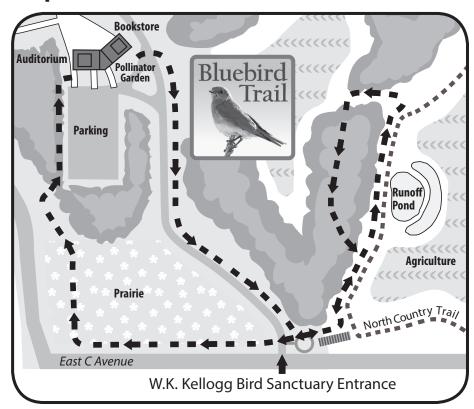


Trail Guide



W.K. Kellogg Bird Sanctuary

# Map



#### Length: 1 mile

Each section in this guide coordinates with a location on the trail. As you hike the trail, watch for the numbered trail marker posts. When you find a post with a number on it, find the section in the guide with the same number to learn more about nest boxes and backyard habitat.

Don't forget to sign out a pair of binoculars and a field guide from the Sanctuary Bookstore to use during your hike!

### What you might see on the trail

**Spring:** Bluebirds, Tree Swallows, and House Wrens on and around the nest boxes

**Summer:** Birds singing, prairie flowers blooming, and insects pollinating

**Fall:** Changing leaves and migratory birds

**Winter:** Animal tracks and winter birds feeding on fruit-bearing plants



# **Bluebirds and Nest Boxes**

### **Eastern Bluebird**

**Identification:** Males are bright blue with a red-orange throat and white underparts. Females are duller. Juveniles are speckled and appear more gray with blue in the wings and tail

Range: East of the Rocky Mountains

Habitat: Open areas with scattered trees including suburban parks, backyards, farms, and roadsides

Nest: Constructed of grass and pine needles inside a natural cavity or a wooden nest box

Diet: Primarily insects but also fruit in the winter

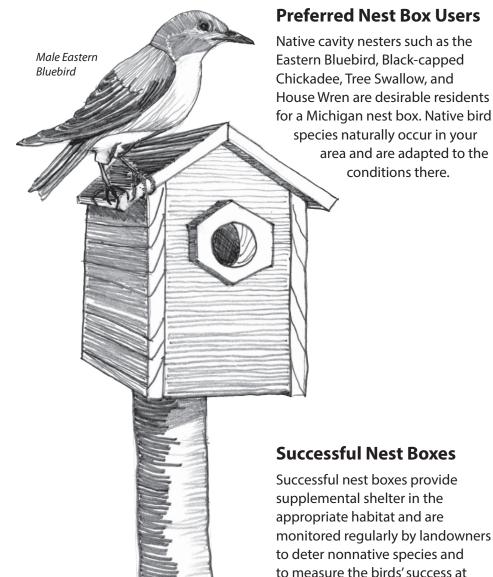
### **Nest Boxes**

Nest boxes are supplemental habitat used by bluebirds and other birds who nest in holes or cavities. Natural cavities can be found inside dead trees. There is a lot of competition for these cavities and not enough for all the nesting birds! Humans can improve backyard habitat by providing nest boxes, and by allowing dead trees to remain in areas where they will not be a danger to people or structures.



# **Nest Box Residents** -

About 80 species of North American birds nest in cavities and could use a nest box. Nest boxes can also be used by mice, squirrels, and aggressive nonnative bird species.

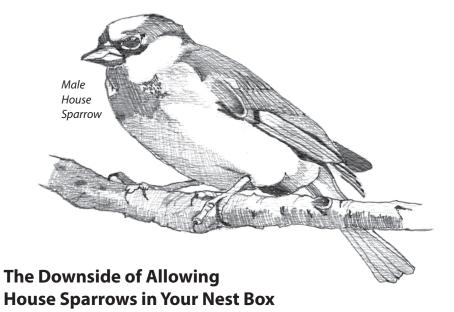


nesting.

### **Nonnative Species**

Nonnative bird species are species that have not historically, prior to European settlement, occurred in an ecosystem. They are native to Europe, Asia, or areas west of the Rocky Mountains. Nonnative birds have been introduced, either deliberately or accidentally, by humans. Examples of nonnative songbirds to Michigan are European Starlings, House Sparrows and House Finches.

Nonnative species can become a problem. They are able to adapt to a broad range of conditions and climates, and eat a variety of different foods. They often live a long time and are able to reproduce quickly. The ecosystem suffers as native species do not compete as well for resources and are reduced in number.

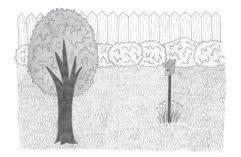


House Sparrows are very aggressive competitors. They begin nesting before native species and are territorial about their nest site. They will destroy the eggs of native species and kill chicks and adults. House Sparrows can also raise 2-4 clutches of up to 8 babies every year.



# **Backyard Habitat** -

A backyard habitat is one that provides essential resources for different kinds of wildlife.

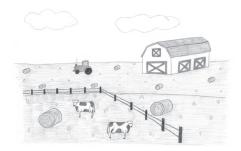


Typical Backyard

Any yard can provide habitat for cavity nesters and other animal species! It's not necessary to have a large piece of land. As people develop the land and alter it from its natural state, it becomes more and more important that we provide the resources wildlife need to survive: food, water, cover, and space.



Forest Edge



Farm or Pasture



Water



Forest

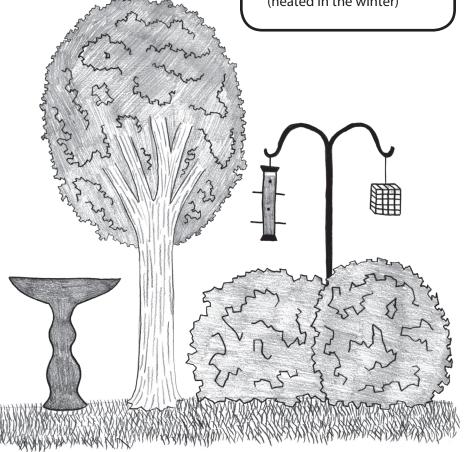
# **Creating Backyard Habitat**

Figure out what type of habitat you live in. Do you live near forests, water, open areas, or urban areas? Through observation and research, find out which bird species live and reproduce in your habitat. You can improve your backyard habitat for these birds.

After installing a nest box in your yard, you can continue to create backyard habitat by:

- adding native plants for food (seeds, nectar) and cover
- putting up supplemental bird feeders
- providing a water source (heated in the winter)

7

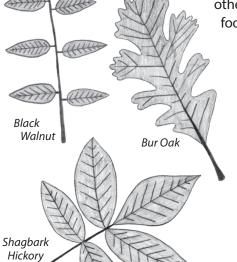




# **Importance of Native Plants**

Plants that are native to your area are adapted to survive the local climate, soil type, and amount of rainfall. Native flowers and grasses, such as those growing in the reconstructed prairie in front of you, require less maintenance than nonnative plants once they have been established. Native plants are also part of the natural legacy of your area, and local wildlife and

plants have evolved to depend on each other for seed dispersal, pollination, food, and cover.



## What should I plant?

Plants are used by birds for both food and cover. Do a little research about the birds you want to attract to find out what native plants they enjoy. Narrow that list down by determining which plants will thrive in the conditions of your yard. Books, the internet, and garden stores are just a few resources that can help

you decide what to plant.

American Beech

To get started, consider one of these plants that are native to Southwest Michigan:

#### Provide seeds and nectar

Purple Coneflower (Echinacea purpurea)
Cardinal Flower (Lobelia cardinalis)
Bee Balm (Monarda fistulosa)
Butterfly Weed (Asclepias tuberosa)
Serviceberry (Amelanchier arborea)
Flowering Dogwood (Cornus florida)
Highbush Cranberry (Viburnum
opulus var. americana)

### Vine that provides fruit

Virginia Creeper (Parthenocissus quinquefolia)

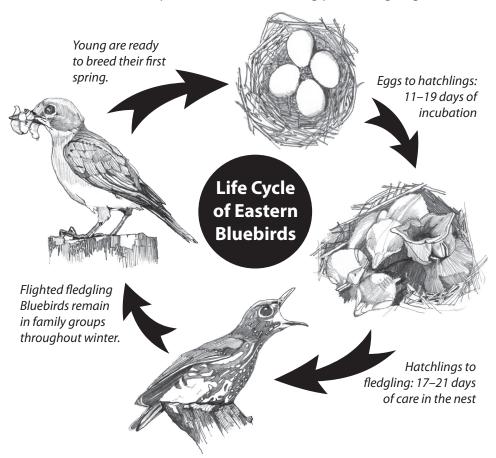
#### Provide nuts and attract insects

Bur Oak (Quercus macrocarpa)
Shagbark Hickory (Carya ovata)
American Beech (Fagus grandifolia)
Black Walnut (Juglans nigra)



# **Monitoring Your Nest Box** -

To monitor your nest box, peek into the box at regular intervals to see what is happening inside. Monitoring helps you keep undesirable residents (mice, squirrels, House Sparrows) out. You can also keep track of how the nesting process is going.



The nest boxes on this trail are monitored twice per week by teams of volunteers. The data they collect includes information on the nest building process, the number of eggs laid, and how many young survive. The data is added to

the NestWatch database to help scientists monitor bird populations nationwide. Nest box data can be viewed in the Sanctuary's Bookstore. For more information about nest box monitoring, visit www.Nestwatch.org.

9

8

# **Nest Box Placement**

In general, place your nest box in the habitat for the desired species and in an area you can enjoy and check easily. Position the entrance hole of the box away from the prevailing winds (south-west) and toward a shrub, grass or branch that fledglings can land on when they leave the nest. Bluebird-sized boxes can be placed in pairs, up to ten feet apart, because native birds of different species will nest side-by-side (example: Tree Swallows and Eastern Bluebirds).

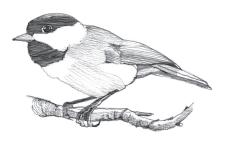


### **Tree Swallow**

**Habitat:** Open fields, meadows, marshes

**Placement:** On a post about 5' above the ground in an open area near a tree or fence

Recommended Size: 5" x 5" x 9" Size of Opening: 1.5" round

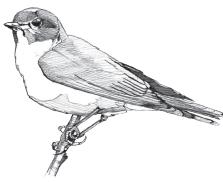


# **Black-capped Chickadee**

**Habitat:** Any habitat with trees and woody shrubs including forests and backyards

Placement: 5' off the ground in an area that receives about 50% sun Recommended Size: 4" x 4" x 8"

Size of Opening: 1.25" round



### **Eastern Bluebird**

Habitat: Open areas with

scattered trees

**Placement:** 3-6' above the ground with entrance facing an open area

Recommended Size: 5" x 5" x 9" Size of Opening: 1.5" round



#### **House Wren**

**Habitat:** Areas with scattered trees

and grasses

Recommended Size: 4" x 4" x 8" Placement: 5' above the ground Size of Opening: 1.25" round



#### **Wood Duck**

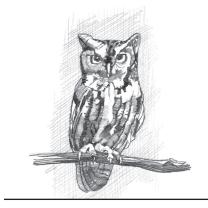
Habitat: Wet areas with plenty of

trees or cattails

Recommended Size: 10" x 18" x 24" Placement: Among deciduous trees

at least 3' above the ground

Size of Opening: 3" tall x 4" wide oval



### **Eastern Screech Owl**

**Habitat:** Suburban and rural woodlands

**Placement:** North facing under a tree limb around 10' above the ground

Recommended Size: 8" x 8" x 16"

Size of Opening: 3" round

### For More Information:

### Online

Bluebirds and Nest Boxes sialis.org

All About Birds allaboutbirds.org

Nest Watch nestwatch.org

Birds of North America bna.birds.cornell.edu

National Wildlife Federation nwf.org

#### **Books**

Birdscaping in the Midwest: A Guide to Gardening with Native Plants to Attract Birds by Marriette Nowak (2007)

Bringing Nature Home: How Native Plants Sustain Wildlife in our Gardens by Douglas W. Tallamy (2007)

Using Native Plants to Restore Community in Southwest Michigan and Beyond by Tom & Nancy Small (2012)

10 nwi.org 11

### W.K. Kellogg Bird Sanctuary

Michigan State University W.K. Kellogg Biological Station 12685 East C Avenue Augusta, Michigan 49012

#### **Visit Us**

Grounds open 365 days a year!

#### **Contact Us**

269-671-2510

birdsanctuary@kbs.msu.edu www.kbs.msu.edu/birdsanctuary

#### **Contributors:**

Jackie Wolfinger, lead
Stu Bassett and the
KBS Grounds Crew
Josh Haas
Sarah Carroll
John Cumbers
Mary Robertson
Lisa Duke
Kimberly Ginn
Dave Haas
Mara Haas
Mary Robertson

May 2013 Edition

Cover Design: Dave Haas Bluebird Photo: Josh Haas

Graphic Design: Mary Robertson

Bird Drawings: Al White

Habitat & Plant Drawings: Jackie Wolfinger

### History of the Bluebird Trail: Donations made it possible!

1995: Gayla Schaubel Memorial Fund established trail

2007: Nest boxes updated by Matt Vosters as an Eagle Scout Project and regular volunteer nest box monitoring began

2011: Donations in loving memory of Katheryn Gail Tindall created the opportunity to improve the trail

2013: Intern, Jackie Wolfinger, created signage and educational materials