

Landscaping for wildlife Shoreland habitat can help animals, preserve water quality

If you took an informal survey of northern Wisconsin residents living along lakes and streams, you would probably hear that one of the biggest reasons they live where they do is for wildlife encounters.

It is about seeing eagles and ospreys diving for fish, furry friends like otters and muskrats playing along the shoreline, a ruby throated hummingbird buzzing around a trumpet vine, or the ringing of chorus frog sounds in the nighttime air.

These kinds of interactions with wildlife provide part of the quality of life we benefit from in the North Woods. "Enjoying wildlife quells our curiosity and provides a sense of connectedness with the world around us," said Patrick Goggin, county conservationist with the Vilas County Land and Water Conservation Department.

"Folks get a lot of satisfaction from enhancing their shoreline areas to provide resources for wildlife", he notes. There are other benefits too. Landscaping for wildlife has an economic dimension, says Carrol Henderson, supervisor of the Minnesota DNR's Nongame Wildlife Program and author of the award winning book "Landscaping for wildlife."

She said landscaping presents an opportunity to save on heating and cooling costs. It also creates different habitats for wildlife, providing opportunities for people of all ages to learn about the wonders of nature.

"A young and growing mind can thrive in an environment that contains different types of wildlife," she said.

Henderson suggests other benefits of attracting wildlife include photography and bird watching opportunities, natural insect control, windbreak and shelterbelt benefits, food production, and property value enhancement.

"Landscaping for wildlife does not mean you can not have a beautiful garden or yard," said Goggin. "Many of the plants attractive to birds and other wildlife also add beauty to your landscape."

There are four basic needs of wildlife necessary to make your property more suitable and inviting: food, water shelter, and space.

"If you keep those needs in mind as you develop a landscape plan for your site, you will likely be successful," he said.

Food

Henderson said every species has its own food requirements, and they can change as an animal grows older or goes from one season to the next.

Food includes obvious nutritional parts of an animal's diet as well supplements like salt. Also, grit or gravel is required by many birds for grinding up food in their gizzards, she said.

Several types of foods can be provided in a landscaping plan including fruits and berries, grain and seeds, nectar sources, nuts and acorns, browse plants (woody twigs and buds), forage plants (grasses and legumes) and aquatic plants.

Water

According to Henderson, the importance of water for wildlife cannot be overemphasized.

"Springs, beaver ponds, marshes, creeks, swamps, lake sides, and river shorelines are all vital components of our environment," she said. Species ranging from deer to ducks to dragonflies depend on water for survival and elements of their life cycles.

"One of the biggest obstacles in developing suitable landscapes for wildlife is in conserving and managing watery habitats where they still exist, like shorelines, and in creating vernal ponds where they are absent or restoring wetlands that were degraded," said Goggin.

"These water features are an essential part to our restoring landscapes. They often double the number of bird species that will frequent your property," he said. "Bird baths or backyard ponds are a great way to include this element in your shoreland landscaping plans."

Shelter

Shelter, or cover, is necessary for protection from adverse weather and for hiding from predators.

"Shelter is particularly critical while animals are nesting and raising their young. It is also necessary when animals sleep or rest," said Henderson

Different types of nest boxes can be helpful shelter including wood duck, bat, and bluebird houses. Check out the Ducks Unlimited web site at http://www.ducks.org/conservation/duck_box_plans.pdf to find out more information on building a duck box house. For bat house ideas, see the North American Bat House Research Project plans listed at <http://www.batcon.org/bhra/economyhouse.html>. Bats are beneficial wildlife to attract in that they eat large numbers of insects, including mosquitoes.

Bluebird house building is another fun project you can embark on to attract wildlife. Plans for building a bluebird house can be found at <http://www.batbox.org/>.

Space

Henderson said every wildlife species requires a certain amount of home territory or space needs.

"For example, loons and swans will defend as much as 100 acres of lake or wetland for their nesting site. A ruffed grouse pair needs approximately 10 acres to have a brood. Bluebirds need about 5 acres per pair to breed," she said.

In contrast, she said wood ducks and purple martins do not defend territories around their nest, so many pairs can nest within a smaller area.

"By understanding how much territory is defended by different birds, small mammals, and other species, you can determine how much wildlife can reasonably be expected to occur on your property," noted Henderson.

She said when planting for wildlife you should aim for a mix of plants including wildflowers, shrubs and trees to provide them with layers of vegetation to use as habitat space.

Also, dead trees or "snags" can be very beneficial to wildlife.

"Over 70 kinds of Wisconsin mammals, birds, reptiles, and amphibians, not to mention swarms of insects, spiders, millipedes and other invertebrates use these dead or dying trees," said Goggin. "For example, snags provide woodpeckers a place to feed and raise their young."

Rain gardens a growing phenomenon

Wisconsinites love their gardens, and a growing number of them are putting their green thumbs to work to protect the health of nearby streams and rivers, state water quality officials say.

A growing trend through out Wisconsin is property owners planting rain gardens to protect water quality.

"They're creating 'rain gardens' on their urban, suburban and waterfront properties to capture runoff from their roofs, lawns and driveways while beautifying their yard and providing habitat for butterflies and songbirds," said Goggin.

"Rain gardens are landscaped areas planted with flowers and other deep-rooted vegetation that can soak up storm water from roofs, lawns and driveways instead of allowing it to run into a storm drain and eventually into a lake or river," he said.

These shallow depressions are planted with flowers and other deep-rooted vegetation that can soak up storm water from roofs, lawns and driveways and filter out the soil, fertilizer, pesticides and other pollutants the water may pick up. Such gardens can soak up nearly all of the water that would otherwise runoff and wind up polluting area lakes and rivers.

"Interest is exploding right now in rain gardens because they empower people to do something about a problem they've become aware of," said Roger Bannerman, a veteran Department of Natural Resources storm water researcher who has created four rain gardens in his yard.

He has become a frequent speaker at garden club meetings and other venues, and is increasingly being contacted by developers interested in rain gardens. In fact, Bannerman says, four developments planned or underway in Dane and Sauk County will feature individual rain gardens and deed restrictions requiring homeowners to maintain the gardens.

"It's really exciting," Bannerman says. "For most of the 30 years I've worked on storm water issues, the audience could fit inside a telephone booth. Now it's hundreds of people in the audience. People are really embracing the idea and taking some responsibility for helping sustain the health of their ecosystems."

Polluted runoff from urban areas, combined with runoff from construction sites, farms and roads, is considered the biggest remaining threat to water quality in Wisconsin lakes and streams. Such runoff is one of the major reasons that 44% of Wisconsin's river miles and 61% of its lake acreage do not fully support the fish and other aquatic life they should, according to the U.S. Environmental Protection Agency's latest assessment of Wisconsin's waters.

Runoff from urban and suburban homes has other environmental effects.

"A growing body of research is showing that the increasing amount of rooftops, driveways, parking lots and other impervious surfaces are preventing water from soaking into the ground and replenishing groundwater aquifers," said Bannerman.

He said this, in turn, contributes to dropping water tables in some areas, decreasing water available for the streams that count on groundwater during dry months, and declines in the abundance and diversity of fish and other aquatic life in streams in urban and urbanizing areas.

Bannerman says rain gardens provide an antidote to that problem. They help keep rain water on the land, helping replenish aquifers. They also can provide habitat for butterflies and songbirds, and, depending on the homeowner's desire, can be planted to encourage other wildlife too.

The garden itself is shallow -- dug down 3 to 4 inches, with a level bottom -- and is located to receive water pouring out of a roof downspout, or from a driveway or lawn,

Carmen Wagner, a DNR shoreland management specialist and former native plant nursery manager, recommends that people use native plants in their rain garden, "just about anything that can handle the drying out and wetting cycle."

Native plants tend to be deep-rooted and so will enhance the soil structure and increase the amount of water that soaks into the ground, and eventually, into groundwater aquifers, Wagner says. In addition, native plants usually require less upkeep than perennial plants.

"Rain gardens are something you can do to reduce runoff and replenish groundwater. They not only help solve the environmental problems but they improve the aesthetics of your yard, they can attract wildlife, and they're fun," noted Bannerman.

Bannerman stresses that rain gardens by themselves are only one component of a system to help manage stormwater but they are an important one because they seek to keep water on the land instead of conveying it as quickly as possible to lakes and streams.

"Just as importantly, they provide that stepping stone to introduce people to other stormwater management ideas," he said. "The rain gardens are part of a very big picture. They help us move toward managing and storing the water on site, not just steer it to one place."

Bannerman worked with Applied Ecological Services of Brodhead, Wisconsin and the University of Wisconsin-Extension to develop a brochure, "Rain gardens: a household way to improve water quality in your community." It is available online and in print to help homeowners create their own 'rain garden'. Check out the WDNR web site on rain gardens at <http://www.dnr.state.wi.us/org/water/wm/nps/rq/links.htm> .