

2010 Project Abstract

For the Period Ending June 30, 2012

PROJECT TITLE: The Minnesota Breeding Bird Atlas

PROJECT MANAGER: Mark Martell

AFFILIATION: Audubon Minnesota

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FUNDING SOURCE: Environment and Natural Resources Trust Fund

LEGAL CITATION: ML 2010, Chap.362, Sec.2, Subd.3c.

APPROPRIATION AMOUNT: \$372,000

Overall Project Outcome and Results

The Minnesota Breeding Bird Atlas is a statewide survey of the breeding distribution of Minnesota's birds. The project combines efforts, coordinated by Audubon Minnesota, of volunteers and multiple partners to obtain detailed information on breeding status of Minnesota's birds, with systematic and habitat based abundance data, coordinated by the Natural Resources Research Institute at the University of Minnesota-Duluth. The combination of these two efforts represents a powerful addition to understanding the distribution, relative abundance, and habitat use by Minnesota's breeding birds.

Over 800 volunteers have participated in the project and have reported over 22,000 hours of donated time. Twenty-nine individuals act as regional coordinators helping to recruit, train, and monitor volunteers. Our database has 207,000 observations on 245 species and confirmed breeding by 226 species around the state. Data has been reported from 5,596 blocks, including 2,166 priority blocks (there is one priority block per township) which gives us data from 92% of the state.

Final products will include a book and on-line atlas, including distribution maps, species breeding status, and conservation and historical information. Products will be available to the public as well as conservation agencies and organizations. Information gathered during this project is at the sub-township level and will provide spatial detail more compatible with contemporary remote sensing imagery available for vegetation, water, and development. Data will be useful to a wide variety of organizations including federal agencies, many state agencies such as the MN DNR and MPCA, county land management agencies, and both regional and local organizations to highlight tourism opportunities. Data will also be of great utility for use in agency decision-making regarding the dedicated funding legislation associated with land acquisition and water quality protection. These types of spatially-intensive data sets are essential to make wiser decisions about land use allocations for energy development, transportation networks, and other residential or industrial development.

Project Results Use and Dissemination

The primary form of information dissemination to date has been through the Minnesota Breeding Bird Atlas website (mnbbba.org). Because our data collection is not complete, and we have not subjected all of the data to quality control we have not made efforts to disseminate the information to a wider audience at this time but plan to do so in future efforts.

Environment and Natural Resources Trust Fund 2010 Work Program Final Report

Date of Report: August 10, 2012

Final Report

Date of Work Program Approval:

Project Completion Date: June 30, 2012

I. PROJECT TITLE: The Minnesota Breeding Bird Atlas

Project Manager: Mark Martell

Affiliation: Audubon Minnesota

Mailing Address: 2357 Ventura Drive, Suite 106

City / State / Zip: St. Paul, MN 55125

Telephone Number: 651-739-9332 ext. 15

E-mail Address: mmartell@audubon.org

FAX Number: 651-731-1330

Web Site Address: <http://mn.audubon.org>

Location: Statewide

Total ENRTF Project Budget: ENRTF Appropriation \$ 372,000

The total appropriation for this project will be split between Audubon Minnesota and the Natural Resources Research Institute at the University of Minnesota Duluth (NRRI) as outlined below. NRRI will submit a separate work plan for their part of the project.

	To Audubon Minnesota	To NRRI – U of Minnesota Duluth	Total
Trust Fund Appropriation	\$211,000	\$161,000	\$372,000
Minus Amount Spent:	\$211,000	\$161,000	\$372,000
Equal Balance:	\$ 0	\$0	\$0

Legal Citation: ML 2010, Chap.362, Sec.2, Subd.3c.

Appropriation Language:

\$372,000 is from the trust fund to continue development of a statewide survey of Minnesota breeding bird distribution and create related publications, including a book and online atlas with distribution maps and breeding status. Of this appropriation, \$211,000 is to the commissioner of natural resources for an agreement with Audubon Minnesota and \$161,000 is to the Board of Regents of the University of Minnesota for the Natural Resources Research Institute. The atlas must be available for downloading on the Internet free of charge.

II. and III. FINAL PROJECT SUMMARY

The Minnesota Breeding Bird Atlas is a statewide survey of the breeding distribution of Minnesota's birds. The project combines efforts, coordinated by Audubon Minnesota, of volunteers and multiple partners to obtain detailed information on breeding status of Minnesota's birds, with systematic and habitat based abundance data, coordinated by the Natural Resources Research Institute at the University of Minnesota-Duluth. The combination of these two efforts represents a powerful addition to understanding the distribution, relative abundance, and habitat use by Minnesota's breeding birds.

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Amendment Request (09/18/12)

We request an amendment retroactive to March to make shifts in budget line items within and between Results in order to account for minor differences between anticipated budget expenditures and final actual expenditures. These shifts, documented on Attachment A, impact the budget line items for "Personnel", "Workshops/Meetings", "Supplies" and "Travel Expenses in Minnesota" under Result 1; the budget line items for "Personnel", "Supplies", and "Travel Expenses in Minnesota" under Result 2; and the budget item for "Personnel" under Result 3.

Amendment Approved: 09/19/12

IV. OUTLINE OF PROJECT RESULTS:

RESULT 1: Volunteer and Staff Training and Management to be done by Audubon

Description: The project will be overseen by a partner steering committee and various sub-committees which were established during the first 2 years of the project. These committees provide coordination among partners, work with technical experts, and broadly oversee staff and volunteers. The project is housed at Audubon Minnesota with a full-time project coordinator and additional part-time staff as needed. Project staff,

volunteer coordinators and surveyors need to be recruited and trained in a variety of tasks. Most of the data will be collected and entered into the database by volunteers working around the state and overseen by 32 volunteer regional coordinators. These volunteers and coordinators need to be recruited statewide, and provided with ongoing training and support. We will produce recruitment materials for newspapers and newsletters, directly contacting various organizations around the state, and making personal appearances and contacts. Training materials will include on-line and hard copy versions of both detailed and summary instructions, protocols, and support materials. Recruitment and training workshops will be held around the state.

Summary Budget Information for Result 1:

ENRTF Budget:	\$ 55,067 <u>54,161</u>
Amount Spent:	\$ 54,161
Balance:	\$ 905.17 <u>0.00</u>

Deliverable	Completion Date	Budget
1. Recruit and train project staff, volunteer coordinators and surveyors	April 2012	\$27,534 <u>\$27,080</u>
2. Produce survey materials	April 2012	\$27,533 <u>\$27,081</u>

Result Completion Date: April 2012

Final Report Summary:

Minnesota Breeding Bird Atlas (MNBBA) Project partners worked together and coordinated their activities through; the MNBBA Steering Committee, a Data Verification Sub-committee and a Methods Advisory sub-committee. These committees met regularly and provided valuable oversight and technical advice. Individuals on these committees were drawn from the U.S. Fish and Wildlife Service, various Divisions of the Minnesota Department of Natural Resources, the Minnesota Ornithologists' Union, the University of Minnesota and other organizations.

For administrative purposes we divided the state into 32 regions. There are 28 individuals serving as regional coordinators covering 22 of the 32 administrative regions around the state (some regions have more than 1 coordinator) with the Project Coordinator serving as coordinator for regions without local leadership. The regional coordinators assist in recruiting volunteers, reviewing data, and provide a local contact for media, the public, and handle other requests that arise. We held yearly meetings with volunteer coordinators and the advisory and steering committee members to review MNBBA project progress and process, discuss project improvements, and for additional volunteer recruitment and survey coverage.

Over 800 volunteers have been recruited and are participating in the project. They have reported over 22,000 hours of time spent on the project, although the reporting of hours is voluntary and we believe that it under-represents the actual time spent by volunteers on the project. Materials for volunteer surveyors and Regional Coordinators were updated at the beginning of Season 3 and have been made available on our website (<http://www.mnbba.org/materials.php>). Volunteer recruitment and training

strategies were re-designed each year to meet changing project needs. Our strategies included media and newsletter articles, personal contacts, and talks at bird clubs and birding events around the state. The difficulty in getting volunteers to remote parts of the state necessitated hiring temporary paid surveyors during the second year of this appropriation. A job description was developed and posted resulting in over 70 applications being received. Seven temporary surveyors were hired; training took place in May 2012.

RESULT 2: Data Collection to be done by Audubon

Description: Surveys for breeding birds will be conducted by volunteers, and as needed by paid staff, from January – August of each year. We have designated the northeast 3 X 3 mile quadrant of each township in the state as our priority blocks. These 2,250 (approximately) blocks will be the focus of our efforts, although data from any other location in the state will be accepted. Blocks in hard to access areas (the northern peatlands and the BWCA) will be surveyed by paid staff. This leaves 2,120 blocks to be surveyed by volunteers. By the end of year 4 we expect to have completed surveys in 1,580 (74.5%) of these priority blocks. Paid surveyors will be temporarily hired during year 4 to collect data in remote parts of the state.

Summary Budget Information for Result 2: ENRTF Budget: \$ 99,367
Amount Spent: \$ 100,434
Balance: \$ -1,067 0

Deliverable	Completion Date	Budget
1. Breeding bird data gathered by volunteers in 1,040 of Minnesota townships.	Aug 30, 2011	\$45,434
2. Breeding bird data gathered by volunteers and paid surveyors in 1,580 of Minnesota townships.	June 30, 2012	\$55,000

FINAL REPORT SUMMARY

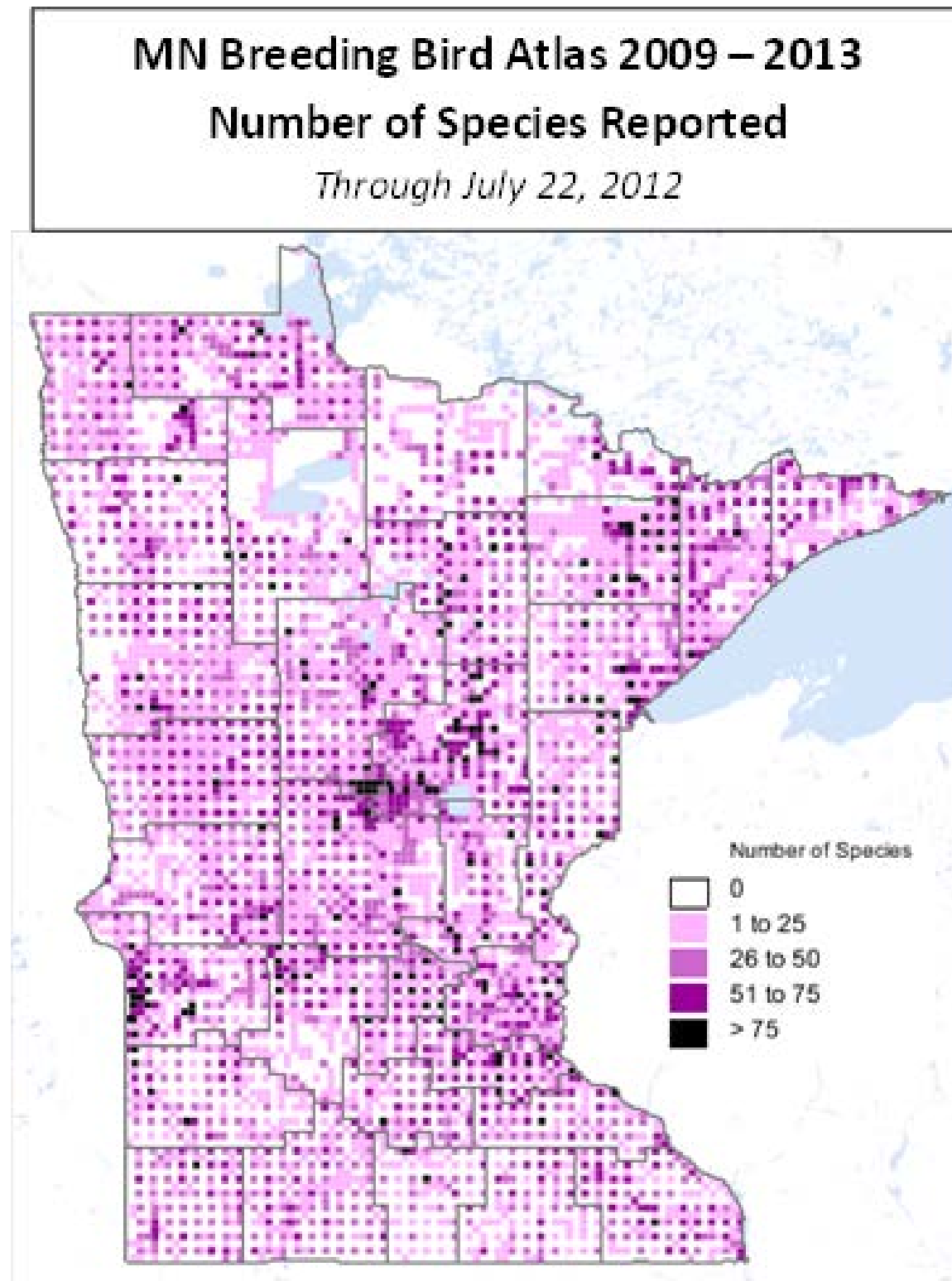
Over 800 volunteers, along with seven paid temporary employees have entered 207,000 observations on 245 different bird species statewide. Breeding was confirmed (meaning a nest, eggs, or fledgling was found) for 226 species. At this point we have data in 2,168 of our 2,352 “priority blocks (there is one priority block per state), which means we have 92% of the state covered. We expect that when all of season 4 data is entered, all but a few inaccessible priority blocks will have data.

In addition to volunteers and paid surveyors we made a concerted effort to find and enter data collected by agency personnel, University researchers, and others who are doing bird work in Minnesota but had not yet entered their data in the BBA database. In 2011, we also organized “block-busting” weekends encouraging volunteers to get together at a specific location and intensely survey the surrounding area. We did 3 such weekends in June and July; one in Itasca County, one in Freeborn County, and one in Stearns and Kandiyohi Counties. An additional event, the “Cheesehead Challenge” was held in Pine County on June 17 – 19 in 2011 and June 15-17 in Fillmore County in 2012. These events brought in birders from Wisconsin for a friendly competition with Minnesota birders. Finally, we initiated a program to recruit volunteers to cover blocks in targeted areas and provided limited reimbursements for gas and lodging based on results.

Our efforts have documented new county breeding records and distribution patterns that indicate changes to the breeding range of other species as well. County records reported in the Atlas include Sedge Wren in St Louis County, Lark Sparrow in Wilkin County, and Baltimore Oriole in Rock County. One species found breeding far outside of its expected range was a Bufflehead in Cottonwood County. Two species whose ranges appear to be expanding northward compared to 1975 ranges are the Northern Cardinal and Red-bellied Woodpecker.

The total species coverage statewide is shown in the maps below.

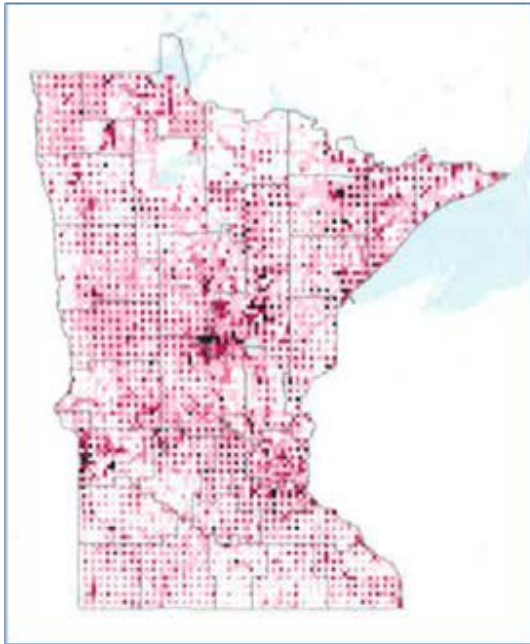
Figure 1 – Number of species reported by block and by year.



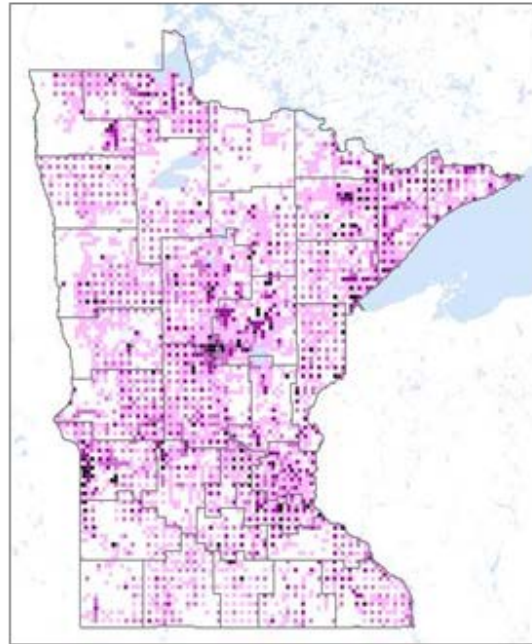
MNBBA Survey Progress, 2009 thru July 2012

Number of Species Reported by Block

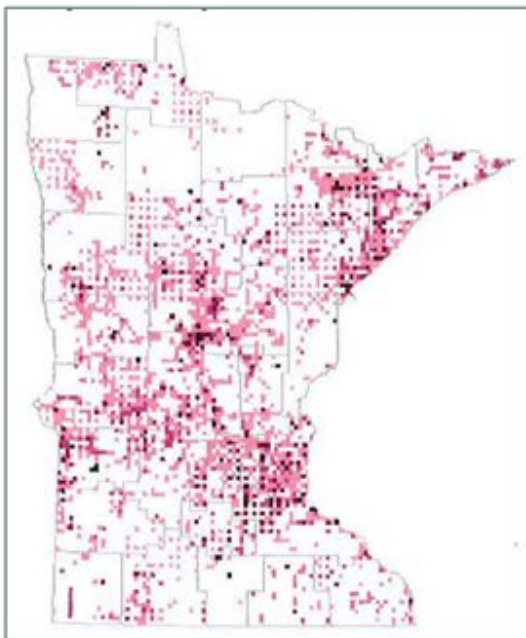
2012



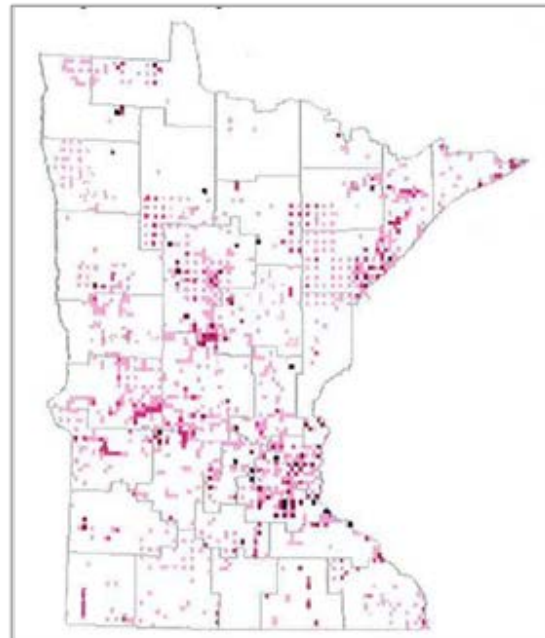
2011



2010



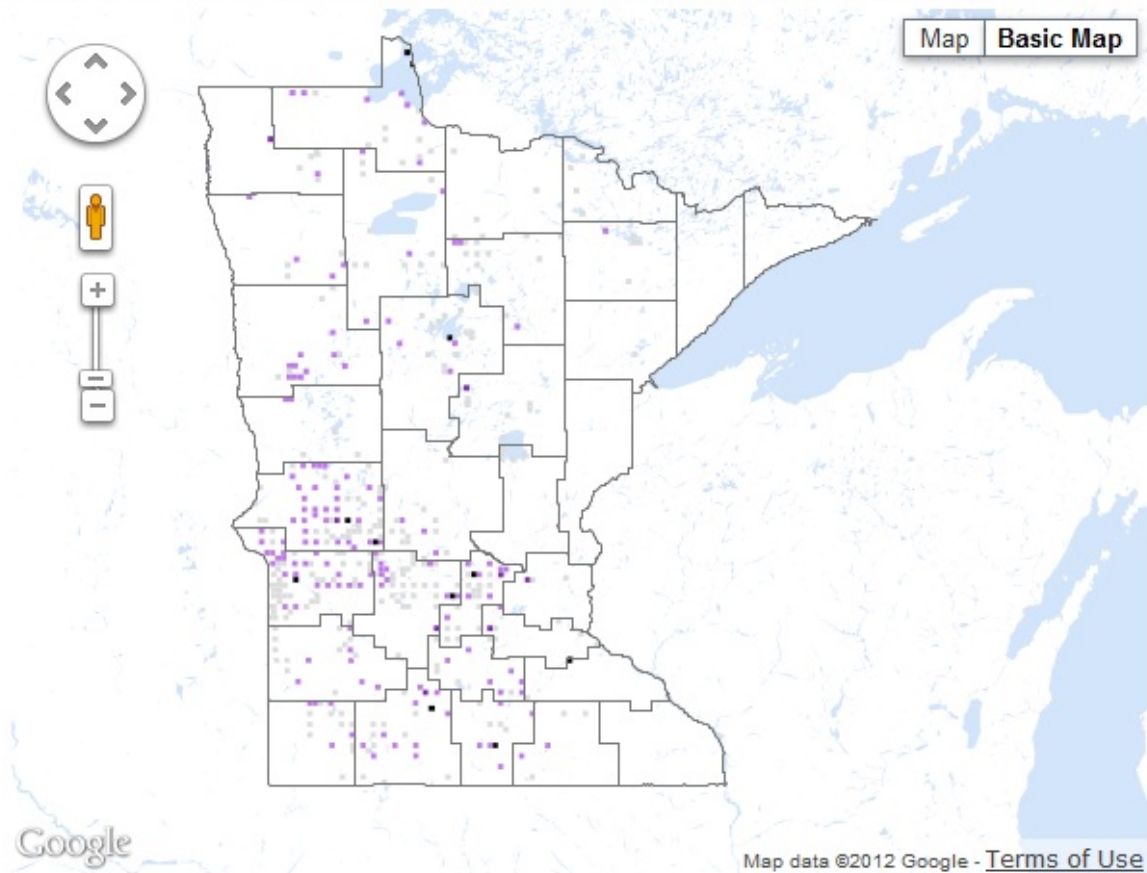
2009



Examples of species specific data.

Atlas 2009-13

American White Pelican - *Pelecanus erythrorhynchos*



American White Pelican (blocks)

Observed	273
Possible	149
Probable	8
Confirmed	11

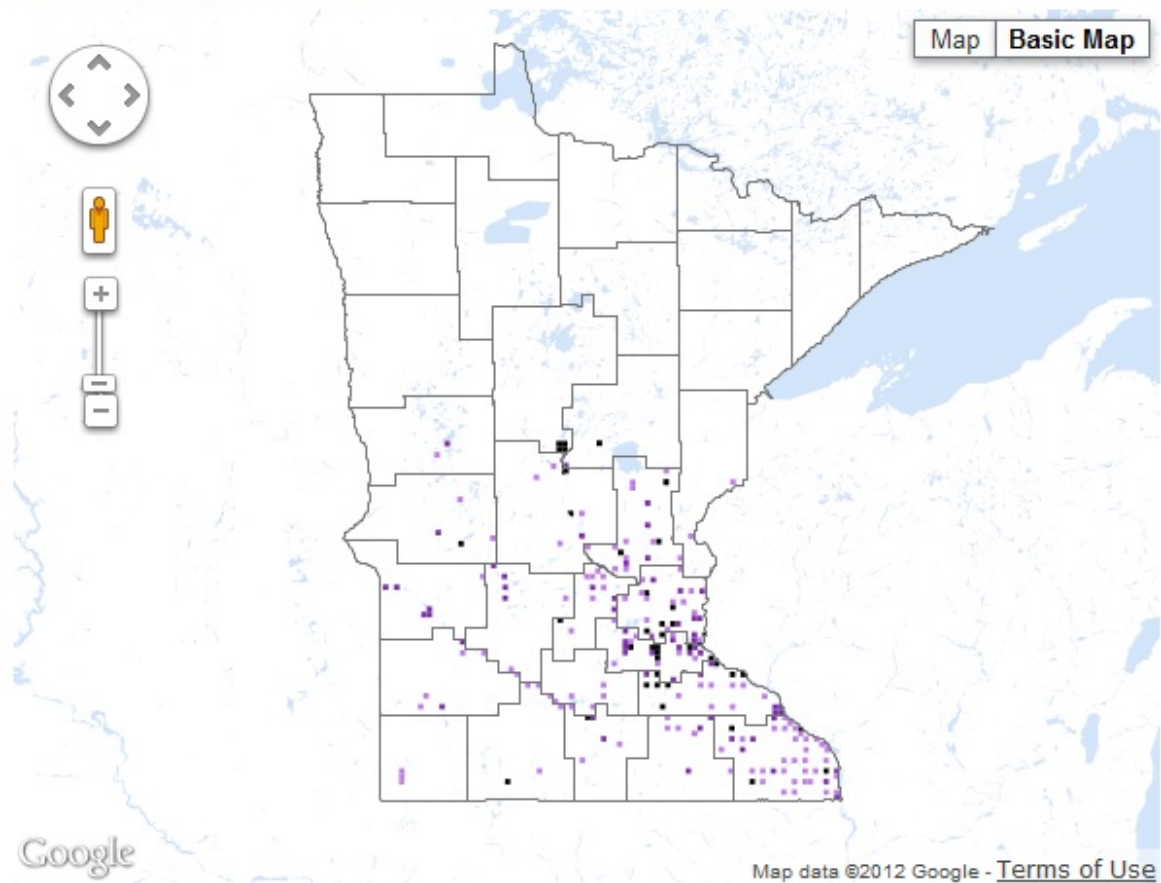
Breeding Status	
	Observed
	Possible
	Probable
	Confirmed
	Not reported



Credit: Carrol Henderson

Atlas 2009-13

Blue-gray Gnatcatcher - *Poliioptila caerulea*



Blue-gray Gnatcatcher (blocks)

Observed	1
Possible	122
Probable	64
Confirmed	44

Breeding Status

Observed
Possible
Probable
Confirmed
Not reported



Credit Andrew Nyhus

RESULT 3: Data Management and Analysis to be done by Audubon

Description: We will continue to support, maintain, and update our Breeding Bird Atlas website. We will also continue our contract with Cornell for the use of their data management system. The BBA website will be the central source of information about the atlas for volunteers, partners, and the general public. We will provide volunteers with survey protocols, identification aids, and other information. Updated results and maps will be maintained and improved as necessary.

The Cornell system for management and storage of data; which includes on-line data entry, quality control, and editing capabilities will continue to be operational. This system will house the data during the course of the project. We will have the ability to print aerial photos and topographic maps of survey sites and view BBA results by species or geographic region.

Summary Budget Information for Result 3:	ENRTF Budget:	\$ 56,566 56,404
	Amount Spent:	\$ 56,404
	Balance:	\$ 462 \$0

Deliverable	Completion Date	Budget
1. Continuation of BBA data access and informational website	June 30, 2012	\$28,202
2. A web-based data entry, management, and reporting system	June 30, 2012	\$28,202

Result Completion Date: June 30, 2012

Final Report Summary

We have maintained a project website: mnbbba.org which provides news and information on the project to volunteers and the public. The site is also where we provide training and data collection materials for volunteers including field forms, project handbook and reporting forms. This site also serves as a portal to the Cornell database and provides up-to-date data summaries.

We have contracted with Cornell Laboratory of Ornithology to provide the project database. This database allows data entry and recovery online and gives daily updates on project status. Printed block maps were redesigned by Cornell to provide images based on Google Maps and revised to reflect more accurate block boundaries and coordinates. This improvement eliminated the topographic map option; however, topographic images for critical regions were downloaded and made available to Regional Coordinators on CDs.

Our Data Verification Committee reviews data and provides annual quality control for the project. These experts review reports of rare and unusual species and identify

species reported out of their expected range. This process is ongoing and will continue to be a part of the project until after the end of the data survey portion of the project. As the project progresses, preliminary analysis is conducted to determine remaining species and geographic coverage targets.

RESULT 4: Point Count Data Collection to be done by NRRI

Description: This work is overseen by the Natural Resources Research Institutes at the University of Minnesota Duluth and is detailed in a separate work plan they have submitted.

The information below is taken from the NRRI final report to LCCMR

Result 4: Point Count Data Collection

This result is the primary responsibility of the Natural Resources Research Institute at the University of Minnesota Duluth. It is focused on the breeding season in Minnesota (approximately mid-May to mid-July). We designed an efficient means to sample the townships. Individuals were able to sample about three townships per morning, but in some cases where there is good road access they were able to sample 4 to 5 townships per morning. The townships sampled were selected in a restricted, random fashion to insure the townships censused were evenly distributed across the state. It was “restricted” to insure logistical (transportation) efficiency, primarily so townships sampled on a daily and weekly basis were relatively close together. The protocol was peer-reviewed by seven professional and amateur ornithologists from MN and WI, whose comments were incorporated.

The censusing protocol calls for censusers to pass a test of their bird identification skills by sound and pass a hearing test to insure their hearing is within normal ranges. Censusers also go through a 3-4 day training session to improve the standardization of data gathering. These censurers are either graduate students or paid as temporary university employees because the 1) field work is physically demanding, 2) work time include difficult hours, and 3) it is a fulltime job. Up to ten paid, seasonal field surveyors primarily graduate and undergraduate students have completed a majority of the counts needed for this effort. **The goal was to complete sampling of 80% of the townships in the state of Minnesota and this goal has been met.** However, with the additional funding from the state of Minnesota that we received in May 2012 from the Minnesota Department of Natural Resources through Audubon Minnesota (our partner in this effort), we have completed the sampling of over 99% of the townships in the state. We will complete the remaining 1% (approximately 22 townships) during the summer of 2013. These areas include some of the most remote and hard-to-access areas of the state, primarily the remote peatlands of Koochiching, Beltrami, and St. Louis Counties.

Over 70% of the data for the townships have been entered and error checked. This exceeds the deliverable of having 60% of the data error checked. This project was primarily a data gathering effort with little time allocated to analysis; however, over the coming two to three years during the completion of the Minnesota Breeding Bird Atlas project these data will receive substantial analysis. Therefore, in this final report we primarily highlight the places, the habitats, and the bird species identified as part of the breeding bird atlas. We also provide four appendices of data: 1) Appendix A – a summary of the total individuals observed from 2009-2011, 2) Appendix B – the average number of individuals of a species observed from 2009-2011 in the state and in the three major regions of the state, 3) Appendix C – a summary of the 30 most abundant bird species observed in the state and for each of the major regions of the state, and 4) Appendix D – a summary of the 30 most abundant species in each ecosection of the state. Ecosections are extensively used in management of natural resources in the state.

We emphasize that this is the first comprehensive, systematic count of the breeding birds of the state and further emphasize its complementarity to the volunteer efforts being coordinated by Audubon Minnesota. The data gathered will allow for comparisons of the breeding bird communities to be made at many different areal scales from the sub-township level, township, counties, ecosections, and for the entire state.

Figure 1 shows the townships that have been completed with data entered as of mid-July 2012. The remaining funds from this LCCMR project were expended to compile, analyze, and complete the sampling for over 80% of the townships in the state. Therefore, we met the deliverable of 80% (>1,840 townships out of 2,300 townships) during the fourth year of sampling in 2012.

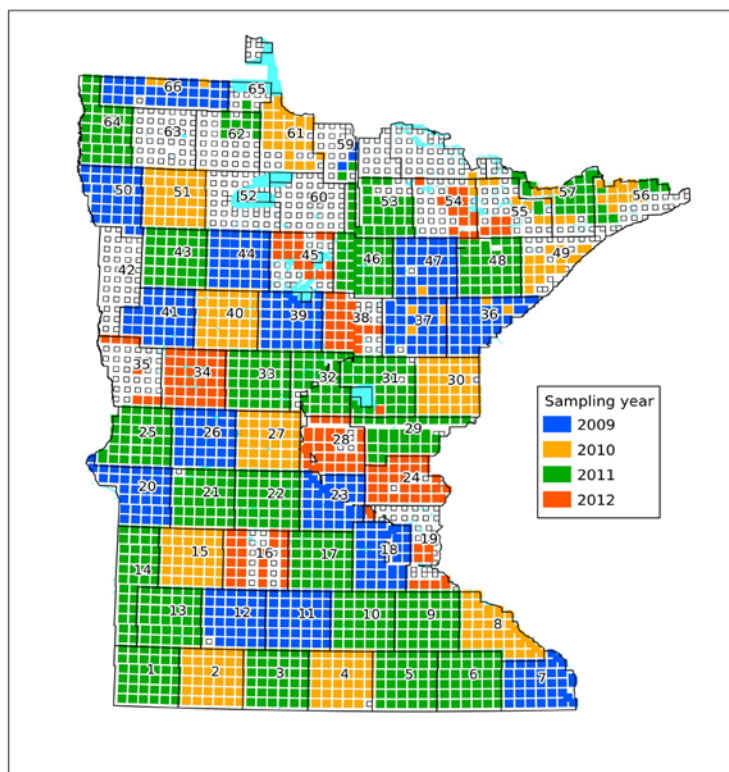


Figure 1. Townships sampled with point counts in 2009, 2010, 2011, and 2012.
Note that the samples in 2012 are not yet complete and entered as of July 24, 2012.

Table 1. Summary of number of points sampled for the entire state and by three regions of the state [southeast (SE), west (W) and northeast (NE)] from 2009 to 2011.

Habitat	State	SE	W	NE
Barren land	15		13	2
Cultivated crops	1684	917	756	11
Deciduous forest	1234	235	226	773
Developed low intensity	104	75	24	5
Developed medium intensity	43	36	4	3
Developed open space	26	9	1	16
Emergent herbaceous wetlands	380	79	213	88

Evergreen forest	324		28	296
Grassland/herbaceous	400	244	144	12
Pasture/hay	676	361	218	97
Shrub/scrub	99	12	22	65
Woody wetlands	223	21	43	159

The dominant habitats of the state were sampled for birds are shown in Table 1 and as expected they are dominated by cultivated crops, deciduous forest, pasture/hay, and grassland/herbaceous ecosystems. Similarly, the total number of individual birds counted are a reflection of the number of point counts sampled within the various habitats sampled (Table 2). Through the first three years of sampling (2009-2011) a total of 288,144 individual birds have been counted.

Table 2. Total number of individual birds identified by habitat for the state and for each of the three major regions of the state.

Habitat	State	SE	W	NE
Barren land	313	--	263	50
Cultivated crops	46801	25190	21277	334
Deciduous forest	26304	5852	5982	14470
Developed low intensity	3306	2333	712	261
Developed medium intensity	1319	1059	186	74
Developed open space	652	277	22	353
Emergent herbaceous wetlands	14566	3447	8563	2556
Evergreen forest	6447	--	591	5856
Grassland/herbaceous	14181	8561	5299	321
Pasture/hay	21973	12286	7245	2442
Shrub/scrub	2491	360	603	1528
Woody wetlands	5569	920	1236	3413

The average number of individual birds recorded at a point count is a more revealing statistic in terms of the relative density of birds within various habitat types (Table 3), but they are also influenced by detectability. The highest densities of birds are observed in wetland habitats, including emergent herbaceous wetlands like those comprised of cattail.

Table 3. The average number of individual birds counted per point by habitat type and for the state and each of the three major regions.

Habitat	State	SE	W	NE
Barren land	20.9	--	20.2	25.0
Cultivated crops	27.8	27.5	28.1	30.4
Deciduous forest	21.3	24.9	26.5	18.7
Developed low intensity	31.8	31.1	29.7	52.2
Developed medium intensity	30.7	29.4	46.5	24.7
Developed open space	25.1	30.8	22.0	22.1
Emergent herbaceous wetlands	38.3	43.6	40.2	29.0
Evergreen forest	19.9	--	21.1	19.8
Grassland/herbaceous	35.5	35.1	36.8	26.8

Pasture/hay	32.5	34.0	33.2	25.2
Shrub/scrub	25.2	30.0	27.4	23.5
Woody wetlands	25.0	43.8	28.7	21.5

Summary Budget Information for Result 4:

ENRTF Budget:	\$ 161,000
Amount Spent:	\$ 161,000
Balance:	\$ 0

Deliverable	Completion Date	Budget
1. Data gathered for an additional 40% of Minnesota townships or a total of 80% over four years.	June 30, 2012	\$141,000
2. Data entered and error-checked for 60% of Minnesota townships.	June 30, 2012	\$10,000
3. Preliminary tables and figures on the relative distribution and abundance of MN breeding birds.	June 30, 2012	\$10,000

V. TOTAL ENRTF PROJECT BUDGET: \$372,000

AUDUBON MINNESOTA ENRTF PROJECT BUDGET: \$211,000 (REMAINING AMOUNT TO BE SPENT BY NRRI)

Personnel: \$ 172,740

Project Manager (Mark Martell) \$23,960, 16% FTE, includes 32 - 36% fringe benefit rate

Program Coordinator (Bonnie Sample) \$119,419 est., 100%FTE, includes 32 - 36% fringe benefit rate

Administrative Support (various) \$4834 est., 8%FTE, includes 12% or 36% fringe benefit rate (12% for part-time employees, 36% for full-time employees) depending on employment status with the National Audubon Society

Temporary bird surveyors (7) \$24,527

Contracts: \$ 8,519

Website Maintenance – Updates on mnbb.org (continued work with Dave Cahlander)

Data Management System – Updates and maintenance on database contracted with Cornell Univ.

Workshop meeting space

Printing/Mailing: \$278

Recruitment and communication with estimated 1,000 volunteer surveyors

Equipment/Tools/Supplies: \$327

Travel: \$ 29,136 (primarily mileage, some lodging and overnight where needed)

Staff - \$7,000

Volunteer - \$35,000

Capital Expenditures greater than \$35,000 – none

VI. PROJECT STRATEGY:

A. Project Partners receiving funds from the Trust Fund (through this appropriation):

Audubon Minnesota – Mark Martell, Project Manager, \$211,000

Natural Resources Research Institute – Univ. of MN Duluth – Gerald J. Niemi, \$161,000

Other Partners – Not receiving Funds

Bell Museum of Natural History - Dr. Scott Lanyon

Minnesota DNR Division of Ecological Resources

U.S. Fish and Wildlife Service

Minnesota Ornithologists' Union

B. Project Impact and Long-term Strategy:

The Minnesota Breeding Bird Atlas will provide the first time-specific survey of all the breeding birds in the state. This information will be available to land and resource managers, the public, and policy makers providing an invaluable resource as future events such as global warming require a response. Information can continue to be collected by partners and others providing a unique and robust view of Minnesota's birds.

C. Other Funds Proposed to be spent during the Project Period: \$80,000

Audubon Minnesota - \$48,565

Minnesota Ornithologists' Union - \$20,000

U.S. Fish and Wildlife Service - \$15,186

MN DNR - \$18,300

D. Spending History: LCCMR ML 2008 sub 5d - \$270,000, Audubon- \$30,000, USFWS- \$50,000, Minnesota Ornithologists' Union- \$20,000, MN DNR - \$20,000

VII. DISSEMINATION: Information will be available at: www.mnbba.org, at the end of the anticipated 6-year project we will publish a hardcover atlas.

VIII. REPORTING REQUIREMENTS: Periodic work program progress reports will be submitted not later than: January 31, 2011, July 31, 2011, January 31, 2012. A final work program report and associated products will be submitted between June 30 and August 1, 2011 as requested by the LCCMR.

IX. RESEARCH PROJECTS:

Appendix 1. List of Outreach Materials

Audubon Minnesota Newsletters

Spring 2012

Winter 2012

November 2011

Fall 2010

BBA Handout at Minnesota Ornithologists' Union Meeting December 2011

Better Forests Magazine

St. James Plain Dealer Newspaper Feb 2012

Timberjay July 2012

Minnesota State Fair 2011

MRVAC (Audubon) newsletter

Friends of Sherburne Refuge News

St. Paul Audubon Society Newsletter

MOU Newsletter

Presentation to the Wild River Audubon Chapter November 2011

Presentation to the Greater Prairie Chicken Society

Presentation to the Mississippi Headwaters Audubon Chapter April 2011

Presentation to the Minnesota Ornithologists' Union Annual Meeting December 2010

Presentation to the MN DNR NW Wildlife Managers Feb 2012

Minnesota's Breeding Birds Need Your Help!

Cedar
Waxwings,
courtship
behavior.
Photo by
Jim Williams

Minnesota is in the middle of the most comprehensive bird conservation project ever conducted in the state. The project is the Minnesota Breeding Bird Atlas (MNBBA), a 5-year program that will give us a current, science-based, snap-shot of which species are nesting and where in the state they nest. The best part is that the Atlas depends on citizen scientists to collect the information – that means that if you can identify birds, you can add your observations to the project! Forested lands offer excellent habitat for many species so as a tree farmer, your property is a wonderful place to look for birds and observe breeding behavior.

Participating in the Atlas is a great way to make a lasting contribution to Minnesota's bird conservation.

Minnesota's Atlas

Breeding bird Atlases are used throughout the world to document and map the distribution of breeding birds and Minnesota follows standard Atlas format and guidelines. Most people are surprised to learn that forty-one states have already completed a breeding bird Atlas, and twelve states are working on, or have completed, their 2nd Atlas, conducted more than 15 years

after their first Atlas. South Dakota and Iowa are currently wrapping-up their 2nd Atlas projects. The analysis of the differences between the first and second Atlas document species changes over 15-20 years. This will be especially critical as we look at possible impacts from climate change. Minnesota is the only state along the Mississippi Flyway that does not have an Atlas, so we are overdue to complete this project.

Why is the Atlas important?

There are books that provide a historical look at species distributions in Minnesota, but the Atlas will document breeding evidence down to the township level and will identify the level of breeding activity: observed only, possible, probable, or confirmed evidence. It is also a repeatable survey, so information from a 2nd Atlas will show us what changes have occurred to breeding birds: changes to species ranges, new species breeding in the state, and species that no longer breed in the state.

Not only will the Atlas document which species breed in Minnesota, and where they breed, but it will also identify areas of high species diversity. A parallel project is simultaneously collecting information about how com-

mon, or abundant, our breeding birds are throughout their breeding range. This is guaranteed to tell us some things we don't know about our breeding birds.

In a nutshell, the MNBBA will:

- Map the current distribution and abundance of breeding birds in Minnesota
- Support local, county, state, and regional conservation planning
- Lead to better research questions
- Establish a baseline for monitoring changes
- Engage more people in bird conservation

Results to date are already available on the project website, www.mnbba.org, including a great photo gallery of images submitted by volunteers. Please check it out! Final results from this project will be published in a book and on a website with detailed distribution maps and narratives for all Minnesota breeding birds.

What do volunteers do?

There are two ways to participate; a volunteer can be a Field Observer or a Surveyor.

Field Observers record 1) species they see anywhere in the state, with 2) an evidence code that describes what they see (e.g. pair observed in nesting habitat), 3) the date and 4) the location of the observation. Or, a volunteer can become a Surveyor.

A **Surveyor** registers and selects a priority block, then makes multiple visits during the breeding season to that block. There are 2352 priority blocks in the state, systematically and randomly selected throughout the state to provide unbiased and comprehensive coverage. To survey a block is basically a 3-step process: find and explore a priority block, get out and bird, and then report your observations. Surveyors use the same data collection methods as Field Observers, the difference is that all observations are for the same location and surveyors only need to report a species more than once if they can upgrade the evidence. It takes about 20 hours of active surveying between March and August to complete a block survey; this is a very effective approach to completing the project. The goal of the survey is to identify as many different species as the surveyor finds within a block and record the strongest breeding evidence for each species (e.g. adult carrying nesting material).

Participating in the Atlas is an opportunity to contribute to something important, to 'bird with a purpose'. Volunteers can:

- Improve i.d. and observational skills
- Learn more about bird behavior
- Have fun
- Explore new birding sites
- See things you have never seen before
- Contribute to MN bird conservation

For more information

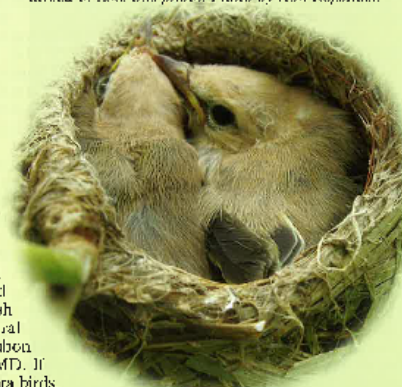
Check out the Atlas website at www.mnbba.org, or contact Robin Sample, Project Coordinator, at 651-739-9332, ext. 20, or rsample@audubon.org. We would love to have you be part of the Atlas.

The Breeding Bird Atlas is funded by lottery money from the Minnesota Environment and Natural Resources Trust Fund and Minnesota agencies and organizations interested in bird conservation: U.S. Fish and Wildlife Service, MN Department of Natural Resources, Minnesota Ornithologists' Union, Audubon Minnesota, Natural Resources Research Institute - UM-D. If you too, are concerned about conservation of Minnesota birds, please join us. ■



Queenbird carrying twig to young.
Photo by Marshall Howe.

Warbling vireo nestlings. Note that no birds were disturbed to take this photo. Photo by Ron Refsnider.



Feb 16, 2012 St James Plaindealer

Learn your bird neighbors by participating in the 'Breeding Bird Atlas' survey

DOUG DEDECKER
STAFF WRITER

Calling all 'birders', and people interested in nature.

An important multi-year project aimed at determining which birds breed in Minnesota needs your help.

The project is called the 'Minnesota Breeding Bird Atlas'. The project's objective is to determine the number of bird species that breed in Minnesota. It also will record the range of the breeding species across the state of Minnesota. The results will be published in a large hard cover atlas in 2014.

Breeding Bird atlases are used through out the world to document and map the distribution of breeding birds.

Most other states have already published breeding bird atlases. In fact, Minnesota is the only state along the Mississippi flyway that has not published one atlas. Some states have published two.

Project coordinator Bonnie Sample held a meeting with interested people at the Stray Cat Cafe last week discussing the program, and seeking observer volunteers in Watonwan County.

A breeding bird population baseline study is important because recent



Breeding Bird Project Coordinator Bonnie Sample visited with resident Cindy Torkelson last week and went over the Breeding Bird Atlas Project.

data from other monitoring programs suggests major declines in many of the 222 species of birds that have been known to nest in Minnesota.

Volunteers will be assigned 3x3 mile blocks of territory in each township with the goal of determining the types of breeding birds in that block.

The project has a number of criteria that are used to determine if a species might be or is proved to breeding in an area.

Sample said the average volunteer will spend no more than 20 hours between March and August surveying for the Atlas. This is a very limited commitment for an individual to make.

All people can participate in the breeding bird atlas project. Local people can volunteer to survey one or more of the priority blocks, document breeding species in their immediate neighborhood, and recruit others to get involved with the atlas project.

Interested people can get involved by checking out the mbba.org website (link provided on our home page). The site is comprehensive, and has a list of the areas in the state where different breeding birds have been observed.

If you are an Internet surfer, this is a site that is well worth spending some time on. It's interesting to anyone curious about what species of

birds are in Minnesota.

As far as the bird nesting population in Watonwan County goes, a few more bird species and the distribution of those bird species may need to be found. Currently Watonwan County has 61 nesting species identified, while Cottonwood to the west has 89, and Blue Earth to the east has 99.

Inquiries about helping with this project can be made to Project Coordinator Bonnie Sample at bsample@audubon.org or by calling Bonnie 651-739-9332.

If you decide to participate results can be submitted to the project on line, or you can mail them in.

Attachment A: Budget Detail for 2010 Projects - Summary and a Budget page for each partner (if applicable)															
Project Title: Minnesota Breeding Bird Atlas															
Project Manager Name: Mark Martell															
Trust Fund Appropriation: \$ 372,000															
1) See list of non-eligible expenses, do not include any of these items in your budget sheet															
2) Remove any budget item lines not applicable															
2010 Final Budget Detail for 2010 Project	Result 1 Budget	Result 1 Budget Revised 9/12	Amount Spent	Balance	Result 2 Budget	Result 2 Budget Revised 9/12	Amount Spent	Balance	Result 3 Budget	Result 3 Budget Revised 9/12	Amount Spent	Balance	TOTAL BUDGET	Total Budget Revised 9/12	TOTAL BALANCE
BUDGET ITEM															
PERSONNEL: wages and benefits	\$49,567.00	\$49,404.23	\$49,404.23	\$0.00	\$72,622.00	\$73,931.58	\$73,931.58	\$0.00	\$49,566.00	\$49,404.20	\$49,404.20	\$0.00	\$171,755.00	\$172,740.01	\$0.00
Project Manager (\$23,000 estimated) 16% FTE (includes 36% fringe benefit rate)	\$7,667.00	\$7,987.65	\$7,987.65	\$0.00	\$7,667.00	\$7,986.65	\$7,986.65	\$0.00	\$7,666.00	\$7,985.63	\$7,985.63	\$0.00	\$23,000.00	\$23,959.93	\$0.00
Program Coordinator (\$117,000 estimated), 100% FTE, (includes 36% fringe benefit rate)	\$39,000.00	\$39,805.40	\$39,805.40	\$0.00	\$39,000.00	\$39,806.40	\$39,806.40	\$0.00	\$39,000.00	\$39,807.37	\$39,807.37	\$0.00	\$117,000.00	\$119,419.17	\$0.00
Administrative Support (\$8,700 estimated), 8% FTE (includes 12% or 36% fringe benefit rate)	\$2,900.00	\$1,611.18	\$1,611.18	\$0.00	\$2,900.00	\$1,611.18	\$1,611.18	\$0.00	\$2,900.00	\$1,611.20	\$1,611.20	\$0.00	\$8,700.00	\$4,833.66	\$0.00
Paid Block Coverage (\$13.25/hr & 12% fringe benefits) 6-14-12					\$23,055.00	\$24,527.35	\$24,527.35	\$0.00					\$23,055.00	\$24,527.35	\$0.00
Contracts															
Professional/technical															
Website Management and Update									\$2,000.00	\$2,000.00	\$2,000.00	\$0.00	\$2,000.00	\$2,000.00	\$0.00
Data Management System (Cornell Lab of Ornithology)									\$5,000.00	\$5,000.00	\$5,000.00	\$0.00	\$5,000.00	\$5,000.00	\$0.00
Other contracts															
Workshps/Meetings	\$1,600.00	\$1,519.51	\$1,519.51	\$0.00									\$1,600.00	\$1,519.51	\$0.00
Printing/Mailing	\$400.00	\$278.04	\$278.04	\$0.00									\$400.00	\$278.04	\$0.00
Supplies															
Field Supplies (maps, GPS units for volunteer surveyors)					\$800.00	\$326.82	\$326.82	\$0.00					\$800.00	\$326.82	\$0.00
Travel expenses in Minnesota	\$3,500.00	\$2,960.05	\$2,960.05	\$0.00	\$25,945.00	\$26,175.57	\$26,175.57	\$0.00					\$29,445.00	\$29,135.62	\$0.00
Staff Travel (\$7,000 est)				\$0.00											\$0.00
Volunteer Travel (\$35,000 est)				\$0.00											\$0.00
COLUMN TOTAL	\$55,067.00	\$54,161.83	\$54,161.83	\$0.00	\$99,367.00	\$100,433.97	\$100,433.97	\$0.00	\$56,566.00	\$56,404.20	\$56,404.20	\$0.00	\$211,000.00	\$211,000.00	\$0.00