

Simple Ways to Restore Our Ecosystem One Yard at a Time

Doug Tallamy
Department of Entomology and Wildlife Ecology
University of Delaware

“We are at a critical point of losing so many species from local ecosystems that their ability to produce the oxygen, clean water, flood control, pollination, pest control, carbon storage, etc., that is, the ecosystem services that sustain us, will become seriously compromised.”

Join In

SMALL EFFORTS BY MANY PEOPLE: 83% of land in the U.S. is privately owned. If we planted native on 50% of private land, we would restore biodiversity...and we can do it starting NOW.



<https://www.stephaniesipp.com/>

1. SHRINK THE LAWN

Every square foot dedicated to lawn is a square foot that is degrading local ecosystems. Turfgrass offers no ecological benefits but is nice to walk on. Doug Tallamy suggests that we reduce our lawns by half for walkways and paths that define beds, and tree groves. Once you do this - please get on the HOMEGROWN NATIONAL PARK® MAP and encourage others to do the same! <https://map.homegrownnationalpark.org/>

2. REMOVE INVASIVE SPECIES

Invasive plants are ecological tumors that spread unchecked into our local ecosystems, castrating the ecosystem's ability to function. If every property owner removed the most egregious invasives, the goal of ridding the U.S. of these troublemakers, or at least reducing their seed rain to manageable levels, would be largely realized.

3. PLANT KEYSTONE GENERA

Tallamy's research at the University of Delaware has shown that a few genera of native plants, or keystone genera, form the backbone of local ecosystems, particularly in terms of producing the food that fuels insects. Landscapes that do not contain one or more species from keystone genera will have failed food webs, even if the diversity of other plants is very high. To find the keystone plants that host the most caterpillars and native bees, visit <https://www.nwf.org/Garden-for-Wildlife/About/Native-Plants/keystone-plants-by-ecoregion>.

4. BE GENEROUS WITH YOUR PLANTINGS

To realize the ecological potential of our landscapes, most of us have to increase the abundance and diversity of our plantings. If you have one tree in your yard, consider adding two more. The idea is to plant groves of trees at the same density at which they occur naturally in a forest.

5. REDUCE YOUR NIGHTTIME LIGHT POLLUTION

Research is showing that our porch and security lights are major causes of insect decline. Consider turning off your lights at night. Or use motion sensor security lights that light up only when an intruder enters your yard. If nothing else, replace the white bulb in your lights with yellow tinted bulbs (yellow LED bulbs are the best). Yellow wavelengths are the least attractive to nocturnal insects.

6. NETWORK WITH NEIGHBORS & GET ON THE HOMEGROWN NATIONAL PARK® MAP

Be a role model for your neighbors. As you transform your property by planting natives in tasteful ways, it is likely your neighbors will follow suit. Whatever your size property, adding your neighbor's yard to Homegrown National Park® MAP begins the process of building ecological networks and moves us closer to the national goal of replacing 20 million acres of lawn. For a Homegrown National Park Yard Sign: <https://homegrownnationalpark.org/yard-sign>

7. BUILD A CONSERVATION HARDSCAPE (*you don't have to be a master gardener!*)

- Each year millions of toads, frogs, and other small creatures become trapped in our window wells where they slowly starve to death. Installing cheap window well covers can reduce these needless deaths to zero.
- Set your mower height no lower than 3 inches. This will give you healthier, greener grass that requires less watering but also mows safely over a box turtle or toad! Try not to mow in the evening when many nocturnal species leave their hiding places.
- Install a bubbler. Small water features with gentle gurgling sounds are irresistible to all birds.

8. CREATE CATERPILLAR PUPATION SITES UNDER YOUR TREES

More than 90% of the caterpillars that develop on trees drop to the ground and pupate within the duff on the ground or within chambers they form underground. It is best to replace lawn under trees with well-planted beds with groundcovers appropriate for your area. It's easy, you can leave leaf litter under your trees, rocks, and old tree stumps, as well as plant wild ginger, foam flowers, wood poppies, native pachysandra, ferns, mayapples, etc.

9. DO NOT SPRAY OR FERTILIZE

Insecticides and herbicides are antithetical to the goals of HOMEGROWN NATIONAL PARK. Less evident is that fertilizers are also unnecessary. Creating soils rich in organic matter is entirely sufficient for healthy plants.

10. EDUCATE YOUR NEIGHBORHOOD CIVIC ASSOCIATION – Start a new HABITAT®

Many homeowners believe they cannot use more native plants in their landscape because of rules developed and enforced by their township, civic association or homeowner association. These rules are likely dated as they were created when we didn't know then what we do now. HOMEGROWN NATIONAL PARK includes Start a new **HABITAT®** in how we landscape. The "new luxury landscape" is one of meadows and/or formal native planted gardens – it is no longer rolling green lawn.

Adapted from <https://homegrownnationalpark.org> and *Nature's Best Hope* by Doug Tallamy

For questions, email Jo Taylor at jtaylor@harmos.net

**Top 30 Keystone Plants for Butterfly and Moth Caterpillars in the Eastern Temperate Zone.
(Number indicates different caterpillar species using it as a host plant.)**

Genus	Common Plant Name	#	Genus	Common Plant Name	#
Quercus	Oak tree	436	Rubus	Blackberry, raspberry shrubs	127
Prunus	Almond, apricot, cherry, peach, plum trees	340	Juglans	Walnut tree	125
Salix	Willow tree	289	Fraxinus	Ash tree	121
Betula	Birch tree	284	Fagus	Beech tree	116
	Aspen, cottonwood, poplar trees	249	Castanea	Chestnut tree	115
Acer	Maple tree	238	Abies	Fir tree	112
Malus	Apple tree	237	Larix	Larch tree	110
Vaccinium	Blueberry, cranberry, deerberry shrubs	217	Corylus	Hazel tree	108
Carya	Hickory tree	213	Solidago	Goldenrod perennial	104
Pinus	Pine tree	200	Myrica	Bayberry shrub	103
Alnus	Alder tree	173	Rosa	Rose perennial	102
Ulmus	Elm tree	164	Symphotrichum	Aster perennial	100
Picea	Spruce tree	132	Cornus	Dogwood tree	98
Tilia	Basswood tree	132	Tsuga	Hemlock tree	92
Crataegus	Hawthorn tree	131	Amelanchier	Serviceberry tree	92

Please refer to this chart for native species of plants listed above and for plants in other regions:

<https://www.nwf.org/Garden-for-Wildlife/About/Native-Plants/keystone-plants-by-eoregion>

Please refer to this chart from the Asheville Greenworks Recommended Native Pollinator-Friendly Plant List for local native species: <https://www.ashevillegreenworks.org/native-pollinator-plants-and-nurseries.html>

Resources

1. *Tending Nature: Every Gardner's Role in Fostering Biodiversity*, Ohio State Univ, College of Food, Agricultural and Environmental Sciences
<https://u.osu.edu/6plus/texts-readings-papers-and-resources/>
2. *Audubon's Native Plant Guide for Birds*
<https://www.audubon.org/plantsforbirds>
3. *US Fish and Wildlife Services*. <https://www.fws.gov/sites/default/files/documents/native.pdf>
4. *Western North Carolina Native Plants*
<https://wildlifefriendlylandscapes.ces.ncsu.edu/>

**Top Native Host Plants for Pollen Specialist Bees in the Eastern Temperate Zone
(Number indicates different bee species relying on this plant.)**

Genus	Common Plant Name	#		Genus	Common Plant Name	#
Helianthus	Sunflower	50		Erigeron	Fleabane	12
Solidago	Goldenrod	42		Vernonia	Ironweed	12
Symphotrichum	Aster	33		Pityopsis	Silkgrass	11
Rudbeckia	Black eyed susan	29		Silphium	Rosinweed	10
Heterotheca	Goldenaster	24		Baccharis	Baccharis	8
Coreopsis	Tickseed	22		Euthamia	Goldentop	8
Chrysopsis	Goldenaster	20		Oenothera	Evening primrose	7
Verbesina	Wingstem	17		Echinacea	Coneflower	6
Bidens	Beggartick	15		Helenium	Sneezeweed	5
Cirsium	Thistle	15		Heliopsis	Heliopsis	5
Salix	Willow	14		Cornus	Dogwood	4
Vaccinium	Blueberry, cranberry, deerberry	14		Lyonia	Staggerbush	4

Please refer to this chart from the Asheville Greenworks Recommended Native Pollinator-Friendly Plant List for local native species: <https://www.ashevillegreenworks.org/native-pollinator-plants-and-nurseries.html>

For keystone plants in other areas of the United States, go to: <https://www.nwf.org/Garden-for-Wildlife/About/Native-Plants/keystone-plants-by-ecoregion>.

Local Native Plant Nurseries and Those That Carry Native Plants

1. BB Barns <https://bbbarns.com/>
2. Carolina Native Nursery <https://www.carolinanativenursery.com/>
3. Jesse Israel and Sons <https://www.jesseisraelandsons.com/>
4. Mountain Mist Nursery <https://mountainmist-nursery.com/>
5. MR Gardens <https://www.nativeplantsasheville.com/>
6. Natural Selections Nursery <http://www.naturalselectionsnursery.com/>
7. Painters Greenhouse <https://www.paintersgreenhouse.com/>
8. Red Root Native Nursery <https://www.redrootnatives.com/>
9. Reems Creek Nursery <https://reemscreek.com>
10. Sandy Mush Herb Nursery <https://sandymushherbs.com/>
11. Saturnia Farm <https://www.saturniafarm.com/>
12. Wildbud Natives <https://wildbudnatives.org>

Simple Ways to Get Started in Your Yard

First Year

1. ***Visit local nurseries and see what you like.***

Look for plants in each of the categories: canopy trees, understory trees, shrubs, perennials and ground covers. Do you have sun, part shade, wet areas, or dry areas? Look for keystone plants that match your conditions. Take care to purchase species of plants that are identified as native to your region. Use the charts provided and ask when in doubt.

2. ***Learn to appreciate longer grass.***

Mow less frequently and with your mower on the highest setting—2-3 inches. Longer grass holds moisture. Make peace with some weeds. Longer grass ensures that you don't harm the clover, which attracts pollinators.

3. ***Reduce areas of mowed turf.***

Identify an area where you can either establish an island of keystone plants or enlarge one you already have. Think in layers and about which keystone plants you can use. In sun - plant a white oak tree or a small group of river birches for the canopy layer; add shrubs such as a beauty berry, button bush, or serviceberry for the understory layer; and finish with asters, goldenrod, joe pyeweed, sunflowers, and grasses like bluestem for the lower level. In shade – plant dogwoods or redbuds; add native azaleas, and finish with ferns, wild ginger, and trilliums.

4. ***Select a small area of invasive plants to remove.***

Begin after a rain when the soil is moist. It is much better to use mechanical means than herbicides which run off into streams and reduce insect populations. Dig or pull-out plants making sure to remove roots whenever possible. Blanket areas with black plastic or cardboard and newspapers to smother weeds or grass. If invasive plants are holding a bank or hillside, remove only small areas at a time and replace them with native plants. This gradual approach takes longer but is more likely to prevent erosion on the bank. For information about identifying and removing invasive plants:

- Nonnative Invasive Plants of Southern Forests
<https://www.invasive.org/eastern/srs/>
- Removing invasive plants
<https://www.pecva.org/land-conservation/managing-your-land/to-remove-invasive-species/how-you-can-get-rid-of-invasive-species-on-your-property/>

5. ***Use mulch to retain moisture and block weed growth.***

Leaves, pine needles, and wood chips in a 2-3 inch layer or a thinner layer of grass clippings are all good mulch examples for flower, vegetable, and planting beds.

Second Year

1. Reduce a greater area of mowed turf.
2. Select a second area of invasive plants to remove.
3. Add another island of keystone plants.
4. Trade native plants with neighbors.
5. Join a local or national group.
6. Talk with neighbors and friends about how they can build ecosystems in their yards.
Help in decision making about planting, herbicides, and invasive plant purchases.

Third Year

1. Continue to remove invasive plants.
2. Continue to add keystone plants to beds and wooded areas.
3. Be an advocate.
4. Think of ways to educate children through school presentations, community gardens, churches, camps, and other organizations.

For information about deer resistant plants: <https://chatham.ces.ncsu.edu/wp-content/uploads/2015/09/Deer-Resistant-Plants-Updated.pdf?fwd=no>

Remember that once established, native plants are low maintenance, beautiful, a healthier place for people and pets, require far less water, and provide vital habitats for insects and birds.



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