

Native Plant and Habitat Gardening Resources

By John Nelson & Judy Bigelow

Cornell Websites (Includes a few on more generic gardening topics)

Certified Pollinator-Friendly Garden Program – <https://monroe.cce.cornell.edu/master-gardeners/pollinator-friendly-gardens>

Lots of information on pollinators, native plants, and other aspects of CCE-Monroe County's garden certification program.

Tips for a Pollinator-Friendly Garden –

<https://cornellbotanicgardens.org/explore/gardens/tips-for-a-pollinator-friendly-garden/>

Information on pollinator-friendly gardening. In particular, note the link to a publication on “Creating a Pollinator Garden for Native Specialist Bees”.

Cornell Pollinator Network – <https://cals.cornell.edu/pollinator-network>

Click on the Conservation link to read about Creating Pollinator Habitats and Pollinator Protection Guides, although some articles are aimed at keeping honey bees. Shows current interesting research being done on pollinators at Cornell University and a Diversity link to download a list of New York bees. See also <https://cals.cornell.edu/new-york-state-integrated-pest-management/eco-resilience/pollinators>

Another website through Cornell's Ag school, somewhat redundant to the above website, but has relevant links.

Gardening in a Warming World – <https://gardening.cals.cornell.edu/garden-guidance/gww/>

A curriculum from Cornell for gardeners, homeowners, educators, volunteers, teachers, students and anyone interested in exploring how we might examine our gardening practice through the lens of climate change mitigation and adaptation.

Woody Plants Database - <https://woodyplants.cals.cornell.edu/home>

Superb resource for trees and shrubs. This huge database can be searched by common name, scientific name, ornamental characteristics, or growing conditions.

Planting and Maintaining Trees and Shrubs - <https://ecommons.cornell.edu/handle/1813/3572>

Great guide for those with questions on planting and maintaining woody plants. We have frequently sent site assessment clients a link to this website.

Pruning Trees and Shrubs - <https://ecommons.cornell.edu/handle/1813/3573>

Very helpful guide for pruning woody plants. Another link that we've sent to many site assessment clients.

Cornell Guide to Growing Fruit at Home - <https://ecommons.cornell.edu/handle/1813/67>

Huge PDF with information on growing a wide range of fruits at home; both commonly grown fruit, such as apples and strawberries, and more unusual fruit, such as mulberries and persimmon.

Lawn Care - <https://turf.cals.cornell.edu/lawn/>

Good resource for lawn care questions, including growing lawns without pesticide use.

Other Websites (Selected for reliable science-based information)

New York State Pollinator Protection Plan –

<https://agriculture.ny.gov/system/files/documents/2021/02/pollinatorreport.pdf>

<https://agriculture.ny.gov/plant-industry/pollinator-protection>

The official position of New York State on pollinator conservation. There are recent updates to the pollinator protection plan that cover not only the honey bee industry, but also native pollinators.

Penn State Pollinator Garden Certification Program –

<https://pollinators.psu.edu/landscaping-for-pollinators/pollinator-habitat-certification>

This was the model for the Monroe County CCE Pollinator-Friendly Garden Certification Program. It has many links to information about pollinators, landscaping for pollinators, citizen science, educational and outreach opportunities. See also Penn State Extension articles on pollinator habitat gardening -

<https://extension.psu.edu/insects-pests-and-diseases/pollinators/habitat-and-landscape>

Penn State Center for Pollinator Research – <https://ento.psu.edu/research/centers/pollinators>

Links to studies being done in labs and in the field. See also the official Pennsylvania Pollinator Protection Plan - <https://ento.psu.edu/research/centers/pollinators/pollin-spotlight-items/the-pennsylvania-pollinator-protection-plan-p4>

NY Flora Atlas – <https://newyork.plantatlas.usf.edu/>

The definitive source for whether or not a plant is native to NY State. Also gives data at the county level for where a plant is native.

Finger Lakes Native Plant Society – <https://flnps.org/>

Great resource for our region's native plants including pictures and descriptions of individual plant species.

Habitat Gardening in Central New York – <https://www.hgcny.org/>

A nearest chapter of the “Wild Ones” national organization, which supports native habitat gardening and sponsors free educational webinars. Another good website resource for native plant information including an annual directory, the “Central New York Native Plant Shopping Guide” and a position statement on the issues with nativars.

Ecological Landscape Alliance – <https://www.ecolandscaping.org/>

Since its founding in 1992, the Ecological Landscape Alliance has been a leader in promoting sustainable approaches to landscape design, construction, and management. ELA’s commitment to innovative ideas and evidence-based practices has made the organization both a trusted resource and a vibrant community of landscape professionals and devoted gardeners.

Mt. Cuba Center – <https://mtcubacenter.org/>

Native plant botanic garden in Delaware conducts detailed research on native plants including the nativar issue. Detailed reports available on the pollinator attractiveness of cultivars of *Hydrangea arborescens* and other species.

Pollinator-Friendly Plants for the Northeast US –

<https://www.nrcs.usda.gov/plantmaterials/nypmctn11164.pdf>

A list of pollinator-friendly northeastern US native plants assembled by the USDA Natural Resources Conservation Service.

Keystone Plants by Ecosystem – <https://www.nwf.org/Garden-for-Wildlife/About/Native-Plants/keystone-plants-by-ecoregion>

A resource from the National Wildlife Federation listing keystone plants for our region.

Keystone plants are native plants critical to the food web and necessary for many wildlife species to complete their life cycle. Without keystone plants in the landscape, butterflies, native bees, and birds will not thrive. 96% of our terrestrial birds rely on insects supported by keystone plants.

Illinois Wildflowers – <http://www.illinoiswildflowers.info/>

Very detailed articles about plants native to Illinois (high overlap with our native plants).

Also provides information on insect visitors to plants, including detailed host plant data.

Website includes a search feature.

Missouri Botanical Garden Plant Finder –

<https://www.missouribotanicalgarden.org/plantfinder/plantfindersearch.aspx>

Database providing descriptions of over 7,000 of plants (native & non-native).

Can search using the website; but we usually just Google “*plant name* Missouri Botanical”.

Chicago Botanic Garden Plant Trials –

https://www.chicagobotanic.org/collections/ornamental_plant_research/plant_evaluation

The best information on plant performance that we've found – trials run 4 years for perennials, 6 years for shrubs & vines, 7 to 10 years for trees. Garden located in USDA zone 5; close enough to our zone 6.

Deer Resistance – <https://njaes.rutgers.edu/deer-resistant-plants/>

The most complete list that we've found; it also rates plants on a four-level scale rather than a simple “yes/no”. The list can be sorted by Plant Type (Tree, Shrub, Perennial, etc.) and Rating. There is also a Keyword search; but be aware that it only searches for common names and not scientific names. Always remember, deer don't read lists; performance will vary from site to site, seasonally, and year to year.

Xerces Society for Invertebrate Conservation – <https://xerces.org>

Nonprofit organization dedicated to conservation and protection of invertebrates including insects. Educational free webinars and email newsletters on pollinators, fireflies, and other relevant subjects. Publications include "Attracting Native Pollinators – Protecting North America's Bees and Butterflies." Sponsors community science projects such as Bumble Bee Watch, a free phone app for identifying and reporting sighting of bumble bee species.

Monarch Joint Venture – <https://monarchjointventure.org>

Promotes conservation of the pollinator poster child, the monarch butterfly, and how we can help. It has specific information on the monarch life cycle, host and nectar plants, threats to its survival, and community science partners such as Monarch Watch (a free phone app) and the Monarch Larval Monitoring Program. Many free educational webinars.

Pollinator Partnership – <https://www.pollinator.org>

An organization composed of partners from the United States, Canada, and Mexico, working together to raise awareness of the importance of pollinators and to encourage collaboration in conservation efforts. Has Ecoregional Planting Guides (Selecting Plants for Pollinators) available by typing in zipcode. Offers Pollinator Steward Certification, an excellent in-depth online course on creation of pollinator habitat and the importance of native plants.

Lawn Replacement -

Mt. Cuba Center *Carex* Trials – <https://mtcubacenter.org/trials/carex-for-the-mid-atlantic-region/>

An evaluation of the performance of several dozen *Carex* species including their use as lawn replacement. The trial also recorded effects of bi-weekly mowing during its final, fourth year.

Brooklyn Botanic Garden – https://www.bbg.org/gardening/article/sedge_lawns and https://www.bbg.org/gardening/article/planting_a_native_grass_lawn

These two websites provide guidance on using native grasses and sedges as lawn replacements.

Native Fruits -

Audubon Native Fruit Benefit – <https://www.audubon.org/news/migratory-birds-native-berries-best>

This article summarizes the benefit that native fruits and berries provide to native birds. It also points out the problem with the fruit from invasive species.

Recommended Plantings for Migratory Songbird Habitat – <https://repository.rit.edu/cgi/viewcontent.cgi?article=1816&context=other>

A list of recommended native shrubs based on the research of RIT professor Susan Smith Pagano. Her research on the nutritional value of native vs invasive shrubs for migratory birds is fascinating.

Invasive Plants -

NY Invasive Plant Brochure – https://www.dec.ny.gov/docs/lands_forests_pdf/isprohibitedplants2.pdf

The official brochure listing all the prohibited and regulated invasive plants in New York State with a picture of each.

NY Invasive Regulations – <https://www.dec.ny.gov/animals/99141.html>

The official website with information on exempt cultivars for Japanese barberry and Chinese silvergrass.

Cornell's Suggestions for Replacement Plants – <https://cals.cornell.edu/integrated-pest-management/eco-resilience/invasive-species/invasive-ornamental-plant-alternatives>

Native and non-native plant suggestions for replacing invasive plants (specific recommendations for each invasive species). This information is very helpful for working with clients who know they should remove an invasive plant on their property; but, don't want to proceed until they have a replacement plan.

Finger Lakes PRISM – <http://fingerlakesinvasives.org/>

NY manages invasive species by region. The website for our PRISM (Partnership for Regional Invasive Species Management) has a wealth of information on invasive plants, insects, etc. and how volunteers can contribute community science observations to the iMapInvasives database phone app, used to report the presence or absence of invasive species. PRISM sponsors free training programs on how and when to best identify, report and control invasive species.

Podcasts

A Way to Garden – <https://awaytogarden.com/podcast/> or any Podcast app

Weekly podcast hosted by Margaret Roach, author and NYTimes garden columnist.

Covers a wide range of garden topics with interesting guests. We discovered most of the books listed below from her interviews with the authors.

Nature Calls: Conversations from the Hudson Valley –

<http://ccecolumbiagreene.org/gardening/nature-calls-conversations-from-the-hudson-valley>

or any Podcast app

A weekly podcast hosted by the Master Gardeners from CCE – Columbia and Greene Counties from 2022 to 2025 (our colleagues in the Hudson valley). Although they are no longer producing new episodes, the library of past programs contains interesting information on a variety of garden topics. Can be used for CCE-Monroe MG continuing education hours; each episode is ~30 minutes so two episodes provides an hour of education credit.

Conferences

Ithaca Native Landscape Symposium (INLS) - <https://www.ithacanativelandscape.com/>

Two-day conference on native landscape issues with high quality presentations from speakers across the country. Available live (in Ithaca) and via Zoom. Not inexpensive (~\$100/day); can be used for CCE-Monroe MG continuing education hours. The symposium took a one-year break in 2026 and plans to resume in 2027.

Books

Armitage's Native Plants for North American Gardens

Allan M. Armitage, Timber press, Copyright 2006, ISBN 978-0-88192-760-3

A good encyclopedia of plants native to North America. Mr. Armitage provides comments on his experiences with growing these plants but seems to favor some pretty cultivars.

The Gardener's Botanical: An Encyclopedia of Latin Plant Names

Ross Bayton, Princeton University Press, Copyright 2020, ISBN 978-0-691-20017-0

Useful reference for pronunciation and origin of Latin plant names; over 5,000 entries.

Common Bees of Eastern North America

Olivia Messinger Carril and Joseph C. Wilson, Princeton University Press, Copyright 2021, ISBN 978-069117-549-2

Comprehensive scientific guide of bee species, with detailed photos, descriptions, life histories, floral hosts and regional maps.

Garden Insects of North America - The Ultimate Guide to Backyard Bugs

Whitney Cranshaw and David Shetlar, Princeton University Press, Copyright 2017, ISBN 0-691-09560-2

The first edition of this book from 2004 served as a very comprehensive reference to identifying insects and other arthropods and their immature forms found in gardens, mainly through their damage to ornamental plants. The newer edition has twice as many illustrations and presents many of the "bugs" previously viewed by gardeners as pests as actually being beneficial.

Growing and Propagating Wildflowers of the United States and Canada

William Cullina, Houghton, Mifflin & Harcourt, Copyright 2000, ISBN 978-0395966099

Original publication from the New England Wildflower Society, formerly headed by Mr. Cullina, with detailed information on not only growing conditions, but also seed collection and propagation.

Native Trees, Shrubs and Vines – A Guide to Using, Growing and Propagating North American Woody Plants

William Cullina, Echo Point Books & Media, Copyright 2019, ISBN 978-1635618990

Another excellent publication from the New England Wildflower Society.

Native Ferns, Moss and Grasses

William Cullina, Echo Point Books & Media, Copyright 2020, ISBN 978-1635618969

Ultimate guide to cultivation and propagation of interesting, less common plants.

Native Plants for Prairie Gardens

June Flanagan, Fitzhenry & Whiteside, Unlimited, Copyright 2005, ISBN 1-894856-13-9

Although focused on the prairie regions of the Midwest and Canada, it provides a good overview of the natural cycle of prairie habitat and how to create a native plant garden.

The Gardener's Guide to Native Plants of the Southern Great Lakes Region

Rick Gray & Shaun Booth, Firefly Books, Copyright 2024, ISBN 978-0-2281-0460-5

A detailed guide to over 150 plants native to this region. The two-page entry for each plant includes a range map, growing conditions, butterfly and moth host data, propagation instructions, and more.

Pollinators of Native Plants

Heather Holm, Pollination Press LLC, Copyright 2014, ISBN 978-0-9913563-0-0

Good introduction to pollinators and their interaction with native plants; includes details on specific plant-insect interactions.

Bees

Heather Holm, Pollination Press LLC, Copyright 2017, ISBN 978-0-9913563-5-5

Detailed resource for the native bees of the northeastern US; covers both the various bee species and the plants that they utilize.

Wasps

Heather Holm, Pollination Press LLC, Copyright 2021, ISBN 978-0-9913563-1-7

Detailed resource for the native wasps of the northeastern US; detailed entry for each wasp species with information on the plants visited by the adult and the insect prey provided to the larvae.

Invasive Plants: Guide to Identification and the Impacts and Control of Common North American Species

Sylvan Ramsey Kaufman & Wallace Kaufman, Stackpole Books, Third Edition, Copyright 2023, ISBN 978-0811772365

An excellent general field guide with identification keys and clear photos, including aquatic plants species, and discusses environmental and economic impacts..

Native Plants of the Northeast – A Guide for Gardening & Conservation

Donald J. Leopold, Timber Press, Copyright 2005, ISBN 978-0881926736

Dr. Leopold is a distinguished professor and department chair at the College of Environmental Science and Forest Biology at SUNY, Syracuse. This is a good overview guide for novice native plant gardeners.

The Northeast Native Plant Primer

Uli Lorimer, Timber Press, Copyright 2022, ISBN 978-1-64326-046-4

A guide to native plants for the northeast US including detailed descriptions of 235 species. Uli Lorimer is the Director of the Native Plant Trust located in Massachusetts.

The Climate Conscious Gardener

Janet Marinelli, editor, Brooklyn Botanic Garden, 2010, Handbook #195, ISBN 978-1-889538-49-5.

Guide to reducing your garden's carbon footprint, carbon sequestration, organic gardening. A section on lawn alternatives.

Weeds of the Northeast

Joseph C. Neal, Richard H. Uva, Joseph M. DiThomaso & Antonio DiThomaso, Second edition, Copyright 2023, ISBN 978-1501755729

Updated and expanded from the first edition to include the Mid-Atlantic states, a comprehensive guide to common weeds of gardens and other landscapes with color photos of seeds, seedlings, foliage, and flowers. Some pollinator-friendly gardeners might argue that native plants such as *Achillea millefolium*, *Asclepias syriaca*, and *Solidago canadensis* are not weeds.

Entangled Life

Merlin Sheldrake, Random House, Copyright 2020, ISBN 978-0-525-51031-4

Fascinating book on fungi, how they interact with plants, and so much more. Carefully based in actual science rather than the junk science in books such as Peter Wohlleben's "The Hidden Life of Trees".

Endless Forms: The Secret World of Wasps

Seirian Sumner, Harper Collins, Copyright 2022, ISBN: 978-0-06-302992-7

The book is written by a wasp researcher and is definitely a "science" book and not a "gardening" book. Although it covers a wide range of wasp biology and behavior, the scientific concepts are well explained so that anyone can understand them.

Nature's Best Hope

Douglas Tallamy, Timber Press, Copyright 2019, ISBN 978-1-60469-900-5

A great introduction for why gardening with native plants is so important and how even a small backyard garden can have an impact. All of Doug Tallamy's books are great resources.

Caterpillars of Eastern North America

David L. Wagner, Princeton University Press, Copyright 2005, ISBN 978-0-691-12144-4

A comprehensive reference for identifying the caterpillars of butterflies and moths, with excellent descriptions, preferred host plants, and clear pictures of both larval and adult forms. Caterpillars are an essential part of the food web.

Pollination

Timothy Walker, Princeton University Press, Copyright 2020, ISBN 978-0-691-20375-1

A detailed scientific discussion of the details of pollination. Probably not for everyone, but if you want to understand the process in detail, this is the book for you.

Urban & Suburban Meadows - Bringing Meadows to Big and Small Spaces

Catherine Zimmerman, Matrix Media Press, Copyright 2010, ISBN 978-0-9844560-0-0

A cookbook of how to transform a landscape into a meadow, with lists of regionally native plants suitable for existing site conditions (wet, dry, sunny, shady).