade fallow fields. It is

a many-stemmed shrub (2-5 m tall) that typically reproduces clonally to form dense vegetative thickets. It is one of the most distinctive willows with its long, narrow, remotely-toothed, ± densely pubescent leaves. Stipules are wanting.

Salix lucida (Salicaceae)

Common name: shining willow

A shrub or small tree (2-5 m), this very attractive willow species is found in the northeastern U.S. and eastern Canada in boggy sites, low dunes, swales, streambanks, ditches, and on shores. Its occurrence, though, is very localized. Twigs are glossy yellow-brown. Leaves are shining green above, and stipules are kidney-shaped.

Salix pedicellaris (Salicaceae)

Common name: bog willow

This is a low, slender, shrubby willow (3-10 dm) of such wetlands as bogs, fens, and wet meadows. Occurrence is very localized. Aments are produced on long peduncles. Stipules are wanting. Leaves are entire, revolute, and, when young, strongly pubescent beneath.

Salix petiolaris (Salicaceae)

Common name: slender willow, meadow willow

Found across the northeastern U.S. and southern Canada, this low, much-branched shrub or small tree (to 7 m) grows in marshes, swamps, wet calcareous meadows, ditches, sedge mats, and other ± open wetlands. Twigs are slender, 1-3 m long. Stipules are wanting. This species is often so heavily browsed by deer that it remains in a perpetual stubby shrub shape.

Salix serissima (Salicaceae)

Common name: autumn willow

Found in the coniferous forest area, this 2-4 m tall willow is an uncommon species of such calcareous places as fens, bogs, conifer swamps, and alkaline marshes. Branches are a shining olive-brown, and twigs are yellow-brown. Stipules are wanting.

Sambucus canadensis (Caprifoliaceae)

Common name: elderberry, American elder

This fast-growing, short-lived, erect (to 3 m tall), coarse shrub grows in the eastern U.S. and southeastern Canada in all kinds of wet ground (e.g., shrub-carrs, swamps, floodplains, shores, thickets, marshes, roadsides, fencerows). It may form thickets, and is more abundant in disturbed sites. The light brown to gray stems are woody, but soft, weak, and brittle with large, white pith. Pinnately compound leaves have 5-11 (usually 7) sharply toothed leaflets. It is distinguished by huge umbel-like cymes of small white flowers. The fruits are purple-black when ripe, and occur in large, flat-topped clusters. They are edible, and often used in pies, jelly, and wine.

Sambucus pubens (Caprifoliaceae)

Common name: red-berried leder
Synonym: *S. racemosa*

This species is less clonal than *S. canadensis* and is more commonly found in deciduous mesic upland woods, only occasionally in swamps. Growing 1-4 m tall, it is more frequent in more northern parts of the Midwest. Bark is pale brown or gray with many prominent lenticels, and the pith is brown. The 5-7 elliptic leaflets are toothed and usually downy beneath, and midribs are usually purple above. The inflorescence is panicle-like. The clustered bright red berries are inedible until cooked.

Spiraea alba (Rosaceae)

Common name: meadowsweet

An erect, low shrub (to 2 m), this species grows in such wet areas as marshes, sedge meadows, tamarack swamps, bogs, and stream borders. It tends to increase with declining water levels. Twigs are yellow-brown, and leaves are finely toothed. Very small, hairy, white flowers are produced June-August in clusters that resemble a bunch of grapes. The fruit is dry (a follicle).

Spiraea tomentosa (Rosaceae)

Common names: hardhack, steeplebush

An erect shrub, to 12 dm, this species is at most sparingly branched. It grows generally in low, acid soil in bogs, wet meadows, pond borders, and tamarack swamps. Twigs and leaf undersides are woolly with yellow or brown tomentum. The inflorescence is terminal, and the flowers are (usually) pink.

Staphylea trifolia (Staphylaceae)

Common name: bladdernut

This fast-growing, short-lived shrub is found sparingly in the northeastern U.S. where it is a minor understory component of deciduous woods and thickets (especially on floodplains and riverbanks). It is often associated with limestone soils. It is a rather distinctive large (1-3 m) shrub with opposite, trifoliolate, finely-toothed leaves. The superficially similar hoptree (*Ptelea trifoliata*) has alternate, ± entire, three-foliolate leaves. Whitish flowers in rather showy, drooping panicles are produced in May. The distinctive fruits are 3-5 cm long, inflated, three-lobed capsules.

Vaccinium macrocarpon (Ericaceae)

Common name: large cranberry

This strictly North American species is a creeping, prostate, evergreen shrub with long intricately forking stems and ascending branches that grows on open bog mats. This is also the commercially-grown cranberry. Leaves are sub-sessile, leathery, dark evergreen, wedge-shaped, bluntly elliptical, 6-15 mm long, with paler undersides. Margins are slightly revolute. Raceme-like clusters contain 1-10, pink, four-petaled, spreading to reflexed flowers that bloom June-August. There are eight protruding stamens. The red fruit, 1-2 cm in diameter, is sour and nearly inedible.

Leaves, flowers, and fruits average larger than *V. oxycoccos*, which blooms about one month later.

Vaccinium oxycoccos (Ericaceae)

Common name: small cranberry

This low, creeping, prostrate, evergreen shrub is a circumpolar species found in sphagnum bog mats, especially beneath spruces and tamaracks. Slender, ascending branches hold leathery, dark evergreen, 4-12 mm long leaves. The strongly revolute leaves are ovate or nearly triangular and nearly whitened beneath. Small terminal racemes contain 1-5 pink, spreading to reflexed flowers. There are eight protruding stamens. The red fruit, < 1 cm in diameter, is nearly inedible when raw.

Viburnum lentago (Caprifoliaceae)

Common name: nannyberry

This common, tall (3-6 m) shrub ranges across northeastern U.S. and southern Canada, growing in shrub-carrs, fens, stream borders, sedge meadows, tamarack swamps, springy areas, thickets, upland woods, and fencerows. It is fast-growing and short-lived, and is often planted as an ornamental. It is easily distinguished by its elongated, tapering winter buds and by the winged leaf stalks. Fruits are blue-black berries.

Viburnum opulus (Caprifoliaceae)

Common name: European highbush-cranberry, guelder-rose

This often-cultivated European shrub frequently escapes into such native habitats as thickets and lowland and upland woods. It is multi-stemmed, growing 2-3 m tall. The clustered bright red fruits are widely disseminated by birds. Petiolar glands are sessile and concave.

Viburnum rafinesquianum (Caprifoliaceae)

Common name: arrowwood, downy arrowwood

This is a native shrub of upland woods, swamps, and thickets, and often found in clay soil. It grows to about 1.5 m tall, and flowers May-June. Leaf blades are ± downy beneath.

Viburnum trilobum (Caprifoliaceae)

Common name: highbush-cranberry, cranberry viburnum

Some authorities combine this with the European species, calling this *V. opulus* var. *trilobum*. This native taxon, about 1-3 m tall, is found in swamps, riverbanks, fens, cool woods, thickets, and other damp open ground, primarily in the coniferous forest region. It differs from *V. opulus* in the shape and pubescence of the leaves, the calyx, and the stone of the drupe. In addition, the petiolar glands are stalked and round-topped. Leaves are coarsely toothed. The bright red fruit, about the size of a cranberry, is sometimes used for preserves.

Vitis aestivalis (Vitaceae)

Common name: summer grape

This woody vine grows in thickets, dry woods, dunes, and fencerows, often in sandy soil. It is most common in southwestern Wisconsin. The simple leaves are shallowly to deeply 3-5-lobed, and shallowly serrate. Lower leaf surfaces contain a rusty tomentum. Diaphragms occur at the nodes. The more common *V. riparia* has jagged-toothed and often deeply-lobed leaves.

Vitis riparia (Vitaceae)

Common name: riverbank grape, frost grape

This is our most common species of *Vitis*, growing in a variety of habitats, including upland woods, thickets, fencerows, riverbanks, swamps, shores, and dunes. It is a climbing or trailing vine, ascending high into tall trees by means of tendrils; stems may be 10 cm in diameter. The simple, alternate, three-lobed leaves vary in shape and pubescence, but are usually recognizable by ciliolate sharp teeth and forward-pointing lobes of the leaf blades, which are longer than broad. The pith is interrupted by diaphragms. Flowers are inconspicuous, greenish, and very fragrant. The glaucous fruit (a berry) is sour until frost.

Zanthoxylum americanum (Rutaceae)

Common name: prickly-ash

The genus is sometimes spelled “Xanthoxylum.”

This very prickly shrub species grows throughout the north-central U.S. in upland and lowland woods, often forming dense clonal thickets. It is fast-growing, and fairly sensitive to shading. It grows 2-4 m tall. The alternate compound leaves contain 7-11 odd-pinnate leaflets. Plants are dioecious. Flowers are small, greenish, and found in axillary clusters. Fruits are small, fleshy, and round. All parts of the plant contain xanthoxylin, an aromatic, bitter oil which imparts a citrus-like odor.