

# Wildlife Gaining Ground™



“Inviting wildlife into  
your backyard”



presented by:

Earthvalues Institute



[www.earthvalues.org](http://www.earthvalues.org)

# Wildlife Gaining Ground™



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## Mission

The Earthvalues Institute mission is to teach and model a new way of living, focused on sustainable development and leadership for change. In educating, the goal is to improve the connection between society and Nature through an interdisciplinary and experiential approach.

Earthvalues Institute



Wildlife Gaining Ground is generously supported by:



Environment  
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St. Francis Valley  
Naturalists' Club



## Yes, I want to invite wildlife into my backyard!

Join other individuals who are committed to helping local wildlife!

### Why do animals need your help?

Our houses sit where forests and fields once provided shelter, food and water for wildlife. Now, in many areas, there are too few natural habitats around urban communities to support local animals. When we also take into consideration the land “lost” to commercial developments, logging of forests and farming, we begin to understand why animal populations are now in decline. For example, during the last several years, scientists have noticed a 40% drop in the numbers of migrating birds and they estimate that 30% of the frog species in the world are in trouble.

### Why participate in the Wildlife Gaining Ground initiative?

The Earthvalues Institute (EVI) is promoting the naturalization of backyards! Each simple action that benefits wildlife is a step towards conservation and a healthy relationship between society and Nature. EVI wishes to record and tally all actions taken to help wildlife. We are aiming for 500 or more actions! So we welcome you and your family to the Wildlife Gaining Ground initiative! Take action, invite wildlife into your backyard and register your action using the form on page19.

### What do animals need?

Animals have four basic needs – **food, water, cover and a place to raise their young.** This **Wildlife Gaining Ground** guide outlines 5 actions you and your family can take to attract wildlife to your backyard. You could choose to plant a tree, create homes for animals, make a pond, grow a meadow, or give life through dead trees. The guide also offers a “Prepare for action” checklist to assist you in getting started on the project of your choice, an action checklist to help you quickly identify backyard projects that will attract the animals you are interested in welcoming and a backyard safari to help you observe and record animal activity. Start with one simple action and make a real difference!





# Prepare for action!

## What do you need to consider to get started?

Choosing to attract wildlife to your backyard also means choosing to help and respect wildlife. If your project requires plants, logs, rocks or any other natural element of a habitat, we recommend that you purchase these items from a reputable nursery. The staff at the nursery should be able to advise you on the choice and care of native plants based on your geographical location and the specific characteristics of your backyard.

Collecting any item from the natural environment should be done in respect of laws, property owners and Nature. *Children must have permission and help from their parents to start a project.*

Use the following checklist to help you get started on a project to invite wildlife into your backyard:

### MAKE A PLAN:

---

- Make a rough sketch of your yard including the existing gardens as well as the various features and equipment (patio, pool, swing, etc.)
- Note where there is sun and shade at different times of the day.
- Note the areas that are sheltered from the wind and the type of soil.

### CHOOSE AN ACTION:

---

- Look through the **Wildlife Gaining Ground** guide and select one action you and your family would like to take.
- Start small and set realistic goals for your project. Take into consideration the long-term upkeep of your project.
- Choose a location for your project in your backyard and add it to your original plan.

### IMPLEMENT YOUR PROJECT:

---

- Make a list of the material you need for your project.
- Create a budget taking into consideration the materials you already have handy.
- Check with city officials if there are any permits, laws or guidelines that would apply to your project.
- Go ahead, get your family involved in digging, building, watering and enjoying the animals that will visit your backyard! Have fun!





# Simple actions make a difference....

Identify what your family can do together to help.



Plant a tree



Create homes for animals



Make a pond



Grow a meadow



Give life through dead trees

## **Did you know...?**

The honey bee visits 4000 flowers to make 1 gram of honey! Pesticides kill or weaken bees – please avoid using them on the lawn.

Remember to register your actions with us! (See page 17 for registration form)



# Plant a tree!

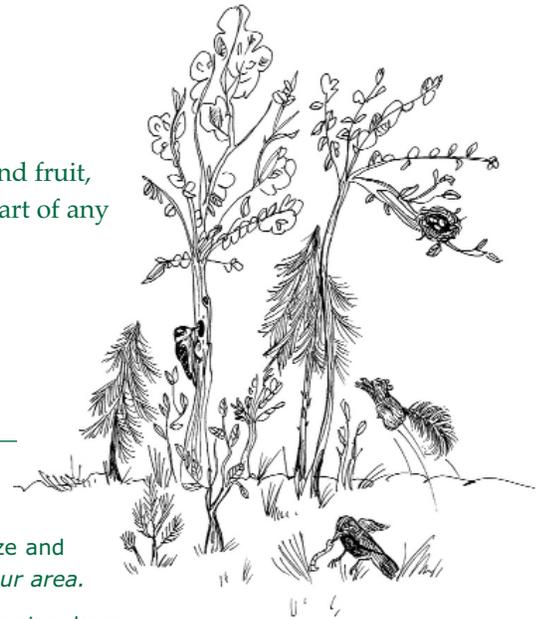
## Trees are essential to wildlife

Trees supply animals with shelter, nesting sites, food from flowers, leaves and fruit, shade, moisture and protection from the elements. They are an important part of any backyard naturalization project.

## You want to plant a tree?

### HERE ARE SOME POINTS TO CONSIDER:

- Do you prefer deciduous or conifers? Since conifers keep their leaves all year round, they provide great shelter to wildlife in winter.
- If possible, choose native species of trees. They are the ones wildlife recognize and they are the easiest to grow. *Ask your local nursery about native trees for your area.*
- How large will the tree get? If the type of tree you choose will grow to a large size, keep it away from buildings, septic tank weeping fields and electric wires.
- Several trees planted close together in a cluster are better for wildlife than single trees.
- Consider the amount of sunlight for the location where you are wanting to plant the tree. Select a species suited for the amount of light. Keep in mind that as it grows, the tree will provide shade on different areas of your backyard.



### TIPS FOR PLANTING A TREE

- Choose a healthy looking tree at the nursery.
- Be careful not to leave the tree in a car for too long on a hot summer day! Quick trips back home are less stressful for the tree. Once you get home, make sure the tree is well watered in its container.
- Dig a hole twice as large as the size of the roots on the tree. After placing 15-25 cm (6-8 inches) of loose earth in the hole, place the tree in the hole, water and cover the roots completely with soil.
- Ensure that the tree is straight and step on the soil to force out air. Add soil if needed. Create a small rim of earth to keep water in when watering.
- Add a stake to support the tree if needed for the first year.
- Water liberally and regularly for the first summer to ensure tree health.
- Place a protective material around tree base to keep animals from eating bark.

### Did you know...?

Apart from filtering pollutants from the air, an averaged sized tree will absorb 3 kg of carbon dioxide (a greenhouse gas) each year and produce enough oxygen every year to keep you and some friends breathing.



# Create homes for animals!

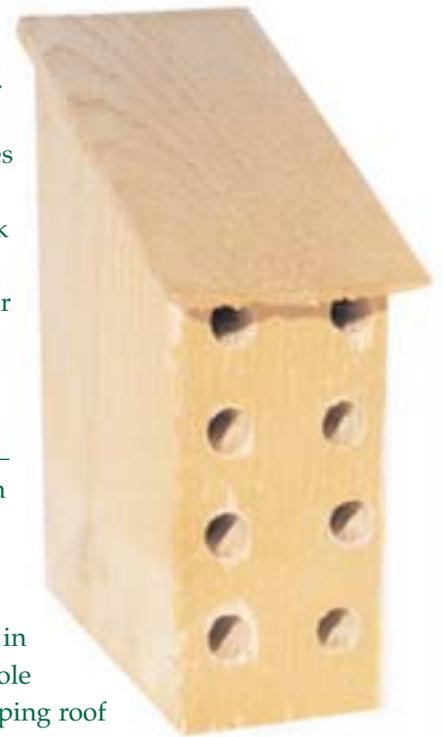


## Animals need shelter

Shelter is essential to the survival of animals. In a natural habitat it comes in the form of rocks, leaf litter, trees, foliage, fallen logs and snags. Dead trees, also known as snags, have been removed from properties because they are thought to be unattractive and worthless. In fact, they are very important to hundreds of animals. Some of them, like various bird species, bats, and mason bees can be invited into “homemade” tree cavities that can be constructed easily.

## Making a home for mason bees

Mason bees are solitary insects that are efficient pollinators. These bees are not aggressive and they can be observed at close distances. Male mason bees cannot sting while females will only sting if handled or trapped under clothing. The sting is said to be the same as a mosquito bite. Females look for a small hole in a snag to lay their eggs. Mason bees do not make their own holes. Creating holes as nesting sites for the mason bee can be an educational and simple activity for the family.



### **MASON BEE HOUSE CONSTRUCTION:**

These mild-mannered bees prefer nesting in holes drilled in wood to any other material. Nesting blocks can be made using untreated lumber (2" x 4" or 4" x 4" works well). Hardwood is best as the wood fibers are less likely to lift when damp and block the hole. Holes are drilled 5/16" in diameter and distanced at centers of 3/4" apart. Drill the hole 3.5" in depth towards the back of the block. Attach overlapping roof to protect bees from the sun and rain.

### **PLACEMENT OF THE MASON BEE HOUSE**

Mason bee houses should be placed at least one meter above the ground. For more information on mason bees, please visit [www.earthvalues.org/wgg.php](http://www.earthvalues.org/wgg.php)



# Create homes for animals!

## Making a home for bumblebees

People can build artificial bumblebee nests in the form of boxes, which will attract the queen bumblebees in the spring. Placement of house is an important safety consideration. For more information, please visit [www.earthvalues.org/wgg.php](http://www.earthvalues.org/wgg.php)

## Making a home for bluebirds and tree swallows

Tree swallows and eastern bluebirds are friendly birds that live in harmony with people. Both species use abandoned woodpecker holes in snags to nest and readily take boxes made for them. For detailed instructions on construction and placement, please visit [www.earthvalues.org/wgg.php](http://www.earthvalues.org/wgg.php)

## Making a home for toads

Toads like to hide in dark damp places during the day and then come out to feed during the night. They are truly a gardener’s friend as they eat many insects that can harm plants. Place rocks, tree bark, a small plank of wood or an overturned clay pot in the garden to form a hiding spot, with about an a 3-5 cm (1-2 inch) opening for the toad to enter.

### Did you know...?

Tree swallows will be delighted to be offered white feathers while building their nest. The male will swoop to pick up a feather and offer it to the female who will place it inside the birdhouse to line the nest.



## Making a home for bats.

Bats eat thousands of insects per night, including mosquitoes. They like to find small warm spaces to crawl into during the day and for the female to give birth. Building a proper bat house may attract bats that will control local insect populations while you sleep. For detailed information on construction and placement, please visit [www.earthvalues.org/wgg.php](http://www.earthvalues.org/wgg.php)



# Make a pond!

## Ponds attract wildlife

Ponds are a type of wetland. Wetlands are crucial to ecosystems and sustain more life than any other habitat. In your backyard, creating even a small water feature will provide much needed water and wet spaces to many animal species. Depending on the type and size of your project you may attract frogs, dragonflies, salamanders, bathing birds and thirsty mammals.

## Setting up a half-barrel pond

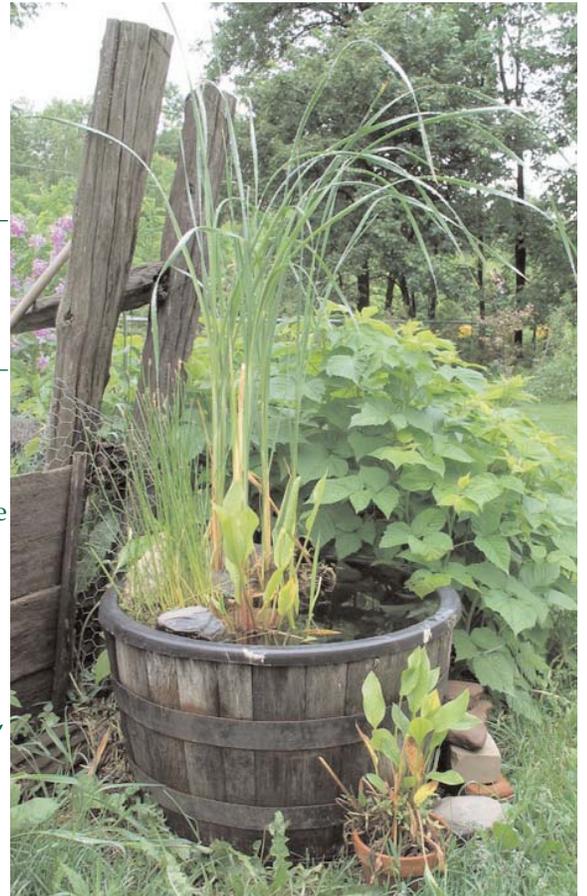
Create a small pond with a plastic, pre-formed liner available commercially.

### **PLACEMENT OF THE HALF-BARREL POND:**

Place in an area on the lawn amongst trees or on patio. Plants will need a minimum of 3-5 hours of sunlight a day.

### **MAKING THE HALF-BARREL POND:**

Fill with water (rainwater is always preferable). If chlorinated water is used, let water stand for a least 24 hours. Place plants in pots, supported by rocks or bricks if needed. Maintain water level and freshness of water by adding buckets of water filled the day before. This will ensure the water will be the same temperature as that of the water in the pond. Place flat rocks above the water to act as a support for insects, birds or frogs. The small pond in this photo was placed beside a garden fence and a raspberry patch, which acted as cover. It attracted birds that came to drink, damselflies, and even a frog that called for a mate! For a photo of this frog's favorite hiding spot, visit the "oddities" photos at [www.earthvalues.org/wgg.php](http://www.earthvalues.org/wgg.php)



# Make a pond!



## Backyard Garden Pond

Digging a small pond in your backyard can be an incredibly enhancing feature for your landscape design and for wildlife.

### **PLACEMENT OF THE POND:**

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A small pond can be placed in the corner of a property, along a hedge or under a treed area. 3-5 hours of sunlight will be necessary for most plants. Water lilies will definitely need 5 hours of light. Partial shade is important too, as the shallow water heats up quickly and animals like frogs need protection from the afternoon heat.

### **BUILDING THE POND:**

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- Use garden hose or rope to outline the pond on the property.
- Remove grass from lawn.
- Dig a gently sloping hole that will eventually go from 3 to 15 cm (1.5 to 6 inches) of water. This will allow animals to enter and leave the pond with ease.
- Dig a deeper section of 60 cm (24 inches) (or more if you wish – check with local municipal laws in your area).
- Remove roots and rocks that may pierce the liner.
- Smooth the bottom and place several centimeters of sand on it. A few centimeters of old newspapers will act as a cushion to the liner if sand isn't used.
- Carefully place the PVC liner purchased at home centers or old pool liner into dug out area.
- Remove any footwear that might puncture the liner when walking inside the hole.
- Leave approximately 15-30 cm (6 to 12 inches) of liner around the edge of the pond. This can be covered with rocks, logs later on.
- Fill with water and let settle for a couple of days.
- If possible, conserve water by diverting rooftop water to the pond with a 3 to 5 cm (1.5 to 2 inch) PVC pipe. The extra effort saves "fill up time" in the long run.
- Place rocks, logs and sticks around pond edge and in water. Rocks or sticks that protrude from water are great resting spots for animals.
- Purchase native plants at local nursery and pot them.
- Small pumps can be purchased to keep water moving. This is important to keep the water fresh and to discourage mosquitoes from laying eggs. Outdoor electrical outlets must have a ground fault circuit interrupter.
- Pump filters should be cleaned often to ensure proper water flow. For more information and photos of garden ponds, please visit: [www.earthvalues.org/wgg.php](http://www.earthvalues.org/wgg.php)

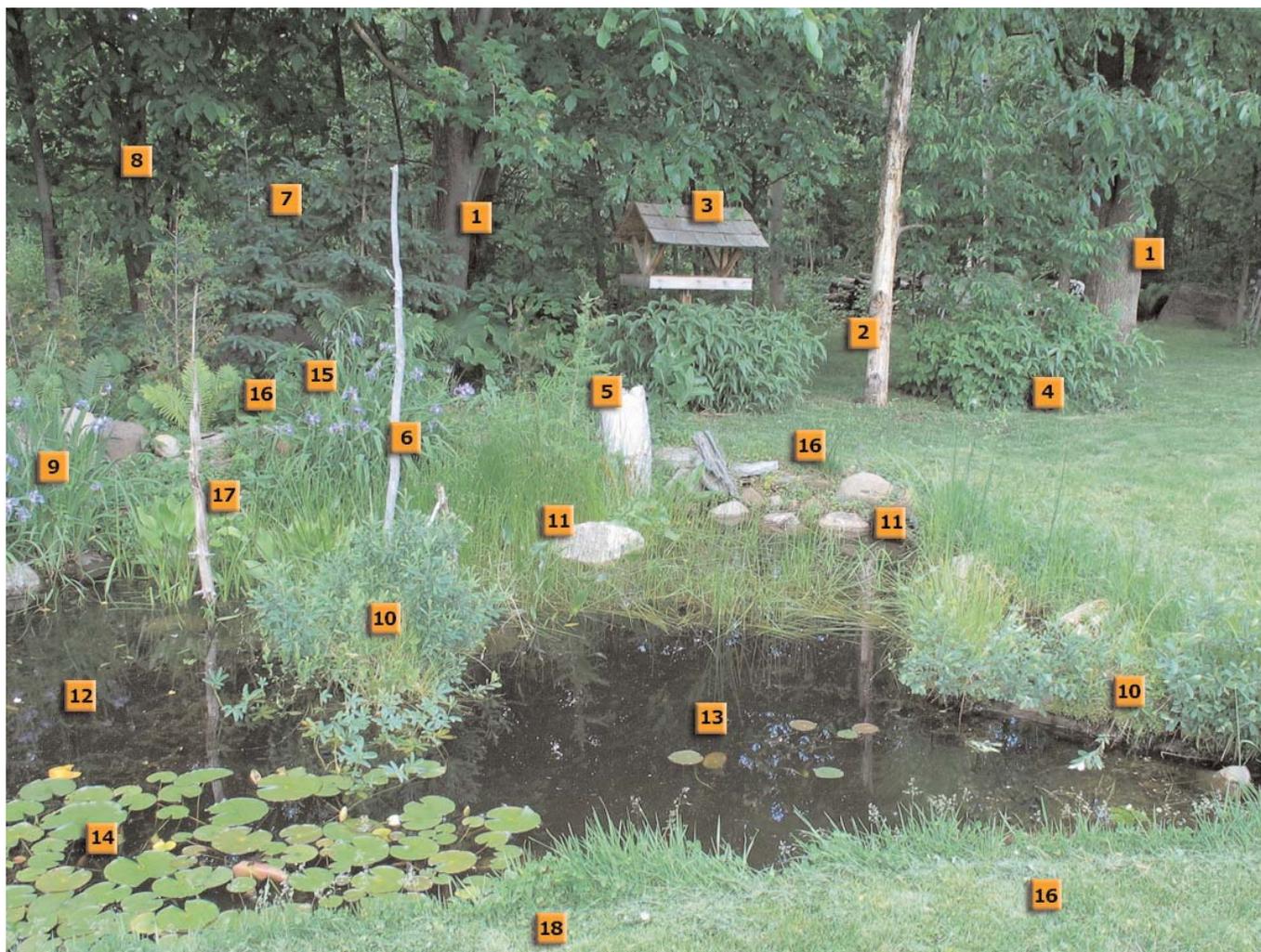


Make a pond!

# Model of a backyard project

Fifteen years ago, this backyard had two trees and a lawn sprayed with pesticides and herbicides. It was a green desert with low signs of life. This photo shows a section of the lawn transformed with a pond and many other projects during the last five years. Now it is a haven for Wildlife.

Start with one action, then add another...



- |                    |                             |                                     |
|--------------------|-----------------------------|-------------------------------------|
| 1. original trees  | 7. evergreen trees          | 13. depth 30 cm (24")               |
| 2. planted snag    | 8. bird house (hidden)      | 14. waterlilies                     |
| 3. bird feeder     | 9. bumblebee house (hidden) | 15. iris                            |
| 4. raspberry patch | 10. floating logs           | 16. extent of pond liner            |
| 5. hollow stump    | 11. rocks                   | 17. log                             |
| 6. small snag      | 12. depth 15cm (6")         | 18. roof run-off pipe (underground) |



# Grow a meadow!



## Growing a meadow of flowers is easy

A meadow is an area of grasses and flowers. Meadows are best created in sunny areas of the lawn. They will do well in poor soils and need little care if native grasses or flowers are grown.

Meadows attract butterflies, crickets, ladybugs, and many more interesting insects.

Mason bees will visit flowers in early spring to collect pollen for their young.

Birds, including hummingbirds, will visit seeking food, nesting material and shelter.

Frogs and toads are attracted to meadows by the shady areas and the abundance of insects.

## Creating your meadow

- Simply stop mowing an existing part of your lawn. The grass will grow tall and produce seeds and wildflowers will begin to grow. Leave the seeds for the birds in the fall.
- Alternatively, strip a section of lawn of grass and plant native flowers available at your nearest nursery. Many of the native wildflowers produce a stunning display when blooming. Try dame's rocket, bee-balm, columbine, orange hawkweed, goldenrod, aster, black-eyed susan, common mullein, joe-pye-weed, wild lupine and thistle.
- Collect seeds from wild plants in a field during the fall and winter and spread them on your lawn in the spring.
- When an odd plant appears on the lawn, mow around it and let it blossom.

## Meadow visitors...

If you are near water, dragonflies may visit to eat insects. They do not bite people and are one of the most beneficial insects as they eat biting flies.



Leopard frogs love to sit in fields and wait for insects. They will often come out in the morning to sun and then sit in the shade of tall grass during the hot afternoon.



This monarch butterfly has landed on milkweed, the plant it lays eggs on. Letting milkweed grow on your lawn or in flower meadows will attract this beautiful orange butterfly. Milkweed will also attract many other butterflies and insects to a backyard garden.





# Give life through dead trees!

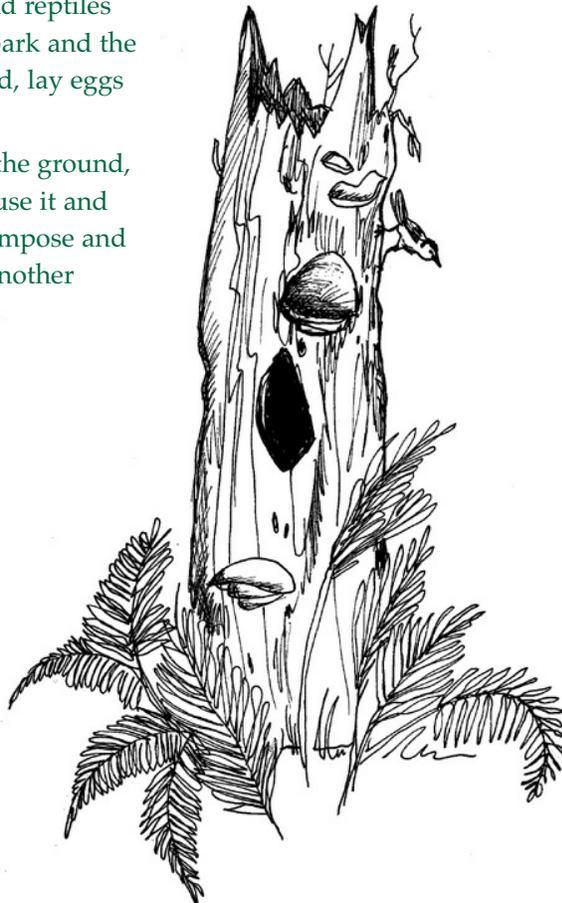
## Dead trees attract wildlife

Dead or dying trees are of great value to wildlife. Hundreds of different animals depend on standing dead trees, hollow trees, stumps and logs. They need them for food, to make dens, for shelter, to nest inside and to roost.

When a tree dies, mushrooms and insects usually start the process of decomposition. They slowly break down and soften the tree, permitting other animals, like woodpeckers, to create holes in them.

Many birds and small mammals, in turn, depend on old woodpecker holes to nest in. When the bark starts to peel from the trunk, insects, amphibians and reptiles use spaces under the bark and the small holes to find food, lay eggs or as shelter.

When the tree falls to the ground, other animals start to use it and eventually it will decompose and become soil, starting another cycle...



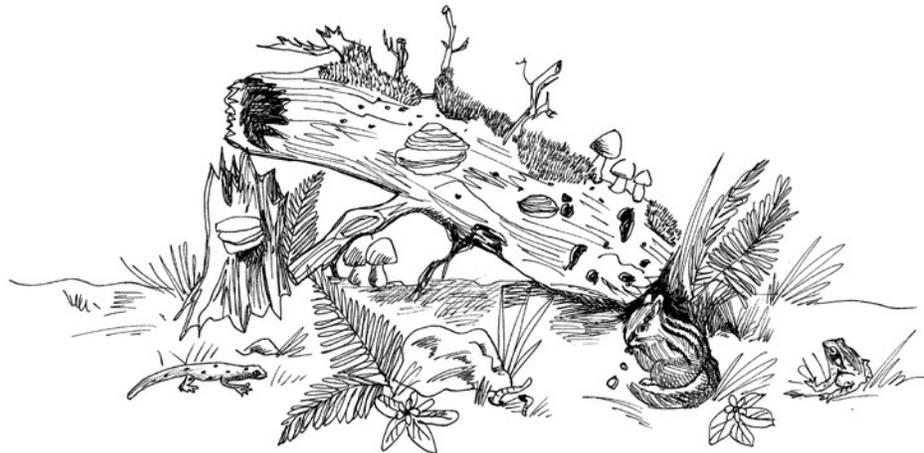
# Give life through dead trees!



## Dead trees in your backyard

- Only dead trees that pose a danger to property or to people should be removed.
- Dead trees can be trimmed or used as the center of a landscape design. They will be used as a habitat for wildlife. They are beautiful and change every year.
- If you don't have a dead tree, keep your eyes open for someone who is removing one. "Plant it" in your yard amongst some trees or flowers! To plant a dead tree, simply dig a hole deep enough to support the base of the snag and firmly compact the soil around the base. Dead trees make great winter feeders for birds like woodpeckers, nuthatches and chickadees.
- Create a small pile of logs or branches. Small animals such as rabbits and birds will use it as shelter.
- Ponds, logs and branches make perfect resting areas for butterflies and many other insects. Frogs, toads, salamanders and a host of other pond visitors also use logs and sticks to sit on, look for food and to attach their eggs to.
- Layer large pieces of bark on the ground. Many tiny backyard visitors like toads will use it to keep out of the hot sun and hide from predators. A shady corner of a backyard is a perfect place to start.

For more information, please visit [www.earthvalues.org/wgg.php](http://www.earthvalues.org/wgg.php)





# Backyard Safari

Your family can investigate the animals that choose your backyard as their home. Of course, the more diversified habitats your property has to offer, the more species can find what they need. Use this checklist to record all the animal life that you observe in your backyard. Try this safari before and after your family takes action to invite wildlife. Compare your observations. Have you made a significant change for wildlife? You can also make copies of the Backyard Safari checklist to use it more than once over the course of a year, for different areas or habitats of your backyard or to share it with friends and neighbors!

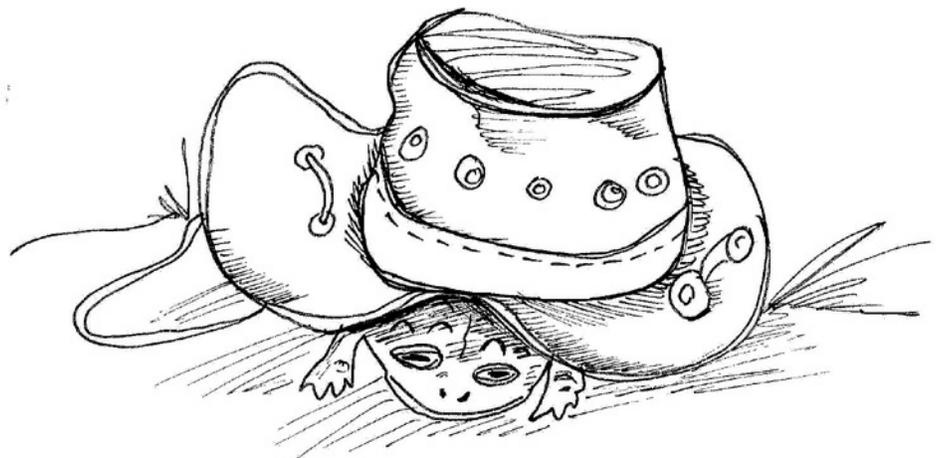
The checklist will help you spot evidence of different animal activity. When you find something, sketch your observations in the box provided and check off the evidence. You can also make a few personal notes such as the specific location of the animal life evidence, the identity of the animal or what backyard feature has attracted this creature (fallen log, bird bath, fruit tree, etc.). Consult field guides to help you identify the various species you come across during your safari.

Go ahead and be curious! Look under rocks, logs and leaves (please make sure you place them back). Listen for birds, insects and mammals. Lie on the ground and take the time to observe your flower garden from this new perspective. Or then again, grab a comfortable chair and a pair of binoculars and enjoy this safari the relaxed way!

Name of Backyard Safari participant: \_\_\_\_\_

Habitat: \_\_\_\_\_

Date: \_\_\_\_\_





EVIDENCE	SKETCH AND NOTES ON ANIMAL	EVIDENCE	SKETCH AND NOTES ON ANIMAL
Insect or snail eggs		Hole(s) in the ground	
Insect or spider egg cases		Hole(s) in trees	
Cocoon or chrysalis		Tunnels in the earth	
Gall (insect home) on plant		Hole/holes in leaves	
Insect exoskeleton		Food remains	
Web		Nibbled branches or buds	
Fish, toad or frog eggs		Gnawed branches or bark	
Bird nest and/or eggs		Gnawed seeds, nuts or fruits	



**EVIDENCE**

**SKETCH AND  
NOTES ON  
ANIMAL**

**Tracks**

**Slime trails**

**Songs and sounds**

**Smells**

**Shed skins**

**Droppings**

**Other**

**Other**



# Action checklist

Use this checklist as a quick reference to target specific actions that will attract your favorite wildlife to your backyard.

ANIMALS TO ATTRACT	POSSIBLE ACTIONS FOR YOUR BACKYARD	YES! THIS IS A GREAT IDEA FOR OUR BACKYARD!
Monarch butterfly	Meadow with milkweed and high nectar fall flowers such as asters	<input type="checkbox"/>
Black swallowtail butterfly	Flower garden with dill and parsley	<input type="checkbox"/>
Ladybug	Meadow, log or snag with loose bark	<input type="checkbox"/>
Mason bee	Mason bee home, meadow	<input type="checkbox"/>
Praying mantis	Meadow, flower garden	<input type="checkbox"/>
Frogs	Pond, moist areas, meadow	<input type="checkbox"/>
Salamanders	Pond, moist and shady area with fallen log	<input type="checkbox"/>
Toads	Pond, moist and shady area with fallen log	<input type="checkbox"/>
Woodpeckers	Snag, feeders, trees	<input type="checkbox"/>
Chickadee	Snag, feeders, trees, birdhouse	<input type="checkbox"/>
Hummingbird	Flower garden with cardinal flowers, phlox, other flowers, feeder	<input type="checkbox"/>
Goldfinch	Flower garden with cosmos and sunflowers	<input type="checkbox"/>
Blue jay	Feeders, flower garden with sunflowers	<input type="checkbox"/>
Cardinal	Feeders, conifers	<input type="checkbox"/>
Northern oriole	Trees, cut oranges as feeders	<input type="checkbox"/>
Cottontail rabbit	Meadow	<input type="checkbox"/>
Eastern chipmunk	Fallen log, feeder	<input type="checkbox"/>



# Wildlife Gaining Ground™

“Inviting wildlife into your backyard”

## Registration Form (please print)

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ Prov: \_\_\_\_\_ Postal Code: \_\_\_\_\_

Email Address: \_\_\_\_\_ Telephone: ( ) \_\_\_\_\_

### Actions I have taken to invite wildlife into my backyard

#### ANIMAL HOMES INSTALLED:

NUMBER

Birdhouses \_\_\_\_\_  
Bat house \_\_\_\_\_  
Mason bee \_\_\_\_\_  
Bumble bee \_\_\_\_\_  
Toad house \_\_\_\_\_  
Other \_\_\_\_\_ specify: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### POND CREATED:

Area of pond:

\_\_\_ m x \_\_\_ m ( \_\_\_ ft x \_\_\_ ft)

#### MEADOW CREATED:

Area of meadow:

\_\_\_ m x \_\_\_ m ( \_\_\_ ft x \_\_\_ ft)

#### TREES PLANTED:

NUMBER

Trees or shrubs: \_\_\_\_\_

#### DEAD TREES LEFT

NUMBER

Standing trees: \_\_\_\_\_

Logs on ground: \_\_\_\_\_

Stumps: \_\_\_\_\_

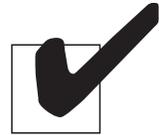


# Registration Form (continued)

Our family has stopped using  pesticides  herbicides on our lawn.

---

Yes, we (I) have made a difference!



\_\_\_\_\_  
Children's Signature(s)

\_\_\_\_\_  
Parent's Signature

Register me for the free Earthvalues e-newsletter

## Please send pledge form to:

**Earthvalues Institute,**

3586 Bouthillier,  
Carignan, Quebec,  
J3L 3P9

or fax to: (450) 658-7689

Or register online at: [www.earthvalues.org/wgg.php](http://www.earthvalues.org/wgg.php)  
(click on project registry)

For totals of all actions taken by program participants, please visit our website at [www.earthvalues.org/wgg.php](http://www.earthvalues.org/wgg.php) and click on project registry



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The Earthvalues Institute is a non-profit charity (reg.#: 870473741 RR0001) dedicated to connecting society and Nature. If

you would like to support our cause, please visit us at [www.earthvalues.org](http://www.earthvalues.org) and click on “Donate now”. Thank you.

This guide is printed on recycled paper.

*Aussi disponible en français*

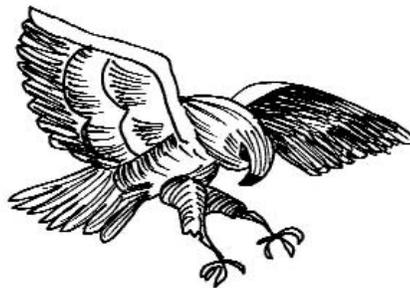


# Share your ideas, your actions and this guide...

## Tell a friend about “Wildlife Gaining Ground”!

For an online copy of this guide, visit [www.earthvalues.org/wgg.php](http://www.earthvalues.org/wgg.php)  
Remember to register your actions that benefit wildlife with us at  
[www.earthvalues.org/wgg.php](http://www.earthvalues.org/wgg.php)

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