

# Jamestown Native Plants: Why Protect Them?

Conanicut Island's native plants exist in a natural ecological balance with the Island's native insects, birds, mammals and other native plants. This balance is a result of eons of parallel evolution of native species of all kinds that have existed locally, in close proximity to one another, through time. Because our indigenous species are adapted to their native environment, and to each other, they have grown dependent on each other for survival. This interdependence sustains a healthy balance of nature. It is the native species and the environmental relationships that sustain them and support a balanced and stable ecosystem that we seek to protect.

## Some of our Notable Native Plants



Winterberry



Red Cedar



Red Maple

Enormous areas of Conanicut Island are being supplanted by invasive plant species on private lands and along our roads and shoreline at a staggering pace. These non-native invasive plants are a serious threat to the balance, productivity, and resilience of Conanicut Island's natural habitats. If we are to stem, and hopefully reverse, this trend, we, as a community, need to heighten our awareness of the identity and the presence of these threatening invasive plants, and enhance our understanding of the hazards they pose. We also need to learn to recognize our native species, and develop an understanding of and appreciation for their value to our Island's ecology. Most importantly we need to remove the invasive plants and maintain and protect our native species throughout the Island.

The Jamestown Invasive Plant Public Awareness Campaign (JIPPAC) was formed to promote such an understanding and to encourage community action to protect our native species from the burgeoning invasive plant populations. JIPPAC is a committee operating within the Taylor Point Restoration Association (TPRA), and working in cooperation with other Jamestown organizations including Sustainable Jamestown. Through publications such as this one and through related outreach programs, we hope to help community organizations and residents learn about the threats posed by invasive plant infestations; to learn about native plants and their ecology; and to promote the establishment and maintenance of stable native habitat.

# Some of Conanicut Island's Notable Native Plants

This booklet introduces twenty native plants that grow in Jamestown and are of significant ecological value. The plant profiles are intended to help you identify them as you travel the Island. They include:

TREES	Red Maple ( <i>Acer rubrum</i> ); Shadbush ( <i>Amelanchier</i> ); Black Cherry ( <i>Prunus serotina</i> ); Oak ( <i>Quercus</i> ); American Holly ( <i>Ilex opaca</i> ); Red Cedar ( <i>Juniperus virginiana</i> );
SHRUBS	Sweet Pepperbush ( <i>Clethra alnifolia</i> ); Winterberry ( <i>Ilex verticillata</i> ); Bayberry ( <i>Morella pensylvanica</i> ); Staghorn Sumac ( <i>Rhus typhina</i> ); Black Elderberry ( <i>Sambucus canadensis</i> ); Highbush Blueberry ( <i>Vaccinium corymbosum</i> ); Arrowwood ( <i>Viburnum dentatum</i> ); Virginia Rose ( <i>Rosa virginiana</i> );
FLOWERS	Jewelweed ( <i>Impatiens capensis</i> ); Seaside Goldenrod ( <i>Solidago sempervirens</i> ); Joe-Pye Weed ( <i>Eutrochium fistulosum</i> ); Jack-in-the Pulpit ( <i>Arisaema triphyllum</i> ); Evening Primrose ( <i>Oenothera biennis</i> ); and Common Milkweed ( <i>Asclepias syriaca</i> L.).

To clarify some of the information in the plant descriptions we present the following definitions.

## Definitions

**Biennial/Perennial:** Biennial plants live for two years. Perennials live three years or more.

**Deciduous:** A deciduous tree or shrub sheds its leaves annually as opposed to being "evergreen".

**Dioecious:** Dioecious means having separate male and female plants, as compared to **Monoecious** which connotes having both the male and female reproductive organs on the same plant.

**Drupe:** Drupe refers to a fleshy fruit with thin skin and a central stone containing the seed.

**Herbaceous:** Herbaceous refers to a plant with green and soft stems, rather than woody ones.

**Inflorescence:** Inflorescence refers to a cluster of flowers arranged on a stem that has a main branch or an arrangement of branches

**Lanceolate:** Lanceolate means shaped like a lance; a narrow oval tapering to a point at each end.

**Lenticels:** Lenticels are raised pores in the stem of a woody plant that allow gas exchange between the atmosphere and the internal tissues.

**Nodes:** Nodes are the areas of the stem from which leaves, branches, and aerial roots grow.

**Internodes** are the intervals between the nodes.

**Raceme:** A raceme is a flower cluster with separate flowers attached by short, equal stalks, at equal distances, along a central stem.

**Pinnate:** Pinnate describes a compound leaf with leaflets arranged on either side of the stem, typically in pairs opposite each other.

**Rhizomes:** Rhizomes are horizontal underground stems that put out roots and shoots.

**Suckering:** Suckering plants spread by pushing up new shoots around their original base.

# Other Native Plants Growing on Conanicut Island

In addition to the plants listed above and profiled in this booklet, many other native plants can be found on Conanicut Island. Some of these plant species are listed below.

## Trees

American Hornbeam (*Carpinus caroliniana*)  
Black Chokecherry (*Aronia melanocarpa*)  
Black Tupelo Gum (*Nyssa sylvatica*)  
Black Oak (*Quercus velutina*)  
Box Elder (*Acer negundo*)  
Common Witch-Hazel  
(*Hamamelis virginiana*)  
Eastern White Pine (*Pinus strobus*)  
Gray Birch (*Betula populifolia*)  
Quaking Aspen (*Populus tremuloides*)  
Scarlet Oak (*Quercus coccinea*)  
White Ash (*Fraxinus americana*)  
White Spruce (*Picea glauca*)  
Yellow Birch (*Betula alleghaniensis*)

## Shrubs

Black Raspberry (*Rubus occidentalis*)  
Common Blackberry (*Rubus allegheniensis*)  
Common Elder (*Sambucus canadensis*)  
Dewberry (*Rubus sp.*)  
Poison Ivy (*Toxicodendron rybergii*)  
Silky Dogwood (*Swida amomum*)  
Steeplebush (*Spiraea tomentosa*)

## Herbaceous Plants

Beach Clotbur (*Xanthium strumarium*)  
Blue Toadflax (*Linaria canadensis*)  
Blunt-leaved Sandwort (*Moehringia laterifolia*)  
Canada Mayflower  
(*Maianthemum canadense*)  
Clayton's Bedstraw (*Galium tinctorium*)  
Common Sunflower (*Helianthus annuus*)  
False Nettle (*Boehmeria cylindrica*)  
Indian Hemp  
(*Apocynum cannabinum*)  
Lambs Quarters (*Chenopodium album*)  
Marsh Skullcap (*Scutellaria galericulata*)  
One-flowered Cancerroot  
(*Orobanche uniflora*)  
Pokeweed (*Phytolacca americana*)  
Sea Rocket (*Cakile edentula*)  
Seaside Plantain (*Plantago maritima*)

Stinging Nettle (*Urtica dioica*)  
Tall Meadow Rue (*Thalictrum pubescens*)  
Water Horehound (*Lycopus americanus*)  
White Avens (*Geum canadense*)

## Flowering Plants

American Germander (*Teucrium canadense*)  
Aster (*Aster sp*)  
Blue Vervain (*Verbena hastata*)  
Climbing False Buckwheat  
(*Fallopia scandens*)  
Common Dodder (*Cuscuta gronovii*)  
Common Yellow Wood Sorrel (*Oxalis stricta*)  
Dwarf St. Johnswort (*Hypericum mutilum*)  
Maritime Orache (*Atriplex acadiensis*)  
Purple Gerardia (*Agalinis purpurea*)  
Redshank (*Polygonum persicaria*)  
Spotted St. Johnswort  
(*Hypericum punctatum*)  
Swamp Rose Mallow (*Hibiscus moscheutos*)  
Sweet Everlasting  
(*Pseudognaphalium obtusifolium*)  
Wild Peppergrass (*Lepidium virginicum*)  
Whorled Loosestrife (*Lysimachia quadrifolia*)  
Yarrow (*Achillea millefolium*)

## Grasses, Sedges, and Rushes

American Beach Grass  
(*Ammophila breviligulata*)  
Broom-sedge (*Andropogon virginicus*)  
Early Sedge (*Carex pensylvanica*)  
Little Bluestem (*Schizachyrium scoparium*)  
Salt-hay Grass (*Spartina patens*)  
Switch Grass (*Panicum virgatum*)

## Woody Vines

Fox Grape (*Vitis labrusca*)  
Greenbrier (*Smilax rotundifolia* or *glauca*)  
Poison Ivy (*Toxicodendron radicans*)  
Virginia Creeper  
(*Parthenocissus quinquefolia*)



# Red Maple (*Acer rubrum*)

Native, Deciduous Tree  
Can grow 100 feet high or higher

**Introduction:** Red Maple is the state tree of Rhode Island. Named for its red flowers, red fruit, red twigs, its brilliant red fall foliage, it is also known as Scarlet Maple and Swamp Maple, because it tends to prefer swampy, wet conditions. Said to be the most abundant native tree in the eastern deciduous forest, it boasts the greatest north-south range, growing from eastern Canada to Florida. More abundant today than it was when the colonists settled in North America, Red Maple can tolerate a wide range of environmental conditions and a vast array of soil types including acidic, loamy, rich, sandy, well-drained as well as clay soils. Red Maples are known to live 100 years or more.

**Description:** The Red Maple is a medium to large size tree growing sixty to a hundred feet high or higher. Its trunk ordinarily has no branches until some distance up the tree. The crown is usually oval shaped with ascending curved shoots. In young trees, the pale gray bark is smooth. As the tree ages and grows, its bark darkens and cracks into slightly raised long plates. The leaf stalks are usually red, as are the buds, and the leaves themselves can turn bright scarlet in autumn, although some Red Maples have yellow or orange autumn leaves.

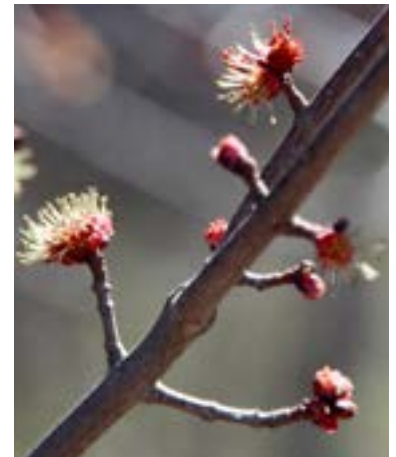
**Ecological Value:** Red Maple is one of the first plants to flower in early spring, making it important to honey bees in need of fresh nectar and pollen at winter's end. Red Maple is also a winter food source for deer. Butterflies and moths feed on Red Maple leaves, and the maple seeds, buds, and flowers are eaten by various birds and animals including squirrels and chipmunks. Rabbits munch on the stump sprouts, especially in the colder months. Cavity nesting birds such as the Wood Duck sometimes nest in Red Maples growing in river-floodplains. The Screech Owl, Pileated Woodpecker, and Common Flicker may also nest in its cavities. Maple syrup can be made from the sap of the Red Maple.

**Propagation:** Red Maple trees can produce all male flowers, all female flowers, or some of both. The trees produce fruits called samaras, which are fruits with a winged structure that allows the seed to disperse on the wind in spring before the leaves are fully developed.

**Where They Grow on Conanicut Island:** You will find Red Maples in Jamestown across from the Bridge Authority to the south of Freebody Drive and also along North Road in the wetlands between American Way and the transfer station. You can find them along the western side of the main trail leading into Conanicut Battery; an area that is quite damp most of the year. You also can see them as you look north across the reservoir, and elsewhere.



Red Maple Tree



Red Maple Male Flowers



Red Maple Female Flowers



Red Maple Samaras

# Shadbush (*Amelanchier*)

Native, Deciduous Tree or Shrub  
Can grow to 25 feet high

**Introduction:** The Shadbush tree is said to have gotten its name because it blooms around the time the anadromous shad return from the sea to swim up freshwater rivers and streams to spawn. It also is known as Serviceberry, so named, as the legend goes, by the colonial settlers because it blooms about the time the ground is sufficiently thawed for grave-digging and thus for the performance of funeral services. A member of the rose family, Shadbush is related to Apple, Cherry and Hawthorn trees. Among the first to mark the end of winter, its tufts of white flowers are evident throughout the Island in late April/early May.

**Description:** There are many *Amelanchier* species and hybrids with slightly varying characteristics. According to the Rhode Island Wild Plant Society, four species of Shadbush are native to Rhode Island, all bearing lovely masses of white blossoms in the spring. They include *Amelanchier spicata*, Dwarf Serviceberry; *Amelanchier canadensis*, Eastern Serviceberry; *Amelanchier arborea*, Tree Shadbush; and *Amelanchier laevis*, Smooth Serviceberry. The first two types mentioned tend to be multi-stemmed colonies, while the second two usually grow as single slender tall trees or shrubs. In general they grow about 10-15 feet tall, favoring swamps, damp woodlands and woodland edges. The flowers have five petals, usually white, and the leaves are oval. The berries of the Shadbush ripen in midsummer, turning from red to bluish-black. Similar to blueberries, they are eaten fresh or in pies and jams; that is, if you can get to them before the birds do! The Shadbush seeds have a distinctive almond-like flavor. During the autumn, the green, oval-shaped foliage turns to vivid shades of orange, red, and yellow.

**Ecological Value:** An early spring bloomer, Shadbush is an essential nectar source for bees and butterflies, and occasionally hosts Viceroy, Striped Hairstreak, and Canadian Tiger Swallowtail butterflies. Nectar-rich Shadbush blossoms also attract hummingbirds and other pollinators. Its berries are highly nutritious and said to be consumed by more than 40 species of birds including Eastern Bluebirds, Cardinals, Waxwings, Hairy Woodpeckers, Thrushes, Catbirds, Orioles, and Robins, as well as many mammals including fox, squirrels and chipmunks. Deer and rabbits also browse on Shadbush plants.

**Propagation:** Shadbush flowers have both male and female organs, and are pollinated by bees. They are self-fertile, not requiring a partner plant.

**Where They Grow on Conanicut Island:** Shadbush can be found growing at Taylor Point and also at Godena Farm. You can also find it along East Shore Road toward the very north of the Island and elsewhere.



Shadbush



Shadbush Blossoms and Leaves



Shadbush Berries Beginning to Develop



# Black Cherry (*Prunus serotina*)

Native, Deciduous Tree

Can grow 25 to 100 feet tall or taller

**Introduction:** Black Cherry, also called Wild Black Cherry, Rum Cherry, or Mountain Black Cherry, has a wide distribution in the United States and is valuable for its wood which is used for lumber, cabinets, furniture, flooring, paneling, and other applications. Wild Cherry cough medicine is made from the bark of this tree and jelly and wine are prepared from its fruit. In the mid 1900s Black Cherry was widely introduced into Europe as an ornamental. It proliferates there and now is considered an invasive nuisance. Researchers theorize that microbes in the European soil may actually help Black Cherry seedlings grow there. Further, researchers found that certain pathogens in North American soils actually inhibit the seedlings' growth. This finding reinforces the hypothesis that plant species do well in non-native habitats, and can overtake native species because the non-natives are not held in check by pathogens, herbivores and competitors that keep their growth in check in their native habitat.

**Description:** Black Cherry is a medium-sized, fast-growing tree. Its oval to lanceolate leaves are 2–5 in long, with finely toothed margins. It flowers are small, white and 5-petaled, in racemes that are 4–6 inches long and contain several dozen flowers. The flowers give rise to reddish-black drupes (berries). The leaves are long and shiny and in autumn the Black Cherry leaves turn yellow to red. The bark of a young Black Cherry, smooth, with horizontal lenticels, grows rougher and darker as the tree matures. When a young twig is scratched, it will release an almond-like odor owing to minute amounts of cyanide compounds that are produced and stored by the plant and serve as a defense against herbivores.

**Ecological Value:** Although tart, the fruit of the Black Cherry tree is an important source of nutrition for many mammals including deer, rabbits, foxes and squirrels. The fruit also attracts a wide variety of birds, including Cardinals, Woodpeckers, Sparrows, Mockingbirds, Chickadees, Robins, Bluebirds, and Bluejays. Caterpillars of butterflies such the Painted Lady and Viceroy, and Eastern Tiger Swallowtail eat the leaves, as do other butterfly and moth caterpillars.

**Propagation:** Black Cherry blossoms are hermaphroditic, meaning they have both male and female reproductive structures on the same flower. They are pollinated by insects and several bee species, including honeybees who work the blossoms for pollen and nectar. Many of the resulting drupes will fall to the ground in the vicinity of the parent tree. Others are eaten by songbirds and mammals who distribute the seed after consuming the berries.

**Where They Grow on Conanicut Island:** You can find Black Cherry trees at Taylor Point, particularly south of Freebody Drive. You can find them west of the road into Beavertail Park between the first and second parking lot. They also grow along the stone wall heading south on Beavertail Road just beyond Mackerel Cove, and on the Lawn school campus and elsewhere.



Black Cherry Leaves & Buds



Black Cherry Bark



Black Cherry Drupes

# Oak (*Quercus*)

Native, Deciduous Tree  
Can grow 100 feet or higher

**Introduction:** Oak trees are large, long-lived trees that are said to support more lifeforms than any other type of tree in North America. Jamestown has many varieties of Oak. The leaves of the different types vary in shape and size; some with pointed lobes tipped with tiny bristles, such as the Black Oak (*Quercus velutina*) and the Pin Oak (*Quercus palustris*). Other Oaks, such as the White Oak (*Quercus alba*), have leaves that are rounded and smooth. The White Oak is a particularly long-lived Oak that grows slowly and can live 450 years and reach 100 feet tall. The Pin Oak, with its straight trunk and well-shaped canopy, and its almost horizontal branches in the tree's center grows to 75 feet tall. Other common Jamestown Oaks include Scarlet Oak (*Quercus coccinea*) which generally becomes bright red in autumn and can grow to 100 feet tall, and Northern Red Oak (*Quercus rubra*) a fast-growing tree that can reach 140 feet tall.

**Description:** Oaks tend to grow tall and straight. Their wood is dense, strong, and hard. The width of an oak's canopy can reach twice the size of the tree's height. Although the leaf shapes vary somewhat, they are alternate, which means they are single at each node and are borne along the stem alternately in an ascending spiral. All Oaks produce acorns, and the shapes and sizes of the acorns differ between species.

**Ecological Value:** Oaks have enormous ecological value. They provide food, protection or both for a wide array of creatures from birds to bears, and countless insects. Oak trees are known to support close to 900 caterpillar species in the United States, far more than any other native trees. The caterpillars provide high-value sustenance to birds that consume them.

An Oak tree can produce three million acorns in a lifetime, providing tons of protein, fat and carbohydrates to the ecosphere. Acorns are a food source for birds, such as woodpeckers, ducks, and pigeons. Squirrels, mice, deer, and bears also eat acorns. A mature Oak can drop as many as 700,000 leaves every year. These leaves decompose more slowly than most other trees' leaves and the resulting leaf litter provides habitat for beneficial insects and fungi. Oak trees also sequester carbon, absorbing carbon during photosynthesis and storing it in the wood for the life of the tree.

**Propagation:** Oaks are monoecious, with male and female flowers on the same tree. They can be cross-pollinated with another tree, or can self-pollinate, although self-pollination is rare. The male flowers hang down from large catkins, which are slim, cylindrical pollen-rich flower clusters. Wind disperses the pollen to the smaller female flowers. The fertilized female flowers produce the fruit of the tree, the acorns, which take one to two years to mature, depending on the type of tree. Each acorn contains only one seed enclosed in a tough shell.

**Where they Grow on Conanicut Island:** You can find oak trees throughout the Island including in the Jamestown Forest and elsewhere.



Autumn Red Oak



Red Oak Sprouting  
from an Acorn



Oak Leaves and Acorns



# American Holly (*Ilex opaca*)

Native, Evergreen Tree

Can grow to 40 or even 60 feet tall

**Introduction:** The American Holly has a wide range of uses, in addition to enhancing holiday decorations. Native Americans preserved holly berries and used them as decorative buttons and for trade. They also made a medicinal tea by boiling the leaves. The wood of the American Holly is whitish and fine textured and is easily dyed many colors including black. Throughout American Colonial history the wood of the Holly was used as decorative inlay in furniture and cabinets, in making canes and furniture, knife handles, and even as a substitute for ebony in the production of black piano keys.

**Description:** Both shade and salt tolerant, American Holly is a slow growing tree, typically growing in the forest understory. A pyramidal evergreen, it is easily recognized by its leathery dark green, spiny leaves, with marginal teeth, and its bright red berries that emerge in late fall and last through the winter. In late spring its small greenish white flowers bloom, emitting a pleasant sweet aroma.

**Ecological Value:** The American Holly is important to our local ecology. Its foliage provides excellent cover for songbirds and small mammals hiding from predators or seeking shelter from storms. Squirrels, raccoons and skunks eat the berries, as do mockingbirds, catbirds, bluebirds, cardinals, and other birds, especially in winter when insects and worms are scarce. Cedar Waxwings in particular feed on holly berries during their northern migration. Although birds and some mammals happily devour holly berries, the berries are bitter and poisonous to humans, dogs and cats.

When the tiny cream-colored flowers of the holly tree bloom in the spring, their sweet smelling flowers attract pollen- and nectar-seeking honey bees, bumblebees, and other pollinators such as butterflies, ants, and night-flying moths and wasps.

**Propagation:** American Holly is dioecious, that is, some plants have male flowers and some have female flowers. The flowers are cross-pollinated by bees and other insects as they move from flower to flower and plant to plant. Trees of both sexes must grow within the same area and bloom at the same time for berries to develop on the female trees. A ratio of three female plants to one male plant is said to be ideal for fruit production. Each holly berry contains four seeds.

**Where They Grow on Conanicut Island:** You can find American Holly in the Jamestown Forest and elsewhere.



Holly Blossoms



Developing Holly Berries



Holly Branch and Ripe Berries



# Eastern Red Cedar (*Juniperus virginiana*)

Native, Coniferous Evergreen Tree  
Can grow to 60 feet tall or taller

**Introduction:** Eastern Red Cedar is of the same genus as Juniper and one of the first trees to repopulate an area that has been cleared or disturbed. It does well in full sun and tolerates most soil types. A long-lived tree, Red Cedar can live to 150 or even 300 years or more. Its wood is decay-resistant, making it an excellent choice for fence posts. The wood also is aromatic and repels moths, making it a good choice for lining closets and clothing chests. Native American tribes used tall cedar poles to mark their hunting territories.

You may notice brown and orange galls on Eastern Red Cedar trees in Jamestown. They are cedar-apple rust caused by a fungus that requires two hosts, in this case apple or crab apple trees and Red Cedar, to complete its life cycle. During rainy periods in the spring it produces spore-bearing gelatinous horns as shown in the photo. The wind can carry the microscopic spores several miles to infect other trees.

**Description:** Eastern Red Cedar has a pyramidal shape. Its small dark green leaves are scale-like and its bark is reddish brown, fibrous, and peels off in long narrow strips. Red Cedar trees produce two types of cones: pollen cones, the male flowers; and seed cones, the female flowers. Pollen cones are yellowish brown, about 1/8 inch long and oblong, usually produced in large groups at the branches' tips. The light blue-green seed cones produce a waxy coating in the autumn. Seed cones are about 1/4 inch in diameter and though they are berry-like in appearance, they are actually cones comprising fused cone scales.

**Ecological Value:** The berry-like cones of the Eastern Red Cedar are an important winter food source for birds. Cedar Waxwings are known to feast on them, as do bluebirds, turkeys, flickers, catbirds, robins, sparrows and swallows. Many mammals including foxes, chipmunks, mice, deer and opossums also eat the cones. A variety of caterpillars, moths, beetles, leafhoppers, gall flies, and other insects in various life stages also feed on Red Cedar. Many birds nest and/or roost in Red Cedars including hawks, bluejays, mocking birds, finches, and owls.

**Propagation:** Dioecious, Eastern Red Cedar produces the pollen cones (the male flowers) and seed cones (the female flowers) on separate trees. The yellowish pollen cones release pollen in the spring. The pollen is carried by the wind to pollinate the seed cones of nearby female trees. Each seed cone typically contains 1 to 2 seeds. Red Cedars reproduce by reseeding themselves.

**Where They Grow on Conanicut Island:** You can find Eastern Red Cedar in Beavertail State Park, Godena Farm and throughout the Island.



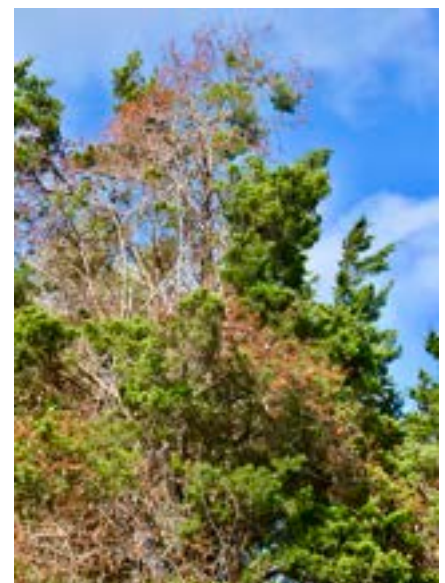
Cedar-Apple Rust



Scale-like Cedar leaves.



Cedar Seed Cones.



Cedar Tree Ravaged by Bittersweet

# Sweet Pepperbush (*Clethra alnifolia*)

Native, Deciduous Shrub  
Generally grows from 3 to 8 feet tall or taller

**Introduction:** Sweet Pepperbush, also called Coastal Sweet Pepperbush, is a tall, fragrant, many-branched, leafy shrub. Coastal Sweet Pepperbush is native to eastern and southern North America. It is called "pepper" bush because the mature fruits vaguely resemble peppercorns in appearance. Coastal Sweet Pepperbush is often found growing in swampy woodlands, wet marshes, along stream banks, and in the sandy soils along the seashore.

Sweet Pepperbush produces leaves in late spring. It flowers in July and August, and sets fruit in September and October. A shade-tolerant understory shrub, it will grow under the canopy of old-growth trees as well as in full sun. It thrives in dappled shade.

**Description:** Sweet Pepperbush is a medium size colony-forming upright shrub with multiple stems. It is late to leaf out in spring when its dark green foliage appears. Its leaves are two to three inches long, serrated, and elongated to ovate in shape, occurring in an alternating pattern along the branches. In autumn, the foliage turns a golden yellow, lasting two to four weeks and then turns brown.

Sweet Pepperbush blooms in dense, narrow, cylindrical white to pink flower spikes. The flowers bloom from the bottom up and are often clustered together at the ends of the branches. The flowers give off a strong sweet fragrance. After it flowers, Sweet Pepperbush develops small non-showy seedpods, which resemble peppercorns and which persist through winter.

**Ecological Value:** Sweet Pepperbush's showy flowers are rich in high quality nectar and pollen. They attract honeybees, wasps, butterflies, hummingbirds and other pollinators. Birds and small mammals feed on Sweet Pepperbush seeds in winter. Deer eat it also, but only when other forage vegetation is limited.

**Propagation:** Sweet Pepperbush flowers are hermaphroditic, having both stamens and pistils. The flowers are pollinated primarily by insects, especially bees. The seeds may be dispersed by water and wind as well as by birds that eat the seeds. However most reproduction is by spreading rhizomes. The rhizomes can sprout new shoots eight feet or more from the parent plant.

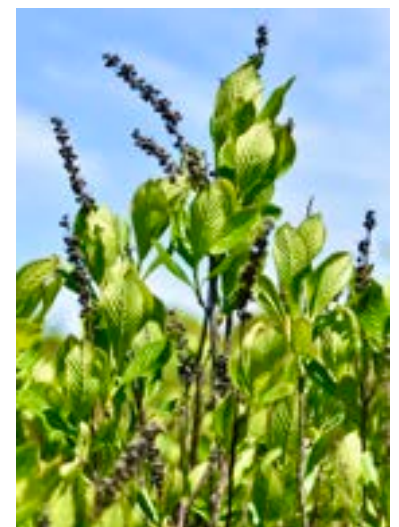
**Where it Grows on Conanicut Island:** Sweet Pepperbush abounds at Godena farm and also can be found along North Road and Carr Lane and along the stone wall heading south on Beavertail Road just beyond Mackerel Cove and elsewhere.



Sweet Pepperbush Flower



Sweet Pepperbush



Pepperbush Seed Pods  
Persisting into Spring



# Winterberry (*Ilex verticillata*)

Native, Deciduous Shrub

Generally grows from 3 to 15 feet tall or taller.

**Introduction:** Winterberry is a slow-growing deciduous shrub that is native to the eastern United States. It produces bright red drupes that, although toxic to humans, dogs, cats and horses, are an important food source for birds and small mammals.

**Description:** A multi-stemmed shrub with slender, upright, spreading branches, Winterberry often forms thickets. It prefers wetland areas but will grow well in a variety of conditions, as long as it gets enough moisture. A member of the holly family, it has bright green leaves that turn purplish green in autumn, black with the first frost, and then fall to the ground. When the leaves first unfold in early spring, tiny light green to light yellow blossoms appear with as many as 12 in a cluster. The inconspicuous flowers give way to dense clusters of bright red berries; each with a characteristic black dot on the end. The berries remain on the plant through winter.

**Ecological Value:** Winterberry's inconspicuous spring blossoms are rich in nectar and attract bees, butterflies and other pollinators. Dense Winterberry thickets provide good cover for nesting birds and small mammals. Rabbits and deer eat Winterberry leaves. Raccoons and mice feast on the berries. The berries, persisting well into winter, provide an important food source for birds. The berries are relatively low in fat content, so the birds leave them until late in the season when other, more nutritious foods are scarce. Among the many species of birds that feed on Winterberry are Catbirds, White-Tailed Sparrows, Mockingbirds, Robins, Brown Thrashers, Cedar Waxwings, Eastern Bluebirds and others.

**Propagation:** Generally a dioecious plant, Winterberry usually requires the presence of both male plants and female plants for the female plant to produce the bright red berries. Thus it is important that at least one male winterberry plant grows in the vicinity of the female plant (or plants) for cross-pollination to occur. Generally, a single male Winterberry can pollinate 6 to 10 females. In some unusual cases a specimen will develop with male and female flowers on the same plant, or some flowers that are "perfect" (having both male and female parts). Such cases are atypical, however.

**Where it Grows on Conanicut Island:** Winterberry abounds at Godena farm and also can be found at Taylor Point as well as along the Beavertail Road in the lower-lying wetland areas. It also grows well in the marshy areas along North Road near the overpass, and elsewhere.



Winterberry Branches and Berries



Winterberry Branches with Berries  
Just Beginning to Form



Winterberry: An Important Late  
Season Food Source for Birds



# Bayberry (*Morella pensylvanica*)

Native, Deciduous Shrub

Generally grows 8 to 12 or even 15 feet tall

**Introduction:** Native to eastern North America, Bayberry is a dense multi-stemmed deciduous shrub that grows dark green leathery leaves each spring. It is a hardy shrub and can tolerate blasts of salt spray. Bayberry is also known as Candleberry and Waxberry because the wax in the berries has been used for centuries in candle-making. Soaps and sealing wax can also be made from Bayberry.

**Description:** Bayberry bushes tend to have a rounded form. Bayberry leaves are narrow and do not change color with the seasons. The leaves have a strong spicy fragrance, especially when crushed. Bayberry also produces small, distinctive, bluish gray berries covered with a waxy coating. The berries, if not consumed by birds or wildlife, will persist well into winter. Bayberry can spread laterally 10 feet or so via rhizomatous growth.

**Ecological Value:** The berries of the Bayberry shrub are an important food source for a variety of birds and also small mammals. Among the birds that feast on Bayberry are Gray Catbirds, Robins, Tree Swallows, Eastern Bluebirds, Woodpeckers, Chickadees, the Yellow-rumped Warbler and others. And because the berries remain on the plant through the winter, the birds have a food source when the weather is cold and snowy and other food sources are scarce. The multiple trunks and branches of the Bayberry bush also provide birds with excellent protection and nesting sites.

Bayberry is well adapted to nitrogen poor soils because it has a symbiotic relationship with certain nitrogen-fixing bacteria. It also has proven highly effective in dune-stabilization efforts along the Mid-Atlantic coast.

**Propagation:** Bayberry is primarily a dioecious plant (male and female flowers growing on separate plants). The flowers are generally wind pollinated, forming clusters of light green, single-seeded berries below leafy stem tips in the summer. The berries achieve their light bluish gray color and waxy coating when they mature.

**Where it Grows on Conanicut Island:** Bayberry grows abundantly on the southern end of Beavertail Road and around the circle at Beavertail State Park. You also can find it along the roadside across the street from Mackerel Cove Beach and along the road just after you pass through the stone pillars at Fort Getty. It also grows on the cliffs at Taylor Point, at Godena Farm and elsewhere.



Berries Emerging on Bayberry Branches



Mature Berries on Bayberry Branches



Taylor Point Bayberry Shrubs

# Staghorn Sumac (*Rhus typhina*)

Native, Deciduous Shrub  
Typically grows 15 to 25 feet high

**Introduction:** Three types of Sumac of the genus *Rhus* commonly occur in Jamestown. They are Staghorn, (*Rhus typhina*); Smooth (*Rhus glabra*); and Winged (*Rhus copallinum*). All three are similar in form and all three support birds, pollinators and wildlife. These shrubs are members of the cashew family (*Anacardiaceae*) and are not closely related to Poison Sumac (*Toxicodendron vernix*) which has white, not red berries. Staghorn Sumac gets its name from the reddish-brown hairs covering the young branchlets similar to the velvety hairs on a stag's antlers. It is also noted for its scarlet berry clusters and crimson autumn foliage.

The fruit of Staghorn Sumac can be soaked, sweetened and used to make a pink "lemonade" and also can be used to make jelly. Its shoots can be peeled and eaten raw and its dried berries can be used as a spice rub for fish and chicken, a practice common in the Middle East, where the berries are also often sprinkled on hummus to add both color and flavor.

**Description:** Staghorn Sumac trees have an almost tropical appearance. Their leaves are feather-like with each leaf having 11 to 31 coarsely toothed leaflets with reddish and hairy leaf axils. The leaves can grow to be 2 feet long. The tiny, greenish-yellow flowers of Staghorn Sumac bloom in terminal cone-shaped clusters in late spring to early summer giving way to the characteristic scarlet, upright, pyramidal cone of seeds that emerge from the female flowers, extending up to 8 inches long. These clusters contain numerous hairy, berry-like drupes that persist well into winter.

**Ecological Value:** Staghorn Sumac provides birds with nesting sites in the spring and summer. Its seeds are an important food source for an estimated 300 species of song birds, especially in late winter. These species include the Eastern Bluebird, Chickadees, Northern Cardinals, and Downy and Pileated Woodpeckers. The leaves are an important food source for many caterpillars and the caterpillar of the Dark Marathyssa moth feeds exclusively on Sumac. The caterpillars in turn sustain bird populations. Mammals also make use of this shrub. Rabbits and deer will browse on the leaves and twigs, and pollinators are attracted to Sumac nectar.

**Propagation:** Staghorn Sumac usually has separate male and female plants. Only the females will have seed clusters. A cluster comprises about 700 drupes. Each drupe of the cluster contains one seed. The flowers are pollinated by insects and other pollinators. Staghorn Sumac spreads not only by seeds but also by rhizomes. Staghorn Sumac is a suckering shrub and will form thickets by both self-seeding and root suckering.

**Where it Grows on Conanicut Island:** Sumac can be found at Taylor Point and is abundant at Beavertail State Park and elsewhere throughout the Island.



Feathery Staghorn Sumac Leaves



Staghorn Sumac Drupe Cluster



Staghorn Sumac Branchlets



# Black Elderberry (*Sambucus canadensis*)

Native, Deciduous Shrub

Typically can grow 5 to 12 feet tall and wide

**Introduction:** American Black Elderberry is a somewhat sprawling, fast-growing suckering shrub that typically grows on stream banks, moist woodlands, thickets, fence rows and roadsides. Its fruits have immunity boosting properties, are highly nutritious and are used in jams, jellies, pie fillings and elderberry wine. The flower, known as elderflower, is also edible. The shrub's leaves and inner bark can be used as an insecticide and a dye. The genus name is from the Greek "sambuce" an ancient musical instrument, so named because the soft pith inside the Elderberry stalk is easily removed to fashion flutes and whistles.

**Description:** American Black Elderberry is a loose, graceful, deciduous shrub with both woody and herbaceous branches growing up to 12 feet tall. Many long stems arise from the base, arching at the top. Its stems and branches are filled with white pith. Its featherlike compound leaves grow up to 12 inches long. The leaflets are ovate to elliptic or narrower and up to 7 inches long. The margins are toothed except at the tip and toward the base. The teeth are narrow and pointed toward the tip. American Black Elderberry's white lemon-scented blossoms are approximately 1/4 inch across. They grow in broad, flat, conspicuous clusters up to 10 inches across or more from May to July and give way to the berrylike fruit, which is dark purple when ripe, and about 1/4 inch wide, held clustered by a contrasting violet colored stem.

**Ecological Value:** American Black Elderberry provides nesting habitat for such birds as hummingbirds, warblers, and vireos and forage for other small birds as well as animals such as deer and sheep. It is also a larval host to the Spring Azure Butterfly, and provides cover and protection for large and small mammals. It attracts bees and butterflies.

**Propagation:** Elderberry flowers are self-fertile and only one plant is needed for bountiful fruiting. It is thought to be primarily wind-pollinated. Each purplish-black fruit contains 3 to 5 stone-like seeds. Black Elderberry also can spread aggressively by underground rhizomes.

**Where it Grows on Conanicut Island:** You can find Elderberry along the main trail at the Battery and along North Road on the western side and elsewhere on the Island.



Elderberry Shrub in Bloom



Elderflower Close Up



Ripe Elderberries



# Highbush Blueberry (*Vaccinium corymbosum*)

Native, Deciduous Shrub  
Typically grows 6 to 15 feet high

**Introduction:** Wild Blueberries are a rich source of several micronutrients, including, iron, vitamin C, folic acid, and manganese. In addition to being flavorful, they are rich in antioxidants. Highbush Blueberry shrubs are thought to have been cultivated by Native Americans for thousands of years. Archeological evidence suggests that the Native Americans conducted intentional crop burnings in northeastern areas as Blueberries grow vigorously in the wake of a controlled burn. The Native Americans collected the berries and used them in their cuisine.

**Description:** Highbush Blueberry, native to eastern North America, is in the heath family. It is an upright, multi-stemmed, slow-growing deciduous shrub that often grows in dense thickets. Its dark glossy green leaves are elliptical and up to 2 inches long. In autumn, the leaves turn a brilliant red, or sometimes orange, yellow, or purple.

Highbush Blueberry generally blooms from March to May. The flower is usually white or off-white and about 1/3 inch long. It has five fused petals giving it a bell shape. The flower has both male and female flower parts. The fruit is a 1/4-to-1/2-inch diameter blue-black berry. This plant is found in wooded or open areas and prefers moist acidic soils.

**Ecological Value:** The Blueberry flowers attract butterflies and bees, providing nectar for pollinators such as adult Brown Elfin butterflies. Its fruit attracts small mammals, Ruffed Grouse, Wild Turkey, squirrels, and songbirds, including the American Robin, Eastern Bluebird, Scarlet Tanager, Eastern and Spotted Towhees, Gray Catbird, Northern Mockingbird, Brown Thrasher, and Northern Cardinal. The twigs provide a food source for deer and rabbits.

**Propagation:** Highbush Blueberries spread primarily by rhizomes (underground runners), which give rise to new roots and stems. The new, fast-growing shoots grow out of the soil from the main root cluster only a few inches from the main clump. All shoots coming off from the same rhizome system are said to be clones and will all have similar characteristics. In addition to vegetative reproduction, Highbush Blueberries reproduce sexually. Although they can self-pollinate, they will produce a more robust crop if they cross-pollinate. The flowers are pollinated by bees and butterflies, hummingbirds and other pollinators.

**Where it Grows on Conanicut Island:** You can find Highbush Blueberry shrubs at Taylor Point and elsewhere on the Island.



Blooming Blueberry



Blueberry Blossoms

# Arrowwood (*Viburnum dentatum*)

Native, Deciduous Shrub  
Generally grows 3 to 10 feet high

**Introduction:** A medium to fast-growing shrub, Arrowwood grows as multiple erect straight stems that arch gently outward. Native Americans are said to have used the straight stems of this shrub to make their arrow shafts, hence the name "Arrowwood".

**Description:** Arrowwood is a winter-hardy, salt tolerant shrub. It tends to have a spread of up to 8 feet and has coarsely toothed leaves. Its creamy-white, flat-topped flower clusters emerge in early summer. Each small flower has five petals and yellow stamens. The flowers are about 2 to 4 inches across and have no scent. The fertilized flowers give way to 1/4 to 1/3 inch long blue-black berries. Arrowwood's dark green foliage turns yellow to deep red in late fall. A particularly adaptable plant, Arrowwood thrives in nearly any soil type including sand and clay. It will grow in dry, moist, or even wet soils, and in sun or shade.

**Ecological Value:** Arrowwood forms dense thickets which provide excellent cover and nesting sites for birds. The nectar-rich flowers attract and nourish Honey Bees, butterflies and other pollinators. Arrowwood drupes are rich in fat content and provide nutritious food for resident and migratory songbirds. Since the berries often persist into winter, they are an important winter food source also. Among the birds that are known to feast on Arrowwood drupes are the American Robin, Cedar Waxwing, Eastern Bluebird, Northern Flicker, Gray Catbird, Northern Cardinal, Rose-Breasted Grosbeak, the Wood Thrush and others. Arrowwood also provides larval food for butterflies and moths serving as host plants for many caterpillars that eat the buds and the leaves. Among them are Spring Azures and Summer Azures, the Azalea Sphinx and Clearwing Hummingbird Moths. The protein-rich caterpillars of these moths and butterflies are also an excellent food source for young songbirds.

**Propagation:** Although Arrowwood shrubs are monoecious, having both male and female parts, the fruit they set is best when it results from cross-pollination with a genetically different plant of the same species. Arrowwood plants are pollinated by bees, butterflies, moths and wind currents. They also reproduce vegetatively through short rhizomes and sprouts emerging from the root crown.

**Where it Grows on Conanicut Island:** Arrowwood grows wild throughout the Island and can reliably be found at Godena Farm, Taylor Point, and in the Jamestown Forest.



Arrowwood Shrub



Arrowwood Leaves and Flower Buds



Arrowwood Drupes



# Virginia Rose (*Rosa virginiana*)

Native, Deciduous Shrub  
Grows 4 to 6 feet tall

**Introduction:** At least three species of native roses can be found in Jamestown. One species, Swamp Rose (*R. palustris*) is a pink species that grows well in wet sites, and can be seen in early summer blooming along North Road just south of the overpass, about 25 feet west of the road. It grows to about 7 feet tall and has hooked thorns. Another shorter native rose is Pasture Rose (*R. carolina*) which grows to about 3 feet tall, also with pink flowers but with straight thorns. Pasture Rose is generally found in dry pastures and open woods. Both of these native roses are less abundant than the third native species which is Virginia Rose (*R. virginiana*).

In addition to these native rose species, Jamestown also unfortunately has extensive infestations of two troublesome non-native invasive rose species. These are Multiflora Rose (*R. multiflora*) and Beach Rose (*R. rugosa*). These can out-compete the native species, creating dense monocultures that crowd out the natives.

**Description:** Salt tolerant Virginia Rose is a woody perennial and the most common native wild rose. A bushy suckering shrub, it may grow to be 6 to 8 feet across. Its stems are covered in hooked thorns. It blooms from late spring throughout summer and its pale to bright pink fragrant flowers are 2 to 3 inches across and are borne singly or in small clusters. It is revered for its leaf coloration in the fall when its dark green foliage turns fiery orange/crimson. It produces shiny scarlet edible fruits called rose hips which, unless consumed by the birds, will persist into winter.

**Ecological Value:** Virginia Rose grows along the edges of salt marshes, in clearings, thickets, and along the shore. It provides a rich nectar source and nesting material for Honey Bees as well as for butterflies and other pollinators. Further the Virginia Rose provides nesting places for songbirds, and habitat for small mammals. Both birds and small mammals are known to eat the rose hips.

**Propagation:** When the flowers open, Virginia Roses can self-pollinate because they have both male and female flower parts within the flower. Fertilized flowers will produce the rose hips which are the seed pods. They also reproduce asexually by suckering when their stems root as they trail along the ground in fertile soil or when their roots send up new shoots from underground.

**Where it Grows on Conanicut Island:** Virginia Rose can be found growing in the upper parking lot circle at Taylor Point as well as along the trail going east from the parking lot to the cliffs above the Bay. It also grows on Potter Cove Beach and elsewhere.



Virginia Rose, Rose Hips



Virginia Rose, Hooked Thorns



Virginia Rose in Bloom



# Jewelweed (*Impatiens capensis*)

Native, Herbaceous flowering annual  
Grows 3 to 5 feet tall

**Introduction:** Jewelweed is a tall, self-seeding annual herb in the balsam family. It has large (~3.5 inches) leaves and bright yellow/orange flowers. When dew or rain bead up on the leaves sparkling droplets form which may account for the name "Jewelweed". Native Americans are said to have used the plant's juices as a diuretic; to relieve itching and discomfort caused by poison ivy; as well as for dressing and relieving pain associated with burns. They also used it to make yellow/orange dye. Jewelweed frequently forms large dense stands and can outcompete other species, even invasive Garlic Mustard when conditions are favorable.

**Description:** Jewelweed has delicate thin stems and oval leaves with toothed margins. It grows taller when it has full sun. Blooming in mid summer, Jewelweed becomes easily recognizable by the brightly colored trumpet-shaped flowers which may form a carpet along the banks of streams, ponds and marshes. It will continue to bloom until the first frost kills the plant.

**Ecological Value:** The Ruby-Throated Hummingbird is a major pollinator of Jewelweed. The peak of the Ruby-Throats' migration coincides with the height of Jewelweed's blooming period. Jewelweed nectar is high in sugar content, reportedly as high as 43% sugar, a factor enhancing its value to the migrating hummingbirds. Jewelweed is also pollinated by various flies, bees, butterflies, and wasps and it is a host plant for various moth species. Deer will browse Jewelweed and mice and birds eat its seeds.

**Propagation:** Jewelweed produces two distinct flowers. One type is a showy bright orange-yellow funnel-shaped flower, about 1 1/4 inch long with a conical spur at the base of the blossom. These flowers must be cross-pollinated by hummingbirds and insects. This flower type produces inch-long seedpods containing 3 to 5 seeds each. When the pods are ripe, they will explode upon the least touch or disturbance, launching the seeds as far as 6 feet from the parent plant.

The other flower type is tiny, inconspicuous, green, borne near the base of the leaves, and does not open. This flower type is self-pollinating. These flowers are termed "cleistogamous" by botanists. These flowers produce seeds without exchanging pollen with another flower. Their seeds are not propelled away from the plant. Rather, they simply drop to the ground near the parent plant.

**Where They Grow on Conanicut Island:** You can find Jewelweed in low lying marshy and wooded areas near Sheffield Cove and elsewhere on the Island.



Jewelweed Blossom and Leaves



Seed Pod of a Cleistogamous Jewelweed Flower



Close-up of Showy Jewelweed Flower

# Seaside Goldenrod (*Solidago sempervirens*)

Native, Herbaceous Wildflower

Generally grows 4 to 6 feet high, may grow to 8 feet

**Introduction:** Seaside Goldenrod has waxy, fleshy leaves that help the plant retain water, thus helping it to adapt to the drying effects of salt air. It is highly tolerant of both saline soils and salt spray. Seaside Goldenrod grows along coasts, on sand dunes, salt marshes, beaches, along roadsides, and on the banks of estuaries. It has been used successfully in dune stabilization and erosion control projects, initiating dune formation by trapping sand and debris.

Although many people contend that Seaside Goldenrod causes hay fever, they are mistaken. Actually it is the very lightweight wind-borne pollen of Ragweed that causes the allergic reaction, not pollen from Seaside Goldenrod. Seaside Goldenrod pollen is heavy and sticky and not easily carried on the wind. Rather, pollinating insects transport pollen grains from plant to plant to aid in fertilization.

**Description:** Seaside Goldenrod's long somewhat succulent, dark green, oblong, lance-shaped evergreen leaves are arranged alternately along a 4 to 6 foot tall stem. The leaves are toothless and hairless and thick. They get bigger toward the bottom of the stem, growing as much as 8 inches long and as wide as 1.5 inches. In late summer its flowers emerge as large yellow clusters at the top of the tall stem. They generally bloom from August to October. After blooming, the flower clusters mature into seed heads filled with fuzzy, nut-like fruit capsules, each of which contains just one seed. The seeds are then carried by the wind.

**Ecological Value:** Seaside Goldenrod flowers provide late season nectar for pollinating butterflies and bees. It also is an especially important food and energy source for fall migrating Monarch Butterflies. Seaside Goldenrod attracts songbirds and provides nesting habitat for shorebirds such as Willets, Killdeer, Piping Plovers, and Black Skimmers. Its dried seeds also provide a food source for birds. Seaside Goldenrod also is important for over-wintering, gall-producing insects. Some gall-producing insects are predatory wasps considered beneficial when growing near croplands. Gall larvae also provide an excellent source of winter nutrition for birds such as Chickadees and Woodpeckers.

**Propagation:** Seaside Goldenrod requires cross-pollination for the seed to be viable and it is pollinated by a wide range of nectar-sipping, pollen-eating bees, moths, beetles, butterflies, flies, and wasps. It is a prolific seed producer and the seeds are largely wind-dispersed. It also spreads vegetatively by rhizomes.

**Where it Grows on Conanicut Island:** Seaside Goldenrod can be found at Taylor Point, on the beach at Potter Cove, at Godena Farm, at Beavertail State Park and elsewhere on the Island.



Potter Cove Beach



Seaside Goldenrod



Monarch Butterfly on Seaside Goldenrod

# Joe-Pye Weed (*Eutrochium* sp.)

Native, Herbaceous, Flowering Plant  
Generally grows 4 to 10 feet tall

**Introduction:** Why is it called Joe-Pye Weed? As the legend goes, a Native American healer named Joe Pye (Jopi), used this plant extensively to help cure people with typhus and other ailments in the 1800s in the mission town of Stockbridge, MA. In fact, Native Americans and also the colonists are said to have made medicinal teas from the plant's roots and tops for use as a diuretic, as well as for treating rheumatism, gout, fevers, respiratory disorders, and other conditions. Joe-Pye Weed is in the sunflower family.

Joe-Pye Weed is the common name for five ecologically important native wildflower species of the *Eutrochium* genus, three of which can be found on Conanicut Island. These plants grow from 4-10' tall, and they bloom approximately 1 month in mid-Summer to Fall and include Hollow Joe-Pye Weed (*Eutrochium fistulosum*), the tallest species, reaching heights of ten feet, with 5 to 7 whorled leaves and a hemispherical shaped flower head; Spotted Joe-Pye Weed (*Eutrochium maculatum*), reaching 3 to 5 feet tall with 4 to 5 whorled leaves and a flat or nearly flat flower head and stalk that is purple, or green with purple spots; and Sweet Joe-Pye Weed (*Eutrochium purpureum*), reaching 7 feet in height with a hemispherical flower head.

**Description:** Joe-Pye Weed is hardy, late-blooming and lasts until the first hard frost. Its clusters of tiny, feathery, pinkish-purple flowers bloom from July to September. The clusters are formed of many small pinkish tubular disk flowers which together form a flower disk characteristic of composite flowers. The stalks of Joe-Pye Weed are round, erect and depending on the species and conditions will grow 4 to 10 feet tall with virtually no branching except for the upper third of the plant near the flower heads. Whorls of leaves, where several leaves encircle the stalk at the same height, are spaced along the stalk. The plants' serrated lanceolate leaves vary in size from 2 inches wide by 7 inches long, to 3 inches by 9 inches depending on the species.

**Ecological Value:** The flowers of Joe-Pye Weed have a light vanilla fragrance, which attracts pollinators such as butterflies (including small Skippers, large Swallowtails, and even Monarchs) as well as many kinds of bees and hummingbirds. Tree hoppers, Leaf Beetles, and gnats all feed on different parts of Joe-Pye Weed. These insects become food for other insects and birds. Some smaller birds species such as Sparrows and the American Goldfinch eat Joe-Pye Weed seeds.

**Propagation:** After blooming, the flowers mature into a seed head. The seeds are carried off by wind or animals and birds. Joe-Pye Weed is surface sown and will readily germinate in the spring. It also spreads by the rhizomes that grow horizontally underground and send up new stems/plants.

**Where it Grows on Conanicut Island:** You can find Joe-Pye Weed at Godena Farm and along North Road on the western side south of the overpass and elsewhere on the Island.



Budding Joe-Pye Weed



Close-up of Joe-Pye Weed Blossom



Blooming Joe-Pye Weed



# Jack-in-the Pulpit (*Arisaema triphyllum*)

Native, Herbaceous Plant  
Generally grows 12 to 26 inches tall

**Introduction:** Jack-in-the-Pulpit contains calcium oxalate crystals. Eating raw Jack-in-the-Pulpit plant material causes a strong burning sensation, and irritates the mouth and digestive system. And yet when cooked it can be eaten as a root vegetable with the calcium oxalate giving off a peppery flavor. The plant can be sliced and dried and eaten as chips or ground into flour. The Native Americans are said to have made a preparation from the root and used it to treat rheumatism, bronchitis, and snakebites.

**Description:** Jack-in-the-Pulpit grows from a corm, which is a short underground plant stem. One to two large, glossy leaves, divided into three leaflets, rise on their own stems 1-3 feet. The blossom grows on a separate stalk at the same height as the leaves, appearing in spring as a purplish brown spike. Toward summer the spike unfolds into leaves and flower, appearing as a green and maroon striped spathe (a large leaf-like bract) enclosing a spadix, (a spike of tiny flowers arranged around a fleshy axis). It generally grows in wet, shaded woodlands.

**Ecological Value:** Birds such as Wood Thrushes, turkeys, and Ring-neck Pheasants eat Jack-in-the-pulpit berries. Deer eat the roots. And the Jack-in-the-pulpit corm and berries are said to be one of the Black Bears' favorite choices among food plants.

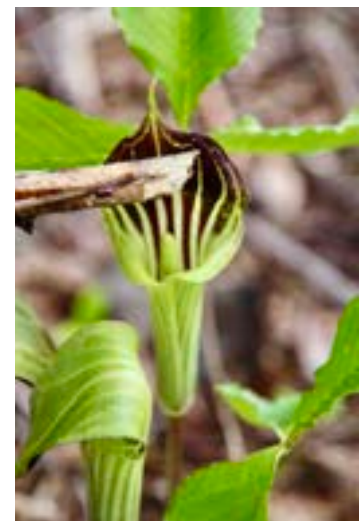
**Propagation:** Jack-in-the-Pulpit flowers from April to June and has a slight fungal odor. The flowers are pollinated primarily by fungus gnats (which eat fungi). The gnats are drawn into the hooded spathes by the plant's slight fungal odor. If they are drawn to a male plant they may find a small hole at the bottom of the spathe which allows them to escape with their pollen. The female plants have no escape hole and the pollinators are more likely to become trapped, which better ensures successful pollination. Other insects that are known to pollinate Jack-in-the-Pulpit include Gall Gnats and beetles.

Although the plants are dioecious (each plant bearing either male or female flowers) they can change gender from year to year. In young plants, most if not all the flowers are male. Then as the plant ages, the spadix produces more female flowers. The fertilized flowers give way to showy, bright red berries. Each berry ripens in the fall and contains 1 to 5 seeds. If the seeds are freed from the berry they may germinate the next spring, emerging as a plant with one rounded leaf. After three or more years of growth they may become large enough to flower.

**Where it Grows on Conanicut Island:** Jack-in-the-Pulpit can be found in the woodlands of Taylor Point, at the Conanicut Island Sanctuary and elsewhere on the Island.



Jack-in-the-Pulpit



Showing the Spadix  
Inside the Spathe



Berries

# Evening Primrose (*Oenothera biennis*)

Native, Biennial, Flowering Plant  
Generally grows 3 to 6 feet high or higher

**Introduction:** Evening Primrose is a biennial, herbaceous plant distinguished by the fact that its bright yellow flowers remain partially to fully closed during the day and open in the evening. The flowers will remain open longer on cloudy days.

**Description:** As a biennial plant, Evening Primrose takes 2 years to complete its life cycle, with basal leaves becoming established the first year, and flowering occurring the second. It blooms from June to October and its four-petaled flowers, which have a faint lemony scent, and are about 1 inch across when fully open. They usually last only one to two days.

The stem of Common Evening Primrose is erect and sometimes branched near the top. It usually has one central stem with alternate leaves, but sometimes, particularly when it is growing in open areas, it will produce multiple stems, giving it a bushy appearance. Although Evening Primrose can grow as high as 7 feet tall, it is often shorter. Its basal leaves form a rosette and are from 3 to 10 inches long. Its lanceolate leaves are usually hairy, shallowly toothed and wavy at the edges.

**Ecological Value:** Songbirds and hummingbirds are attracted to the aromatic nectar of Evening Primrose and hummingbirds also eat insects found on the flowers. Bumble Bees and Honey Bees also seek the nectar and collect pollen from its flowers. The caterpillars of several moths feed on the foliage of Common Evening Primrose, as do several beetle species. Goldfinches are known to feed on the plant's seeds. Its seed capsules also provide food for other birds during the winter months. Also caterpillars of the Evening Primrose Flower Moth feed on the plant's flowers and seed capsules rather than leaves. The adult moths fly at night and spend the day resting on their host plants.

**Propagation:** Evening Primrose flowers are hermaphroditic, produced on a tall spike, bloom at night and only last until about noon the next day. The flowers are thought to be pollinated by night-visiting Hawk Moths, which fly at night and are attracted to the sweet smelling flowers and the blossoms' light color. The Hawk Moths also feed on the Evening Primrose nectar. The seed capsules, or pods, of the plant are thicker at their base than they are at the top. The four-chambered pods are about 1-1/4 inch long and contain 300 to 400 tiny reddish brown seeds.

**Where it Grows on Conanicut Island:** Evening Primrose grows on the beach at Potter Cove Point and elsewhere on the Island.



Evening Primrose Blossoms



Evening Primrose with Evening Primrose Flower Moth



Evening Primrose Blossoms growing on a tall spike



# Common Milkweed (*Asclepias syriaca* L.)

Native, Herbaceous, Flowering Plant  
Generally grows 2 to 6 feet high

**Introduction:** Milkweed gets its name from the milky sap contained in its leaves, pods, and stems. Even a gentle scratch or bruising of the plant will cause the milky sap to ooze out quickly. The released sap will become sticky as it begins to dry. The sticky sap may deter insects from eating the Milkweed.

**Description:** Milkweed grows as stout, upright stems with thick, broad, oval, reddish-veined, light green leaves that can grow to 8 inches long. Pairs of leaves on short petioles (leaf stems) grow opposite each other from the single hairy stem. The undersides of the leaves are covered with fine hairs.

Domed, slightly drooping clusters (umbels) of fragrant, pinkish purple flowers appear mostly in the upper leaf axils over a long bloom period from late spring well into summer. A stalk typically produces 2 to 5 flower clusters. The individual flowers are small (about a half inch across) and have 5 petals. The flowers give way to prominent, pale green warty seed pods (2 to 5 inches long) which turn brown and split open when they ripen, releasing as many as 200 or more flat brown seeds with silky white hairs that carry them on the wind.

**Ecological Value:** Monarch butterflies lay their eggs on just one type of plant, and that is Milkweed. If monarch eggs are laid on plants other than milkweed, the caterpillars cannot survive and ultimately starve to death. Milkweed is among the most important food plants for Monarch Caterpillars.

More than 450 insects are known to feed on some portion of the Milkweed plant. Its nectar-rich flowers attract many insects including beetles, ants, bees, wasps, and butterflies. The sap, leaves and flowers of the Milkweed plant also provide food for these insects. Milkweed contains glycosides which are toxic to many insects and animals. Some insects have an immunity to the glycosides and actually store them in their tissue, making them inedible or toxic to predators. Monarch butterflies and caterpillars maintain this defense mechanism, and so birds leave them alone.

The stalks of the Milkweed plant remain standing until spring and some birds, notably Orioles, use strips of the outer coating in building their nests.

**Propagation:** Common Milkweed reproduces both from seed and from rhizomes. It frequently grows in colonies and in many cases the plants of a colony are all growing off of a rhizome from one parent plant. Researchers once identified 56 plants growing from a four-year-old plant's rhizome.

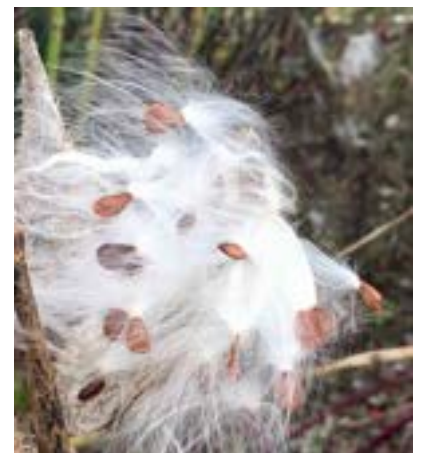
**Where it grows on Conanicut Island:** Milkweed grows at Taylor Point and Godena Farm and elsewhere on the Island.



Milkweed Flowers



Milkweed Pods



Milkweed Pod Releasing Seeds for Wind Dispersal

## WHY NATIVE?

The parallel evolution of Conanicut Island's native plants, birds, insects and animals over eons has resulted in a natural ecological balance conferring stability and robustness on local habitats.

The presence of non-native invasive plants threatens that balance and stability. Non-native plants are not held in check by the same interdependencies that maintain balance in our natural local ecosystems. The resulting competitive advantage enjoyed by the non-native plants enables them to overtake and overrun our native species.

If we, as a community, can enhance our understanding of the role of native plants in the maintenance of a healthy environment, and encourage the reestablishment of native plants Island-wide, we can restore the natural balance and healthy interdependence of our plant, insect, bird and animal populations.

This booklet introduces just a few of Jamestown's native plants and their value to our Island ecosystem.



Blueberry Blossoms



Elderberry



Sweet Pepperbush

Published by the Taylor Point Restoration Association (TPRA), this booklet is intended to promote community-wide awareness of the existence and value of our native plants and plant assemblages. This publication and others, spearheaded by the Jamestown Invasive Plant Public Awareness Campaign, are available to local residents and business owners to promote effective landscape choices and management strategies. Further, we hope that through our public awareness campaign we will help motivate landowners, landscapers, and maintenance crews to plant and nurture native species and work aggressively to eradicate menacing invasive plants that threaten our native plants. For background information concerning management strategies and their potential application to various circumstances, visit <http://taylorpoint.org/management/>.

**Resources:** A list of useful resources with an abundance of related information can be found on the TPRA website at <http://taylorpoint.org/web-resources/>. For information on JIPPAC go to <http://taylorpoint.org/invasive-awareness-campaign/>. Other useful resources include: [www.sustainablejamestown.com](http://www.sustainablejamestown.com), <https://web.uri.edu/mastergardener/>, and <https://gobotany.nativeplanttrust.org>.

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