

**Environment and Natural Resources Trust Fund
2014 Request for Proposals (RFP)**

Project Title:

ENRTF ID: 008-A

Analyzing and sharing the Minnesota Breeding Bird Atlas

Category: A. Foundational Natural Resource Data and Information

Total Project Budget: \$ 386,831

Proposed Project Time Period for the Funding Requested: 3 Years, July 2014 - June 2017

Summary:

Analysis, preparation and distribution of information collected in the past 5 years on every breeding bird across Minnesota through the publication of 7,000 books and an upgraded website.

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Location

Region: Statewide

County Name: Statewide

City / Township:

_____ Funding Priorities	_____ Multiple Benefits	_____ Outcomes	_____ Knowledge Base
_____ Extent of Impact	_____ Innovation	_____ Scientific/Tech Basis	_____ Urgency
_____ Capacity Readiness	_____ Leverage	_____ Employment	_____ TOTAL _____%



PROJECT TITLE: Analyzing and Sharing the Minnesota Breeding Bird Atlas

I. PROJECT STATEMENT

The Minnesota Breeding Bird Atlas (BBA) is a comprehensive, statewide survey of the breeding distribution of all bird species found in Minnesota. Initiated in July 2008, it has encompassed 5 field seasons and involved over 800 volunteers in data collection and other tasks. This monumental effort has cataloged the distribution and relative abundance of nearly 240 species in every township in MN. These data will be invaluable to improve our statewide understanding of natural resources, for conservation planning, and will serve as a guide for the growing tourism industry, especially in rural areas. The 175 partners that make up Bird Conservation Minnesota were involved in the planning process, and funding to date has come from the State of Minnesota through the Environment and Natural Resources Trust Fund and the Department of Natural Resources, the U.S. Fish and Wildlife Service, the Minnesota Ornithologists’ Union, the University of Minnesota’s Bell Museum and Natural Resources and Research Institute, and Audubon Minnesota.

With five years of data collection completed in the summer of 2013 we will now do the final analysis and dissemination of our information by; 1) synthesizing and analyzing these data, 2) preparing written analysis, maps and other graphics, 3) upgrade our website, and 4) publish a book. Presenting the information in both electronic and printed platforms ensures widespread access to the information in the years ahead for citizens, resource managers, and decision makers. The BBA is essential as a statewide guide for habitat protection, restoration, and management efforts as well as supplement the Statewide Conservation Plan and will be a resource for the 1.8 million Minnesotans with an interest in birds the Natural History of Minnesota.

II. DESCRIPTION OF PROJECT ACTIVITIES

Activity 1: Analysis

Budget: \$ 61,965

Over 250,000 bird observations on 240 species have been entered in the BBA database. These data will be analyzed on a species specific basis by geographic region. We will have the most up to date distribution and range analysis, habitat use, and population density information available.

Outcome	Completion Date
<i>1. Distribution and range of every bird species breeding in Minnesota</i>	<i>12/30/14</i>
<i>2. Analysis of habitat use by each species of breeding bird</i>	<i>12/30/14</i>
<i>3. Population density analysis for each species across its range in Minnesota</i>	<i>6/30/15</i>

Activity 2 Production of text and figures

Budget: \$ 189,215

The book and website will use text, photos, maps, and figures. Some of these products can be shared between platforms, but copyright and other considerations will require that some content be unique or abridged for each platform.

1. Text - For both the website and book we will write an introduction, acknowledgements, methods and summary and analysis of atlas results. For each species we will include an individual account summarizing the information from the BBA. Literature citations, and index (for the book), and list of volunteers will also be included.
2. Photos – Because of copyright and quality issues we will use different photos in the book and on the website. A minimum of one photo will be included for each species. More may be used depending on space and availability.
3. Maps – A distribution map for each species with symbols for highest evidence code likely shown at the township level and another showing relative abundance as a density probability.



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4. Figures - Possible tables and graphs which might be included are; statistics for evidence codes by number of blocks, population trend from Breeding Bird Survey and breeding season phenology

Outcome	Completion Date
1. <i>Introductory and explanatory text and 250 species accounts</i>	12/30/15
2. <i>Selection of at least 250 photos for the website and 400 for the book.</i>	12/30/15
3. <i>Production of 500 maps for the website and book</i>	12/30/15
4. <i>Production of 750 figures</i>	12/30/15

Budget: \$29,750

Activity 3: Website

Results from the MNBBA have been updated daily since early in the project and are already available on our website (mnbba.org). We will update this website to include online maps, photos, and other information. Audubon and Minnesota Ornithologists’ Union will do long-term maintenance of the website.

Outcome	Completion Date
1. <i>Review of current website</i>	12/30/14
2. <i>Inclusion of new maps, text, and figures</i>	6/30/16
3. <i>Website update completed</i>	12/30/16

Activity 4: Publication of Book

Budget: \$ 100,901

We will publish 7,000 copies of the book with a hardcover, or sturdy cloth cover, trim size 8 X 10 with approximately 616 pages including at least 250 maps and 250 color plates. The University of Minnesota Press is interested in handling the production, printing, and distribution.

Outcome	Completion Date
1. <i>Delivery of copy to publisher</i>	1/01/16
2. <i>Review and correction of publisher edits</i>	3/30/16
3. <i>Printing and delivery of books</i>	6/30/17

III. PROJECT STRATEGY

A. **Project Team/Partners** - An editorial board of 3 – 5 people to oversee content of both the book and website insure accuracy, and coordinate content will be established.

Audubon Minnesota – Mark Martell, Project Manager, oversee project, data synthesis, writing

Natural Resources Research Institute at the Univ. of MN Duluth – Dr. Gerald J. Niemi, Professor, data analysis, synthesis, writing and general contributions

Other primary partners not receiving funds – Minnesota Ornithologists’ Union, U. S. Fish and Wildlife Service, Minnesota Department of Natural Resources.

B. **Timeline Requirements** - BBA began in 2008, data collection 2009 - 2013. Past ENRTF funding: \$270,000 in FY 2009 – 10, \$372,000 in FY 2011 – 12, and \$250,00 in FY 2012 – 13 through a contract with the MN DNR. This request will complete the Minnesota Breeding Bird Atlas.

C. **Long-Term Strategy and Future Funding Needs** - 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.

2014 Detailed Project Budget

Project Title: *Analyzing and Sharing the Minnesota Breeding Bird Atlas*

INSTRUCTIONS AND TEMPLATE (1 PAGE LIMIT)

IV. TOTAL ENRTF REQUEST BUDGET 3 years

BUDGET ITEM	AMOUNT
Personnel:	\$ -
Project Manager - 0.2 FTE yr 1 & 2, 0 FTE yr 3 (salary & 32% fringe)	\$ 34,000
Administrative Support - 0.05FTE yr 1 & 2, (salary & 32% fringe)	\$ 5,000
Book Publication Coordinator/Photo Editor - .30 FTE yr 1 & 2 (salary 7 32% fringe)	\$ 58,624
Primary Writer/Editor - 1 FTE yr 1, 0.5 FTE yr 2 (salary %32% fringe)	\$ 92,250
Graphics Developer - 0.5 FTE yr 1 & 2 (salary and fringe)	\$ 51,125
Data Analyst - 0.5 FTE yr 1 & 2 (salary and fringe)	\$ 51,125
Contracts:	\$ -
Website Development and Maintenance	\$ 20,000
Database - Cornell University	\$ 5,000
Associate Writers and Editors - local experts to help research, write, and review species accounts and other text	\$ 35,000
Book Production and Printing - Publisher to produce, print, market and distribute book	\$ 31,507
Equipment/Tools/Supplies:	\$ -
Postage and Office Supplies	\$ 1,200
Acquisition (Fee Title or Permanent Easements):	NA
Travel:	\$ 2,000
Additional Budget Items: <i>In this column, list any additional budget items that do not fit above categories. List by item(s) or item type(s) and explain how number was reached. One row per type/category.</i>	\$ -
TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND \$ REQUEST =	\$ 386,831

V. OTHER FUNDS

SOURCE OF FUNDS	AMOUNT	Status
Other Non-State \$ Being Applied to Project During Project Period: Audubon Minnesota \$61,000 pending	\$ 61,000	<i>Pending</i>
Other State \$ Being Applied to Project During Project Period:	NA	<i>NA</i>
In-kind Services During Project Period:	NA	<i>NA</i>
Remaining \$ from Current ENRTF Appropriation (if applicable):	\$ 114,925	<i>to be spent in FY 14</i>
Funding History: \$892,000 ENTRF, \$20,000 MN DNR, \$145,000 USFWS, \$60,000 MOU, \$104,910 Audubon Minnesota	\$ 892,000	<i>ENTRF</i>

Osprey



Introduction

A fish eating bird, Ospreys are found nesting across North America, Europe, and parts of Asia and Australia on large lakes, rivers, and coasts. In North America, the densest populations occur along the Atlantic and Gulf Coasts through from Maine through Florida and in the Great Lakes region. Wintering populations are found from Florida through the Caribbean and throughout Central and South America. In Minnesota the birds build large nests at the top of both live and dead trees and increasingly use human-made structures particularly power poles, light structures and cellphone towers.

Distribution

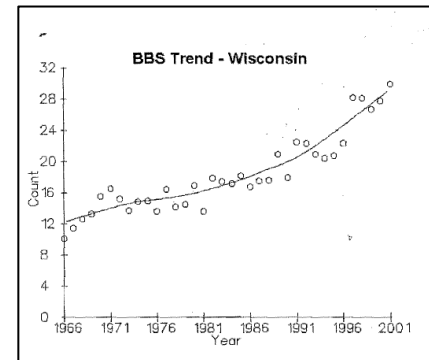
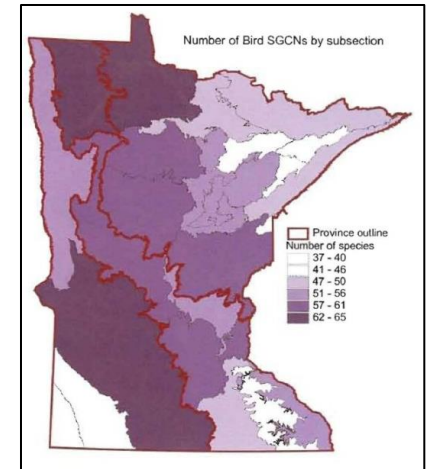
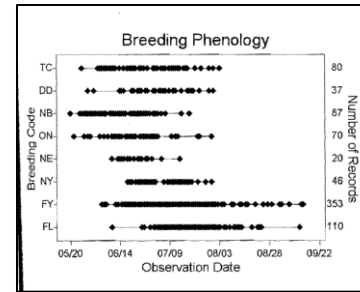
Ospreys have been recorded nesting in the state since the first descriptions of birds were recorded, with T.S. Roberts noting that they occurred on “every sizable lake” as far south as Hennepin County. Cutting of trees, shooting, and pesticides were all factors that reduced their population levels and in the 1980’s they were listed as a Species of Concern by the State of Minnesota. Since that time their population has increased both in number and range. Atlas data shows they are concentrated in the lake regions of the central and northeastern parts of the state and also in the Metro area, this last the result of a reintroduction project conducted in the 1980s and 90s. Atlas results show a slight expansion of the species range since the time of the last statewide survey in 2004.

Breeding Biology

Minnesota Ospreys winter in Central and South America and return to their nesting territories in early April. Fiercely loyal to their territories, individuals will use the same nests for many years resulting in strong pair bonds and a predictability of nest use. Dates of egg laying vary slightly in a given part of the state, often affected by weather and the age and experience of the pair. Typically around two, and rarely up to four chicks will hatch in June. Young fledge from the nest in late July and August. Adults and young migrate separately to their own wintering areas beginning in late August. By the middle of October few Ospreys are left in the state.

Conservation Needs

Ospreys are not listed in the State of Minnesota. They depend on suitable water bodies for fishing and large trees or human made structures on which to build their nests. They will build nests on power poles which can pose a threat to both the birds (from electrocution) and the power delivery system (from shorting out wires). Management of these situations includes constructing alternate nest sites and this strategy is expected to be needed into the foreseeable future.



Audubon Minnesota: Organizational Description

Audubon Minnesota is the state office of the National Audubon Society. Established in 1979, we share Audubon's 106-year heritage of working to protect our environment. While we are part of the national organization, we establish our own statewide programs and pursue our own funding for Minnesota efforts. The Audubon Minnesota mission is to conserve and restore Minnesota's natural ecosystems, focusing on birds and their habitats, for the benefit of humanity and the earth's biological diversity. Today there are nearly 17,000 Audubon members in Minnesota, organized into 14 geographically-based chapters from Agassiz Audubon Chapter in Thief River Falls to the Coulee Region Audubon Chapter in La Crescent.

Project Manager – Mark Martell, Director of Bird Conservation – Audubon Minnesota. Mark has an M.S. in Wildlife Conservation from the University of Minnesota. He has worked in bird conservation in Minnesota for over 25 at Audubon Minnesota and the Raptor Center at the University of Minnesota. Mark has been project manager on previous LCMR grants most recently the 2007 Breeding Bird Atlas and the 2005 Birding Trails project that produced 3 birding trail guide books for Minnesota. As project director Mark will be responsible for budget and project oversight, ensure full partner participation, and be the direct supervisor of the project coordinator.