



KCGN
Knox County Goes Native

Knox County Goes Native

Grow Native Habitat Starting at Home

A NEW INITIATIVE

Indiana and Illinois were once covered by expansive prairies and diverse woodlands. With the influx of settlers, Indiana would take its place in Midwest agriculture. This industry has been the backbone of Indiana since the early days of statehood. As more settlers arrived and homesteads led to towns and cities, dwellings and yards took even more of the native habitats. While many farms have begun to adopt the use of less chemicals, no-till farming, and other practices that are kinder to the natural world, many homeowners have continued to fertilize lawns, spray insects, rake leaves and plant non-native grasses and ornamentals.

This initiative is an effort to inform, educate and assist anyone interested in creating a more nature friendly habitat in their very own yard, business, school, church, farm, or other property .

KNOX COUNTY SPECIFIC

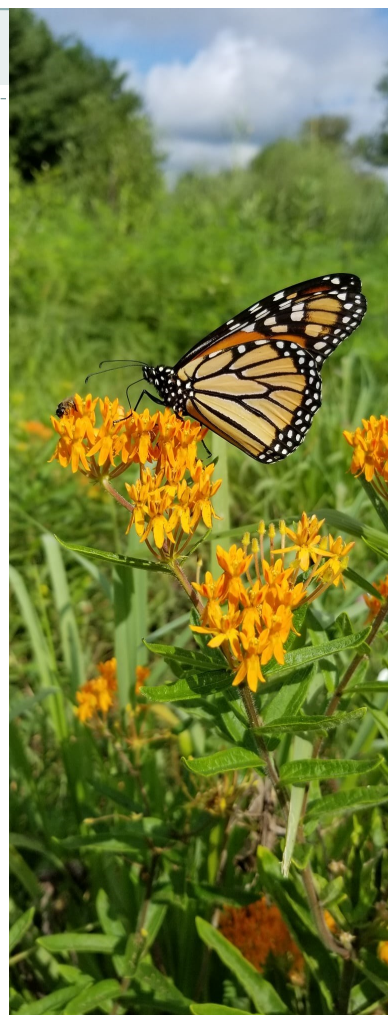
The internet boasts many web pages, blogs, articles and guides to native gardening. Many are presented with a broad brush attempting to address the whole United States or even North America. The purpose of this initiative is to look specifically to Knox County, Indiana. The mission is aimed only at this geographic area. All plants suggested do, and will grow here, all wildlife species mentioned do live here, all the information presented has relevance here.

The Initiative was started by a small group of Knox County citizens hoping to spread the joys and benefits of planting for nature in your own yard. The initiative is supported by the Knox County Soil and Water Conservation District as well as the George Rogers Clark National Historical Park, but the real power is in the citizen effort.

All of the images used in this publication have been taken in Knox County

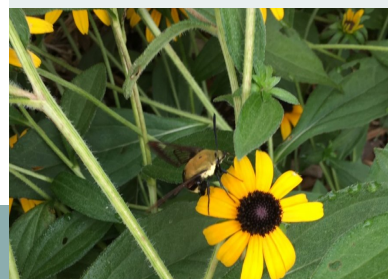
Monarch Butterfly on Butterfly Weed in Cathlinette Prairie Garden on the French Commons (Rendezvous Grounds), Photo by Will Drews (above right)

Clearwing Moth on Black-eyed Susan from local garden (bottom right)



Inside This Guide

The Mission	2
Planning/Assessing	3
Increase Native Plants	4
Encouraging Wildlife	5
Plant Inventory	6
Invasive Plant List	7
Planting Plan	8
Native Plant List	9
Reading List	10
Native Gardens of Knox County	11
8 Steps to Rewild America	12





Hairy Woodmint

THE MISSION

Vision:

Knox County filled with native plant species, providing an ecological corridor for wildlife.

Mission:

To encourage the creation of native plant habitat in private and public lands through education, assistance, and inspiration; and to initiate and build connections with nature through positive changes in land use and an appreciation of the natural world.

STRATEGIES

- A. Increase the use of native plants so that Knox County contributes to the concept of native plant corridors.
- B. Educate the public on the natural environment and local ecosystems.
- C. Develop a program of recognition for efforts made by residents, businesses, and public entities.
- D. Work directly with the Knox County CISMA to remove invasive plant species from the local ecosystem.
- E. Encourage other actionable steps to help wildlife.

Increase the use of native plants so that Knox County contributes to the concept of native plant corridors.

Be a part of the solution

Many insects, birds, and animals depend on native plants for food, shelter, and protection. They often move from one area to another during their lifetime or during a season. Corridors of native habitat allow this migration to happen and provides the resources they need along the way.

PARTICIPATE

The Knox County Goes Native Initiative is open to anyone and everyone. To become a recognized member of the effort, complete one activity from each of three categories.

1. Planning and assessing your property
2. Increasing Native Plants & Reducing Invasive Plants
3. Encouraging Wildlife

Submit proof of accomplishment to <https://forms.gle/TWwv4Mtg5FYgh3W26>

Or mail a list and attachments to: Knox County Soil and Water Conservation District, Attn: Will Drews, 604 S. Quail Run Rd, Vincennes, IN 47591

PLANNING AND ASSESSING YOUR PROPERTY

The first step before diving into a project is knowing what your starting condition is and where you would like to go from there. A good plant inventory can let you know off the bat if you have any problem plants to remove or beneficial plants to highlight.

Options

Are you a planner or a doer? Or both?

For the doer—

☐ Complete a plant inventory

Walk around your property and catalog your existing plants. You can use the template in the Appendix of this guide. Plant identification apps (like Plant Snap, Seek by iNaturalist, Picture This, and Google Lens) can be useful in finding suggestions when you are stumped, but the most accurate (and arguably fun) way is to key out a species or look it up in a field guide.

The Knox County Soil & Water Conservation District Natural Resource Specialist is available to help out with landowner plant inventories and plant identification questions. (See side bar for resource links and Appendix for a sample.)

For the Planner-

☐ Write/Draw a plan to increase the amount of native plants on your property and add wildlife friendly elements

If you fall into the planner category, you may find it beneficial to plan out potential landscaping changes or wildlife additions before digging right in. That's what this point is all about: listing or mapping/drawing out proposed plans to either reduce invasive plants, plant native plants, and/or increase wildlife habitat on your property. (See Appendix for a sample.)



*Christmas
Fern*

Additional Resources

Knox County Soil & Water Conservation District—<http://knoxcountyswcd.com>



Indiana Native Plant Society –<https://indiananativeplants.org/native-plants/books-on-indiana-native-plants>



Knox County Cooperative Invasive Species Man- agement Area (CISMA)

CISMA is a sister organiza-
tion of the Knox County
Goes Native Initiative.
CISMA is a non-profit
group committed to fighting
invasive plant species in
Knox County and has
partners from local
organizations, government,
and other community
members.

The organization conducts
invasive removal projects
throughout the county on
public lands. These events
are advertised on their web-
site and facebook page. The
events are open to any who
wish to lend a hand. The
organization can provide
training, leadership, and
tools.

[http://
www.knoxcountyswcd.com/
kccisma](http://www.knoxcountyswcd.com/kccisma)

[https://www.facebook.com/
knoxcountycisma](https://www.facebook.com/knoxcountycisma)



INCREASING NATIVE PLANTS & REDUCING INVASIVE PLANTS

The simplest way you can help wildlife is starting right off at the bottom of the food chain: Plants! Increasing the number and diversity of native plants as well as removing invasive plants will go a long way to make your property more wildlife friendly!

Options:

□ **Plant a Native Species**

The first step in attracting any wildlife is providing them plants that they need for food and shelter. The plants to accomplish this goal across the board are native plants. Our insects, mammals, birds and more have all developed complex relationships with the natural flora of our area over hundreds of years. (See Native Plant List in the Appendix for help selecting suitable species for your site.)

□ **Plant a Keystone Plant Species**

Not all plants are created equal. To get more bang for your buck, you can select a keystone plant species to add to your property. Keystone plant species are noted by the amount of wildlife they support, both as a food source and shelter. (See the Native Plant list in the Appendix.)

□ **Remove an Invasive Plant or Participate in a Public Invasive Plant Removal Project**

Invasive plants are a major problem for wildlife. Besides not providing adequate food and shelter for the diversity of wildlife that occurs in our area, they also can spread prolifically throughout our woodlands, wetlands, and other ecosystems, altering and deteriorating the habitat. You can help be a part of the solution by removing these problematic species at home or by helping out with a Knox County CISMA volunteer invasive plant removal project at a public property. (See Invasive Plant List in the for common invasive plants in Knox County.)

Invasive—Winter Creeper climbing tree (right)



ENCOURAGING WILDLIFE: MORE THAN JUST FOOD

Besides adding native plants and reducing invasive plants, there are other ways you can attract and encourage wildlife, using the four key elements : food, water, shelter, and space to raise young. If you don't have one of the elements you still might see some wildlife, but they will have to look elsewhere for the other necessary components.



“A simple act of kindness and compassion towards a single animal may not mean anything to all creatures, but will mean everything to one.”

— Paul Oxtan

Options:

□ Add a Water Feature

All animals need water for survival, even butterflies and bees. There are several ways you can add a water source to your property. For birds, a bird bath is an easy addition (remember to change the water regularly).

For temporary water collection and infiltration, a rain garden is a great water source with additional environmental benefits. The addition of a pond can be costly (in construction and maintenance) depending on the size but can also provide a water source for a variety of wildlife.

□ Add a Shelter Feature

Different animals require shelter. Depending on what you are trying to attract or encourage, you will want to create different structures. For small mammals and small birds, brush piles are excellent habitat. If you have invasive shrubs to remove you can utilize those cut stems as material for a brush pile. If you are interested in bat conservation, bat boxes are a great way to give them shelter, especially if you don't have room for a mature Shagbark Hickory. Several species of birds, like the Bluebird, will utilize bird boxes, if you build one for them. Most bee species are solitary and utilize dead wood or stems for habitat. If you don't have that in your landscape, you can build a “bee hotel” to give them a place to nest. Even a simple log pile left to decay can be great habitat for a variety of critters including salamanders, reptiles, small mammals, bees, and other insects.

Caterpillars are an important food source for many birds (top right)

Other Resources

UConn—<https://nemo.uconn.edu/raingardens>

The Conservation Foundation—<https://theconservationfoundation.org/creating-a-wildlife-pond-in-your-landscape>

Xerces Society—<https://xerces.org/blog/5-ways-to-increase-nesting-habitat-for-bees>

ISU—<http://www.isubatcenter.org/wp-content/uploads/2014/10/BatBoxPlanforWeb2.pdf>

Audubon Society <https://www.audubon.org/news/how-build-bluebird-nest-box>



APPENDIX: PLANT INVENTORY SAMPLE

Excel spread sheet or printable form available at

Know what you have BEFORE planning your garden

<http://knoxcountyswcd.com/kccisma/kcgn/>

#	Common Name	Scientific Name	Cultivar (if applicable)	Location/(s)	Invasive? (Y/N)	Native? (Y/N)	Host Plant?	Keystone
1	Boxwood	<i>Buxus species</i>		Front of house in landscaping cutout	N	N	N	N
2	Yellow Daylily	<i>Hemerocallis x</i>	Stella de Oro	Front of house in landscaping cutout	N	N	N	N
3	Yellow Daylily	<i>Hemerocallis x</i>	Persian Market	Front of house in landscaping cutout and landscaping in front of house	N	N	N	N
4	Tawny Daylily	<i>Hemerocallis fulva</i>	Kwansa	Front of house and back corner of house	Y	N	N	N
5	Bugleweed	<i>Ajuga reptans</i>		Cutout in front yard and corner of landscaping in front of house	N	N	N	N
6	Common Evening Primrose	<i>Onethera biennis</i>		Cutout in front yard, corner of landscaping in front of house, and by shed	N	Y	N	N
7	Lilyturf	<i>Liriope muscari</i>	Variegata	Front landscaping	Y	N	N	N
8	Sweet Autumn Clematis	<i>Clematis terniflora</i>	Variegata	Front landscaping	Y	N	N	N
9	Hosta	<i>Hosta x</i>	Night before Christmas	Front landscaping	N	N	N	N
10	Christmas Fern	<i>Polystichum acrostichoides</i>		Front landscaping	N	Y	N	N
11	Lady Fern	<i>Athyrium filix-</i>		Front landscaping	N	Y	N	N
12	Prairie Trillium	<i>Trillium recurva-</i>		Front landscaping	N	Y	N	N
13	Shasty Daisy	<i>Leucanthemum x superbum</i>		Side landscaping	N	N	N	N
14	Japanese Spirea	<i>Spirea japonica</i>		Side landscaping	Y	N	N	N
15	Wild Columbine	<i>Aquilegia cana-</i>		Side landscaping	N	Y	Y	N
16	Coral Bells	<i>Heuchera species</i>		Side landscaping	N	N	N	N
17	Tiger Lily	<i>Lilium tigrinum</i>		Side landscaping	N	N	N	N
18	Coral Bells	<i>Heuchera x</i>	Citronelle	Side landscaping	N	N	N	N
19	Hosta	<i>Hosta species</i>		Side landscaping	N	N	N	N
20	Coral Bells	<i>Heuchera micran-</i>	Purple Palace	Side landscaping	N	N	N	N
21	Siberian Bugloss	<i>Brunnera macrophylla</i>	Jack Frost	Side landscaping	N	N	N	N
22	Surprise Lily	<i>Lycoris squamige-</i>		Back landscaping	N	N	N	N
23	Coral Bells	<i>Heuchera x</i>	Peppermint Spice	Back landscaping	N	N	N	N
24	Angelina Stone-	<i>Aedum rupestre</i>	Angelina	By Shed	N	N	N	N
25	Iris	<i>Iris species</i>		By Shed	N	?	?	N
26	Fall Sedum	<i>Sedum spectabile</i>	Autumn Joy	By Shed	N	N	N	N
27	Creeping Charlie	<i>Glechoma hede-</i>		Weed in beds and lawn	Y	N	N	N
28	Bermuda Grass	<i>Cynodon dactylon</i>		Weed in beds and lawn	N	N	N	N
29	Common Blue Violet	<i>Viola sororia</i>		Naturally popping up in beds and lawn	N	Y	Y	N

This form is only a suggestion, fill in the common name and location as a minimum. Complete the rest if it is of benefit to your needs. Free assistance with plant inventories is available from the Soil and Water Conservation District. For more information, contact Will Drews at willem.drews@in.nacdnet.net

APPENDIX: INVASIVE PLANT LIST

Common invasive plant species found in residential areas of Knox County

Note that the sale of all species listed is now prohibited under the Knox County Invasive Species Ordinance (effective January 1st, 2020) and State of Indiana Terrestrial Plant Rule (effective April 18th, 2020).

Groundcovers/vines:

- English Ivy (Hedera helix) – commonly planted evergreen groundcover that climbs as well
- Wintercreeper (Euonymus fortunei) - commonly planted evergreen groundcover that climbs as well, one of the most invasive plant species in Knox County
- Periwinkle (Vinca minor) - commonly planted evergreen groundcover

Grasses:

- Johnsongrass (Sorghum halepense) – highly invasive grass that is also a noxious weed, not planted but can pop up in residential areas and in non-managed areas
- Chinese Silver Grass (Miscanthus sinensis) – commonly planted ornamental grass

Shrubs:

- Burning Bush (Euonymus alatus) – commonly planted ornamental shrub for its red fall foliage color
- Japanese Barberry (Berberis thunbergii) - commonly planted ornamental shrub, has spines along the stems

Trees:

- Callery Pear (Pyrus calleryana) – very common planted small tree, has white flowers in early spring
- Tree of Heaven (Ailanthus altissima) – highly invasive tree, not planted but can pop up in residential areas and produce dense stands
- White Mulberry (Morus alba) – highly invasive tree, not generally planted but can pop up in residential areas and grow up through other trees and shrubs in the landscape

An “invasive” species is defined as a species that is non-native (or alien) to the ecosystem under consideration; and, Whose introduction causes or is likely to cause economic or environmental harm or harm to human health.”
(Executive Order 13112).

Ecological threat: Burning Bush can form dense stands in interior woods, outcompeting native plants. Birds disperse seeds, leading to wide proliferation.

Control Methods:

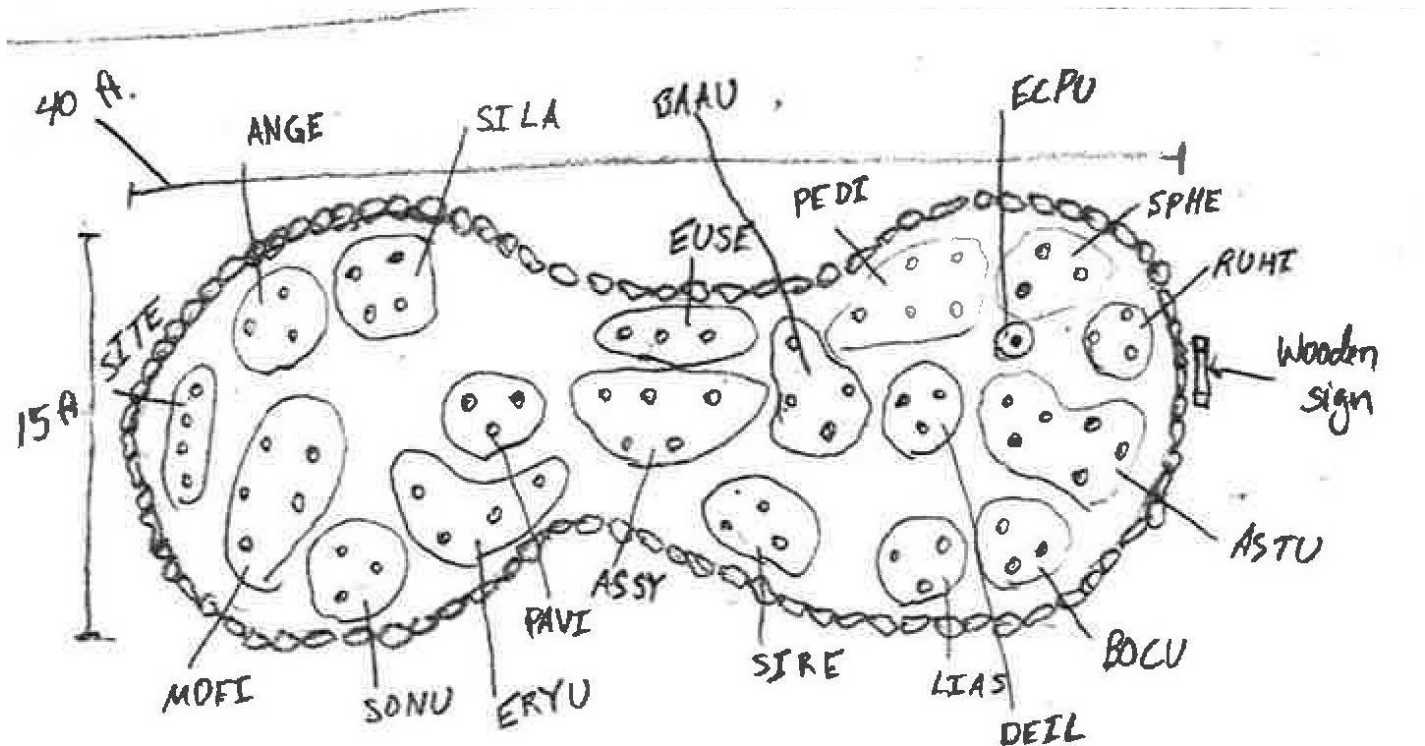
- Manual: For small individuals, hand pulling is effective. A weed wrench can also be used to pull out larger individuals.
- Chemical: Cut stump treating large shrubs is very effective, or spraying groups of smaller individuals with a foliar application.

Burning Bush, an invasive plant (right)



APPENDIX: PLANTING PLAN SAMPLE

Making a plan will help create ideas and will help you decide which plants will best meet your vision



Cathlinette Prairie Garden

French Commons, Vincennes (Rendezvous Grounds)

Wildflowers:

- Prairie Dock (SITE) - 4 plants
- Compass Plant (SILA) - 4 plants
- Common Milkweed (ASSV) - 5 plants
- Butterfly Weed (ASTU) - 6 plants
- Blue False Indigo (BAAU) - 4 plants
- Illinois Bundleflower (DEIL) - 3 plants
- Purple Coneflower (ECPU) - 1 plant
- Rattlesnake Master (ERYU) - 4 plants
- Rough Blazingstar (LIAS) - 3 plants
- Foxglove Beardtongue (PEDI) - 5 plants
- Black-eyed Susan (RUHI) - 3 plants

Royal Catchfly (SIRE) - 3 plants

Wild Bergamot (MOFI) - 5 plants

Late Boneset (EUSE) - 3 plants

Grasses:

Big Bluestem (ANGE) - 3 plants

Switchgrass (PAVI) - 3-4 plants

Sideoats Grama (BOCU) - 3 plants

Indian Grass (SONU) - 3 plants

Prairie Dropseed (SPHE) - 3 plants

APPENDIX: NATIVE PLANT LIST

List of suggested Keystone Native Plant species for Knox County

#	Common Name	Scientific Name	Type of plant	Flower Time	Water Dry or Wet Sun/Shade	# Lepidoptera spp supported	Genre of Common Bees Attracted	# Bee Species Spe- cialists	Supports Humming- birds	Supports Songbirds
1	White Oak	<i>Quercus alba</i>	Tree	Spring	Sun	D	534			
2	Northern Red Oak	<i>Quercus rubra</i>	Tree	Spring	Sun	D	534			
3	Shingle Oak	<i>Quercus imbricaria</i>	Tree	Spring	Sun	D	534			
4	Bur Oak	<i>Quercus macrocarpa</i>	Tree	Spring	Sun	D	534			
5	Pin Oak	<i>Quercus palustris</i>	Tree	Spring	Sun	W	534			
6	Chinkapin Oak	<i>Quercus muehlenbergii</i>	Tree	Spring	Sun	D	534			
7	Black Cherry	<i>Prunus nigra</i>	Tree	Spring	Sun	D	456	6	Y	
8	American Plum	<i>Prunus americana</i>	Shrub	Spring	Sun/Shade	D	456	6		
9	Pussy Willow	<i>Salix discolor</i>	Tree	Spring	Sun	W	456	6	Y	
10	Black Willow	<i>Salix nigra</i>	Tree	Spring	Sun	W	456			
11	River Birch	<i>Betula nigra</i>	Tree	Spring	Sun	W	413			
12	Eastern Cottonwood	<i>Populus deltoides</i>	Tree	Spring	Sun	W	368			
13	American Elm	<i>Ulmus americana</i>	Tree	Spring	Sun	D	213			
14	Spotted Joe Pye Weed	<i>Eutrochium maculatum</i>	Herbaceous	Late Summer	Sun	D/W	36	5	Y	
15	Buttonbush	<i>Cephalanthus occidentalis</i>	Shrub	Summer	Sun/Shade	W	18	6	Y	Y
16	Common Milkweed	<i>Asclepias syriaca</i>	Herbaceous	Summer	Sun	D	12	4	Y	
17	Butterflyweed	<i>Asclepias tuberosa</i>	Herbaceous	Summer	Sun	D	12	6	Y	
18	Calico Aster	<i>Symphyotrichum lateriflorum</i>	Herbaceous	Late Summer	Sun	D	3			
19	Swamp Aster	<i>Symphyotrichum puniceum</i>	Herbaceous	Late Summer	Sun	W	3		Y	
20	Showy Goldenrod	<i>Solidago speciosa</i>	Herbaceous	Late Summer	Sun	D	2	7	10	Y
21	Canada Goldenrod	<i>Solidago canadensis</i>	Herbaceous	Late Summer	Sun	D	2		Y	
22	Blue-stemmed Goldenrod	<i>Solidago caesia</i>	Herbaceous	Early Fall	Shade	D	2	4	9	
23	Stiff Goldenrod	<i>Oligoneuron rigidum</i>	Herbaceous	Late Summer	Sun	D		10	14	Y
24	New England Aster	<i>Symphyotrichum novae-angliae</i>	Herbaceous	Late Summer	Sun	D		11	11	Y
25	Blue Vervain	<i>Verbena hastata</i>	Herbaceous	Summer	Sun	W		10	1	Y

"...not all native plants are created equal, at least from the point of view of an insect. Across a wide range of North American biomes, about 14 percent of plants make 90 percent of the insect food.... These are the keystone species that keep the food web healthy..." -Doug Tallamy (Smithsonian Magazine April 2020)

APPENDIX: READING LIST

Suggested reading list

Available at [Knox County Public Library](#)

Author	Title	Publisher	Date	Call Number
Burrell, C. Colston	<i>Native Alternatives to Invasive Plants</i>	Brooklyn Botanic Garden	2007	581.62 Bu
Dunn Chase, Teri	<i>How to Eradicate Invasive Plants</i>	Timber Press	2013	581.6 Du
Harstad, Carolyn	<i>Go Native!: Gardening with Native Plants and Wildflowers in the Lower Midwest</i>	Indiana University Press	1999	635.951 Ha
	<i>Invasive Plants: Weeds of the Global Garden</i>	Brooklyn Botanic Garden	1996	635.049 In
Tallamy, Douglas	<i>Bringing Nature Home: How you can Sustain Wildlife with Native Plants</i>	Timber Press	2007	639.92 Ta
Tallamy, Douglas	<i>Nature's Best Hope: A new Approach to Conservation that Starts in Your Yard</i>	Timber Press	2020	635.951 TA



Local Native Garden

APPENDIX: NATIVE GARDENS OF KNOX COUNTY

Visit one of these sites for inspiration and relaxation

Garden	Location	Type / Year	Information about visiting
Cathlinette Prairie Garden	French Commons, Vincennes (Rendezvous Grounds)	Prairie 2018	Walk in Gate from Gravel Parking area across from FOP, Willow St.
Gregg Park, City of Vincennes	2204 Washington Ave	Prairie 2017	Near inside corner of Washington Ave and Niblack Blvd, right at Park Entrance from Washington Ave.
Fox Ridge	Fox Ridge County Park	Prairie Woodlands 2017	Paved Trails provide access, some trails are steep
The Hilt House	112 Seminary St	Native plant garden 2019	Garden is behind the house
Children & Family Services Building	105 E Broadway St	Prairie rock garden 2019	Visible from Farmers Market
SWCD office	604 S Quail Run Rd	Native plants in parking lot 2020	Good example of how businesses can use native plants for landscaping
Southwest Purdue Ag Center	4667 N Purdue Rd	Native plant plots & landscaping 2018	Open to public by appointment
Lynn Wiseman Butterfly Garden	Ouabache Trails Park, 3500 Lower Fort Knox Rd	Butterfly Garden with pond 2013	Located near the Nature Center
SWCD Native Plant Bioswales	Corner of Old Fort Knox Rd. & Navajo Dr.	Native plant species bioswale 2019	Bioswales are for filtering water run-off.
Grow City Garden	Behind McGrady Brockman building, Vincennes	Pollinator Plot 2020	NW Corner of 7th and Hart Streets.
VU Native Plant Parking lot garden	Udike Hall (Vincennes University)	Native plants in parking lot 2020	
Safe Harbor Park Garden	Safe Harbor, Corner of 8th & Scott St.	Native Plant Landscaping 2020	
Old State Bank	Vincennes State Historic Sites, 114 N 2nd St.	Native landscape beds 2020	Adjacent to Farmers Market
0.5 mi SW of Bruceville along SR 67 ROW	INDOT	Native prairie/ pollinator 2015	Limited access
US 41 and 50 bypass ROW	INDOT	Native prairie/ pollinator 2015	Limited access
USDA Service Center	604 S. Quail Run Rd.	Pollinator Plot	Behind office

8 STEPS TO REWILD AMERICA

“The nation’s backyards are more than ripe for a makeover.”

Doug Tallamy

Here are some of his suggestions to help rejuvenators hit the ground running.

1. Shrink your lawn. Tallamy recommends halving the area devoted to lawns in the continental United States—reducing water, pesticide and fertilizer use. Replace grass with plants that sustain more animal life, he says: “Every little bit of habitat helps.”

2. Remove invasive plants. Introduced plants sustain less animal diversity than natives do. Worse, some exotics crowd out indigenous flora. Notable offenders: Japanese honeysuckle, Oriental bittersweet, multiflora rose and kudzu.

3. Create no-mow zones. Native caterpillars drop from a tree’s canopy to the ground to complete their life cycle. Put mulch or a native ground cover such as Virginia creeper (*not* English ivy) around the base of a tree to accommodate the insects. Birds will benefit, as well as moths and butterflies.

4. Equip outdoor lights with motion sensors. White lights blazing all night can disturb animal behavior. LED devices use less energy, and yellow light attracts fewer flying insects.

5. Plant keystone species. Among native plants, some contribute more to the food web than others. Native oak, cherry, cottonwood, willow and birch are several of the best tree choices.

6. Welcome pollinators. Goldenrod, native willows, asters, sunflowers, evening primrose and violets are among the plants that support beleaguered native bees.

7. Fight mosquitoes with bacteria. Inexpensive packets containing *Bacillus thuringiensis* can be placed in drains and other wet sites where mosquitoes hatch. Unlike pesticide sprays, the bacteria inhibit mosquitoes but not other insects.

8. Avoid harsh chemicals. Dig up or torch weeds on landscaping, or douse with vinegar. Discourage crabgrass by mowing lawn 3 inches high.

