

G3892

Birding in the Badger State & Beyond

How to Get Started

David Drake
Scott Craven
Jamie Nack



American goldfinch



Eastern wild turkey



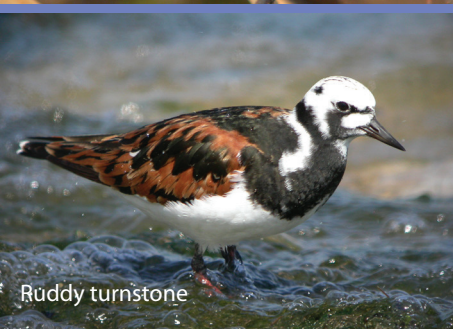
Baltimore oriole



Prairie warbler



Ruddy turnstone



Contents

Introduction	1
Birds in Wisconsin	2
Optics	3
Binoculars	3
Spotting scopes	5
Bird identification guides	6
Type of guides	6
Using your field guide	7
Identification by sound	8
Let's go birding!	9
When?	9
Where?	10
How?	12
Related activities	13
Attracting birds to your yard	13
Photography	13
Citizen science, bird lists, and birding contests	14
Bird conservation organizations and groups	15
References and resources	16

References to products and organizations in this publication are for your convenience and are not an endorsement of one product or organization over others that are similar. References are provided solely as examples of birding resources available to the general public.



Birding has become one of Wisconsin's most popular outdoor recreational activities. It offers participants many benefits, including relaxation, exercise, and an opportunity to get outdoors. People of all ages enjoy traveling the world or exploring their own backyard for the sheer pleasure of catching a glimpse of their favorite bird, spotting a rare bird, or adding a new bird to their lifelong list of birds.

Birding can be an inexpensive hobby for the beginner or a serious investment for the enthusiast. According to the 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, more than 2 million

people in Wisconsin spent more than \$744,000,000 on equipment such as binoculars and spotting scopes, birding trip-related expenses, and other items such as bird food, nest boxes, and identification books. All in all, bird watching can be as cheap or expensive as you choose to make it, depending on your own personal goals.

This publication provides information on how to get started birding. It includes guidelines for selecting binoculars and spotting scopes, an overview of bird identification guides, and tips on good times and places for birding, as well as information on other related activities.



Birds in Wisconsin

More than 400 species of birds have been recorded in Wisconsin. Approximately 15% of these species are year-round residents; the rest are migratory. Most of the migrants come into the state during the spring and summer months to nest and raise young, then depart for warmer climates to the south during the winter. Some migrants spend the winter months in Wisconsin and nest farther north. And others spend less than a week or two in Wisconsin each spring and fall to rest and refuel as they travel between far northern nesting grounds and southerly wintering grounds.

Still other bird species found in the state are accidental visitors. "Accidentals," as they are called, are considered vagrants. They visit Wisconsin on only rare occasions (i.e., every 5 years or less), primarily due to being blown off their migration course during stormy weather. Accidentals often cause great excitement throughout the birding community, as they provide a wonderful opportunity to see a bird not common to the state.

Whether they are year-round residents, migrants, or accidentals, Wisconsin's birds represent an incredible diversity and can be found in every possible habitat within the Badger State.



Red-headed woodpecker



Red-bellied woodpecker



Rose-breasted grosbeak



Sandhill crane



Optics

Bird watching does not require much equipment. You certainly can find and see birds with the naked eye, but human vision is poor compared to most animals. When trying to get a really good look at birds, especially at great distances, quality optics will give you a strong advantage. You'll be able to scan vast areas and watch birds go about their lives without scaring them away. Optics can also help you see birds in low-light conditions, or simply allow you to more vividly see the beautiful colors and markings used to positively identify birds.

Binoculars

There are a wide variety of binoculars on the market. Prices range from under \$100 to well over \$1,000 and vary depending on brand name, lens quality and size, power, and weather-proofing. When selecting binoculars, keep in mind the amount of money you would like to spend and your level of interest. Ask yourself: Will birding be my lifelong passion, an occasional outdoor activity, or just a passing fad? Then select your binoculars accordingly, keeping in mind the old adage "You get what you pay for."



Considerations

Regardless of your level of commitment, here are a few things to keep in mind when selecting binoculars:

POWER—Power refers to the level of magnification a pair of binoculars provides. On the body of all binoculars, you'll find two numbers separated by an *x*, such as 7x35. Here, the 7, the number before the *x*, tells you that the bird will appear 7 times closer (or larger) than if using your naked eye. The number following the *x*, in this case 35, tells you the width of the front lens, in millimeters. The larger the front lens, the more light gathered by the binoculars—a benefit for spotting and identifying birds.

In general, birders use binoculars ranging from 7- to 10-power. At higher powers (i.e., 9- or 10-power), a bird will appear larger, but the field of view (what you actually see through the binoculars) will be smaller, and birds will be more difficult to locate. Higher-power lenses also magnify any movement or shaking and thus require steadier hands. A pair of 10-power binoculars will allow you to see greater detail, but 7-power binoculars will offer a wider field of view. Practical binoculars for birding are 7x35 and 8x40 because they perform well in the forest or the backyard. Although 10-power binoculars offer a smaller field of view and are generally heavier, experienced birders often prefer them for their greater magnification.

OPTIC QUALITY—When comparing binoculars, there are a few things to consider about the quality of the image provided. Choose a pair that has a bright, clear, and sharp image that is free from distortion. Poor optic quality causes your eyes to compensate to attain good focus. This leads to eyestrain, as your eyes are constantly adjusting to obtain clarity and detail that the lenses fail to provide.

FUNCTION—Select binoculars that feel good in your hands and allow you to quickly find and focus on objects. Binoculars come in all sizes and shapes. The best ones are those that work for you—the ones that literally feel right.

OTHER FACTORS—Be aware of size, durability, weatherproofing, and weight while selecting your binoculars. Weight is especially important; your binoculars will hang from your neck or shoulders, and you will need to hold them up to your eyes for extended periods of time when viewing birds. If you use heavier binoculars, you may want to purchase a binocular harness to help spread the weight of the binoculars across both shoulders. A single binocular strap focuses all of the weight across your neck, which can become painful.



Try out several brands and models to find the pair of binoculars that works best for you. In general, the beginner will be well served by a moderately priced pair of 7x35 binoculars of a recognized brand name.

Using your binoculars

Once you have a pair of binoculars, you will want to practice using them. Finding birds through binoculars can be both tricky and frustrating. Start by locating and focusing your binoculars on fixed objects. Then, as you gain experience, locate a bird with your eyes (without the binoculars) and stare straight at it. Without taking your eyes off the bird, raise the binoculars to your eyes and focus. Repeat the exercise until you are comfortable spotting birds and bringing them into focus in your binoculars' field of view.

Don't be frustrated if these skills develop slowly; keep working at it. Because most birds tend not to sit still, being able to find and follow birds using your binoculars will contribute to your birding success.

Spotting scopes

As your birding skills develop and you become more serious, you may wish to purchase a spotting scope. A spotting scope is a compact telescope that is useful in areas such as wetlands, lakes, and large open spaces that require greater magnification than binoculars can offer. Because spotting scopes are relatively heavy and require steadiness for viewing, they are commonly used with either a tripod or a window-mounting device for use in a vehicle. Spotting scopes can range in magnification from 10x to 250x, but 30x to 40x magnification is usually more than sufficient for birding. When selecting a spotting scope, follow the same guidelines used for selecting binoculars, but expect to pay from \$300 to several thousand dollars depending on your needs.





Bird identification guides

Next you'll need a field guide to use in your quest for birds; it will help you identify and learn more about the birds you see. Field guides are available on the internet or at your local library, birding store, or bookstore, and they are full of useful information to help you properly identify birds. At a minimum, a decent field guide will include several pieces of information for each species listed: a description of physical features; an explanation of how to distinguish male from female (and adult from juvenile), accompanied by an illustration or photograph; range maps indicating distribution; habitat requirements; and information on vocalizations. Additional information may include narratives on species behavior, information on population status, and interesting facts unique to each species. The introduction will provide helpful information on how to use the guide in addition to methods for correctly identifying birds.

Types of guides

There are two main types of guides: those with illustrations and those with photographs. Because an artist's rendering provides a general representation from several points of view and highlights the main features used to identify a bird, most birders prefer illustrated guides. Commonly used illustrated guides include the *National Geographic Field Guide to the Birds of North America*, *The Sibley Guide to Birds*, and the *Peterson Field Guide to Eastern Birds*. If you prefer photographs to illustrations, some excellent guides include the *National Audubon Society Field Guide to North American Birds: Eastern Region*, the *Stokes Field Guide to Birds: Eastern Region*, and the *Smithsonian Field Guide to the Birds of North America*. A good photographic field guide for birds found in Wisconsin is *Birds of Wisconsin*, by Stan Tekiela.





Two other useful resources that are specific to Wisconsin are *Wisconsin Birds: A Seasonal and Geographical Guide*, by Stan Temple, John Cary, and Robert Rolley, and the *Atlas of the Breeding Birds of Wisconsin*, edited by Noel Cutright, Bettie Harriman, and Robert Howe. Both books provide Wisconsin-specific information in terms of when and where birds can be found in the state, and both are available at the Wisconsin Society for Ornithology's bookstore (www.wsobirds.org).

If you need information beyond what your field guide contains, you may want to consider more detailed birding publications such as *The Birders Handbook*; *Wisconsin Birdlife: Population & Distribution, Past & Present*; and the above-mentioned *Atlas of the Breeding Birds of Wisconsin*. These books are relatively large and bulky to carry into the field but prove to be excellent references to have on your bookshelf at home. You can find more information about these and other books in the References and Resources section at the end of this publication.

Using your field guide

Regardless of which guide you choose, there will be many pages of birds to navigate. When faced with a book full of birds, it can be overwhelming to find the one bird you're trying to identify, so it helps to know that most guides group related birds together.

Eastern bluebird



Whether viewing a bird with the naked eye or through optics, there are specific field marks you should look for. First, look at the general size and shape of the bird. Size and shape can be relative, especially when you don't have a second bird nearby for comparison. Nonetheless, use a known size and shape in your mind's eye for comparison. For example, is the bird smaller or larger than an American robin? Is the bird tall and elongated or stocky and round?



Next, pay attention to the colors and distinct markings on the bird. Does the bird have a white wing bar? Is the head a different color than the body? Also look for other identifying characteristics such as the size and shape of the beak, length and color of the legs, or any other field mark that may help to identify the bird.

Once you have a picture of the bird in your mind, quickly flip through your field guide until you come to the section of birds that are similar in size, shape, or color to the bird you saw. Now, instead of having to search through 350 pages of birds, you can use the process of elimination to your advantage and may only need to look through a few pages.



Identification by sound

As your bird identification skills increase, you may also want to become adept at identifying birds by sound. Because birds are oftentimes easier to hear than see, becoming familiar with their songs and calls can be extremely helpful. Typically, birds are most vocal and recognizable during the spring mating season when the males sing to attract females and defend territories. In addition to songs, which are typically melodic and can be lengthy, birds communicate using calls. Calls are used to alert other birds of danger or to stay in touch during feeding or travel. Because calls are shorter in duration and can be quieter compared to songs, they are more difficult to recognize and use for positive identification.

An easy and effective way to become familiar with birds' vocalizations is by using song identification CDs to confirm the sounds made by individual birds that you have tentatively identified in the field. Two common birdsong identification CDs are the *Stokes Field Guide to Bird Songs: Eastern Region* and *Birding by Ear: Eastern/Central* (part of the *Peterson Field Guide* series). Both CD sets are available at your local bookstore or



birding store. Additionally, internet sites like the United States Geological Survey's Patuxent Wildlife Research Center (www.mbr-pwrc.usgs.gov/id/framlst/infocenter.html) and Cornell University's Lab of Ornithology (macaulaylibrary.org/index.do) offer audio files of the calls and songs of many avian species.

Let's go birding!

Now that you have purchased and practiced using binoculars and a field identification guide, it's time to go birding!

When? Anytime, but the best times are dawn and dusk, and spring and fall migration periods.

Birds are either diurnal (active during the day) or nocturnal (active at night). Diurnal birds are most active at dawn and dusk, and therefore you have the greatest chance of seeing them at those times. Dawn and dusk are also transition periods for nocturnal birds. They settle down to sleep at dawn and wake for a night of hunting at dusk, so you have a good opportunity to observe birds such as owls, common nighthawks, and whip-poor-wills at those times. Taking a night walk and listening for the distinct calls of the many denizens of the night can also be a lot of fun.



Bufflehead

In addition to good opportunities to see birds during certain times of the day and night, there are also good seasonal opportunities. During the spring and fall periods of migration, birds move into the state in masses. Migration brings with it the opportunity to see colorful warblers and other Neotropical migrants such as indigo buntings, scarlet tanagers, and orioles, as well as waterfowl, wading birds, and an assortment of other bird species.

Spring birding, in particular, offers unique advantages over other times of the year: Male birds are in their breeding plumage and offer colorful viewing, relatively few insects are out, the trees have less foliage to obscure sightings, and time outdoors can be refreshing after a long winter of viewing birds primarily through the window. Peak spring migration occurs from mid-April to early June most years, and peak fall migration typically lasts from mid-August to mid-October.



Where? Anywhere, but explore a variety of habitats to find the most birds.

All birds need food, water, and shelter, but their requirements differ based on bird species and preferred habitat. You are likely to find a variety of birds near a food source (such as a bird feeder, bush full of berries, or natural seed source), a water source (such as a birdbath, pond, or stream), or cover (such as a birdhouse, brush pile, or tree cavity). Be aware that some birds are habitat generalists and can use a diversity of habitats, such as urban areas, grasslands, and forests. Other species are habitat specialists and are primarily found in only grasslands, wetlands, or interior portions of forested areas.

One of the best places to find birds is in your own backyard or neighborhood, simply because that is where you are likely to spend the most time. Whether you are in an urban or rural area, there is sure to be a park, woods, grassland, wetland, or water nearby, each habitat with its own set of species.

To find the largest variety of birds, however, try some of these more specific places:

- **State wildlife areas, refuges, parks, or nature preserves** are great places to go birding and offer good opportunities to see a variety of birds. To find wildlife viewing opportunities as you drive around Wisconsin, look for Wildlife Viewing Area signs (brown signs with a pair of white binoculars in silhouette). The *Wisconsin Wildlife Viewing Guide*, published by the

Wisconsin Department of Natural Resources, describes 76 wildlife viewing spots throughout Wisconsin and provides directions. One such location is Crex Meadows Wildlife Area in Burnett County. Crex Meadows features wetlands, flowages, brush prairies, and forests. A dizzying array of birds can be found there, but some of the highlights include ruffed and





Piping plover



sharp-tailed grouse, Le Conte's and swamp sparrows, trumpeter swans, and bald eagles.

- You may also enjoy the **Great Wisconsin Birding and Nature Trail** (www.wisconsinbirds.org/trail), a mapped auto trail to 368 of the best spots for seeing birds and other natural resources in Wisconsin. One recommendation from the series of five guides is the Necedah National Wildlife Refuge in Juneau County. The refuge contains a diversity of landscapes and is the largest wetland bog in Wisconsin. Common inhabitants include whooping and sandhill cranes, herons and other water birds, and many species of warblers.

- Wisconsin also has many designated **Important Bird Areas** (www.wisconsinbirds.org/IBA) that always offer the opportunity to see a variety of birds. The book *Important Bird Areas of Wisconsin* includes detailed descriptions of these sites (www.wisconsinbirds.org/IBA/IBA-book.htm). One such site, Horicon Marsh, is the largest freshwater cattail marsh in the United States and is both an Important Bird Area and a Wetland of International Importance. Located mostly in Dodge County, Horicon Marsh is home to hundreds of thousands of waterfowl during fall and spring migration. It also offers great opportunities for viewing terns, bitterns, grebes, moorhens, rails, and wading birds.



Bald eagle





Great horned owl

A number of other resources provide information about places to bird. In 2009, the Wisconsin Society for Ornithology published a new edition of *Wisconsin's Favorite Bird Haunts*, a detailed guide to nearly 900 birding locations throughout Wisconsin's 72 counties (wsobirds.org/wso_bookstore.html). Additionally, stores that sell birdseed and optics are great resources for information on good birding spots. And finally, don't overlook areas that appear to provide suitable avian habitat, whether in urban or rural locations—you may be surprised where you see birds and what types of birds you see.

How? Stay in one place, walk, or do both—whatever works best for you.

Once out birding, there are two general methods of finding birds. The first is to stay in one place for an extended period of time and watch and listen for birds. Sitting in a blind to conceal your presence may be beneficial. If you don't see or hear birds, then move to another place and sit and wait. The other method is to walk at a slow, continuous pace until you see or hear a bird, then stop and locate it. After you've found and identified the bird, resume walking until you come upon another. You may find success by combining the two methods. Whichever method you choose, base your decision on your personal preference, your desire for exercise, and the effectiveness of the method in locating birds.

Organized birding trips are an excellent way to learn about birding, especially if you're just getting started. Experienced tour leaders and field trip participants can help beginning birders learn to spot and identify birds and will share their birding techniques and knowledge. Many Audubon Society chapters, the Wisconsin Society for Ornithology, the Natural Resources Foundation of Wisconsin, nature centers, and local bird clubs routinely lead field trips throughout the year to some of the best birding spots in the state.



Related activities

If you enjoy bird watching, you might find some of these related activities interesting and enjoyable.

Attracting birds to your yard

One of the joys of birding is being outside and never knowing what you might see. However, you may not be able to get outside, or you may prefer to see birds regularly and from the comfort of your own home. In these situations, you may want to consider attracting birds around your home for easy viewing.

Bird feeders are a great way to attract large numbers of birds to an area, and birdhouses encourage some birds to nest on your property. There are a wide variety of bird feeders and houses that can be hung from trees, placed on poles, or suction-cupped to windows. For more detailed information, please see the University of Wisconsin-Extension publications *Bird Feeding: Tips for Beginners and Veterans* (G3176) and *Shelves, Houses, and Feeders for Birds and Mammals* (NCR338).

Landscaping with native plants also attracts birds (and other wildlife) and can be a fun and creative way to improve the aesthetic appeal of your yard. It is also essential to providing

suitable habitat for hours of bird watching. The UW-Extension publication titled *Landscape Plants that Attract Birds* (G1609) is one of many similar publications that provide helpful tips for creating a landscaped habitat for birds and wildlife.

Photography

Another popular activity involving birds is photography. Bird photography is like hunting with a camera; it requires all of the same skills and finds its reward in capturing a great picture of a beautiful bird in the wild. Bird photographers, as well as bird-watchers, should heed codes of ethics adopted by many birding and conservation groups. One of the ethics recommendations is to observe and photograph birds without disturbing them in significant ways. Digiscoping (using a digital camera to take pictures through a spotting scope) provides you with the ability to take clear, crisp photographs of avian subjects at a distance that won't disturb the birds. You can simply look through the camera viewfinder or at the digital screen as you hold the camera lens to the eyepiece of the spotting scope and snap a picture, or you can get a camera adapter or bracket that firmly joins the camera to the spotting scope. Digiscoping can also be done through binoculars, but not as easily.



Citizen science, bird lists, and birding contests

You can contribute to ornithologists' knowledge about birds and their behavior, habitat selection, and distribution by reporting your sightings to a web-based data collection center. One of the first citizen science sites was started by Cornell University's Lab of Ornithology (www.birds.cornell.edu). There is also a Wisconsin-specific, web-based citizen science program called Wisconsin Nature Mapping (www.wisnatmap.org), and a real-time, online bird checklist program known as Wisconsin eBird (ebird.org/content/wi). All of these websites allow amateur bird-watchers to enter records of wildlife sightings. Scientists, wildlife managers, and people like you use such

databases to monitor both bird populations and unique and rare individuals.

There are also several annual citizen-based bird surveys that could not be completed without citizen involvement, including the Christmas Bird Count, the Great Backyard Bird Count, and the Breeding Bird Count. Citizen science is a great way to get educated and involved in wildlife.

Many people keep a variety of lists of the birds they have seen, including backyard lists, vacation lists, annual lists, and life lists. To keep a list of your own, simply write down the birds you see or hear on a piece of paper or on the inside cover of your favorite bird book. As an alternative, you can get a list of birds in your area from your local birding store and check off the birds you see. Some bird identification books contain checklists on the inside of the front or back cover. Keeping a life list can be a fun and addictive exercise that you can do alone or with your family or a group of friends. Life lists and daily bird lists can also introduce a bit of fun competition between birders when comparing the "best" bird on a list or the most bird species located.

If you are interested in competitive birding—yes, competitive birding—there are plenty of opportunities. One such competition is the World Series of Birding (www.birdcapemay.org/wsob.shtml), overseen by the New Jersey Audubon Society. The



Bobolink



World Series of Birding is an event in which teams have 24 hours to find as many birds as possible by sight or sound, either in one county of New Jersey or throughout the entire state. Similar events held in Wisconsin include the Avian Odyssey and Wisconsin Society of Ornithology's Big Day. Another event longer in duration and larger in geographical scope is the Big Year, whereby individuals attempt to find, either by sight or sound, the most avian species in North America in a single year.

Bird conservation organizations and groups

There are a number of local, regional, and national organizations dedicated to bird conservation through education and habitat management. Perhaps the best known is the National Audubon Society (www.audubon.org). The National Audubon Society is a national conservation organization with state and local chapters dedicated to bird, wildlife, and habitat conservation. The Wisconsin Bird Conservation Initiative (WBCI) (www.wisconsinbirds.org) is a statewide cooperative partnership of over 170 organizations working to deliver the full spectrum of bird conservation by emphasizing voluntary stewardship. Additionally, the WBCI maintains an electronic listserv so members can share fun and exciting information about birding events and other topics related to



Eastern meadowlark

bird conservation and education. The Wisconsin Society for Ornithology (www.wsobirds.org) is an organization of bird enthusiasts that dates back to 1939. The group's goal is to promote all of the benefits of birding while also supporting avian research and habitat protection. You may also want to check with your local birding store or nature center for information about local birding groups.

Whether from the backyard, while hiking locally, or while traveling halfway around the world, bird watching can be a fun, relaxing, and lifelong hobby. With the aid of binoculars, spotting scopes, and identification guides, anyone can enjoy getting to know the diverse species of birds in Wisconsin and beyond.



References and resources

- Birding.com. 2002. Choosing a spotting scope. www.birding.com.
- Bull, J.L., J. Farrand, Jr., and L. Hogan. 1994. *National Audubon Society field guide to North American birds: Eastern region*. New York: Knopf.
- Cutright, N.J., B.R. Harriman, and R.W. Howe, eds. 2006. *Atlas of the breeding birds of Wisconsin*. Waukesha, WI: Wisconsin Society for Ornithology.
- Dunn, J.L., M.B. Dickinson, and E. Bloom. 1999. *National Geographic field guide to the birds of North America*. Washington, D.C.: National Geographic Society.
- Ehrlich, P.R., D.S. Dobkin, and D. Wh-eye. 1988. *The birder's handbook: A field guide to the natural history of North American birds*. New York: Simon & Schuster.
- Floyd, T. 2008. *Smithsonian field guide to the birds of North America*. New York: HarperCollins.
- Judd, M.K. 1995. *Wisconsin wildlife viewing guide*. Helena, MT: Falcon Press.
- National Audubon Society. 2009. Buying binoculars. www.audubon.org/bird/at_home/bird_watching/binoculars.shtml (accessed March 31, 2010).
- Peterson, R.T. 1998. *Peterson field guide to eastern birds*. New York: Houghton Mifflin.
- Post, K. 1997. *Birding for beginners*. Pleasantville, NJ: South Jersey Publishing.
- Robbins, C.S., B. Bruun, and H.S. Zim. 1966. *Birds of North America: A guide to field identification*. New York: Golden Press.
- Robbins Jr., S.D. 1991. *Wisconsin birdlife: Population & distribution, past & present*. Madison: Univ. of Wisconsin Press.
- Sibley, D.A. 2000. *The Sibley guide to birds*. New York: Knopf.
- Steele, Y., ed. 2007. *Important bird areas of Wisconsin: Critical sites for the conservation and management of Wisconsin's birds*. Madison: Wisconsin Department of Natural Resources.
- Stokes, D.W. and L.Q. Stokes. 1995. *Stokes field guide to birds: Eastern region*. New York: Little, Brown.
- Tekiela, S. 2004. *Birds of Wisconsin field guide*. 2nd ed. Cambridge, MN: Adventure Publications.
- Temple, S.A., J.R. Cary, and R. Rolley. 1997. *Wisconsin birds: A seasonal and geographical guide*. 2nd ed. Madison: Univ. of Wisconsin Press.
- Tessen, D.D. 2009. *Wisconsin's favorite bird haunts*. Waukesha, WI: Wisconsin Society for Ornithology.
- U.S. Department of the Interior, Fish and Wildlife Service, and U.S. Department of Commerce, U.S. Census Bureau. 2006. National survey of fishing, hunting, and wildlife-associated recreation: Wisconsin.



© 2010 University of Wisconsin System Board of Regents and University of Wisconsin-Extension, Cooperative Extension. All rights reserved.

Authors: David Drake is associate professor, Scott Craven is professor, and Jamie Nack is outreach specialist, all in the Department of Forest and Wildlife Ecology. All are with the College of Agricultural and Life Sciences, University of Wisconsin-Madison and University of Wisconsin-Extension, Cooperative Extension. Produced by Cooperative Extension Publishing: Abby Thunker, editor; Susan Anderson, designer. Cooperative Extension publications are subject to peer review.

Photo credits: Tom Prestby—all bird photos except those noted below. iStockphoto.com—Eastern wild turkey (inside front cover), red-bellied woodpecker (p. 2), Eastern bluebird (p. 7), Eastern meadowlark (p. 15), front and back covers, and photos on pages 1, 3, 5, 6, & 10.

Reviewers: Noel Cutright, We Energies; Karen Etter Hale, Madison Audubon Society; and Bill Volkert, Wisconsin Department of Natural Resources.

University of Wisconsin-Extension, Cooperative Extension, in cooperation with the U.S. Department of Agriculture and Wisconsin counties, publishes this information to further the purpose of the May 8 and June 30, 1914, Acts of Congress. An EEO/AA employer, the University of Wisconsin-Extension, Cooperative Extension provides equal opportunities in employment and programming, including Title IX and ADA requirements. If you need this information in an alternative format, contact Equal Opportunity and Diversity Programs, University of Wisconsin-Extension, 432 N. Lake St., Rm. 501, Madison, WI 53706, diversity@uwex.edu, phone: (608) 262-0277, fax: (608) 262-8404, TTY: 711 Wisconsin Relay.

This publication is available from your county UW-Extension office (www.uwex.edu/ces/cty) or from Cooperative Extension Publishing. To order, call toll-free: 1-877-947-7827 (WIS-PUBS) or visit our website: learningstore.uwex.edu.



UW
Extension
Cooperative Extension