Components of a Wildlife Habitat

Once you learn the four elements of a wildlife habitat – food, water, cover and space – you can move on to the 16 components of a habitat.

When you become familiar with both the elements and components, you'll have the information you need to enhance your habitat for years to come.

There are eight structural components and eight living or plant components to fulfill the needs of a habitat. These become your building blocks in establishing or enhancing a wildlife habitat.

If you have all 16 components in your habitat, you will attract a multitude of different species of wildlife for viewing or photographing.

STRUCTURAL COMPONENTS OF A WILDLIFE HABITAT

Feeders

Feeders are used to supplement the foods provided by trees, shrubs, flowers, crops in food plots, vines, and ground covers. Most people set up feeding stations outside a window in the house where they can easily view the feeders and take photographs.

In most areas of the country, you can attract 20 to 25 species of birds to feeders. The best all-around bird seed is black oil sunflower. It can be used in tray feeders, cylindrical and hopper feeders, plus it can be spread on the ground for ground feeding birds (and chipmunks and squirrels).

- Cylindrical Feeders – may be made of plastic or metal. Small seed pods dispense niger thistle seeds which are preferred by goldfinches, house finches, and pine siskins. Larger seed pods dispense sunflower or seed mixes. A cap slips off the feeder for easily filling.

- Hopper Feeders – may be made of wood, plastic, or metal and come in a variety of sizes. One side of the top

usually is hinged for easy filling of sunflower or seed mixes. Metal hoppers sometimes have a counter-balanced platform which closes access to the seed when heavier birds or squirrels attempt to feed.

- Suet Feeders – may be a mesh potato or onion bag, or made of metal like hardware cloth. You can make one of wood by drilling 1-1/2" holes in thick pieces of wood (such as a 2x4) and push the suet into the holes. If a metal feeder is used, a bird's tongue can freeze to the metal while feeding. You can buy suet cakes which can be put out at any time or you can get unrendered fat from most grocery stores to use when it is cold outside (in warm temperatures, the fat can become rancid).

- Hummingbird Feeders – usually are made from glass or plastic. They are red in color to resemble flowers where hummingbirds harvest nectar. It is best to scatter several feeders in your habitat as the tiny birds are combative and will spend lots of time driving off other hummingbirds. The feeders must be keep filled with room temperature sugar water (four parts of boiling water to one part cane sugar) and cleaned with a dilute solution of chlorine bleach (soak for an hour and rinse) several times a week in hot weather. Red food coloring is not necessary.

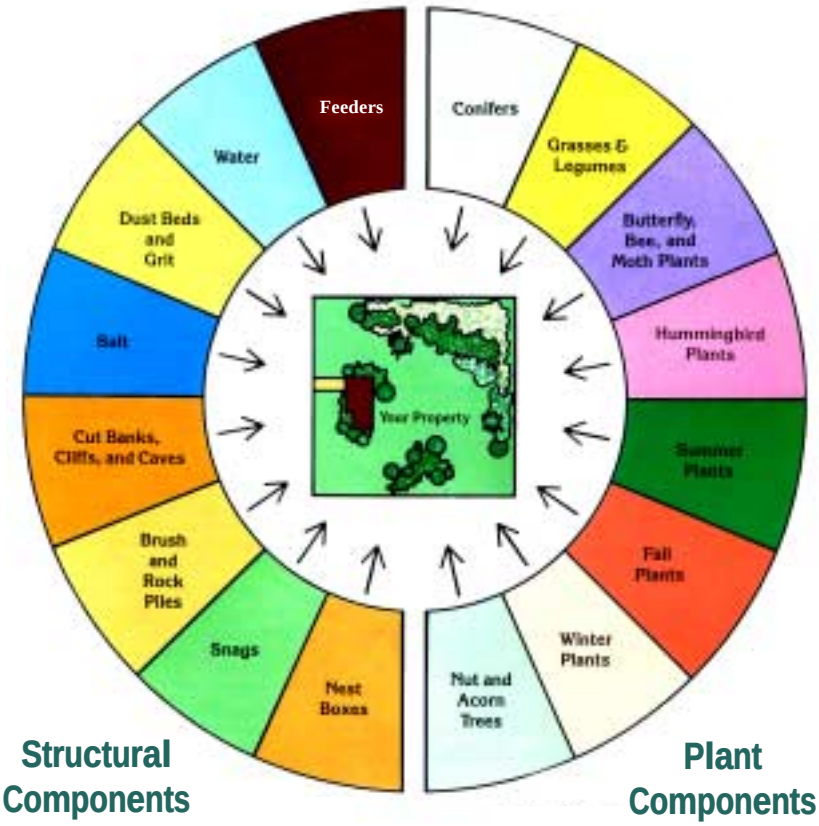
- Squirrel Feeders – can be made by mounting ears of corn on long spikes that are fastened to decks or trees away from your bird feeders.

  Squirrels can damage nearly any type of feeder that is not "squirrel proof." The Institute sells a heavy-duty PVC Bird Post[a] feeder that is guaranteed squirrel-proof.

- Fruit Feeders – can be made by forcing a large nail through half of an orange or apple and nailing it to a tree or post. The fruit will attract Baltimore orioles, red-bellied woodpeckers, catbirds, and red squirrels.

Sixteen Components of Wildlife Habitat

– Landscaping for Wildlife



The Institute recommends that you photocopy the components chart and put it up where you can see it from time to time. Then you'll be able to channel your thoughts toward coming up with really creative and exciting enhancement projects for your wildlife habitat or others. The chart is also a great tool to use when a neighbor, friend, or relative asks you how they can attract more wildlife to their property.

Dust and Grit

Dust and grit are important to birds. Pheasants, wild turkeys, and some species of songbirds will take a dust "bath" to control external parasites.

You can easily provide dust in your backyard habitat by adding finely pulverized soil to an area no more than 2 ft. in diameter.

Grit (coarse sand) is needed by birds in their gizzards to grind up their food.

Some people add sand to their bird feed, while others just provide it in a tray near their feeding station.

Water

Water is just as important as food, but often is one of the factors limiting the presence of wildlife. If you have water, you will attract many more species of wildlife. Remember, dripping or flowing water is more attractive to wildlife than still water. And, shallow water is preferred over deep water by most wildlife. Water can be provided in many forms:

- Bird Baths – can be plastic or concrete, heated or unheated, formal or as informal as an upturned garbage can lid. If you have a problem with cats killing your feeder and songbirds, make sure the bird bath is at least 15 ft. away from trees and shrubs, where cats can hide before pouncing. A dripper or mister are good additions. Specially designed heaters are available for bird baths or you can go to a farm supply store and buy a heated dog dish for around $20. Be sure to add a flat rock in the center where birds can stand while drinking and bathing.

- Ponds – can be lined with concrete, plastic, or rubber. If you want to attract songbirds, ducks, frogs, toads, and salamanders, make it about 10 ft. across and 1 to 2 ft. deep. Placing soil on top of the liner in the bottom of the pool, will make it possible to seed native aquatic plants such as cattail, water lily, arrowhead, marsh marigold, or duckweed. Or, you can plant in pots and place them on the bottom.

  If you can accommodate a larger pond (30 to 40 ft. across), you'll be able to attract more wildlife such as crayfish, salamanders, newts, more species of frogs, garter snakes, birds, and turtles. Construct at least one-third of the bank with a gradual incline toward the deep point. Place a brush pile in the shallow water and you will attract frogs, toads, and salamanders who will lay their eggs there. Rocks placed along the water's edge will serve as sunning areas for turtles and snakes.

- Bogs and Wetlands – can be as simple as a mud puddle for butterflies to a sizable overflow area for your pond to a wetlands area fed by a spring or stream. These areas attract a wide variety of species such as ducks, geese, grebes, herons, blackbirds, terns, marsh wrens, muskrats, minks, raccoons, and many others. Follow this rule of thumb – for each acre of wetlands, there should be two to four acres of grassy nesting cover.

Salt

Salt is essential in the diet of wildlife. Some species, including deer, moose, pine grosbeaks, and crossbills, will seek salt deposits. Others can satisfy their need from trace elements in their diet. Some states will allow residents to place salt blocks on their property, others will not.

Another way to supply salt is to fill a burlap sack half full of granular salt and hang it from a tree where rain can leach the salt into the soil. Make sure the tree is one that you wouldn't miss, as the salt will probably eventually kill the tree. Wildlife will seek these areas out.

Cut Banks, Cliffs, and Caves

Cut banks, cliffs, and caves should not be created if they don't already exist. Cliffs will attract bats, bank swallows, kingfishers, and peregrine falcons. Cut banks attract fox, badgers, coyotes, and groundhogs. And, bats are attracted to caves.

Brush and Rock Piles

Brush and rock piles provide escape cover, nesting, and den sites for species such as weasels, rabbits, groundhogs, skunks, snakes, quail, and others. If you place a brush or rock pile on the edge of a small pond, with part of it under the water, you will have a fitting habitat for amphibian and reptile species.

Brush or rock piles placed away from water, should be in or next to sheltered areas such as along the edges of fields or in shrubs or second growth areas. If you have more than a few acres, the brush pile should be at least 15 ft. across. Put larger logs on the bottom and criss-cross them. Then gradually add medium ones, ending up with small trees or branches on top.

Nest Boxes

Nest boxes are used by nearly 50 species of wildlife. Wildlife seek them out when they cannot find suitable tree cavities. In several cases, such as the Eastern Bluebird, the boxes and work of thousands of volunteers, are responsible for bringing the birds back from near endangered status.

Boxes can be constructed of numerous materials but the best is probably red cedar, which does not require any type of protective coating. The size of the box and entrance hole are critical to each species.

Snags, Fallen Trees, and Perches

Unfortunately, when most people see a dead tree (snag), they want to cut it down immediately. They don't realize that a dead tree is home to numerous insects and cavity nesting/den species of wildlife. In the Midwest, more than 40 species of birds and about 30 mammal species use them.

Insect larvae are often under the bark or in the soft wood. Woodpeckers have the skill to create cavities that are often used by other species such as wood ducks and owls. A snag needs to be at least six inches in diameter and 15 ft. tall. And, the bigger, the better. Some people will cut down a snag, move it to their residence, and replant it in their yard near a window where they can watch the wildlife it attracts.

Branches (perches) overhanging water are preferred by herons and kingfishers so they can swoop in from their lofty perches and get a fish dinner. Flycatchers do the same thing, only they want insects. On dry land, perches are used by hawks, eagles, vultures, and falcons to spot prey.

LIVING COMPONENTS OF A WILDLIFE HABITAT

Conifers

Conifers (sometimes known as evergreens) include trees and shrubs that do not lose their needles in winter. Species include firs, spruces, pines, arborvitae, junipers, yews, and cedars.

This group of plants is critical to wildlife. The cover and shelter they provide is invaluable. In addition, wildlife eat the seeds, buds, twigs, sap, and needles. Plus, the trees always stay green, and make the habitat look better. Forty-eight species of birds prefer the eastern white pine. For example, turkeys eat the seeds and needles, and yellow-bellied sapsuckers eat the sap. Branches and cavities are used for nesting.

Other favorite conifers are balsam fir, eastern red cedar, spruces, and eastern hemlock. Canada yew is highly preferred by deer and is generally wiped out wherever significant number of deer are present.

Summer Plants

Summer fruit, berry, and cover plants include trees, shrubs, aquatic plants, and vines which produce food from June through August. The biggest group in this component are those plants that produce fruits and berries in the summer. Wildlife species attracted are American robin, junco, woodpeckers, brown thrashers, blue jays, catbirds, bluebird, wood thrush, cedar waxwing, oriole, scarlet tanager, cardinal, butterflies, cowbird, pheasant, deer, grouse, squirrel, raccoon, red fox, and pheasant.

This group of plants tends to spread and create thickets producing excellent cover. Some of these plants are: raspberries, blackberries, serviceberries, wild plum, chokecherries, lilac-flowered honeysuckle, cherry, and amur maples. Climbing vines create nesting cover and fruits. The best fruit trees for wildlife are mulberries, chokecherries, and black cherries.

The best tall shrubs are bush apricots, chokecherries, birdcherries, and serviceberries. Plums and cherries are good medium shrubs. The best low shrubs are cherries, honeysuckle, raspberries, elderberries, blackberries, and blueberries. Grapes are the best vines and strawberries are the best forb.

If you want to create a shelter belt, elderberries, scarlet elder, American plum, cherries, service berries, and mulberries are best.

For aquatic areas consider: smartweed (used by 66 species), bulrush (52 species), pondweed (40 species), wigeon grass (33 species), wild millet (29 species), spike rush (29 species), wild rice (23 species), cattails (17 species), wild celery (16 species), and duckweed (16 species).

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Fall Plants

Fall fruits, grains, and cover plants allow migratory birds to build up fat reserves prior to migration. Non-migratory species need this Fall food to build up their "food pantries" or add to their fat reserves so they can make it through the winter.

Gray catbirds, brown thrashers, American robins, chickadees, juncos, purple finches, cardinals, cedar waxwings, wood thrushes, nuthatches, grosbeaks, ruffed grouse, bluebirds, wood ducks, pheasants, and orioles seek out the fruit of the red osier dogwood, gray dogwood, mountain ash, winterberry, and cottoneasters.

Grains such as corn are valued by nearly 100 species as is wheat, oats, and grain sorghum.

Winter Plants

Winter fruits and cover plants can make the difference whether wildlife survive the winter. In order for this food to be available during the winter, it must have persistence and low appeal to wildlife when the fruit first appears. Examples are: snowberry, crabapple, chokeberry, staghorn, sumac, bittersweet, highbush cranberry, wahoo, and Virginia creeper.

Some of these fruits are bitter when they first ripen. Others must freeze and thaw several times until the fruits break down and become more palatable.

Butterfly, Bee, and Moth Plants

Butterfly, bee, and moth plants will add class to your habitat. You might want to create a garden of native prairie wildflowers or native woodland wildflowers.

The most common butterflies attracted include monarch, painted lady, comma, red-spotted purple, tiger swallowtail, fritillaries, red admiral, sulphurs, cabbage, and blues. If you are wanted to attract a moth, you might have the clearwing or sphinx visit your garden. Bees that are nectar feeders are bumblebees and honeybees.

Butterflies require two kinds of food – one type for the caterpillars and another for the adult butterfly. Butterfly caterpillars will feast on birches, aspens, willows, hackberry, cherries, and oak trees, legumes, grasses, herbs, blueberries, asters, alfalfa, vetches, clovers, bluegrass, little bluestem, hollyhock, milkweed, lupines, black-eyed Susan, marigolds, violets, sedges, and dock plants.

For nectar, the adult butterflies prefer aster, red clover, thistle, purple coneflower, blazing star, Joe Pye-weed, goldenrod, ironweed, vetches, peppermint, carrot, dill, and parsley. Bees and butterflies prefer "single-flowered" plants as the nectar is richer and easier to access. For example, peonies, lilacs, and marigolds.

Bees are attracted to nearly 50 plants. The best are daffodil, sweet mock orange, cherry, apple, plum, peach, apricot, almond, grape hyacinth, jonquil, pussy willow, and lilac.

They also like evening primrose, penstemons, petunia, phlox, moss rose, salvia, sedum, goldenrod, thistle, coralberry, wolfberry, snowberry, marigold, clover, verbena, broccoli, and sunflowers. Herb gardens are especially attractive to them, including lavender, mint, spearmint, peppermint, lemon balm, sweet marjoram, rosemary, sage, dill, and thyme.

Moths can be attracted to flower gardens. Clearwing moths are attracted to Sweet William, petunias, fireweed, dame's rocket, evening primrose, sweet mock orange, and phlox. Sphinx moths prefer trumpet creeper, lilies, cardinal flower, phlox, and old-fashioned weigela.

Grasses and Legumes

Grasses and legumes can be found in large yards or rural fields. Many birds use these for nesting, including pheasants, meadowlarks, mallards, and blue-winged teal. Plant eating wildlife such as Whitetail deer, rabbits, groundhogs, and meadow voles prefer these plants.

These are also good for cover of ground nesting birds and their offspring. Perhaps that's why predators such as red fox, red-tailed hawks, American kestrels, owls, coyotes, weasels, and skunks also frequent the area for a meal.

Native grasses like switchgrass, big and little bluestem, Indiangrass, and sideoats gramma are making a comeback. Add some native wildflowers and you have a wildflower meadow.

Hummingbird Plants

Hummingbird plants are nectar producing and include these favorites: American columbine, foxglove, penstemon, petunia, hardy fuchsia, trumpet honeysuckle, bergamot, cardinal flower, dwarf blue gentian, hosta, trumpet vine, scarlet runner beans, and salvia.

Another wildlife species that likes nectar is the northern oriole which prefers blossoms of red or orange flowers such as hollyhock, trumpet vine, lilies, scarlet trumpet honeysuckle, and trees such as plum, cherry, apricot, and almond.

Nut and Acorn Trees

Nut and acorn trees are often referred to as "mast." In the Fall, mast is sought after by wild turkey, Whitetail deer, wood ducks, squirrels (red, gray, and fox), pheasant, ruffed grouse, Bobwhite quail, raccoon, black bear, mallard ducks, and more.

Among the trees that produce mast are: black walnut, hickory, butternut, oak, and hazel. If you want to add a component that will last a long time, then these trees are for you. Some of the oaks have been known to produce acorns for 400 years, as opposed to a shrub that may only last a few years.

Many of these trees contain cavities that are used by nearly one hundred species of wildlife.

In summary, by providing the four elements of a wildlife habitat and as many of the 16 components as possible, you will improve the quality of your habitat and should attract more wildlife.

This article was written by Thomas D. Patrick, President and Founder of the WindStar Wildlife Institute, a national, non-profit conservation organization whose mission is to help individuals and families establish or improve the wildlife habitat on their properties.

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