New England's Native Flora

Gretel Anspach

Why grow natives?

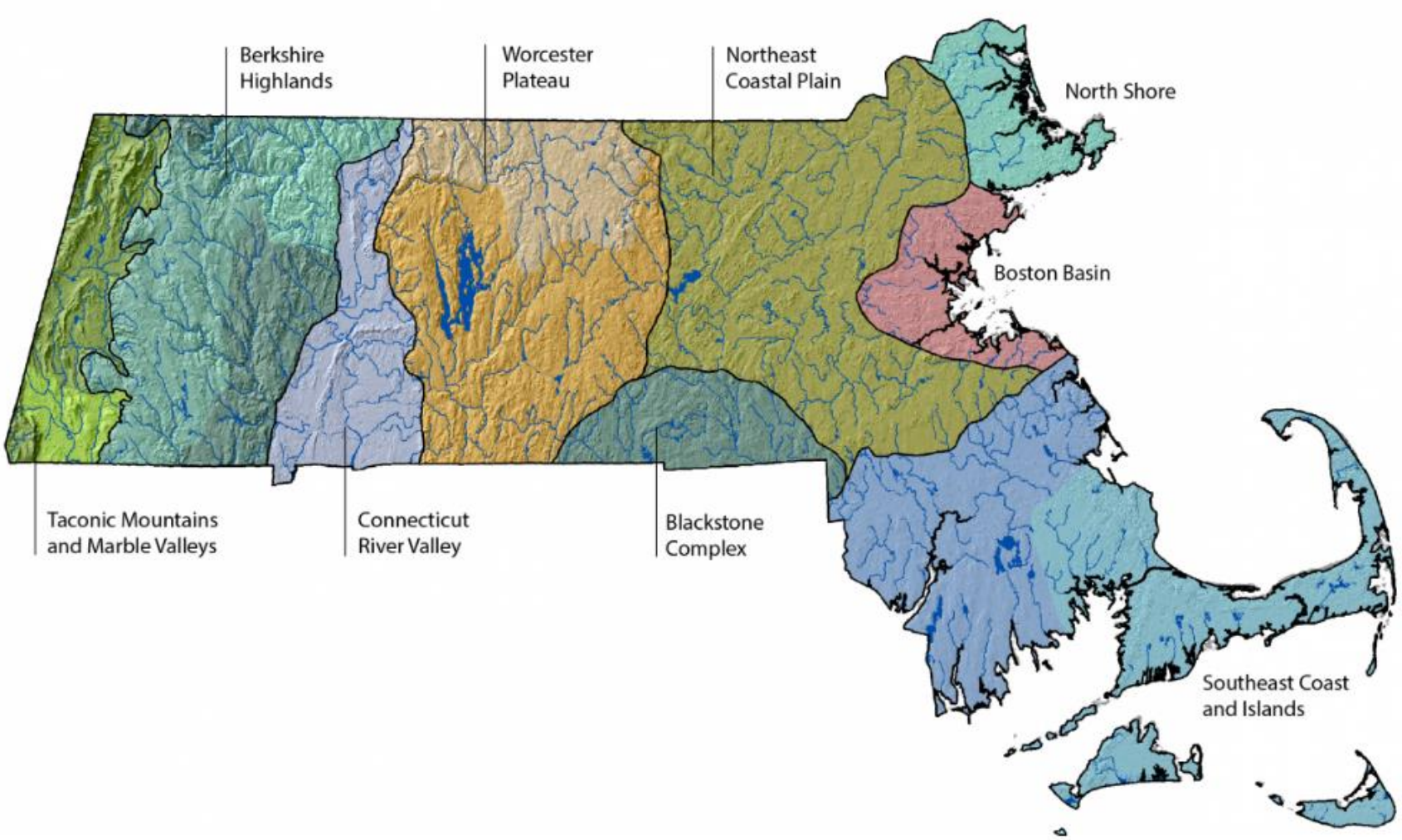
- They’re beautiful!
- They’re well adapted to grow here
- They’re part of the local food web

Sharp leaved hepatica
Hepatic acutiloba, or
Anemone americana

Zones 3-8
6”-9” tall and wide
Blooms in March
Part shade, medium soil

Pollen source for small bees, flies; no nectar

Massachusetts Ecoregions



https://grownativemass.org/Our-Commonwealth/ecoregions

Maidenhair Fern

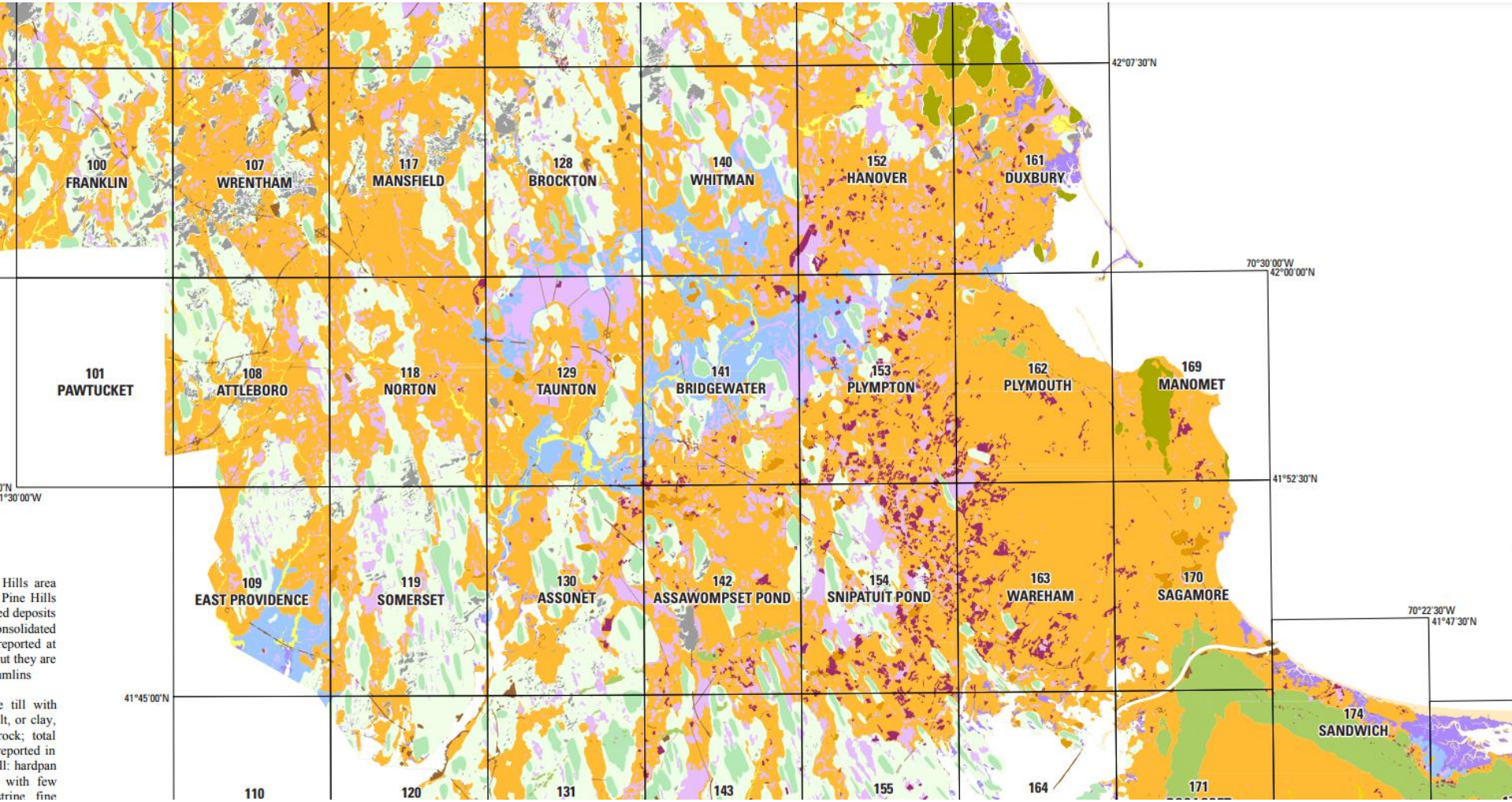
Adiantum pedatum

Zone 3-8
1-2.5 feet tall, 1-1.5 feet wide.
Non-flowering.
Part shade to full shade, medium soil, grows best at pH 7-8

Cranberry bog deposits (maroon)
Flood plain alluvium (yellow)
Swamp deposits (lilac)

Fine deposits (light blue)
Salt march and estuarine deposits (darker blue)
Glacially modified coastal-plain hill deposits (olive green)

Thin till (light green)
Coarse deposits (orange)



Surficial Materials of Massachusetts

DESCRIPTION OF MAP UNITS

[Full citations for references are given in the pamphlet. To locate physiographic features and major rivers mentioned in the map-unit descriptions, see figure 1 in the pamphlet]

POSTGLACIAL DEPOSITS

Artificial fill—Earth materials and manmade materials that have been artificially emplaced, primarily in highway and railroad embankments and in dams; unit may also include landfills, urban-development areas, and filled coastal wetlands

Cranberry bog deposits—Natural freshwater swamps or peat bogs overlain locally by artificially emplaced sand or other fill; these deposits occur primarily in southeastern Massachusetts and on Cape Cod. Commonly, cranberry bogs are also created by excavation into sand and gravel deposits that form the bed; peat and other organic material are then artificially emplaced over the bed, and water drainage pathways are diverted into the area to control seasonal flooding of the bog

Flood-plain alluvium—Sand, gravel, silt, and some organic material, stratified and well sorted to poorly sorted, beneath the flood plains of modern streams. The texture of alluvium commonly varies over short distances both laterally and vertically, and generally is similar to the texture of adjacent glacial deposits. Along smaller streams, alluvium is commonly less than 5 feet (ft) thick. The most extensive deposits of alluvium in Massachusetts are along the Housatonic, Deerfield, Westfield, Connecticut, Nashua, Merrimack, and Blackstone Rivers. Alluvium typically overlies thicker glacial stratified deposits

Swamp deposits—Organic muck and peat that contain minor amounts of sand, silt, and clay, are stratified and poorly sorted, and occur in swamps and freshwater marshes, in kettle depressions, or in poorly drained areas. Unit is shown only where deposits are estimated to be at least 3 ft thick; most deposits are less than 10 ft thick. Swamp deposits overlie glacial deposits or bedrock. They locally overlie glacial till even where they occur within thin glacial meltwater deposits

Salt-marsh and estuarine deposits—Peat and organic muck interbedded with sand and silt, deposited in saltwater or brackish-water environments of low wave energy along the coast and in river estuaries. Salt-marsh deposits are dominantly peat and muck, generally a few feet to 25 ft thick. In the major estuaries, these deposits locally overlie estuarine deposits (not mapped), which are sand and silt with minor organic material and are as much as 30 to 80 ft thick. Salt-marsh and estuarine deposits generally are underlain by adjacent glacial material, consisting of till, coarse stratified deposits, or glaciomarine fine deposits

Beach and dune deposits—Sand and fine gravel deposited along the shoreline by waves and currents, and by wind action. The texture of beach deposits varies over short distances and is generally controlled by the texture of nearby glacial materials exposed to wave action. Sand beach deposits are composed of moderately sorted, very coarse to fine sand, and are commonly laminated. Coarser layers may contain some fine gravel particles; finer layers may contain some very fine sand and silt. Gravel beach deposits are composed of granule- to cobble-size clasts in moderately sorted thin beds; deposits contain minor amounts of sand within gravel beds, and thin beds of sand as alternating layers. Beach deposits are rarely more than a few feet thick. Dune deposits are composed of moderately sorted to well-sorted, fine to medium sand, and are variably massive, laminated, and crossbedded. Dune deposits are as much as 100 ft thick. Unit includes artificial sand deposits in locally replenished beaches

EARLY POSTGLACIAL DEPOSITS

Alluvial-fan deposits—Generally coarse gravel and sand deposits on steep slopes where high-gradient streams entered lower gradient valleys. Alluvial fans in some places were graded to lowering levels of glacial lakes. Fans continue to form today at some locations in Massachusetts

Valley-floor fluvial deposits—Sand, gravel, and minor silt, stratified and moderately to poorly sorted, beneath flat floors of valleys, called furrows (Mather and others, 1942), that are eroded into glacial outwash plains. The texture of the fluvial deposits commonly varies over short distances both laterally and vertically, and generally is similar to the texture of adjacent glacial deposits. The fluvial deposits overlie thick glacial stratified deposits in the upper, dry reaches of the furrow valleys and probably are less than 20 ft thick. Swamp deposits and deformation of bedding related to melting of buried ice in kettles interrupt the fluvial deposits. The deposits probably extend beneath salt-marsh and estuarine deposits in coastal valley reaches. The most extensive valley-floor fluvial deposits are on upper Cape Cod along Quaker Run and the Coonamessett, Childs, and Quashnet Rivers, and on Martha's Vineyard in Quampache Bottom

Stream-terrace deposits—Sand, gravel, and silt deposited by meteoric water (locally distal meltwater) on terraces cut into glacial meltwater sediments along rivers and streams. These deposits are shown where they overlie glaciolacustrine deposits (fine deposits map unit) and glaciomarine fine deposits; elsewhere, stream-terrace deposits are included in the coarse deposits map unit. Most stream-terrace deposits are less than 10 ft thick and overlie thicker glacial deposits; textures commonly are similar to those of underlying glacial meltwater deposits. Many stream terraces in the Connecticut River valley are composed of fine to medium sand and overlie lake-bottom silt and clay

Marine regressive deposits—Sand and minor gravel deposited along former, higher shorelines in northeastern Massachusetts by waves and currents, and by wind action on beaches and spits. These deposits are shown where they overlie glaciomarine fine deposits. Regressive beach and nearshore deposits are composed of moderately sorted, very coarse to fine sand, commonly laminated. Coarser layers may contain some fine gravel particles; finer layers may contain some very fine sand and silt. Regressive beach and nearshore deposits are rarely more than a few feet thick. Regressive spit deposits are 10 to 30 ft thick

Inland-dune deposits—Fine to medium, well-sorted sand in transverse, parabolic, and hummocky dunes as much as 60 ft thick. Deposits occur mostly in the glacial Lake Hitchcock basin (in the Connecticut Valley lowland), where sand derived from extensive glacial-lake deltas that were not yet vegetated was deposited in dune forms by early postglacial winds. Dune sand is now fixed by vegetation except where disturbed by human activities

Talus deposits—Angular, loose blocks of basalt and diabase accumulated by rockfall and creep at the base of bedrock cliffs along linear traprock ridges in the Mesozoic lowland (Connecticut Valley lowland). Talus deposits form steep, unstable slopes. Generally less than 20 ft thick

GLACIAL STRATIFIED DEPOSITS

Sorted and stratified sediments composed of gravel, sand, silt, and clay (as defined in the particle-size diagram, below), deposited in layers by glacial meltwater. These sediments occur as four basic textural units: gravel deposits, sand and gravel deposits, sand deposits, and fine deposits. On this surficial geologic map, gravel deposits, sand and gravel deposits, and sand deposits are not differentiated and are shown as *Coarse Deposits* where they occur at the land surface. *Fine Deposits* also are shown where they occur at the land surface. Textural changes occur both areally and vertically; however, subsurface textural variations are not shown on this map.

PARTICLE DIAMETER											
10	2.5	.16	.08	.04	.02	.01	.005	.0025	.00015	inches
256	64	4	2	1	.5	.25	.125	.063	.004	mm
Boulders	Cobbles	Pebbles	Granules	Very coarse sand	Coarse sand	Medium sand	Fine sand	Very fine sand	Silt	Clay	
GRAVEL PARTICLES				SAND PARTICLES				FINE PARTICLES			

Grain-size classification used in this report, modified from Wentworth (1922). Abbreviation: mm, millimeter.

Coarse deposits consist of *gravel deposits*, *sand and gravel deposits*, and *sand deposits*, not differentiated in this report. *Gravel deposits* are composed of at least 50 percent gravel-size clasts; cobbles and boulders predominate; minor amounts of sand occur within gravel beds, and sand comprises a few separate layers. Gravel layers generally are poorly sorted, and bedding commonly is distorted and faulted due to postdepositional collapse related to melting of ice. *Sand and gravel deposits* occur as mixtures of gravel and sand within individual layers and as layers of sand alternating with layers of gravel. Sand and gravel layers generally range between 25 and 50 percent gravel particles and between 50 and 75 percent sand particles. Layers are well sorted to poorly sorted; bedding may be distorted and faulted due to postdepositional collapse. *Sand deposits* are composed mainly of very coarse to fine sand, commonly in well-sorted layers. Coarser layers may contain up to 25 percent gravel particles, generally granules and pebbles; finer layers may contain some very fine sand, silt, and clay

Fine deposits include very fine sand, silt, and clay occurring as well-sorted, thin layers of alternating silt and clay (varves), or as thicker layers of very fine sand and silt. Very fine to fine sand commonly occurs at the surface of these lake-bottom deposits and grades downward into rhythmically bedded silt and clay varves. In some places on the lake-bottom surface of glacial Lake Hitchcock (in the Connecticut Valley lowland) and glacial Lake Narragansett (in southeastern Massachusetts), fine deposits are overlain by as much as 30 ft of fine to medium sand, deposited as the lake level lowered or the lake shallowed; this sand has not been mapped separately. Locally, this map unit may include areas underlain by fine sand

Glaciomarine fine deposits include clay, silty clay, fine sand, and some fine gravel deposited in a higher-level sea in environments of low wave energy along the coast and in river estuaries. Fine to very fine sand, massive and laminated, commonly is present at the surface and grades downward into interbedded very fine sand, silt, silty clay, and clay. The lower silty clay and clay is massive and thinly laminated. Total thickness is generally a few feet to 75 ft

Stagnant-ice deposits—Surface coarse sediments include scattered large surface boulders, gravel deposits, and sand and gravel deposits, totaling 5 to 30 ft thick, that overlie predominantly sand deposits. Sand deposits contain deltaic foreset bedding and interlayered beds of fine sand, silt, and a little clay. Sand and silty sand deposits extend downward to basal till and bedrock. Flowtill sediments are interlayered under ice-contact slopes. Stratification in surface and underlying sediments is generally distorted and faulted due to postdepositional collapse

GLACIAL TILL AND MORAINE DEPOSITS

End moraine deposits—Composed predominantly of boulders and ablation-facies sandy upper till; lenses of stratified sand and gravel occur locally within the till. In the larger deposits on Cape Cod and Martha's Vineyard, the surface ablation till is as much as 30 ft thick and overlies sand, gravel, and silty sand meltwater deposits. Some end moraine deposits include thrusted sheets of glacial meltwater deposits resulting from readvance of the ice margin (Oldale and O'Hara, 1984). Stratification in underlying sediments may also be deformed, the result of postdepositional collapse caused by melting of buried ice. Surface boulders on end moraine deposits are generally more numerous than on adjacent till surfaces; dense concentrations of boulders are present in some places. Deposits occur as freestanding hummocky landforms, commonly in ridges that trend east-northeast to west-southwest, and range in height from 10 to 100 ft

Thrust moraine deposits—In western Martha's Vineyard, thrusted moraine deposits stand as high as 300 ft in altitude and are composed of allochthonous, ice-thrusted Cretaceous, Tertiary, and older Quaternary sediments, locally overlain by thin surface till and boulders. These coastal-plain beds are fossiliferous, semi-consolidated sand, gravel, and silty clay in tilted strata that were thrust up by glacial ice into positions well above the autochthonous coastal-plain surface, which lies below sea level. Numerous northeast-southwest-trending ridges within the thrust moraine unit mark the edges of these tilted and thrusted strata

Thin till—Nonsorted, nonstratified matrix of sand, some silt, and little clay containing scattered pebble, cobble, and boulder clasts; large surface boulders are common; unit was mapped where till is generally less than 10 to 15 ft thick including areas of shallow bedrock. Predominantly consists of upper till of the last glaciation; loose to moderately compact, generally sandy, commonly stony. Two facies are present in some places: a looser, coarser grained ablation facies, melted out from supraglacial position; and an underlying more compact, finer grained lodgement facies deposited subglacially. In general, both ablation and lodgement facies of upper till derived from fine-grained bedrock are finer grained, more compact, less stony and have fewer surface boulders than upper till derived from coarse-grained crystalline rocks. Across Massachusetts, fine-grained bedrock sources include the red Mesozoic sedimentary rocks of the Connecticut Valley lowland, marble in the western river valleys, and fine-grained schists in upland areas

Thick till—Nonsorted, nonstratified matrix of sand, some silt, and little clay containing scattered pebbles, cobbles, and boulders in the shallow subsurface; at greater depths consists of compact, nonsorted matrix of silt, very fine sand, and some clay containing scattered small gravel clasts. Mapped in areas where till is greater than 10 to 15 ft thick, mostly in drumlin landforms in which till thickness commonly exceeds 100 ft (maximum recorded thickness is 230 ft). Although upper till of late Wisconsinan age is the surface deposit, lower till of probable Illinoian age constitutes the bulk of the material in thick-till areas. Lower till is moderately to very compact and is commonly finer grained and less stony than upper till. An oxidized zone, the lower part of a soil profile formed during a period of interglacial weathering, is generally present in the upper part of the lower till. This zone commonly shows closely spaced joints that are stained with iron and manganese oxides

Glacially modified coastal-plain hill deposits—In the Marshfield Hills area (Scituate, Cohasset, Hanover, and Duxbury quadrangles) and in the Pine Hills area (Manomet quadrangle), very compact till and older glacial stratified deposits overlie thrusted blocks of Tertiary coastal-plain strata that are semi-consolidated dark clay layers. Miocene-age green sand deposits have also been reported at depth. These hills in many places were sculpted by the last ice sheet, but they are generally larger (3–4 miles [mi] long and 1–2 mi wide) than typical drumlins

Thick valley till and fine deposits—Composed of sandy surface till with boulders, 3 to 20 ft thick, overlying finer grained till, or fine sand, silt, or clay, local boulders, and local weathered limestone and dolostone bedrock; total thickness of all sediments is 6 to 135 ft, averaging 50 ft. Materials reported in drillers' records include four descriptions usually synonymous with till: hardpan with no boulders; boulders and clay; gravelly hardpan; and clay with few boulders. Unit includes materials probably defining glaciolacustrine fine sediments or various weathered carbonate bedrock materials, listed as follows: gray clay, gray and yellow clay, black soft rock, and weathered bedrock. The subsurface fine sediments are exposed only in fresh, temporary landslide slopes or shallow excavations, where silty-clayey fine sand typically appears to be sheared, deformed, or disaggregated. Original laminations are difficult to discern. Surface morphology of the thick valley till and fine deposits includes (1) a glacially smoothed surface without bedrock outcrops or any relief related to bedrock structure; (2) locally a streamlined shape similar to small drumlins composed of thick till in other parts of Massachusetts; (3) landslide scarps and stream-cut banks commonly having 5 to 10 ft of relief, locally as much as 50 ft; and (4) dry, meltwater-carved channels 3 to 10 ft deep. These deposits extend almost continuously along lower valley slopes in the Housatonic and Hoosic River valleys, and their tributary valleys, that are underlain by marble, dolostone, or limestone and shale bedrock (Zen and others, 1983). The deposits appear to extend beneath the edges of glacial meltwater deposits in the valley bottoms, but their extent beneath thick glacial deposits in the centers of the valleys is not known. Some of these deposits are present in north-draining upland valleys in areas that also contain thick till deposits in drumlins

BEDROCK AREAS

Bedrock outcrops and areas of abundant outcrop or shallow bedrock—Individual bedrock outcrops, and areas of shallow bedrock ***or*** areas where small outcrops are too numerous to map individually; in areas of shallow bedrock, surficial materials are less than 5 to 10 ft thick. These units were not mapped consistently among all quadrangles; see note at the beginning of appendix 1 in the pamphlet for information on bedrock outcrop mapping by quadrangle

Our native cactus

Eastern Prickly Pear
Opuntia humifusa, or
Opuntia compressa

Zone 4-9
6-12 inches tall, 1-1.5 feet wide.
Blooms June-July.
Full sun, dry soil.

Nectar & pollen source for bees.
Larval host for flies.

Headlines

"Decline of Pollinators Poses Threat to World Food Supply, Report Says" New York Times, 2/26/2016

"'Insect apocalypse' driven by light pollution, scientists reveal" Fox News, 11/22/2019

"Beetles, butterflies and bees, oh my! Pollinators face extinction, study says" CNN, 2/26/2016

"Is insectageddon imminent?" The Economist, 5/21/2019

Abundance versus Diversity

Sunflower with honeybees

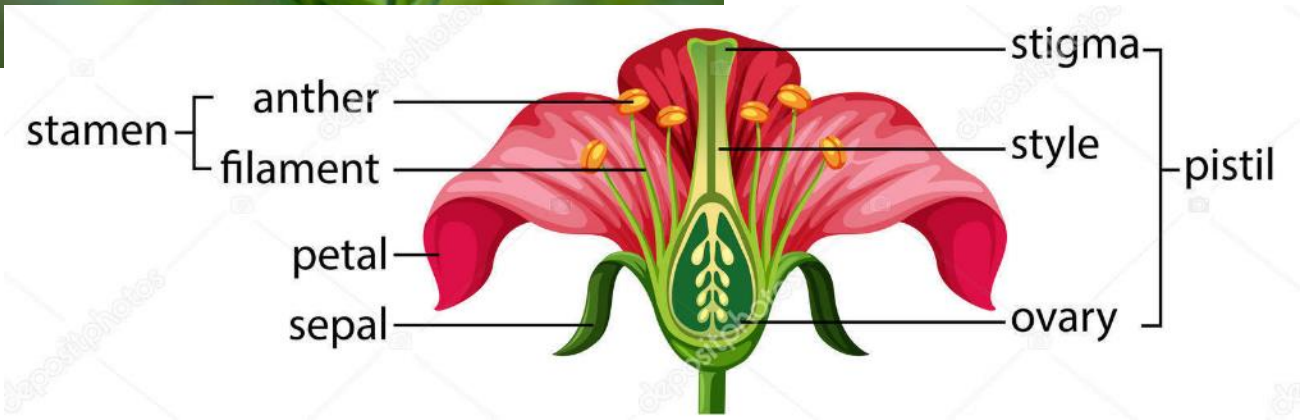
Green-headed coneflower (*Rudbeckia laciniata*) with sweat bees, bumble bee and Orange Mint Moth

Pollination

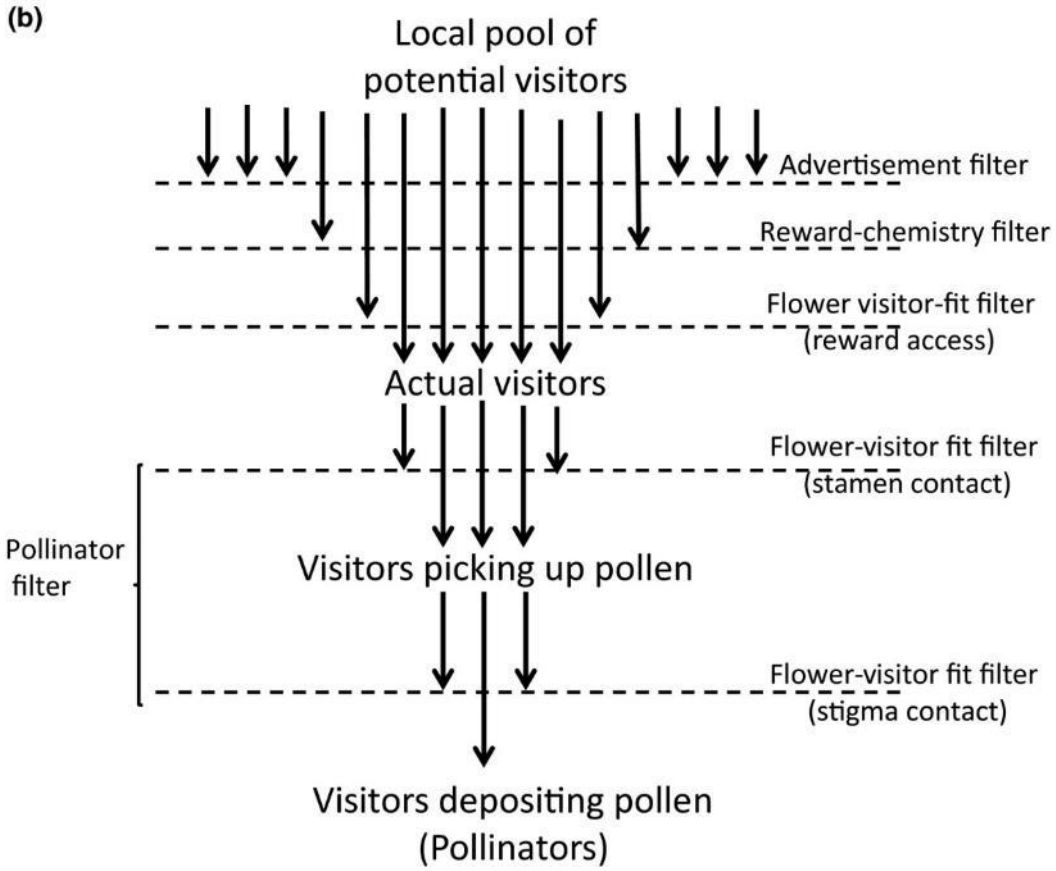
Lilum superbum
Turk's-cap Lily

Zone 5-8
4-7 feet tall
Blooms in July
Full sun to part shade, medium to wet soils

Attracts hummingbirds, moths, butterflies, long-tongued bees.

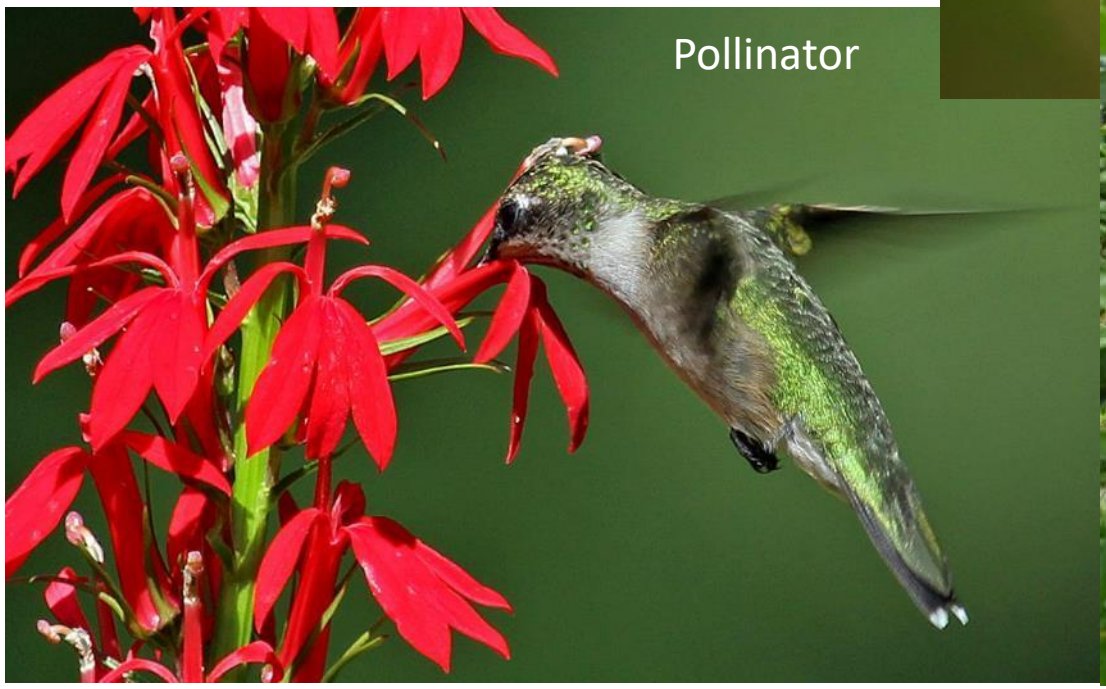


“The specialization continuum in pollination systems: diversity of concepts and implications for ecology, evolution and conservation”



Functional Ecology, Volume: 31, Issue: 1, Pages: 88-100, First published: 10 October 2016, DOI: (10.1111/1365-2435.12783)

Some plants specialize



Cardinal flower (*Lobelia cardinalis*)

Some animals specialize too

Lindera benzoin
Spicebush

Zone 4-9
6-12 feet tall and wide
Blooms in March
Full sun to part shade, medium soils

Attracts bees & flies.
Larval host for butterflies & moths

Getting through winter

Solidago canadensis
Canada Goldenrod

Zone 3-9
4-5 feet tall and wide
Blooms August-September
Full sun, medium soil.

Pollen & nectar source for bees, wasps, flies, beetles, butterflies, moths.
Larval source for beetles, flies and 125 moths / butterflies.
Seed eaten by birds.

NOT what causes your hay-fever!

Gall of the Goldenrod Gall Fly

Functional Diversity

Nonnative plants reduce population growth of an insectivorous bird
Desirée L. Narango, Douglas W. Tallamy, Peter P. Marra
Proceedings of the National Academy of Sciences Nov 2018, 115 (45) 11549-11554; DOI: 10.1073/pnas.1809259115

Not all are equal

Tall Sunflower
Helianthus giganteus
Host plant for 58 species of moth / butterfly

False Sunflower
Heliopsis helianthoides
Host plant for 1 species of moth / butterfly

"5% of our native plants support 75% of the caterpillar food that support food webs" – Doug Tallamy

Keystone Plants

Flowers and Grasses

- Goldenrod (Solidago) – 125
- Strawberry (Fragaria) – 81
- Sunflower (Helianthus) – 58
- Trefoil (Lotus) – 32
- Joe-Pye Weed (Eupatorium) – 31
- Violet (Viola) – 30
- Lupine (Lupinus) – 28
- Cranesbill (Geranium) – 27
- Willowherb (Epilobium) – 26
- Maidencane (Panicum) – 24
- Water Parsnip (Sium) – 23
- St. Johns wort (Hypericum) – 22

Trees and Shrubs

- Oak (Quercus) – 473
- Cherry (Prunus) – 411
- Willow (Salix) – 399
- Birch (Betula) – 393
- Poplar (Populus) – 335
- Apple (Malus) – 291
- Blueberry (Vaccinium) – 282
- Maple (Acer) – 279
- Alder (Alnus) – 245
- Pine (Pinus) – 243
- Hickory (Carya) – 216

https://www.nwf.org/NativePlantFinder/Plants/

Pussy Willow

Salix discolor

Zone 4-8
6-15 feet tall, 4-12 feet wide
Blooms Feb-Mar
Full sun to part shade, moist to wet soil

Nectar & pollen source for bees, flies, wasp, beetles, plant bugs.
Larval host for at least 2 butterflies + beetles, aphids, thrips, etc.
Buds eaten by birds, squirrels
Seeds eaten by squirrels
Bark eaten by various mammals
Fallen leaves eaten by turtles

Dutchman's Breeches

Dicentra cucullaria

Zone 3-7
0.5-1 feet high and wide
Blooms March
Part to full shade in summer, springtime sun

Nectar & pollen source for long-tongued bumblebees

Bloodroot

Sanguinaria canadensis

Zones 3-8
6-9 inches tall, 3-6 inches wide
Blooms March-April
Part to full shade in summer, sun in spring

Pollen source for bees, flies and beetles. No nectar.
Ants distribute seeds.

Rue Anemone

Thalictrum thalictroides, or *Anemonella thalictroides*

Zones 4-8
6-9 inches high and wide
Blooms April-May
Part to full shade, tolerant of dry soils

Pollen source for bees and flies.
No nectar.

Wild Columbine

Aquilegia canadensis

Zones 3-8
2-3 feet high, 1-1.5 feet wide
Blooms April-May
Best in light shade, well-drained soil, not too rich

Nectar source for hummingbirds and long-tongued bees, nectar & pollen for bees and butterflies.
Larval host for moths and flies.
Seeds eaten by birds

Bearberry

Arctostaphylos uva-ursi

Zone 2-7
6-12” tall, 3-6 feet wide
Blooms April-May
Full sun to part shade, medium to dry soil

Nectar & pollen source for long-tongued bees
Larval host for at least one butterfly
Fruit source for birds and mammals.

Goldenseal

Hydrastis canadensis

Zones 3-8
9-12 inches tall and wide
Blooms April-May
Part shade, medium soil

Pollinated by small bees, visited by other bees.
Fruit eaten by birds & mammals

Jack-in-the-Pulpit

Arisaema triphyllum

Zone 4-9
1-2 feet high, 1-1.5 feet wide
Blooms April-May
Part to full shade, medium to wet soil

Fruit eaten by some birds

Redbud

Cercis canadensis

Zone 4-8
20-30 feet tall, 25-35 feet wide
Blooms April-May
Full sun to part shade, medium soil

Nectar & pollen source for bees.
Larval source for at least 4 butterflies or moths.
Seeds eaten by birds

Trillum

Trillium grandiflora

Zones 4-8
1-1.5 feet tall, 9-12” wide
Blooms April-June
Part to full shade, medium soil

Pollen & nectar source for bees
Larval host for 2 moths

Celandine Poppy

Stylophorum diphyllum

Zone 4-9
1-1.5 feet tall, 9-12” wide
Blooms April-June
Part to full shade, medium to wet soils

Faunal associations unknown

Virginia Bluebells

Mertensia virginica

Zones 3-8
1.5-2 feet tall, 1-1.5 feet wide
Blooms April-May
Part to full shade, medium soil

Pollen and nectar source for long-tongued bees, other bees, flies, butterflies and moths

Sundial Lupine

Lupinus perennis

Zones 4-8
1-1.5 feet tall
Blooms April-July
Sun, part shade

Pollen source for bees, butterflies, hummingbirds
Larval host for 2 butterflies including Karner Blue

Mountain Laurel

Kalmia latifolia

Zones 4-9
5-15 feet tall and wide
Blooms in May-June
Part shade, medium moisture

Nectar source for butterflies, bees.
Larval host for at least one butterfly

Carolina Rose / Pasture Rose

Rosa carolina

Zones 4-9
3-6 feet tall, 5-10 feet wide
Blooms May-June
Full sun, medium soil

Pollen source for long-tongued bees, other bees, flies, beetles.
Larval host to several butterflies, also weevils, beetles.
Fruit eaten by birds & mammals.

Yellow Wild Indigo

Baptisia tinctoria

Zones 3-9
2-3 feet tall and wide
Blooms May-June
Full sun to part shade, medium to dry soil

Pollen & nectar source for bees and butterflies.
Host plant for 16 butterflies.

Bowman's Root

Gillenia trifoliata, or maybe *Porteranthus trifoliatus*

Zones 4-8
2-4 feet tall, 1.5-3 feet wide
Full sun to part shade
Blooms May-July

Nectar & pollen for bees, nectar for some butterflies

Self-heal

Prunella vulgaris

Zones 3-9
6-12” tall when not mowed
Blooms May-September
Sun to part shade

Nectar source for bees (including long-tongued bees), wasps, flies, butterflies and beetles.
Larval host for at least one butterfly

Black Cohosh

Actaea racemosa

Zones 3-8
4-6 feet high, 2-4 feet wide
Blooms June-July
Part to full shade

Nectar & pollen source for many bees and flies
Larval host for at least one butterfly

Elderberry

Sambucus canadensis

Zones 3-9
5-12 feet tall and wide
Blooms June-July
Full sun to part shade, medium to wet soil

Pollen source for bees, flies, beetles.
Larval host for bees, butterflies.
Fruit eaten by birds, mammals, turtles.

Northern Bush Honeysuckle

Diervilla lonicera

Zone 3-7
2-3 feet tall, 2-4 feet wide
Blooms June-July
Full sun to part shade, medium to dry soil

Nectar & pollen source for long tongued bees, pollen source for other bees, nectar source for moths and butterflies.
Larval host for butterflies and moths.

White Meadowsweet

Spirea alba

Zone 3-7
3-4 feet tall and wide
Blooms June-August
Full sun to part shade, medium to wet soil

Nectar & pollen source for bees, wasps, ants, flies, butterflies, beetles.
Larval host for beetles, butterflies.

Orange Jewelweed

Impatiens capensis

Zone 2-11
2-5 feet tall, 1.5-2.5 feet wide
Blooms June-September
Part shade to full shade, medium to wet soil

Nectar & pollen source for long-tongued bees, nectar source for other bees, hummingbirds, butterflies.
Larval host for 12 moths and butterflies.
Seeds eaten by birds and mice.

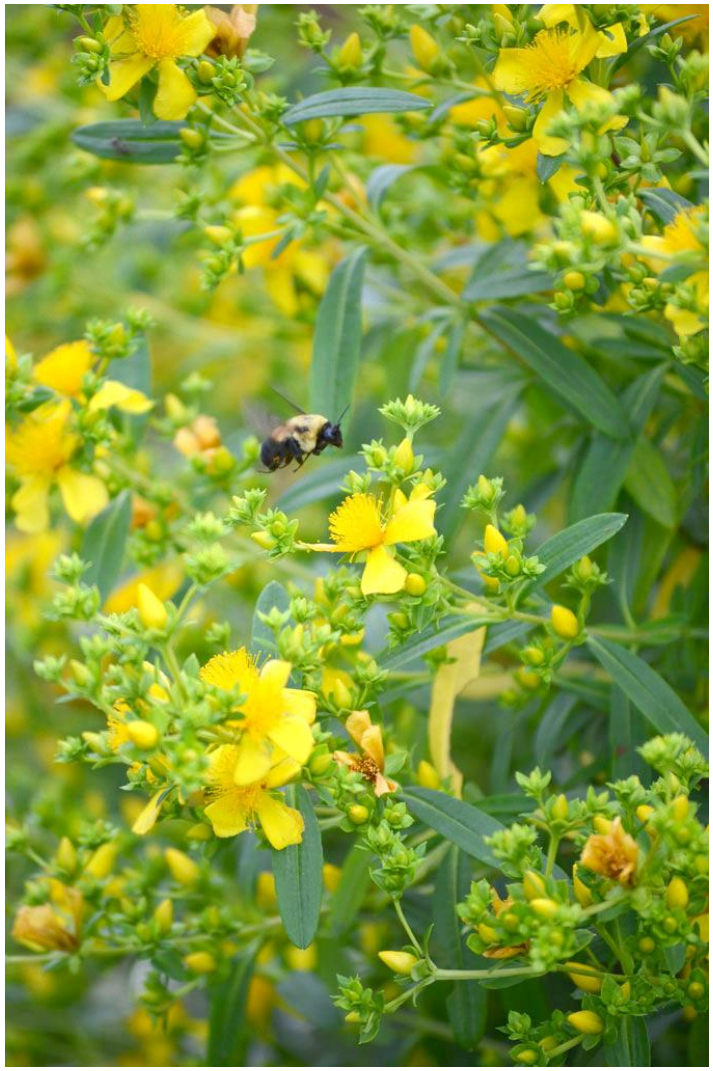
Wild Senna

Senna hebecarpa

Zone 4-8
3-6 feet high, 2-6 feet wide
Blooms July-August
Full sun, moist soils

Nectar & pollen source for bumblebees, butterflies, hummingbirds
Food for 3 caterpillars
Bobwhite eat seeds

Great St. John's Wort



Hypericum pyramidatum, or
Hypericum ascyron

Zomes 4-8
2-5 feet tall, 1-3 feet wide
Blooms July-August
Full sun to part shade, medium soil

Pollen source for bees.
Larval host for 22 moths, butterflies and also some beetles.

Blue Vervain

Verbena hastata

Zones 3-9
2-6 feet tall, 1-2.5 feet wide
Full sun, moist soil preferred
Blooms July-September

Nectar source, sometime pollen
Seeds eaten by birds
Host plant for 10 moths / butterflies

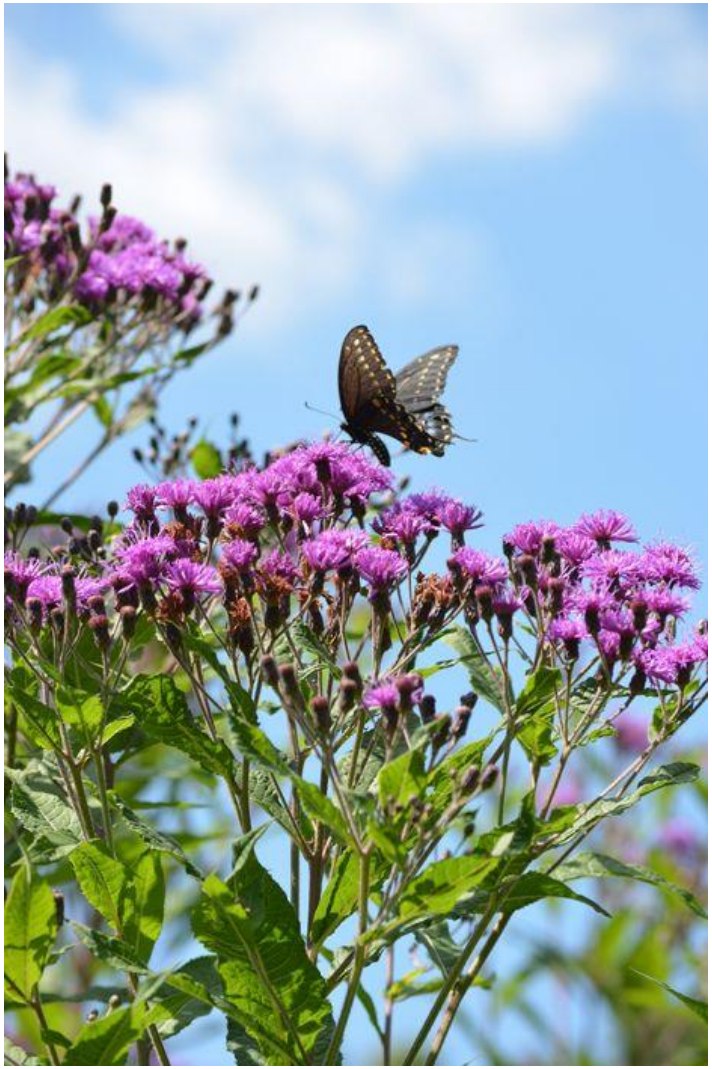
Hoary Mountain Mint

Pycnanthemum incanum

Zone 4-8
2-3 feet high, 3-4 feet wide
Blooms July-September
Full sun, dry soils

Nectar & pollen source for butterflies, bees, beneficial wasps
Larval host for 4 butterflies / moths

Ironweed



Vernonia fasciculata

Zones 4-9
2-9 feet high, 1.5-3 feet wide
Blooms July-September
Full sun, medium to wet soil

Pollen and nectar source for long-tongued bees, nectar source for other bees, butterflies.
Larval host for 18 moths.

Boneset / Cup Plant

Silphium perfoliatum

Zones 3-9
4-8 feet tall, 1-3 feet wide
Blooms July-September
Full sun, medium to wet soil

Pollen & nectar source for long-tongued bees, other bees, wasps, flies and butterflies.
Larval host for gall wasp and 2 moths/butterflies
Seed and water source for birds.

Joe Pye Weed

Eutrochium maculatum

Zones 4-8
4-7 feet tall, 3-4 feet wide
Blooms July-September
Full sun, medium to wet soil

Nectar source for bees, flies, butterflies, moths.
Larval host for beetles, 2 moths.
Seed occasionally eaten by birds.

Great Blue Lobelia

Lobelia siphilitica

Zone 4-9
2-3 feet tall, 1-1.5 feet wide
Blooms July-September
Full sun to part shade, medium to wet soils

Nectar & pollen source for bees, nectar source for hummingbirds. Larval host for at least one moth.

Bluestem Goldenrod

Solidago caesia

Zone 4-8
1.5-3 feet tall and wide
Blooms August-September
Full sun to part shade, dry to medium soils

Nectar & pollen source for bees, wasps, flies.
Larval host for beetles, flies.
Seeds eaten occasionally by birds.

The *Solidago* genus is host to 125 butterflies / moths!

New England Aster

Symphyotrichum novae-angliae

Zone 4-8
3-6 feet high, 2-3 feet wide
Blooms August-September
Full sun, medium soil

Pollen source for bees, flies, butterflies.
Larval host for bugs including 10 moths / butterflies.
Seeds eaten by birds.

Witch Hazel

Hamemelis virginiana

Zones 3-8
15-20 feet tall and wide
Blooms October-December
Full sun to part shade, medium soil

Nectar & pollen source for flies, wasps, midges, moths.
Larval host for moths.
Seeds eaten by birds and squirrels
Cover and nesting habit for birds

Big Bluestem

Andropogon gerardii

Zones 4-9
4-6 feet tall, 2-3 feet wide
Blooms September-February
Full sun, medium to dry soil

Host plant for katydids and 11 moths / butterflies.
Seeds eaten sparingly by birds.
Foliage eaten by voles

Little Bluestem

Schizachyrium scoparium

Zones 3-9
2-4 feet tall, 1.5-2 feet wide
Blooms August-February
Full sun, medium to dry soil

Host plant for 5 moths / butterflies.
Foliage also eaten by walking sticks, beetles, grasshoppers.
Seeds eaten by birds.

Cultivars


Pink double delight


Green Jewel


Species - pollen, nectar, seeds


Tomato Soup


Tangerine Dream


Magnus


Fragrant Angel


Sunbird

Purple Coneflower

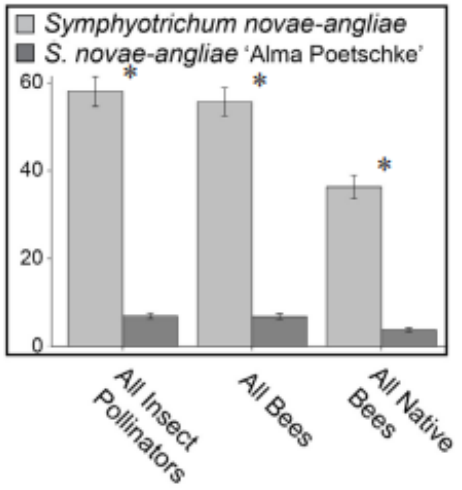
Echinacea purpurea

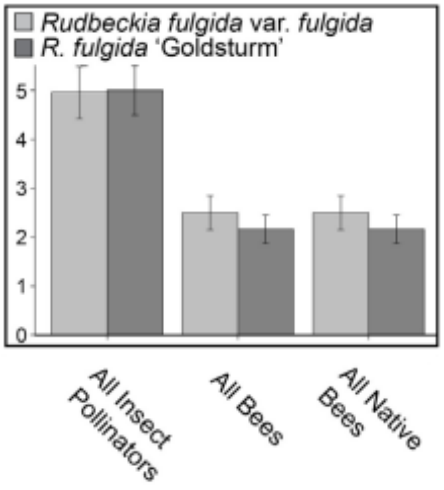
Not all cultivars equally attractive to pollinators

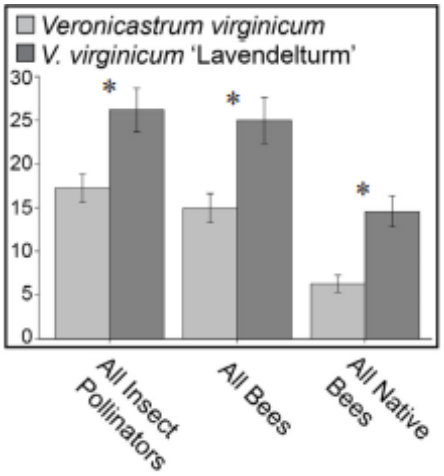
Symphyotrichum novae-angliae
S. novae-angliae 'Alma Potschke'

Rudbeckia fulgida var. fulgida
R. fulgida 'Goldsturm'

Veronicastrum virginicum
V. virginicum 'Lavendelturm'







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- For plants
  - Garden in the Woods, NPT Headquarters
  - Golden Skep Farm, Berlin MA
  - Blue Stem Natives, Norwell MA
  - https://plantnative.org/nd_kytomt.htm
  - Google botanical name

Questions?