

Unschooling with Kathy Ward

Create Your Own Backyard Wildlife Habitat

Building your habitat is an unschooler's dream, a complete learn-as-you-go proposition that can be added to and changed year after year!

Having some opportunity to investigate the natural world right outside the back door, everyday, no matter where we live, is a gift I've always wanted to give my children. I want them to be able to touch a portion of nature up close so that they might carry the memory of it into their adolescence and adult years. Finding ways to be close to the natural world has been a healing and restorative element in my own life, wherever I've lived — I like to offer ways for my children to be able to experience the same sense of wonder and connection with nature. Building a backyard wildlife sanctuary is a great way to grow in knowledge of the earth and develop a lasting respect for the environment. It doesn't matter where you live, you can undertake this project even in the

city. Some cities actively encourage citizens' efforts to convert waste ground into small nature reserves.

You can find out if there is such a team effort in your city by inquiring at the library, county extension office, or asking a local branch of any conservation group like the National Wildlife Federation.

By making just a few changes in your yard you can create a space that is beneficial to wild creatures that otherwise might be slowly driven away from your locale. You can take part in nationwide efforts to restore native plants to areas that haven't seen them for decades. Today wild habitats are disappearing all over the earth because of urban sprawl and pollution of land

and water, which can all destroy natural habitats. Taking the time to learn how to make our own spaces more wildlife-friendly is a benefit to local ecology but is also bound to improve the quality of life for everyone, including future generations.

Building a backyard wildlife habitat is a good project for families that are searching for a way to spend some time together, and for an unschooling family, it's packed with learning potential for all four seasons. The number of topics a person or a family can explore in the process is amazing.

Here's a partial list of studies that my family came up from our own ongoing habitat project in the high desert: ecology:

Botany

This is the study of plant life.

Biology

This is the study science of life and of living organisms, including their structure, function, growth, origin, evolution, and distribution. It includes botany and zoology and all their subdivisions.

Zoology

This is branch of biology that deals with animals and animal life, including the study of the structure, physiology, development, and classification of animals.

Geology

Stop and examine and learn about the rocks you dig up while you're planting; get some books that show the rock formations and geologic features underlying your terrain, such as fault zones; use the Internet and library to learn about the geologic history of your area, and try to identify surface features that are left from the geologic past — such as rock formations in nearby highway cuts or boulder remnants from the glaciers of the last Ice Age which are evident in some parts of the country).

Paleontology

If you live in an area where there are fossils, take some time and learn about them.

Anthropology

Learn about the indigenous peoples who have lived where you do now, find out how they used native plants and how they lived

Entomology

This is the study of insects.

Herpetology

Many areas, even cities, have some local reptile populations which may be attracted to your backyard.

Ornithology

The study of birds.

Meteorology

Study your local weather patterns and how those affect wildlife.

Astronomy

When you go outside at night to observe nocturnal animals, be sure to bring along a star chart and look up!

Looked at in a cursory way, a family building a backyard wildlife sanctuary might be seen as having an integrated “unit study” in ecology, botany, and biology — while in fact they are covering a far larger spectrum of study. Working on a project like this allows us to move from science to language to practical math in an effortless way.

Approached unschooling fashion, the creation of a wildlife habitat can be the focus of a seamless and enjoyable year of learning! Looked at in a cursory way, a family building a backyard wildlife sanctuary might be seen as having an integrated “unit study” in ecology, botany, and biology — while in fact they are covering a far larger spectrum of study. Working on a project like this allows us to move from science to language to practical math in an effortless way.

Besides hands-on science, the work involved in building a wildlife sanctuary may involve a family in *history* (of the area you live in, what it was like before it began to be built up, what peoples lived where you live now), *natural history* (how the terrain and climate affected people and animals that once lived on the land you occupy, what the interrelationship between the people and animals looked like, what kinds of plants used to be there, what ones have survived modern life), *literature* (be sure to search your library and bookstores for high-quality books about the natural world and people's relationship to it), *writing* (beginners often enjoy making lists and others

may want to write about the project or dictate their thoughts for you to write), *journalism* (someone may want to write an account of your project for a local newspaper or other publication), *practical algebra and geometry* (plotting areas on graph paper before planting, figuring out measurements for fences, designing nesting boxes for birds or bats), *photography* (photographs documenting the project can be fun and good wildlife photography is always in demand) and all kinds of *art* — drawing, sketching, painting. As always for homeschoolers, there will be lots of reading for new information and maybe even some technical reading. You can bring computer skills up to speed by planning a website devoted to your project. Naturally, spending time working together outdoors is a great way to de-stress and provides exercise!

How to Begin: The Essentials

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this allows us to move from science to language to practical math in an effortless way. The key elements of a good habitat are food, water, cover, and places to raise young.

Native plants that provide food and shelter are the mainstay of your wildlife sanctuary. It's a good idea to make a list of the various plants in your yard using field guides or local plant guides on the Internet. Some universities have wonderful online catalogs of local plants. List what you have from the ground up, grasses and wildflowers, and bushes as well as the trees. If possible, try to figure out which plants are native and which are not. Talk about which plants provide cover and nesting places. Which plants

in your yard provide seeds, fruit, nuts, and nectar? Make a note of structures that are habitat features like bird feeders, stone walls, wood piles. Fallen or dead trees are actually a benefit to wildlife by providing shelter. Some owls and flying squirrels like to nest in cavities and will be attracted to them. Don't forget that your compost pile makes a home for insects and one more source of food for birds. Wood and rock piles offer cover to small mammals, reptiles, and amphibians which may all find their way to your yard for a new home!

In addition to making lists, you may want to take a piece of graph paper and plot the location of various habitat elements that are in place,

then add the things that you'd like to add. With graph paper you can do this more or less to scale, if that's your preference. Don't forget to think about the size of grown shrubs and trees as you draw your landscape design. If you want to include a tree that will become quite large — be aware of where it will cast shade when it's grown and plant it where it won't overshadow a garden area, your own or a neighbor's!

Remember when you're planning to leave some open, sunny space if possible. Flowering plants, herbs, and shrubs need the sun for lush, strong growth. Often wildlife can be seen in "transition zones," open spaces where two different types of habitat meet. Examples of transition zones are

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where an open field meets wood, lawn meets hedge, dense growth opens up at the side of a pond, by an open space in your yard, or along a roadside. Animals are attracted to these edges where plant growth is encouraged by sunlight yet where the safety of cover is nearby. Having areas of shade and cover along with open, sunny areas gives you a diversity of habitats in your yard, encourages a variety of animal visitors, and makes wildlife viewing easier.

Wild, somewhat unkempt garden areas are much more appealing to wildlife than very tidy, manicured garden spaces and lawns since they provide a richer source of food and shelter. One reason (maybe the main reason) I first gravitated to gardening for wildlife is because I'm a lazy gardener! I didn't enjoy struggling with the elements and trying to create a picture-perfect garden in the Mojave Desert which is a land of temperature extremes with a stark terrain and exasperating (but wildly beautiful!) climate changes. Besides, I tend to prefer a wildish space no matter where I live. But if you don't or if the community you live in has regulations about how your yard is maintained, it's still possible to create a small garden space that's on the wild side, maybe just in the back, away from the street. Try it and you'll be amazed at the number of species that will visit your wild space!

Take a look at the ways that your yard already provides water for wildlife, since water is essential to a healthy habitat. Maybe you already have a spring or stream, a vernal pool, a pond or some other wetland feature. If you are blessed with naturally occurring water, learn how to best protect it! If not, water sources can be easily provided. A simple birdbath can be made with an overturned metal trashcan lid fixed on a few bricks with some well-chosen rocks in it for perches. Many books and Internet sites explain how to make a simple backyard pond or water garden with a plastic liner or a wooden barrel sunk into the earth. We've seen small ponds made with old bathtubs or water troughs sunk into the ground. With a pump to recirculate water and a filter to help keep it clean, your home-made pond or water garden becomes an entire small habitat in itself. Wa-

As you choose your plants it's also a good idea to include at least one clump of evergreen trees and shrubs for year-round cover. Butterflies prefer certain "host" plants for food for their larvae (caterpillars!) and will usually lay their eggs on those plants. Milkweed is a primary food source for monarch butterflies, and black swallowtails are sometimes attracted to dill and parsley plants.

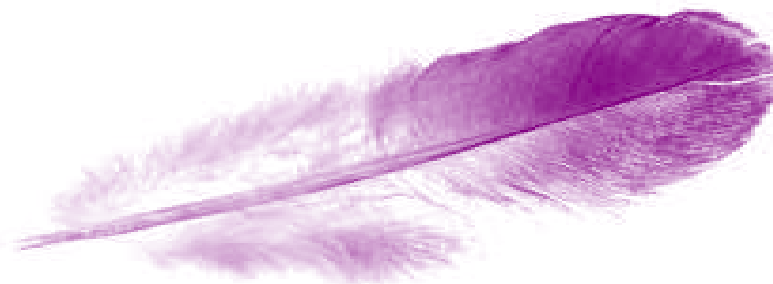
ter plants, local insects, fish, and snails can be added. Frogs, toads, and salamanders will find their way to your pond along with birds and perhaps other animals. Aquatic animals and insects like dragonflies may deposit their eggs in your pond.

Restoring native plants to your yard is an indispensable part of your habitat project. Native plants are a study in themselves and many wonderful resources can be found by doing an Internet websearch for your locale. Public libraries also have resources to help you with this. You might also contact your local or state native plant society for more information. Remember that native plants and wildlife have evolved together, so native plant varieties provide the best source of food year-round for local animals. Naturalized plants and some non-native (but noninvasive) plants can be used as well, but native plants are best adapted to your site and need less maintenance and less additional water. They are likely to thrive and cost less in the long run. The very best plants for your habitat are those

that provide natural foods such as fruits, seed, berries, and nectar. Fruit-bearing shrubs and trees can provide additional food for wildlife into the winter months.

Highbush cranberry, native sumacs, hawthorn, and crabapples are all winter food-bearing plants. Any of these are great to include in your habitat plan. Remember that unfavorable conditions such as very cold winters or drought may cause some plants not to bear fruit. Certain plants such as some oaks bear fruit only in alternate years. Planting a variety of different species helps ensure a steady food supply every year, the whole year through.

Cover is essential for protection from the elements and from predators. The leafy cover of deciduous shrubs and trees in the summer provides safe nesting sites. As you choose your plants it's also a good idea to include at least one clump of evergreen trees and shrubs for year-round cover. Butterflies prefer certain "host" plants for food for their larvae (caterpillars!) and



will usually lay their eggs on those plants. Milkweed is a primary food source for monarch butterflies, and black swallowtails are sometimes attracted to dill and parsley plants. Dedicating a small portion of your backyard to growing herbs will bring butterflies and herbs thrive without a huge amount of effort! They are fun to harvest and dry for your own use as well. Another project that children may enjoy is building nest boxes for birds. A couple of my children have built nice, durable nest boxes with scrap wood for very low cost. I've seen plans for boxes for bluebirds, wrens, purple martins, and bats on the Internet and in library books. When they're done, be sure you put them up where cats can't reach them!

Resource Conservation

Conservation efforts can be a part of your habitat plans — conservation is ecologically friendly! Here are some basic conservation ideas:

- ◆ Plant native plant species
- ◆ Mulch conserves soil moisture, cuts down on amount of water you need, and helps suppress weeds, eliminating the need for chemical weed killers.
- ◆ Use drip irrigation instead of sprinklers to help establish your plants
- ◆ Eliminate chemical use in your yard. *Gentle Spirit Volume 6, No. 9* (January 2000) lists resources for obtaining beneficial bugs like ladybugs and praying mantises and suggests ways to incorporate them into your science studies. Remember that birds and bats are also insect eaters. Encouraging these creatures to visit your yard

Anyone who provides the four basic habitat elements in their yard (food, water, cover, and places to raise young) and who takes some steps toward conservation of resources in their yard is eligible to apply for certification with the National Wildlife Federation as an official Backyard Wildlife Habitat.

will help cut down on insect pests. Bird houses and bat houses can be built to encourage them to stay in your yard.

- ◆ Eliminate or reduce lawn in dry or drought-stricken areas. This can cut down on water use and maintenance. In place of lawn you can plant herbs, vegetables, or other items on your habitat plan list, all using drip irrigation, for far less total water usage.
- ◆ Investigate xeriscaping ("dry-scaping" or using water conservation in landscaping) for water conservation if you live in a dry or drought-stricken area.
- ◆ Capture rain from your roof for use in watering plants. Remember old fashioned rain barrels? It's also possible to establish a backyard wetland or drainage buffer area to help prevent severe storm runoff.

Certify your backyard with the National Wildlife Federation

Anyone who provides the four basic habitat elements in their yard (food, water, cover, and places to raise young) and who takes some steps toward conservation of resources in their yard is eligible to apply for certification with the National Wildlife Federation as an official Backyard Wildlife Habitat. Once your project is underway and you have the four elements in place, along with a few conservation measures, simply visit this webpage and download the application:

<http://www.nwf.org/habitats/backyard/application.pdf>

Or write National Wildlife Federation,

1412 16th Street, NW, Washington, D.C. 20036, and ask about the Backyard Wildlife Habitat Program and habitat certification.

There's a \$15 fee to be registered. NWF naturalists will look over your application to see that the four basic elements are in place but they don't ask you to have a fully grown habitat before you receive certification — building and maintaining a habitat is an ever-changing, never-quite-completed project. In fact, it's best to think in terms of a five year plan — it's more economical and gives you the chance to try out many different ideas. Building your habitat is an unschooler's dream, a complete learn-as-you-go proposition that can be added to and changed year after year!

Benefits of building a habitat:

◆ **Increased Wildlife Populations**
You can probably double the number of bird species using your yard, as well as supporting other wildlife, including beneficial insects like bees and butterflies. You'll be contributing to the well-being of your local wildlife populations. What better place for your children to raise butterflies from caterpillars than in your own habitat, with native food for the caterpillars and nectar flowers for the grown butterflies!

◆ **Energy Conservation**
By arranging your conifer and hardwood trees, you can lower winter heating and summer cooling bills for your house. The broadleaf trees that shade your home in the summer lose their leaves to let sunlight in during the winter.

◆ **Soil Conservation**
Certain plants can prevent soil erosion.

◆ **Natural Beauty**
Beautiful, natural settings that attract wildlife are often more pleasing to the eye than a perfectly manicured, water-hungry lawn and perfect but untouchable flower beds. I feel more at peace in a somewhat unkempt garden where nature is having her way and where there is abundant rustling in the underbrush from small creatures and where birdsong echoes.

◆ **Beauty for the artist in you**

Take a sketchbook, or some paints, or the camera out to the yard and take some time to become re-aquainted with your creative side!

Birdwatching

An activity that's fun for all ages! Visit these related websites:

- <http://www.birdsource.org/>
- <http://www.birdwatching.com/birdingtips.html> - Birding Tips
- <http://birds.cornell.edu/bow/> - Bird of the Week Main Page
- <http://www.birdwatchersdigest.com/>
- <http://www.southwestbirders.com/> - Southwest Birders - Guiding, Conservation, Education

◆ **Natural Insect Control**

Birds such as tree swallows, house wrens, brown thrashers, and orioles eat a variety of insects that are harmful to your garden. Children love to study ladybugs and praying mantises and other beneficial bugs which consume huge amounts of garden pests. Building bat boxes give you a chance to observe these insect eaters at night.

◆ **Food Production**

Some plants that attract wildlife are also food for us! In some cases you may want to exclude your wild visitors with fencing.

◆ **Property Value**

Adding trees and other plants to your property beautify it and support your local wildlife, and also increase its resale value.

◆ **Environment for Children**

Habitats that are attractive to wildlife are also a good space for children to explore. They are a place where children can spend uninterrupted time reveling in nature — they encourage a lifelong interest in and respect for the natural world. Habitats are an environment where children can touch growing things and have fun!

Some Backyard Plants That Help Wildlife

(A list that is by no means exhaustive!)

TREES

- Oak (all kinds)
- Black Walnut
- Hickory
- Edible Fig
- Apple, Plum, Cherry, Pear, and any other type of fruit tree
- Black Cherry
- Hackberry
- Russian Olive
- Crabapple
- Hawthorn
- Juniper
- Pines
- Spruce



SHRUBS

- Dogwood
- Sumacs
- Elderberry
- Wild Plum
- Chokecherry
- Cotoneaster
- Honeysuckles
- Serviceberry
- Viburnums
- American Cranberry bush or Highbush
- Cranberry
- Firethorn (Pyracantha)
- Rose

VINES

- American Bittersweet
- Virginia Creeper
- Trumpet Creeper
- Wild Grape
- Raspberry and Blackberry

OTHER PLANTS

- Sunflowers
- Black-eyed Susan
- Cosmos
- Phlox
- Asters
- Marigolds
- Millet
- Zinnias
- Herbs of all kinds
- Cardinal flower (Lobelia cardinalis)
- Grasses



Suggested Reading

- ◆ Dennis, J.V. 1985. *The Wildlife Gardener*. Alfred A. Knopf, New York.
- ◆ Diekelmann, J. and C. 1982. *Natural Landscaping*. McGraw Hill. New York.
- ◆ Ernst, R. S. 1987. *The Naturalist's Garden*. Rodale Press, Emmaus, Pennsylvania.
- ◆ Kress, S. 1985. *The Audubon Society Guide to Attracting Birds*. Charles Scribner's Sons, New York.

- ◆ Martin, A. C., H. S. Zim and A. L. Nelson. 1961. *American Wildlife and Plants*. Dover. New York.
- ◆ Smyser, Carol A. 1982. *Nature's Design*. Rodale Press. Emmaus, PA.
- ◆ Stokes, Donald W. 1989. *The Natural History of Wild Shrubs and Vines*. The Globe Pequot Press. Chester, Conn.

Incidentally, if you live in the Southwest there's a wonderful organization, Native Seeds/SEARCH (Southwest Endangered Arid-Lands Resources Clearinghouse), which will send you their current catalog for only \$1.00. Here's how they describe themselves on their official website whose URL is <http://www.nativeseeds.org/>:

Native Seeds/SEARCH (NS/S), a nonprofit organization based in Tucson, Arizona; conserves, distributes and documents the adapted and diverse varieties of agricultural seed, their wild relatives and the role these seeds play in cultures of the American Southwestern and northwest Mexico. We promote the use of these ancient crops and their wild relatives by gathering, safeguarding, and distributing their seeds, while sharing benefits with traditional communities. We also work to preserve knowledge about their uses. Through research, training, and community education, NS/S works to protect biodiversity and to celebrate cultural diversity. Both are essential in our efforts to restore the earth.

Here's their mailing address:

Native Seeds/SEARCH
526 N. 4th Ave.
Tucson, AZ 85705-8450

—Kathy Ward is the mother of eight and grandmother of two and unschools her children in the High Desert of California.

