2008 Project Abstract For the Period Ending June 30, 2010

PROJECT TITLE: Minnesota Breeding Bird Atlas PROJECT MANAGER: Mark Martell AFFILIATION: Audubon Minnesota MAILING ADDRESS: 2357 Ventura Drive, Suite 106 CITY/STATE/ZIP: St. Paul, MN 55113 PHONE: 651-739-9332 E-MAIL: mmartell@audubon.org WEBSITE: http://mn.audubon.org/ FUNDING SOURCE: Environment and Natural Resources Trust Fund LEGAL CITATION: ML 2008, Chap. 367, Sec. 2, Subd. 5(d).

APPROPRIATION AMOUNT: \$169.000

Overall Project Outcome and Results

These were the first 2-years of an anticipated six-year effort which will result in a comprehensive, statewide survey documenting the breeding distribution of all species of birds in Minnesota. After six years the final atlas products will include the publication of a book and an interactive on-line atlas, both with detailed distribution maps, data on species breeding status, and a summary of data from other surveys. Full access to the information will be provided to the public as well as conservation agencies and organizations.

The first two years of the project, focused on project development, volunteer recruitment, establishment of a data management system, and 2 seasons of data collection. This is a statewide multi-partner project overseen and advised by steering and technical committees. One full-time and one part-time temporary project staff were hired during this period and were assisted by 30 volunteer coordinators overseeing 638 volunteer surveyors. Written materials, workshops, and field sessions were used to recruit and train participants in the project. A data access and information website was established (www.mnbba.org) and we contracted with Cornell University to adapt their web-based data entry, management, and reporting system (the e-bird database) to our project (http://bird.atlasing.org/Atlas/MN/Main?cmd=Start). The MNBBA website and the Cornell database are linked and complement each other.

Each Township in the state is divided into 4 "blocks" with one block (usually the NE) designated as the "priority block". Data collection began in spring of 2009 and by the end of the six-year project will include every one of the approximately 2,120 Township in Minnesota. An all-species, volunteer driven survey, and a separate specialized "point count" survey (overseen by NRRI) will be conducted in each of townships across the state. By June 30, 2010 data had been entered into our database from 2,076 survey blocks. The 638 volunteers reported spending 6,939 hours doing surveys. A total of 48,425 individual sightings were submitted on 238 species.

<u>Project Results Use and Dissemination</u> *This section NOT intended to count toward recommended 300 word length for Abstract

Results from the Breeding Bird Survey are updated daily and available on our website at www.mnbba.org. Further analysis and dissemination of the data will be available at the conclusion of the project at the end of year 6 or 7.

To date the Minnesota Breeding Bird Atlas has received coverage in a number of newspapers statewide and various organizational publications and newsletters.

Trust Fund 2008 Work Program Final Report

Date of Report: July 30, 2010 Final Report Date of Work program Approval: June 10, 2008 Amendment Approved: July 8, 2009 Project Completion Date: June 30, 2010

I. PROJECT TITLE: Minnesota Breeding Bird Atlas

Project Manager: Mark Martell Affiliation: Audubon Minnesota Mailing Address: 2357 Ventura Dr. City / State / Zip: St. Paul, MN, 55125 Telephone Number: 651-739-9332 E-mail Address: mmartell@audubon.org FAX Number: 651-731-1330 Web Page address: http://mn.audubon.org/

Location: Statewide

Total Trust Fund Project Budget: \$270,000

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

To Audubon Minnesota	Trust Fund Appropriation: Minus Amount Spent: Equal Balance:	\$ 169,000.00 \$ 159,725.96 \$ 9,274.04
To NRRI – U of Minnesota Duluth	Trust Fund Appropriation: Minus Amount Spent: Equal Balance:	\$ 101,000 \$ \$

Legal Citation: ML 2008, Chap. 367, Sec. 2, Subd. 5(d).

Appropriation Language:

\$270,000 is from the trust fund to develop 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, \$169,000 is to the commissioner of natural resources for an agreement with Audubon Minnesota and \$101,000 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

These were the first 2-years of an anticipated six-year effort which will result in a comprehensive, statewide survey documenting the breeding distribution of all species of birds in Minnesota. After six years the final atlas products will include the publication of a book and an interactive on-line atlas, both with detailed distribution maps, data on species breeding status, and a summary of data from other surveys. Full access to the information will be provided to the public as well as conservation agencies and organizations.

The first two years of the project, focused on project development, volunteer recruitment, establishment of a data management system, and 2 seasons of data collection. This is a statewide multi-partner project overseen and advised by steering and technical committees. One full-time and one part-time temporary project staff were hired during this period and were assisted by 30 volunteer coordinators overseeing 638 volunteer surveyors. Written materials, workshops, and field sessions were used to recruit and train participants in the project. A data access and information website was established (www.mnbba.org) and we contracted with Cornell University to adapt their web-based data entry, management, and reporting system (the e-bird database) to our project (http://bird.atlasing.org/Atlas/MN/Main?cmd=Start). The MNBBA website and the Cornell database are linked and complement each other.

Each Township in the state is divided into 4 "blocks" with one block (usually the NE) designated as the "priority block". Data collection began in spring of 2009 and by the end of the six-year project will include every one of the approximately 2,120 Township in Minnesota. An all-species, volunteer driven survey, and a separate specialized "point count" survey (overseen by NRRI) will be conducted in each of townships across the state. By June 30, 2010 data had been entered into our database from 2,076 survey blocks. The 638 volunteers reported spending 6,939 hours doing surveys. A total of 48,425 individual sightings were submitted on 238 species.

IV. OUTLINE OF PROJECT RESULTS:

Result 1: Project Development

Description:

This project will require multi-year, statewide coordination among partners, volunteers and technical experts. To oversee and manage this effort a Steering Committee made up of partner representatives will be established to provide project coordination and oversight. A Technical Committee will be established to oversee data methodology, quality and management. Day to day operations will be handled by a full-time, paid coordinator to be hired after July 1, 2008. Audubon Minnesota staff will provide project management and administration. Breeding bird data will be collected by a large number of volunteers working around the state and overseen by 31 regional volunteer coordinators. These volunteers and coordinators will need to be identified and recruited from around the state and provided with initial and ongoing training and feedback. Handbooks, field data forms, protocols, maps and GPS units will be developed or purchased and provided to field personnel as needed.

Summary Budget Information for Result 1:	Trust Fund Budget	\$ 35,557.00
	Amount Spent:	\$ 31,103.28
	Balance:	\$ 4,453.72

Deliverable	Completion Date	Budget	Status
1. Establish steering and	August 30, 2008	\$2,000	Completed
tech. committees and hire			
project Coordinator			
2. Produce survey materials	December 30, 2008	\$10,000	Completed
3. Recruit and train first	February 30, 2009	\$7,548	Completed
season volunteers			
4. Recruit and train second	February 30, 2010	\$16,008	Completed
season volunteers			

Completion Date: June 30, 2010

Final Report Summary:

A project steering committee was established and includes representatives from Audubon Minnesota, the University of Minnesota, Minnesota DNR Division of Ecological Resources, Minnesota DNR Division of Fisheries and Wildlife, the U.S. Fish and Wildlife Service, the Minnesota Ornithologists' Union, Ramsey County Parks, Wolf Ridge Environmental Center, and Eagle Bluff Environmental Learning Center. The Steering Committed meets every 2-3 months and an Executive Committee consisting of Mark Martell – Audubon Minnesota, Dr. Scott Lanyon – Univ. of Minnesota, Dr. Gerald Niemi - NRRI, Univ. of MN Duluth; oversee the operation of the BBA. The staff and Steering Committee relied heavily on a number of individuals with specialized knowledge of birds, databases, GIS, Citizen Science recruitment and other areas. Because of the wide array of needs we found it was easier to have the Technical Committee serves as a sub-committee of the Steering Committee along with forming other sub-committees to deal with budget and funding, volunteer recruitment, data quality control, and public outreach and education. After a national search that resulted in over 70 applications Bonnie Sample, a recent graduate from the Wildlife Conservation Masters Degree program at the University of Minnesota, was chosen as the project coordinator.

For administrative purposes we divided the state into 32 regions and recruited volunteer coordinators to help coordinate volunteer surveyor recruitment and training, data collection, and local outreach. They also do initial data quality control on bird sightings submitted to the database. We currently have coordinators for 22 regions. Most of the regions for which do not have coordinators are in the relatively unpopulated areas of the state and are overseen by the project Coordinator. At the end of this 2 year period we had registered 638 volunteers who put in 6,939 hours of time.

Supporting materials to assist volunteers in collecting data were produced and distributed as both printed hard copy and on the BBA website. The materials produced were;

The MNBBA Handbook Breeding Evidence Codes and Tips
Single Visit Field Form
Incidental Reporting Form
Verification Form
Special Species and Habitat Codes
Permission Letter to Survey Private
Property
Vehicle Placard
Master Species List

Special Species and Habitat Codes Suggestions for Surveying an Atlas Block Nocturnal Survey Guidelines Marsh Bird Survey Guidelines Species Reference Guide Field Reminder Checklist County Checklist Easy Guide to Finding Blocks and Entering Data Surveyor Data Entry Instructions.

These materials were modified and updated during the project to reflect volunteer comments and experience. All of the materials are available on the MNBBA website.

Result 2: Data Management System

Description:

We will develop and maintain a website with information about the atlas, and which will provide volunteers with survey protocols, identification aids, and updated results and maps. We will contract with Cornell University to custom modify their Breeding Bird Atlas management and storage system for Minnesota. The system was developed by the Laboratory of Ornithology at Cornell University in conjunction with the National Audubon Society and other partners. The system is used in a number of bird monitoring and research programs and Breeding Bird Atlas programs in Ohio and Pennsylvania are currently using it. This system will be used during the six-year life of the program and provides data storage, on-line data entry, quality control, and editing capabilities. It will allow us to 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 2:	Trust Fund Budget:	\$ 3	\$68,420
	Amount Spent:	\$	65,220
	Balance:	\$	3,200

Deliverable	Completion Date	Budget	Status
1. Contract for a web-	December 30, 2008	\$21,292	Completed
based data entry and			
management system.			
2. Create informational	March 30, 2009	\$9,992	Completed
website through Audubon			
or partner staff.			
3. Maintain and update	March 30, 2010	\$20,636	Completed
website and database.			

Completion Date: June 30, 2010

Final Report Summary:

The Minnesota Breeding Bird Atlas utilizes the Cornell Laboratory of Ornithology ebird database which was modified for our use. This database is web accessible allows for data entry, updated results viewing by species or geographic block and has a number of built-in error checks. The database is available online at (http://bird.atlasing.org/Atlas/MN/Main?cmd=Start)

A website for the Minnesota Breeding Bird Atlas designed and is online at: <u>www.mnbba.org</u>. This website has two primary functions; first to be a source of information for volunteers and others associated with the MNBBA. This site is where volunteer information and materials related to data collection can be found. The site also can be used as a portal to the Cornell site. Second, mnbba.org is where the general public can find information and results on the Minnesota Breeding Bird Atlas.

Result 3: Volunteer Data Collection

Description:

Data collection will begin in spring of 2009 and by the end of the six-year project will include every Township in Minnesota. Over the six years of the BBA one "priority block" (3 x 3 miles) in each of Minnesota's approximately 2,250 Townships will be surveyed. An all-species, volunteer driven survey will be conducted in each of approximately 2,120 townships across the state (the remaining Townships will be surveyed under Result 4 below). Volunteers will be trained by staff and/or birding experts provided by project partners including; Audubon Minnesota, Minnesota DNR, the U.S. Fish and Wildlife Service, the University of Minnesota, and the Minnesota Ornithologists' Union. We expect to complete 675 of these surveys by June 30, 2010.

Summary Budget Information for Result 3:	Trust Fund Budget:	\$65,023.00
	Amount Spent:	\$63,402.68
	Balance:	\$ 1,620.32

Deliverable	Completion Date	Budget	Status
1. 300 Townships surveyed in Yr 1.	June 30, 2009	\$45,927	Accomplished
2. 375 Townships surveyed in Yr 2.	June 30, 2010	\$35,596	Accomplished

Completion Date: June 30, 2010

Final Report Summary:

To support the field data collection we spent the first months of the project identifying, mapping, and creating Geographic Information System (GIS) layers of the priority blocks. We began training volunteers in late winter of 2009 and data collection began in the spring of 2009.

We recruited volunteers through various list serves, newspaper and newsletter articles, phone, radio, and TV interviews, workshops conducted by staff and regional coordinators, presentations at bird club meetings, bird festivals, ornithology classes, professional staff meetings, and numerous 1:1 contacts. Efforts reported to-date by volunteers include: 610 blocks "owned" by volunteers who have committed to doing a complete survey of that block, breeding bird observations reported in 2,076 blocks, and 6,939 volunteer survey hours. We have 48,425 breeding bird observations submitted to our database. These observations reported on 238 species; of these, 203 species have confirmed breeding evidence. This response far exceeds our earlier expectations.

Result 4: Point Count Surveys

NRRI – University of Minnesota-Duluth will oversee this Result using their portion of the appropriation. A separate work plan submitted by NRRI details this part of the effort.

Description:

Over the six years of the BBA, point count surveys by specially trained seasonal staff will be conducted in every township throughout the state (in addition to the volunteer surveys done in Result 3 above). This will provide important population density information on Minnesota's breeding birds. Additionally in approximately 120 "hard-to-access" Townships in the BWCAW and northern peatlands NRRI will combine the general and point count surveys. These surveys will be done by the seasonal staff and access to these areas is will be provided by canoe or helicopter. During the first 2-years of the project, that period covered by this appropriation NRRI expects to complete 675 point counts and 40 "hard-to-access" area surveys by June 30, 2010.

TOTAL TRUST FUND PROJECT BUDGET:

Total Appropriation to the Minnesota Breeding Bird Atlas: \$270,000

Audubon Minnesota as detailed in this work plan: \$169,000 NRRI – U of MN Duluth as detailed in their separate work plan: \$101,000

Audubon Minnesota Staff Salary and Benefits: \$106,252 Program Coordinator: Administrative Support: Administrative support will be provided by Audubon staff and will be responsible for reimbursement reports, billing, tracking finances associated with project, paying project related bills, processing Audubon related contracts associated with project and handling project personnel hiring and time sheets. Project Manager: Contract Services: \$ 38,174 Website Development: Data Management System: Workshop Expenses: Supplies and Equipment: \$9,575 Mailings: Printing: GPS Units:

GPS units will be used for the full life of the project which is expected to be six years. Units will be assigned to field personnel to aid in navigation and assist in data collection. If the use changes the Environment and Natural Resources Trust Fund will be paid an amount equal to the cash value received or a residual value approved by the LCCMR director if sold.

Maps: \$1,500

Travel:

\$5,725

Explanation of Capital Expenditures Greater Than \$3,500: None

V. OTHER FUNDS & PARTNERS:

A. Project Partners: No other project partners are to receive project funds.

B. Other Funds spent during the Project Period:

U.S. Fish and Wildlife Service – Region 3 - \$2,347

Minnesota DNR - \$9,250

Minnesota Ornithologist's Union - \$20,000

C. Past Spending: \$61,500 to cover planning, method development, and researching and writing a scoping document.

D. Time: The described work in this plan is two years in duration. The overall project completion is expected to be six years with a total (six year) budget of \$1,500,000

VII. DISSEMINATION:

The project will establish a web site that will provide access to information and results during and after the project period. A book may be published at the end of the six-year project.

VIII. REPORTING REQUIREMENTS:

Periodic work program progress reports will be submitted not later than December 30, 2008, August 30, 2009, and January 31, 2010. A final work program report and associated products will be submitted between June 30 and August 1, 2009 or 2010 as requested by the LCCMR

IX. RESEARCH PROJECTS:





Attachment A: Budget Detail for 2008 Projects

Project Title: Breeding Bird Atlas LCCMR Master Budget Document- Audubon Minnesota

Project Manager Name: *Mark Martell* This Billing Period 3/27/10 to 6/30/10 Trust Fund Appropriation: \$ 169,000

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

2008 Trust Fund Budget

BUDGET ITEM

PERSONNEL: wages and benefits \$101,549

Project Coordinator (\$74,518 est.)

Administrative Support (\$25,031 est.)

Project Manager (\$2000 est.)

Contracts \$42,600

Website Development and Maintenance (\$5700 est)

Data Management System (\$35,000 est.)

Workshop expenses (\$1900 est.)

Equipment / Tools \$14,300

GPS Units (\$2800 est.)

Maps (\$1500 est.)	
Mailings (\$6000 est.)	
Printing (\$4000 est.)	
Other Supplies (list specific categories)	
Travel expenses in Minnesota \$10,551	
Other (Describe the activity and cost) specific	be
COLUMN TOTAL	

Result 1 Budget Detail:		
Result 1 Budget Detail:	Result 1 billed	This
	previously	Billing
		(3/27/10 to
		6/30/10)
Project Development		
24,409.00	24,409.00	-
1 000 00	624.27	50.00
1,900.00	024.27	50.00
7,000.00	2,316.57	1,455.44

2,248.00	2,248.00	
35,557.00	29,597.84	1,505.44

	Result 2 Budget Detail:			
Balance	Result 2 Budget	Result 2 billed	This Billing	Balance
(6/30/10)	Details:	previously	(3/27/10 to	(6/30/10)
			6/30/10)	
	Data			
	Management			
-	27,392.00	25,789.58	1,602.42	(0.00)
1,225.73	40,700.00	35,000.00	2,500.00	3,200.00
3,227.99	-	-	-	

-	328.00	328.00		-
4,453.72	68,420.00	61,117.58	4,102.42	3,200.00

	Result 3 Bud	dget Detail:		
<u>Result 3</u> <u>Budget</u> Details:	<u>Result 3 billed</u> previously	This Billing (3/27/10 to 6/30/10)	Balance (6/30/10)	Total This billing
Data Collection				
54,451.17	30,755.54	23,695.63	-	25,298.05
		-	-	2,550.00
2,596.83	5,181.45	621.15	(3,205.77)	2,076.59

7,975.00	738.04	2,400.87	4,836.09	2,400.87
65,023.00	36,675.03	26,717.65	1,630.32	32,325.51

Sum	nmary
TOTAL BUDGET	TOTAL REMAINING BALANCE
106,252.17	(0.00)
42,600.00	4,425.73
9,596.83	22.22

10,551.00	4,836.09
169,000.00	9,284.04