

Warblings From the Atlas

SPRING, 2007

ISSUE 1

Final Year for Data Collection—Read All About It!

Welcome to the final year of data collection for the Michigan Breeding Bird Atlas! Once all the 2006 data is entered, we will have over 300,000 records in the database. Our goal for 2007 is to add another 200,000 observations. While we will have the most volunteer observers and paid field staff ever this season, this will still be a major challenge

Please help by involving everyone you can. If your parents saw Wood Ducks nesting by their cabin up north or your co-workers have Carolina Wrens nesting in their backyards, please record these observa-

tions on casual cards and send them in. Every bird and every observation counts. If you live in one of the counties with low coverage, listed on page 5, report everything you see or hear. The Atlas season has already begun. Great Horned Owls are incubating their eggs and other "early birds" are setting up territories, courting their mates, or even building nests. Check on page 2 for the list of early birds.

A number of special projects are planned for this season, including riparian surveys, block-busting, and species-specific surveys. While some of this work will

be done by other agencies or paid field staff, volunteer observers will have many opportunities to participate. Over 20 federal Breeding Bird Survey routes are also available.

The publication has taken its first steps. The co-editors have been chosen and will be profiled in the next issue, and authors for the species accounts are being considered. As part of the fundraising for the publication, species pages are up for "adoption."

If you would like to sponsor a species in the Atlas publication see the article below.



Atlas Contacts

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See list on page 3

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Sponsor a Bird in the Atlas!

Do you have a favorite bird? Would you like to see your name in print or honor someone else? Then sponsor a bird account in the Atlas publication! The sponsorship line will read "This bird sponsored by [you]" or "This bird sponsored in honor (or memory) of [your loved one]."

Bird sponsorships cost \$300, with publication of the Atlas expected in fall 2009. You will also receive an Atlas static-cling decal, patch, and t-shirt (sizes S through XXL). The Kalamazoo Nature Center is processing the sponsorships

and can handle checks and credit cards. Payment arrangements can also be made. The sponsor-a-bird program is a major fundraising effort to help cover publication costs for MBBAII. These funds will help us provide a publication that you will all be proud to own.

There are over 200 species of birds which breed in Michigan and available for sponsorships in the Atlas. Sign up now, only two sponsors per bird. Check out the list on Pages 10 & 11.



Fieldwork for 2007

For this, the final year of Atlas surveying, we have a number of special projects in order to enhance coverage of species or species groups which are undersampled to date. Whether you are interested in finding secretive species in blocks you have already covered or are willing to visit surrounding blocks to survey specific habitats, there is a project for you! Please contact the Atlas staff at: miatlas@naturecenter.org or call 269-381-1574 x30 for more information.

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Data Recording Hints

Which Form:

Use a quad-fold checklist if you are surveying a full Township block. Use the casual cards to record small numbers of species in your yard, at a local park, or driving to work. Please remember to report a species only once per breeding season per block, recording the highest evidence of breeding observed and the highest number of pairs or singing males heard or seen.

Fill out the cards in pencil, erasing and changing dates, numbers, and evidence codes as the season progresses. Also, pencil stands up to outdoor moisture better than many inks.

Make sure the form you send to the Atlas office is legible. It is also wise to keep a copy for yourself

Recording the Date:

When you see a bird multiple times throughout the summer, do not write "all summer" or "June-July." We need to enter a specific date into the database. Record the date you observe the highest evidence of breeding. (The evidence codes are listed on the back of the checklists and casual cards, from lowest to highest.) If there are multiple days with the highest code, use the date with the most pairs.

For example, you hear a Black-capped Chickadee singing May 1, 9, 15, and 28. You would record a Black-capped Chickadee on May 1 with an evidence code of **X** (singing male present in suitable habitat). After hearing the chickadee on May 9, you would change the evidence code to **S** (singing male present at same location at least seven days apart). If you hear 3 different chickadees singing on May 28, you would use that date - The evidence code hasn't changed, but the number of pairs present has. However, if you also saw a chickadee on May 15 building a nest, you would record

May 15 and **NB** (nest building) because that is the highest evidence of breeding.

Recording the Number:

Our objective is to document the number of breeding pairs in a given block. If you see 1 individual, you would record 1; if you see a pair or a family group, recording 1 is still appropriate.

For example, you see a Canada Goose with 6 fledglings. You would record 1 Canada Goose with an evidence code of **FL** (fledglings), rather than 7 Canada Geese and **FL**

Another example: You walk down your street and see 6 male Cardinals and 4 female Cardinals, with several of them singing. Remember the Northern Cardinal is one of the few songbirds where both sexes sing. You would record 6 Cardinals, not 10, and the evidence code would be **P** (pair observed in suitable habitat during breeding season). While you could also use **S** (5 or more singing males), this would be a lower evidence code.

If you are covering an entire block, record the number of breeding pairs of each species observed in that block. You will not be able to count every bird, so just record what you hear or see. If you see large flocks of birds, please do not write "several" or "many;" instead, make your best estimate of breeding pairs. For species like Common Grackle and European Starling which can be found in large mixed flocks of adults and young immediately after fledging occurs, only count the pairs of adults.

Recording your Effort:

If you cover large areas or blocks using the quad-fold checklists, please record the number of hours spent actively looking for birds. When you cover an area that you walk every day, give us your best estimate of time spent looking for birds. When

interpreting the data for a given area, it helps to know the number of search hours. Existing and potential funders are interested in how much volunteer time we are putting into the Atlas.

Thanks for your cooperation, and please feel free to contact us if you have additional questions regarding data collection or reporting.

Atlasing— Why Wait 'til Summer?

Do you have to wait until May to record and confirm breeding species? No! There are many species that nest early in the year, setting up territories and forming pair bonds in March and April. Over 40 species of birds can be documented in early spring. A chart is available online at www.naturecenter.org listing the behaviors the birds listed below might be exhibiting. Residents of northern Michigan should add two or three weeks to these dates.

Because this is the last year for Atlas data collection, it is important to begin your fieldwork now to catch these early species. There will not be another chance.

Early Nesting Species

All Owl Species	Northern Cardinal
Rock Pigeon	Common Raven
Horned Lark	Song sparrow
Mourning Dove	Common Grackle
Gray Jay	House Finch
Killdeer	Red Crossbill
American Crow	Pine Siskin
Carolina Wren	House Sparrow
Eastern Bluebird	Red-winged Blackbird
American Robin	All Woodpecker Species
Bald Eagle	Ruffed Grouse
American Woodcock	Ring-necked Pheasant
Great Blue Heron	Wild Turkey
Canada Goose	
Mute Swan	
Wood Duck	
American Black Duck	
Mallard	
American Kestrel	
All Hawk Species	
Sandhill Crane	



Atlas

Office Hours:

10 am – 1 pm Monday - Friday



With the field season fast approaching, the Atlas staff will frequently be out of the office. Through May we will be surveying early nesters, especially hawks and owls. However, someone will usually be in the office every morning from 10 am to 1 pm to answer the phone and check e-mail.

To contact the Atlas office, please call 269-381-1574 x30 or e-mail miatlas@naturecenter.org. We will try to respond to incoming messages daily, with questions either answered immediately or forwarded to the appropriate person. Even staff who are out in the field will answer their messages; however, there could be a short delay. In an emergency, you can reach Ray Adams on his cell phone: 269-491-7645.

Regional Coordinators

If you are interested in filling one of the empty Coordinator volunteer positions, please contact Ray at 269-381-1574, ext. 20 or miatlas@naturecenter.org. Thank you.

Region	Counties	Coordinators	phone	email
1	Gobegic, Ontonagon	Katie Brashear	715-347-3010	owlicious22@yahoo.com
2	Houghton, Baraga, Iron, Keweenaw			
3	Marquette, Menominee, Dickinson	Terry McFadden	906-226-1325	Mcfaddet@michigan.gov
4	Alger, Delta, Schoolcraft	Ron Annelin	906-341-7578	rannelin@chartermi.net
5	Chippewa, Luce, Mackinac			
6	Cheboygan, Otsego, Emmet, Charlevoix	Sally Stebbins	231-526-1222	stebbins@chartermi.net
7	Montmorency, Alpena, Presque Isle	Keith Saylor	989-358-1041	kfsaylor@chartermi.net
8	Grand Traverse, Antrim, Leelanau	Bob Carstens	231-938-5976	31rst5ns2@sbcglobal.net
9	Manistee, Wexford, Benzie	Tim Granger	231-723-9822	timgranger@hotmail.com
10	Crawford, Missaukee, Roscommon, Kalkaska	Russ Emmons Mike Petrucha	586-727-5004 989-422-5192	birdEland@pasty.net petrucha@excite.com
11	Iosco, Oscoda, Alcona, Ogemaw	Cory Gildersleeve	989-739-2542	cory.gildersleeve@gmail.com
12	Lake, Oceana, Newaygo, Mason	Janet Skeberdis	231-924-0387	janet@michipete.com
13	Mecosta, Isabella, Osceola, Clare			
14	Arenac, Midland, Bay, Gladwin	Mike Bishop	989-463-5360	bishop@alma.edu
15	Kent, Muskegon, Ottawa			
16	Gratiot, Ionia, Montcalm			
17	Genesee, Saginaw, Shiawassee	Jeff Buecking	810-629-7330	jbuecking@juno.com
18	Huron, Tuscola, Sanilac			
19a	Allegan, Kalamazoo	Ray Adams	269-345-7593	radams@naturecenter.org
19b	Barry	Tom Funke	269-948-5777	tfunke@mei.net
20	Clinton, Eaton, Ingham	Karen Cleveland	517-241-4250	clevelak@michigan.gov
21a	Livingston, Oakland	Dick Wolinski	517-335-2633 (w)	rawolinski@comcast.net
21b	Oakland	Mike Champagne	810-796-3200	spnc@tir.com
22a	Lapeer	Mike Champagne	810-796-3200	spnc@tir.com
22b	Macomb, St. Clair	Russ Emmons	586-727-5004	birdEland@pasty.net
23	Berrien, Van Buren, Cass	Dick Schinkel Jon Wuepper	269-471-2953 269-445-0412 (w)	whitethroat@aol.com wuepperj@hotmail.com
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26b	Monroe	Allen Chartier	313-274-3434	amazilia1@comcast.net
26c	Washtenaw	Dea Armstrong	734-996-3266 (w)	ddarm@umich.edu

Focus on Fieldwork 2007

Colonial Waterbirds – The final year of the Atlas coincides with the first year of the Great Lakes Colonial Waterbird Survey conducted every 10 years. The Waterbird Survey will run through 2009. While the Great Lakes survey focuses on nesting sites within a mile of the shoreline, inland nesting colonies will not be surveyed. If you are aware of any colonial waterbird nesting site on the Great Lakes, please notify the Atlas office at 269-381-1574 x30 or miatlas@naturecenter.org. We are especially interested in locating sites near southern Lake Michigan, Lake Erie, the Detroit River, Lake St. Clair, and Lake Huron north through Saginaw Bay. Once colonies are located, they will be surveyed by members of the colonial waterbird research team. For inland colonies, we need information on the number of active nests of each species and the exact location of the colony. If you are unable to survey the colony, please notify us during the breeding season and we will assign that colony to staff. Inland colonial waterbirds include Great Blue Heron, Great Egret, Double-crested Cormorant, and Black Tern.

Grassland Birds – Michigan Natural Features Inventory has a final year left in their grassland bird survey and would welcome any additional grassland bird data. We encourage you to be on the lookout for sites which support a diversity of grassland species or some of the less common species, such as Henslow's Sparrow, Grasshopper Sparrow, Dickcissel, and Western Meadowlark. In 2006, Julie Gibson stated, "It is important that we document the presence of these birds, not only to increase our knowledge of this suite of species but also to supplement the MNFI database of protected species." Reestablishing native grassland habitats has become a growing trend. These reconstructed prairies need to be surveyed to determine the acreage and mix of plant species required to attract grassland birds.

Point Counts – During 2006, considerable progress was made in conducting point counts in priority blocks. In order for this information to be of value for the entire state, we must increase the distribution of these counts and expand the number of surveyors collecting point count data. In most cases, point count surveys tend to fill in species lists in priority blocks. In southern Michigan, for example, it is relatively easy to document 60 species while conducting a set of 25 point counts. Our goal is to survey over 500 priority blocks using point count methodology. If you can identify most of the breeding birds in your area by sight or sound, please consider helping with this project. Five minute point counts divided in three- and two-minute intervals are used to record species at distances of 50 meters, 100 meters, and out of area. Counts need to be conducted between sunrise and 10:30 am from May 25 through July 10, depending on the location.

Riparian Surveys – As part of our survey of target habitats, last year we surveyed a number of Michigan's major watersheds. These surveys are taking on new value as more and more canoe "trailways" are developed within the state. The information collected benefits the Atlas and organizations but can also become part of the interpretive signage or supporting materials along each river trailway. A number of Michigan's listed species are characteristic of riparian habitat, such as Cerulean, Prothonotary, and Yellow-throated Warblers. If you enjoy canoeing or kayaking, please contact us to see which rivers need surveying.

Nocturnal and Crepuscular Species – Species active at dusk and dawn or overnight are typically underrepresented in block species lists. Thanks to the owl surveys by MNFI, most owls are better documented now than they were during the first Atlas. That does not seem to be the case for Whip-poor-wills, Common Nighthawks, and American Woodcock. Please make certain that some of your surveying is conducted in the late evening or just before sunrise when these species are most active. It is thought that all three of these species are declining, so it is especially important to get an accurate survey of their current abundance. MNFI has been surveying Whip-poor-wills and Common Nighthawks along predetermined routes, which may not coincide with the primary breeding areas. If you hear any of these birds at home or on vacation, please document them and try to determine the number of birds in the surrounding area. You never know when a Chuck-will's-widow may appear.

Listed Birds – Many of Michigan’s threatened and endangered species are already monitored by targeted surveys. Piping Plover, Kirtland’s Warbler, Bald Eagle, and Osprey nests are monitored by the DNR, US Fish and Wildlife Service, and US Forest Service. Common Loons are monitored by the Michigan Loon Preservation Association and private researchers. Trumpeter Swan and Peregrine Falcon nesting surveys are conducted by a variety of individuals from non-profit groups or government agencies. Henslow’s Sparrow has been a focus of MNFI’s grassland survey; this survey would also detect the Lark Sparrow, if present. Another MNFI survey focuses on the Red-shouldered Hawk. The DNR Non-game Wildlife Program funded a two-year study of the Prairie Warbler. The Colonial Waterbird Survey will cover the Common and Caspian Terns along the Great Lakes. The remaining species are either secretive or present in very low numbers.

During the final year of the Atlas, every effort should be made to look for the the following species wherever suitable habitat exists. Least Bitterns have been reported 127 times all across the state, but due to their shy nature and soft calls they are often missed. They are found in wet marshes with thick cattail, bulrush, and other vegetation. There have been 51 reports of Yellow Rail, all in the Upper Peninsula and most in Seney National Wildlife Refuge. They are very shy and found in sedge meadows with tall sedges dominating the area. Only a single King Rail has been reported to the Atlas thus far. They are thought to be thinly dispersed along the Great Lakes coastal wetlands on the eastern edge of the state. There are 171 reports of Merlin with the main population observed in the Upper Peninsula and a few sightings from the northern Lower Peninsula. They frequently nest in large coniferous trees adjacent to extensive open spaces, often near the Great Lakes. There have been no confirmed reports of nesting Barn Owls in the state since the start of the Atlas. They prefer large open grasslands or meadows within the southern half of the state. Long-eared Owls have been reported 46 times across the state. They are found mainly in thick coniferous or mixed woodlands near open habitats. Only four reports of breeding Short-eared Owl have been received; more have been reported during migration or overwintering. This owl can be found mainly in open grasslands, wetlands and pastures across the state. The Loggerhead Shrike has been reported only twice, both in the southern half of the state with breeding in Kalamazoo County in 2001. One unconfirmed report of a breeding pair has been received from northern Lower Peninsula. They can be found in open country, pastureland, and old orchards interspersed with thick trees and thorny shrubs for nesting territories. There are 34 reports of Yellow-throated Warbler mainly in the southwestern portion of the state. They can be found near streams with large sycamore trees used as a primary nesting location.

Wetland Birds – Like crepuscular and nocturnal species, wetland species are often difficult to survey because of their secretive behaviors or inaccessible locations. In many cases, boats or waders are the only ways to reach the proper nesting habitats. Frequently the birds call irregularly and it is possible to miss a species entirely. Call-playback, when used judiciously, can be the most effective way to survey these sites. For instructions, please contact the Atlas office.

Block-busting – Because of the need to cover so many blocks in such a short time span, “block-busting” is an effective way of obtaining acceptable species counts quickly. Block-busting is an activity anyone could do. This technique involves rapid surveys of the primary habitats within the block, focusing on identifying as many species as possible with less emphasis on documenting higher breeding evidence. Generally it would take four to five hours to complete a block. Unlike a regular survey, block-busting will not detect every species. The Atlas office has the list of blocks that have low coverage levels and there is probably one near you. Please call for the block nearest you and help us gather the best data possible.



The Loggerhead Shrike

Introduction

Loggerhead Shrikes (*Lanius ludovicianus*) are robin-sized birds with big heads and slim tails. Loggerheads use their hooked beaks to capture songbirds, small mammals, lizards, and large insects. Also known as "butcher bird," this species is notable for stunning prey with a blow from its powerful beak and then impaling the body on twigs, thorns, or barbed wire. The head and back feathers are bluish-gray, contrasting with white, faintly barred underparts. A black mask extends from the supercilium, over the eyes, and across the top of the all-dark bill. The rump area varies from gray to white. Large, white wing patches on dark wings are easily seen during their low, up and down flight. The species is sometimes confused with the Northern Mockingbird (*Mimus polyglottos*) and is easily confused with the wintering Northern Shrike.

Loggerhead Shrikes were once commonly found from southern Canada to the southeastern United States and southern Mexico in semi-open country with lookout posts such as wires, trees, and scrub. The northern population (*L. l. migrans*) wintered in the southern U. S. north to Illinois, Indiana, and Ohio. This population of Loggerheads bred in southern Canada, Wisconsin, southern Michigan, and western New York (Little 1991). The species was first recorded in Ontario in 1860 and the first documented breeding in the U.S. occurred in New York State in 1868. Loggerheads may have expanded their range in the mid- to late-1800s when forests were replaced by open farmlands (Yosef 1996).

Loggerheads no longer breed in most of their earlier northeastern range (Yosef 1996) and are now considered endangered or threatened throughout the Great Lakes Region. The BBS Summer Distribution Map, 1994 - 2003, for Loggerhead Shrikes (Sauer et al. 2005) indicates none were found in the northeast US or in Ohio, Michigan, or Wisconsin. Light concentrations were found in the southwest, far midwest, and southeastern portions of the US. Loss of quality habitat is almost certainly associated with this decline (Bellar and MacCarone 2002). During the 1900s, a gradual change from farms with small, grassy pastures to much larger agricultural croplands with fewer trees and bushes may account in part for the decline. Further conversion of farms to woodlots and housing tracks has also contributed to habitat loss. Competition with other species, such as the American Kestrel (*Falco sparverius*), European Starling (*Sturnus vulgaris*), and red-fire ants (*Solenopsis invicta*), may have also contributed to the decline in Loggerhead populations. Additionally, collisions with automobiles have been described as a potential major factor in Loggerhead population declines (Yosef 1996).

The species is endangered, and nearly extirpated, in Michigan. In the 1970s, Loggerheads still bred in 11 Lower Peninsula counties. By 1981, there was only a single breeding pair in Allegan County. Migrants and wintering birds were still occasionally observed in the 1990s. Less than a handful of records have been reported for the current Atlas. Conservation groups advocate for the management of thorny, shrubby habitats as a way to lessen the decline of this species. These groups also discourage the use of chemicals on lawns and other managed areas (Evers 1995).

Developing a Search Image

Loggerheads, as "sit-and-wait" predators, can be seen sitting on wires or high bush tops or swooping down on prey. They are often immobile while watching for prey. They also may hover kestrel-like when searching for prey. If stalking a prey, the bird raises and half-opens its wings, exposing white primaries and white wing patches (Yosef 1996).

On the ground, this bird hops rather than walks, with the body erect and the head high. When moving through dense brush, a Loggerhead often lowers and thrusts its head forward. It moves from perch to perch by dropping down low and rising up suddenly to the next lookout spot.

The song combines harsh, squeaky notes and low phrases, repeated 3-20 times: *queedle, queedle* or *tsurp-see, tsurp-see*. The call note is *shack-shack*. Spring males produce short trills and clear notes with varied rhythm, pitch, and quality. Territorial songs are similar but with fewer high clear notes (Yosef 1996).

Finding Loggerhead Shrikes

The species is highly territorial and each pair requires large openings with copious fences, utility wires, and abundant water. In Michigan, Loggerheads preferred orchards, abandoned fields, and hedgerows with thorny trees and bushes (Evers 1995). They have also used cemeteries, golf courses, and agricultural fields (Little 1991). Short trees with a tangle of branches or thorns, such as hawthorn and eastern red cedar trees, are often used for nesting.

Loggerhead Shrikes arrive in Michigan in the early spring (Little 1991). Males have a strong fidelity to their breeding territories, which they occupy by early April. Migrants leave the state in late August and September.

Nests and Parental Behavior

Loggerhead Shrikes are primarily monogamous, although some extrapair copulations occur (Yosef 1996). During courtship, the male feeds the female and performs a to-and-fro flight about 20 feet in front of the female. The pair also may engage in mock pursuits.

Nesting begins in mid-April, earlier than for most songbirds. Nests can be found in dense shrubbery 8 to 15 feet off the ground. Nest height may increase as the breeding season progresses. The nests are bulky, consisting of woven sticks, twigs, stems, bark fibers, and moss. They are lined with rootlets, bark fibers, feathers, cotton, and other soft materials. Both parents collect nesting materials, but the female does most of the construction. Clutches consist of four to six smooth oval eggs colored dull white, gray, or buff. Eggs are spotted or blotched with browns and grays, often concentrated at one end. Only the female incubates over a 16-day period. The male contributes to care by feeding his incubating mate, sometimes passing food to her to be fed to nestlings.

While parents do not defend eggs, they scream, bill-click, and peck at intruders once the young hatch (Yosef 1996). Hatched young are brooded for about 4 to 5 days and stay in the nest for about 18 days. The young are fed for up to 4 weeks after fledging. Young begin to hunt, although poorly, as soon as they leave the nest and develop impaling behavior within a week (Yosef 1996). Mortality of young is high, somewhere between 33-53% during the first week after fledging. Inclement weather, feral cats, and other predators appear to be of particular concern (Walk et al. 2006, Yosef 1996).

Reporting Loggerhead Shrikes

Finding Loggerhead Shrikes can be exciting. Please make a special effort to look for this species in suitable habitat in areas where they have historically occurred. Given the sensitive nature of this species, it is wise to avoid any type of activity near their territories. Please do not disclose nesting locations to birding list-servs and be especially cautious about disclosing roosts to birding list-servs and other public venues as disturbance can quickly become a problem for this endangered Michigan species.

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Josh Haas

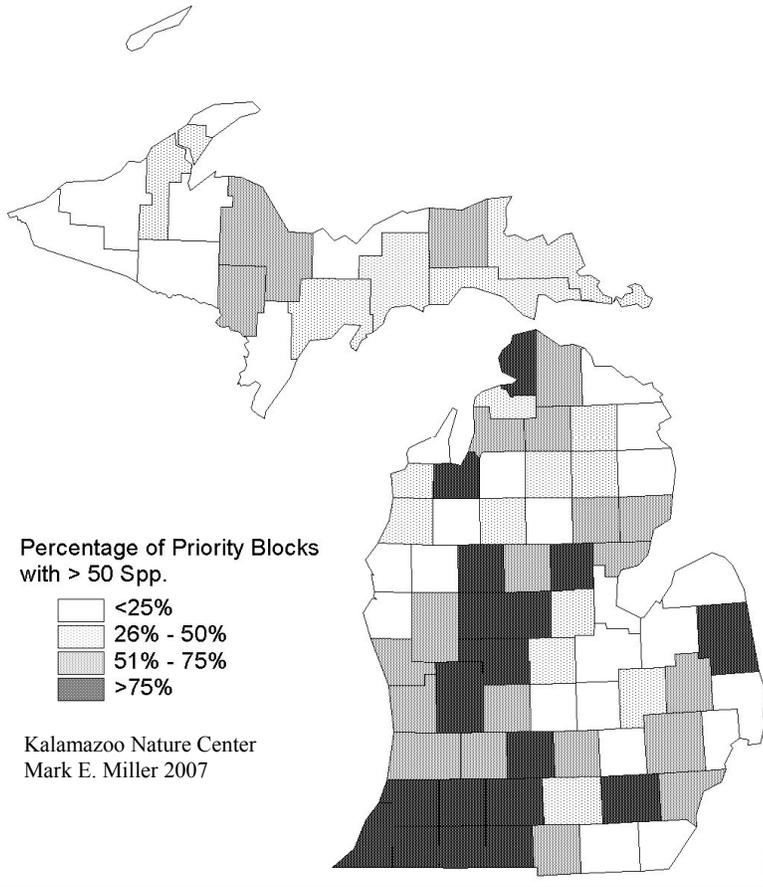
Coverage Levels Across the State

The table below and the map opposite show all 83 counties of Michigan and how many of the priority blocks in each have 50 or more species recorded. There are 28 counties with coverage levels at less than 25% -- These areas need immediate help. Another 17 counties have less than 50%. If you live in one of these counties, please contact your Regional Coordinator (see the list on page 3) and copy the Atlas office at miatlas@naturecenter.org or 269-381-1574 x30. If there is no regional coordinator listed, please contact the Atlas office.

There are 24 counties with less than 75% coverage and 10 with less than 100%. We still need help in these areas as well. The remaining four counties have coverage levels of 100%. Each priority block in these counties has 50 or more species recorded.

Additional paid staff will be hired this summer to help with special projects and to assist in counties with poor coverage. It is important that you share your plans with your Regional Coordinator and the Atlas office in order to avoid duplication of effort. During the summer you may hear from the office to inquire if the areas you pledged to cover have been covered.

≤25%	Priority Blocks	≤50%	Priority Blocks	≤75%	Priority Blocks	<100%	Priority Blocks
Alcona	1 of 20	Antrim	8 of 16	Allegan	17 of 24	Berrien	17 of 19
Alger	7 of 29	Benzie	5 of 12	Arenac	8 of 12	Eaton	15 of 16
Alpena	0 of 18	Charlevoix	7 of 21	Barry	9 of 16	Emmet	14 of 17
Baraga	6 of 28	Chippewa	15 of 54	Calhoun	15 of 20	Gladwin	14 of 16
Bay	2 of 14	Crawford	6 of 16	Cass	11 of 14	Grand Traverse	15 of 17
Clinton	2 of 16	Delta	9 of 35	Cheboygan	13 of 25	Kent	19 of 24
Gogebic	3 of 35	Genesee	7 of 18	Clare	11 of 16	Sanilac	26 of 28
Huron	2 of 28	Gratiot	5 of 16	Dickinson	13 of 21	St. Joseph	13 of 16
Iron	8 of 36	Houghton	10 of 31	Hillsdale	11 of 19	Van Buren	16 of 18
Kalkaska	1 of 16	Jackson	8 of 20	Ingham	9 of 16	Washtenaw	18 of 20
Keweenaw	4 of 28	Mackinac	11 of 31	Ionia	11 of 16		
Lake	1 of 16	Manistee	5 of 16	Iosco	10 of 17	100%	Priority Blocks
Leelanau	4 of 18	Midland	5 of 16	Isabella	12 of 16	Branch	16 of 16
Lenawee	0 of 20	Missaukee	7 of 16	Lapeer	13 of 19	Kalamazoo	16 of 16
Livingston	0 of 16	Montmorency	6 of 16	Luce	14 of 27	Montcalm	20 of 20
Macomb	1 of 14	Oscoda	7 of 16	Marquette	28 of 55	Osceola	16 of 16
Mason	2 of 14	Schoolcraft	10 of 36	Mecosta	12 of 16		
Menominee	5 of 30			Muskegon	9 of 15		
Monroe	0 of 17			Newaygo	13 of 24		
Oceana	3 of 15			Oakland	13 of 25		
Ontonagon	1 of 39			Ogemaw	9 of 16		
Presque Isle	2 of 24			Otsego	9 of 14		
Roscommon	2 of 16			Ottawa	12 of 17		
Saginaw	3 of 24			Wayne	10 of 19		
Shiawassee	2 of 16						
St. Clair	2 of 24						
Tuscola	4 of 25						
Wexford	3 of 16						



Priority Block Coverage
as of February 2007

Leave Your Mark in the Atlas

There are 21 unclaimed Breeding Bird Survey routes in Michigan for 2007. Since last summer, we lost Stevie Staples, a long-time dedicated BBS observer. If you can identify birds by ear and are willing to learn the BBS point count methodology, please consider adopting a route. You would be responsible for running the 50-stop route once a year between the end of May and early July. A few of these routes haven't been run since before this Atlas began, so every effort will be made to survey these routes. Visit the Breeding Bird Survey on-line at www.pwrc.usgs.gov/bbs/ to find information on the methodology and to see a map of all the routes statewide.

Route #	Route Name	Counties	#	Route Name	Counties
1	Ontonagon	Ontonagon	53	Bell Oak	Ingham
2	Bergland	Gogebic, Ontonagon	54	Holt	Eaton, Ingham
5	Ned Lake	Baraga, Iron	56	Fowlerville	Livingston, Shiawassee
6	Herman	Baraga	60	Beaver Lake	Alcona, Alpena, Oscoda
7	Crystal Falls	Baraga	61	Sand Lake	Alcona, Iosca
10	Ishpeming	Marquette	64	Owendale	Huron, Sanilac
11	Brocky Lake	Marquette	71	Tyre	Sanilac
44	Brush Creek	Montmorency, Otsego	162	Herron	Alcona, Alpena
50	North Bradley	Bay, Midland	166	Rochester	Oakland
51	Maple Rapids	Clinton, Shiawassee	168	Hartland	Livingston, Oakland

SPECIES List for Sponsorship

Acadian Flycatcher	Carolina Wren	Hairy Woodpecker
Alder Flycatcher	Caspian Tern	Henslow's Sparrow
American Bittern	Cattle Egret	Hermit Thrush
American Black Duck	Cedar Waxwing	Herring Gull
American Coot	Cerulean Warbler	Hooded Merganser
American Crow	Chestnut-sided Warbler	Hooded Warbler
American Goldfinch	Chimney Swift	Horned Lark
American Kestrel	Chipping Sparrow	House Finch
American Redstart	Chuck-will's-widow	House Sparrow
American Robin	Clay-colored Sparrow	House Wren
American White Pelican	Cliff Swallow	Indigo Bunting
American Wigeon	Common Goldeneye	Kentucky Warbler
American Woodcock	Common Grackle	Killdeer
Bald Eagle	Common Loon	King Rail
Baltimore Oriole	Common Merganser	Kirtland's Warbler
Bank Swallow	Common Moorhen	Lark Sparrow
Barn Owl	Common Nighthawk	Least Bittern
Barn Swallow	Common Raven	Least Flycatcher
Barred Owl	Common Snipe	LeConte's Sparrow
Bay-breasted Warbler	Common Tern	Lesser Scaup
Bell's Vireo	Common Yellowthroat	Lesser Yellowlegs
Belted Kingfisher	Connecticut Warbler	Lincoln's Sparrow
Bewick's Wren	Cooper's Hawk	Little Blue Heron
Black Rail	Dark-eyed Junco	Loggerhead Shrike
Black Tern	Dickcissel	Long-eared Owl
Black-and-white Warbler	Double-crested Cormorant	Louisiana Waterthrush
Black-backed Woodpecker	Downy Woodpecker	Magnolia Warbler
Black-billed Cuckoo	Eared Grebe	Mallard
Blackburnian Warbler	Eastern Bluebird	Marsh Wren
Black-capped Chickadee	Eastern Kingbird	Merlin
Black-crowned Night-Heron	Eastern Meadowlark	Mourning Dove
Black-necked Stilt	Eastern Phoebe	Mourning Warbler
Black-throated Blue Warbler	Eastern Screech-Owl	Mute Swan
Black-throated Green Warbler	Eastern Towhee	Nashville Warbler
Blue Jay	Eastern Wood-Pewee	Northern Bobwhite
Blue-gray Gnatcatcher	European Starling	Northern Cardinal
Blue-headed Vireo	Evening Grosbeak	Northern Flicker
Blue-winged Teal	Field Sparrow	Northern Goshawk
Blue-winged Warbler	Forster's Tern	Northern Harrier
Bobolink	Gadwall	Northern Mockingbird
Boreal Chickadee	Golden-crowned Kinglet	Northern Parula
Brewer's Blackbird	Golden-winged Warbler	Northern Pintail
Broad-winged Hawk	Grasshopper Sparrow	Northern Rough-winged Swallow
Brown Creeper	Gray Catbird	Northern Saw-whet Owl
Brown Thrasher	Gray Jay	Northern Shoveler
Brown-headed Cowbird	Great Blue Heron	Northern Waterthrush
Bufflehead	Great Crested Flycatcher	Olive-sided Flycatcher
Canada Goose	Great Egret	Orchard Oriole
Canada Warbler	Great Gray Owl	Osprey
Canvasback	Great Horned Owl	Ovenbird
Cape May Warbler	Green Heron	Palm Warbler
	Green-winged Teal	Peregrine Falcon

Philadelphia Vireo
 Pied-billed Grebe
 Pileated Woodpecker
 Pine Grosbeak
 Pine Siskin
 Pine Warbler
 Piping Plover
 Prairie Warbler
 Prothonotary Warbler
 Purple Finch
 Purple Martin
 Red Crossbill
 Red-bellied Woodpecker
 Red-breasted Merganser
 Red-breasted Nuthatch
 Red-eyed Vireo
 Redhead
 Red-headed Woodpecker
 Red-necked Grebe
 Red-shouldered Hawk
 Red-tailed Hawk
 Red-winged Blackbird
 Ring-billed Gull
 Ring-necked Duck
 Ring-necked Pheasant
 Rock Dove
 Rose-breasted Grosbeak
 Ruby-crowned Kinglet
 Ruby-throated Hummingbird

Ruddy Duck
 Ruffed Grouse
 Rusty Blackbird
 Sandhill Crane
 Savannah Sparrow
 Scarlet Tanager
 Sedge Wren
 Sharp-shinned Hawk
 Sharp-tailed Grouse
 Short-eared Owl
 Snowy Egret
 Song Sparrow
 Sora
 Spotted Sandpiper
 Spruce Grouse
 Summer Tanager
 Swainson's Thrush
 Swamp Sparrow
 Tennessee Warbler
 Three-toed Woodpecker
 Tree Swallow
 Tricolored Heron
 Trumpeter Swan
 Tufted Titmouse
 Turkey Vulture
 Upland Sandpiper
 Veery
 Vesper Sparrow

Virginia Rail
 Warbling Vireo
 Western Kingbird
 Western Meadowlark
 Whip-poor-will
 White-breasted Nuthatch
 White-eyed Vireo
 White-throated Sparrow
 White-winged Crossbill
 Wild Turkey
 Willow Flycatcher
 Wilson's Phalarope
 Wilson's Warbler
 Winter Wren
 Wood Duck
 Wood Thrush
 Worm-eating Warbler
 Yellow Rail
 Yellow Warbler
 Yellow-bellied Flycatcher
 Yellow-bellied Sapsucker
 Yellow-billed Cuckoo
 Yellow-breasted Chat
 Yellow-crowned Night-Heron
 Yellow-headed Blackbird
 Yellow-rumped Warbler
 Yellow-throated Vireo
Yellow-throated Warbler

YES! I would like to sponsor this bird: _____ My check for \$300 is enclosed.

Please make your check payable to Kalamazoo Nature Center, with MBBA and your bird species in the memo line.

Please charge my VISA MasterCard Discover

Card Number: _____ Exp. Date: _____

Cardholder Name: _____

I would like to pledge ___\$300 ___\$500 ___\$1,000

Please contact Torrey at the Atlas office to arrange a pledge at 269/381-1574 x 12
 Or email her at twenger@naturecenter.org



Please choose ONE: This bird sponsored by _____

This bird sponsored in honor of _____ In Memory of _____

I cannot sponsor a bird at this time, but here is my gift of \$ _____

Name: _____ Address: _____

City, State, Zip: _____

Phone: _____ Email: _____

**Mail this form to: Michigan Breeding Bird Atlas II c/o Kalamazoo Nature Center
 7000 N. Westnedge Ave. Kalamazoo, MI. 49009-6309**



DOCUMENTING MICHIGAN'S BIRDS

Michigan Breeding Bird Atlas II is a multi-year (fieldwork 2002-2007), statewide project coordinated by Kalamazoo Nature Center, with major financial support from Michigan Department of Natural Resources, to resurvey the state's breeding birds. The Atlas documents nesting distribution, abundance, and habitat use of Michigan breeding bird species, especially rare, threatened, and endangered species.

The second MBBA will provide an opportunity to identify changes that may have occurred since the 1980s. The final publication will create awareness of birds and bird conservation among Michigan citizens, and the data will strengthen the case for government officials, land owners, land managers, and other decision makers throughout Michigan to take appropriate actions to protect and maintain healthy, sustainable breeding bird populations in the state.

For more information about the Atlas or to participate, please contact the Research Department at Kalamazoo Nature Center at 269-381-1574 x30 or www.naturecenter.org or miatlas@naturecenter.org

Major Funding Provided by:



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