

## Enhancing Wildlife Habitat in the Garden and Around the Home



**By Steve O'Neil, Executive Director Earthshine Nature Programs**

**The Basics:** All wildlife must have the basic habitat requirements for survival: food, water, shelter and space. Nature will provide these requirements and the animals will follow but if you would like to increase your land's ability to be a better home for many different species of wildlife there are a few things you can do that will create better habitat which will benefit all creatures on your land and help to keep nature in a healthy balance that will, in turn, work to keep your gardens and yard in a much more balanced state.

**Less is more:** Leave as much of your land wild, natural, and un "improved." This is what wildlife want--they have no use for what we call "improved" land.

**Variety:** If you must alter your land then work to provide several different types of habitat such as forest, grassy field, edge, spring, seep, ephemeral pool, creek, river, pond, rock and brush pile, thorny thicket, small forest opening etc. All of these different habitat types offer different options for different species of wildlife.

**Give them a home:** Leave standing dead trees, old rotten logs, and brush piles in the forest. Standing dead trees are often hollow and these cavities provide sheltering and nesting areas for countless species of wildlife from birds and bears to bats, bugs and snakes. Rotting logs on the ground, also called nurse logs, provide homes for wildlife like box turtles, rodents, snakes, salamanders, insects, spiders, as well as nutrients for the soil to "nurse" young new plant growth.

**Water is Life:** Provide water sources for wildlife such as birdbaths, ponds, creeks and even rainwater catchment basins--anything that holds water so that it is available for wildlife to drink. Consider creating a small wetland area for amphibians such as frogs, toads and salamanders to live and breed in. You can find lots of information online about how to create small wetland areas for the benefit of native wildlife.

**Build brush piles for wildlife.** Many different species of wildlife use brush piles for shelter, nesting sites, feeding sites and over-wintering sites. To make a great brush pile first search for a good site that has moderate air movement--not an exposed windy hilltop or low place that may flood when it rains. The soil should be somewhat dry but not compacted or saturated. Take advantage of natural barriers such as trees and shrubs and select the moist side of the barrier for your brush pile. Start your pile with a few big rocks and logs spaced apart as such that there is some air movement and small animals will be able to create dens in amongst the rocks/logs. Then toss all fallen limbs, leaves, garden and grass clippings and so on into the pile in a random order--no stacking. Brush piles of different sizes are great because they provide choices for different species of wildlife. Build brush piles in many different areas on your land placing some near the edge of woods and fields, near water, in the middle of the woods and so on so they can act as habitat islands for many different species of wildlife.

If you rake leaves in the fall just pile them on your brush piles and they will act as insulation for the critters hibernating inside. If you feel that you must burn your leaf pile then do so just after raking--if you wait a few days animals such as box turtles may move into the leaf pile and be injured or die in the flames.

**Rock Piles:** If you have rocks consider building some good sized rock piles in areas that receive some morning or late afternoon sun--reptiles will love these areas. Dry stacked rock walls are great for this also as they provide lots of nooks and crannies for lizards, snakes and toads to live and forage in.

**Pool Safety:** If you have a swimming pool or water feature in your yard please cover it when not in use or provide at least one wildlife escape ramp using a simple movable 2x6 plank for animals that may fall into the pool while attempting to get a drink. Animals such as box turtles and rabbits can easily drown if they fall into pools and have no way to escape.

**Pet Safety:** Keep your domestic animals--especially cats and dogs--in a fenced area or in the house. Cats and dogs are our friends but they are also very effective predators and will maim, kill, and often eat any wild critter they can get their teeth and claws into.

**Install nest boxes for birds and bats.** Birds and bats eat trillions of pest insects annually and they need homes or they will move elsewhere so if you build it, they will come. Many plans for DIY bird and bat houses can be found online or you can buy them at the local home and garden store or from many online sources.

**Plant a Pollinator Garden:** Pollinator species need our help. Plant flower gardens for these special insects such as native bees, butterflies, moths and more. The pollinators will be happy and so will we. Also please consider planting a Monarch Waystation to give migrating Monarch butterflies a place to feed/reproduce. Learn more at: [www.monarchwatch.org](http://www.monarchwatch.org)

**Improve pond habitats.** Fish also eat loads of insects and are good to eat as well so if you have ponds or lakes on your land, consider creating underwater habitat structure for fish. Use old Christmas trees and tires anchored to the bottom with cinder blocks or even concrete pipes and old clay pots and piles of rocks. Plant cattails around the edge of your pond or lake to give the young fry places to hide, and they filter the water naturally. Create aquatic reptile and amphibian habitat using half submerged logs as sheltering and basking spots for amphibians, turtles, and water snakes.

**Reduce your Carbon Footprint:** The smaller our carbon footprints, the less impact we have on our shared environment then everyone and everything is happier and healthier. Learn more about your CF: [www.conservation.org/act/carboncalculator/calculate-your-carbon-footprint](http://www.conservation.org/act/carboncalculator/calculate-your-carbon-footprint)

**Stop the killing:** I feel that one of the most important things we can do to help wildlife and nature and ultimately ourselves - is to stop killing animals and plants that we do not understand such as snakes, turtles, wasps, Raccoons, hawks, bats, insects, spiders, "weeds" etc. One of the best ways to do this is to first learn the role these native creatures play in the ecosystem, that knowledge will then conquer your fears and with that knowledge will come respect and understanding, from that respect and understanding grows caring, concern, and conservation.

Another way to stop the killing is to stop spraying all the toxic chemicals and poisons all over our farms and properties. Remember DDT? It may be banned in the USA but currently Americans dump, pump, and spray millions of gallons of other similar and highly toxic "weed" killers, insecticides, herbicides, fungicides all over everything. All of these are toxins are designed to KILL life and we spray millions of gallons of them all over our yards, gardens and farms...and that is not a good thing in any way. Killing one species you may consider a "pest," such as spiders for instance, will create an imbalance in the habitat and therefore the habitat is question will have many more insects because of the lack of insect predators—the spiders. Many of these animals may be "pests" on your garden veggies or even you—i.e. the mosquito--and guess what, spiders eat mosquitoes. These toxins can also kill or sicken other creatures who then become easier prey for native predators such as hawks, foxes, snakes and your pet cats and dogs. These native predators and your pets may then suffer sickness and death further damaging the natural balance of life. Many of these chemicals also bio-accumulate - build up in the bodies of - wildlife or the environment creating future problems. Roundup, atrazine, neonicotinoids and fibronil are some the more dangerous and deadly toxins that are found in many herbicides and pesticides that are readily available at home and garden stores. These chemicals have been shown in independent tests to cause serious problems with wildlife such as amphibians and fish—which are important predators on insects. These toxins have also been shown to directly and indirectly harm Honeybees, Monarch butterflies and other native pollinators—that pollinate many of our crops. Many of these toxins have endocrine disrupting and cancer causing properties in humans and wild animals and many weeds are developing resistance to Glyphosphate—the active ingredient in Roundup. By applying these dangerous toxins to our farms and lands we are not only harming wildlife and destroying the balance of nature but we are slowly poisoning ourselves—even when used as directed. Imagine how much cleaner and greener your gardens and land will be once you stop using toxic chemicals--and think about how much more money you will have to spend on creating wildlife habitat for your beneficial and beautiful furry, feathered, scaly, slimy and warty friends.

If you have a "weed" problem there are several natural weed killers that work very well such as this safe and effective substitute for Roundup: *2 cups Epsom salts, 1 gallon vinegar, 1/4 c dish soap. Spray onto leafy weeds. Watch them go away!*

If you feel that you must combat pests, use a natural method. For example: if you have aphids, release ladybugs as they are a very effective predator against aphids or just manually squish the aphids – it's fun and relaxing.

If you must use fertilizers, please use natural manure and/or compost based types that are renewable, safe, and beneficial for the land, wildlife, and for you and your family.

If you have an insect or rodent problem, invite amphibians, lizards, snakes, hawks, foxes and other native predators to live in your habitat. Some ideas on how to do this are listed in this document.

**Mowing.** If you mow areas of your land one of the most beneficial things you can do--especially for small animals like mice, rabbits, ground nesting birds, box turtles, snakes, and others--is to adapt your mowing schedule to benefit wildlife. Mowers kill untold numbers of wild creatures every year with box turtles and snakes being near the top of the list of those in the most danger. The sad thing is that mower operators probably have no idea that turtles are even present in the fields that they are mowing. The loud "crack" that they occasionally hear while mowing is just attributed to a stray rock or stick--not a 50 year old turtle munching on a snail, slug or wild strawberry. This type of incident often happens when unused fields and green spaces are allowed to grow uncontrolled and mowed only occasionally and in the interim the grasses and "weeds" grow thick and tall. This mix of tall grass, blackberries and other edibles provides excellent habitat that provides great cover and forage for small animals such as insects, snails and slugs. Many of these plants and small animals are on the box turtle's list of favorite foods so the turtle soon follows. Most animals can either move fast enough to escape the advancing mower or are small enough to hide in burrows--but not the box turtle--at the first sound of the mower their instinct tells them to pull inside their shell and hide and they are then hit by the mowers blades or crushed under the tires of the tractor. While most of these turtles are killed, some do survive and heal but during their convalescence they are vulnerable to predators and infection from the open wounds caused by their unfortunate encounter. What can be done? This human caused mortality can be greatly reduced if land owners and mower operators follow one or more of these simple suggestions:

- 1-Mow more often. Try not to let your grass grow so high that it "lays over" and creates good hiding places for critters such as box turtles. Shorter grass is not as attractive to box turtles as it does not provide very good shelter.
- 2-During the spring, summer and fall, mow during the hottest part of the day--between 12 and 4 is best. Box turtles are most active during the morning and evening hours when the humidity is higher and it is a bit cooler. Once it heats up they will either retreat to the nearby forests or bury themselves in the soil during the heat of the day. Turtles buried in the soil are lower to the ground thus the mowers blade may miss hitting them especially if you raise the blade a few inches higher.
- 3-Raise your mowers blade. If you raise your blade above 5 inches you will greatly reduce hitting box turtles...the drawback is that you will have to mow more frequently.
- 4-Turtle Patrol. Another option is to patrol your fields for turtles before you mow and keep them in a cardboard box in a cool shady place until you are finished mowing. Yes, this option is very time consuming but it can be a good way to get some quality exercise and great family time but please remember to put the turtles back exactly where you found them after you mow. If there is no remaining cover where you found the turtle simply place it under the closest shrub/bush or in the nearest woods and it will find its way home.
- 5-Get some goats. Goats are excellent natural mowers and they will keep your grass short so you never have to waste gas, money, and time to mow again. They are also friendly creatures that are fun to watch, produce excellent fertilizer for your grass, and, with a little work - milk and cheese for you and your family. Just implementing one or more of these mowing measures will help you prevent unnecessary box turtle and other wildlife deaths on your lands. Please try to do your part to help protect these animals that are unable to help protect themselves from our human ways.

These are a just few methods that you can implement to benefit the wildlife on your lands. Many more general and species specific documents may be found online and in various publications.

For more information on Earthshine Nature Programs pages visit our website, blog and Youtube.com sites linked below. If you have any questions about wildlife conservation on your lands, or have found an injured reptile or Opossum please feel free to contact me.

Please consider a tax deductible donation today to help support our unique wildlife conservation, outreach education and wildlife rehabilitation programs.

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