

fascinating facts ● puzzles ● pictures ● coloring ● stories

Children's Bluebird ACTIVITY BOOK



MYRNA PEARMAN and PAULINE MOUSSEAU

© 2007 Myrna Pearman and Pauline Mousseau

Reproduction of this booklet is permitted for educational, non-commercial use provided appropriate acknowledgement is made. Copyright for photographs are held by individual photographers as credited on the proceeding page.

Publisher



Mountain Bluebird Trails, Inc.
Box 794
Ronan, MT
59864

Writing: Myrna Pearman

Graphic Design and Layout: Pauline Mousseau

Our thanks to the following reviewers:

- Bob Niebuhr
- Dr. Harry Power, III
- Donna Hagerman
- Nicole Bailey
- Ery Davis
- Maddison Pearman
- Brandee Massey
- Kristi Dubois, (Native Species Coordinator, Montana Fish, Wildlife & Parks)
- Kathern Mounteer
- Gene Pyles

Funded by

Funding for this project was generously provided by the Thomas and Stacey Siebel Foundation. To learn more about this foundation visit: www.siebelscholars.com

Dedication

Dedicated to the memory of Art Aylesworth, founder of Mountain Bluebird Trails, Inc., and whose dream it was to inspire the next generation of bluebirders.



photo credits

All photos are used with permission.

Photos in booklet are by Myrna Pearman, unless noted below:

Front Cover: Top right, Maridith Denton

Page 5: Bottom, Lorne Scott

Page 7: Tom Ulrich

Page 8: Jane Brockway

Page 9 Top left, Don Marble and top right, Lorne Scott

Page 15: Jane Brockway

Page 17: Top and middle, Lorne Scott

Page 20: Top, Jane Brockway

Page 26: Middle, Jane Brockway

Page 27: All pictures on page, Jane Brockway

Page 28: Top, Scott Johnson and middle, Jane Brockway

Illustrations

Illustrations by Gary Ross (from *Mountain Bluebird Trail Monitoring Guide*, used with permission by Red Deer River Naturalists)

Coloring Illustrations by Nicole Ruuska, www.nicoleruuska.com

what's inside

Topic	Page
Introduction to Bluebirds.....	5
Types of Bluebirds.....	6
Two Species Up Close.....	7
Bluebird Ranges.....	8
What's for Supper?	9
Home Sweet Home.....	10
Story of Cavity Nesters	11
Bluebird Songs and Calls.....	14
Splish Splash.....	15
A Year in the Life of a Mountain Bluebird.....	16
See How They Grow.....	19
Fascinating Facts.....	20
Story of Bruce and Bob	23
Problems Facing Bluebirds.....	25
How Can We Help?	26
Mountain Bluebird Trails, Inc.....	28
Nestbox Plan.....	29
Test Your Bluebird Know How.....	30
Word Search.....	31
Meet Other Cavity Nesters	32
Color Your Own Bluebirds.....	35
Bluebird Resources.....	38
Answer Key.....	39



introduction to bluebirds

Introduction to Bluebirds

Bluebirds are among the most beautiful and well-loved of all bird species. They are bright blue in color, gentle in nature and have a wonderful soft warbling song.

They are also one of the first birds to arrive back in Montana in the spring. That first flash of bright blue in late February or early March means that winter is finally over!

Because of their beautiful color and interesting habits, people have always held bluebirds in high regard. For many people, bluebirds are associated with peace, happiness and all things good. Many songs and poems have been written about bluebirds.

Bluebirds are also of interest to people because they will nest in nestboxes. We'll tell you all about nestboxes in this booklet. We'll also tell you lots of other great information about bluebirds—where they live, what they eat, and how they go about their daily lives.

You will also learn about the people who volunteer their time to help them. We hope that, by the time you've read through this booklet you too will be inspired to help them!



"The bluebird carries the sky on its back."
- Henry David Thoreau



"Spring is on its way!"

Fast fact

The Mountain Bluebird is the official state bird of Idaho and Nevada.

types of bluebirds

Types of Bluebirds

There are three species of bluebirds in North America, the Eastern Bluebird, the Western Bluebird and the Mountain Bluebird.

All belong to a family of birds, the thrushes (*Turdiae*), which are well known the world over for their singing ability. American Robins also belong to this family.

All three species of bluebirds can be easily recognized by their blue coloration. However, only the Mountain Bluebird is completely blue. Its Eastern and Western cousins are additionally colored with rusty red breasts.

The females of all three species are less brightly colored than the males, showing bright blue in their wing and tail feathers only when they fly.

Mountain Bluebird male



Mountain Bluebird female



Western Bluebird male



Western Bluebird female



Eastern Bluebird male



Eastern Bluebird female

two species up close

Here are two close up pictures of the Western and Eastern bluebird species. Can you spot the differences between these two very similar species? What common theme occurs in each picture?



Western Bluebird male



Western Bluebird female

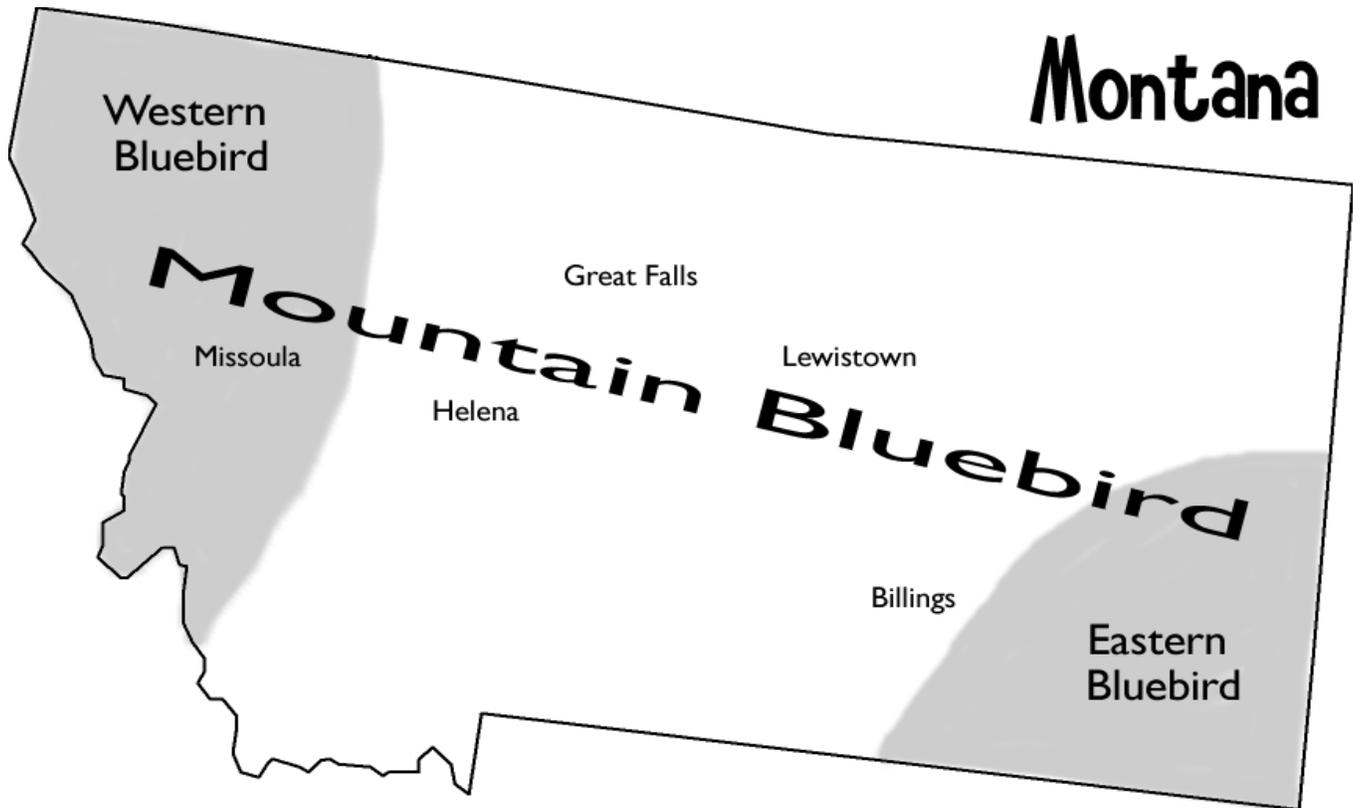


Eastern Bluebird male



Eastern Bluebird female

bluebird ranges



North American Range

Eastern Bluebirds are found in the southeastern part of Canada and through the eastern United States.

Western Bluebirds are found along the western edge of North America.

Home for Mountain Bluebirds is an area found between the other two species. Mountain Bluebirds, unlike what their name suggests, are not restricted to mountainous areas.

Bluebirds in Montana

Although all three species of bluebirds are found in Montana during the nesting season, by far the most common species across the state is the Mountain Bluebird.

While Mountain Bluebirds do nest at high elevations, in Montana they are most commonly found in the evergreen savannah lands of the foothills and mountains. Mountain Bluebirds are considered to be fire successional species, meaning



Majestic Montana terrain

that they live in habitat created by fires.

Western Bluebirds nest in the western part of Montana while Eastern Bluebirds are found along the eastern edge of the State.

what's for supper?



"The kids are going to love tonight's grub of tasty mealworms!"



Hovering above looking for dinner

Bluebird Menu

Bluebirds are insect eaters, feeding mainly on spiders and insects. Some of their favorite insects include grasshoppers, crickets, caterpillars, beetles, mealworms, moths, butterflies, dragonflies, bees, and ants.

During periods of cold or snowy weather, bluebirds will switch their diet to include berries and fruit.

Bluebirds will catch their prey on the wing or hunt for it while walking on the ground. However, they most often find their food by scanning the ground while sitting on a perch (usually a branch, bush or fence post). They will also hunt on the ground and hover in mid-air, like helicopters, looking for ground-dwelling insects to feed on.

Mountain Bluebirds hover much more frequently than the other two species. It is thought that they are such good hoverers because they tend to live in windier areas. As it does with airplanes, wind provides lift, making hovering easier.



Spiders make up a large part of a bluebird diet

home sweet home

Bluebird Homes

Birds are fascinating for many reasons. One of the most interesting things about them is how they nest.

When it comes to nesting, birds have hundreds of different nesting techniques.

For example: hawks and eagles build large stick nests in trees; warblers and most other songbird species weave small grass nests hidden in trees or shrubs; loons build floating nests in open water; and killdeer and other shorebirds lay their eggs on the ground.

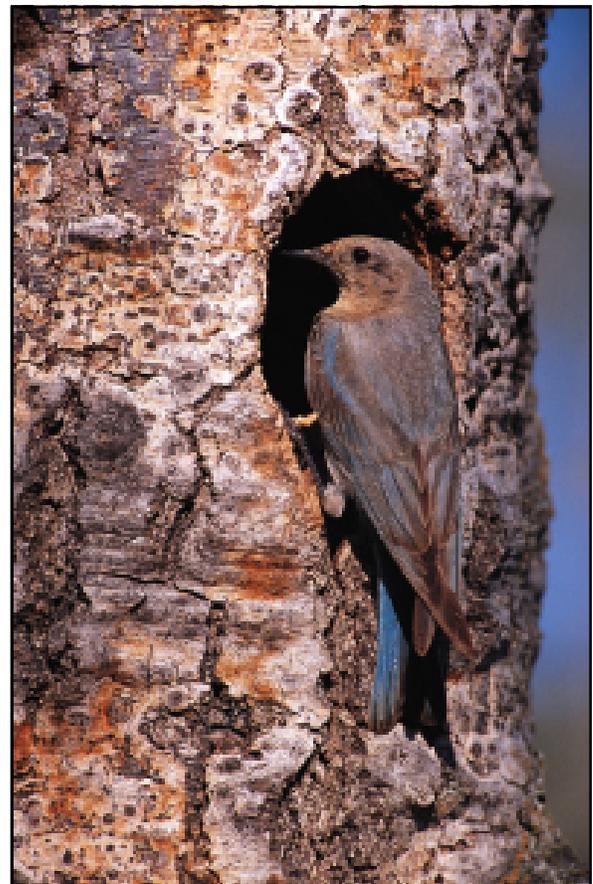
Bluebirds, unlike all of the other birds just described, have to nest somewhere that provides them with a “roof” and a “door.” In other words, they need to nest in a hole! Biologists call these holes **cavities**.



Killdeer nest on the ground



Most songbirds nest in open cup nests



Mountain bluebirds use natural cavities

story of cavity nesters

The Story of Cavity Nesters

Cavity-nesting birds nest inside a cavity, or hole. This hole could be in a tree, in a clay bank, in the wall or eave of a building, or even in a piece of machinery. Cavities make excellent nest sites because they keep the birds dry and warm, and protect them from most predators.

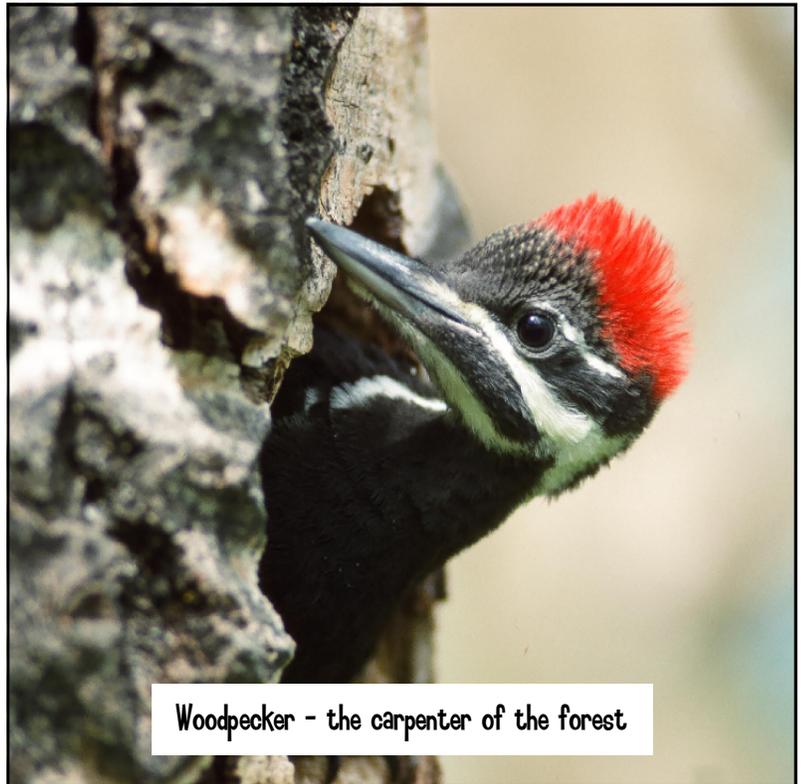
There are two types of cavity-nesting birds: **primary cavity nesters** and **secondary cavity nesters**.

Primary Cavity Nesters

A primary cavity-nesting bird is one that can **excavate** (dig out) its own nest site. The most common primary cavity nesters in western North America are woodpeckers. (Chickadees and nuthatches can also peck out their own nest sites.) While live trees are sometimes used to excavate cavities, the most commonly used trees are dead or dying (called **snags**).

Because of their ability to peck wood, woodpeckers are often called the “carpenters of the forest.” They aren’t eating the wood, of course, they are just pecking into the wood to find insects or dig out a nesting or **roosting** (sleeping) cavity.

Woodpeckers will also peck on wood to make a loud noise. This noise attracts a mate and lets other woodpeckers know about the edges of their **territories**.



Woodpecker - the carpenter of the forest

What is A Territory?

If you were a bird, your house and yard, acreage, farm or ranch would be your family’s territory. In the bird world, territories are the areas that a pair of birds considers to be “theirs and theirs alone” while they raise family. They defend these areas from other birds, sometimes other birds of the same species, and sometimes other birds of the same sex of the same species.

Some birds have very small territories (e.g., Tree Swallows only defend a territory right around their actual nest) while others have very large territories (e.g., Northern Flickers defend a 40-acre area).

Territories are usually kept only during the nesting season; once the young are able to survive on their own, their parents no longer bother to keep other birds out of these areas.

story of cavity nesters

Secondary Cavity Nesters

Secondary cavity-nesting birds also need to nest in a cavity, but they do not have the adaptations necessary to excavate their own hole. So, in the wild, they must search out natural cavities (natural holes in trees, holes in clay banks etc.). Woodpeckers often create these cavities for them.

At the beginning of the nesting season, a pair of

woodpeckers picks a tree that they like and excavates a nesting cavity. They lay their eggs and raise their family in this cavity.

Although woodpeckers will often reuse their existing cavities, they sometimes choose to excavate new ones. In the spring, secondary cavity nesters hunt through the forest for these available “second hand” homes.

Large secondary cavity nesters, like some species of

ducks and owls, look for large woodpecker holes, while the smaller bluebirds, swallows and wrens find holes left by the smaller woodpecker species.

Other secondary cavity nesting species include bats and squirrels.

Birdhouse Trivia

Do you know that the world’s oldest nestbox is actually a gourd—a type of plant that is quite similar to squashes and melons?

Approximately 7,000 years ago, Native Americans in the southwestern parts of the U.S. started to set out gourds to attract Purple Martins. Purple Martins, the largest member of the swallow family in North America, were valued by the villagers because they would alert them to any intruders, and it was thought that they ate insect pests such as mosquitoes.

Today, Purple Martins still nest in gourds as well as in apartment-style colony houses. Other secondary cavity nesters, such as swallows and bluebirds, will also use gourds as nest sites.



Purple Martin



story of cavity nesters

The interesting thing about secondary cavity nesters is that they are often quite easy going when it comes to the types of cavities they nest in.

Woodpecker cavities, holes in the sides of buildings, holes in pieces of machinery, mail boxes, or holes in boxes made from plywood are all viewed as possible nest sites.

Not surprisingly, secondary cavity nesters sometimes raise their young in very unusual cavities (like mail boxes!). Wooden nestboxes, which are easy to construct and set out, are now the most common human-made cavities that bluebirds and other common cavity nesters use.



Home sweet mail box home



To a bluebird



More Birdhouse Trivia

When the first pioneers settled across western North America, they did not have modern farming equipment such as combines. Rather, they used machines called binders to wrap bundles of grain stalks.

A big spool of twine that was used to tie the grain stalks together was kept in a large tin container on the side of the machine. This container, called a **twine box**, had two holes in the side. These holes were the perfect size for bluebirds to enter.

Since the twine boxes had lids to keep the rain out, they provided perfect nesting sites!

Bluebirds commonly used these twine boxes as nesting sites until the binders were replaced by more modern equipment.



Home sweet twine box home

bluebird songs and calls

Bluebird Songs

Bluebirds have soft beautiful songs: the Mountain Bluebird's song is a series of low, warbling whistles while their calls are a soft whistle or a series of "chiks." The males and females often use this call to "talk to each other."

The song of the Western Bluebird, which is not often heard because they sing at dawn, is a series of call notes, which are described as sounding like low whistles.

The song of the Eastern Bluebird is a series of mellow whistles while the call is a soft whistle.

Songs and Calls - What's the Difference?

Songs are usually issued by male birds and usually only during the breeding season. Songs have two main purposes: to attract a mate and to tell other birds that the area in which they are singing is **their** territory.

Calls are usually heard throughout the year. They are issued either to communicate with other birds of the same species or to warn of danger.

Here's how the calls of the different bluebird species are described using English words.

See if you can make these sounds.

	Song	Call
Eastern Bluebird	chiti WEEW, wewidoo	jeww; jeww wiwi
Western Bluebird	a series of call notes	jewf; pew pew pew
Mountain Bluebird	jerrf jerrf jip jerrf;	feeer; perf; chik/chak

From Sibley, D. 2001. The Sibley Guide to Birds. National Audubon Society

Fun Activity

To hear the songs and calls of bluebirds, check out:

www.mountainbluebirdtrails.com/links.html



splish splash

Bluebirds Love to Bathe

Bluebirds, like most songbirds, love to bathe. It is thought that birds bathe to clean their feathers and to cool themselves down. Perhaps they just enjoy it, too!

Bluebirds will find a bird bath or natural water source during the summer and splash around in it.

Often, family groups will have a bath together!



"Oh, this bath feels great on a warm summer's day"

New Word Review

Match the word to its meaning

Roosting Cavity

Dead or dying tree

Territory

A cavity for sleeping in at night

Snag

Hole

Excavate

An area that birds defend against others

Cavity

Dig out

a year in the life. . .

Spring Arrival

As we mentioned in the introduction, bluebirds are one of the first bird species to arrive back in Montana in the spring from their southern wintering grounds.

For many Montanans, the first sighting of a bluebird means that the long winter is finally over!

Bluebirds usually start showing up in the state during the end of February and beginning of March, with the males usually arriving back about ten days before the first females start arriving.

Sometimes the earliest arriving bluebirds are caught in early spring snow storms and perish if it becomes very cold or if severe storms last for more than a day or two.

When the female bluebirds arrive from the south, males and females pair up and then decide on a cavity to their liking. This “house picking” is quite a process—the male first inspects and chooses a few cavities that he considers ideal. He then shows the females one or more of these cavities, which she carefully inspects. She makes the final decision as to which box is finally chosen.

Bluebirds have fairly large territories; a distance of about one-half mile usually separates each pair.



Early snow storm - can you see two bluebirds on the snow-covered branches?

Nesting

The female bluebird does most of the nest building, spending several days or even weeks building her tidy nest.

The type of nesting material that she uses varies, depending on what materials are nearby. Most construct their nests out of pieces of dry grass, but they may also use strips of dry bark, pine needles, twigs, straw, rootlets, horse hair or deer hair.

The inside of the nest is lined with finer materials and is sometimes finished off with a few feathers or such unusual items as shredded paper or bits of plastic.

The male helps bring in a bit of nesting material but spends most of his time guarding his mate and the nesting area.

a year in the life. . .

Once the nest is complete, the female lays four to six (sometimes seven or even eight) blue eggs. Once in a while a bluebird will lay white eggs, instead of blue. White eggs result when a female bird, for some unknown reason, lacks the blue pigment that makes the eggs blue. Research conducted in Montana indicates there is no difference between hatching success of blue and white eggs.

The female **incubates** the eggs (keeps them warm) for about 14 days. Hatching usually takes place over a period of 24 hours. Once the young hatch, the male is kept busy helping the female feed them.

When the nestlings are very young, they are fed caterpillars and other soft insects. After that, spiders are added to the menu, as are larger beetles, butterflies, etc.

Since the babies are hatched with their eyes closed and without feathers, the mother has to make sure they keep warm, especially at night. For the first week or so, she will **brood** (sit on them) at night as well as during the day if the weather is cold. After that, the young have enough feathers so that they can stay warm enough without her brooding them.

Male bluebirds are very attentive mates and parents. The male bluebird feeds the female during the incubation and brooding periods. He is the main food provider of food for the young while the female is brooding them.

In fact, the female won't usually let the male feed the young directly until the end of the brooding period. She does this for quite selfish reasons—so she can make sure she gets fed first!



"Beautiful blue eggs—how many do you see?"



A female incubating her eggs



A female brooding her young

a year in the life. . .

The **nestlings** (the name given to baby birds while they are still in the nest) grow quickly and **fledge** (leave the nest) after 17 to 21 days. If the first family is raised successfully, the pair may raise two or even three families in one season.

Sometimes the young from the first nest will help feed their brothers and sisters from later nestings.

When the young take their first flight out of the box, they try to land on a fence rail or a tree branch. However, sometimes they crash land on the ground. Young birds that have recently left the nest are called **fledglings**.

Fledglings are unable to find their own food for the first few days, so their parents are kept busy feeding them.

If the female bluebird starts on another family, the male will feed all the fledglings by himself while she starts her next nest.

After about 10 days, the fledglings are able to hunt for and find their own food.

After about three to four weeks, they are able to take care of themselves, but some will still hang around with their parents throughout the summer and fall.

Bluebirds seem to move away from the nesting area during mid-summer, but reappear towards the end of August.

They then gather with other family groups to head out on their long journey south.

Most bluebirds leave Montana during September and October although some are seen into November.

Bluebirds from Montana spend the winter in the southern states, but the exact wintering range of Montana bluebirds is not yet known.



An emerging hungry young family



The nestlings grow rapidly each day



A male bluebird feeding a fledgling

see how they grow



Day 16
That's sure a lot of growing to do
in just 16 days, don't you think?

fascinating facts

How Do Female Birds Incubate their Eggs?

Most female birds and the males in some species (e.g., woodpeckers) develop a **brood patch** (pictured right) in order to incubate.

A brood patch is a bare patch of skin that develops when the feathers fall out of the chest area. This warm patch of skin, which is swollen with warm fluid, is then placed directly on the eggs or very young birds to keep them toasty warm.

Male bluebirds do not have a brood patch, so they cannot incubate the eggs. However, they will sometimes go into the cavity and sit on the eggs when the female is out of



the nest. By sitting over the eggs, papa can make sure that the eggs are protected from hot or cold weather, and from predators.

How Do Baby Birds Get Out of the Egg?

When a baby bird is ready to hatch, it uses its egg tooth to peck its way out of the shell. This process is called **pipping**.

The egg tooth is a special little hook on the end of its upper beak. The tooth falls off soon after the bird hatches.



"I can't wait to meet my brothers and sisters!"

fascinating facts

Housecleaning Details

Not only do parent bluebirds have to bring in food to their young, they also have to haul out the garbage! The waste material of young bluebirds is enclosed in a slimy sac, called a fecal sac.

After the young birds have fed, they twist their little bodies around, lift their little behinds up to the edge of the nest and deposit a fecal sac on the edge of the nest cup.

The parents then pick up this sac, carry it outside and deposit it a distance from the nest.

Removing the fecal sacs keeps the nest clean and odor-free. A smelly nest would soon attract raccoons and other predators to the nest.



"Oh, the house chores never end! Didn't I just throw out a fecal sac a couple of hours ago?"

New Word Review

Match the meaning with the word.

Nestling

A bird that has just left the nest

Fledgling

To keep eggs warm by sitting on them

Incubate

A patch of bare skin on a female bird's belly

Fledge

When a bird first leaves its nest

Brood Patch

A bird in the nest

fascinating facts

Why Do Birds Migrate?

As you know, some bird species stay all year-round in Montana while others fly to warmer climates for the winter. The species that stay all winter are called **resident** birds while the species that leave are called **migrants**.

So, why do some birds stay while others leave? Many people believe that birds migrate because Montana winters are too harsh and that the birds can't stand the cold temperatures. But this is not true! Birds migrate because they are unable to find **food** in the winter.

Which species have to leave?

- Species that feed in or near water. **Why?** Because all their food is frozen beneath the ice and snow
- Species that feed on insects that live on or in the ground. **Why?** Because all their food is covered up with snow
- Species that feed on flying insects. **Why?** Because the bugs do not move about in cold temperatures
- Species that feed on nectar **Why?** Because flowers do not bloom during the winter

What's on the winter bird menu?

- Frozen bugs
- Seeds and berries
- Tree Buds
- Dead animals
- Food set out by people in bird feeding stations

Yummy! Aren't you glad that your menu doesn't change during the winter months?

Who do you think stays and who leaves? Fill in the blanks.

Species	Menu Clues	Leave Or Stay?
Bluebirds	spiders, insects	
Bald Eagles	dead animals, fish, waterfowl	
Chickadees	seeds, frozen insects	
Swallows	insects that they catch in mid-air	
House Wrens	caterpillars	
Nuthatches	seeds, frozen insects	
House Sparrows	grain, seeds, human food litter	

story of bruce and bob

The Story of Bruce and Bob

As told by Myrna Pearman, Biologist at Ellis Bird Farm, Alberta, Canada

“Bruce and Bob” were two orphaned bluebirds that were raised at Ellis Bird Farm, a bluebird sanctuary in Central Alberta, Canada. Bruce and Bob had four other brothers and sisters, all of which died after their parents were eaten by a Sharp-shinned Hawk.

While it was sad to realize that these bluebirds were killed, it is important to remember that bluebirds are a part of the food chain and that hawks need to eat too!

When we found Bruce and Bob, they were very near death.

We brought them into our Visitor Centre, put them under a heat lamp and gave them a few drops of Gatorade™. Within a few minutes, they were revived and loudly begging for food!

Bruce and Bob grew up fast and soon became very popular with all our visitors.

After a week or so, the little birds were ready to be moved from their shoebox to a larger cage. A few weeks after that, they were moved to an outdoor cage, where they were able to test their wings for the first time.

They were both quite slow to develop, so instead of the usual 21 days it takes a young bluebird to learn to fly, it took them 45 days!

When their wings were finally strong enough, the cage door was opened and Bruce and Bob flew away to freedom.



Bruce and Bob at Ellis Bird Farm



"I'm Bruce and you are Bob...how many times do I need to remind you?"



story of bruce and bob

Even after they were able to fly about and feed on their own, Bruce and Bob would return each afternoon to the Visitor Centre, looking for a cricket to eat or for a place to bathe.

Their favorite bathing spot was a small dish of water that we placed on the Visitor Centre counter for them each afternoon. Water would fly in all directions (top right picture)!

After their bath, they would have an afternoon nap, usually on the head of one of our stuffed display birds (pictured right).

By late summer, Bruce and Bob were looking around at the nestboxes on our site, checking out the boxes that seemed to interest them (third picture on right).

By the end of August, Bruce and Bob disappeared. We hope that they made it to their wintering grounds down south, and that they returned somewhere the next spring to raise their own families!



Note: Please remember that it is illegal for individuals to hand-raise and keep wild birds in captivity.

problems facing bluebirds

Problems Facing Bluebirds

Before the arrival of Europeans on the North American continent, bluebirds lived wherever they could find natural nesting cavities—in woodpecker holes, openings in clay banks, and in other holes.

Settlers cleared forests to make way for agriculture, so there were fewer places for woodpeckers to nest. As a result, the numbers of cavities declined. Bluebirds, unable to find nesting sites, also declined.

Another serious problem for bluebirds and other native cavity nesters was the introduction of two pest species from Europe, the **House Sparrow** and the **European Starling**.

Both of these alien species are cavity nesters and both are now common throughout North America. Both will bully our native species and take over their nesting cavities. The populations of our native cavity nesters have suffered because of the introduction of these two bird species.

House Sparrows are found only around people and livestock (cities, towns, acreages, feedlots, farm yards) while European Starlings are found wherever there are trees, even in parks and natural areas.



European Starling



House Sparrow - female



House Sparrow - male

how can we help?

How Do People Help Bluebirds?

Today, thousands of people across North America have set out nestboxes to help bluebirds and other native cavity nesters.

These wildlife conservation efforts have been very successful. In some areas, bluebird numbers have increased because of the bluebird nestboxes that have been set out for them. When five or more boxes are set out, the line of boxes is called a **bluebird trail**.

Bluebird trails are not usually set up in cities, although in some areas bluebirds will nest in large urban parks and natural areas.

Unfortunately, urban areas have large populations of starlings and sparrows, which take over the boxes that are set out for bluebirds and other native cavity-nesting birds.

Urban areas also have lots of cats, which are very serious bird predators.

Bluebird enthusiasts set up nestboxes on their own property, on their neighbor's property, and in parks, natural areas, golf courses and cemeteries.

Bluebird trails are found throughout the continent and there are bluebird organizations in most states and Canadian provinces.

Bluebird trail monitors check their boxes frequently over the summer, keeping records



Looking for dinner, scat cat!



Checking a nestbox for bluebird activity

about which species uses the box, how many eggs they lay, how many young hatch and how many young fledge.

Some bluebird trail monitors also put small aluminum tags, called bands, on the bluebirds that nest in their boxes.

Each band has a number on it, so if the bird returns to the same box, or is found elsewhere, it can be tracked by the band number.

Very important scientific information has been collected by bluebird trail monitors and bluebird banders.



A band remains on a bird's leg for its entire life

how can we help?



Bluebirds are fairly fussy about the habitat in which they like to nest. Since they mainly hunt for their food on the ground, bluebirds prefer nestboxes placed in open areas with short grass and a few scattered trees nearby.

Cattle and horse pastures provide ideal habitat for a bluebird trail. In Montana, most boxes are set out on fence posts. In some areas, boxes are mounted on trees or even on metal posts.



mountain bluebird trails, inc.

Did you know?

Montana has a very active bluebird organization, Mountain Bluebird Trails, Inc. (MBT).

MBT has about **900** members across the state who look after bluebirds and teach interested folks about how they, too, can help bluebirds.

Here is an amazing fact: MBT members look after approximately 8,000 bluebird nestboxes!

Members are often willing to come to speak to students about bluebirds and bluebird conservation. For more information about Mountain Bluebird Trails Inc., check out their website: www.mountainbluebirdtrails.com

You and your classmates might also want to get involved in helping bluebirds by building and setting out nestboxes.

Setting up a bluebird trail is easy and fun, and a great way for you to make a difference to the native cavity nesters in your own neighborhood.

A nestbox plan is on the following page in case you are interested in building some boxes.

If you would like to start your own bluebird trail and know of areas with good bluebird habitat (pastures, parks, etc.), make sure you contact Mountain Bluebird Trails, Inc.

For detailed information about how you can start your own trail, order a copy of *Mountain Bluebird Trail Monitoring Guide* available from Mountain Bluebird Trails, Inc. (see page 38 for more details on this book).

A group of kids doing their part creating a bluebird trail (pictured right)



MBT in action on the bluebird trails (above and below)

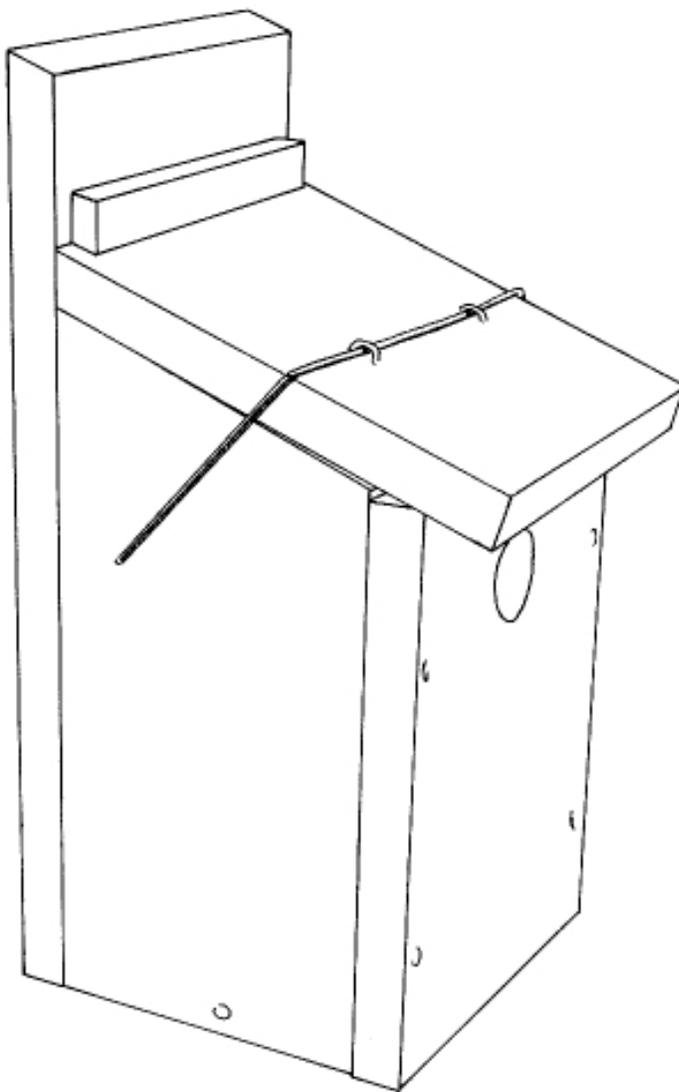


nestbox plan

Here is a nestbox plan in case you are interested in building your own birdhouse.

Standard Top-opening Box (Montana)

Use 3/4 in. cedar



	Inches
Roof	7 x 8
Roof cleat	1/2 x 6 1/2 (3/4 in. at back; 7/8 in. at front)
Front	7 x 10
Back	7 x 18
Floor	5 1/4 x 5 1/2
Side (front)	5 1/4 x 10
Side (back)	5 1/4 x 12
Entrance hole	1 9/16
Wire:	1/8 in. diameter 7 1/4 x 5 (1/2 in. bend at bottom)

(Provided by Mountain Bluebird Trails, Inc. Montana)

bluebird know-how

Test Your Bluebird Know-How

Draw a line from the word (s) to the definition.

Primary Cavity Nester	A species that makes its own home
Alien Species	A hole
Cavity	A species that uses 'second hand' houses
Nestbox	Mountain Bluebird Trails, Inc.
Fledge	Bluebird snack
MBT	To dig out
Range	To leave a nest
Snag	An introduced species, usually a pest
Excavate	A dead or dying tree
Butterfly	A birdhouse
Secondary Cavity Nester	The area where a species is found

Some of the following statements are correct, while others are wrong. Place an "X" beside the statements that aren't true.

- ___ A good place to put a bluebird box is in a city
- ___ A good place to put a bluebird box is in the country
- ___ Bluebirds eat mainly insects
- ___ Both the male and female bluebird build the nest
- ___ Both the male and female bluebird incubate the eggs
- ___ Both the male and female bluebird feed the nestlings
- ___ It usually takes bluebirds 45 days to fledge

word search

Try to find these bluebird words in the word search

a	b	b	g	w	j	r	e	h	t	a	e	f	m	t
h	o	u	s	e	s	p	a	r	r	o	w	b	i	p
a	c	g	h	s	n	j	k	l	l	n	t	o	p	r
t	d	h	a	t	e	h	s	w	a	l	l	o	w	i
c	e	f	i	e	r	j	h	r	o	t	i	n	o	m
h	o	m	e	r	w	y	t	i	v	a	c	d	f	a
b	n	o	q	n	e	s	t	b	o	x	w	e	g	r
w	d	t	m	e	r	s	e	c	o	n	d	a	r	y
r	r	h	t	n	i	a	t	n	u	o	m	t	z	x
e	i	e	f	l	y	f	l	e	d	g	e	s	o	p
u	b	a	n	t	y	u	i	i	y	a	g	b	u	u
l	c	p	o	s	t	a	r	l	i	n	g	a	y	i
b	v	b	n	m	e	k	c	o	t	s	e	v	i	l

Moth

Bug

Western

Snag

Monitor

Egg

Fledge

Eat

Feather

Bird

Livestock

House Sparrow

Hatch

Nestbox

Wrens

Primary

Starling

Ant

Home

Secondary

Cavity

Mountain

MBT

Swallow

Box

Blue

Fly

Post



meet other nestbox users

Other Nestbox Users

Bluebirds aren't the only native secondary cavity nesting species in Montana. There are several other species of birds that will take up residence in a nestbox.

Tree Swallow

Violet-green Swallow

Black-capped Chickadee

Mountain Chickadee

Chestnut-backed Chickadee

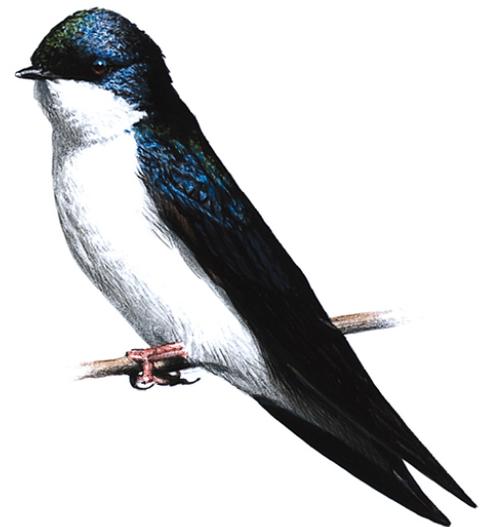
Red-breasted Nuthatch

White-breasted Nuthatch

House Wren



Violet-green Swallow



Tree Swallow

Swallows

Tree Swallows and Violet-green Swallows are both common in Montana. In many areas of the state, they are more common than bluebirds.

Swallows will nest in different types of habitat, including in towns and cities. In rural areas, they like to nest in open areas as well as around wetlands. Since swallows feed on flying insects, they are very beneficial biological mosquito controllers!

Swallows build their nests with grass and line them with white feathers. They lay small white eggs.

meet other nestbox users

Chickadees

Chickadees are small curious birds that live in Montana all year-round. There are three species of chickadees in the state – Black-capped, Mountain and Chestnut-backed Chickadee. Mountain and Chestnut-back Chickadees live in the western mountainous regions while the Black-capped Chickadee is found throughout the state.

Black-capped Chickadees are one of the most common backyard birds, often visiting backyard bird feeding stations to eat seeds and suet (fat).

Chickadees will usually excavate their own cavity if they can find a tree that has been dead long enough so that the wood is quite soft. However, they will sometimes use nestboxes. Since chickadees are woodland birds, they prefer boxes that are placed close to or within wooded areas.

Chickadees build their nests of moss, hair, fur, fine grass and feathers and lay tiny reddish speckled eggs.



Black-capped Chickadee



Mountain Chickadee

Nuthatches

There are two species of nuthatches in Montana – the Red-breasted Nuthatch and the White-breasted Nuthatch. Like chickadees, nuthatches are woodland birds. They are year-round residents in Montana and are common at backyard bird feeding stations.

They usually excavate their own cavities but will sometimes use a nestbox. Nestboxes are more likely to attract nuthatches if they are placed high in a tree (at least seven feet).

Nuthatches make their nests from bark, fur, wool, cow hair and feathers. Their eggs are white with brown spots.



White-breasted Nuthatch



Red-breasted Nuthatch

meet other nestbox users

House Wren

House Wrens are common woodland birds that are easily identified by their small size, bubbly song and brown coloration.

House Wrens usually arrive back in Montana later than other species. When the male arrives, he finds as many cavities as possible within his territory and fills each one of them up with tiny twigs.

When the female arrives, he takes her on a tour of all the cavities and she decides on which home she likes best. They then finish off the nest by lining it with feathers, hair and insect cocoons. Wrens lay tiny reddish eggs.

House Wrens are very easy to attract to nestboxes, even in towns and cities. Since they are woodlands birds, boxes need to be set up in areas where there are trees.



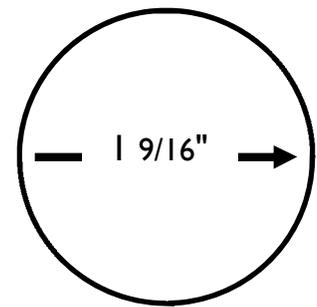
House Wren

Keeping Sparrows and Starlings Out of Nestboxes

Bluebird trail operators work very hard to prevent starlings and sparrows from using boxes that are set out for bluebirds and other native cavity nesters.

Luckily, starlings are too large to fit into a nestbox if the entrance hole is the correct size, which is $1 \frac{9}{16}$ " in diameter.

Sparrows are small enough to fit in a bluebird nestbox, so the only way to keep them from nesting is to place the boxes away from areas where there are lots of people (cities, farm sites) or cattle (feed lots, farm yards).

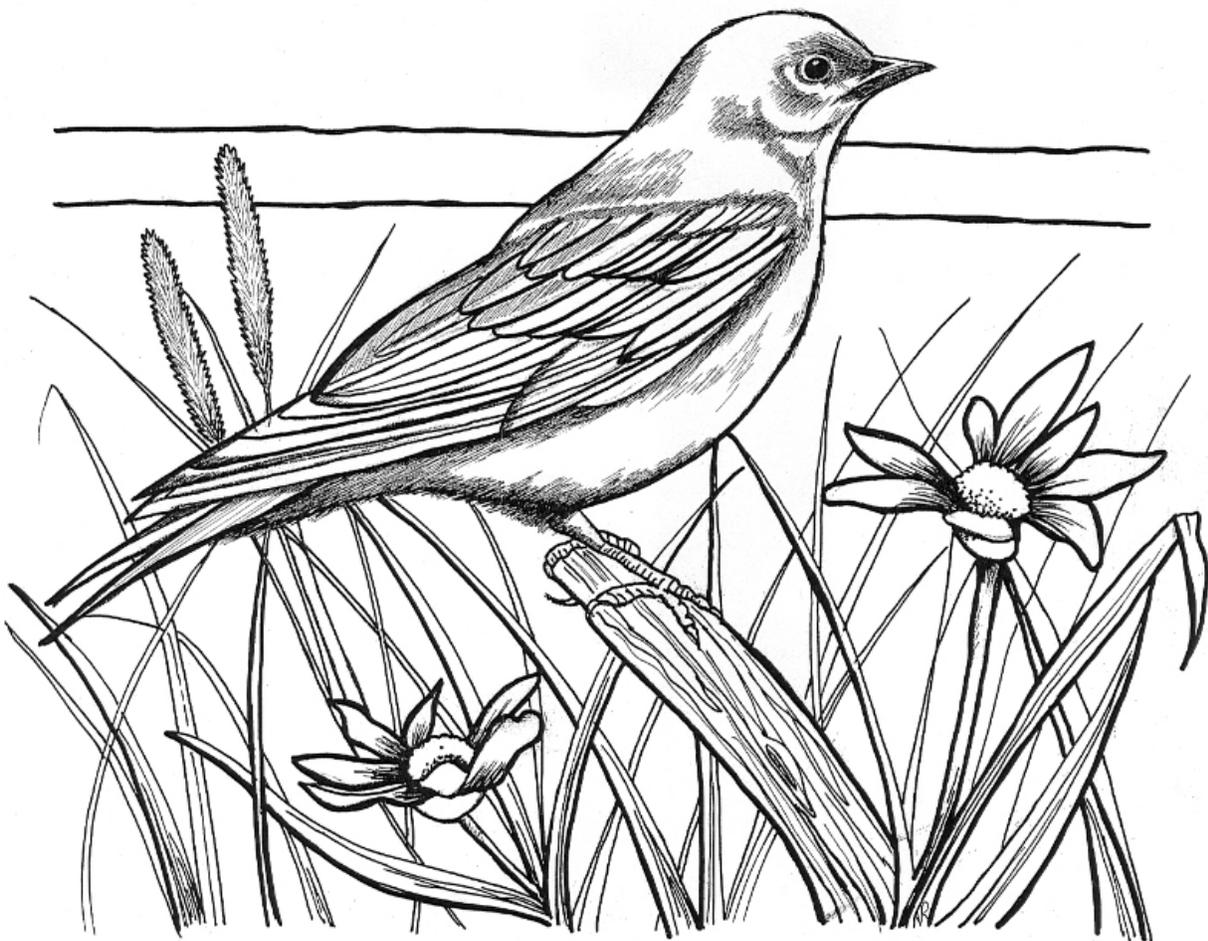


This is the exact size of the entrance hole of a bluebird nestbox. Can you imagine the front door to your house being that small!

Conclusion

Well, we've shared lots of great information about bluebirds with you—where they live, what they eat, and how they go about their daily lives. You've also learned about the people who volunteer their time to help them. Finally, we hope that by taking time to read this *Children's Bluebird Activity Book* that you, too, will be inspired to help our beautiful bluebirds!

Mountain Bluebird



107

Hint: refer back to page 6 to review the different patterns

color your own bluebird

Western Bluebird

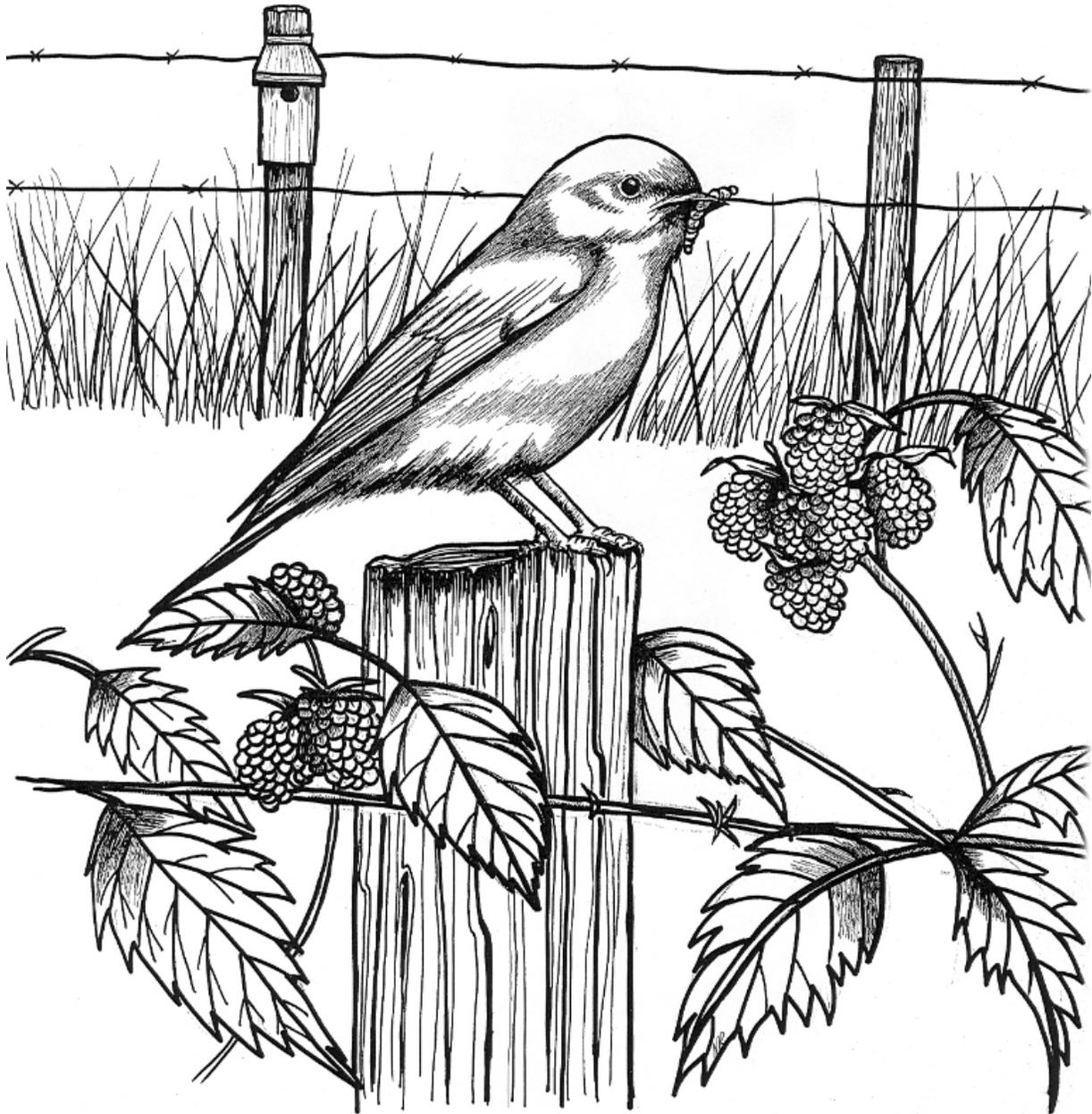


Hint: refer back to page 6 to review the different patterns

color your own bluebird

187
Nicolaus

Eastern Bluebird



Hint: refer back to page 6 to review the different patterns

bluebird resources

Websites of Interest

Mountain Bluebird Trails, Inc (Montana)
www.mountainbluebirdtrails.com

Note: The Mountain Bluebird Trails website has links to all the sites listed below.

Bluebird songs and calls
www.bestofbbml.audubon-omaha.org/calls.htm

North American Bluebird Society
www.nabluebirdsociety.org

Cornell Lab of Ornithology
www.birds.cornell.edu/AllAboutBirds/BirdGuide/Mountain_Bluebird.html

Ellis Bird Farm
www.ellisbirdfarm.ab.ca

Southern Interior Bluebird Trail Society
(British Columbia)
www.bcbluebirds.org/index.html

Montana Audubon
www.mtaudubon.org

Montana Fish, Wildlife & Parks
<http://fwp.mt.gov> (new section for kids)

Montana Natural Heritage Program
<http://nhp.nris.mt.gov>

National Wildlife Federation
<http://www.nwf.org/wildlife/>

eNature
<http://www.nwf.org/wildlife/>

Books

Berger, C., K. Kridler and J. Griggs.
2001. *The bluebird monitor's guide*.
HarperCollins, New York, New York.

Johnson, H. 1997. *Living with Mountain Bluebirds*. Carlisle Printing, Sugarcreek, Ohio.

Laubach, R., and C. Laubach. 1988.
The backyard birdhouse book: Building nestboxes and creating natural habitats.
Storey Books, Pownal, Vermont.

Pearman, M.D. 1992.
Nestboxes for prairie birds. Ellis Bird Farm Ltd.,
Lacombe, Alberta.

Pearman, M.D. 2005. *Mountain Bluebird Trail Monitoring Guide*. Red Deer River Naturalists,
Red Deer, Alberta

Power, H. W., and M. P. Lombardo.
1996. Mountain Bluebird (*Sialia currucoides*).
In: *The Birds of North America*. No. 222.
A. Poole and F. Gill, eds. The Academy of
Natural Sciences, Philadelphia, Pennsylvania.

Scriven, D. 1999. *Bluebird trails: A guide to success*. 3d ed. Bluebird Recovery Program,
Audubon Chapter of Minneapolis, Minneapolis,
Minnesota.

Stokes, DW. and L.Q. Stokes, 1991.
The bluebird book: The complete guide to attracting bluebirds. Little, Brown & Co.,
Boston, Massachusetts.

Toops, C. 1994. *Bluebirds forever*.
Voyageur Press, Stillwater, Minnesota.

Zickefoose, J. 1993. *Enjoying bluebirds more*. Bird Watcher's Digest, Marietta, Ohio

answer key

Page 13

Word match to meaning

Roosting Cavity	A cavity for sleeping in at night
Territory	An area that birds defend against others
Snag	Dead or dying tree
Fledge	Leave the nest
Excavate	Dig out
Cavity	Hole

Page 20

Which bird stays or migrates?

Species	Leave Or Stay?
Bluebirds	Leave
Bald Eagles	Stay
Chickadees	Stay
Swallows	Leave
House Wrens	Leave
Nuthatches	Stay
House Sparrows	Stay

Page 30

Here are the statements that are **NOT** true.

- A good place to put a bluebird box is in a city
- Both the male and female bluebird incubate the eggs
- It usually takes bluebirds 45 days to fledge

Page 19

Word match to meaning

Nestling	A bird in the nest
Fledgling	A bird that has just left the nest
Incubate	To keep eggs warm by sitting on them
Brood Patch	A patch of bare skin on a female bird's belly
Fledge	When a bird first leaves its nest

Page 30

Test your bluebird know-how

Primary Cavity Nester	A species that makes its own home
Alien Species	An introduced species, usually a pest
Cavity	A hole
Nestbox	A birdhouse
Fledge	To leave a nest
MBT	Mountain Bluebird Trails, Inc.
Range	The area where a species is found
Snag	A dead or dying tree
Excavate	To dig out
Butterfly	Bluebird snack
Secondary Cavity Nester	A species that uses 'second hand' houses

answer key

Page 31

Word search completed

a	b	b	g	w	j	r	e	h	t	a	e	f	m	t
h	o	u	s	e	s	p	a	r	r	o	w	b	i	p
a	c	g	h	s	n	j	k	l	l	n	t	o	p	r
t	d	h	a	t	e	h	s	w	a	l	l	o	w	i
c	e	f	i	e	r	j	h	r	o	t	i	n	o	m
h	o	m	e	r	w	y	t	i	v	a	c	d	f	a
b	n	o	q	n	e	s	t	b	o	x	w	e	g	r
w	d	t	m	e	r	s	e	c	o	n	d	a	r	y
r	r	h	t	n	i	a	t	n	u	o	m	t	z	x
e	i	e	f	l	y	f	l	e	d	g	e	s	o	p
u	b	a	n	t	y	u	i	i	y	a	g	b	u	u
l	c	p	o	s	t	a	r	l	i	n	g	a	y	i
b	v	b	n	m	e	k	c	o	t	s	e	v	i	l

