Rewilding for Pollinators:

Providing habitat for pollinators, birds and other essential wildlife



Summary of Garden Practices that Support Biodiversity - p1

Planting:

- Plant a minimum of 70% biomass of native flowering plants, grasses, trees and shrubs
- Plant in vertical layers (plants of different heights) and plant densely
- Choose plants to suit your site conditions
- Plan for a variety of native flowers in bloom from spring through fall
- Prioritize keystone plants and plants that support endangered insects

Ecological Lawn care:

- Shrink your lawn to what you use for recreation and walking paths
- Allow flowering plants in the lawn you keep
- Mow every 2-3 weeks; allow grass to get 4" tall



Summary of Garden Practices that Support Biodiversity - p2

Providing habitat:

- Skip fall cleanup to protect overwintering insects.
- Leave plant stems and fallen leaves. (Nature provides safer shelter than bee hotels!)
- Provide dead wood, brush and leaf piles, rocks
- Provide a clean water source can be a shallow dish with pebbles

Habitat protection:

- Identify and remove invasive plants
- Avoid herbicide, pesticide and chemical fertilizers
- Minimize soil disruption (digging, tilling) to protect soil health
- Minimize night light: use low wattage warm spectrum bulbs (color is warm yellow, not cool blue); keep lights off or change to motion sensors



Native Plant Spreadsheets

Spreadsheets are best viewed on a computer or with a google app



Comprehensive native plant spreadsheet - mostly of the Northeast

https://docs.google.com/spreadsheets/d/117kqWQ8l6dDX4cdRrZHvIS5jtF2JFJMQgBmmclL_htY/edit?usp=sharing
Includes plants that are recommended for Northeast gardens, and also plants for meadows and habitat restoration. See tabs at the bottom of the page for herbaceous perennials, shrubs, trees, grasses and sedges, ferns, vines, and for specific growing conditions. Use the links to see pictures and read more detailed descriptions.

Native Plant Spreadsheet for Northeast Gardeners - a shorter list suitable for gardens

https://docs.google.com/spreadsheets/d/10io25pKL8Ct2GSy1GZGb_s-rgOYsafWGp-l3DXEqlSo/edit?usp=sharing Scroll down to see perennials, grasses and sedges, shrubs and trees, all on the first page. The tree list is short and is appropriate for small gardens. Additional tabs show plants organized by spring, summer and fall bloom. On each of those pages, scroll down to see plants organized by height. See also tabs for compact tidy growth habit, and aggressive spreaders.

New England Native Plants for Containers

https://docs.google.com/spreadsheets/d/1AYM5P0MsprvmSr8_m3XO4GHJd_8d_n8prgcOo1NYxdY/edit?usp=sharing

Spreadsheet of plants that support endangered insects in MA

https://docs.google.com/spreadsheets/d/1Als3Wv4NCRBvO_zWp3D8djS8hXwTLI5ZtwugBZX-STo/edit?usp=sharing

Native Plant Lists

Keystone plants of New England

https://www.nwf.org/-/media/Documents/PDFs/Garden-for-Wildlife/Keystone-Plants/NWF-GFW-keystone-plant-list-ecoregion-8-eastern-temperate-forests.pdf?sc_lang=en&hash=C475FADDFCC2622C7539F25935F5DAA1

Native Pollinator Plants by Season of Bloom

https://wildseedproject.net/wp-content/uploads/2019/04/Pollinator-Plants-by-Season.pdf

Rugged native plants for replanting after invasive species removal

https://wildseedproject.net/wp-content/uploads/2019/04/Invasives-to-Natives.pdf

Native Plant List by growing conditions

https://wildseedproject.net/comprehensive-plant-list/



Sample page of Native Plant Spreadsheet for Northeast Gardeners

lavender

pink

purple-pink

purple

sky bue

sky blue

white

white

3 ft

18"

14"

3 ft

3 ft

3 ft

1 ft

3 ft

12-16"

6"

4 -8"

1 - 2 ft

2 ft

2 ft

18 24"

Latin name	Common name	Bloom time									Bloom color	Height	Spacing	Sunlight			Moisture			
PERENNIALS		М	Α	М	J	J	Α	S	0	N				Full	Part	Shade	Moist	Med	Dry	l
Achillea millefolium	Common yarrow				J	J	А	S			white/pink	12-18"	6"							
Acorus americanus	Sweet flag			М	J							2 ft								
Actaea rubifolia	Appalachian bugbane						Α	S	0		white	30-48"	12- 24"							

J J A S

 $J \mid J$

JA

J J A

A M J

A M J

MJ

Agastache

foeniculum

Allium cernuum

Allium stellatum

Amorpha

canescens

Amsonia hubrichtii

Amsonia

tabernaemontana

Anemone

canadensis

Anamona virginiana thimblewood

Anise hyssop

Nodding onion

Prairie onion

Lead plant

Thread-leaf

bluestar

Eastern

bluestar

Canada

anemone

Tall

Tidy growth

habit

yes

yes

yes

yes

Resistant

to

Deer

Rabbit

Deer

Rabbit

Deer

Rabbit

Deer

Rabbit

Deer

Rabbit

yes

Salt

tolerant







Common Lawn "Weeds"

TO PLANT

Native

- wild Strawberry,
 Fragaria virginiana
- bluets,
 Houstonia caerulea
- common cinquefoil,
 Potentilla simplex

Native and Non-Native

- violets,Viola sp.
- heal-all,Prunella vulgarishawkweeds
- hawkweeds,
 Hieracium spp.

ALLOW

Non-Native & Innocuous

- clovers (white, red, hop, rabbit-foot),
 Trifolium spp.
- yellow wood sorrel,
 Oxalis stricta
- common dandelion, Taraxacum officinale
- creeping thyme,
 Thymus serpyllum
- Curly dock, Rumex crispus
- Plantain,
- Plantago spp.
- Chickweed,
 Cerastium spp.
- Crabgrass,
 Digitaria spp.

REMOVE

Non-Native & Aggressive

- bugleweed,
 Ajuga spp.
- gill-over-the-ground, Glechoma hederacea
- birds-foot trefoil,
 Lotus corniculatus

Noxious / Invasive

- sheep sorrel,
 Rumex acetosella.
- Creeping thistle (Canada thistle),
- Cirsium arvense
- creeping bellflower,
 Campanula rapunculoides

What to Look for at Nurseries, in Catalogues, and From Landscapers

- Native plant species, not hybrids or cultivars (with few exceptions)
- Plants grown pesticide free
- Ideally, plants grown from seed
- Beware of marketing hype: "Plants for Pollinators" that don't specify that plants or seeds are species native to our region
- Tell your nursery (and landscaper) what you want
- Safest to shop at native plant nurseries, but we can educate others
- Spreadsheet of nurseries with native plants:
 https://docs.google.com/spreadsheets/d/1RLPLSbm 4I_Ahx72EFCHD2ViN61aM7kTdm6FoJ8M2zGM/edi t?usp=sharing

Note: Second tab shows all-native nurseries



Wing and a Prayer Nursery, Cummington

Taking action on pesticides - organizations

Education and ways to take action:

- Xerces Society Pesticide work https://xerces.org/pesticides -
 - Pollinator conservation https://xerces.org/pollinator-conservation
- Pollinator Pathway Pesticide information https://www.pollinator-pathway.org/pesticides
- NOFA Northeast Organic Farmers Association Organic farming https://nofa.org/topp/ Healthy soils https://nofa.org/soil-carbon/

Advocacy:

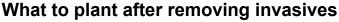
- Mass Pirg https://pirg.org/massachusetts/topics/pesticides/
- Environment Massachusetts
 https://environmentamerica.org/massachusetts/topics/save-the-bees/
- Conservation Law Foundation https://www.clf.org/blog/bee-protection-table-massachusetts/



Problems in the Garden

Invasive Plants

Invasive plants in Massachusetts file:///Users/amymeltzer/Downloads/MAInvasivesBooklet 2023-2.pdf



https://wildseedproject.net/2024/02/after-removing-disruptive-invasives-try-planting-these/



How to stop bunnies from eating your pollinator garden

https://sites.tufts.edu/pollinators/2022/06/how-to-stop-bunnies-from-eating-your-pollinator-garden/

Jumping Worms

Staying Ahead of Invasive Jumping Worms - from Native Plant Trust

https://docs.google.com/document/d/1nVeJq8FMoAdNc-49W21XklszTNpzy_xlfQG2QdtmrWg/edit?usp=sharing



Impact of honeybees on native bees and plants

We need to talk about honeybees -Xerces Society https://www.youtube.com/watch?v=8XMgphEP1M

Why getting a hive won't "Save the Bees" https://xerces.org/sites/default/files/publications/22-011.pdf

The Truth About Honey Bees

Raising non natives does not "save the bees"—and may harm them. https://www.nwf.org/Home/Magazines/National-Wildlife/2021/June-July/Gardening/Honey-Bees

Honeybees disrupt the structure and functionality of plant-pollinator networks https://www.nature.com/articles/s41598-019-41271-5



They're important for agriculture, but they're not so good for the environment https://www.scientificamerican.com/article/the-problem-with-honey-bees/

Plants Pollinated by Honey Bees Produce Lower-quality Offspring

https://today.ucsd.edu/story/plants-pollinated-by-honey-bees-produce-lower-quality-offspring?_ga=2.240226432.209776918.1688047624-203186901.1688047624

Is Beekeeping Wrong?

https://www.newyorker.com/magazine/2023/08/28/is-beekeeping-wrong?utm_source=nl&utm_brand=tny&utm_mailing=TNY_Daily_082123 &utm_campaign=aud-dev&utm_medium=email&utm_term=tny_daily_digest&bxid=5eaffb03146f8375aa5fd66f&cndid=60980746&hasha=66 4a9910f95209eda337a32a58330bef&hashb=5078bd3accef736f8028b46c18aa4d14229e475f&hashc=5c7b29e7595800f1d2631c9c1b1724 7c9202113c84a236c819c8d92b66ff9f4c&esrc=OIDC_SELECT_ACCOUNT_PAGE&mbid=CRMNYR012019





Where to Do Native Plant Research

Native Plant Trust Plant Finder
https://plantfinder.nativeplanttrust.org/Plant-Search
Excellent search tool. Experiment with how many variables you enter.

Prairie Moon Nursery https://www.prairiemoon.com/
Excellent for looking up plants. Get pictures, descriptions, cultural info, native geographical location, ecological benefits. Great search terms.

Ladybird Johnson Wildflower Center https://www.wildflower.org/

Good photos and descriptions, cultural requirements. Prairie Moon is more accurate for bloom time in our location.



Organizations and Websites - Local

Local organizations for education, resources & community

- Bee Friendly Williamstown https://www.beefriendlywilliamstown.org/
- Pollinator Friendly Resolution https://www.clarksburgma.us/medialtems/pdf/Resolution%20signed.pdf
- Pollinator Friendly Resolution <u>https://northadams.com/story/66680/Berkshire-County-Pollinator-and-Native-Plant-Initiative.html</u>
- Massachusetts Pollinator Network https://masspollinatornetwork.org/
 Central hub of communication and education for MA pollinator groups (new website coming soon!
- Grow Native Massachusetts https://www.grownativemass.org/
 Comprehensive, informative website; newsletter; speaker series; annual native plant sale
- Pollinator Pathways Massachusetts https://www.pollinator-pathway.org/towns-1/massachusetts
 Guidance for creating connected pollinator habitat in your town; website with good resources
- Native Plant Trust https://www.nativeplanttrust.org/
 Educational programs; native plant nurseries; garden plant finder online tool; beautiful habitat to visit
- Wild Seed Project https://wildseedproject.net/
 Located in Maine. Education, resources for planting native plants.



Organizations and Websites - National

- Audubon Society https://www.audubon.org/native-plants
- Homegrown National Park https://homegrownnationalpark.org/
 Doug Tallamy's educational website for creating pollinator pathways with private gardens
- Wild Ones https://wildones.org/
 Wild Ones promotes native landscapes through education, advocacy, and collaborative action
- National Wildlife Federation https://www.nwf.org/nativeplantfinder/
 Native plants by zip code
- Xerces Society https://xerces.org/







Newsletters: Native Plants and Healthy Habitats

- Grow Native Massachusetts https://grownativemass.org/Join-Support/e-news
- MA Pollinator Network https://masspollinatornetwork.dreamhosters.com/newsletter/
- Lexington Living Landscapes www.lexingtonlivinglandscapes.org
- Rebecca McMackin https://www.rebeccamcmackin.com/newsletter
- Margaret Roach https://awaytogarden.com/about/about-my-email-newsletter/



Books

Local native plant guides:

Uli Lorimer - The Northeast Native Plant Primer - Native Plant Trust

Dan Jaffe - Native Plants for New England Gardens - Native Plant Trust

Wild Seed Project Guide - Native Trees for Northeast Landscapes

Wild Seed Project Guide - Native Ground Covers for Northeast Landscapes

Wild Seed Project Guide - Native Shrubs for Northeast Landscapes

Wild Seed Project Guide - Planting for Climate Resilience in Northeast Landscapes

Some how-to books

Kim Eierman - The Pollinator Victory Garden

Owen Wormser - <u>Lawns into Meadows</u>

Sue Reed - Climate-Wise Landscaping: Practical Actions for a Sustainable Future

Sarah Jayne - Nature's Action Guide: How to Support Biodiversity and Your Local Ecosystem

Inspiring books on the research and principles of using native plants and trees

Dave Goulson - Silent Earth

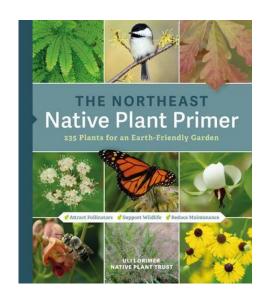
Doug Tallamy - Bringing Nature Home

Doug Tallamy - Nature's Best Hope

Groundbreaking researcher on the crucial connections between native plants/trees, insects and birds

Suzanne Simard - Finding the Mother Tree

Autobiographical, as well as covering her fascinating research on mycorrhizal/tree relationships.





Enjoy the wildlife attracted to your native plantings!





