

YardScaping Mission

- To inspire Maine people to
 - create and maintain healthy landscapes
 - through ecologically based practices that
 - minimize reliance on water, fertilizer and pesticides



<https://www.yardscaping.org>

The Ten-ets of YardScaping

- Promote buffers to protect waterways
- Promote appropriate plants - native plants and non-invasive alien plants
- Reduce lawn area
- Reduce runoff
- Reduce reliance on pesticides, fertilizers and water
- Promote low input lawns and landscapes
- Promote YardScape diversity
- Create wildlife habitats
- Right plant, right place, right use
- Commonsense pest management (IPM)



YardScaping Gardens at Back Cove

LOW INPUT YARD CARE

**When it comes to gardening,
less is usually more.**

Low input yards require a little more brain, a lot less brawn and leave you with more free time:

- ◆ plant drought and pest tolerant plants
- ◆ mow lawns at the highest setting and leave the clippings
- ◆ replace lawn with shrubs or wildflowers
- ◆ mulch plants to keep moisture in and weeds out



**Want to get involved or learn more?
Visit www.yardscaping.org**

Eight things you can do to restore the ecosystem in your yard –

Doug Tallamy

- Cut your lawn in half
- Avoid senseless mowing
- Remove invasive species from your property
- Use keystone plants
- Build a landscaped layered with plants
- Put motion sensors on your security lights
- Minimize reliance on pesticide use
- Share these ideas with your neighbors

Restoring the Little Things that Run the World

Why It Matters and What We Can Do



Protect lakes & streams with buffers

- Preserve existing landscape
- Winding paths
- Don't mow to lake's edge
- Leave the duff



Use site appropriate, non-invasive plants

- Native plants can be well adapted
 - Fewer problems, less work, more rewards, but not all are problem free, e.g., viburnums
- Invasive plants are easy to grow but crowd out native vegetation
 - Our local forest habitats are changing rapidly
 - Invasive plants can ruin wildlife habitat



Beautiful Native
Shadbush



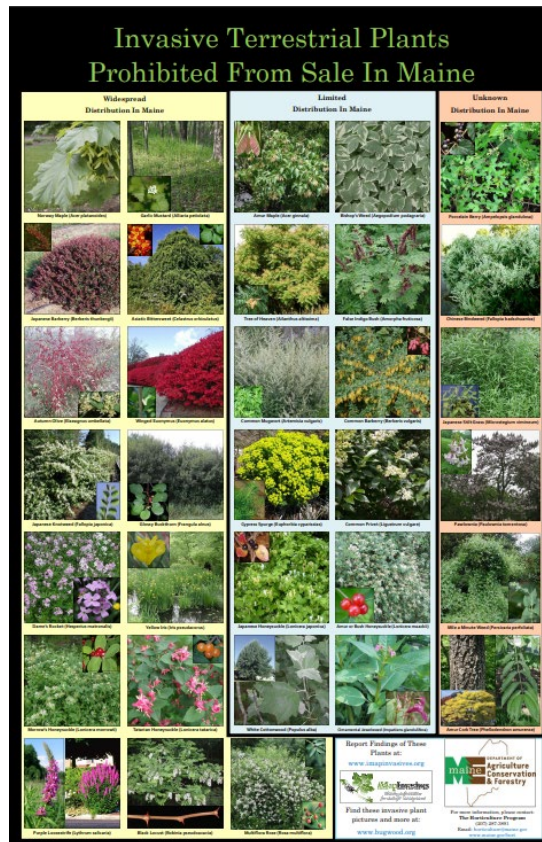
Problematic Native
Viburnum



Deadly Invasive
Bittersweet

Invasive plants

<https://www.maine.gov/dacf/php/horticulture/invasiveplants.shtml>



Do Not Sell Plant List

The invasive plants listed below are illegal to import, export, buy, sell or intentionally propagate for sale or distribution in Maine. The ban includes all cultivars, varieties and hybrids of these plants.

Species on this list may no longer be sold after the effective date.

| Scientific Name | Common Name | Effective Date |
|-------------------------------|----------------------|-----------------|
| <i>Acer ginnala</i> | Amur maple | January 1, 2018 |
| <i>Acer platanoides</i> | Norway Maple | January 1, 2018 |
| <i>Aegopodium podagraria</i> | Bishop's Weed | January 1, 2018 |
| <i>Ailanthus altissima</i> | Tree of Heaven | January 1, 2018 |
| <i>Alliaria petiolata</i> | Garlic Mustard | January 1, 2018 |
| <i>Amorpha fruticosa</i> | False Indigo | January 1, 2018 |
| <i>Ampelopsis glandulosa</i> | Porcelainberry | January 1, 2018 |
| <i>Artemisia vulgaris</i> | Common Mugwort | January 1, 2018 |
| <i>Berberis thunbergii</i> | Japanese Barberry | January 1, 2018 |
| <i>Berberis vulgaris</i> | Common Barberry | January 1, 2018 |
| <i>Celastrus orbiculatus</i> | Asiatic Bittersweet | January 1, 2018 |
| <i>Elaeagnus umbellata</i> | Autumn Olive | January 1, 2018 |
| <i>Eucalyptus alatus</i> | Winged Eucalyptus | January 1, 2018 |
| <i>Euphorbia cyparissias</i> | Cypress Spurge | January 1, 2018 |
| <i>Fallopia baldschuanica</i> | Chinese Bindweed | January 1, 2018 |
| <i>Fallopia japonica</i> | Japanese Knotweed | January 1, 2018 |
| <i>Fragaria alina</i> | Glossy Buckthorn | January 1, 2018 |
| <i>Hesperis matronalis</i> | Dame's Rocket | January 1, 2018 |
| <i>Impatiens glandulifera</i> | Ornamental Jewelweed | January 1, 2018 |
| <i>Iris pseudacorus</i> | Yellow Iris | January 1, 2018 |
| <i>Ligustrum vulgare</i> | Common Privet | January 1, 2018 |

Invasive Plants Prohibited from Sale or Import in Maine What you need to Know



CMR 01-001 Chapter 273: Criteria for Listing Invasive Terrestrial Plants makes it illegal to sell, import, export, buy or intentionally propagate for sale the 33 plant species listed below.

| | |
|--|---|
| <i>Acer ginnala</i> (amur maple) | <i>Impatiens glandulifera</i> (ornamental jewelweed) |
| <i>Acer platanoides</i> (Norway maple) | <i>Iris pseudacorus</i> (yellow iris) |
| <i>Aegopodium podagraria</i> (bishop's weed) | <i>Ligustrum vulgare</i> (common privet) |
| <i>Ailanthus altissima</i> (tree of heaven) | <i>Lonicera japonica</i> (Japanese honeysuckle) |
| <i>Alliaria petiolata</i> (garlic mustard) | <i>Lonicera maackii</i> (amur or bush honeysuckle) |
| <i>Amorpha fruticosa</i> (false indigo bush) | <i>Lonicera morrowii</i> (Morrow's honeysuckle) |
| <i>Ampelopsis glandulosa</i> (porcelain berry) | <i>Lonicera tatarica</i> (Tatarian honeysuckle) |
| <i>Artemisia vulgaris</i> (common mugwort) | <i>Lythrum salicaria</i> (purple loosestrife) |
| <i>Berberis thunbergii</i> (Japanese barberry) | <i>Microstegium vimineum</i> (Japanese stilt grass) |
| <i>Berberis vulgaris</i> (common barberry) | <i>Paulownia tomentosa</i> (paulownia, princess tree) |
| <i>Celastrus orbiculatus</i> (Asiatic bittersweet) | <i>Pericaria perfoliata</i> (mile-a-minute) |
| <i>Elaeagnus umbellata</i> (Autumn olive) | <i>Phellodendron amurense</i> (amur cork tree) |
| <i>Euonymus alatus</i> (winged euonymus) | <i>Populus alba</i> (white cottonwood) |
| <i>Euphorbia cyparissias</i> (cypress spurge) | <i>Robinia pseudoacacia</i> (black locust) |
| <i>Fallopia baldschuanica</i> (Chinese bindweed) | <i>Rosa multiflora</i> (multiflora rose) |
| <i>Fallopia japonica</i> (Japanese knotweed) | |
| <i>Frangula alnus</i> (glossy buckthorn) | |
| <i>Hesperis matronalis</i> (dame's rocket) | |

Quick Facts

- The sale/import ban includes the listed species and all cultivars, varieties and hybrids.
- Variations may be applied for and granted for scientific research and for varieties, cultivars or hybrids that have been shown to not be invasive through peer reviewed scientific research.
- The invasive plant rule and included prohibited plant list will be reviewed every 5 years.
- Recent changes to the rule will prohibit the sale of an additional 30 species starting January 1, 2024 (see back).
- Find more information at www.maine.gov/dacf/plant/horticulture/invasiveplants.shtml



FOR MORE INFORMATION:
MAINE DEPARTMENT OF AGRICULTURE,
CONSERVATION AND FORESTRY
DIVISION OF ANIMAL AND PLANT HEALTH
28 STATE HOUSE STATION
AUGUSTA, ME 04333
207-287-3891
HORTICULTURE@MAINE.GOV
WWW.MAINE.GOV/HORT

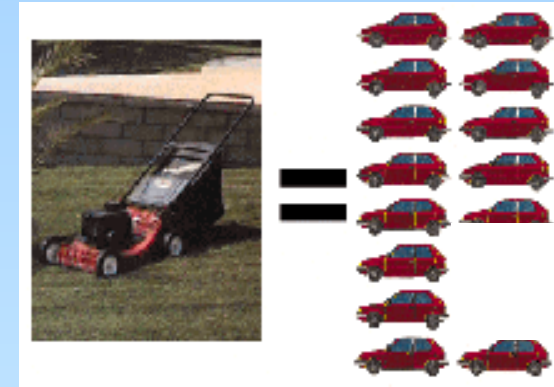
| Scientific name | Common name | Effective Date |
|-----------------------------------|--|----------------|
| <i>Alnus glutinosa</i> | European alder | 1/1/2024 |
| <i>Angelica sylvestris</i> | Woodland angelica | 1/1/2024 |
| <i>Anthriscus sylvestris</i> | Wild chervil, raven's wing | 1/1/2024 |
| <i>Aralia elata</i> | Japanese angelica tree | 1/1/2024 |
| <i>Butomus umbellatus</i> | Flowering rush | 1/1/2024 |
| <i>Elaeagnus angustifolia</i> | Russian olive | 1/1/2024 |
| <i>Euonymus fortunei</i> | Wintercreeper, climbing spindle tree | 1/1/2024 |
| <i>Festuca filiformis</i> | Fine-leaved sheep fescue | 1/1/2024 |
| <i>Ficaria verna</i> | Lesser celandine | 1/1/2024 |
| <i>Glaucium flavum</i> | Yellow hornpoppy | 1/1/2024 |
| <i>Glechoma hederacea</i> | Ground ivy, creeping charlie | 1/1/2024 |
| <i>Glyceria maxima</i> | Great manna grass, reed manna grass | 1/1/2024 |
| <i>Hippophae rhamnoides</i> | Sea buckthorn | 1/1/2024 |
| <i>Ligustrum obtusifolium</i> | Border privet | 1/1/2024 |
| <i>Lonicera xylosteum</i> | Dwarf honeysuckle | 1/1/2024 |
| <i>Lythrum virgatum</i> | European wand loosestrife | 1/1/2024 |
| <i>Miscanthus sacchariflorus</i> | Amur silvergrass | 1/1/2024 |
| <i>Petasites japonicus</i> | Fuki, butterbur, giant butterbur | 1/1/2024 |
| <i>Phalaris arundinacea</i> | Reed canary grass, variegated ribbon grass | 1/1/2024 |
| <i>Photinia villosa</i> | Photinia, Christmas berry | 1/1/2024 |
| <i>Phragmites australis</i> | Common reed | 1/1/2024 |
| <i>Phyllostachys aurea</i> | Golden bamboo | 1/1/2024 |
| <i>Phyllostachys aureosulcata</i> | Yellow groove bamboo | 1/1/2024 |
| <i>Pyrus calleryana</i> | Callery ("Bradford") pear | 1/1/2024 |
| <i>Ranunculus repens</i> | Creeping buttercup | 1/1/2024 |
| <i>Rubus phoenicolasius</i> | Wineberry | 1/1/2024 |
| <i>Silphium perfoliatum</i> | Cup plant | 1/1/2024 |
| <i>Sorbus aucuparia</i> | European mountain-ash | 1/1/2024 |
| <i>Tussilago farfara</i> | Coltsfoot | 1/1/2024 |
| <i>Valeriana officinalis</i> | Common valerian | 1/1/2024 |

Invasive Terrestrial Plant Species of Special Concern

| Scientific Name | Common Name |
|--------------------|-------------------------|
| <i>Rosa rugosa</i> | Rugosa rose, beach rose |

Reduce lawn area

- Reduces
 - Water & air pollution
 - Water usage
 - Maintenance
 - Costs
- Gives
 - More free time



Mower exhaust = 11 small cars' exhaust

One hour on riding mower = 400 miles





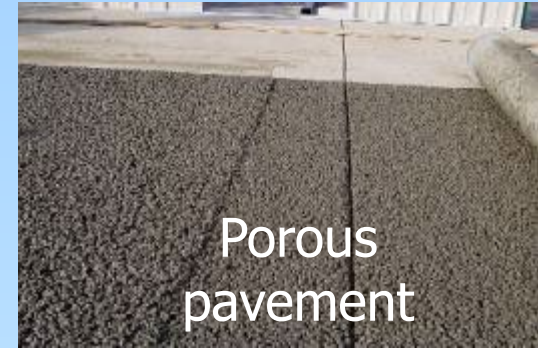
Minimize lawn areas



Mow or bush hog 1/2 or 1/3 of the meadow each year

Reduce runoff

- Reduce amount of pervious (hard) surfaces
- Create rain gardens or install rain barrels
- Direct water into vegetated areas



Reduce reliance on pesticides, fertilizers and water

- Grow plants that are resistant to insects & diseases
- Use plants that tolerate low fertility
- Use drought resistant plants



White Fir



Sweet Fern

Use low input plant varieties

- Fine fescue or tall fescue instead of Kentucky bluegrass and ryegrass
- Pagoda dogwood vs flowering cherry
- River birch vs paper birch



Use a diversity of plants & grasses

- Monocultures lead to disasters
- Diversity leads to less noticeable damage from pests and disease
 - Incorporate many layers of plant types
 - Trees
 - Shrubs
 - Ground covers
 - Perennials, and
 - Lawns



Plant in layers

Overhead canopy of deciduous and evergreen trees provide wildlife with food sources, nesting cover and shelter from the elements.

Minimal use of lawn area, in relation to surrounding landscape.

Wide plant buffer next to water's edge will intercept sediments and filter out nutrients that run off the land.

Layers of vegetation provide good habitat structure.

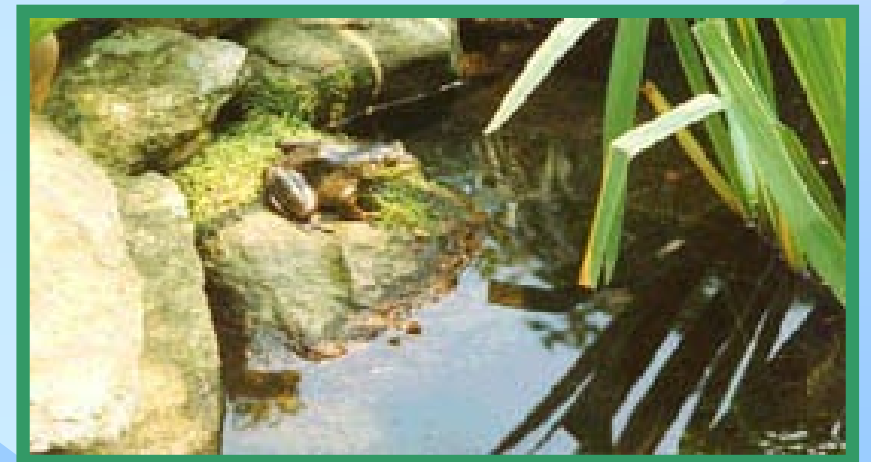
Diversity of native plants supports a diverse food web.

Soil is protected with native groundcovers and shrubs.




















Create wildlife habitats

- Diversity and plant layers go hand in hand with habitat creation
- Add nectar and fruit producing plants
- Strive for continuous blooms
- Add water, walls, feeders, woody debris



Top Keystone Plant Genera in Eastern Temperate Forests - Ecoregion 8

A genus is a taxonomic category of plants that contains one or more species of plants with similar characteristics. Species within each genus have adapted to local conditions and are the appropriate native species or varieties suited to a specific ecoregion.

| Plant Type | Plant Genus | Sample of Common Species (not all encompassing) | # Caterpillar Species that Use this as a Host Plant | # of Pollen Specialist Bee species that Rely on this Plant |
|-----------------------------|-----------------------|--|---|--|
| Trees | <i>Quercus</i> | White oak (<i>Quercus alba</i>), Black oak (<i>Quercus velutina</i>) | 436  | |
| | <i>Prunus</i> | American plum (<i>Prunus americana</i>), Black cherry (<i>Prunus serotina</i>), Chokecherry (<i>Prunus virginiana</i>) | 340  | |
| | <i>Betula</i> | River birch (<i>Betula nigra</i>), Sweet birch (<i>Betula lenta</i>) | 284  | |
| | <i>Populus</i> | Eastern cottonwood (<i>Populus deltoides</i>) | 249  | |
| | <i>Acer</i> | Box elder (<i>Acer negundo</i>), Silver maple (<i>Acer saccharinum</i>), Sugar maple (<i>Acer saccharum</i>) | 238  | |
| | <i>Malus</i> | Southern crabapple (<i>Malus angustifolia</i>), Sweet crabapple (<i>Malus coronaria</i>) | 237  | |
| | <i>Carya</i> | Bitternut hickory (<i>Carya cordiformis</i>), Pignut hickory (<i>Carya glabra</i>), Mockernut hickory (<i>Carya tomentosa</i>) | 213  | |
| | <i>Pinus</i> | Pitch pine (<i>Pinus rigida</i>), Eastern white pine (<i>Pinus strobus</i>), Virginia pine (<i>Pinus virginiana</i>) | 200  | |
| | Shrubs | <i>Vaccinium</i> | Northern highbush blueberry (<i>Vaccinium corymbosum</i>), Black highbush blueberry (<i>Vaccinium fuscatum</i>), Hillside blueberry (<i>Vaccinium pallidum</i>) | 217  |
| <i>Salix</i> | | Prairie willow (<i>Salix humilis</i>), Black willow (<i>Salix nigra</i>) | 289  | 14  |
| Flowering Perennials | <i>Solidago</i> | Stiff leaf goldenrod (<i>Solidago rigida</i>), Atlantic goldenrod (<i>Solidago arguta</i>) | 104  | 42  |
| | <i>Symphyotrichum</i> | Blue wood aster (<i>Symphyotrichum cordifolium</i>), Smooth aster (<i>Symphyotrichum laeve</i>) | 100  | 33  |
| | <i>Helianthus</i> | Woodland sunflower (<i>Helianthus divaricatus</i>), Small woodland sunflower (<i>Helianthus microcephalus</i>) | 66  | 50  |

Keystone plants

Right plant, right place, right purpose

- Choose plants based on the area to be planted not just for their color
- Select plants that thrive under existing conditions rather than trying to alter the conditions to meet the needs of a plant
- Minimize disturbance of the existing landscape

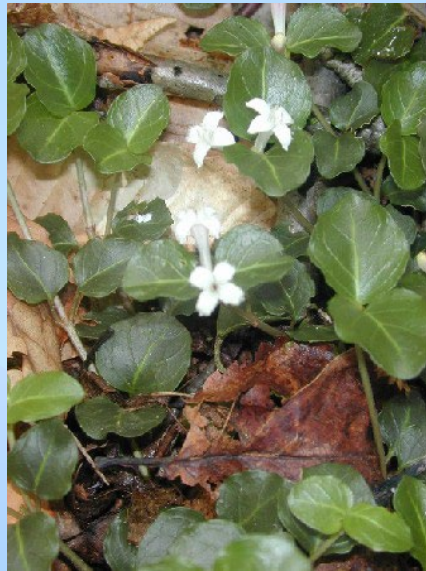


Wild Cranberry Bog

Right plant, right place



Beach plum –
dry sunny site



Partridgeberry –
wet shady site



Staghorn Sumac –
large open dry bank

Use common sense pest management

- Integrated pest management
 - Know your pest
 - Pick it, trap it or exclude it
 - Know the good bugs
 - Mow, prune or water
 - Use pesticides as last resort



Spare the Sprays. Even Organic Ones

| PESTICIDE | NON-TOXIC | LOW TOXICITY | HIGHLY TOXIC |
|---|-----------|--------------|--------------|
| Insecticides/Repellants/Pest Barriers | | | |
| <i>Bacillus thuringiensis</i> (Bt) | ■ | | |
| <i>Beauveria bassiana</i> | | | ■ |
| <i>Cydia pomonella granulosis</i> | ■ | | |
| Diatomaceous Earth | | | ■ |
| Garlic | ■ | | |
| Insecticidal Soap | | | ■ |
| Kaolin Clay | ■ | | |
| Neem | | ■ | |
| Horticultural Oil | | | ■ |
| Pyrethrins | | | ■ |
| Rotenone | | | ■ |
| Sabadilla | | | ■ |
| Spinosad | | | ■ |
| Herbicides/Plant Growth Regulators/Adjuvants | | | |
| Adjuvants | | ■ | |
| Corn Gluten | ■ | | |
| Gibberellic Acid | ■ | | |
| Horticultural Vinegar | | ■ | |
| Fungicides | | | |
| Copper | | ■ | |
| Copper Sulfate | | | ■ |
| Lime Sulfur | ■ | | |
| Sulfur | | | ■ |

Toxicity of
Common Organic
Pesticides to
Pollinators

Soaps and Oils, only
when directly sprayed
upon the pollinator

Turn off
the lights





Begin with bees &
pollinators

A lush garden scene with a variety of flowers including sunflowers, purple lupines, and orange and yellow flowers. A wooden beehive is visible in the background. The garden is set against a backdrop of dense green trees.

Bee-Friendly Gardens have
Shelter, Plant Diversity, Lots of
Blooms, Water, Some Bare Soil



Social Behavior of Bees

- Social
 - 10% of bee species in the U.S.
 - Several generations in a nest at the same time
 - Cooperation in caring for young
 - Division of labor
 - Bumble and honey bees
- Solitary
 - 90% of bee species in the U.S.
 - Each female constructs and provisions her own nest

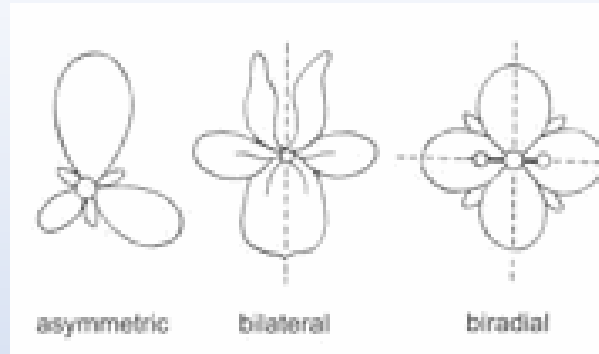


Foraging Selectivity

- Nectar - sugar and amino acids
- Pollen – protein
- Most gather nectar from several different flower species
 - Depends mostly on tongue length and skill
- Pollen collection is usually more selective
 - Some will use any flowering plant, many focus on one species of plant

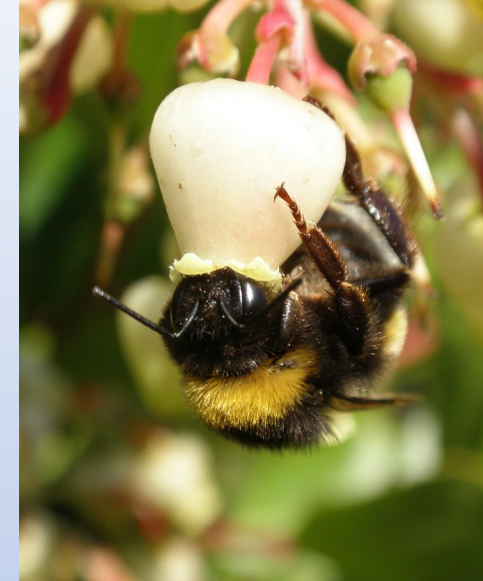


Floral Resources



- Bee flowers

- Bilateral symmetry
- Tube-like or bell-shaped with a nectar reservoir
- Some are complex to receive reward
- Yellow, white, blue or purple with UV markers



Colors attract specific groups

Bees like blue, purple, white and yellow

Butterflies like orange, pink and red

Beetles prefer big fleshy disk shaped smelly white and green flowers

Wasps and flies like yellow, pink and white



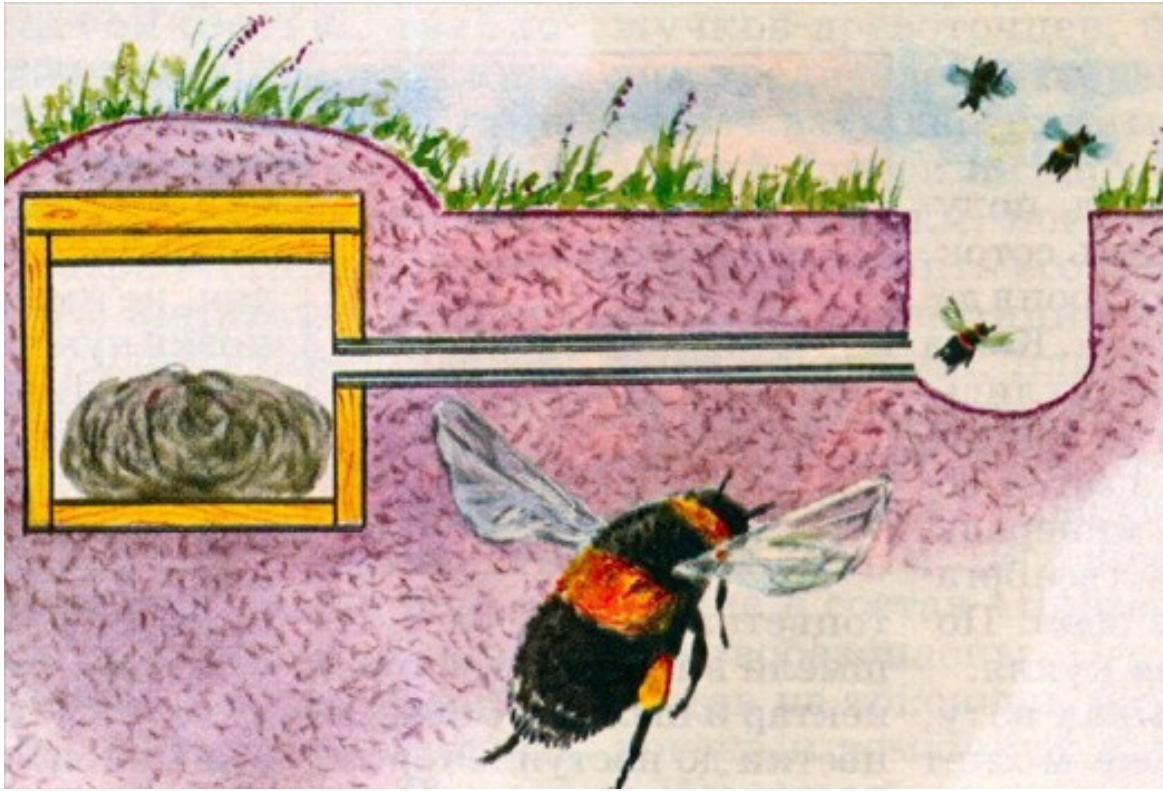
Nesting

- Ground 70%
- Stem 30%
- Cavity
 - Bumble and honey bees

Nesting Resources – Ground Nesters

- Areas of bare or sparsely vegetated soil
 - Loose
 - Well drained
 - Full sun
 - Several yards across
- Flat and/or banked areas





Nesting Resources – Cavity Nesters

- Dead trees, snags, or fallen logs
- Base of bunch grasses
 - Old rodent nests often found under grassy tussocks



Nesting Resources – Stem Nesters

- Pithy, soft centered or hollow stems
 - Sumac
 - Box elder
 - Elderberry
 - Raspberry
 - Allium
 - Asparagus
 - Sedum
 - Sunflower

How to Create Habitat for Stem-nesting Bees



WINTER

Leave dead flower stalks in-tact over the winter.

SPRING

Cut back dead flower stalks leaving stem stubble of varying height, 8 to 24 inches, to provide nest cavities.



Female bees find cut or naturally-occurring open stems, start a nest, then lay an egg on the pollen balls. Larvae eat the pollen.



SUMMER

New growth of the perennial hides the stem stubble.



Bee larvae develop in cut dead stems during the growing season.



FALL



WINTER



Bees hibernate in stems during the winter.



SPRING

Cut back dead flower stalks. Old stem stubble will naturally decompose.



Adult bees emerge and start nests in newly cut dead stems or in naturally-occurring open stems.



Nests for Native Bees

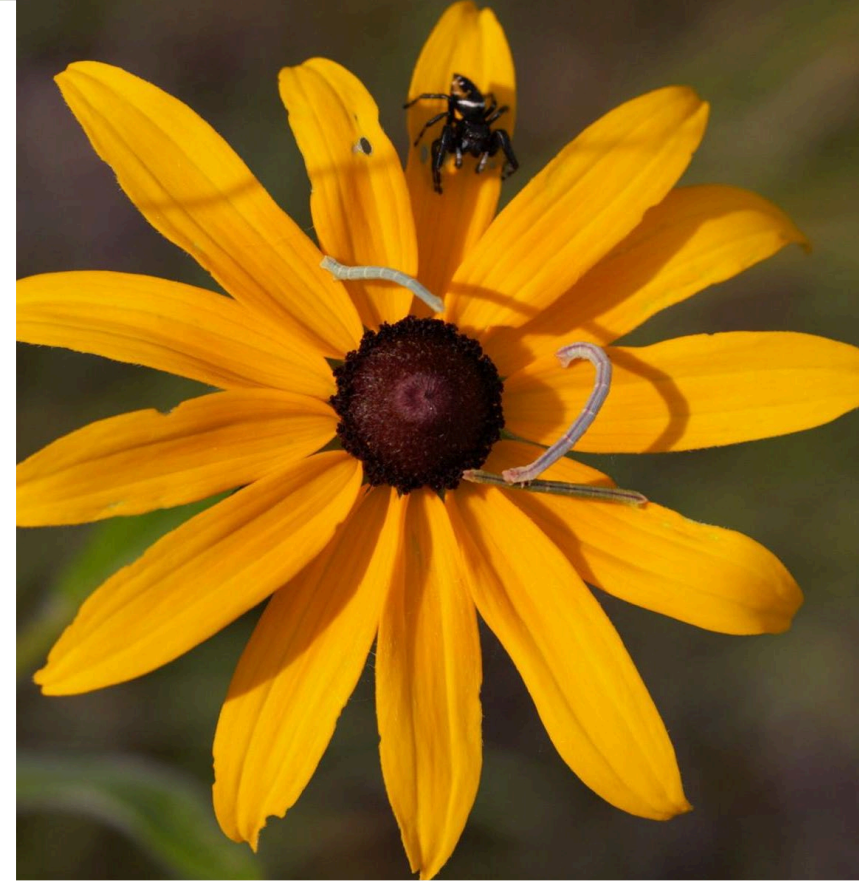
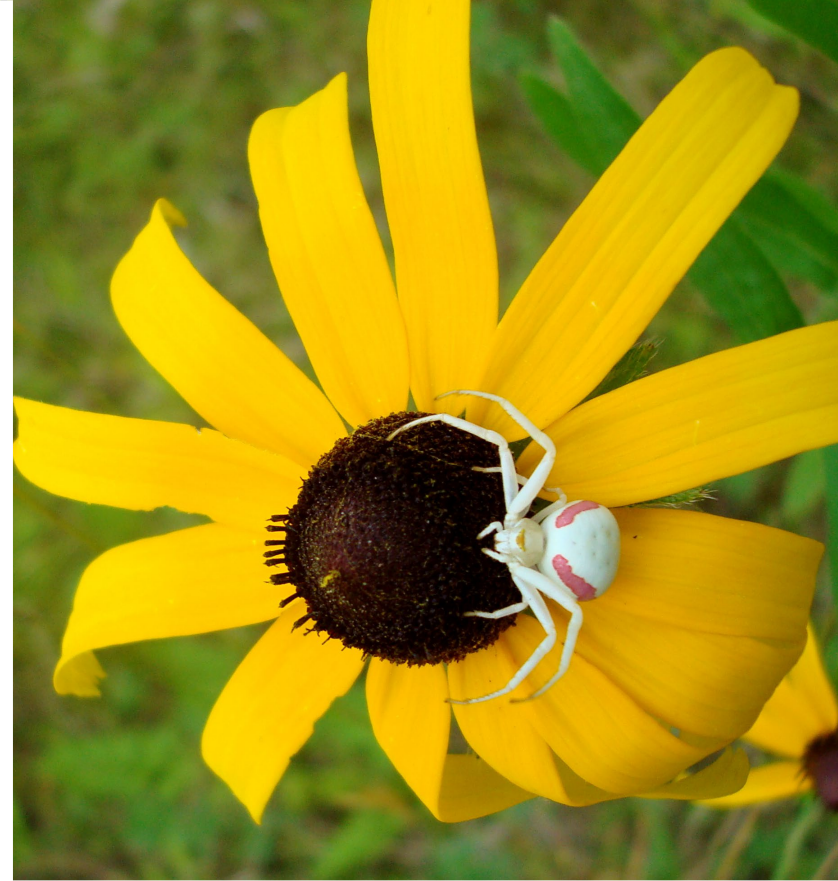
www.xerces.org



Pollinator-Friendly Gardens

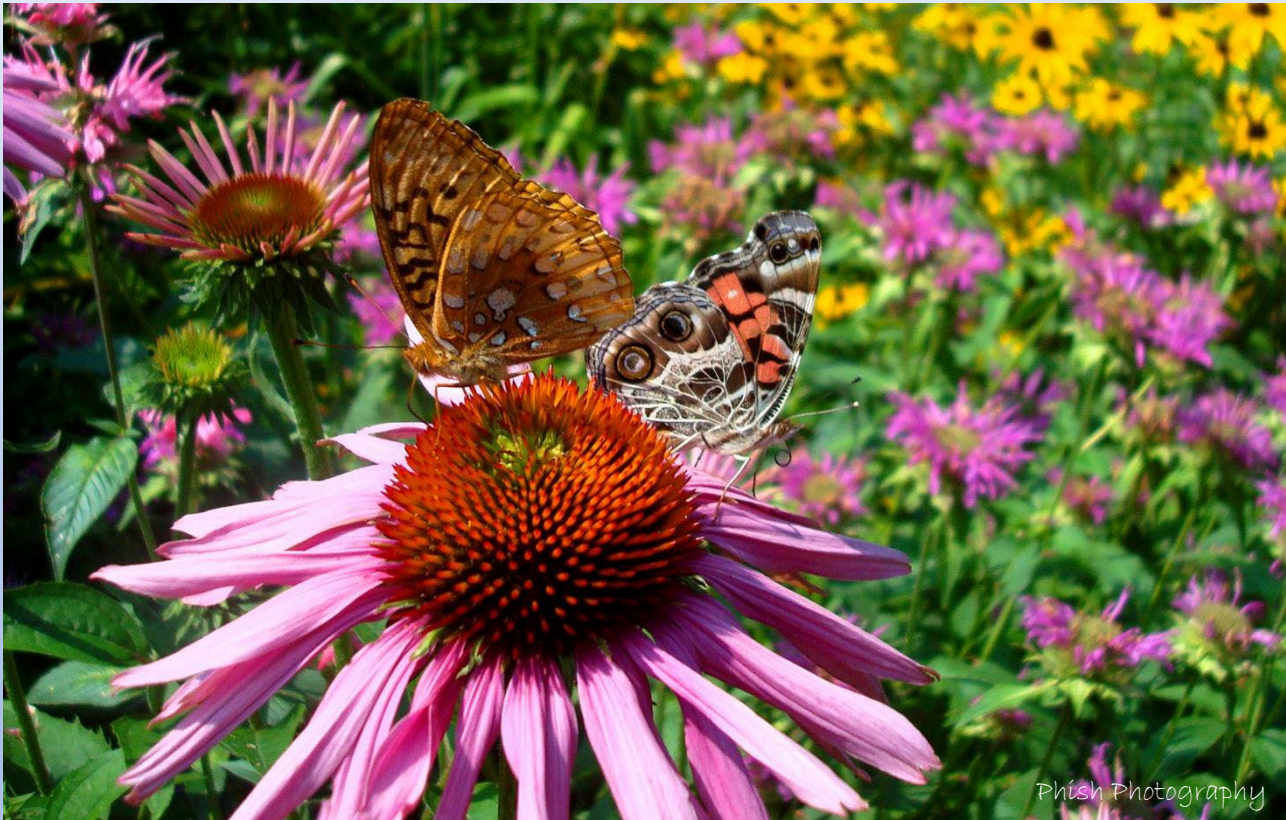
- Plant diversity of flowering plants
- With overlapping bloom periods throughout the season
- Provide water (small puddles, plants that catch water and dew)
- Provide some shelter
- Replace invasive plants





Soft-bodied insects are key for baby birds

Echinacea purpurea – Purple Coneflower



Speyeria cybele - Great Spangled Fritillary and *Vanessa cardui* - Painted Lady



Homoeosoma electellum –
Sunflower Moth



Halictidae – Sweat Bee

Eupatorium maculatum – Spotted Joe Pye Weed



Arctia caja –
Great Tiger Moth

Bombus insularis –
Indiscriminate Cuckoo
Bumble Bee

Asclepias incarnata – Swamp Milkweed



Phish Photography

Sphex ichneumoneus – Great Golden Digger Wasp

Lobelia cardinalis – Cardinal Flower



Archilochus colubris –
Ruby-throated Hummingbird



Symphotrichum nova angliae – New England Aster



Bombus impatiens – Impatient Bumble Bee



Syrphus ribesii - Hoverfly

Carex pensylvanica – Pennsylvania Sedge



Euphyes vestris - Dun Skipper

Geranium maculatum – Spotted Geranium



Phish Photography

Apis mellifera – Honey Bee



J. Michael Moore - Bugwood

UGA2102048

Heliopsis virescens -
Tobacco Budworm



J. Michael Moore - Bugwood

Heliopsis helianthoides – False Sunflower



Chlosyne nycteis -
Silvery Checkerspot



Monarda fistulosa – Wild Bergamot



Unknow Microlep



Pyrausta signatalis –
Monarda caterpillar

Phlox subulata – Creeping Phlox



Hemaris diffinis – Snowberry
Clearwing Moth

Schizachryium scoparium – Little Bluestem



Polites origenes –
Crossline Skipper



Solidago canadensis - Canada Goldenrod



Vespula maculifrons -
Eastern Yellowjacket

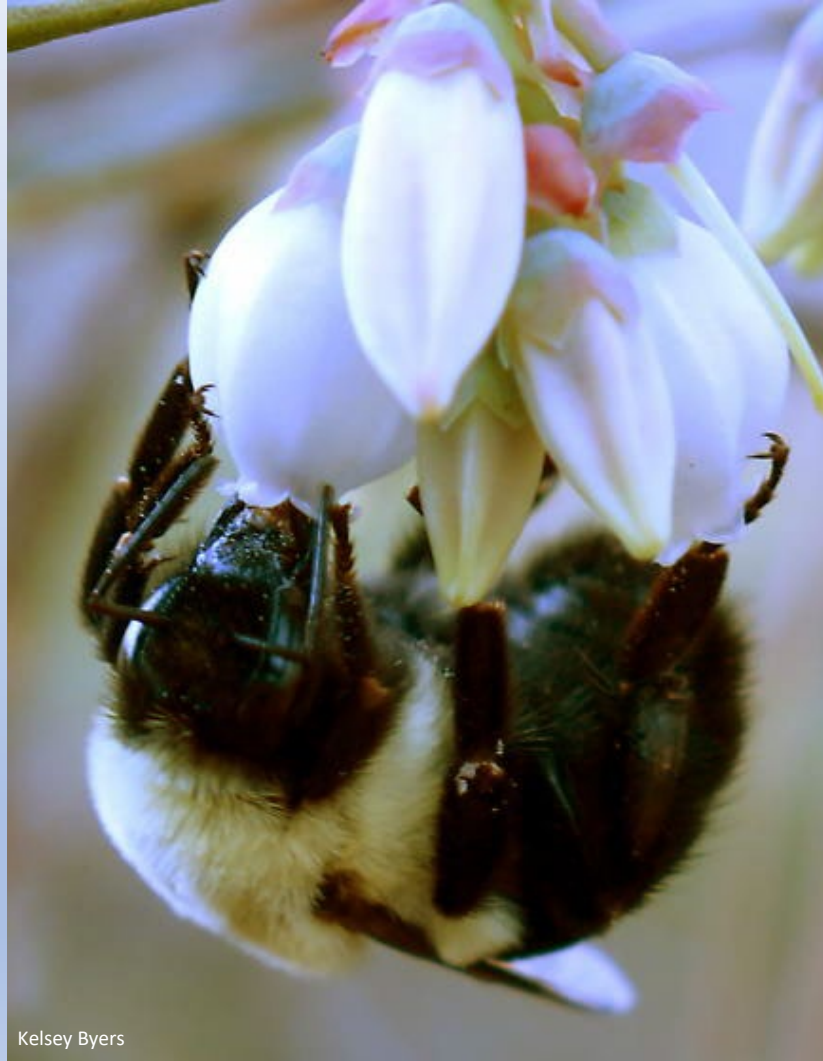


Cucullia convexipennis -
Brown-hooded Owlet



Cucullia asteroides -
Goldenrod Hooded Owlet

Vaccinium corymbosum – Highbush Blueberry



Kelsey Byers

Bombus impatiens –
Impatient Bumble Bee



Mary Keim

Monoleuca semifascia –
Pin-striped Slug Moth



Gaylussacia baccata – Black Huckleberry



Andrenid bee



Sphinx Gordius –
Apple Sphinx

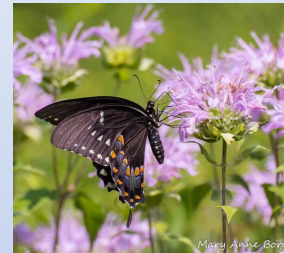


Pangrapta decoralis –
Decorated Owlet

Lindera benzoin - Northern Spicebush



Rick Webb - garden.org



Mary Anne Borge



www.butterfliesandmoths.org

Papilio Troilus -
Spicebush Swallowtail



Mary Anne Borge

Celastrina ladon
- Spring Azure




















Pitch Photography

Mary Anne Borge

Hermit Thrush

Top Keystone Plant Genera in Eastern Temperate Forests - Ecoregion 8

A genus is a taxonomic category of plants that contains one or more species of plants with similar characteristics. Species within each genus have adapted to local conditions and are the appropriate native species or varieties suited to a specific ecoregion.

| Plant Type | Plant Genus | Sample of Common Species (not all encompassing) | # Caterpillar Species that Use this as a Host Plant | # of Pollen Specialist Bee species that Rely on this Plant |
|----------------------|-----------------------|--|---|--|
| Trees | <i>Quercus</i> | White oak (<i>Quercus alba</i>), Black oak (<i>Quercus velutina</i>) | 436  | |
| | <i>Prunus</i> | American plum (<i>Prunus americana</i>), Black cherry (<i>Prunus serotina</i>), Chokecherry (<i>Prunus virginiana</i>) | 340  | |
| | <i>Betula</i> | River birch (<i>Betula nigra</i>), Sweet birch (<i>Betula lenta</i>) | 284  | |
| | <i>Populus</i> | Eastern cottonwood (<i>Populus deltoides</i>) | 249  | |
| | <i>Acer</i> | Box elder (<i>Acer negundo</i>), Silver maple (<i>Acer saccharinum</i>), Sugar maple (<i>Acer saccharum</i>) | 238  | |
| | <i>Malus</i> | Southern crabapple (<i>Malus angustifolia</i>), Sweet crabapple (<i>Malus coronaria</i>) | 237  | |
| | <i>Carya</i> | Bitternut hickory (<i>Carya cordiformis</i>), Pignut hickory (<i>Carya glabra</i>), Mockernut hickory (<i>Carya tomentosa</i>) | 213  | |
| | <i>Pinus</i> | Pitch pine (<i>Pinus rigida</i>), Eastern white pine (<i>Pinus strobus</i>), Virginia pine (<i>Pinus virginiana</i>) | 200  | |
| | Shrubs | <i>Vaccinium</i> | Northern highbush blueberry (<i>Vaccinium corymbosum</i>), Black highbush blueberry (<i>Vaccinium fuscatum</i>), Hillside blueberry (<i>Vaccinium pallidum</i>) | 217  |
| <i>Salix</i> | | Prairie willow (<i>Salix humilis</i>), Black willow (<i>Salix nigra</i>) | 289  | 14  |
| Flowering Perennials | <i>Solidago</i> | Stiff leaf goldenrod (<i>Solidago rigida</i>), Atlantic goldenrod (<i>Solidago arguta</i>) | 104  | 42  |
| | <i>Symphyotrichum</i> | Blue wood aster (<i>Symphyotrichum cordifolium</i>), Smooth aster (<i>Symphyotrichum laeve</i>) | 100  | 33  |
| | <i>Helianthus</i> | Woodland sunflower (<i>Helianthus divaricatus</i>), Small woodland sunflower (<i>Helianthus microcephalus</i>) | 66  | 50  |

Keystone plants

Quercus spp. - Oaks



Quercus alba – White Oak



Peridea angulosa –
Angulose Prominent



Quercus rubra – Red Oak



Anisota senatoria -
Orangestriped Oakworm

Acer Spp. - Maples



Acer rubrum – Red Maple



Speranza pustularia –
Lesser Maple Spanworm



Acer pensylvanicum – Striped Maple



Malacosoma disstria –
Forest Tent Caterpillar

<https://www.audubon.org/native-plants>

American Witch-Hazel

Hamamelis virginiana



Also known as Common Witch-Hazel, Snapping Hazelnut, Striped or Spotted Alder, and Winterbloom, this perennial, fall-blooming, deciduous shrub or small tree grows 15 to 20 feet tall. It grows in full sun and partial shade, in dry to moist soil, but prefers rich, acidic, well-drained soil. American Witch-Hazel produces fragrant, yellow flowers with petals that resemble crumpled strips from October to December and greenish seed capsules that mature to light brown.

Attributes Shrubs, Trees, Fruit, Butterflies, Caterpillars, Nuts

Add to your plant list

Buy Now

May attract

Cardinals & Grosbeaks



Orioles



Nuthatches



Wrens



Thrushes



Mockingbirds & Thrashers



Many great plant choice sources today



Choose the Perfect Plant

Use the "Filter By" dropdowns below to filter plants based on five different criteria (Bloom Month, Sunlight, Size/Plant Height, Caterpillars Hosted, and Wildlife Benefited). The results will automatically appear based on your choices. Check [here](#) for updates on Maine Audubon plant sales and availability.

<https://mainenativeplants.org/plant-finder/>

Many great plant choice sources today

<https://www.nwf.org/NativePlantFinder/>

Bring your garden to life.

Find Native Plants



Jacob Enos



Find Butterflies



Gordon Brown



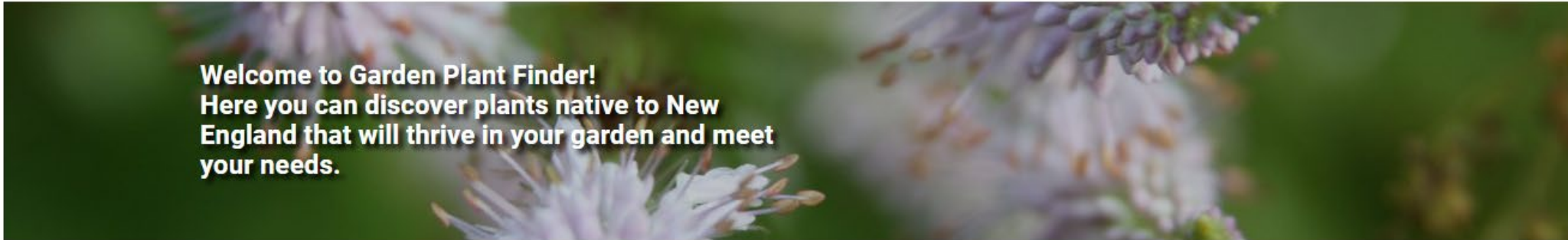
My List



Deug Tallamy



Many great plant choice sources today



Additional Information

- About Ecoregions, Cultivars and More

Search for plants by name using "quick search," or narrow your results based on plant type, flower color, **New England Level 3 ecoregion**, exposure, moisture, bloom season, and even **cultivation status**. Specify whether to show results that meet *all* or *any* of your search criteria by toggling the box at the bottom of the page. You can also use our search tool to access information about the full range of plants sold at Garden in the Woods and Nasami Farm.

Check out our [Important Definitions](#) page to learn more about ecoregions, cultivation status, and why certain plants are included in this database.

<https://plantfinder.nativeplanttrust.org/Plant-Search>

Many great plant choice sources today

<https://plantfinder.nativeplanttrust.org/Plant-Search>

Plant Type/Program:

- ANY TYPE
- Edible
- Fern
- Grasses, Sedges, and Rushes
- Groundcover
- Ornamental Grass
- Perennial
- Shrub
- Tree
- Vine/Liana

Ctrl-click (Mac users ⌘-click) to select multiple types to include in the search.

Flower Color:

- ANY TYPE
- Blue
- Green
- Insignificant
- Maroon
- Non-Flowering
- Orange
- Pink
- Purple
- Red

Ctrl-click (Mac users ⌘-click) to select multiple types to include in the search.

Height:

Inches ▾

Spread:

Inches ▾

Check any box below to find only plants having the specific characteristic(s). Otherwise, leave all boxes unchecked to maximize your search results based on the criteria above.

Cultivation Status

- Cultivar
- Selection
- Species

Exposure

- Sun
- Part Shade
- Shade

Soil Moisture

- Dry
- Average
- Wet

Ecoregion

- (58) Northeastern Highlands
- (59) Northeastern Coastal Zone
- (82) Acadian Plains and Hills
- (83) Eastern Great Lakes Lowlands
- (84) Atlantic Coastal Pine Barrens
- Not Ecotypic in New England

Ornamental Interest

- Spring Bloom
- Summer Bloom
- Fall Bloom
- Summer Fruit
- Fall/Winter Fruit
- Fall Foliage
- Winter Interest and/or Evergreen

Attracts Wildlife

- Attracts Bees
- Pollinator Powerhouse Plant
- Attracts Butterflies
- Host Plant
- Attracts Songbirds
- Attracts Hummingbirds
- Other Pollinators/Wildlife

Tolerance

- Deer/Rabbit Resistant
- Drought Tolerant
- Salt Tolerant
- Urban Environment
- Compaction Tolerant

Additional Attributes

- Edible
- Low Maintenance
- Spring Ephemeral
- Dioecious (fruits only on female plants)
- Fragrant
- Erosion Control/Soil Stabilization

<https://plantfinder.nativeplanttrust.org/Plant-Search>

Landscape Use

- Groundcover
- Hedge/screening
- Massing
- Specimen
- Rain Garden
- Meadow garden
- Naturalize
- Rock garden

Attractive Fall Foliage and/or Ornamental Fruit

- Red Fruit
- Red to Purple Fall Foliage
- Orange to Brown Fall Foliage
- Bright Yellow to Bronze Fall Foliage
- Blue Fruit
- Multi Color Fall Foliage
- Purple to Black Fruit
- White Fruit
- Orange to Yellow Fruit

<https://plantfinder.nativeplanttrust.org/Plant-Search>

Growth Habit

- Compact/Clumping
- Spreading/Suckering
- Show only plants having **ALL** checked characteristics above
- Show plants having **ANY** checked characteristics above

BEGIN SEARCH

Native Plant Trust

Conserving and promoting New England's native plants to ensure healthy, biologically diverse landscapes

© 2022 NATIVE PLANT TRUST
180 HEMENWAY ROAD
FRAMINGHAM, MASSACHUSETTS 01701
508-877-7630

[eNews](#)

[About Us](#)

[Conserving Native Plants](#)

[For Your Garden](#)

[Learn](#)

[Visit](#)

[Support](#)

[Go Botany](#)

[Resources + Press](#)

[Donate](#)

[Join](#)



Pollinator powerhouse plants

- "Pollinator Powerhouse Plant" is a designation for native plant species that support a proportionally large number of caterpillar species: woody plants qualify as pollinator powerhouses if they support 75 or more species of lepidopterans; herbaceous plant species qualify if they support 15 or more species of lepidopterans.



Rubus idaeus
red raspberry



Rubus occidentalis
black raspberry



Rubus odoratus
flowering raspberry



Salix discolor
pussy willow



Spiraea alba var. *latifolia*
white meadowsweet



Spiraea tomentosa
steeplebush



Swida alternifolia
pagoda dogwood



Swida anomum
silky dogwood



Geranium maculatum
wild geranium



Helianthus divaricatus
woodland sunflower



Helianthus tuberosus
sunchoke



Ionactis linariifolia
stiff aster



Lupinus perennis
sundial lupine



Solidago bicolor
white goldenrod



Solidago caesia
wreath goldenrod



Solidago nemoralis
gray goldenrod



Aquilegia canadensis
red columbine



Asclepias exaltata
poke milkweed



Asclepias incarnata
swamp milkweed



Asclepias purpurascens
purple milkweed



Asclepias syriaca
common milkweed



Asclepias tuberosa
butterfly milkweed



Baptisia tinctoria
yellow wild indigo



Caltha palustris
marsh marigold



Where to Buy Native Plants

The native plant movement is gaining traction in much of the U.S. — and that is fantastic! It can still be difficult, though, to source local native plants and seeds; so to help, we've carefully curated the following directory of where to buy northeastern native plants by state, including:

- Wholesale and retail nurseries that specialize in or include a wide selection of native plants
- Native plant sales hosted by nonprofits and co-ops annually or seasonally

While we include the highest quality plant nurseries in this directory, it is still important that you do your own research to find out what native plants are in stock, if the plants are grown from seed, and if the nurseries use



Where to buy native plants

Pest management resources

<http://www.GotPests.org> – Maine DACF

Got Pests?

Pests can be insects, weeds, fungi, mice and other animals, or microorganisms, like bacteria and viruses. Before you swat, stamp, or spray, know your enemy and, most importantly, know that it is an enemy, and not a [beneficial](#) or harmless plant or animal.

Do you know the name of your pest?

Search by name of your pest:

If not, select from the options below.

Where is it found?

- HOME
- FRUIT
- LAWNS & YARDS
- VEGETABLES
- TREES & SHRUBS
- PEOPLE & PETS
- FLOWERS

What kind of pest is it?

- WEED
- PLANT DISEASE
- BUG
- OTHER CRITTER

Teaching kids to identify and manage pests?
[K-12 IPM Curricula](#)

Featured Links

- [Maine Integrated Pest Management Council](#)
- [Maine Board of Pesticides Control](#)
- [Maine Natural Areas Invasive Plants](#)
- [Maine Center for Disease Control & Prevention](#)
- [Maine Department of Agriculture, Conservation and Forestry](#)
- [Maine YardScaping](#)
- [University of Maine Cooperative Extension IPM for Maine Homeowners](#)
 - [Have Your Pest Identified \(Diagnostic Lab\)](#)
- [USDAAPHIS Wildlife Services](#)

Home and Garden IPM from Cooperative Extension

Home Critter ID Photo Gallery Alphabetical List of Critters Fact Sheets Frequent Specimens and Inquiries Invasive Species More

Identification of Pests and Critters for People in Maine

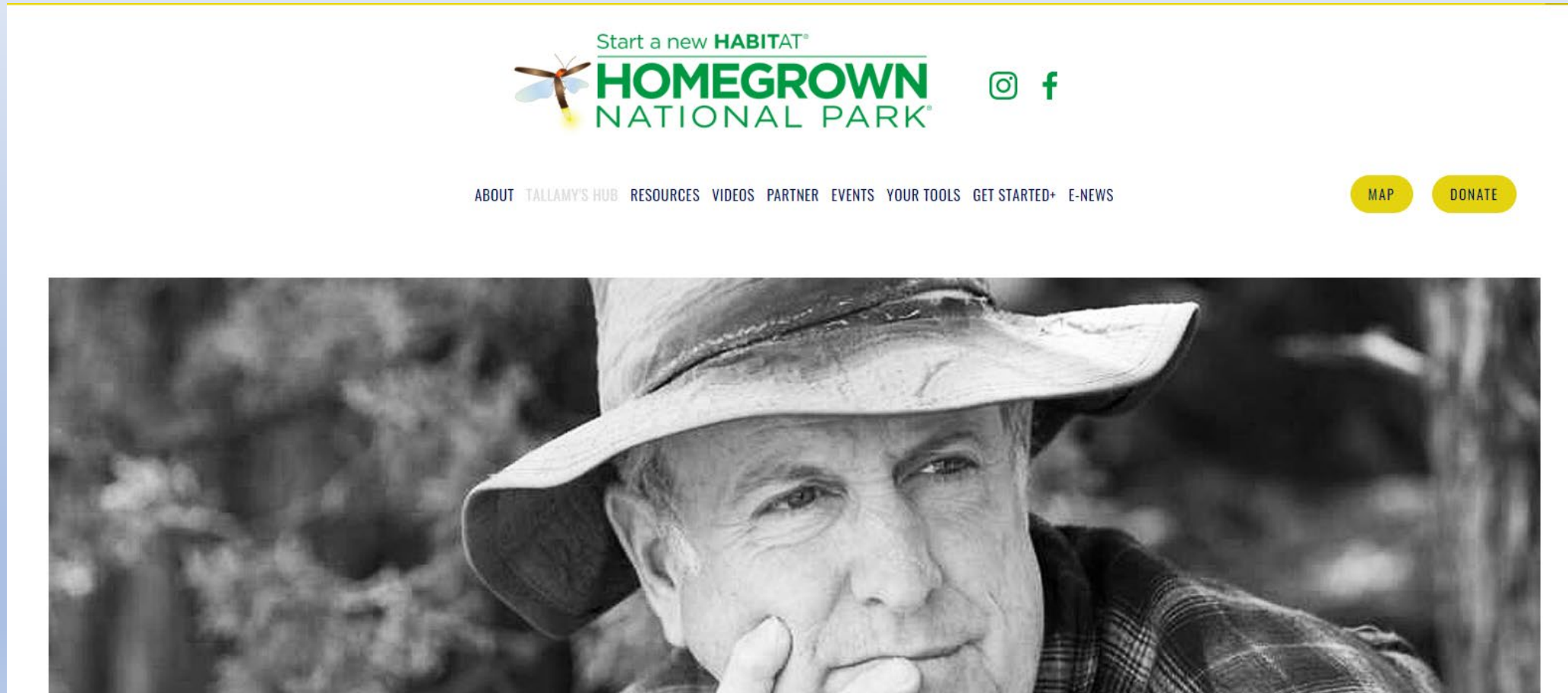
- Critter Identification
- Photo Gallery
- Alphabetical List of Critters
- Frequent Specimens and Inquiries
- Information / Fact Sheets
- Invasive Insect Species
- Spiders

Don't Transport Firewood from Out-of-State!
Help us protect Maine's forests from the Invasive Emerald Ash Borer. Find out how on our Emerald Ash Borer page.

Information you can use, research you can trust.
[University of Maine Cooperative Extension](#) is your doorway to [University of Maine](#) expertise. For more than 100 years, we've been putting university research to work in homes, businesses, farms, and communities—in every corner of Maine.

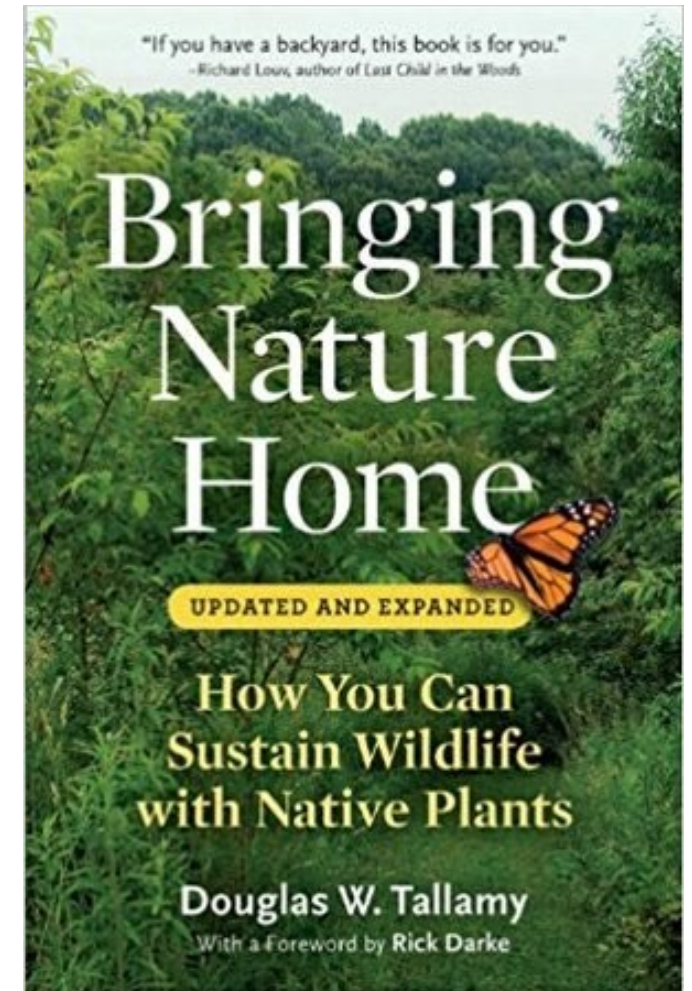
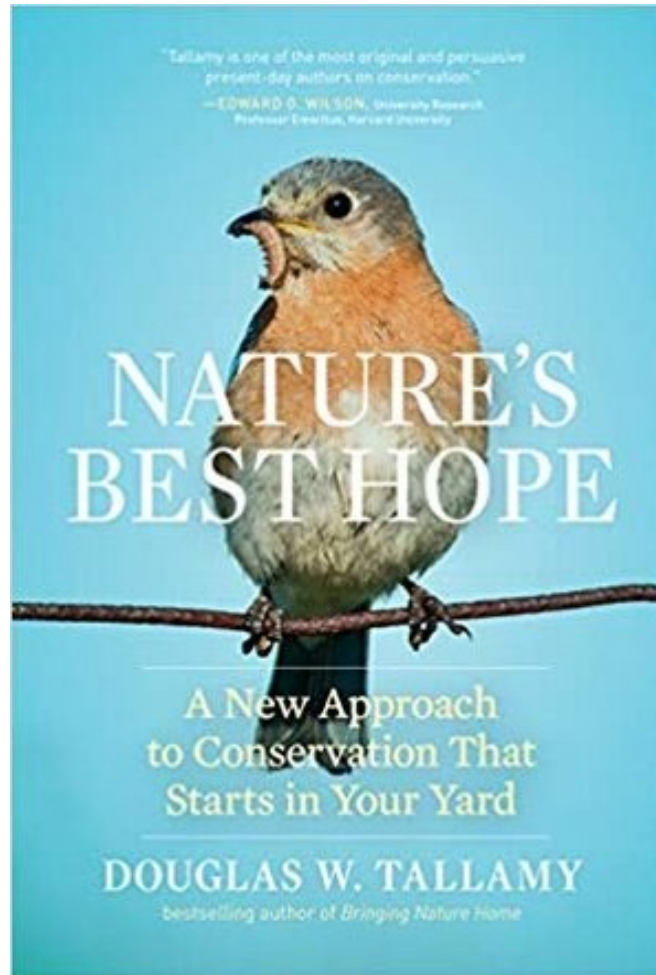
<https://extension.umaine.edu/home-and-garden-ipm/>

Resources

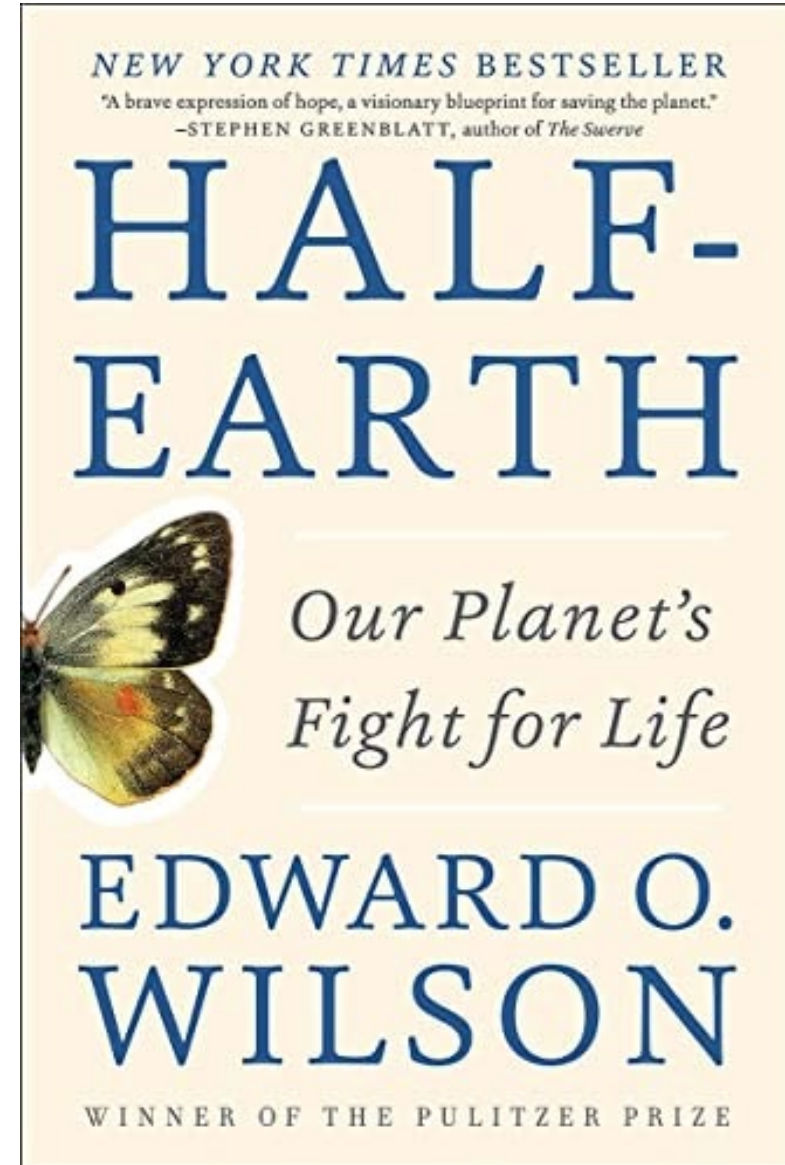


<https://homegrownnationalpark.org/tallamys-hub-1>

Resources



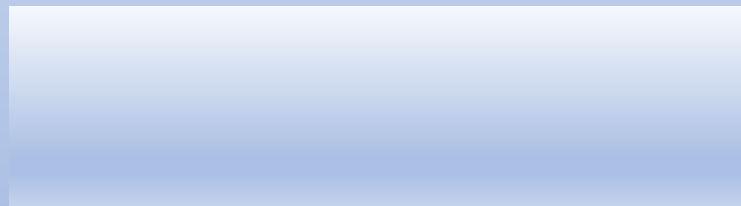
Resources



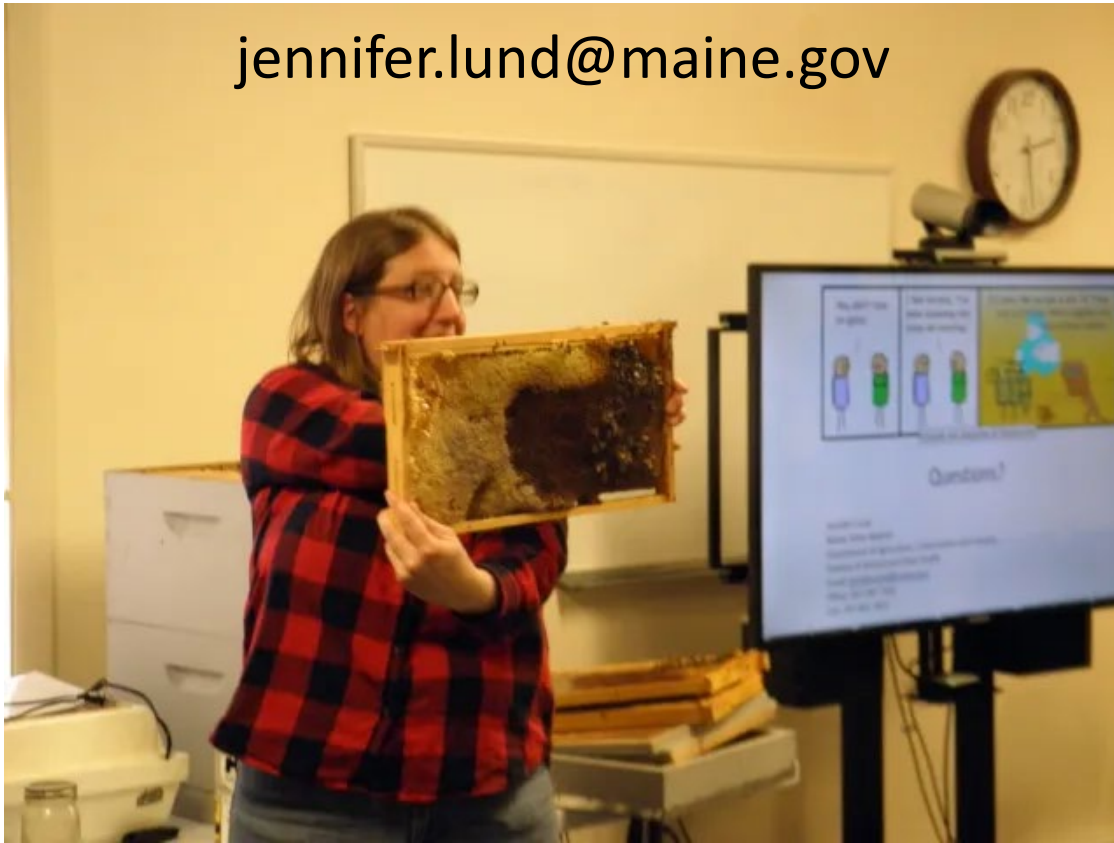
- <https://www.half-earthproject.org/>



*Pass
It On!*



jennifer.lund@maine.gov



MAINE DEPARTMENT OF
Agriculture, Conservation & Forestry

Online Services | Subscribe | Contact Us | News
Search DACF SEARCH

About ▾ Animals & Plants Forest Geology Recreation Farming Planning Licensing & Regulations Bureaus & Programs ▾

DACF Home → Bureaus & Programs → Bureau of Agriculture → Division of Animal and Plant Health → Apiary (Bees)

Division of Animal and Plant Health

- About Us
- FAQ
- Laws & Rules
- Programs
- Agricultural Compliance
- Animal Health
- Animal Welfare
- Apiary (Bees)**
- Arborist
- Board of Pesticides Control (BPC)
- Compost
- Ginseng
- Hemp
- Horticulture
- Integrated Pest Management (IPM)
- Nutrient Management
- Pest Survey (CAPS)
- Seed Potato Certification

Apiary (Honey Bee) Program

Maine Beekeeper Survey 2021/2022

Data collected will be used to summarize beekeeping practices and losses in the State of Maine for the 2021/2022 beekeeping season. All responses are confidential. This survey should take about 15 minutes and we ask that you please provide information about honey bee colonies that you owned from April 2021 - April 2022.

A summary of the survey can be found on the Maine Department of Agriculture, Conservation and Forestry Apiary website mid-July 2022 and will be presented at the 2022 Maine State Beekeepers Annual Meeting.

[Take the Survey](#)

The purpose of the Apiary Program is to prevent the introduction and/or spread of regulated honey bee diseases, parasites, and undesirable genetic material in resident and migratory honey bee colonies, as well as encourage and maintain interstate movement of honey bees for crop pollination and honey production.

On this page:

- [Licensing, Importing and Inspection](#)
- [Education, Training and Events](#)
- [Pollinator Resources](#)
- [Swarm Collectors](#)
- [Exotic Hornets](#)

APIARY RESOURCES

[Statutes & Rules](#)

BEEKEEPER SURVEY

- [2020/2021 Maine Honeybee Survey Results \(PDF\)](#)
- [2019/2020 Maine Honeybee Survey Results \(PDF\)](#)
- [2018/2019 Maine Honeybee Survey Results \(PDF\)](#)

FORMS

- [Apiary License Application \(PDF\) \(DOCX\)](#)
- [Import Notification of Bees \(DOCX\)](#)
- [Hive Inspection Request Form](#)

HONEY BEE MANAGEMENT RESOURCES

- [USDA-ARS Beltsville Bee Research and Diagnostic Laboratory](#)
- [Tools for Varroa Management from HBHC](#)
- [Honey Bee Health Coalition Best Management Practices](#)

Resources

<https://www.maine.gov/dacf/php/apiary/index.shtml>



Questions?

gary.fish@maine.gov

207-287-7545