Wildlife-friendly Gardens

The soaring flight of butterflies, the friendly hop of a toad, the lovely songs of colourful birds and the amazing aerial feats of bats, all this and more can be enjoyed in a wildlife-friendly garden. Biodiverse gardens and landscaped areas offer much needed habitat and resources to wildlife both big and small and provide the positive enjoyment from observations and encounters for visitors and congregants alike. Wildlife animates the outdoors, like nothing else can. *Care for Creation* that expands into the care for all god's creatures benefits both wildlife and humans – from healthier soil, resilient local ecosystems, diverse flora and fauna populations and cleaner water and bountiful local food systems.

An urban habitat offers many types of environments to local wildlife – ones that are not supportive and others that are richly biodiverse. Your current property could be attracting wildlife for all the wrong reasons – offering opportunities for scavenging or providing shelter where you don't want wildlife. So the first step for any property owner (whether they want to increase the biodiversity for urban wildlife or not) is to ensure that neighbourly relations with wildlife is always a positive one. This can be done by wildproofing structures and landscapes. If this is done first, any enhancements you make on your property to create a wildlife-friendly yard, will ensure that new encounters will be positive ones.

Five easy things to do:

- Do a quick survey of your property to identify what you already have in terms of natives plants, shrubs, trees and determine the proximity to neighbouring green spaces (wetland, woodlot, scrub area).
- Check the full property to ensure that animals can't get into attics, create damage, etc. and consider safety for wildlife by making changes whereverpossible (see below for specific ideas).
- Review maintenance practices to lessen your impact on wildlife and to also help increase the survival rate of local pollinators and other small creatures (see below for specific ideas).
- Purchase plants (including annuals) from a neonicotinoid-free nursery and/or replace annuals with native flowers as annuals require more maintenance and water.

 Consider creating a messy area for wildlife such as a brush pile in a quiet, sheltered, low traffic area and let parishioners know about the benefits of such a project through bulletins or with a sign.

Five bigger steps to help wildlife:

After the survey of your property, consider changing some plants or adding some perennials to provide food and/or habitat for insects, birds, mammals and more into existing garden beds.

- Make changes to maintenance practices to lessen the use of chemicals such as pesticides and fertilizers. See "General Enhancements".
- Add a new garden bed and/or transform a part of your property if you have a large lawn to provide for the needs of wildlife on a larger scale.
- Provide built habitat for wildlife such as a bee condo, bat house, toad house, etc. This type of habitat may require regular maintenance so consider resources before you take this step.
- Celebrate and share the work that you are doing to help inspire others. Add a "Wildlifefriendly" sign in your garden and organize a worship or other event outdoors.

General Wildproofing

Buildings/Property

Ensure buildings are secure and sealed and that there are no small entrances for insects, small mammals or other creatures to attics, basements, walls. If there are no experts from the congregation or other volunteers, consider hiring a specialist.

- If animals are discovered using your building, while doing your property survey, use a humane wildlife removal service. Have them advise you in terms of next steps with consideration towards the season/time of year.
- If you find wildlife on your property that is not creating too much damage (such as under a shed or a step) and that is not in a high-traffic area, consider leaving the wildlife undisturbed until they move on. Many only seek shelter for temporary stays. Call a Local Wildlife Expert such as Ottawa Carleton Wildlife Centre to get the best advice.
- Basement window wells can be dangerous traps for amphibians and reptiles. If this is a problem, consider creating escape routes by offering wildlife something to use to climb out of wells.
- Windows can be dangerous for birds, especially if foliage is found close by - either indoor plants or outdoor shrubs. If bird strikes are happening, consider different options to help birds see the glass. (http://www.flap.org)
- If your faith building is located in a dense urban area, review your policies in terms of interior lighting and/or flood lights used at night especially during spring and fall migrations and/or on foggy and rainy nights. Cities in migration zones can be dangerous obstacles for disoriented birds. (http://www.flap.org/ lights.php)

Property/Lawns

- To help discourage wildlife from using buildings, consider offering habitat (such as a batbox or brushpile) on the property away from all buildings.
- If smaller mammals are spotted in your gardens, get the best advice before moving. For example, baby rabbits are left on their own during the day - they do not need rescuing. Similarly, one-year old raccoons can be spotted during the day, as they are avoiding larger, territorial, nocturnal raccoons. If animals are not aggressive, it may be best to leave them

- be, as they will most likely move on. Call a local wildlife expert such as Ottawa-Carleton Wildlife Centre to get the best advice.
- Frogs, snakes, baby rabbits and even some nests could end up being in the path of your lawnmower. To avoid injuries to wildlife, take a general sweep of yard first before you start mowing, to see if any wildlife is found hidden in the grass.

Waste Disposal

- Ensure that garbage is very secure, including both large square metal bins and smaller trash containers. These are huge attractants to wildlife and they can make a mess and/ or get trapped inside. If you use only smaller containers for garbage and recycling, consider putting these out on the morning of collection.
- Wash food containers carefully before disposing and/or recycling. These items can be a strong attractant and can prove to be dangerous to mammals if they get their heads stuck inside containers. Cut up all plastic six pack rings so that these items are not dangerous to animals either. Ban plastic straws from being used by your congregation as these can be dangerous to wildlife also.

General Enhancements:

Wildlife needs diversity of plants and terrain which includes smaller logs, branches, stones, etc. to provide habitat. This is especially crucial for smaller wild things: small birds and bats, butterflies, moths, toads and others. Native plants can be added to current landscaping in targeted areas and introduced more gradually throughout the property by using a long term plan. Consider going as organic as possible and relax some garden maintenance in areas that are not highly visible to the public. Here are some specific steps you can take:

- Allow leaf litter to remain in garden beds through the fall/winter, so as to provide a thermal barrier on the ground and allow insects (or their eggs) to overwinter on and under leaves.
- Consider creating more natural areas under trees (out to the dripline) to provide some

- undisturbed habitat for insects and eliminate excess mowing.
- Keep perennials, including grasses, up all winter and cut down in the spring so as to provide seeds for birds and allow insect larvae including those in galls to survive the winter.
- Create a messy pile with twigs/sticks, places for puddles and some patches of exposed dirt to provide a variety of places for different wildlife including solitary bees.
- Mix it up as much as possible, as a diverse garden of native plants will attract many beneficial insects and therefore lessen the need for pesticides.
- Start shifting to more organic practices for pest control and for adding amendments to soil which will benefit the health of the local environment and local wildlife. The Canadian Organic Growers have many resources to help with this transition
- If you are short on space, consider native vines such as Wild Cucumber, Groundnut or Allegheny Vine. Vines provide habitat and nutrients for insects, birds and other native wildlife.

Memorial (Burial) Grounds And Cemeteries

Larger green properties, such as cemeteries and memorial grounds, appeal to wildlife due to their quieter setting and natural design. For the people who visit these spaces, the added animation of wildlife can be a symbol of renewal and the circle of life, which may provide some extra comfort, connection, and respite for visitors. If wildlife is not doing damage, this animation can be consider a benefit for property owners and visitors. Various wildlife, including smaller mammals such as rabbits, skunks, bats, various herptiles and many birds and insects find habitat, shelter and resources within these types of sacred spaces. These locations are peaceful green islands in an otherwise busy urban environment for these creatures.

For this reason, many churchyards and larger religious grounds have become valued by conservationists. Some cemeteries in the United Kingdom are partnering with naturalists to provide urban nature programming. Some in the United States are exploring opportunities to renaturalize parts of their grounds to lessen maintenance needs. The National Cemetery of Canada has a small conservation area with a marsh that is highly valued by visitors, residents and even schoolchildren. Both Canadian and American cemeteries are being used as locations for bat studies. Some special and

Become Certified And Inspire Others

If you are creating habitat for wildlife with new native perennials and other wildlife needs, consider leading by example and demonstrating how easy it is to *care for Creation*. Contact one of the nature organizations below to have your wildlife garden registered and/or certified. By registering your gardens, you can help inspire and encourage others to do the same. The national programs offer signage that can be displayed outdoors, to let others know about your efforts and the need for local wildlife habitat.

- Canadian Wildlife Federation "Backyard Habitat" (Canada)
 http://cwf-fcf.org/en/explore-our-work/connecting-with-nature/in-the-garden/get-certified
- Monarch Waystation Program (North America) http://www.monarchwatch.org/waystations/certify.html
- North American Butterfly Association Certified Butterfly Garden (North America) http://www.nababutterfly.com/butterfly-garden-certification-program/
- Pollinator Protection Pledge (North America) http://www.xerces.org/pollinatorprotectionpledge/

unique flora (such as certain types of lichens) have also been found to be more abundant in some of these spaces. If your faith community owns these types of grounds, consider some of the gardening practices suggested in this fact sheet to allow for a richer and more biodiverse space.

Insects

Colourful winged pollinators and bright, busy bees and lady bugs may be among the more popular insects to attract to gardens but there are a multitude of insects of varying sizes, shapes and even mobility that all provide diversity and make up a healthy ecosystem and foodchain. Beyond creating a messy area and/or letting up on fall maintenance, other practices that support insects, which also then support insectavores (birds and small mammals, including bats), include:

- Choosing a large assortment of native plants with different size blooms to attract diverse insects including both larvae and adult insects.
- Supporting the growth and health of lichens, mosses and other small plants that are crucial to the smaller minuscule ecosystem and thus smaller insects.
- If you do have to remove plant mass in the fall, consider leaving at least a third and rotating that section yearly to provide some winter habitat for insects.

Herptiles

Along with messy spaces, brush piles and logs, there are other things that can be done to provide habitat for amphibians and reptiles. Consider providing habitat for herptiles if your property is within two kilometers of potential breeding sites (ponds, wetlands and wet forests with vernal pools) especially if there are safe corridors for spring movement. There are diverse needs among herptiles – some like dryer areas, some seek out damp spots so consider this as you make changes.

A rock garden of varying sizes of rocks can provide some of those dry, warm areas for various creatures and insects and the stone acts as a heat sink, soaking up heat during the day and releasing it at night, which creates a special micro-climate for plants and animals. Compost is another type

of "habitat" that can attract herptiles including snakes, who may lay eggs in compost. To ensure the safety of any eggs, turn your compost carefully and/or avoid turning in late spring (May-June).

For other creatures, such as toads that seek shelter in cooler, damp spaces, a location that is shady or only receives morning sun is ideal. Large, leafy foliage close to the ground that provides cover and offers more than one escape route is the best. Check under Strawberries, Rhubarb or Mullein to see if there are any favourite patches.

Birds

Cities harbour one fifth of the world's bird species, so when considering wildlife, birds should be included (Aronson et al, 2014). Please refer to the other fact sheet on Bird-Friendly Gardening for detailed advice on how to provide birds with natural urban habitat. Below are a couple of general things to keep in mind:

- Choose a few early blooming flowers and shrubs to attract insects into your property to help fuel returning migrant insectavore birds.
- Do an inventory of your windows and ensure that there is nothing that would attract birds towards windows (such as indoor plants located by windows).
- If you have an older building, identify whether it has an active chimney swift roost and if it is contact Bird Study Canada to learn more about protecting this endangered species.

Also, consider letting a garden area in the back or edge along a border, to grow a bit more wild. Some unwanted plants, even if not indigenous, are beneficial to native insects and in turn help out our feathered friends. (See Primer for a list of beneficial non-native plants.) Do eliminate rag weed (which can be found with goldenrod) however.

Small mammals - including bats

Small mammals need no introduction: chipmunks, squirrels, etc. and they can be quite a frustration if they are digging up intentional plantings (bulbs, etc). Consider offering them other food resources from a native shrub or tree. Choose trees and shrubs that offer acorns (oaks), nuts (butternut, hickory), cones (pine), seeds and

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berries. If these are newly planted, they will need extra care and some protection for the first couple of years. Please refer to the Native Trees and Shrubs fact sheet.

If there is interest in providing bat habitat and there is room for a tree placed away from high-traffic areas, consider a Shagbark Hickory as these trees provide a natural roost site for a variety of Ontario bats. These flying mammals can be a benefit to your landscape as they eat a large amount of flying insects nightly. Or if there is interest, add a bat house to your property.



Links / Further Info:

Canadian Wildlife Federation - How to Garden with Wildlife in Mind www.cwf-fcf.org/en/explore-our-work/connecting-with-nature/in-the-garden/how-to-garden-for-wildlife

The Ottawa Field-Naturalists' Club — Fletcher Wildlife Gardens: Tips for wildlife friendly gardens and native plant suggestions. www.ofnc.ca/fletcher

F.L.A.P. - Fatal Light Awareness Program Canada Tips on how to make your place of worship bird-friendly. www.flap.org

Ottawa-Carleton Wildlife Centre Information about how to live with wildlife www.wildlifeinfo.ca

Aronson et al., A global analysis of the impacts of urbanization on bird and plant diversity reveals key anthropogenic drivers, 2014.

http://rspb.royalsocietypublishing.org/content/281/1780/20133330



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