



**GARDEN**  
**FOR WILDLIFE**

# How to Design A Better Wildlife Garden

This guide will help you design a better wildlife garden by providing useful methods rooted in ecological landscape design. Ecological design works with natural processes like the interactions between flora, fauna and soils. Read on to discover how you can use ecological design principles to create attractive native plant combinations which enhance wildlife habitat, benefit pollinators and improve water quality!

## Get Inspired!

Look to nature for inspiration. Here are some questions to consider before getting started:

- » What naturally occurring landscape could you reflect in your planting design?
- » What aspects of that natural landscape type do you enjoy most?
- » What elements of that natural landscape provide wildlife benefits?
- » How can you reproduce those elements in your garden?

# Natural Landscapes

## EXAMPLES:

Select a model landscape as your starting point based on your existing site conditions and elements you'd like to have in your future garden. Refine the key elements of that natural landscape to fit with your site's conditions and native plants suitable to your area.

## Grasslands



### EXAMPLES

Prairies, wet meadows, tidal marshes

### KEY CHARACTERISTICS

Low growing layers of dense grasses and forbs, horizontal plant patterns



### KEYS TO GRASSLAND INSPIRED DESIGN

- » Keep planting low
- » Mingle both grasses and forbs
- » Avoid clashing color and texture

## Shrublands or Woodlands



### EXAMPLES

Early successional forests, chaparral

### KEY CHARACTERISTICS

An herbaceous groundcover layer and a scattered shrub and tree layer



### KEYS TO SHRUB/WOODLAND INSPIRED DESIGN

- » Create clearly defined masses of trees and shrubs that contrast the herbaceous layer
- » Use trees and shrubs for specific purposes, i.e. to create rooms or frame views

## Forests



### EXAMPLES

Temperate deciduous forests

### KEY CHARACTERISTICS

Tree canopy, understory and herbaceous layers, shelter from sun and wind



### KEYS TO FOREST INSPIRED DESIGN

- » Include all three forest layers
- » Use species from the same forest type
  - » Maintain open views



Neatly mowed edges and hardscape elements are a few strategies for balancing tidiness and plant diversity.

## 1 Relate Plants to People

A wildlife garden can be just as attractive to people as it is to wildlife!

**Obedient plant** is repeated in this bioswale to provide both color and a mass pollinator event each season.



### FOLLOW THESE TIPS FOR CREATING AN ATTRACTIVE PLANTING:

- » Amplify, in other words intensify and enhance, nature's colors, textures and patterns. Create bold flowering events in your garden by massing or repeating the same species throughout your design.
- » Design with a range of heights to benefit a variety of fauna. Design primarily with low to medium height plants and use taller plants as occasional features. Avoid placing taller plants too close to the edge of your planting where they may block views or fall into paths. In some cases, such as small urban meadows, only lower growing species may be needed.
- » Contrast your planting with clean lines and edges. Pruned hedges, hardscaping or mowed edges are some examples of borders that clearly define your garden. Framing your garden with these design elements is a wonderful way to integrate your native plantings into more traditional landscaping.
- » Time is a design tool. If possible, include a range of plants in your palette that provide blooms throughout the entire season. This will both delight you over the whole year and provide extended pollinator benefits.



**Phlox divaricata** have been selected for this lightly shaded garden with mesic soils.

## 2 Relate Plants to Place

Work with your existing soils and site conditions. Every site's soil is unique, in turn supporting its own particular flora and fauna. If every garden was amended with compost and supported the same plants, how would wildlife diversity fare?

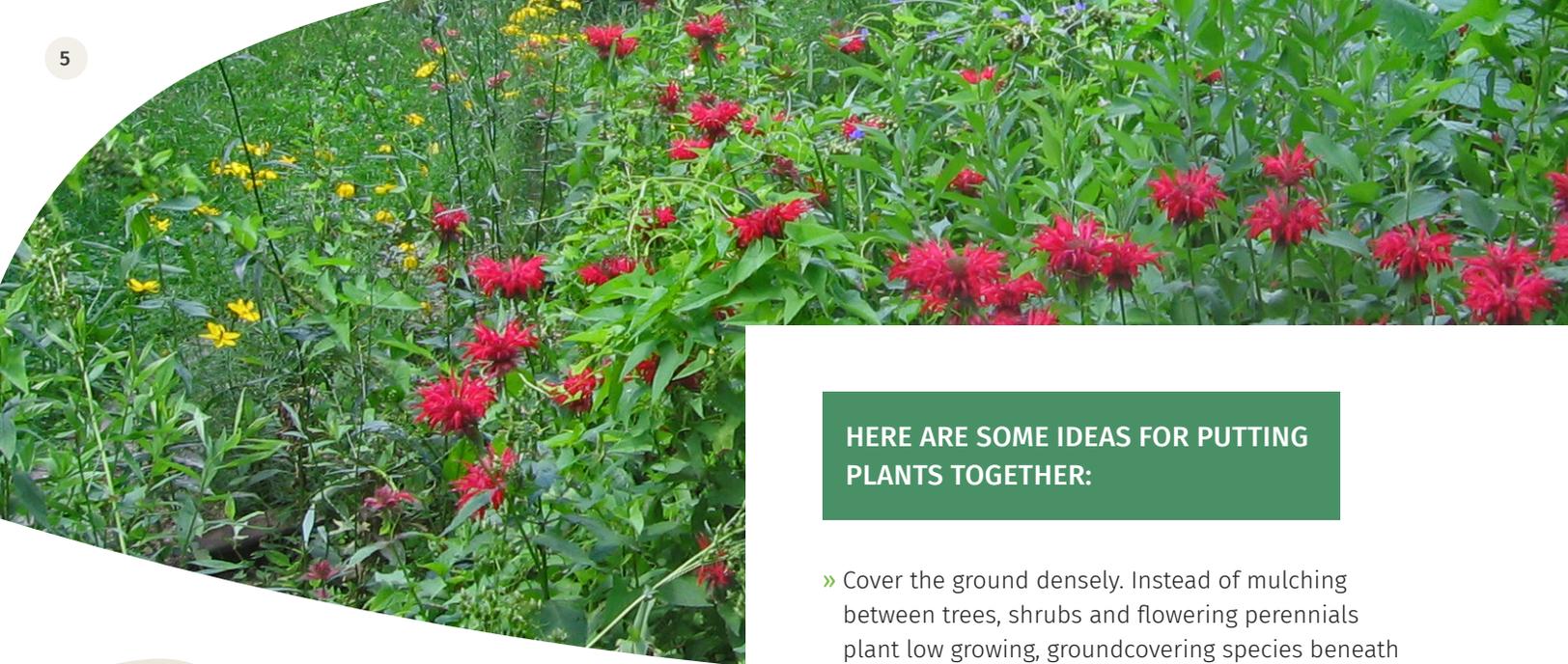
By choosing plants to that fit uniquely to your site you can contribute to higher plant and animal diversity.

**THIS SIMPLE ACT WILL SAVE NATURAL RESOURCES, TIME AND MONEY WHILE GUIDING YOU IN PLANT SELECTION:**

- » Get to know your site's soil type, light levels and other key characteristics. Select plants that prefer these conditions. Plants matched to your place are more likely to flourish without added soil amendments and irrigation.
- » Challenging site conditions can be an asset. Difficulties like poor soil fertility and slightly high or low pH can narrow down native plant selection to those that thrive in these conditions. Using nature as your guide, look for natural landscapes with similar challenges. What plants grow there?
- » Don't be discouraged if a plant doesn't survive. Consider why it might not have been successful and use the opportunity to dig deeper into the plant's needs and your site conditions. Consult a nursery professional for assistance in finding a more suitable plant.



**Drought tolerant plants** comprise this garden habitat in the Southwest.



## 3 Relate Plants to Other Plants

Traditional gardens often lack the lushness and density of plant communities that we see in nature. Native plants are key to providing wildlife benefits but if they are spaced too far apart the result is a garden that provides much less food and habitat than in nature!

**Green mulch** provides more wildlife value! The flowers and foliage of groundcovering plants like Appalachian barren strawberry provide food for insects. Their roots also contribute to biodiversity underground.



### HERE ARE SOME IDEAS FOR PUTTING PLANTS TOGETHER:

- » Cover the ground densely. Instead of mulching between trees, shrubs and flowering perennials plant low growing, groundcovering species beneath them. There is no bare soil in nature. Similarly, in your garden weeds will fill in any gaps you leave. By covering soil with “green mulch” you will provide more food, shelter and other wildlife value per square foot while also reducing weed pressure.
- » Create lush plantings by vertically layering plants. This can be done by including structural, flowering, groundcover and fillers plants in your wildlife garden.

**STRUCTURAL PLANTS** are the plants that can define your garden through structure or form. They make up the backbone of your design. These plants include trees, shrubs and tall perennials. Structural plants should make up about 10-15% of your plant palette.

**COLORFUL FLOWERING PLANTS** are very important for pollinator value and for providing bold, colorful flowering events throughout the season. Flowering plants should make up about 25-40% of your plant palette.

**GROUNDCOVER PLANTS** are the green mulch of your garden. While less visually dominant than the other layers, these plants play an important role in ecological function. Groundcover plants should be about 50% of your plant palette.

**FILLER PLANTS** are short-lived plants whose function is to fill in the gaps between the three other layers suppressing weeds as the other plants grow to full size. Filler plants include self-seeding plants such as annuals, biennials and short-lived perennials. They should make up about 5-10% of the plant palette.

## Breaking Down the Wildlife Benefits of Each Layer

Wildlife gardens provide habitat above and below the soil line. Consider form and function of plants to support diverse wildlife across a layered habitat environment. This approach ensures wildlife have essential habitat elements: food, water, cover and places to raise their young!



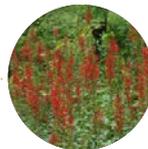
**STRUCTURAL PLANTS** provide shelter and food sources for birds and insects as well as winter structure, framing, shade and screening.



**COLORFUL FLOWERING PLANTS** provide the colorful floral events we love. These plants also provide pollen and nectar for a variety of insects and other pollinating fauna.



**GROUNDCOVER PLANTS** provide additional pollen sources, weed suppression and erosion control.



**FILLER PLANTS** provide nectar and pollen sources, suppress weeds and create a native seed bank for the future of your wildlife garden.

## Layered Planting and Stormwater Management

Dense and layered plantings play a critical role in managing stormwater runoff.

**FIRST**, plants can reduce stormwater runoff by uptaking water into their roots.

**SECOND**, each year a certain percentage of each plant's root system dies back and regrows, creating channels in the soil. These channels allow better infiltration for groundwater recharge.

**If you are designing a rain garden, bioswale or other stormwater system plant it densely and watch it perform!**



Design Layer

Functional Layer

In this **layered planting** there is density above and below ground. The underground root layer can play an important role in managing stormwater runoff.

# Maintenance Tool Box

A wildlife garden is exciting, dynamic and lively. You will get the most enjoyment out of your garden if you embrace the changes that occur over each season and year. The key to successful maintenance is observation and choosing the right time and right tools for intervening.



If you discover any **gaps** in your wildlife garden, fill them in with site appropriate native plants.

## FOLLOW THESE TIPS:

- » Gallon or quart sized flowering perennials or starter plugs with established root systems can provide color and texture more quickly. For economy and larger restoration landscapes use seeds. Seeds will take one or more seasons to become established plants.
- » Leave perennials standing through the winter and wait to cut them back until February or March. This provides many benefits. Some perennials hold onto their seed providing food for birds over the winter and other perennials provide habitat for overwintering insects in their stems.
- » Instead of raking out planting beds each winter let leaves stay in place. This will provide habitat and food for a variety of native insects and other animals.
- » Avoid using pesticides, herbicides and harmful chemical fertilizers.
- » Opt for hand removal of weeds instead of herbicides. Try cutting back weeds at their base before they flower. This technique prevents soil disturbance and the subsequent chance that disturbed soil will be invaded by weeds.
- » If gaps appear in your planting for any reason and bare soil is left uncovered, weeds will use the opportunity to fill that space. Be sure to fill the spot with a native plant of your choice as soon as possible! Filling these gaps with plants, not mulch, will provide the highest wildlife benefits.
- » Provide wildlife a water source, such as simple birdbath or shallow dish of water, rain garden, or small pond if your property does not already include a natural water source.



**Cutting back weeds** at the base is an easy weed removal technique which minimizes disturbance of soil and habitat.



# Join the Garden for Wildlife Movement!

CERTIFY YOUR WILDLIFE FRIENDLY LANDSCAPE

[NWF.ORG/GARDEN](https://www.nwf.org/garden)



## GARDEN FOR WILDLIFE™

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