

Re-Envisioning your Landscape Using Natives Plant Species to Support Local Wildlife

Considerations

- ❖ How Native plants function in our ecosystems compared to alien plants
- ❖ The importance of providing connectivity and corridors for wildlife in fragmented, over developed landscapes
- ❖ The importance of providing food shelter and water for insects, birds, amphibians and animals
- ❖ The importance of cultivating complex landscapes versus sterile landscapes and/or monocultures
- ❖ How complex landscapes with redundant plant species help to protect biodiversity in an ecosystem

What is a Native?



Native Plants

- Are indigenous and occur naturally
- Maine has an estimated 1,490 native species
- Native plants support other native flora, fauna and migratory birds



Benefits of Native Plants versus 'alien' species

- ❖ Regional uniqueness
- ❖ Adapted to climate, insects, diseases and other stressors
- ❖ **Less irrigation, fertilization and pesticides**
- ❖ Lower maintenance
- ❖ Biological diversity
- ❖ Wildlife habitat

What is a wildlife corridor?

A link of wildlife habitat that joins two or more larger areas of similar habitat

They are critical for these reasons

- ❖ Ensure **connectivity** between isolated habitat patches
- ❖ Allows for the movement of animal and plant species by dispersal and migration
- ❖ For the maintenance of ecological processes
- ❖ Reduces the risk of biodiversity decline

Banff National Park



Why create wildlife corridors?

- ❖ To increase bio-diversity
- ❖ Retain and enhance existing vegetation
- ❖ Strengthen gene pools
- ❖ Support woodland birds, pollinators and small animals by providing cover
- ❖ Enable migration, colonization and inter-breeding of plants and animals by providing safe passage
- ❖ Conservationcorridor.org – resource for all things related to wildlife corridors, including a toolbox

Provide food, shelter and water for insects,
birds, amphibians and animals

❖ www.nwf.org/NativePlantFinder/Plants



Simple steps to create wildlife corridors

- ❖ First determine species of plants, birds, amphibians and mammals that are currently present
- ❖ Are there species you have noticed in decline or no longer present?
- ❖ Make a list of species you would like to support (of course we want to support all)
- ❖ Research the nesting, cover, food and water sources those species require
- ❖ Start small

Location, Location

- ❖ Nearly anywhere in your landscape where you can connect 2 or more unlinked natural areas
- ❖ Corridors can be any size but make them as wide as you can- this area can become it's own viable habitat
- ❖ Consider the growing requirements for plants when choosing a site
- ❖ Follow basic garden design principles

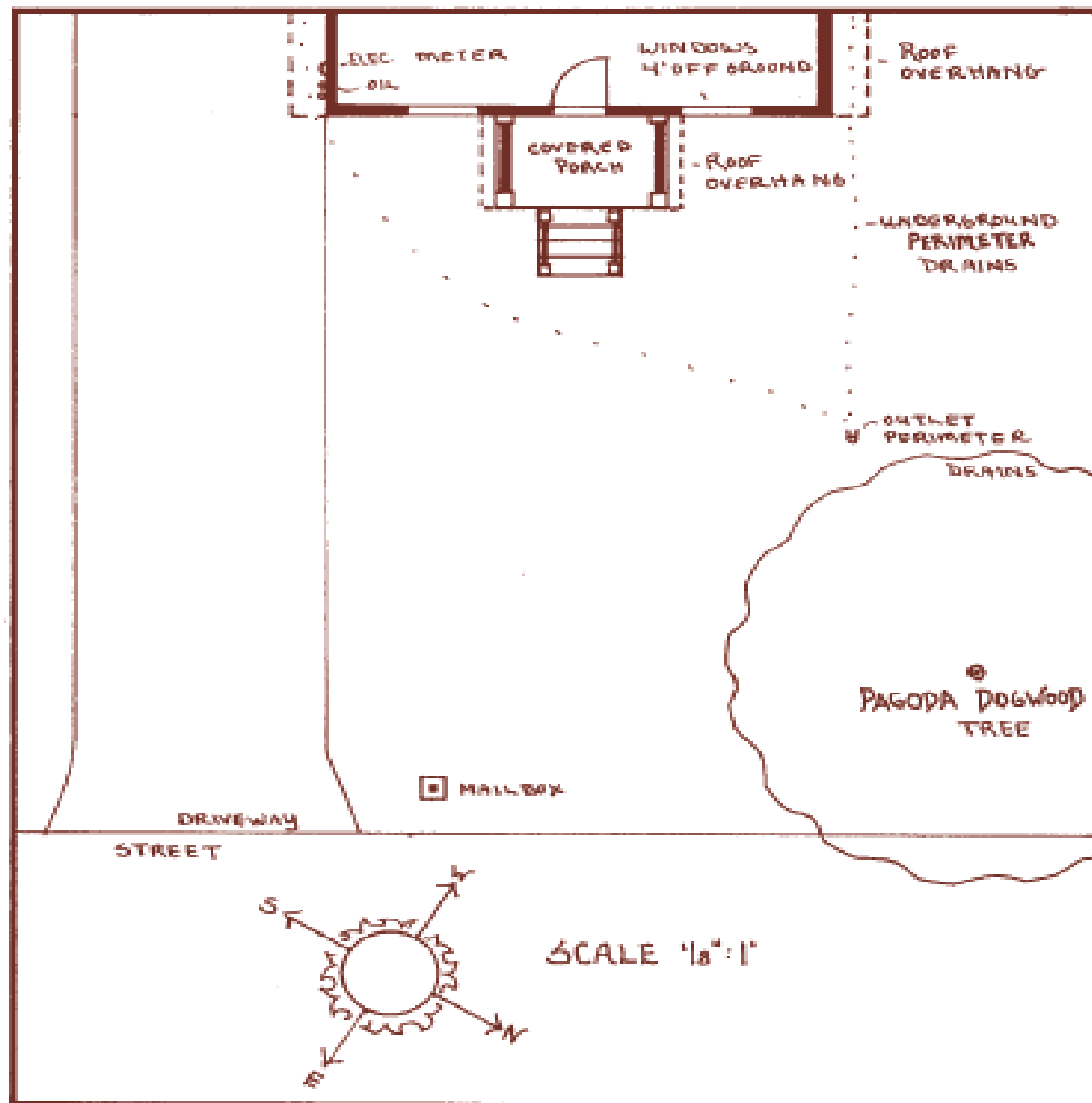
Base map & detail map

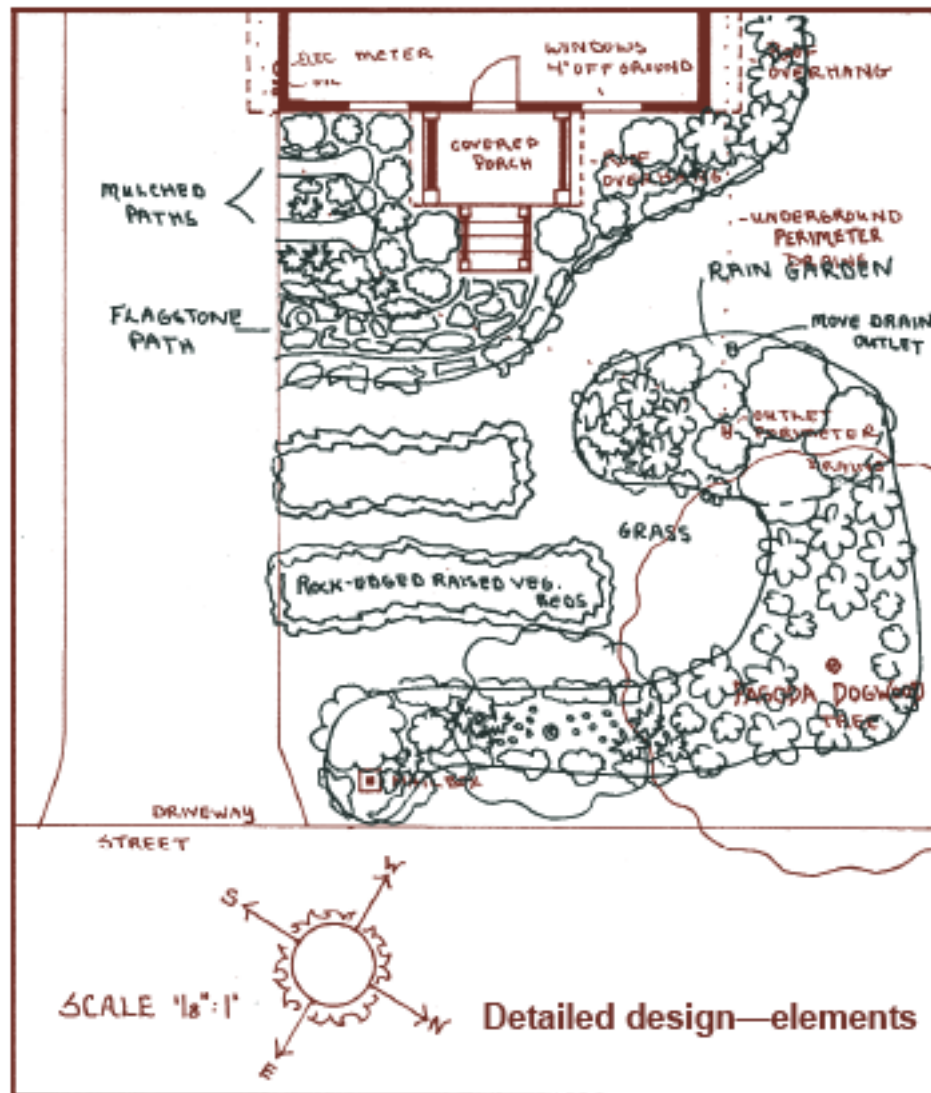
The first base map is pre-corridor

The detail map includes wildlife corridor, vegetable garden, rain garden and much more

Designs by Dr. Lois Berg Stack

Base map





Plant Hedgerows of Shrubs and Wildflowers

- ❖ Actively re-introduce native woodies and perennials
- ❖ This can be done on areas that are currently lawn, connecting to a larger wood lot or native garden
- ❖ Months before planned planting - sheet mulch the area with cardboard, straw, leaves or seaweed to suffocate the grass below
- ❖ This creates a weed free, no till area for planting in the spring
- ❖ **Use a minimum of 10 species** for your corridor with successive bloom time for interest and to provide the greatest amount of food for native animal and insect species

Change your field mowing regime

- ❖ Change field mowing regime is a quick way to create a corridor
- ❖ Insect pollination is at it's peak May-October
- ❖ Seed ripening and late blooming natives perennials such as Goldenrod and Asters provide food for native pollinators
- ❖ By mowing in late October- early November you support the life cycle of these plants and the pollinators that depend on them
- ❖ Divide your corridors into mowing zones – each year leaving a section un-mown to serve as overwintering habitat



Small Trees and Large Shrubs

Cornus *alternifolia*

Pagoda dogwood

- 15'-20' with an equal spread
- Creamy white blooms, May – June
- Prefers moderate to well drained soil
- Sun – part shade
- Loose clusters of blue to reddish purple berries – late summer
- Great fall color
- Place in a woodland garden or forest edge
- Supports 120 species of butterflies and moths



Cornus alternifolia

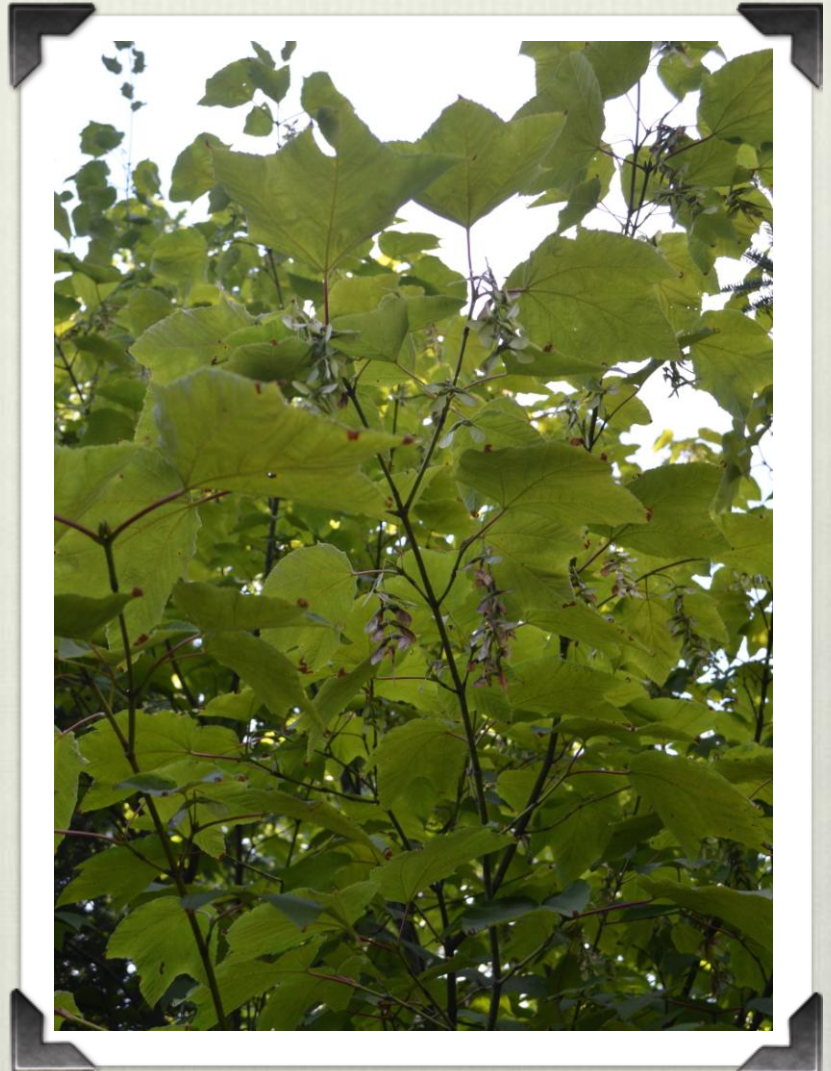


A gorgeous 3 season plant, Pagoda dogwood is used for cover by nesting robins, cedar waxwings, scarlet tanagers and purple finches. The berries are food for several species of song birds.

Acer *pensylvanicum*

Moose maple

- Understory plant
- Deciduous 16'-30'
- Regular to moist soils
- Part shade - shade
- Gently lobed leaves
- Beautifully striped dark bark
- Yellow-green bellshaped flowers in late spring
- Rabbits, deer, beavers and moose eat the bark in winter



Physocarpus opulifolius

‘Summer Wine’

Atlantic ninebark

- Large Shrub 5’-6’
- Width 3’- 6’
- Deciduous
- Upright and spreading
- Tolerates a wide range of soil types and water conditions
- Pink flowers that bloom mid summer
- Attractive and persistent fruit pods, attracts and supports 33 species of butterflies and moths
- Dramatic leaf color



Hamamelis virginiana



Hamamelis virginiana

American Witchhazel

- Deciduous shrub
- 15'-20' tall and as wide
- Average water
- Full sun – part shade
- Bloom time October – November
- Interesting flowers – fragrant, yellow, orange, red
- Supports 63 species of butterflies and moths



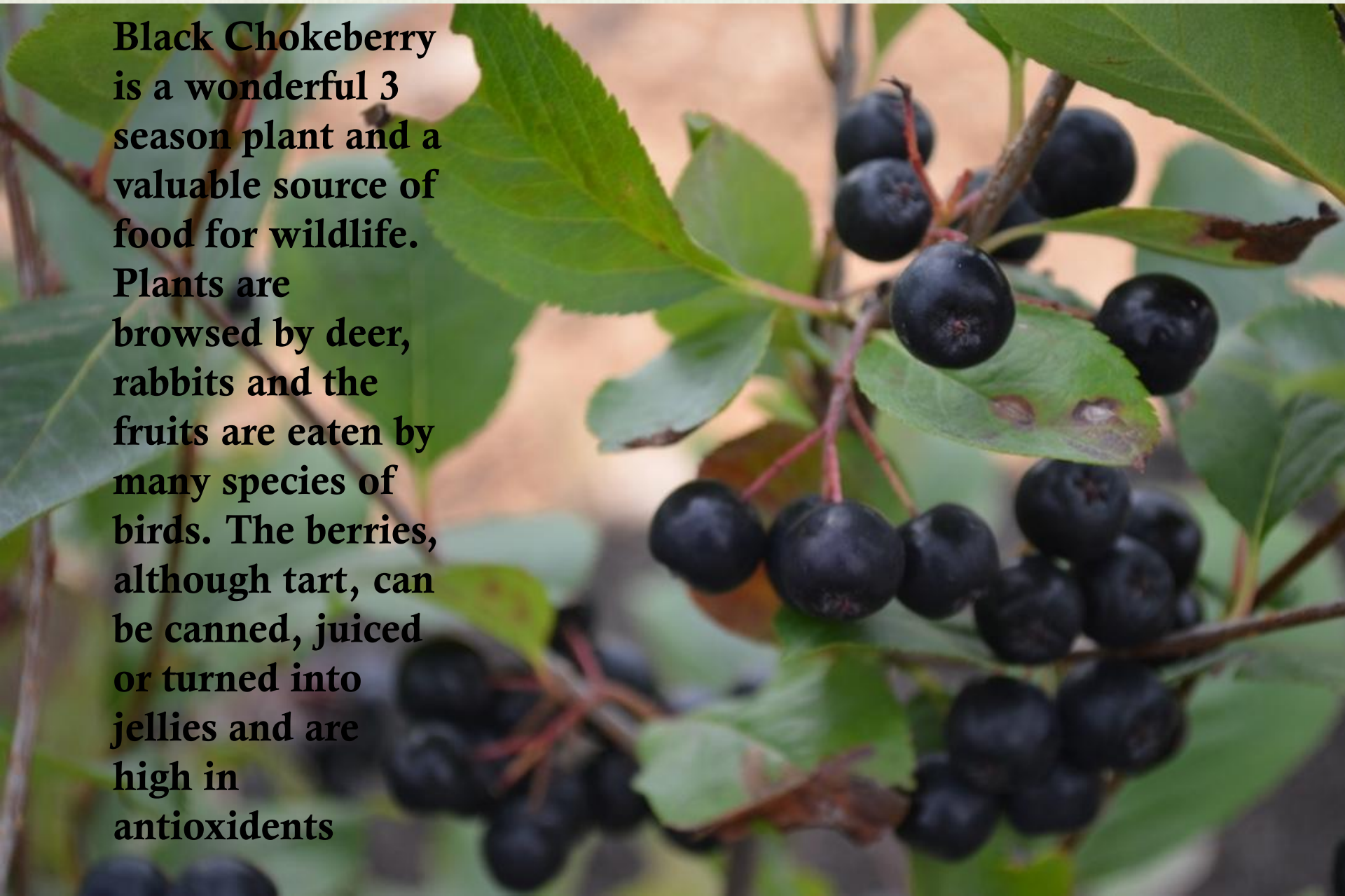
Aronia *melanocarpa*

Black Chokeberry

- Deciduous
- Up to 6'
- Full – part sun
- White blooms in May
- Showy edible fruit
- Wine red fall color
- Tolerates a range of soil types
- Supports 421 species of butterflies and moths
- Adaptable, tough shrub



**Black Chokeberry
is a wonderful 3
season plant and a
valuable source of
food for wildlife.
Plants are
browsed by deer,
rabbits and the
fruits are eaten by
many species of
birds. The berries,
although tart, can
be canned, juiced
or turned into
jellies and are
high in
antioxidants**

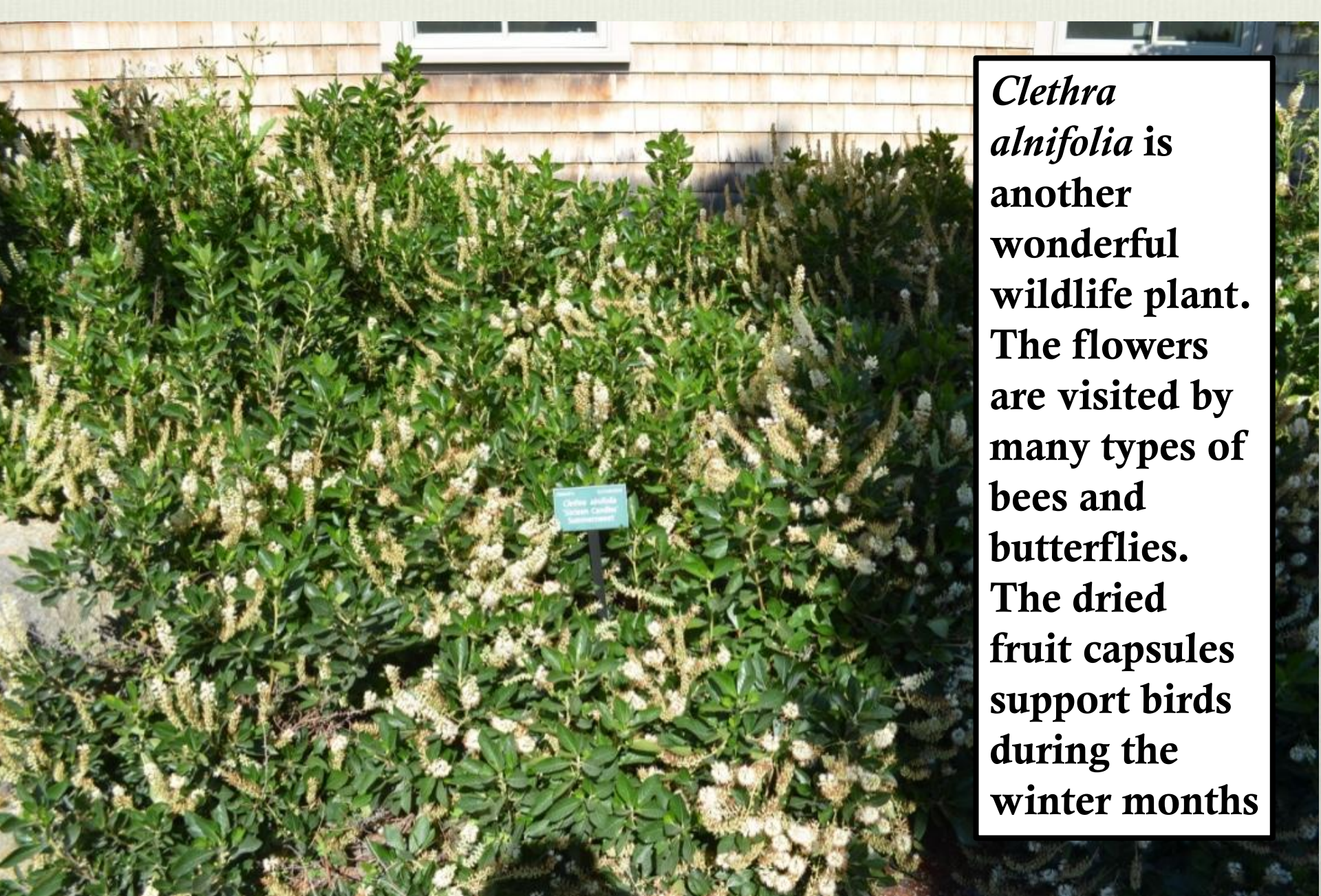


Clethera alnifolia

Summersweet/Sweet
pepperbush

- Deciduous
- Sun – part shade
- Prefers moist acidic soils, but is adaptable
- 6'-12' spreading into mounding clumps
- Fragrant white flowers
- Blooms July and August
- Fruit capsule persist through winter





***Clethra
alnifolia* is
another
wonderful
wildlife plant.
The flowers
are visited by
many types of
bees and
butterflies.
The dried
fruit capsules
support birds
during the
winter months**

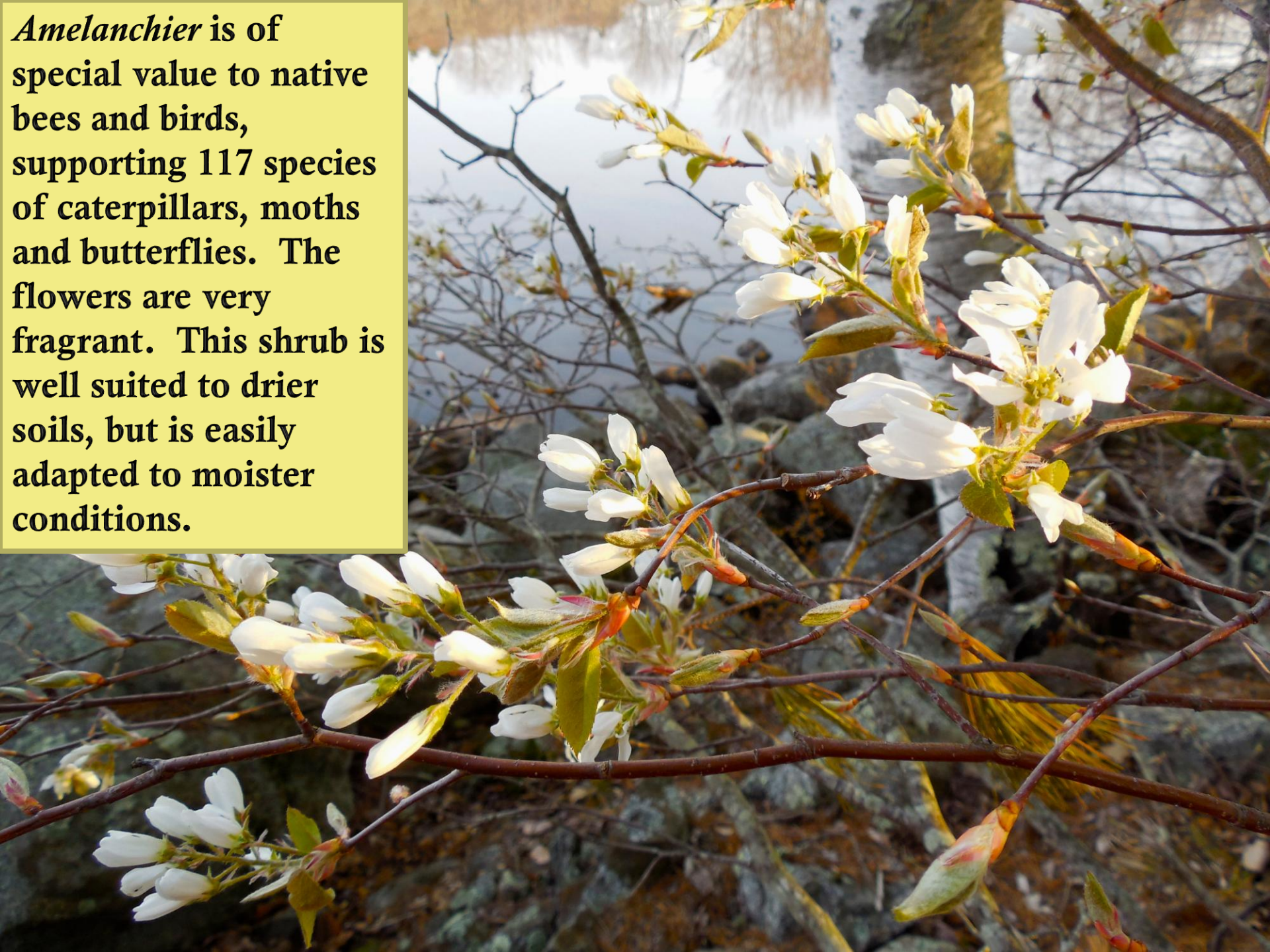
Amelanchier arborea

Shadbush, Serviceberry

- Deciduous
- 15'-25'
- Sun – part shade
- White flowers with drooping racemes
- Flowers occur before leafing in early spring
- Leaves covered with soft woolly hairs
- Leaves turning wine red in fall



Amelanchier is of special value to native bees and birds, supporting 117 species of caterpillars, moths and butterflies. The flowers are very fragrant. This shrub is well suited to drier soils, but is easily adapted to moister conditions.



Cephalanthus occidentalis

Buttonbush

- Deciduous
- 6'-12'
- Bloom time June - August
- Full sun – part shade
- Good wetland or bog planting
- Long lasting Dr. Seuss –like flowers/
- spherical balls
- Salamanders and frogs lay eggs on the underside of the leaves



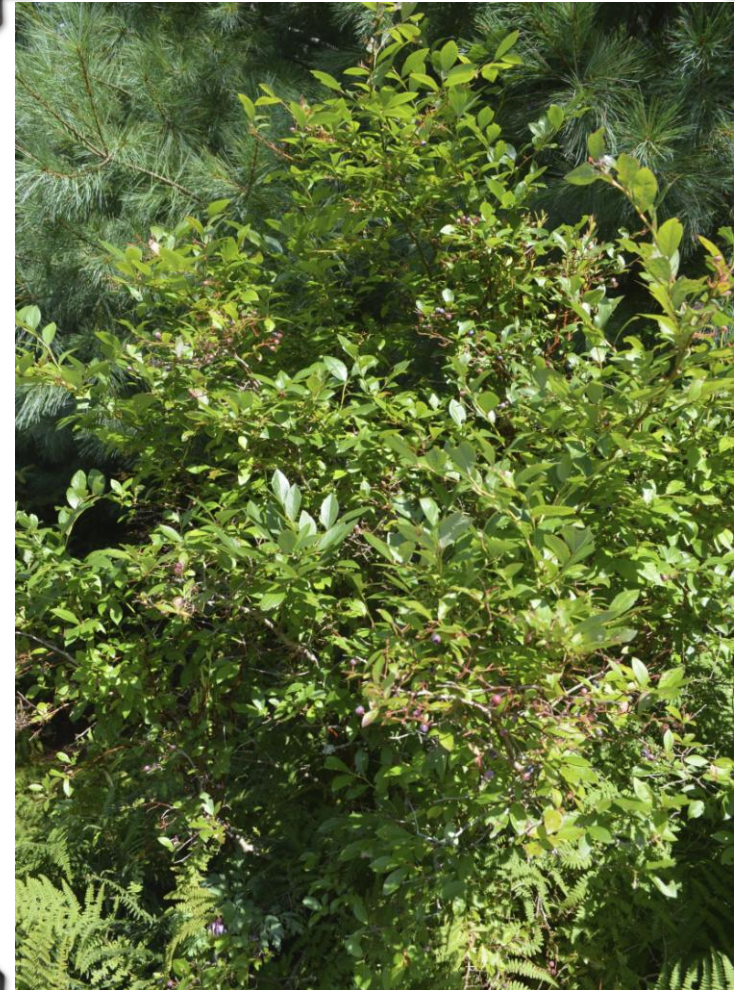


***Cephalanthus* is a great honey plant for all you beekeepers. It is also of high wildlife value. Ducks and other water fowl eat the seeds. Additionally it is attractive to butterflies and bees. Warning, the foliage is poisonous.**

Vaccinium corymbosum

Highbush Blueberry

- Deciduous
- 6'-12'
- White and pink flowers
- Blue – black berries
- Requires acidic soils and full sun, prefers damp soil
- The berries are favored by many species of birds
- Of special value to native and Bumble bees
- The perfect replacement plant for Euonymus, aka Burning bush



Comptonia peregrina

Sweet Fern

- Deciduous
- 2'-5' with a 4'- 8' spread
- Sun – part shade
- Low maintenance
- Tolerates a wide range of water conditions
- Beautiful pinnate olive to dark green leaves
- Flowers are insignificant
- Supports 64 species of butterflies and moths



Ilex verticillata

Winterberry

- Deciduous
- 3'-12' with an equal spread
- Full – part sun
- Blooms April - June
- Bright red fruits that persist into winter
- Tolerance for wet soils
- Supports 33 species of butterflies and moths



Dryopteris marginalis

Eastern woodfern

- Perennial/evergreen
- 1'-3'
- Well behaved – non colonizing
- Moist soils
- Part shade to shade
- This fern likes winter oak leaf cover
- Provides cover for toads and lizards



Let's create complex landscapes
instead of monocultures!!



Lawn Substitutes Part – Full Shade



For larger areas

- ❖ *Anemone canadensis* – Canada windflower
- ❖ *Eurybia macrophylla* – Large leaved wood aster
- ❖ *Dennstaedtia punctilobula* – hay scented fern
- ❖ *Podophyllum peltatum* – May-apple

Canada Windflower



Large-leaved Aster



Large-leaved Aster



Hay-Scented fern



Part-Full Shade Medium Moisture

- ❖ *Asarum canadense* – wild ginger
- ❖ *Dicentra eximia* – wild bleeding heart
- ❖ *Polygonatum bi-florum* – King Solomon's seal
- ❖ *Viola novae-angliae* – New England violet

Wild Ginger



Wild bleeding-heart



King Solomon's Seal



New England violet



Part Shade, moist –dry acidic soils

- ❖ *Chamaepericlymenum canadense* – Bunchberry
- ❖ *Gautheria procumbens* – Wintergreen
- ❖ *Fragaria virginiana* – Common strawberry
- ❖ *Vaccinium angustifolium* – lowbush blueberry

Bunchberry



Wintergreen



Common strawberry



Lowbush blueberry



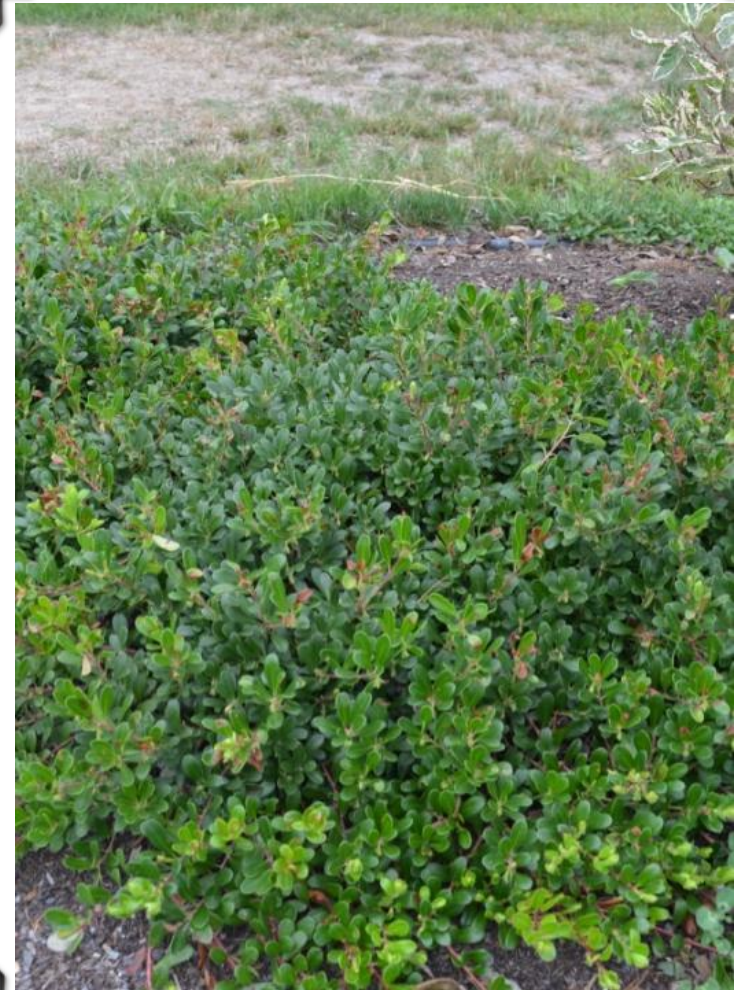
Full sun, dry, sandy or gravelly soil

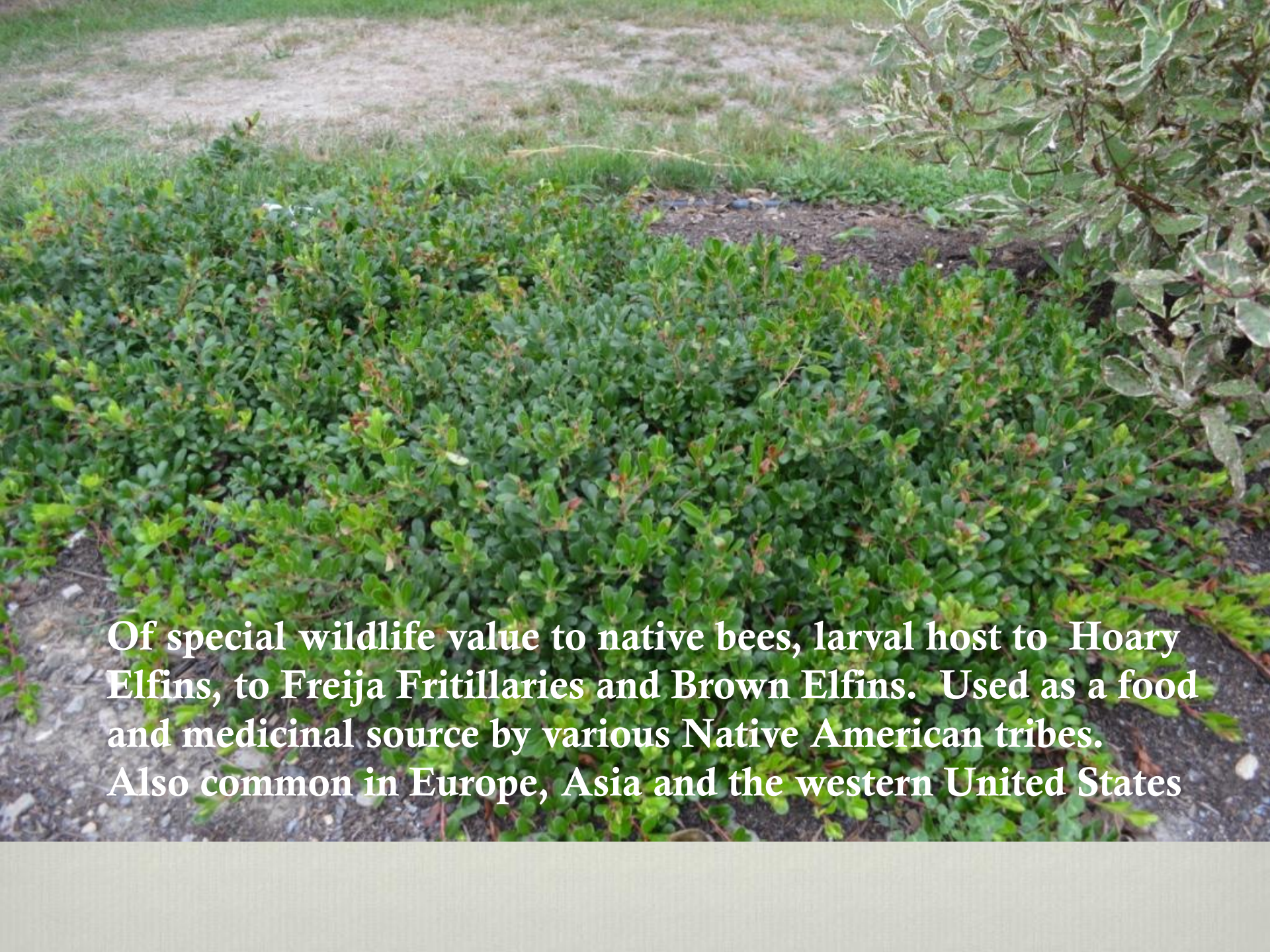
- ❖ *Arctostaphylos uva-ursi* - Bearberry
- ❖ *Diervilla lonicera* – Bush-honeysuckle
- ❖ *Juniperus horizontalis* – Juniper

Arctostaphylos *uva-ursi*

Bearberry/Kinnikinnick

- Evergreen spreading to 15'
- 6"-12" high
- Trailing shrub
- Small, bell shaped pale pink to white flowers
- Red berries persisting into winter





Of special wildlife value to native bees, larval host to Hoary Elfins, to Freija Fritillaries and Brown Elfins. Used as a food and medicinal source by various Native American tribes. Also common in Europe, Asia and the western United States

Bush-honeysuckle flowers



Juniperus horizontalis

Creeping juniper

- Evergreen
- 1'-3' groundcover
- Sun
- Blue-green, scale type foliage
- Performs best in sunny, dry conditions
- Good accent for rock gardens



Aster and Goldenrod



Additional resources

- Lady Bird Johnson Wildflower Center
www.wildflower.org/plant
- Native Plant Network www.rngr.net
- Native Seed Network www.nativeseednetwork.org
- University of Maine Publications, Native Plants: A Source List
<https://extension.umaine.edu/publications/2500e/> University of Maine Publications, Designing Your Landscape for Maine <https://extension.umaine.edu/publications/2701e/>
- Wild Seed Project <http://wildseedproject.net/>
- Missouri Botanical Garden
www.missouribotanicalgarden.org
- Native Haunts <http://www.nativehaunts.com/>
- Butterflies of North America www.butterfliesandmoths.org

Questions/Answers???

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