

**Environment and Natural Resources Trust Fund  
2019 Request for Proposals (RFP)**

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**Project Title:**

**ENRTF ID: 141-CH**

Minnesota Master Naturalist at the Bell Museum

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**Category:** H. Proposals seeking \$200,000 or less in funding

**Sub-Category:** C. Environmental Education

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**Total Project Budget: \$** 173,422

**Proposed Project Time Period for the Funding Requested:** June 30, 2021 (2 yrs)

**Summary:**

The Minnesota Master Naturalist program and the Bell Museum collaborate to teach adults about Minnesota's rich natural history so that they can volunteer and spread that knowledge to public audiences.

**Name:** Robert Blair

**Sponsoring Organization:** U of MN

**Title:** Professor

**Department:** Fisheries, Wildlife, and Conservation Biology

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St. Paul MN 55108

**Telephone Number:** (651) 644-1591

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**Web Address** minnesotamasternaturalist.org

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**Location**

**Region:** Statewide

**County Name:** Statewide

**City / Township:**

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**Alternate Text for Visual:**

This project combines resources of the Bell Museum with volunteer-training by Minnesota Master Naturalist to develop new adult volunteers who will offer programming on Minnesota's natural heritage at the Bell.

|  |                    |                          |                   |                          |                       |                          |                          |   |
|--|--------------------|--------------------------|-------------------|--------------------------|-----------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/>   | Funding Priorities | <input type="checkbox"/> | Multiple Benefits | <input type="checkbox"/> | Outcomes              | <input type="checkbox"/> | Knowledge Base           |   |
| <input type="checkbox"/>   | Extent of Impact   | <input type="checkbox"/> | Innovation        | <input type="checkbox"/> | Scientific/Tech Basis | <input type="checkbox"/> | Urgency                  |   |
| <input type="checkbox"/>   | Capacity Readiness | <input type="checkbox"/> | Leverage          | <input type="checkbox"/> |                       | TOTAL                    | <input type="checkbox"/> | % |
| <input type="checkbox"/> If under \$200,000, waive presentation? |                    |                          |                   |                          |                       |                          |                          |   |



**PROJECT TITLE: Minnesota Master Naturalist at the Bell Museum**

**I. PROJECT STATEMENT**

This project will combine the stellar resources of the Bell Museum with the nationally recognized adult education and volunteer-training program of Minnesota Master Naturalist. Together, we will develop a new generation of educated, adult volunteers at the Bell Museum to offer programming and information on Minnesota's natural heritage.

**Need:** Minnesota has abundant natural resources, people who enjoy the outdoors, and a strong volunteer ethic. These three strengths have led to the successful Minnesota Master Naturalist program which has trained more than 2,200 people who volunteer at least 40 hours a year in the areas of environmental stewardship, education, and citizen science. Since its founding in 2005, these volunteers have offered more than 395,446 hours of volunteer service that has impacted 3.4 million acres for an estimated value of at least \$8.5 million (according to valuation by IndependentSector.org). The Bell Museum is the state's natural history museum. It merged with the Minnesota Planetarium Society in 2011 and is currently undergoing a renaissance with the construction of a new building on the Saint Paul Campus of the University of Minnesota, set to open to the public in summer 2018. The new combined facility is expected to serve 110,000 visitors in its first year and, with this expanded audience and new indoor and outdoor spaces, will require new programming as well as new volunteers to enhance the visitor experience. Consequently, this proposed program will create a new generation of adult volunteers for the Bell by embedding Minnesota Master Naturalist training in the Bell. This program is a perfect combination of expert education of adults, resources on natural history unexcelled in the region, and volunteer service.

**Goals and Outcomes:** The goal of Minnesota Master Naturalist at the Bell is to provide comprehensive training in the natural history of Minnesota to adults so that they can become effective volunteers in environmental stewardship and education. Direct outcomes of this project are to have at the Bell:

- 1) 6 baseline courses on the biomes of Minnesota of 40 hours each to a total of 120 adults;
- 2) At least 16 advance trainings of 6 hours each to a total of 1,920 adults; and
- 3) 4 trainings on the Junior Master Naturalist program of 12 hours each to a total of 60 adults.

While the Master Naturalist program does not require that adults who train at a location must volunteer at that location, it is expected that a substantial portion of these participants will volunteer at the Bell in both outreach activities and in supporting the museum's collections. Consequently, we added two more direct outcomes:

- 4) 60 newly trained Master Naturalist volunteers will conduct 4,800 hours of service at the Bell Museum offering hands-on activities, tours and programs;
- 5) 8 programmatic activities per year developed by Master Naturalists will emphasize study, stewardship and conservation of Minnesota natural resources.

**Process:** This program will consist of embedding a full-time Master Naturalist educator at the Bell Museum to offer adult programming in Minnesota's natural history as well as training on becoming an effective volunteer at nature-based facilities (including the Bell). Over two years, the educator will offer the full suite of Master Naturalist programs including the introductory base course which includes 40 hours of instruction on the natural history of one of Minnesota's three major biomes (deciduous forest, coniferous forest, and prairie); advanced courses on specific topics such as pollinators, citizen science, and museum collections; and training on educating youth based on the previously developed Junior Master Naturalist program. Additionally, the educator will work with the trained Master Naturalist graduates to integrate their volunteering efforts with Bell programs.

**II. PROJECT ACTIVITIES AND OUTCOMES**

**Activity 1: Educate adults on the natural history of the three major biomes in Minnesota so that they can take their new knowledge to the public.** The base courses offered by the Master Naturalist educator at the Bell consists of award-winning curricula developed with National Science Foundation funding based on the



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2019 Main Proposal**

three major biomes in Minnesota: Big Woods, Big Rivers; North Woods, Great Lakes; and Prairies and Potholes. The advanced trainings have been developed over the past several years in conjunction with experts in the field and include such topics as phenology, field botany, beginning birding, and museum studies. The Junior Master Naturalist program focuses on phenology and working with youth. It was developed with LCCMR funding. All of these courses, trainings, and workshops have already been developed; hence the delivery will be quickly implemented.

**ENRTF BUDGET: \$162,972**

| <b>Outcome</b>  | <b>Completion Date</b> |
|---|------------------------|
| 1. Offer six 40-hour courses based on the three major biomes of Minnesota to at least 120 adults  | 6-30-21                |
| 2. Offer 16 6-hour courses of advanced training on topics such as natural history, astronomy, volunteerism, public communication, and natural history interpretation to at least 1,920 adults | 6-30-21                |
| 3. Offer 4 12-hour trainings on phenology and working with youth based on the Junior Master Naturalist program to at least 60 adults  | 6-30-21                |

**Activity 2: Support a cohort of adult volunteers who will offer programming about Minnesota’s natural resources at the Bell Museum.** Master Naturalist volunteers who have completed training will volunteer and lead interpretive activities at the Bell Museum, with programmatic emphasis on the study of and conservation of Minnesota natural resources. Master Naturalists will bring an added layer of knowledge beyond that of the Museum’s traditional volunteers and interpretive guides. The Bell offers excellent opportunities for Master Naturalist interpretive activities including 10 restored large dioramas representing biomes of Minnesota; activity carts in the permanent galleries; Touch and See Lab that encourages hands-on, inquiry-based activities with live animals and museum specimens; and the Outdoor Learning Landscape that features pollinator gardens and aquatic habitats. The Master Naturalist Educator on-site will coordinate volunteer activities and programs with the Pub. Eng. and Science Learning Team (led by project co-manager Menninger).

**ENRTF BUDGET: \$10,450**

| <b>Outcome</b>  | <b>Completion Date</b> |
|---|------------------------|
| 1. 60 Master Naturalist volunteers will engage visitors at the Bell Museum through hands-on activities, tours, programs; providing at least 4800 hrs of volunteer service.  | 6-30-21                |
| 2. Master Naturalist volunteers will develop and implement two new programmatic activities per season (8 per year, 16 total) that engage visitors directly in the study, stewardship and conservation of Minnesota’s natural resources. | 6-30-21                |

**III. PROJECT PARTNERS:**

**A. Partners receiving ENRTF funding**

Rob Blair, Professor, Fisheries, Wildlife and Conservation Biology, University of Minnesota, Project Co-Manager

**B. Partners NOT receiving ENRTF funding**

Holly Menninger, Director of Public Engagement & Science Learning, Bell Museum, UMN, Project Co-Manager

**IV. LONG-TERM- IMPLEMENTATION AND FUNDING:**

Master Naturalist at the Bell will require two years to implement. During this time, the project co-managers will evaluate the effectiveness of the program through 1) its ability to generate adult programming at the Bell and 2) its ability to build a cohort of volunteers for the Bell and other nature-based organizations in Minnesota. If this collaboration is successful, the co-directors will attempt to secure permanent funding for the position.

**V. TIME LINE REQUIREMENTS:**

Master Naturalist at the Bell will require two years to fully engage and execute all facets of the proposed programming.

## 2019 Proposal Budget Spreadsheet

**Project Title: Minnesota Master Naturalist at the Bell Museum**

### IV. TOTAL ENRTF REQUEST BUDGET 2 years

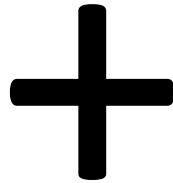
| BUDGET ITEM (See "Guidance on Allowable Expenses")   | AMOUNT            |
|--|-------------------|
| <b>Personnel:</b><br>Robert Blair, Project Manager (75% salary, 25% benefits); 8.3% FTE for 2 years, \$29,512<br>Program Coordinator (75% salary, 25% benefits); 100% FTE for 2 years, \$110,527<br>Bell Museum Volunteer Coordinator (75% salary, 25% benefits); 10% FTE for 2 years, \$13,104<br>Bell Museum Gallery Programs Coordinator (75% salary, 25% benefits); 10% FTE for 2 years, \$9,829 | \$ 162,972        |
| <b>Equipment/Tools/Supplies:</b><br>Pop-up tent canopy for use in Learning Landscape, \$100<br>Folding table and chairs, \$150<br>Outreach materials (specimens, laminated field guides, binoculars, hand lenses, insect nets), \$3,000<br>Volunteer start-up costs (Background check, nametag, training materials), 60 participants, \$120/participant, \$7,200                                     | \$ 10,450         |
| <b>TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND \$ REQUEST =</b>   | <b>\$ 173,422</b> |

### V. OTHER FUNDS (This entire section must be filled out. Do not delete rows. Indicate "N/A" if row is not applicable.)

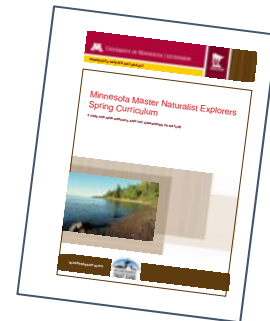
| SOURCE OF FUNDS   | AMOUNT                 | Status                          |
|---|------------------------|---------------------------------|
| <b>Other Non-State \$ To Be Applied To Project During Project Period:</b>   | N/A                    | N/A                             |
| <b>Other State \$ To Be Applied To Project During Project Period:</b>   | N/A                    | N/A                             |
| <b>In-kind Services To Be Applied To Project During Project Period:</b><br>Rob Blair will work an additional 4% FTE for 2 years as part of his academic duties. (\$14,756)<br>IDC not recovered by University of Minnesota (\$57,229) | \$ 71,985              | <i>Secured</i>                  |
| <b>Past and Current ENRTF Appropriation:</b><br>Minnesota Junior Master Naturalist: An After-School Program<br>Minnesota Native Bee Atlas: A Citizen Science Project  | \$365,000<br>\$790,000 | <i>Complete<br/>In-Progress</i> |
| <b>Other Funding History:</b>   | N/A                    | N/A                             |

# Minnesota Master Naturalist at the Bell Museum

1. Minnesota Master Naturalist and The Bell Museum combine efforts to offer adult programming.



2. Interested adults take baseline courses on the biomes of Minnesota (n=120), advanced courses in natural history (n=1,920), and the Junior Master Naturalist program (n=60).



3. Graduates become trained volunteers at The Bell Museum, nature centers, and natural areas, offering 40 hours of volunteer service per year.



## **PROJECT TITLE: Minnesota Master Naturalist at the Bell Museum**

### **Project Manager Qualifications:**

**Dr. Rob Blair** is a Professor of Fisheries, Wildlife, and Conservation Biology at the University of Minnesota. He started the Master Naturalist program in 2005 with a grant from the National Science Foundation. In addition to his work with the Master Naturalist program, Dr. Blair directs *Driven to Discover*, an NSF-funded project that helps teachers use citizen science in the classroom; and the Minnesota Native Bee Atlas, an LCCMR-funded project that is using citizen scientists to catalog the stem nesting and bumble bees of Minnesota. With this project, *Master Naturalist at the Bell*, he will hire and supervise a full-time educator to be hosted at the Bell, oversee budgets, and assist teaching the courses.

**Dr. Holly Menninger** is Director of Public Engagement & Science Learning at the Bell Museum. She oversees the museum's major interpretive initiatives including K-12 and public programs, exhibits, and the planetarium. Menninger has a long history of work at land-grant institutions as well as a track-record of collaboration with Extension. She recently arrived in MN from North Carolina where she served as the inaugural director of public science for the College of Sciences at NC State University. Prior to that, she built and led an internationally renowned public science program, *Your Wild Life*, focused on engaging the public in the study of the biodiversity in their daily life. She led a diverse team developing and implementing 7 large-scale citizen science projects, including the world's largest citizen microbiology project (Wild Life of Our Homes) with over 1,400 participants across North America. Menninger will oversee integration of Master Naturalist activities into the Bell's programmatic and volunteer efforts.

### **Organization Descriptions:**

**Minnesota Master Naturalist** -- The mission of the Master Naturalist program is to promote awareness, understanding, and stewardship of Minnesota's natural environment by developing a corps of well-informed citizens dedicated to conservation education and service within their communities. It does this by offering a 40-hour baseline class on one of the three major biomes of Minnesota, which introduces the participants to the natural history of the region, teaches them about communicating with the public, and coaches them to become volunteers. The graduates of this course go on to offer 40 hours of volunteer service per year at nature centers and natural areas and take at least 8 hours of advanced training per year. The program benefits the state of Minnesota through direct environmental service and by educating Minnesota's citizens about its natural resources.

**University of Minnesota Extension** – The Minnesota Master Naturalist program is an endeavor of University of Minnesota Extension, which discovers science-based solutions, delivers practical education and engages Minnesotans to build a better future. Extension researchers and educators engage individuals and organizations in asking the challenging questions to discover science-based answers that make a difference.

**The Bell Museum** – The mission of the Bell Museum is to ignite curiosity and wonder, explore our connections to nature and the universe, and create a better future for our evolving world. For over 140 years, the Bell Museum has collected, preserved, interpreted, and displayed the natural history of Minnesota as the state's official natural history museum. The Bell Museum has a long-standing commitment to working with volunteers and student interpretive guides to make natural history more accessible to diverse public audiences. As the museum prepares to open a new museum building in summer 2018, its role is expanding to become the gateway to the sciences at the University of Minnesota. While natural history remains a bedrock for the Bell, opportunities in astronomy and space science, health and medicine, the environment, and other areas afford the Bell opportunities for new partnerships and the development of new experiences for public engagement in science. A partnership with Minnesota Master Naturalists offers a unique opportunity to bring to bear the knowledge and commitment of Master Naturalist volunteers in support of environmental education and conservation on-site within the Bell Museum and its adjacent outdoor learning landscape.